

THE ECONOMIC REPORT OF THE PRESIDENT

HEARING

before the

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED SEVENTH CONGRESS
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THE ECONOMIC REPORT OF THE PRESIDENT

February 5, 2002

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 10:07 a.m., in Room 311, Cannon House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Present: Representatives Saxton, Smith and Watt; Senator Reed.

Staff Present: Chris Frenze, Robert Keleher, Colleen J. Healy, Darryl Evans, Brian Higginbotham, Donald Marron, Patricia Ruggles, Diane Rogers, Matthew Salomon, and Daphne Clones-Federling.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Good morning. It is a pleasure to welcome Chairman Hubbard of the President's Council of Economic Advisers (CEA) and Council Members Randall Kroszner and Mark McClellan to this hearing on the *Economic Report of the President*.

The Council's *Report* reviews the economic slowdown that began in the middle of 2000 and later turned into a recession. The effects of higher interest rates, surging energy prices, falling stock market and other factors slowing the economy are explained. The *Report* notes the damage after September 11 resulting from the terrorist attacks and the serious economic disruption that followed.

The Council nevertheless notes the positive effects of easing of monetary policy by the Federal Reserve and the reduction of the tax drag on the economy. The Council expects that the economy will rebound and GDP will expand 2.7 percent in 2002 if appropriate policies are in place.

Recently released economic data do suggest that the economy may have bottomed out. However, much of this improvement is too recent and tentative to be called a trend. The fragility of the economy reflected in declining investment and employment remains a concern that justifies consideration of economic stimulus legislation by the Congress. Moreover, the economy is vulnerable to risks from adverse international economic developments, high debt levels, security costs and other factors.

In the wake of the events of September 11, the prospect of economic recovery in the near future is especially impressive and reflects the remarkable resilience of the American economy and the American people. In addition, the President's success in weakening the terrorist network has improved domestic security and restored confidence, though much remains to be done.

The restoration of domestic security is a key function of government and is an important precondition for the resumption of healthy economic growth. As the President has emphasized, the war against terrorism is

hardly over, but we have made a good start. To date, the terrorists have been unsuccessful in attaining their objective of seriously crippling the U.S. economy.

Turning to international economic policy, I would like to note the Council's statements endorsing reform of the International Monetary Fund (IMF). According to the *CEA Report*, IMF liquidity loan programs would appropriately involve short-term lending at penalty interest rates, to encourage and facilitate the borrower's quick return to the private capital markets. This is very consistent with the Congressional mandates for IMF reform developed by this Committee in 1998. A version of these transparency and lending reforms became law in 1998 as conditions attached to the IMF quota increase legislation. Thus, Congressional actions already taken strongly support the administration's position on needed reform of IMF lending programs.

In conclusion, these recent signs of economic recovery are encouraging but tentative. The economy has proven itself to be incredibly resilient, but it remains to be seen whether a sustained economic rebound is under way. Congressional enactment of an economic stimulus package would be a prudent insurance policy against the potential for another dip in economic activity.

Dr. Hubbard, we welcome you and your colleagues to the hearing here today, and we are anxious to hear your testimony. So the floor is yours, sir. Thank you for being here.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 22.]

**OPENING STATEMENT OF DR. R. GLENN HUBBARD,
CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS;
ACCOMPANIED BY DR. RANDALL S. KROSZNER, MEMBER,
CEA; AND DR. MARK B. MCCLELLAN, MEMBER, CEA**

Dr. Hubbard. Thank you very much, Mr. Chairman, for holding this hearing.

It is the responsibility and the privilege of the Council to produce the *Economic Report of the President*, to try to work with the President both in describing the outlook that the administration sees for the economy and the President's agenda for economic policy going forward.

The President has spoken very often and very eloquently of the need to focus on economic growth both in the short term and the long term, and it is obvious, as you noted, Mr. Chairman, in your opening remarks that the events of 2001 brought home new and important challenges for both the economy on the one hand and economic policy on the other.

The war on terrorism is very important as a matter of military action and as a matter of homeland security. It is also, however, important because of the demands it places on our economy; and we need economic strength and economic growth to fund those demands.

At the same time, the administration realizes the importance of making sure that the gains from economic growth are widely shared in our economy.

To begin with the outlook, as you noted, Mr. Chairman, the economy entered last year, 2001, already growing slowly, and growth did continue to decelerate through most of the year. The National Bureau of Economic Research (NBER), which is of course the official arbiter of recessions, had indicated that the recession began in March of 2001. The seeds that were important in spawning the recession came much earlier, in 2000; and the terrorist attacks of September 11th we believe delivered the key blow, tipping the economy into recession.

The experiences of 2001 have important economic lessons, most of which you reviewed, Mr. Chairman. They also, however, highlight the importance of timely economic information. Frankly, a problem in forecasting and policy-making at the time of a turning point, when we are on the up side or the down side, is the need to have very good economic data and very good economic data available in real time. The administration continues to believe – and I know that you and the Committee have advocated this as well – that investments in these kinds of data improvements are very-high-rate-of-return investments for our country; and in my written testimony, Mr. Chairman, I outline some of those that we would suggest.

The near-term recovery has begun, in our view. We believe that the economy's recovery will continue throughout 2002, that we will see modest growth in the first quarter this year and that growth will improve throughout the year. That is roughly consistent with what the private sector forecasters predict, such as in the Blue Chip forecast consensus, for example. The unemployment rate is, however, likely to continue to rise through the middle of 2002, because as long as the economy grows less than its potential, that down-side risk remains.

You teed up very importantly, Mr. Chairman, the question of down-side risks. It is quite easy for economists to talk about consensus forecasts or to give you a number as if it represented true north. We know that forecasts have big ranges, and we know that among the Blue Chip forecasters there is a range in what people are suggesting. There are down-side risks, both on the capital spending side and on the consumption side.

In the *Economic Report of the President*, we outline what we believe is the case, that the economy has largely worked through the capital overhang that existed during 2000 and 2001. That capital overhang, that excess capital, led to very significant downturns in investment. We believe that those downturns are being arrested and by the middle of this year we will return to investment growth.

Nonetheless, there is a downside risk to that, having to do with the resumption of profitability of business; and as you suggested, Mr. Chairman, there is a strong need to pass the President's stimulus package or the stimulus package that has been worked out in the House, which would have partial expensing for business investments. In addition,

accelerating marginal income tax rate cuts would provide tax relief to small businesses for investment.

To give you a sense for how important the tax provisions are in managing down-side risks, our calculations at the Council suggest that the sort of stimulus package the President had proposed and has been broadly considered in the Congress might add about a half a percentage point to GDP this year, and about 300,000 jobs.

Another risk, frankly, at the moment, has to do with consumer spending. Consumers are making their robust spending conditional on expectations about income growth in the future. A key growth insurance element would be a tax cut of the sort that the President has suggested in the stimulus package.

Another risk remains energy prices, which while looking favorable at the moment, still represent a risk. The administration believes that good energy policy remains a priority and urges prompt enactment of the President's national energy policy.

Finally, I think we have to acknowledge that the security environment for the country remains a risk after September 11. In the *Report* we do some calculations suggesting that improvements in security are not free for our economy and do lead to growth slowdowns in the short term – although hopefully not too much in the long term – again suggesting the need for short-term stimulus.

The long-term outlook, as you noted, Mr. Chairman, in the *Economic Report* is relatively bright. We project that potential growth in the U.S. is about 3.1 percent, which is in the range of the Congressional Budget Office and the Blue Chip forecast. We are well within what I think many economists would suggest potential growth could be in the economy. As you know, this is largely based on what you think productivity growth is.

Our view is that productivity growth possibilities for the United States remain very bright and that much of the acceleration in productivity growth that we saw in the second half of the 1990s can be permanent, our economic challenges, of course, being to figure out how to translate what is potentially possible in the business sector into actual economic performance.

That tees up really the importance of a long-term policy agenda, which is of course the thrust of the *Economic Report of the President*. In thinking about a long-term agenda, I think it is important also to look in the rear-view mirror at where the economy has been. I would describe the 1980s and the 1990s as a long boom with a recession punctuating the middle, from which we can learn two kinds of lessons.

One is the lesson that you referred to in your opening, Mr. Chairman, of the resilience of private markets and the importance of private sector innovation and entrepreneurship in generating growth.

A second is a lesson for policy. Providing wind in the sails of the long boom of the 1980s and 1990s was a monetary policy that tried to wring out inflation from the U.S., tax cuts through most of the period,

deregulation and a general policy climate promoting growth in the private sector.

The *2002 Economic Report of the President* builds on the notion that markets in the private sector are important for growth, but emphasizes the role of institutions. It is very easy for economists to talk about the value of free markets, and those are very important, but we need to remember the economic institutions that lead to growth.

To give you a quick example, productivity growth is high in the United States relative to other industrial economies. It is not because people are smarter in the United States than they are elsewhere in the world. It is not because we have access to technologies, frankly, that other people do not have. It is because the institutions that support growth are much stronger in this country.

An example of this kind of institutional focus is in the area of trade. As you know, one of the President's key long-term economic policy agendas is trade promotion authority and the promotion of a broader free trade agenda. We believe that trade promotion authority generates very important gains, gains that aren't realizable simply by serving up the homily of free trade, even though that is important. The President needs the bargaining power in trade promotion authority.

One calculation we mention in the *Report* is that a one-third reduction in tariff barriers around the world, combined with the bargaining power of trade promotion authority, could generate a tax cut equivalent for every American family of four of \$2,500 a year. That is a big number.

The other key item in the long term the President has acknowledged – and it is discussed in both the *Report* and the budget, in the trade area – is the need to acknowledge frankly that trade generates a kind of creative disruption in our economy, that is, the creation of new firms and industries and troubles in others. One of the things we must realize, and the administration plans to emphasize, is the need to make sure that we have good worker adjustment programs in place to make sure that the gains from trade can be widely shared.

For example, trade adjustment assistance and the North American Free Trade Agreement (NAFTA) transitional adjustment assistance programs provide a way of thinking about training and job support. In the administration, we are committed to improving these trade adjustment programs as a way to cushion support for workers and to promote the trade agenda which we believe is very, very important.

A caution there in thinking about institutions for worker adjustment is to remember that whenever we think about promoting training, we should not use this as an opportunity to effectively tax job creation with new mandates or costly approaches that actually harm the problem we are trying to address.

In the *Economic Report of the President*, we actually examine a whole set of institutions that we believe, while a subset of economic institutions, are among the most important for both the near-term and the

long-term policy agenda. The first of those is in the area of retirement security.

We all know the headlines at the moment on private pensions and 401(k) plans, but in general we need to think about retirement security in the United States, which has been a three-legged stool of private saving that we do on our own for retirement, private pensions and Social Security. The *Report* tries to review the strengths and weaknesses of our system and tackles the issue of personal accounts, which we believe will be a very fruitful discussion this year in the aftermath of the Social Security Commission's report on personal accounts.

A second institution that we believe is worthy of serious discussion is the importance of getting competition policy right. One of the ways in which our economy prospered in the 1990s, and historically, relative to perhaps other regions is a very strong and vibrant competition policy that realizes the need to innovate both in how firms are organized and in how policy is organized. And in that regard, we particularly talk about the issue of dynamic competition that comes up in industries ranging from software on the one hand to pharmaceuticals on the other, where leap-frogging of innovation leads to the need to perhaps think strongly about competition policy.

A particularly exciting institutional discussion, I think, in the *Report* has to do with health care. The President, from early days in the campaign, has put forth a vision for health care that is very different from the debate we often have over budget policy and guarantees of access, and is centered more on patients – patient-centered care and outcomes in the health care system. The health care chapter of the *Economic Report* talks about the institutional underpinnings that we would need to move toward a system in which we focus on health care outcomes and information and not simply just budgets.

Another area of discussion in the *Report* has to do with federalism, long a strong feature of our country's institutions. As you know, the President believes that it is very important for the not-for-profit sector generally and faith-based organizations in particular to play an important role in social securities in our country. What the *Report* does is to review partnerships between the Federal Government and state and local governments on the one hand and between governments and not-for-profit organizations on the other, and to talk about how one might design incentives for better outcomes. A particular area of interest there is obviously education and the need to focus on outcomes in education as exemplified in the “No Child Left Behind” legislation.

The final two institutional pieces of the *Report* are, for lack of a better term, reaching out beyond the basic economic concerns of the domestic economy. One addresses building institutions for a better environment. As you know, there has been a sea change in economists' thinking over the past couple of decades about the powerful role that markets can play in environmental policy, and all of that is true. But that simply won't work for us without the right institutional underpinnings. So we talk about institutions for trading systems and information that

have helped existing pollution policies and also the upcoming policy discussions on global climate change.

The final section of the *Report* highlights the topic you identified, which I believe is extremely important, Mr. Chairman, on the need for supporting global economic integration. This is usually cast in the trade area, and that is clearly very important. As I indicated, we are committed in the administration to the idea of free trade, and in particular to actual trade negotiations and the power of TPA. We shouldn't turn a blind eye toward international finance, as you mentioned; and here the President has two broad concerns that are highlighted in the *Report*. One is over the need to think strongly about the activities of the International Monetary Fund in its lending practices and how to give the right incentives for capital flows and the private sector role in those flows around the world.

The second piece of that has to do with the multilateral development banks' approach to development. There has been too much of an emphasis in the past, in the President's view and in the administration's view, on lending programs that have not, frankly, generated positive results. We would prefer to see programs that move toward more explicit grants, coupled with a kind of institutional reform in countries, ranging from anti-corruption regimes to emphasis on the rule of law.

All of this, if I can return to where I began, goes back to the importance of growth and, in particular, the importance of productivity growth. That is a lesson we have learned well. It is critical as a lesson for our trading partners in Europe and Japan and in the developing world.

To give you an example of the power: If you thought about even two-tenths of a percentage point change in productivity growth, which we would argue is consistent with the long-term gains from the administration's policy agenda, real GDP at the end of 10 years would be \$1,000 higher per person, every man, woman and child in the country, and the budget surplus over that 10 years would improve by \$350 billion – again making the point both of the power of productivity growth and the strong link between the economy and the budget.

We believe that additional resources of this magnitude are well worth the effort to improve incentives and institutions. They have even greater value elsewhere in the world.

Thank you very much, Mr. Chairman, for this opportunity. I look forward to your questions.

[The prepared statement of Dr. Hubbard appears in the Submissions for the Record on page 26.]

Representative Saxton. Dr. Hubbard, thank you very much. We appreciate you and your colleagues being here to share this testimony and information with us.

Let me begin with something that you mentioned early in your statement; that is the effect of the 9-11 events as an economic factor. You mentioned that you believe that the terrorist attack actually pushed us over the brink into recession, and we share that view.

I am wondering about the long-term effects of that particular attack and the activities that have ensued relative to that specific attack. Are we recovering from it? Has the activity of the American security system, if you will, reacted in a way that has restored confidence from an economic point of view? And what do you think will be the long-term effects of the expenditures that we are making for security purposes, again in the context of our national or international economy?

Dr. Hubbard. Well, I think you have put forward probably the core question for policy this year and for discussions of the budget.

The President's view is that, first and foremost, we need to win the war, both the war against terrorism abroad and that at home – we will need to secure the homeland in the United States. The reason for that is not just the obvious security or military aspects, but the need to promote confidence in our economy. One of the reasons we saw declines in consumer and business confidence after September 11th was a sense of uncertainty about security. So that kind of security in defense spending is actually very important in creating an environment for confidence and growth in the country.

As to the long-term consequences, a lot will depend on the pace of the war efforts and the speed with which we can win the war on terrorism. The President has indicated this is a long-term activity. It is going to be a costly activity, one which is really essential for our economic security. In terms of productivity growth, we think that as long as we don't overregulate the private sector, as we pursue security, productivity effects will be relatively modest.

Representative Saxton. Do you think that the expenditures themselves that we are making throughout the economy for security purposes will have effect?

Dr. Hubbard. Well, certainly in the short run the expenditures that are being made are providing some stimulus to the economy. In the long-term, I think the effects of those expenditures depend on how productive they are; and to the extent that they are for meaningful defense and homeland security, as the President has proposed, we believe again that creates a very positive environment for growth and is very positive for the country.

Representative Saxton. Here is my concern. You have correctly pointed out in your testimony that one of the reasons that we were successful in having a long period of robust economic growth during the 1980s and 1990s was that we were able to funnel investments in technology, which provided for increases in productivity and helped our economy grow.

It seems to me that, unfortunately, the necessary expenditures that we are making now in security don't have the same long-term effect in terms of increasing productivity. They are necessary. They are things that we all know that we must do, but from an economic point of view, aren't they less stimulating than the kinds of investment that we saw during the 1980s and 1990s in technology and productivity?

Dr. Hubbard. Well, certainly directly we would all prefer a world in which we could focus our energies on productive technology development in the private sector. I think it is important, though, not to lose sight of the security spending's role in promoting long-term growth.

We know, for example, that the U.S. defense buildup during the 1980s played an important role in a victory against one form of tyranny. It is very important to have a secure homeland and a secure world, and I think it is the President's view that this is an economic investment that we must make. So, properly managed, we believe this won't be that harmful for the economy.

Representative Saxton. Let me switch subjects and talk about our budget surplus.

There has been some debate relative to what caused the surplus to be diminished or to evaporate. Would you give us your thoughts on what you think happened in terms of a surplus? Did Congress go on a spending spree, or did we see some economic factors at play which were primarily responsible for reducing the surplus?

Dr. Hubbard. Well, certainly, as your question suggests, the largest contributing factor is really economic factors. This came both from the downward revision of the level of GDP – the national income accounts restatement – and also from lower economic growth. That would be the single largest culprit.

The spending increases have been very important in the budget surplus deterioration; the tax cut has actually played a very modest role, the tax cut enacted by the Congress last year and suggested by the President. For the current year, it is actually playing an extremely small role, maybe on the order of 15 percent. Over a 10-year period, its role would rise closer to 40 percent. But we believe that it remains sound economic policy.

So in terms of the decomposition, economics is clearly the largest single factor.

Representative Saxton. Some have suggested that the tax cuts that were enacted early last year be repealed because of the budget deficit situation.

Would you respond to that notion?

Dr. Hubbard. Well, sure.

I think it is important to start with a basic understanding of where we get surpluses. We get surpluses when we have a very healthy economy, not the other way around; that is, we don't save ourselves into prosperity through surpluses. The direction goes the other way.

So having said that, the tax cut provided a very important underpinning for growth in the second half of last year. The tax cut probably provided at least a percentage point underpinning to growth. For this calendar year, existing tax cuts should provide another half a percentage point underpinning to growth.

So in terms of thinking about the cost to our economy of repealing the tax cut, we would lose growth and, of course, the jobs that are associated with that growth.

Representative Saxton. The President has suggested that the tax cuts ought to be made permanent. Others have suggested that just the opposite should occur. Can you explain the rationale for making the tax cuts permanent, and what advantage you see in doing so?

Dr. Hubbard. It is very important that the President's tax cut be made permanent. It is important first, of course, for households and businesses to have a long-term environment for planning. It is also important because of the incentive effects, both for households and businesses, of having lower marginal tax rates. It would be an odd tax policy notion for us to think that it is a great idea to lower marginal tax rates for some span of a number of years and then suddenly increase them back to what they had been in the year 2000.

So we believe it is very, very important on the tax agenda.

Representative Saxton. Dr. Hubbard, in your testimony you made reference to retirement funds, and I think it is a very timely issue to address. We Americans are not accustomed to seeing our retirement funds diminished, at least we would like to think that we are not.

The daily reports on the Enron situation are concerning and sometimes even alarming. The latest news report this morning was that Enron management was actually siphoning off, or is suspected now of siphoning off, sort of, monies that were put away for employees' retirement purposes.

What, if anything, do you think the Congress should do in order to restore confidence in the private retirement system?

Dr. Hubbard. Well, while I don't want to comment on the Enron case as a particular matter, there are two very important points I think that your question tees up.

The President, as you know, asked for two working groups within the administration to be created on this issue, one to be centered directly on pensions and retirement saving, where he asked Secretary O'Neill to work with Secretary Evans and Secretary Chao. At the same time, he asked for a broader discussion of corporate financial disclosure to be headed up, again by Secretary O'Neill, but in the context of the President's Working Group on Financial Markets.

Some of the pensions recommendations have already come to the President, and the President and the administration have suggested these to Congress, having to do with allowing workers to diversify a little more freely in their accounts, but not requiring them to do so, and also placing restrictions on so-called blackout periods.

The Labor Department has under way a review of pension security, and we do believe this is a very important issue. The broader question that is teed up by this is really the whole issue of corporate financial disclosure and whether we, as investors in our pensions or investors generally, get the right kinds of information needed for investment

decisions. That was a very hard question. That is one the President has also been very concerned about, and the administration will be reporting on that to the Congress in the near future.

Representative Saxton. It would seem to me that one of reasons that retirement plans have been successful is because we have enjoyed the flexibility and the freedom, if you will, to manage our retirement accounts, and sometimes in creative but productive ways. Do you have any warnings as to the types of things the Congress should not do?

Dr. Hubbard. Well, two basic kinds of warnings: let us remember why we think these are a great idea. They are promoting healthy and responsible private retirement saving; 401(k)s are a very good thing.

That flexibility comment you mentioned goes to both households and firms. As households, we like the flexibility to make allocation decisions that we think are appropriate for our own investment strategies. Similarly, firms need flexibility to offer 401(k) plans that make sense for their firm and their employees.

Whatever we do, we should of course strengthen retirement security and information provision, but we want to make sure that we don't kill the goose that laid the golden egg. If a result of our action is the diminution of offering 401(k) plans or the diminution of people's willingness to take them up, then we have done a great disservice to our retirement security and our retirement safety net.

So I think that is really the line to walk.

Representative Saxton. If I may just return to the Enron case once again, there is bound to be speculation – as we move forward and hear about this case multiple times a day – as to whether this problem is more widespread beyond Enron.

Have you seen anything to lead you to believe that we need to be concerned about this conceptually spreading into other businesses, other large businesses, where similar problems may exist?

Dr. Hubbard. Well, I think the concern, which has already been expressed by the President in this task to the Working Group on Financial Markets is whether the disclosure that we get is sufficient in its scope to enable investors to make the wisest possible decisions. The SEC, of course, has jurisdiction over looking at particular matters of particular companies, but I think that there is a need to consider more broadly disclosure, so that we do promote investors' confidence in corporate America.

Representative Saxton. Is there a danger that we might find ourselves with a tendency toward overregulation of 401(k)s?

Dr. Hubbard. Well, I think it is a concern, frankly, Mr. Chairman. I think that our goal ought to be to shore up 401(k)s. That is, to identify areas, whether they are blackout periods or diversification provisions, where we would like to make changes, but not do damage to the entire system with regulations that are so constraining that they might stop firms from offering 401(k)s.

Representative Saxton. Let me turn to another issue that you mentioned, which I have had an interest in for quite some time, and that of course is the way the International Monetary Fund operates.

The IMF has had a history of transforming its function from one set of goals relative to management of – or the way it plays into economies to another set of goals, which I guess you can refer to as a kind of a bailout mentality where the IMF is – or has been used for purposes of shoring up various economies and various institutions in economies.

In 1998, I introduced some IMF reforms such as transparency and other related items, including the interest rates that are charged through the IMF. This reform mandated IMF transparency and the use of risk-adjusted interest rates in IMF bailout lending in order to promote a more efficient use of IMF resources.

Would you comment on the IMF and whether you think there may be room for still further reforms?

Dr. Hubbard. Sure. With your permission, I would actually like to defer to my colleague, Randy Kroszner, who has been specializing in this.

Representative Saxton. Sure.

Dr. Kroszner. Well, certainly there are a lot of challenges that we face in the international economy, and a lot of challenges that the IMF itself does face.

After the fall of the Bretton Woods exchange system, the IMF did have some uncertainty about what its mission should be, and what it has now come to – in some sense, to try to provide an international safety net for countries that get into trouble. But of course we know that, on occasion, having a safety net there can cause more problems than it solves – the so-called “moral hazard problem,” knowing that a bailout can come along. I think we have seen some examples of that, where unfortunately good intentions have sometimes turned things to be worse.

The IMF has made strides in improving transparency. We now know much more about the types of programs they are undertaking with different countries. The Asia crisis in 1997 and the Russia crisis in 1998 helped to move the IMF towards greater disclosure, and I think we still need to move much more in that direction.

The notion of having risk-based interest rates that are charged is certainly a natural and perfectly reasonable one, and I think a good one to move forward on.

In some cases – and this moves beyond the IMF – the administration has thought that what we want to do is think about grants to poor countries rather than loans, because many of the loans just end up not being repaid and, in some senses, it makes a mockery of the lending process. We should be more straightforward and have very clear performance criteria from the beginning, focusing on inputs, good governance, anticorruption – and extremely important is the rule of law – and outputs to make sure that the money is not being used simply for

transfer among different groups, but for fundamental infrastructure investment to allow the economy to grow towards the future.

And so I think those are some of the areas where we see reforms being possible; and certainly we care very much about IMF transparency and disclosure.

Representative Saxton. Would you elaborate on the effect of what you referred to as “moral hazard”? An institution like the IMF standing by, in effect saying quietly to people who are active in various countries' economies, if you fail to have a good economy, if you fail to move forward, if you fail to have growth, in fact if you fail – if your economy fails, we will stand by, and we will bail you out with low interest rates through the IMF – the mechanism of the IMF.

What does that do to economic activity?

Dr. Kroszner. That can set up very, very bad incentives so that the responsibility that the politician and the people have to make sure that the funds that they are getting from private sector sources are being well used disappears to some extent. It is like saying to a corporation, Well, don't really worry if you are undertaking projects that don't make profits or are not being very productive, because someone will help take care of you. And so that gives very bad incentives for looking for the good projects, looking for the high productivity projects; and of course that is what moral hazard is about, distorting the incentives.

I don't want to say that in all cases the costs of having some sort of safety net outweigh the benefits – through moral hazard outweighs the potential benefits of helping in certain situations to cushion a blow from a particular shock that comes along. But in some cases, the way that the IMF and other institutions have operated in the past has generated less than responsible policy. And I think, going forward, having strict criteria for good policy, having strict criteria for doing lending, and having risk-based lending rates are good ways to try to move forward with reform and minimize this moral hazard problem. Be there to cushion the blow when difficulties do come, but do not aggravate the problems that exist in the first place.

Dr. Hubbard. And if I may, going to your question about the risk-adjusted rates, another manifestation of this is in the financial markets where, particularly in the previous administration's approach to this problem, the risk associated with a country is a mixture of true country risk, along with the risk of whatever an IMF or Treasury response would be. I submit to you that this last component of risk is one that needs to be wrung out of the system.

Representative Saxton. Let us talk about IMF transparency for just a moment. In 1997 and 1998, I began to chair hearings on the IMF, and one of the things that I found immediately frustrating was the apparent lack of transfer of information to the public and to Congress and to, I suspect equally, other governments around the world who are participants in the IMF. And we would like to think that we cracked the door open a

bit, but I suspect that we still have the same lack of transparency or near the same lack of transparency.

What are your thoughts relative to that subject, and do you have any suggestions as to what we need to do further?

Dr. Kroszner. Well, certainly I think the sorts of pressures from the oversight that your Committee had undertaken really helped to take a major step forward.

Before 1997-1998, when there was a program that the IMF had with a particular country, there was a confidential letter that was not exposed to public view. Starting in 1997-1998, we began to see those letters posted on the IMF website. That is a dramatic improvement because before it was a pure guessing game for people on the outside. To now know, one, that there is an explicit plan and two, what the context of that plan is, what the IMF is demanding, I think is a dramatic step forward.

The IMF does a lot of surveillance of countries and gathers a lot of information about both the financial markets and other aspects of the economies. Some of that comes out in the World Economic Outlook that the IMF puts out every six months. But it might be possible to harness that information in a better way, and make it more systematically available, because I think one of the things that we have seen is that the private sector has had some difficulty in estimating when a country is going to come into trouble.

Unfortunately, the private markets and the private rating agencies haven't always been on the cutting edge of figuring out when something is going to go wrong. Not to say that the IMF always has, but they do often get a bit more information.

What might be very valuable is if those pieces of information were made available on a more timely basis so that the private markets could process it, because the IMF spends a great deal of resources doing this surveillance, this sometimes due diligence on these countries for internal purposes. If they made that information available on a more timely basis, then the markets could use that to improve their estimates of probability of failure and crisis in particular countries.

Representative Saxton. Thank you.

Dr. Hubbard, let me change the subject. One very large part of our economy is encapsulated in the general term "health care." I don't want to say we see storm clouds, but I always have concern, or have in recent years, about our ability to on the one hand provide good health care for people and on the other hand watch the economic effects of the health care system, as much as it is such a large part of our economy.

Can you just comment generally on your thoughts relative to this issue?

Dr. Hubbard. Certainly. And with your permission, I would like to ask Mark McClellan, who is our real doctor on the Council, to give you some guidance on that.

Dr. McClellan. Mr. Chairman, that is a very good question. I think your concerns reflect a lot of the concerns that many Americans have

today, that on the one hand we have a very productive health care system that has taken tremendous steps to improve health, extend life, improve the quality and dignity of life. On the other hand, this seems to be coming at a higher and higher cost, and many of the solutions or so-called "solutions" to the problem of rising costs in health care have contributed to a real sense of frustration among doctors and patients that can't really work together effectively to solve the problems that they face in the cheapest and most efficient way.

What we outline in the President's *Economic Report*, what the President has been trying to pursue in his policy so far, is to take the best elements of the health care system – that is, its potential for innovation and its great capacity to adapt and develop new treatments for all of a variety of health problems facing Americans – to combine that with appropriate assistance to those who have trouble meeting their health care costs without stifling innovation. That is a very important point.

A lot of the debate about Medicare reform, for example, has focused on prescription drug benefits and the importance of avoiding price controls and other deterrents to innovation in that important part of the economy. There are hundreds of new drugs introduced every year. There is a tremendous amount of economic and clinical evidence that these drugs improve life and are well worth the additional costs involved.

At the same time, we do need to take more steps to promote effective competition in health care; and we can do that by providing better information to doctors and patients and by creating an environment for medical practice where they are encouraged to use that information rather than be afraid to share it, afraid to discuss errors and problems because of fears of lawsuits, for example. And we also can take steps to provide assistance to those who have the most difficulty in getting affordable health care because they have low incomes or because they have very high health care needs, without disrupting the potential for innovation of our health care system.

So our policies are very much focused on encouraging the best of American health care, its capacity to innovate, not just in new drugs, but in good ideas that come up in a clinic or a hospital where doctors and patients and other health professionals, working together, find a new solution for avoiding medical errors or providing a treatment for a disease that keeps a patient out of the hospital or even out of the doctor's office. We are focused on combining that with appropriate help for those who need it the most, appropriate subsidies and assistance.

Representative Saxton. Some states are experiencing very, very difficult situations relative to professional liability insurance in the medical field.

Any thoughts?

Dr. McClellan. One of the President's policy priorities for the year is to try to work on the medical liability problem. This is one aspect of some broader concerns that we have at the Council and that the

administration has about the costs of the tort liability system to our economy, which are substantial.

With respect to medical malpractice premiums, there is a lot of evidence right in front of us that reasonable laws that impose reasonable damage caps on noneconomic damages and other reforms to encourage alternatives to long, drawn-out judicial processes can both assure appropriate reimbursement for people that experience medical errors and are harmed and, at the same time, avoid defensive medical practices and high malpractice premiums.

For example, right now in the State of Florida, I hear from a lot of doctors who have experienced very large increases in their malpractice premiums, 20 percent or more. I also hear from my colleagues back at Stanford, where I practiced before coming to the Council, that they have had very small increases in their malpractice premiums this year, and that is because California has implemented a very effective system of tort reform to keep malpractice premiums affordable while still providing appropriate compensation to patients who are injured.

We need more steps like that at the national level, we think.

Representative Saxton. Let me just ask you specifically – and I shouldn't do this, but I am going to because I had an experience recently with this subject in Pennsylvania – are you familiar with the situation in Pennsylvania?

Dr. McClellan. Pennsylvania is facing a number of problems in its health care system – cost containment problems, reimbursement problems, as well as malpractice problems – and there are a number of issues facing the State. I think there are some good examples that we can help Pennsylvania use to address many of the problems that they are facing. But the situation is very indicative of national problems in the health care system.

Representative Saxton. Thank you.

Dr. Hubbard, I asked questions earlier about the economic growth that we experienced during the 1980s and 1990s. What is your view on the economic outlook? Where do you think we are headed with the economy, and what can we expect?

Dr. Hubbard. I think the outlook for growth remains quite bright. In the *Report*, we had forecast long-term growth to 3.1 percent, which is less than the growth we experienced in some of the peak years of the late 1990s, but still a very, very respectable rate of growth. And the economy could still do better with the right policies that promote innovation. So I think the outlook is very promising indeed.

Representative Saxton. What variables should we be monitoring and assessing as to the likelihood of a rebound?

Dr. Hubbard. I think in the short term one wants to think about the business investment picture and consumption. For business investment, I would be watching durable goods orders and shipments and qualitative information from the private sector about capital spending plans. At the Council, we do a little bit of both of those.

On the consumer side, I would want to watch expectations about future incomes, asset prices for equities and for homes and the pace of layoffs.

I think in both the areas, business on the one hand, consumption on the other, we have reason to believe the recovery will be very good this year. In both of those there is still down-side risk that points to the need for the growth insurance package.

Representative Saxton. We have noted some seeming changes in some economic indicators. For example, last month's job figures looked a whole lot better than several previous months. The unemployment rate came down from 5.8 to 5.6 percent. In the last quarter of last year, there appears to be a slight up-tick in GDP, two-tenths of one percent; however small that is, it is still better than we perhaps had seen previously.

The stock market seems to have bottomed out. I haven't looked today – yesterday wasn't a great day, but – I haven't looked today, but it seems as though the stock market may have hit bottom. Do you see these as the beginnings of trends, or is it too early to tell?

Dr. Hubbard. I see them as very hopeful and important signs. I think it is not so much the decline in the unemployment rate that I would look at, because there are actually a number of factors in that particular piece of data.

But it is true that the job losses are slowing down. Employment shedding has slowed down dramatically, and we are seeing improvements in orders in the business sector. All that is clearly good news. It is not a recovery that one can take to the bank, and while I believe that we will have a very good recovery in the country this year, I think it is very important to pursue the right policies that are consistent with that recovery.

Representative Saxton. Can you speak to consumer confidence? Has that shown some improvement also?

Dr. Hubbard. I think consumer confidence is a very important indicator. It has been improving. A lot of what we are seeing in consumer confidence improvements is consumers' thought – not so much about the current situation but about the horizon – looking better. So they are seeing income growth as improving, they are seeing the prospect of being laid off as going down, and they remain very optimistic about housing values and stock values. Those are the seeds both of the recovery and the sources of down-side risk.

Representative Saxton. Thank you.

We have been joined by Mr. Watt. Mr. Watt, do you have any questions at this point?

Representative Watt. Thank you, Mr. Chairman. I will be brief.

First of all, let me apologize to the Chairman and to the witnesses for being late. We are kind of staggering back into town here, and I just got back in. So I came on as quickly as I could.

There are two things I guess I want to ask Chairman Hubbard about. One has to do with – I am trying to shape my thinking on the stimulus package. First of all, given your sense that the economy has started to grow again and the recession is in the process of ending, do you see that there is a continuing need for a stimulus package, and if so, what would you think would be appropriately included in that stimulus package?

Dr. Hubbard. Well, I do think that the need for a stimulus package as growth insurance remains. The fact that the recovery is likely doesn't make us forget about the significant uncertainty surrounding forecasts.

But not all stimulus packages or growth insurance packages are equal, as your question suggests, and we continue to believe in the administration that the sort of policy elements the President originally outlined, that have come to consensus in the Congress and in most quarters of business investment – that is, partial expensing for business investment, acceleration of marginal rate cuts, rebates to low-income households and AMT (Alternative Minimum Tax) relief – underscore the core of a very good stimulus or growth insurance package.

Representative Watt. And what is your rationale on the AMT relief?

Dr. Hubbard. Well, the AMT provides an odd kind of tax system, because the way the AMT operates is that it raises the cost of capital in a downturn, and so the AMT acts as a kind of extra tax when the economy is going down. So we believe, particularly in an environment in which one wants to encourage investment through investment incentives, you don't want to simply remove those incentives through the operation of the Alternative Minimum Tax.

Representative Watt. And how would you compensate for the seeming inequity of it, when profits are going up?

Dr. Hubbard. Well, when profits are going up, of course companies are generally paying taxes on the regular tax schedule. The AMT—

Representative Watt. Well, some of them are and some of them are not.

Dr. Hubbard. Well, then they are paying Alternative Minimum Tax. If there were no Alternative Minimum Tax—

Representative Watt. If there were no Alternative Minimum Tax, they would not be paying any tax.

Dr. Hubbard. They would be paying tax according to the schedule that the Congress legislates.

As a tax policy matter, Alternative Minimum Taxes are odd ducks. The Congress passes what it considers to be the best tax policy and then undoes or complicates it through a system of minimum taxes. So I would urge consideration of what you think the right tax policy is.

Representative Watt. All right. The acceleration of the tax rate cuts strikes me as – well, let me back up and see if I can get some consensus about whether the prospect of going back into deficit spending is having any impact on long-term interest rates.

Dr. Hubbard. Long-term interest rates, of course, are determined in an international capital market, so the question is, what is the effect of changes in U.S. budget policy on that market. A good rule of thumb that would be consistent with recent research by economists – and also, I think, with long-standing calculations at the Council, during the previous administration, as well as this – would be that the type of fiscal changes that are being considered in the so-called “stimulus packages” would add between three and five basis points, possibly, to long-term interest rates, which is to say very, very little.

The effect of deficits on interest rates is something that has been notoriously hard to measure, and I think most of the evidence in the economics profession suggests that it is very, very small.

Representative Watt. Three to five basis points is a very small impact. Is that what you are—

Dr. Hubbard. Right, not three to five percentage points, but basis points; so close to zero, in other words.

Representative Watt. So basically what you are saying is, your opinion is that there is no impact on long-term interest rates from deficit spending?

Dr. Hubbard. No, not at all. I think what I am trying to suggest to you is that it is very important to have, of course, long-term fiscal discipline for the country, and that clearly matters in interest rates. The U.S. is a very large player in the global capital market.

To go to your earlier question about the stimulus package, the kinds of packages that were talked about by the administration or here in the Congress are of a size which would, in and of themselves, lead to only a *de minimus* effect on long-term interest.

Representative Watt. So you don't subscribe to the notion that the reason that the spread between short-term interest rates and long-term interest rates – currently, the reason that long-term interest rates have not followed short-term interest rates down, some people are saying, is a result of the fact that the ultimate – that there is a substantial concern about going back into deficit spending.

Do you disagree with that?

Dr. Hubbard. Yes, sir, I would. I think the largest single contributor to the difference you suggest is the expectation that the economy will improve, which would lead to higher real and nominal interest rates in the future and higher long-term rates today. I think the best study—

Representative Watt. So Fed policy is driving it down? You are saying as the economy improves, the Fed raises short-term rates, and therefore long-term rates are not responding to the drops that the Fed has undertaken? This is also the Fed's fault?

Dr. Hubbard. No, it is really not a statement about the Fed at all.

If I expect the economy to improve in the future, then the demand for credit and loans in the future will be higher than it is today. All other

things being equal and the U.S. being a very big player in the capital market, that would lead to higher interest rates in the future.

Long rates today are what the market expects about short-term rates today and the whole sequence of future short-term rates. The best academic studies I know of on deficits and interest rates are those by Greg Mankiw at Harvard and Douglas Elmendorf at the Federal Reserve Board, and I think there, even for quite pronounced deteriorations in the deficit picture per se, again one is merely into a handful of basis points effects on long-term interest rates.

Representative Watt. Okay. I appreciate it. I will read your testimony and the other witnesses' testimony. I am sorry—

Dr. Hubbard. Thank you.

Representative Watt. And I appreciate you being here.

Representative Saxton. Dr. Hubbard, let me just follow up on the interest rate question, if I may. A good long-term interest rate to discuss would be, perhaps, home mortgages – very familiar to all of us. I followed home interest rates for many years. I used to be in the real estate business, and I remember when interest rates in the 1960s were at six percent. I remember interest rates in the early 1980s being at – on home mortgages almost 20 percent. And, out of curiosity, I have watched, over the last year or so, home mortgage interest rates go down to about 6.5 percent and have now climbed back up to seven, or near seven, percent.

It seems to me that in a historical perspective this is a relatively low interest rate, and yet all of us talk about the increase in long-term rates. How would you characterize the current long-term interest rates? Higher than they used to be but not as high as they could be?

Dr. Hubbard. Well, of course, in your question you want to be sure to distinguish between nominal and real interest rates. One of the reasons that home mortgage rates were so very high in the early 1980s is because inflation was very, very high and that got priced into interest rates. Long-term interest rates remain quite low for mortgages, which is what has been underlying much of the boom in housing values and in refinancing for consumers. So, at the current level, I see no reason to suggest that long-term interest rates in the housing market, or more broadly, are reflecting a lack of fiscal discipline.

Representative Saxton. 2001, from our vantage point, was characterized by a continuing very, very healthy construction segment of our economy. Was that because of a large demand or because – do you think it was because of interest rates being relatively low through the year, or what?

Dr. Hubbard. Well, interest sensitivity is certainly very, very important in construction, yes.

Representative Saxton. Particularly in home construction?

Dr. Hubbard. Absolutely.

Representative Saxton. And because there was a construction boom that created a demand – would that have created a demand for long-term home mortgages that was excessive?

Dr. Hubbard. Well, as the market works as a whole, there would be many factors that would determine people's demand for owning a home, an important one of which is interest rates. So the interest rate picture both affected and was affected by the demand for mortgages.

Representative Saxton. As I was listening to Mr. Watt's very good questions, it occurred to me – could the argument be that because of the high demand for mortgages, that rates crept back up? Is that a possibility?

Dr. Hubbard. Well, it can. If there is a sudden change in demand – sort of a shifting out of a demand curve for mortgages or for housing, if you will – that would put upward pressure on rates. Just as I was suggesting in answering the gentleman's question, if we expect conditions to improve, we would want to demand more credit, and that would raise interest rates.

Representative Saxton. I have no other questions at this time. I would just like to thank you, Chairman Hubbard and Dr. McClellan and Dr. Kroszner, for your contributions here this morning. It is always good to have you come and share your thoughts with us. We appreciate it very much, and we will look forward to being with you together again.

Dr. Hubbard. Thank you very much, Mr. Chairman.

Dr. Kroszner. Thank you very much, Mr. Chairman.

[Whereupon, at 11:16 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

It is a pleasure to welcome Chairman Hubbard of the President's Council of Economic Advisers (CEA), and Council members Randall Kroszner and Mark McClellan to this hearing on the *Economic Report of the President*.

The Council's *Report* reviews the economic slowdown that began in the middle of 2000, and later turned into a recession. The effects of higher interest rates, surging energy prices, falling stock market, and other factors slowing the economy are explained. The *Report* notes the damage after September 11 resulting from the terrorist attacks and the serious economic disruption that followed. The Council nevertheless notes the positive effects of an easing of monetary policy by the Federal Reserve, and the reduction of the tax drag on the economy. The Council expects that the economy will rebound and real GDP will expand 2.7 percent over the four quarters of 2002 if appropriate policies are in place.

Recently released economic data do suggest that the economy may have bottomed out. However, much of this improvement is too recent and tentative to be called a trend. The fragility of the economy, reflected in declining investment and employment, remains a concern that justifies consideration of economic stimulus legislation by the Congress. Moreover, the economy is vulnerable to risks from adverse international economic developments, high debt levels, security costs, and other factors.

In the wake of the events of September 11, the prospect of economic recovery in the near future is especially impressive and reflects the remarkable resilience of the American economy and people. In addition, the *President's* success in weakening the terrorist network has improved domestic security and restored confidence, though much remains to be done. The restoration of domestic security is a key function of government and is an important precondition for a resumption of healthy economic growth. As the President has emphasized, the war against terrorism is hardly over, but we have made a good start. To date the terrorists have been unsuccessful in attaining their objective of seriously crippling the U.S. economy.

Turning to international economic policy, I would like to note the Council's statements endorsing reform of the International Monetary Fund (IMF). According to the CEA Report, IMF liquidity loan "programs would appropriately involve short-term lending at penalty interest rates, to encourage and facilitate the borrower's quick return to private capital markets." This is very consistent with the Congressional mandates for IMF reform developed by this Committee in 1998. A version of these transparency and lending reforms became law in 1998 as conditions attached to the IMF quota increase legislation. Thus,

Congressional actions already taken strongly support the Administration's position on needed reform of IMF lending programs.

In conclusion, the recent signs of economic recovery are encouraging but tentative. The economy has proven itself to be incredibly resilient, but it remains to be seen whether a sustained economic rebound is underway. Congressional enactment of economic stimulus legislation would be a prudent insurance policy against the potential for another dip in economic activity.

OPENING STATEMENT OF SENATOR JACK REED, VICE CHAIRMAN

Thank you, Chairman Saxton, for this opportunity to discuss the economic outlook and to review the Economic Report of the President, released today. I also want to thank Council of Economic Advisers Chairman Dr. R. Glenn Hubbard and members Dr. Mark McClellan and Dr. Randall Kroszner for their testimony today.

The last time you were here, Dr. Hubbard, the National Bureau of Economic Research (NBER) announced the economy had been in recession since March 2001. Despite some recent hopeful signs, the economy remains weak.

Clearly, the task before us as policymakers is to get the economy out of recession quickly and put us back on a path of strong and sustainable growth. How we get there has been – and will continue to be – the subject of much debate. What’s clear, however, is that the President’s call to accelerate and make permanent the scheduled personal income tax cuts won’t get us there.

Over the next decade, the non-partisan Congressional Budget Office (CBO) projects that the federal surplus will be more than \$4 trillion lower than its January 2001 projection. CBO estimates that less than one-fourth this downward projection is attributable to weaker economic conditions, while more than 40 percent is attributable to the tax cut. The true budget outlook is likely to be even gloomier, because the CBO projections do not take into account any new policies, such as those just proposed in the President’s budget.

Accelerating or making permanent the Administration’s tax cuts is poor economic policy for both the short run and the longer run. In the short run, the tax cut goes disproportionately to the highest-income households who are least likely to spend it. In the longer run, the tax cut severely reduces public saving and would be unlikely to stimulate significant increases in private saving. Thus, national saving and economic growth will fall, just at the time when the budgetary pressures of the aging baby boom start to hit.

The attack on September 11 was a dreadful assault on this country. But the irresponsible tax cuts pressed by this administration had us headed down a road to deficits even before we faced a war on terrorism. Now we have to respond to our national, homeland, and economic security needs bereft of a surplus that was hard-earned over years of effort during the 1990s.

The consequences of not having surpluses to fund our national priorities are severe. For example, the President has proposed cuts in job training programs that help people transition from welfare to work, and an inadequate amount of money for providing prescription drugs to seniors.

Balancing our national priorities is challenging enough without imposing additional and unwise fiscal constraints. We simply cannot afford to accelerate or make permanent tax cuts for only the wealthiest Americans at the expense of immediate needs and investments for the future.

Mr. Chairman, I look forward to the testimony of and discussion with Chairman Hubbard and the other members of the CEA.

PREPARED STATEMENT OF DR. R. GLENN HUBBARD, CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS

Chairman Saxton, Vice Chairman Reed, and members of the Committee, it is a pleasure to appear before you today to discuss the release of the *Economic Report of the President*, along with the economic outlook for the United States and the Administration's policy agenda.

The events of 2001 brought new challenges for the U.S. economy and for economic policy. The war against terrorism has increased the demands on our economy, and we must do everything in our power to build our economic strength to meet these demands. At the same time, we must take pains to ensure that the benefits of economic growth are shared as widely as possible, both within and beyond our borders.

Economic growth is not an end in itself. As it raises standards of living – consumption, in the language of economists – growth also provides resources that may be devoted to a variety of activities beyond the traditional marketplace. Growth can fund environmental protection, the work of charitable organizations, and many other activities of interest and value to the United States, other industrialized economies, and developing economies alike.

RESTORING PROSPERITY

The economy entered 2001 growing slowly, and growth continued to decelerate through most of the year. After expanding at an annual rate of 5.7 percent in the second quarter of 2000, gross domestic product (GDP) – a standard measure of economy-wide production – began to falter later in the year, and the weakness persisted into 2001. Some sectors stumbled into outright decline; for example, industrial production peaked in June 2000, and then entered a prolonged slump. Although the National Bureau of Economic Research has said that the recession – the first in ten years – officially began in March 2001, the terrorist attacks of September 11 delivered a further blow to the economy. The experiences of 2001 have emphasized the importance of timely economic information, with one area deserving considerable attention being the need for readily accessible real-time data. Investment in sources of these data could yield handsome dividends, especially at key junctures in the business cycle.

Moreover, the quality of existing statistics is far from perfect and could be enhanced with further investment. Even real GDP, generally thought of as a reliable measure of overall activity in the U.S. economy, is susceptible to considerable revisions. For example, in the third quarter of 2000, real GDP was first estimated to have grown 2.7 percent at an annual rate – a subpar but respectable growth rate. That rate was then revised downward to 2.4 percent and then again to 2.2 percent. Seven months later it was further revised downward to 1.3 percent, providing evidence that the economy had begun to slow dramatically at that time. A key component of the revision came from revised data on gross private domestic investment, initially estimated to have risen 3.2 percent but later revised to show a contraction of 2.8 percent. Such revisions lead to

uncertainty for both government and private decisionmakers, which can cause costly delays. Although most revisions are not that large, the average quarterly revision of real GDP growth over the last decade was about one percentage point, while real GDP growth averaged 3.2 percent. This amounts to a revision of about one-half the standard deviation of the quarterly growth rate of real GDP.

A number of steps can be taken to improve the accuracy and timeliness of economic statistics. One cost-effective measure would be to ease the current restrictions on the sharing of confidential statistical data among Federal statistical agencies. Such data sharing, which would be done solely for statistical purposes, is currently hindered by lack of a uniform confidentiality policy. Confidentiality is of key importance to all agencies and to the individuals and businesses who participate in Federal surveys, but a uniform confidentiality policy would allow agencies such as the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the Bureau of the Census to compare and improve the quality of their published statistics while preserving confidentiality. In the past, attempts have been made to pass legislation, together with a conforming bill to modify the Internal Revenue Code, allowing such data sharing under carefully crafted agreements between or among statistical agencies. Meaningful data-sharing legislation still offers the opportunity to improve the quality and effectiveness of Federal statistical programs.

In addition to data-sharing legislation, the Administration is proposing new and continued funding for the development of better and more timely measures to reflect recent changes in the economy. For example, these resources would allow for tracking the effects of the growth in e-commerce, software, and other key services, and for developing better estimates of employee compensation. The latter are increasingly important given the expansion in the use of stock options as a form of executive compensation, as well as for tracking the creation and dissolution of businesses, given the importance of business turnover in a constantly evolving economy. Improved quality-adjusted price indexes for high-technology products are also an important area for future research. As the economy continues to change and grow, the need persists to create and develop such new measures, to provide decisionmakers with better tools with which to track the economy as accurately as possible.

The Near-Term Recovery

The Administration expects real GDP growth to resume early in 2002. The pace is expected to be slow initially, followed by a pickup hereafter; over the four quarters of 2002 real GDP is expected to grow 1.7 percent. The unemployment rate – currently 5.6 percent – is projected to rise through the middle of 2002, when it is expected to peak around 6 percent.

The decline in aggregate demand during the past year was concentrated in inventory investment, business fixed investment, and exports. Of these downward pressures, inventory draw downs are anticipated to reverse course soonest and most rapidly, moving from liquidation to accumulation in the first quarter of 2002. Thus the initial

source of the recovery of growth will likely take the form of the accumulation phase of an inventory cycle.

Growth in business investment and exports is likely to take longer to develop. Nonresidential investment fell sharply in 2001, and some of the downward momentum may still remain. Still, the financial foundations for investment remain positive: Real short-term interest rates are relatively low, prices of computers are falling, and equity prices moved up during the fourth quarter. Perhaps due to these factors there was an upturn in new orders for non-defense capital goods in the fourth quarter, a promising sign for the outlook for business fixed investment.

Personal consumption expenditure grew quite rapidly in the fourth quarter – a 5.4 percent annual rate – driven in large part by purchases of motor vehicles. While auto purchases may have been influenced by special financial considerations, the overall strength of household spending in the fourth quarter suggests a strong impact of the tax cut passed by Congress and signed by the President last spring. During the fourth quarter consumption of non-durables and services increased \$39 billion despite the fact that personal income rose only \$0.2 billion, suggesting that purchases were financed in part by the down payment of the tax relief mailed out during the third quarter. This interpretation of the data is entirely consistent with the reaction of households to a permanent tax cut, as a temporary tax cut would have been largely saved and not spent. In the same way, it also suggests that any perceived undermining of the permanence of this tax cut would have immediate adverse repercussions in the level of consumption demand.

Consumption spending is expected to continue at solid rates in 2002, albeit a bit slower than the rapid pace in the fourth quarter. One impact, however, of the war against terrorism is the need for enhanced expenditures for defense and homeland security. The growth in these outlays represents an impetus for aggregate demand in the short run; for example, in the fourth quarter, Federal government purchases rose at roughly a 9 percent annual rate. More rapid government spending in general, however, is not a sure recipe for economic growth. Indeed, the loss of fiscal discipline represents a threat to long-run growth. The need to address the terrorist threat is very real; however, we must be vigilant against a loss of budgetary discipline and remain committed to prioritizing our needs and controlling the growth of government spending.

Inflation is expected to remain low and stable. As measured by the GDP price index, inflation was stable at about 2.2 percent during 2001. The Administration expects this measure of inflation to fall to 1.9 percent in 2002. The unemployment rate is now above the level that the Administration considers to be the center of the range consistent with stable inflation, and capacity utilization in the industrial sector is substantially below its historical average. Despite faster-than-trend growth of output in 2003 and 2004, some downward pressure will be maintained on the inflation rate, because the unemployment rate is projected to remain above the center of the range over that period.

Risks to the Near-Term Recovery

The Administration forecast mirrors the outlook of private sector analysts such as the Blue Chip consensus forecast. We must recognize, however, that the basic economic outlook is subject to risks.

To begin, one downside risk to the consensus outlook is a slower recovery in capital spending. In particular, some observers have emphasized the possibility of a “capital overhang” that impedes a recovery in business fixed investment. A capital overhang develops when the amount of capital in the economy exceeds the amount that businesses desire for the production of goods and services. The emergence of such an overhang complicates both business planning and policymaking. Businesses often have to alter their capital spending plans and curtail their investment spending – sometimes quite abruptly. A large overhang may also reduce the stimulative effects of tax policies designed to boost investment, possibly lengthening the recovery time during a period of sluggish economic activity, especially for the manufacturing sector.

Empirical evidence suggests that a capital overhang did develop in 2000. The overhang was modest for the economy on average, but various types of capital equipment such as servers, routers, switches, optical cabling, and large trucks were disproportionately affected. Over the past year and a half, the decline in investment spending and depreciation of the existing capital stock appear to have combined to slow capital accumulation sufficiently to eliminate the overhang.

However, estimates of the total overhang must be interpreted with caution. There is considerable uncertainty about its size, because it is difficult to estimate precisely both the capital stock that businesses desire and the capital stock they actually possess.

The remarkable slowdown in capital accumulation during 2001 and the possibility that the capital overhang has persisted longer than the data suggest some risk to the outlook. This underscores the importance of the President’s tax relief recommendations for economic stimulus. The partial expensing provision will encourage business investment, stimulating economic activity in the short run and laying the foundation for stronger growth in the long run. The reductions in marginal income tax rates will help spur investment by providing incentives for flow-through entities, mainly small businesses, to grow and create jobs. The President’s tax relief will also help foster a smooth and more predictable transition to a period of sustainable growth.

One factor that contributed to the onset of the current recession was a sharp rise in the energy prices. Another risk to the outlook is another such rise, especially as the United States is heavily reliant on imported oil to meet its energy needs. The Administration has made a comprehensive energy policy a priority, as indicated in the President’s National Energy Policy.

The House energy bill addresses many of the legislative recommendations contained in the National Energy Policy and the President has called on the Senate to act as well. H.R. 4 creates

opportunities and provides incentives to foster conservation, improve energy efficiency, increase domestic energy production, and expand the use of renewable energy sources. H.R. 4 represents an important step in ensuring the Nation's future energy security.

Finally, we must acknowledge that in the current security environment our economy remains at risk. The events of September 11 had a pronounced, disruptive impact on the path of the economy. Certainly, we are hopeful that the economy will not be subjected to such adverse events in the future. The Administration worked with Congress to suggest legislation to provide a backstop against catastrophic terrorism risk and continues to support passage of measures to help the private sector build capacity to provide such insurance.

The Long-Term Economic Outlook

The economic difficulties that began in 2000 and continued into 2001 and 2002 should not blind us to the fact that the outlook for the economy remains strongly positive. The Administration projects real GDP growth to average 3.1 percent a year during the 11 years through 2012. The growth rate of the economy over the long run is determined primarily by the growth rates of its supply-side components, which include population, labor force participation, productivity growth, and the workweek.

Productivity growth in the United States accelerated during the second half of the 1990s, and economists generally believe that much of that faster productivity growth is permanent. New technology deserves much of the credit – but by no means all of it. Better, more efficient ways of doing business also contributed, and only a fraction of the many possible improvements have yet been made. Our economic challenge is in large measure, to discover how to reap the benefits of the remainder.

The Administration expects non-farm labor productivity to grow at a 2.1 percent average pace over the projection period, the same as over the entire period since the previous business cycle peak in the third quarter of 1990. This projection is noticeably more conservative than the 2.6 percent average annual growth in actual productivity from 1995 to 2001.

The Long-Term Policy Agenda

The 1980s and 1990s witnessed a long boom (punctuated by a short recession) in which private sector technological advances and entrepreneurial innovation fueled productivity growth and increases in our standard of living. This strong productivity performance derives from advantages of our economic approach – notably, the strength of our institutions and the flexibility of our business culture. Public policy was in many ways supportive, with tax cuts in the 1980s, deregulation, and stable anti-inflationary monetary policy leading the way. With some exceptions, policy generally promoted economic growth in the private sector.

The 2002 *Economic Report of the President* focuses on those institutions and on that culture, and proposes strategies for improving

them and putting them to use, to sustain our growth and broaden our prosperity. Institutions are a key issue. Productivity growth does not arrive from the heavens. New technologies, process innovations, and other aspects of private-sector productivity gains are the result of investment, effort, testing, and implementation. In Europe, commentators from both the OECD and the European Central Bank have noted the lack of acceleration in productivity growth comparable to that witnessed in the United States. Rigidities in labor and product markets, sometimes exacerbated by regulatory impediments, are often cited as culprits.

Put differently, the important economic *outcome* – productivity growth – hinges on the structure of economic *incentives*. It is now understood that the effective use of economic incentives hinges upon the institutions in which they are embedded. The *Report* is organized around the need to build strong institutions to support a flexible economy and rapid economic growth.

As an example, one of the President's priorities is the U.S.-led effort for more open global trade. The large contribution of reduced trade barriers to growth in our standard of living has long been recognized. In 2001, the United States exported over \$1 trillion in goods and services – or 10 percent of GDP.

The United States has the opportunity to reap significant gains from the future trade agreements. A recent study finds that a new World Trade Organization (WTO) round that lowers barriers to services and reduces tariffs by one-third on agricultural and industrial products would yield gains roughly equivalent to a \$2,500 permanent increase in the annual income of the average family of four. An agreement on the Free Trade Area for the Americas that removes bilateral tariffs would increase GDP by about \$53 billion, or about an \$740 permanent increase in the annual income of a family of four.

These are important benefits for the *average* American household. Trade is sometimes portrayed as a threat to lower-income individuals. This is not the case. To take one example, in 1997 there was roughly \$18 billion in tariffs, with nearly one-half on clothes and textiles. Who pays those tariffs? In a \$10 trillion dollar economy, this might not seem like an important question – after all, \$9 billion in clothing tariffs is a trivial fraction of overall consumption spending. The reality is that – measured as a fraction of their income – tariffs paid by the lowest -income quintile were roughly three times that of the highest-income quintile.

Trade helps our domestic productivity. Expanding global trade allows the most efficient producers to grow because selling goods in the competitive international marketplace demands higher productivity. In fact, exporting plants have up to 20 percent higher productivity non-exporting plants.

Furthermore, many domestically produced goods are shipped abroad for further processing or assembly and then returned to the United States. In 1998, for example, the United States imported \$27 billion of "production sharing" goods from Mexico, and these goods may be re-imported subject to lower duties. Not duty-free. Nearly 60 percent of the

value of these imports derived from U.S.-made components – roughly 1 percent of all U.S. imports from Mexico.

The benefits of free trade are substantial and investments in the institutions that support a global trading system are valuable. Indeed, an institutional commitment is a good way to overcome instances of shortsightedness. In developing countries, the advantages of international trade produce income for not only commercial consumption, but also access to better food, better health care, better education, and technologies that will help improve the environment. In a developed country, stiff import barriers on labor-intensive goods from developing countries such as clothing, leather, or agriculture not only harm consumers but reduces the income of people in developing countries as well.

A recent World Bank study identified developing countries as “globalizing” on the basis of the growth in trade related to GDP and their reduction in average tariff rate. It found that, in the 1990s, the income per person in globalizing developing countries grew more than three-and-a-half times faster than it did in non-globalizing developing countries. In the six years following completion of the Uruguay Round, exports from developing nations grew by nearly \$1 trillion, to a level of \$2.4 trillion last year. The United States in particular has been an engine of export growth for developing nations. There has been an 82 percent increase in U.S. imports from developing countries (87 percent increase in chemical products and 72 percent increase in textiles) between 1994 and 2000.

Building on this success is important. One study indicates that new global trade negotiations would generate income gains for developing countries greater than recent flows of official assistance, and roughly comparable to total inflows of foreign direct investment. An IMF/World Bank study notes that eliminating all barriers to merchandise trade would yield static welfare gains of between \$80 and \$180 billion to developing countries. These numbers are well in excess of annual aid flows to these countries.

That there is tremendous value to multilateral agreements that institutionalize a commitment to free trade among countries is clear. The Trade Promotion Authority (TPA) provides the President with negotiating flexibility and gives the United States additional credibility in the international community. It enhances our bargaining power in these negotiations. It also ensures that trade agreements will maintain focus on trade, as intended by the negotiating parties. TPA sends a signal to other countries that the U.S. is united in active engagement in trade negotiations that will benefit all participating countries. Obviously, Congress still has its final, rightful say on whether or not the United States signs any trade agreement.

International trade is one force behind the “creative destruction” the continual competitive pressure to innovate, improve, and outperform competitors – that is central to our economy. Of course, for an individual worker, finding a new job in another firm or another industry may be difficult. The United States recognizes this possibility and has put programs in place to assist those who lose their jobs due to trade i

finding a new position. Workers who are displaced from their jobs due to imports are given special assistance by the Federal government to smooth their transition to new jobs. For example, the Trade Adjustment Assistance (TAA) and NAFTA-Transitional Adjustment Assistance (NAFTA-TAA) programs provide those misplaced workers with training, income support, and out-of-area job search aid, and relocation allowances; these benefits are in addition to unemployment insurance, employment-related services under the Workforce Investment Act, and other programs. The Administration is committed to reauthorizing and improving the existing TAA and NAFTA-TAA programs that expired last September and were continued through FY 2002 by the action of the appropriators. The Bush Administration has worked this year to improve the TAA programs so that they more effectively ease the transition into new employment.

Another example is the President's proposed Health Insurance Tax Credit. The tax credit proposal included in President Bush's budget for 2003 is a refundable income tax credit to cover the cost of health insurance purchased by individuals under age 65. It would provide a subsidy for a percentage of the health insurance premium, up to a maximum credit of \$1,000 per adult and \$500 per child. A two-parent family with two children would be eligible for a maximum credit of \$3,000. The maximum subsidy percentage would be 90 percent for low-income taxpayers and would phase down with income. A broad-based policy of this type anticipates the insurance needs of workers – dislocated or otherwise – and permits labor market adjustments to be less impeded by health insurance considerations.

There is great value to institutions that meet the short-run needs of displaced workers *and* move them quickly toward productive activities. The events of the past year has illustrated – in an extreme form – the shocks to which our economy is subjected. The President's vision of economic security recognizes that many events impact the economy all the time. We should think comprehensively about these policies and focus our efforts on incentives for getting workers back to work, and quickly. Resources should be devoted flexibly to basic needs, job search for re-employment, and retraining, without creating an incentive for unnecessarily long spells between jobs, because benefits extended under the wrong conditions create a "tax" when a new job is taken and those benefits are lost.

Finally, getting the most out of the economy will require an emphasis on efficiency in government as well. If government spending grows without discipline, billions of dollars will be siphoned away from private sector innovation, taxes will rise, and growth will suffer. The President's Management Agenda seeks to shift the emphasis of government toward results, not process. It aims to replace the present Federal government hierarchy with a flatter, more responsive management structure and to establish a performance-based system.

THE 2002 ECONOMIC REPORT OF THE PRESIDENT

The importance of using policies to set in place valuable economic institutions is not limited to displaced workers and government programs. These areas come immediately to mind in the current setting where fiscal discipline and the genuine costs of recession are apparent. However, looking toward the future, there are many areas for such improvements. The *2002 Economic Report of the President* is devoted to the foundations of these improvements in our institutions. These institutions figure prominently both in agenda for long-term growth and in assuring that the benefits of growth are spread throughout society.

Strengthening Retirement Security

No area of American life could benefit more from enhancements to its institutional underpinnings than retirement security, and the President has made the reform of the Social Security system a central part of his economic agenda. As he has stressed, "Ownership in our society should not be an exclusive club. Independence should not be a gated community. Everyone should be part owner in the American Dream."

The *Report* examines the changing nature of retirement security and the institutional changes needed to meet this challenge. There is little dispute about the need for reform, and there is growing agreement that personal accounts within the Social Security system are an indispensable part of any reform plan. Personal accounts would enhance individual choice – the very foundation of the success of our market economy. The current Social Security system collects 12.4 percent of all covered wages and essentially constrains all working Americans to place their retirement security in a single asset – one that demographic change is rendering increasingly inadequate to support the system's obligations.

Personal accounts would permit individuals to diversify their retirement portfolios, thus increasing their retirement security. The individuals would for the first time acquire rights of ownership, wealth accumulation, and inheritance within Social Security. These advantages are widely recognized. Less well appreciated, however, is that ownership and inheritability will enhance Social Security's role in making our economic system more equitable. Some groups in our society with lower average incomes also have lower life expectancies, and as a consequence they receive less today in Social Security retirement benefits than do other, wealthier groups. Under a system of personal accounts, the early death of a worker would no longer mean the loss to that worker's heirs of much of what he or she has paid into Social Security. Instead, those assets could be passed on to the next generation. For all these reasons, personal accounts are an important part of reforming Social Security, and thereby of strengthening retirement security for all Americans.

Although not covered in the *Economic Report of the President*, I would be remiss if I failed to mention the President's announcement last week of proposals to strengthen the security of retirement savings in 401(k) plans. These proposals would give workers more freedom to diversify their portfolios. Also, workers would have the same ability a

Corporate officers to trade company stocks during so-called “blackout” periods when trading is restricted.

Realizing Gains from Competition

One source of the United States’ superior economic performance over the past decade has been the success of its institutions for promoting open, competitive markets. Strong incentives to compete are what drive firms to exploit new opportunities, and so achieve faster growth throughout the economy. Deregulation of several key industries during the 1970s and 1980s brought substantial benefits to consumers and to the economy as a whole, recognizing that it took time for those benefits to be realized.

The task of competition policy is to promote competition in a way that ensures the efficient allocation of resources and serves the interests of consumers. In doing so, however, competition policy must walk a fine line: Efforts to prevent anticompetitive changes in the behavior and organization of firms may inadvertently keep firms from taking steps that could lower their costs or improve their products. Such ill-advised interventions would ultimately harm consumers rather than benefit them.

The recent past has witnessed a remarkable shift in the competitive landscape. Mergers and acquisitions have reshaped and continue to reshape the organization of firms and the nature of competition itself. Our competition policy must be flexible enough to acknowledge and support the quest for efficiency that drives these changes, while remaining vigilant against changes that would harm competition. To fail in this task would be to hinder the growth of innovative firms, the adoption of new technology, and the enhancement of productivity.

The markets in which American firms compete today are increasingly global markets, and globalization motivates further changes in firms’ organization. Our competition policy should acknowledge and reflect these motivations. Other countries have their own competition policies, of course, and inefficient policies in any one of them may impose costs on firms and consumers in the United States and around the world. The United States should therefore pursue the convergence of national competition policies – but should do so in a way that spreads best-practice, efficient competition policy worldwide.

Finally, competition policy must also deal with the increased importance of “dynamic competition,” in which firms compete not just for increments of market share but for absolute (if temporary) market dominance, through rapid innovation. Policies should recognize that, at any given moment, high profits and substantial market share – indicators that might warrant concern about competition in some industries – may mask vigorous dynamic competition among firms in industries undergoing rapid technical change.

Promoting Health Care Quality and Access

Health care is one of the largest and most vibrant sectors of the economy. Biomedical research, both public and private, has generated

stunning advances in our understanding of biology and disease and the achieved major therapeutic discoveries. As a result, Americans today are living longer lives with less disability. However, the health care delivery system today is troubled, as medical expenditures are again rising rapidly. The costs of private health insurance to working Americans and the costs to taxpayers of government health programs, including Medicare and Medicaid, are increasing at rates far surpassing the growth of the economy. Managed care is under fire from patients and physicians alike. With the economic slowdown and rising costs, concerns about the growing number of uninsured are again coming to the fore.

Much of the discussion about Federal policies to address these concerns has been framed through a narrow lens that focuses on “guarantees” for access and treatment, to be achieved largely through expanding government programs that rely on regulation and price setting. Yet this approach does not ensure access to innovative care that meets the diverse needs of patients in an efficient way – evidence of which is Medicare’s lack of coverage for prescription drugs and integrated disease management.

The *Report* explores the President’s vision for an alternative framework, one that focuses on achieving better health care through solutions that emphasize both shared American values and sensible economics. These solutions build on existing support; they encourage flexible, innovative, and broadly available health care coverage; they emphasize the central role of the patient in making health care decisions and they improve those decisions by creating an environment for medical practice that encourages steps to improve quality and reduce costs. This approach emphasizes patient-centered health care, with individual control and individual responsibility.

If we move toward a system of informed choice and well-crafted economic incentives, and away from rigid regulation, the health care system will improve from the resulting flexibility and competition. In this vision, incremental government support would be used to broaden access and to encourage competition in both the private and the public sectors. Support should be targeted to improving the health care of the most in need – the uninsured and those with significant health expenses. New incentives should strengthen the market by improving information about quality and cost, broadening choice, rewarding quality, and addressing costs by encouraging value purchasing by both employers and patients.

The Administration’s emphasis on patient-centered health care reform focuses on three objectives. First, we must develop flexible, market-based approaches to providing health care coverage for all Americans. Second, we must support health care providers in their efforts to meet the demand for higher quality and value, in part by making better information available about providers, options, outcomes, and costs. Finally, we must provide the foundation for further innovation through strong support for biomedical research. Providing competitive choices for all Americans, and meaningful individual participation in those choices, will encourage innovation in health care delivery and

verage. Improving incentives and information, and taking steps to help patients and providers use information effectively, will help ensure continued improvements in the health of Americans in the future.

Redesigning Federalism for the 21st Century

Throughout its history, the United States has relied heavily on State and local governments to provide certain goods and services. Our federal system has been a source of greater efficiency and of innovation in government practice. History reveals several tensions as well, most vividly evidenced by Washington's all-too-frequent practice of providing funds to State and local governments without allowing flexibility in their use. This tension between flexibility and control can be resolved efficiently by specifying standards for outcomes but leaving it to State and local providers to determine how best to achieve those outcomes.

Focusing on outcome standards and flexibility to improve efficiency can also imply a role for the private sector in providing public services. The choice of where to draw the line between the public and the private sector depends on the characteristics of the services to be provided. The nature of some services makes it difficult for markets to meet the needs of the population effectively. Even then, it may be efficient to let competition among State and local governments decide what and how much shall be provided but to rely on the private sector to *produce* the service.

The *Report* describes the principles underlying the roles of differing levels of government, and of for-profit firms and not-for-profit organizations, in identifying and meeting needs for public goods and services. Specifically, allowing public and private organizations to compete in meeting preset standards can improve the efficiency of programs in education, welfare, and health insurance for needy populations.

In education, evidence supports the benefits of competition in improving quality, with public, private, and charter schools vying with each other to provide the best education most efficiently. Increased competition for students requires the right institutions so that school systems help make schools accountable for results. Similarly, the providers of safety net benefits such as welfare must be accountable to taxpayers for the quality of services they provide and the resources they use to provide them. By tying payments to these providers to results, and by allowing private nonprofit providers to compete with them on an equal footing, the market discipline that yields innovation and efficiency in the private sector can be brought to bear in the public sector as well.

Building Institutions for a Better Environment

Not so long ago, environmental protection and market-based economic growth were widely regarded as fundamentally in conflict. The last 30 years, however, have seen dramatic improvements in environmental quality go hand in hand with robust growth in GDP. Releases of many toxic substances have been reduced, and many of our

natural resources are better protected. Rivers are cleaner and the air is clearer.

In many of these early environmental interventions, the anticipated benefits were clear, large, and achievable at relatively low cost. The next generation of environmental issues, however, is certain to be more challenging. Ongoing efforts to protect endangered species, maintain biodiversity, and preserve ecosystems will require carefully balancing the welfare interests of current and future generations. But those early initiatives also taught us that the costs of environmental protection can be minimized through careful policy design. Part of the challenge for environmental protection today is to identify the best institutions to address each of an array of stubborn environmental problems. Another part is to design those institutions so that they can evolve to address new problems in the future.

The *Report* describes how flexible, market-based approaches to environmental protection – using tradable permits, tradable performance standards, and similar mechanisms – allow businesses to pursue established performance goals or emission limits in the manner they find most efficient. Several case studies illustrate that such an approach can often achieve equal or greater environmental benefits at lower cost than one based on inflexible government mandates.

Supporting Global Economic Integration

The *Report* concludes by examining our institutions for international trade and finance. International flows of goods, services, capital, and people have played an increasingly important role in the world economy, raising the standard of living in the United States and around the world. These gains from international interaction stem from an improved allocation of resources. A more efficient global allocation of productive inputs such as capital and labor translates into higher global output and consumption. Today, however, signs of a slowing global economy, and threats to the freedom that is essential to a well-functioning economic system, make it more important than ever to rededicate ourselves to the free exchange of goods and services across borders.

It is therefore critical that the United States continue to lead the world in the liberalization of trade. The restoration of the President's Trade Promotion Authority will provide the Administration the flexibility and the bargaining power to promote this liberalization most effectively. By streamlining the system for approving trade agreements, TPA will allow the United States to keep pace with our trading partners in the timely adoption of trade liberalization.

The United States must also continue to encourage efforts to strengthen the international financial architecture. A stronger global financial system is needed to support the cross-border flows of capital that are vital to increasing world output. The Administration is taking the lead in the debate over principles for reform of international lending by the International Monetary Fund and the World Bank. In addition, the Administration is seeking to shift the multilateral development bank

emphasis toward grants for low-income countries: this is consistent with continued efforts to make these institutions more efficient and more focused on growth in living standards in developing countries. U.S. leadership in this area is essential to safeguarding and enhancing both our own economic prospects and those of the rest of the world.

CONCLUDING REMARKS

The past year has shown that we cannot be complacent about America's rate of economic growth, gains in productivity, and successes in global markets. We must be cognizant of risks that we face in the near-term, and the value of investing in institutions that raise our rate of growth in the long-term. In this way, we will be able to shoulder additional demands on our economy such as the war against terrorism.

This goal is neither narrow nor parochial. The additional resources generated by wise policies are a source of improvements with and beyond markets. To gain a sense of the importance of this issue note that administration forecast embodies a long-run (potential) growth rate of 3.1 percent. Suppose that the long-run growth rate were to fall by a small amount, just 0.2 percent, to 2.9 percent due to the impairment of incentives to work, take risks, and accumulate capital. Over a decade real GDP would be lower by \$266 billion – roughly \$1,000 for every man, woman, and child in America today. Similarly, Federal receipts would be roughly \$70 billion lower at the end of 10 years, and reduced by about \$350 billion over 10 years.

Certainly, additional resources of this magnitude are worth the effort to improve incentives in the United States. However, they have even greater value for others in the world. Policies that remove impediments to growth are the key to prosperity for the whole world, and we can contribute to this goal by wise economic policy and farsighted institutional reform.

Thank you again, Mr. Chairman, for the opportunity to appear before you today. I am happy to answer your questions.

THE EMPLOYMENT SITUATION: JANUARY 2002

HEARING

before the

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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THE EMPLOYMENT SITUATION: JANUARY 2002

Friday, February 1, 2002

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 9:38 a.m., in Room 311, Cannon House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding:

Present: Representative Saxton; Senator Reed.

Staff Present: Chris Frenze, Bob Keleher, Colleen J. Healy, Darryl Evans, Brian Higginbotham, Patricia Ruggles, and Daphne Clones.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Good morning. I am pleased to welcome Acting Commissioner Orr once again before the Joint Economic Committee (JEC) to testify on the January employment situation.

The employment data reported today appear to be somewhat affected by seasonable adjustment factors. Payroll employment declined by 89,000, while the unemployment rate declined to 5.6 percent. Some of the data in the report today seem to suggest more improvement in the employment conditions than may have actually occurred. We will explore some of these issues in more detail during the question and answer period.

Nonetheless, recently released economic data broadly suggests the economy may have bottomed out. For example, the decline in the manufacturing sector seems to have slowed. Housing and auto sales remain strong, and gross domestic product (GDP) actually eked out a small gain in the fourth quarter of last year. These and other encouraging signals have led many economists to conclude that the recession may be over.

While we certainly hope this is the case, the fact remains that much of this improvement is too recent and tentative to be called a trend. The fragility of the economy, particularly investment, remains a concern that justifies consideration of economic stimulus legislation by the Congress. Moreover, the economy is vulnerable to risks from adverse international economic developments, high debt levels, security costs and other factors.

Last September, I took note of the Federal Reserve's actions to reduce interest rates, the congressional effort to reduce taxes and the decline in energy prices. At that time it appeared that these factors might reasonably be expected to lead to an economic recovery by the first quarter of 2002. However, the events of September 11th created such an enormous disruption that this timetable for recovery could be viewed as unduly optimistic. Thus, the prospect of economic recovery in the near future is especially impressive and reflects the remarkable resilience of

the American economy and the American people. In addition, the President's success in fracturing the terrorist network has undermined, or made it more difficult for the terrorists and their ability to strike. It has improved domestic security and renewed confidence to a great degree.

This restoration of domestic security is a key function of government, and it is an important precondition for the resumption of a healthy economic growth. As the President has emphasized, the war against terrorism is hardly over, but we have made a good start. To date, the terrorists have been unsuccessful in attaining their objective of seriously crippling the U.S. economy.

In conclusion, the recent signs of economic recovery are encouraging but tentative. The economy has proven to be incredibly resilient, but it remains to be seen whether a sustained economic rebound is under way. Congressional enactment of an economic stimulus package would be a prudent insurance policy against the potential for another dip in economic activity.

Senator Reed, the floor is yours for whatever comment you may have.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 12.]

OPENING STATEMENT OF SENATOR JACK REED, VICE CHAIRMAN

Senator Reed. Thank you very much, Mr. Chairman; and thank you for convening this hearing and for your thoughtful comments. I also want to welcome Acting Commissioner Orr and thank her for coming forward to testify today.

Despite some hopeful signs, the labor market remains weak as the economy continues to shed jobs. Today there are nearly eight million unemployed Americans and nearly five million more workers who want a job but are not counted among the unemployed.

Particularly troubling is the fact that the number of people who are unemployed for more than six months is rising, and Congress has still not acted to help them. Even if the economy begins to recover in the first half of 2002, as many analysts predict, overall unemployment is likely to continue to rise for some time. Moreover, the long-term unemployed are typically the last to join the economic recovery. On average over the post-war years, the unemployment rate for those who have been jobless for more than 26 weeks continued to rise for nine months after the economy had begun to recover.

The Department of Labor recently reported that the number of workers exhausting their regular unemployment benefits has risen substantially by the end of last year. In my home State of Rhode Island, the number of workers who have exhausted their benefits has increased by nearly 40 percent over the past year. There should be no doubt about the importance of extending benefits to unemployed workers.

This week Senator Susan Collins joined me in calling for an immediate vote on extending unemployment benefits by 13 weeks for the

more than two million Americans who have exhausted their benefits since the start of the recession and the many more that will soon face the same fate, and I have a copy available of our letter to Senator Majority Leader Daschle and Minority Leader Lott. Both Republicans and Democrats have proposed extending unemployment benefits but have tied the extension to other economic stimulus provisions.

I strongly believe that passing an extended benefits bill, separate from other legislation, is the right thing to do now. American families are suffering, and simple common decency requires that we put aside our differences and come together to meet their needs now.

Extended unemployment benefits go to those who desperately need resources to purchase food, pay their bills and clothe their children. These benefits replace only a fraction of a worker's lost income, so most of the money will be put right back into the economy where it is spent immediately on wise necessities.

In addition, extending unemployment compensation involves no cumbersome implementation issues, since the benefit system already exists. As the recovery takes hold and laid-off workers find new jobs, the costs of the program decline.

The task before us as policymakers is to get the economy out of the recession quickly and put it back in the path of strong and sustainable growth. Extending unemployment benefits to workers right now will not only help millions of families weather these difficult economic times but it will also provide a boost to the economy without undermining our long-term fiscal discipline.

Mr. Chairman, thank you again, and I look forward to the testimony of Commissioner Orr on the state of our labor markets.

The prepared statement of Senator Reed appears in the Submissions for the Record on page 13.]

Representative Saxton. Thank you very much, Senator.

Commissioner Orr, the floor is yours. We are ready and anxious to hear your testimony this morning.

**OPENING STATEMENT OF LOIS ORR, ACTING
COMMISSIONER, BUREAU OF LABOR STATISTICS:
ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE
COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS;
AND PHILIP L. RONES, ASSISTANT COMMISSIONER OF
CURRENT EMPLOYMENT ANALYSIS**

Ms. Orr. Mr. Chairman and Members of the Committee, I appreciate the opportunity this morning to comment on the labor market data that we have just released.

Nonfarm payroll employment fell by 89,000 in January, following job losses that averaged 311,000 a month in the fourth quarter of 2001. Manufacturing and construction employment declined, while services employment was flat. The unemployment rate decreased by two-tenths

of a percentage point to 5.6 percent, after rising by the same amount in December.

Looking in more detail at the data from our survey of employers for January, job losses continued in manufacturing – that is, a decline of 89,000 – although at the slowest pace since September. The largest decline in manufacturing occurred in transportation equipment – that is, 28,000 – as motor vehicle plants had temporary shutdowns and aircraft factories continued to lose jobs.

Sizable employment declines also occurred in primary metals, fabricated metals, industrial machinery and electronic equipment. On the other hand, job losses in manufacturing were not as widespread as they had been in the fourth quarter.

As you know, construction employment held up unusually well last year. Unlike past recessions when construction tended to be quite hard hit, the industry lost very few jobs during the last eight months of 2001. In January, however, employment in the industry declined by 54,000 on a seasonally adjusted basis, despite unusually mild weather during the month. The special trades and heavy construction components had the largest losses. Also, an industry closely tied to construction, that is, the landscaping component of agricultural services, also lost jobs in January.

Wholesale trade employment continued its declining trend. The industry has lost 145,000 jobs since November 2000.

Helping to offset these declines, retail trade employment rose by 62,000 in January after seasonal adjustment, as weak hiring for the 2001 holiday season resulted in fewer layoffs than usual in January. Putting this increase in perspective, employment fell by 241,000 on a seasonally adjusted basis in the last five months of 2001. The largest increases in January were in department stores, apparel stores and miscellaneous retail establishments, especially toy stores, where holiday hiring, and therefore post-holiday layoffs, are heavily concentrated.

Employment in finance, insurance and real estate edged up by 9,000 in January, as relatively low interest rates continued to spur growth in banks and mortgage brokerages.

Employment in the services industry overall was little changed, as several component industries had offsetting movements. Business services employment fell by 24,000, reflecting a sizable decline in computer and data processing services.

Employment in help supply services was little changed over the month, although I would note that the industry has been on a downward trend since September, 2000. Job losses continued in the hotel industry bringing the total decline to 124,000 since the start of the recession. However, employment in health services continued its strong growth trend, and social services also had a job increase.

Transportation and public utilities employment was unchanged in January as well. Air transportation grew by 8,000 jobs after seasonal adjustment, as a very light holiday buildup in the air freight component resulted in fewer layoffs than usual. Employment related to airlines

passenger service continued to decline. The communications industry had job losses for the third consecutive month.

Both the total private sector workweek and the factory workweek edged down by a tenth of an hour in January to 34 hours and 40.5 hours, respectively. Factory overtime edged up by a tenth of an hour to 3.9 hours.

Average hourly earnings of production and nonsupervisory workers in the private sector were unchanged at \$14.59 in January. This followed a gain of five cents in December, as revised. Hourly earnings increased by four percent over the year, that is, from January 2001.

Now turning to some of the measures obtained from our survey of households, the Current Population Survey (CPS), the number of unemployed persons fell and the unemployment rate returned to its November level of 5.6 percent, that is, from 5.8 percent in December. The jobless rate for adult women declined in January after rising in December, while the rates for adult men, teenagers, whites, blacks and Hispanics were essentially unchanged.

Looking at other measures of labor underutilization, we would note that the number of part-time workers who would have preferred full-time work did fall from December to January by 294,000 so that they now total four million.

The number of persons outside the labor force who said they want a job rose by 163,000 to 4.8 million.

There was a decline of nearly a million in the labor force, reflecting drops in both employment and unemployment between December and January. However, I would caution against reading too much into a single month's estimate for any data series, particularly in a month such as January when there are large seasonal movements that can be difficult to adjust for precisely.

To summarize, the jobless rate in January reversed its December increase, dropping back to 5.6 percent. The number of workers on nonfarm payrolls declined in January but at a slower pace than in recent months. A seasonally adjusted employment increase in retail trade partially offset losses in manufacturing and construction, while most other industries were little changed.

Thank you. My colleagues and I now would be glad to answer your questions.

[The prepared statement of Ms. Orr, together with accompanying press release, appears in the Submissions for the Record on page 15.]

Representative Saxton. Commissioner, thank you very much.

Let me begin with a thought and a question that has been something that we have tried to guard against here on the Joint Economic Committee for years. You said in the closing part of your statement that too much emphasis could be placed on one month's data, and we have watched and tried to protect ourselves from doing that for many years here, as long as I have been on this Committee, actually.

So translated into the current report and watching the unemployment rate drop by two-tenths of a percent and watching other factors, including job growth and the up-tick in the diffusion index for a month, this looks like a pretty good report. However, as you suggested, it would be a drastic mistake to draw conclusions based on just this data. Is that correct?

Ms. Orr. Correct.

Representative Saxton. Would you say why that is true?

Ms. Orr. Well, as I noted in my comments, seasonal adjustment between December and January always brings with it some difficulties.

If you look, for example, at our data for January, particularly retail trade and air freight, we have increases in employment for those industries for the month of January, in large part reflecting the fact that there was not the holiday buildup in December that we ordinarily would have expected. So then when we seasonally adjust the January numbers, we see an increase in employment that in part is an artifact of seasonal adjustment.

Representative Saxton. In other words, we do this seasonal adjustment every January to try to take into account the jobs that were added in the last quarter of the year because of the holiday seasons, et cetera.

Ms. Orr. Uh-huh.

Representative Saxton. This year it is particularly difficult, because those jobs may not have been added in the last quarter of the year because of the anticipated slow economy and anticipated slower than normal consumption for the last quarter of the year; and, therefore, the need may not be there to make the same kind of an adjustment in spite of the fact that the formula goes forward with the adjustment anyway. Is that—

Ms. Orr. Well, we are always adding new data to our adjustment so that we want it to be as current as possible, but we don't by any means always have a seasonal adjustment factor for each month that completely takes into account all the movements of the prior months as well as what is going on in that month.

So, if you recall, in our comments from late fall, we did note that there was not the usual holiday buildup in a number of industries. So our expectation, for example, might be of the loss of 100,000 workers between December and January, and if we experienced only 50,000, we would have a different seasonally-adjusted number than if we in fact had declines totaling 100,000 between December and January.

Representative Saxton. Now, in January, is it also true that adjustments are made because of the weather as it relates to construction?

Ms. Orr. The adjustments that are made with respect to construction would be caught up in the seasonal adjustment factor reflecting what has happened in years gone by—

Representative Saxton. Right.

Ms. Orr. —in terms of weather.

In construction for the month of January, we showed the first substantial decline since last April, despite the fact that we had relatively mild weather.

Representative Saxton. Well, the fact—

Ms. Orr. So had the weather been severe, we might have expected that there would have been a larger loss in the construction industry than what we have noted.

Representative Saxton. But the seasonal adjustment went forward in spite of the warm weather, is that correct?

Ms. Orr. We have continued to use the seasonal adjustment factor despite the warm weather, but it is not the first winter where we have had warm weather.

Representative Saxton. No, that is true, but I am just – what I am trying to get at is that the seasonal adjustment took place based on kind of an average of what happens through the year—

Ms. Orr. In prior years.

Representative Saxton. —and this year's weather was certainly an anomaly, and, therefore, the seasonal adjustment could have been part of the reason for the good report that we are seeing. It may be more optimistic than reality?

Ms. Orr. That is true. Correct.

Representative Saxton. Thank you.

We also saw the GDP report come out for the last quarter of the year, and it was also rather optimistic. As a matter of fact, we have a chart here which shows gross domestic product and what has happened through the last period of time, and we see that in the third quarter of last year, we had a negative dip, if you will, in GDP; and then, in the last quarter, it grew by two-tenths of a percent. Are you optimistic that this is a trend, or is this also something that we should be careful of?

Ms. Orr. I would say that I think this is something we would want to be careful of. You know, this is the preliminary estimate. You know, BEA will be making revisions – or will be evaluating the number—

Representative Saxton. That is a good point. The first point is that this 0.2 percent—

Ms. Orr. It is a preliminary estimate.

Representative Saxton. It is a preliminary estimate, and that will be adjusted based on other information that is gathered as we move forward.

Ms. Orr. When the Bureau of Economic Analysis produces this number, it doesn't have the complete data that they will later have in order to make the final estimate.

Representative Saxton. Yes.

I guess two other things I would just like to mention that could have caused this and leave us in a position to be cautious is that auto sales is one of the factors that is primarily responsible for this growth during the last quarter of the year when there was a program in place to permit

people to buy cars interest free, and that not only could have encouraged people to buy cars during the last quarter of last year but it may have borrowed from the sales that will occur in the first quarter of this year.

So that is a factor that I think we need to be very careful of, as well as Congressional activity in spending money for security purposes. There was a lot of government spending during the last quarter of the year that was not anticipated, as well as the automobile sales activity. So it seems to me that we might want to be a little bit careful before we come to a final conclusion that the recession is over. Would you agree with that?

Ms. Orr. Yes.

Representative Saxton. Thank you. I am glad we are all agreeable this morning.

Ms. Orr. Well, it is a nice spring day out. Right?

Representative Saxton. Well, thank you.

Senator Reed, do you have questions at this point?

Senator Reed. Thank you very much, Mr. Chairman; and thank you, Commissioner Orr and your colleagues, for your testimony this morning.

According to your release, the number of people in January who were in the labor force but reported that they wanted a job increased by about 163,000. Could the reason we saw a decline in the unemployment rate be that an increasing number of people are discouraged and just stopped job hunting and therefore would not be in your unemployment statistics?

Ms. Orr. I am sorry. Would you—

Senator Reed. Could the reason that we saw a decline in the unemployment rate be that an increasing number of people are discouraged and just stopped job hunting and therefore would not—

Ms. Orr. Well, those numbers don't suggest that is the case. The 4.8 million workers that we have reported would like a job was not much of a change from the prior month, 163,000 additional persons. That 4.8 million number includes what we call discouraged workers, which have increased modestly, but I don't think the change was such that it would account for the change in unemployment.

Phil?

Mr. Rones. Well, I generally agree. I mean, we do directly—

Ms. Orr. I hope we agree.

Mr. Rones. Yes. We are agreeing today, too.

Senator Reed. This is a remarkable moment of consensus. Go ahead.

Mr. Rones. We do directly ask questions in the survey related to the reasons for being outside the labor force and with a set of restrictions we do have a concept called discouraged workers, which are people who are not looking because they think there are no jobs available to them. In fact, that measure isn't up at all even over the year. It is small to begin with. It is only 300,000, and we haven't really seen much increase.

I think the interesting thing to note is that obviously you and others have noticed the large decline in the labor force this month of nearly a million. Now, people can take that and say, oh, these are people who were discouraged, but they are not showing up, even in the very broad category that you point out, just saying that they want a job. They are not even showing up as an increase there. So it could just be that, in a very good job market, as we had throughout the 1990s, it brings people in who otherwise may not have been working, and as the job market deteriorated as it did throughout most of last year, eventually you have people who leave the labor force, you know, people who were on the margin to begin with who leave the labor force.

With that said, though, I would still remind you that this is one month's data. When we have a big change in either direction in the labor force like we have here, we often see that that is corrected, or it is in a response to something that happened before.

I would note that we had an increase of I think 700,000 several months ago, I believe in September. So we had an increase of a very large magnitude.

Senator Reed. Thank you.

Again, I think the Chairman's point, which, being so agreeable today, we all accept, is that one month's data is not definitive. I think we will agree to that.

In that regard, Commissioner, does the unemployment rate always rise steadily during a recession? Haven't we in the past, during recessions, seen episodes where unemployment would decline and yet the recession would still continue and indeed unemployment would continue to grow? Is that historically something we have witnessed?

Ms. Orr. Uh-huh. Senator Reed, in the recession in the early 1980s and 1990s, we had at least a couple of months where the unemployment rate went up and then dropped back and then continued its upward trend.

Senator Reed. Thank you.

Ms. Orr. I can't give you the exact dates, but they are in the early parts of both of those recessions.

Senator Reed. In the early part of those recessions? That is interesting, too.

Ms. Orr. You know, I think it may have been mid-recession.

Senator Reed. Mid-recession.

Let me also ask another question, which is, from someone who is not adept at all in statistics, the job losses were higher than expected in your report, declining by 89,000, yet the unemployment rate went down to 5.6 percent. I have succeeded in confusing myself. Whether I have confused you yet is the question.

Ms. Orr. Well, I think that is one of the reasons that we said earlier that these data are ones about which we should be cautious, because that is not what we would ordinarily expect, that in the face of job loss we would have a reduction in the unemployment rate.

Senator Reed. And is this apparent contradiction explained by the seasonal adjustments which the Chairman and you discussed? What is the explanation for this apparent contradiction, or is it statistical aberration?

Ms. Orr. You have named them all.

Senator Reed. Thank you.

Ms. Orr. Very good.

Senator Reed. Yes. I got used to taking tests where you put everything you knew down and hoped that one was right.

Let me have a final question, if I can pursue this with respect to the conversation you had with the Chairman about the construction industry. I thought it was interesting that, as you say in your testimony, employment in the industry declined by 54,000 on a seasonally adjusted basis despite unusually mild weather, and special trades and heavy constructions had the largest losses, together with landscaping, et cetera. The construction industry has been remarkably strong throughout this recession, and for the first time now we are seeing a decline in that sector despite the fact that the weather was good. Does that suggest the first time we are seeing sort of a retreat in this sector, which might have more serious implications going forward?

Ms. Orr. There was a decline in April of last year, I think, of something in the order of 77,000, and since that point in time there have been modest increases or very modest declines, but this report does suggest that perhaps some of the negative factors are catching up with construction.

Senator Reed. When you say the heavy construction components, special trades, I don't know, but I would presume that would be those trades involved in the major construction projects, high-rises, highways, et cetera, as differentiated from home builders. Is that the fear?

Ms. Orr. Most of the decline in construction that we saw in our reports for January were in nonresidential construction, not home building. As we know, home building is continuing to maintain a fairly high level of activity. But you are right, it is in nonresidential.

Senator Reed. Is there any regional specificity to the declines – I know the data is very preliminary, and it is a month's data, but if—

Ms. Orr. Right. The data are very preliminary, but my recollection is that we saw some weakness in the West and the South.

Senator Reed. No, I am not—

Ms. Orr. We will subsequently have additional reports, including geographic data, but that is my recollection.

Senator Reed. I know these numbers are preliminary.

Thank you very much. Thank you, Commissioner.

Representative Saxton. Commissioner, I have no other questions today. Thank you for being here.

I guess that I would just like to say in conclusion that, while it is prudent for us to be cautious of numbers that come to us a month at a

time, or to concentrate on one month's data – and while it may have sounded like we were being – or I was being more pessimistic than optimistic, obviously I am very hopeful that these optimistic single-month numbers continue, that in fact we have seen a bottoming out of the recession, and that in the months ahead we will see positive numbers from your report. We will see what happens.

So did you have a comment?

Ms. Orr. I was just going to note, being very agreeable today, that if you look at the fourth quarter of 2001, we did incur an average of 311,000 payroll job losses in each of those last three months. So a loss of 89,000 is of a different order.

Representative Saxton. We hope that we can all be optimistic when we come back a month from now to look at the February numbers.

Thank you very much. We appreciate, as always, your participation, and we look forward to seeing you next month.

This hearing is adjourned.

[Whereupon, at 10:10 a.m., the hearing was adjourned.]

**PREPARED STATEMENT OF
REPRESENTATIVE JIM SAXTON, CHAIRMAN**

I am pleased to welcome Acting Commissioner Orr once again before the Joint Economic Committee (JEC) to testify on the January employment situation.

The employment data reported today appear to be somewhat affected by seasonal adjustment factors. Payroll employment declined by 89,000, while the unemployment rate declined to 5.6 percent. Some of the data in the report today seem to suggest more improvement in employment conditions than may have actually occurred. We will explore some of these issues in more detail during the question period.

Nonetheless, recently released economic data broadly suggest that the economy may have bottomed out. For example, the decline in the manufacturing sector seems to have slowed, housing and auto sales remain strong, and GDP actually eked out a small gain in the fourth quarter of 2001. These and other encouraging signals have led many economists to conclude that the recession may be over.

While we all certainly hope this is the case, the fact remains that much of this improvement is too recent and tentative to be called a trend. The fragility of the economy, particularly investment, remains a concern that justifies consideration of economic stimulus legislation by the Congress. Moreover, the economy is vulnerable to risks from adverse international economic developments, high debt levels, security costs, and other factors.

Last September I took note of the Federal Reserve's actions to reduce interest rates, the Congressional effort to reduce taxes, and the decline in energy prices. At that time it appeared that these factors might reasonably be expected to lead to an economic recovery by the first quarter of 2002. However, the events of September 11 created such enormous disruption that this timetable for recovery could be viewed as unduly optimistic.

Thus the prospect of economic recovery in the near future is especially impressive and reflects the remarkable resilience of the American economy and people. In addition, the President's success in fracturing the terrorist network has undermined its ability to strike and has improved domestic security and renewed confidence. This restoration of domestic security is a key function of government and is an important precondition for a resumption of healthy economic growth. As the President has emphasized, the war against terrorism is hardly over, but we have made a good start. To date the terrorists have been unsuccessful in attaining their objective of seriously crippling the U.S. economy.

In conclusion, the recent signs of economic recovery are encouraging but tentative. The economy has proven itself to be incredibly resilient, but it remains to be seen whether a sustained economic rebound is underway. Congressional enactment of economic stimulus legislation would be a prudent insurance policy against the potential for another dip in economic activity.

**PREPARED STATEMENT OF
SENATOR JACK REED, VICE CHAIRMAN**

Thank you, Chairman Saxton, for convening this hearing. I also want to thank Acting Commissioner Orr for coming to testify before us today.

Despite some hopeful signs, the labor market remains weak as the economy continues to shed jobs. Today, there are nearly eight million unemployed Americans, and nearly five million more workers who want a job, but are not counted among the unemployed.

Particularly troubling is the fact that the number of people who are unemployed for more than six months is rising, and Congress still has not acted to help them. Even if the economy begins to recover in the first half of 2002, as many analysts predict, overall unemployment is likely to continue rising for some time. Moreover, the long-term unemployed are typically the last to join in the economic recovery. On average over the postwar years, the unemployment rate for those who have been jobless for more than 26 weeks continued to rise for nine months after the economy had begun to recover.

The Department of Labor recently reported that the number of workers exhausting their regular unemployment benefits had risen substantially by the end of last year. In my home state of Rhode Island, the number of workers who have exhausted their benefits has increased by nearly 40 percent over the past year.

There should be no doubt about the importance of extending benefits to unemployed workers.

This week, Senator Susan Collins joined me in calling for an immediate vote on extending unemployment benefits by 13 weeks for the more than two million Americans who have exhausted their benefits since the start of the recession and the many more who will soon face the same fate. (A copy of the letter we wrote to Senate Majority Leader Tom Daschle and Minority Leader Trent Lott is available here today.)

Both Republicans and Democrats have proposed extending unemployment benefits, but have tied the extension to other economic stimulus provisions. I strongly believe that passing an extended benefits bill, separate from other legislation, is the right thing to do now. American families are suffering, and simple common decency requires that we put aside our partisan

differences and come together to meet their needs now.

Extended unemployment benefits go to those who desperately need resources to purchase food, pay their bills, and clothe their children. These benefits replace only a fraction of a worker's lost income, so most of the money will be put right back into the economy when it is spent immediately on life's necessities.

In addition, extending unemployment compensation involves no cumbersome implementation issues since the benefits system already exists. As the recovery takes hold and laid-off workers find new jobs, the costs of the program decline.

The task before us as policymakers is to get the economy out of this recession quickly and put it back on the path of strong and sustainable growth. Extending unemployment benefits to workers right now will not only help millions of families weather these difficult economic times, but it will also provide a boost to the economy, without undermining our long-term fiscal discipline.

Mr. Chairman, I look forward to the testimony of Acting Commissioner Orr on the state of our labor markets.

FOR DELIVERY: 9:30 A.M., E.S.T.
FRIDAY, FEBRUARY 1, 2002

Advance copies of this statement are made available to the press under lock-up conditions with the explicit understanding that the data are embargoed until 8:30 a.m. Eastern Standard Time.

Statement of

Lois Orr
Acting Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, February 1, 2002

Mr. Chairman and Members of the Committee:

I appreciate this opportunity to comment on the labor market data that we released this morning.

Nonfarm payroll employment fell by 89,000 in January following job losses that averaged 311,000 a month in the fourth quarter of 2001. Manufacturing and construction employment declined, while services employment was flat. The unemployment rate decreased by two-tenths of a percentage point to 5.6 percent after rising by the same amount in December.

Looking in more detail at the data from our survey of employers for January, job losses continued in manufacturing (-89,000), although at the slowest pace since September. The largest decline occurred in transportation equipment (-28,000), as motor vehicle plants had temporary shutdowns and aircraft factories continued to lose jobs. Sizable employment declines also occurred in primary metals, fabricated metals, industrial machinery, and electronic equipment. On the other hand, job losses in manufacturing were not as widespread as they had been in the fourth quarter.

Construction employment held up unusually well last year. Unlike past recessions, when construction tended to be quite hard hit, the industry lost very few jobs during the last 8 months of 2001. In January, however, employment in the industry declined by 54,000, on a seasonally adjusted basis, despite unusually mild weather. The special trades and heavy construction components had the largest losses. An industry closely tied to construction--the landscaping component of agricultural services--also lost jobs.

Wholesale trade employment continued its declining trend. The industry has lost 145,000 jobs since November 2000.

Helping to offset these declines, retail trade employment rose by 62,000 after seasonal adjustment, as weak hiring for the 2001 holiday season resulted in fewer layoffs than usual in January. Putting this increase in perspective, employment fell by 241,000 on a seasonally adjusted basis in the last 5 months of 2001. The largest increases in January were in department stores, apparel stores, and miscellaneous retail establishments (especially toy stores), where holiday hiring, and therefore post-holiday layoffs, are heavily concentrated.

Employment in finance, insurance, and real estate edged up by 9,000, as relatively low interest rates continued to spur growth in banks and mortgage brokerages.

Employment in the services industry overall was little changed as several component industries had offsetting movements. Business services employment fell by 24,000, reflecting a sizable decline in computer and data processing services. Employment in help supply services was little changed over the month, although the industry has been on a downward trend since September 2000. Job losses continued in the hotel industry, bringing the total decline to 124,000 since the start of the recession. However, employment in health services continued its strong growth trend, and social services also had a job increase.

Transportation and public utilities employment also was unchanged in January. Air transportation grew by 8,000 jobs after seasonal adjustment, as a very light holiday buildup in the air freight component resulted in fewer layoffs than usual. Employment related to airline passenger service continued to decline. The communications industry had job losses for the third consecutive month.

Both the total private sector workweek and the factory workweek edged down by a tenth of an hour to 34.0 and 40.5 hours, respectively. Factory overtime edged up by a tenth of an hour to 3.9 hours.

Average hourly earnings of production or nonsupervisory workers in the private sector were unchanged at \$14.59 in January. This followed a gain of 5 cents in December (as revised). Hourly earnings increased by 4.0 percent from January 2001.

Turning to some of the measures obtained from the survey of households, the number of unemployed persons fell and the unemployment rate returned to its November level of 5.6 percent, from 5.8 percent in December. The jobless rate for adult women declined in January after rising in December, while the rates for adult men, teenagers, whites, blacks, and Hispanics were essentially unchanged. Looking at other measures of labor underutilization, the number of

part-time workers who would have preferred full-time work fell by 294,000 to 4.0 million. The number of persons outside the labor force who said they want a job rose by 163,000 to 4.8 million.

There was a decline of nearly a million in the labor force, reflecting drops in both employment and unemployment. However, I would caution against reading too much into a single month's estimate for any data series, particularly in a month such as January when there are large seasonal movements that can be difficult to adjust for precisely.

To summarize, the jobless rate in January reversed its December increase, dropping back to 5.6 percent. The number of workers on nonfarm payrolls declined in January, but at a slower pace than in recent months. A seasonally adjusted employment increase in retail trade partially offset losses in manufacturing and construction, while most other industries were little changed.

My colleagues and I now would be glad to answer your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information:

Household data: (202) 691-6378
<http://www.bls.gov/cps/>

USDL 02-47

Establishment data: 691-6555
<http://www.bls.gov/ces/>

Transmission of material in this release is
embargoed until 8:30 A.M. (EST),
Friday, February 1, 2002.

Media contact: 691-5902

THE EMPLOYMENT SITUATION: JANUARY 2002

Employment continued to decline in January, and the unemployment rate decreased to 5.6 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment declined by 89,000 over the month, as job losses continued in manufacturing and construction employment also fell.

Chart 1. Unemployment rate, seasonally adjusted,
February 1999 - January 2002

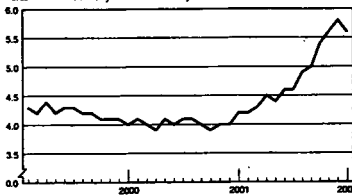
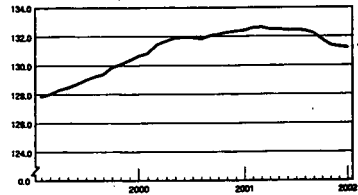


Chart 2. Nonfarm payroll employment, seasonally adjusted,
February 1999 - January 2002



Unemployment (Household Survey Data)

The number of unemployed persons declined in January by 337,000, to 7.9 million (after seasonal adjustment). The unemployment rate decreased by 0.2 percentage point to 5.6 percent, reversing an increase of the same size in December. The rate was 1.7 percentage points above its most recent low of 3.9 percent reached in October 2000. (See table A-1.)

In January, the unemployment rate for adult women decreased by 0.4 percentage point to 4.8 percent after rising by 0.3 percentage point in December. Jobless rates for adult men (5.2 percent), teenagers (16.1 percent), whites (5.0 percent), blacks (9.8 percent), and Hispanics (8.1 percent) showed little or no change. (See tables A-1 and A-2.)

Total Employment and the Labor Force (Household Survey Data)

Total employment fell by 587,000 in January to 133.5 million, after seasonal adjustment. The employment-population ratio dropped by 0.4 percentage point to 62.6 percent. Over the past 12 months, the

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Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | Dec.- Jan. change ¹ |
|---|--------------------|----------|--------------|----------|----------|--------------------------------------|
| | 2001 | | 2001 | | 2002 | |
| | III | IV | Nov. | Dec. | Jan. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 141,700 | 142,291 | 142,279 | 142,314 | 141,390 | -924 |
| Employment..... | 134,839 | 134,308 | 134,253 | 134,055 | 133,468 | -587 |
| Unemployment..... | 6,860 | 7,983 | 8,026 | 8,259 | 7,922 | -337 |
| Not in labor force..... | 70,438 | 70,467 | 70,488 | 70,613 | 71,699 | 1,086 |
| Unemployment rates | | | | | | |
| All workers..... | 4.8 | 5.6 | 5.6 | 5.8 | 5.6 | -0.2 |
| Adult men..... | 4.3 | 5.0 | 5.2 | 5.2 | 5.2 | .0 |
| Adult women..... | 4.2 | 5.0 | 4.9 | 5.2 | 4.8 | -.4 |
| Teenagers..... | 15.2 | 15.8 | 15.7 | 16.2 | 16.1 | -.1 |
| White..... | 4.2 | 4.9 | 5.0 | 5.1 | 5.0 | -.1 |
| Black..... | 8.7 | 9.9 | 9.9 | 10.2 | 9.8 | -.4 |
| Hispanic origin..... | 6.4 | 7.5 | 7.4 | 7.9 | 8.1 | .2 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 132,358 | p131,502 | 131,427 | p131,297 | p131,208 | p-89 |
| Goods-producing ¹ | 24,991 | p24,590 | 24,577 | p24,448 | p24,303 | p-145 |
| Construction..... | 6,866 | p6,850 | 6,851 | p6,847 | p6,793 | p-54 |
| Manufacturing..... | 17,556 | p17,174 | 17,159 | p17,037 | p16,948 | p-89 |
| Service-producing ¹ | 107,367 | p106,912 | 106,850 | p106,849 | p106,905 | p56 |
| Retail trade..... | 23,575 | p23,404 | 23,424 | p23,365 | p23,427 | p62 |
| Services..... | 41,103 | p40,942 | 40,889 | p40,942 | p40,940 | p-2 |
| Government..... | 20,973 | p21,022 | 21,006 | p21,063 | p21,058 | p-5 |
| Hours of work ² | | | | | | |
| Total private..... | 34.1 | p34.1 | 34.1 | p34.1 | p34.0 | p-0.1 |
| Manufacturing..... | 40.7 | p40.5 | 40.3 | p40.6 | p40.5 | p-.1 |
| Overtime..... | 4.0 | p3.8 | 3.7 | p3.8 | p3.9 | p.1 |
| Indexes of aggregate weekly hours (1982=100) ² | | | | | | |
| Total private..... | 150.3 | p148.8 | 148.7 | p148.7 | p148.1 | p-0.6 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$14.40 | p\$14.53 | \$14.54 | p\$14.59 | p\$14.59 | p\$0.00 |
| Average weekly earnings, total private..... | 490.93 | p495.10 | 495.81 | p497.52 | p496.06 | p-1.46 |

¹ Includes other industries, not shown separately.

² Data relate to private production or nonsupervisory workers.

p=preliminary.

number of employed persons has declined by 2.4 million and the employment-population ratio has fallen by 1.8 percentage points. (See table A-1.)

Over the month, the number of persons working part time despite their preference for full-time work decreased by 294,000 to 4.0 million, after seasonal adjustment. Over the year, however, the number of these persons working part time for economic reasons has risen by 685,000. (See table A-4.)

The civilian labor force fell by 924,000 in January, to 141.4 million persons. The labor force participation rate—the proportion of the population that is either working or looking for work—fell to 66.4 percent. (See table A-1.)

About 7.0 million persons (not seasonally adjusted) held more than one job in January. These multiple jobholders represented 5.3 percent of the total employed, the same as a year earlier. (See table A-10.)

Persons Not in the Labor Force (Household Survey Data)

In January, the number of persons not in the labor force who reported that they currently want a job rose by 163,000 to 4.8 million, seasonally adjusted. These individuals are not counted as unemployed because they had not searched for work in the 4-week period preceding the survey. Most had not searched for over a year. (See table A-1.)

About 1.5 million persons (not seasonally adjusted) were marginally attached to the labor force in January, up from 1.3 million persons a year ago. These individuals reported they wanted and were available for work and had looked for a job sometime in the prior 12 months. They were not counted as unemployed, however, because they had not actively searched for work in the 4 weeks preceding the survey. The number of discouraged workers was 319,000 in January, essentially unchanged from a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Total nonfarm payroll employment fell by 89,000 in January to 131.2 million, seasonally adjusted. Since the recession began in March 2001, payroll employment has declined by 1.4 million. In January, job losses continued in manufacturing, and construction experienced its first large employment decline since last April. Services employment was about unchanged over the month. (See table B-1.)

Manufacturing employment fell by 89,000 in January, compared with average losses of 137,000 a month in the fourth quarter of 2001. Within manufacturing, motor vehicle employment decreased by 22,000, reflecting temporary shutdowns for inventory control. Large employment declines continued in industrial machinery (-19,000). Primary metals and electrical equipment each lost 11,000 jobs in January, and employment in fabricated metals fell by 10,000. In nondurable goods manufacturing, declines continued in printing and publishing (-8,000) and textile mill products (-4,000).

Elsewhere in the goods-producing sector in January, construction employment fell by 54,000, despite relatively mild weather across most of the country. The decline was spread throughout special trades (-33,000), heavy construction (-16,000), and general building contractors (-5,000). Mining lost jobs for the third consecutive month in January. This industry's employment had been on a growth trend since September 1999, reflecting expansion in oil and gas extraction. January's employment decline was primarily in metal mining (-2,000).

Employment in the services industry was about unchanged in January, following a net decline of 192,000 in the fourth quarter of 2001. Help supply services employment was essentially unchanged in January; employment has fallen by 661,000 since its recent peak in September 2000. Computer services lost 18,000 jobs in January and has dropped by 34,000 since June 2001. Hotels lost 7,000 jobs in January; since peaking in March 2001, employment in this industry has declined by 124,000. In contrast, employment gains continued in health services in January, and social services had an above-average increase of 15,000.

Elsewhere in the service-producing sector, employment was unchanged over the month in transportation and public utilities, following seven consecutive monthly declines that totaled 211,000. In January, employment in air transportation rose after seasonal adjustment because extremely light holiday-season hiring by air courier services resulted in fewer layoffs than usual. Communications continued to lose jobs; since its peak last July, employment has declined by 26,000.

In finance, both depository institutions and mortgage brokerages continued to add workers, aided by low interest rates. Employment in security and commodity brokerages was little changed in January, following a large decline in December.

Wholesale trade employment continued its downward trend in January. The industry has lost 145,000 jobs since its peak in November 2000. Employment in government was essentially unchanged in January.

Following losses that totaled 241,000 in the last 5 months of 2001, retail trade posted a seasonally adjusted gain of 62,000 jobs in January. Seasonal hiring for the holidays in department, apparel, and miscellaneous retail stores (such as toy stores) had been very light. As a result, there were fewer seasonal layoffs than usual in January, resulting in large employment gains after seasonal adjustment. An employment decline of 22,000 in eating and drinking places more than offset the small gains of the prior 2 months and brought total job losses in the industry since July to 129,000. In January, car dealers added 4,000 jobs, following similar increases in November and December.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged down by 0.1 hour in January to 34.0 hours, seasonally adjusted. Following an increase of 0.3 hour in December, the manufacturing workweek edged down by 0.1 hour to 40.5 hours in January. Manufacturing overtime was up by 0.1 hour to 3.9 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls decreased by 0.4 percent in January to 148.1 (1982=100), seasonally adjusted. The index has fallen by 2.7 percent from its recent peak in January 2001. The manufacturing index fell by 0.9 percent to 92.6 in January 2002 and has fallen by 9.7 percent since January 2001. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls were unchanged in January at \$14.59, seasonally adjusted. This followed a gain of 5 cents (as revised) in December. Average weekly earnings fell by 0.3 percent in January to \$496.06. Over the year, average hourly earnings increased by 4.0 percent and average weekly earnings grew by 2.8 percent. (See table B-3.)

The Employment Situation for February 2002 is scheduled to be released on Friday, March 8, at 8:30 A.M. (EST).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. In June 2001, the sample included about 350,000 establishments employing about 39 million people.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are *not in the labor force*. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as Federal, State, and local government entities. *Employees on*

nonfarm payrolls are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-producing sector.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.
- The household survey includes people on unpaid leave among the employed. The establishment survey does not.
- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.
- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from BLS upon request.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

In both the household and establishment surveys, most seasonally adjusted series are independently adjusted. However, the adjusted series for many major estimates, such as total payroll employment, employment in most major industry divisions, total employment, and

unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

The numerical factors used to make the seasonal adjustments are recalculated twice a year. For the household survey, the factors are calculated for the January-June period and again for the July-December period. For the establishment survey, updated factors for seasonal adjustment are calculated for the May-October period and introduced along with new benchmarks, and again for the November-April period. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 292,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -192,000 to 392,000 (100,000 +/- 292,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. The 90-percent confidence interval for the monthly change in unemployment is +/- 273,000, and for the monthly change in the unemployment rate it is +/- .19 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on substantially incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth (and other sources of error), a process known as bias adjustment is included in the survey's estimating procedures, whereby a specified number of jobs is added to the monthly sample-based change. The size of the monthly bias adjustment is based largely on past relationships between the sample-based estimates of employment and the total counts of employment described below.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.3 percent, ranging from zero to 0.7 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$26.00 per issue or \$50.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household survey data published in this release. For unemployment and other labor force categories, these measures appear in tables 1-B through 1-D of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables 2-B through 2-H of that publication.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | | Seasonally adjusted ¹ | | | | |
|--------------------------------------|-------------------------|-----------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| | TOTAL | | | | | | | | |
| Civilian noninstitutional population | 210,889 | 212,927 | 213,089 | 210,889 | 212,357 | 212,581 | 212,767 | 212,927 | 213,089 |
| Civilian labor force | 141,049 | 141,912 | 141,074 | 141,757 | 142,068 | 142,290 | 142,279 | 142,314 | 141,900 |
| Participation rate | 66.9 | 66.6 | 66.2 | 67.2 | 66.9 | 66.9 | 66.9 | 66.9 | 66.8 |
| Employed | 134,462 | 134,235 | 132,139 | 135,870 | 135,004 | 134,615 | 134,253 | 134,055 | 133,468 |
| Employment-population ratio | 63.8 | 63.0 | 62.0 | 64.4 | 63.6 | 63.3 | 63.1 | 63.0 | 62.6 |
| Agriculture | 2,811 | 2,948 | 2,898 | 3,169 | 3,181 | 3,203 | 3,154 | 3,248 | 3,273 |
| Nonagricultural industries | 131,651 | 131,288 | 129,241 | 132,701 | 131,823 | 131,412 | 131,099 | 130,808 | 130,186 |
| Unemployed | 6,587 | 7,678 | 8,935 | 5,887 | 7,084 | 7,665 | 8,025 | 8,259 | 7,922 |
| Unemployment rate | 4.7 | 5.4 | 6.3 | 4.2 | 5.0 | 5.4 | 5.6 | 5.8 | 5.6 |
| Not in labor force | 69,841 | 71,015 | 72,014 | 69,132 | 70,289 | 70,301 | 70,488 | 70,613 | 71,899 |
| Persons who currently want a job | 4,474 | 4,347 | 4,872 | 4,420 | 4,568 | 4,673 | 4,698 | 4,661 | 4,824 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 101,357 | 102,402 | 102,484 | 101,357 | 102,110 | 102,229 | 102,322 | 102,402 | 102,484 |
| Civilian labor force | 75,149 | 75,843 | 75,208 | 75,678 | 75,851 | 76,027 | 76,023 | 75,876 | 75,489 |
| Participation rate | 74.1 | 73.9 | 73.4 | 74.7 | 74.4 | 74.4 | 74.3 | 74.2 | 73.8 |
| Employed | 71,405 | 71,311 | 70,053 | 72,492 | 72,177 | 71,871 | 71,570 | 71,577 | 71,114 |
| Employment-population ratio | 70.4 | 69.8 | 68.4 | 71.5 | 70.7 | 70.3 | 69.9 | 69.8 | 69.4 |
| Unemployed | 3,744 | 4,332 | 5,155 | 3,186 | 3,774 | 4,156 | 4,453 | 4,309 | 4,355 |
| Unemployment rate | 5.0 | 5.7 | 6.9 | 4.2 | 5.0 | 5.5 | 5.9 | 5.8 | 5.8 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 93,184 | 94,161 | 94,228 | 93,184 | 93,917 | 94,015 | 94,077 | 94,161 | 94,228 |
| Civilian labor force | 71,161 | 71,062 | 71,593 | 71,374 | 71,805 | 71,940 | 71,935 | 71,988 | 71,534 |
| Participation rate | 76.4 | 76.3 | 76.0 | 76.6 | 76.6 | 76.6 | 76.5 | 76.5 | 75.9 |
| Employed | 68,101 | 68,172 | 67,127 | 68,825 | 68,696 | 68,486 | 68,204 | 68,276 | 67,818 |
| Employment-population ratio | 73.1 | 72.4 | 71.2 | 73.9 | 73.1 | 72.8 | 72.5 | 72.5 | 72.0 |
| Agriculture | 1,907 | 1,982 | 1,978 | 2,132 | 2,138 | 2,132 | 2,082 | 2,141 | 2,207 |
| Nonagricultural industries | 66,194 | 66,210 | 65,152 | 66,693 | 66,558 | 66,354 | 66,122 | 66,135 | 65,611 |
| Unemployed | 3,060 | 3,890 | 4,466 | 2,549 | 3,109 | 3,454 | 3,731 | 3,712 | 3,716 |
| Unemployment rate | 4.3 | 5.1 | 6.2 | 3.6 | 4.3 | 4.8 | 5.2 | 5.2 | 5.2 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 109,532 | 110,525 | 110,605 | 109,532 | 110,247 | 110,353 | 110,445 | 110,525 | 110,605 |
| Civilian labor force | 65,899 | 66,258 | 65,867 | 66,079 | 66,117 | 66,253 | 66,256 | 66,338 | 65,880 |
| Participation rate | 60.2 | 60.0 | 59.8 | 60.3 | 60.0 | 60.0 | 60.0 | 60.0 | 59.8 |
| Employed | 63,057 | 62,823 | 62,087 | 63,378 | 62,827 | 62,744 | 62,683 | 62,478 | 62,354 |
| Employment-population ratio | 57.8 | 56.9 | 56.1 | 57.9 | 57.0 | 56.9 | 56.8 | 56.5 | 56.4 |
| Unemployed | 2,842 | 3,436 | 3,780 | 2,701 | 3,290 | 3,509 | 3,573 | 3,860 | 3,556 |
| Unemployment rate | 4.3 | 5.0 | 5.7 | 4.1 | 5.0 | 5.3 | 5.4 | 5.8 | 5.4 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 101,643 | 102,492 | 102,550 | 101,643 | 102,277 | 102,371 | 102,438 | 102,492 | 102,550 |
| Civilian labor force | 62,184 | 62,521 | 62,277 | 62,071 | 62,222 | 62,269 | 62,321 | 62,481 | 62,056 |
| Participation rate | 61.2 | 61.0 | 60.7 | 61.1 | 60.8 | 60.8 | 60.8 | 61.0 | 60.5 |
| Employed | 59,760 | 59,685 | 59,048 | 59,888 | 59,483 | 59,302 | 59,288 | 59,205 | 58,102 |
| Employment-population ratio | 58.8 | 58.2 | 57.8 | 58.9 | 58.1 | 57.9 | 57.8 | 57.8 | 57.5 |
| Agriculture | 777 | 798 | 771 | 835 | 823 | 842 | 832 | 859 | 824 |
| Nonagricultural industries | 58,983 | 58,887 | 58,277 | 59,054 | 58,660 | 58,460 | 58,456 | 58,346 | 57,277 |
| Unemployed | 2,404 | 2,836 | 3,229 | 2,202 | 2,739 | 2,967 | 3,033 | 3,276 | 2,954 |
| Unemployment rate | 3.9 | 4.6 | 5.2 | 3.5 | 4.4 | 4.8 | 4.9 | 5.2 | 4.8 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 16,083 | 16,276 | 16,310 | 16,083 | 16,163 | 16,195 | 16,252 | 16,275 | 16,310 |
| Civilian labor force | 7,724 | 7,529 | 7,204 | 8,312 | 8,041 | 8,071 | 8,023 | 7,845 | 7,800 |
| Participation rate | 48.1 | 46.3 | 44.2 | 51.7 | 49.7 | 49.8 | 49.4 | 48.2 | 47.8 |
| Employed | 6,801 | 6,387 | 5,984 | 7,178 | 6,845 | 6,827 | 6,781 | 6,574 | 6,548 |
| Employment-population ratio | 41.1 | 39.3 | 36.8 | 44.7 | 42.3 | 42.2 | 41.8 | 40.4 | 40.1 |
| Agriculture | 128 | 186 | 149 | 292 | 220 | 229 | 220 | 246 | 241 |
| Nonagricultural industries | 6,475 | 6,211 | 5,815 | 6,874 | 6,625 | 6,598 | 6,541 | 6,328 | 6,307 |
| Unemployed | 1,123 | 1,131 | 1,240 | 1,136 | 1,196 | 1,244 | 1,262 | 1,271 | 1,252 |
| Unemployment rate | 14.5 | 15.0 | 17.2 | 13.7 | 14.9 | 15.4 | 15.7 | 16.2 | 16.1 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 175,246 | 176,607 | 176,713 | 175,246 | 176,220 | 176,372 | 176,500 | 176,607 | 176,713 |
| Civilian labor force | 117,622 | 118,126 | 117,959 | 118,097 | 118,274 | 118,506 | 118,596 | 118,403 | 117,759 |
| Participation rate | 67.1 | 66.8 | 66.5 | 67.4 | 67.1 | 67.2 | 67.2 | 67.0 | 66.6 |
| Employed | 112,788 | 112,459 | 110,796 | 113,857 | 113,147 | 112,678 | 112,652 | 112,388 | 111,676 |
| Employment-population ratio | 64.3 | 63.7 | 62.7 | 65.0 | 64.2 | 64.0 | 63.8 | 63.6 | 63.3 |
| Unemployed | 4,854 | 5,267 | 6,713 | 4,240 | 5,127 | 5,628 | 5,914 | 6,015 | 5,883 |
| Unemployment rate | 4.1 | 4.8 | 5.8 | 3.6 | 4.5 | 4.7 | 5.0 | 5.1 | 5.0 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 60,263 | 60,778 | 60,511 | 60,454 | 60,751 | 60,867 | 60,900 | 60,875 | 60,473 |
| Participation rate | 78.7 | 78.3 | 78.3 | 78.9 | 77.0 | 76.9 | 76.8 | 76.8 | 76.3 |
| Employed | 57,827 | 57,850 | 57,424 | 58,282 | 58,428 | 58,287 | 58,044 | 58,051 | 57,558 |
| Employment-population ratio | 73.7 | 73.1 | 71.8 | 74.5 | 73.9 | 73.7 | 73.3 | 73.3 | 72.7 |
| Unemployed | 2,538 | 2,829 | 3,487 | 1,892 | 2,323 | 2,570 | 2,856 | 2,824 | 2,815 |
| Unemployment rate | 3.8 | 4.7 | 5.8 | 3.1 | 3.8 | 4.4 | 4.7 | 4.8 | 4.7 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 50,948 | 50,998 | 50,941 | 50,851 | 50,680 | 50,782 | 50,850 | 50,896 | 50,638 |
| Participation rate | 60.8 | 60.3 | 60.2 | 60.3 | 60.1 | 60.1 | 60.2 | 60.2 | 59.9 |
| Employed | 49,171 | 48,974 | 48,810 | 49,128 | 49,747 | 49,695 | 49,712 | 49,591 | 48,862 |
| Employment-population ratio | 58.6 | 57.9 | 57.5 | 58.5 | 57.8 | 57.7 | 57.7 | 57.6 | 57.4 |
| Unemployed | 1,877 | 2,025 | 2,330 | 1,533 | 1,933 | 2,087 | 2,138 | 2,278 | 2,136 |
| Unemployment rate | 3.3 | 4.0 | 4.6 | 3.0 | 3.8 | 4.1 | 4.2 | 4.5 | 4.2 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 6,508 | 6,348 | 6,117 | 6,882 | 6,843 | 6,787 | 6,816 | 6,829 | 6,588 |
| Participation rate | 51.3 | 49.4 | 47.5 | 56.0 | 53.4 | 52.9 | 53.1 | 51.8 | 51.2 |
| Employed | 5,870 | 5,535 | 5,182 | 6,187 | 5,972 | 5,896 | 5,896 | 5,746 | 5,626 |
| Employment-population ratio | 44.7 | 43.0 | 40.1 | 48.8 | 46.6 | 45.9 | 45.9 | 44.7 | 44.0 |
| Unemployed | 638 | 813 | 935 | 815 | 871 | 891 | 920 | 913 | 922 |
| Unemployment rate | 12.9 | 12.8 | 15.8 | 11.7 | 12.7 | 13.1 | 13.5 | 13.7 | 14.2 |
| Men | 15.8 | 14.3 | 16.8 | 13.1 | 13.6 | 14.7 | 15.8 | 14.8 | 13.7 |
| Women | 9.8 | 11.3 | 14.5 | 10.2 | 11.7 | 11.5 | 11.1 | 12.8 | 14.8 |
| BLACK | | | | | | | | | |
| Civilian noninstitutional population | 25,382 | 25,752 | 25,785 | 25,382 | 25,644 | 25,696 | 25,720 | 25,732 | 25,785 |
| Civilian labor force | 16,577 | 16,851 | 16,823 | 16,754 | 16,827 | 16,748 | 16,687 | 16,633 | 16,769 |
| Participation rate | 65.3 | 65.4 | 64.5 | 66.0 | 65.6 | 65.2 | 64.9 | 64.4 | 64.4 |
| Employed | 15,170 | 15,282 | 14,906 | 15,387 | 15,339 | 15,144 | 15,040 | 15,122 | 15,119 |
| Employment-population ratio | 59.8 | 59.3 | 57.8 | 60.6 | 59.8 | 59.0 | 58.5 | 58.7 | 58.8 |
| Unemployed | 1,407 | 1,569 | 1,717 | 1,367 | 1,488 | 1,604 | 1,647 | 1,711 | 1,650 |
| Unemployment rate | 8.5 | 9.4 | 10.3 | 8.2 | 8.8 | 9.5 | 9.9 | 10.2 | 9.8 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,372 | 7,526 | 7,520 | 7,419 | 7,486 | 7,354 | 7,385 | 7,490 | 7,546 |
| Participation rate | 72.4 | 72.8 | 72.7 | 72.9 | 72.8 | 71.4 | 71.6 | 72.5 | 72.9 |
| Employed | 6,850 | 6,940 | 6,776 | 6,901 | 6,905 | 6,781 | 6,739 | 6,811 | 6,872 |
| Employment-population ratio | 68.8 | 68.2 | 65.5 | 67.8 | 67.1 | 65.5 | 65.3 | 65.9 | 66.4 |
| Unemployed | 571 | 686 | 745 | 518 | 581 | 603 | 646 | 679 | 674 |
| Unemployment rate | 7.8 | 9.1 | 9.9 | 7.0 | 7.8 | 8.2 | 8.7 | 9.1 | 8.9 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 8,314 | 8,453 | 8,316 | 8,338 | 8,431 | 8,450 | 8,371 | 8,426 | 8,329 |
| Participation rate | 65.2 | 65.4 | 64.3 | 65.4 | 65.5 | 65.5 | 64.9 | 64.4 | 64.4 |
| Employed | 7,716 | 7,811 | 7,582 | 7,763 | 7,763 | 7,734 | 7,689 | 7,720 | 7,628 |
| Employment-population ratio | 60.5 | 60.4 | 58.5 | 60.9 | 60.5 | 60.0 | 59.4 | 59.7 | 58.9 |
| Unemployed | 598 | 642 | 734 | 575 | 668 | 716 | 702 | 736 | 702 |
| Unemployment rate | 7.2 | 7.6 | 8.8 | 6.9 | 7.7 | 8.5 | 8.4 | 8.7 | 8.4 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 891 | 871 | 787 | 997 | 910 | 944 | 931 | 887 | 894 |
| Participation rate | 35.3 | 34.9 | 31.5 | 40.8 | 38.6 | 37.9 | 37.3 | 35.5 | 35.8 |
| Employed | 654 | 610 | 548 | 723 | 651 | 659 | 632 | 591 | 619 |
| Employment-population ratio | 26.6 | 24.4 | 22.0 | 29.5 | 28.2 | 28.5 | 28.3 | 27.3 | 28.0 |
| Unemployed | 238 | 262 | 239 | 274 | 259 | 285 | 299 | 296 | 274 |
| Unemployment rate | 26.7 | 30.0 | 30.3 | 27.5 | 28.5 | 30.2 | 32.1 | 33.4 | 30.7 |
| Men | 27.3 | 31.3 | 32.8 | 27.3 | 30.8 | 31.2 | 31.6 | 32.0 | 32.1 |
| Women | 25.5 | 28.5 | 27.2 | 27.8 | 28.1 | 29.1 | 32.8 | 34.8 | 29.0 |

See footnotes at end of table.

HOUSEHOLD DATA

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Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin — Continued

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| HISPANIC ORIGIN | | | | | | | | | |
| Civilian noninstitutional population | 22,769 | 23,478 | 23,542 | 22,769 | 23,288 | 23,351 | 23,417 | 23,478 | 23,542 |
| Civilian labor force | 15,513 | 15,894 | 15,926 | 15,600 | 15,811 | 15,856 | 15,932 | 16,013 | 15,988 |
| Participation rate | 68.1 | 68.1 | 67.6 | 68.6 | 67.9 | 68.3 | 68.0 | 68.2 | 67.9 |
| Employed | 14,325 | 14,790 | 14,553 | 14,682 | 14,785 | 14,824 | 14,751 | 14,753 | 14,700 |
| Employment-population ratio | 63.8 | 62.9 | 61.8 | 64.5 | 63.5 | 63.5 | 63.0 | 62.8 | 62.4 |
| Unemployed | 989 | 1,234 | 1,373 | 927 | 1,026 | 1,132 | 1,181 | 1,250 | 1,298 |
| Unemployment rate | 6.4 | 7.7 | 8.6 | 5.9 | 6.5 | 7.1 | 7.4 | 7.9 | 8.1 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals

Table A-3. Employment status of the civilian population 25 years and over by educational attainment

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| Less than a high school diploma | | | | | | | | | |
| Civilian noninstitutional population | 27,957 | 27,815 | 28,078 | 27,957 | 27,478 | 27,325 | 27,504 | 27,815 | 28,078 |
| Civilian labor force | 12,065 | 12,195 | 12,201 | 12,017 | 11,961 | 12,078 | 12,025 | 12,257 | 12,112 |
| Percent of population | 43.2 | 43.8 | 43.5 | 43.0 | 43.6 | 44.2 | 43.8 | 44.1 | 43.1 |
| Employed | 11,070 | 11,099 | 10,970 | 11,216 | 11,056 | 11,139 | 11,068 | 11,173 | 11,128 |
| Employment-population ratio | 39.6 | 39.9 | 39.1 | 40.1 | 40.2 | 40.8 | 40.2 | 40.2 | 39.8 |
| Unemployed | 995 | 1,097 | 1,231 | 801 | 925 | 937 | 969 | 1,084 | 986 |
| Unemployment rate | 8.2 | 9.0 | 10.1 | 6.7 | 7.7 | 7.8 | 8.1 | 8.8 | 8.1 |
| High school graduates, no college² | | | | | | | | | |
| Civilian noninstitutional population | 58,092 | 57,520 | 57,808 | 58,092 | 57,400 | 57,221 | 57,400 | 57,520 | 57,808 |
| Civilian labor force | 37,811 | 37,036 | 37,129 | 37,305 | 36,823 | 36,912 | 36,719 | 36,856 | 36,675 |
| Percent of population | 64.7 | 64.4 | 64.4 | 64.2 | 64.3 | 64.5 | 64.0 | 64.1 | 63.7 |
| Employed | 35,850 | 35,248 | 34,838 | 35,917 | 35,319 | 35,199 | 34,882 | 35,051 | 34,768 |
| Employment-population ratio | 61.9 | 61.3 | 60.5 | 61.8 | 61.5 | 61.5 | 60.8 | 60.9 | 60.4 |
| Unemployed | 1,961 | 1,789 | 2,290 | 1,388 | 1,604 | 1,713 | 1,837 | 1,805 | 1,907 |
| Unemployment rate | 4.4 | 4.8 | 6.2 | 3.7 | 4.3 | 4.6 | 5.0 | 4.9 | 5.2 |
| Less than a bachelor's degree³ | | | | | | | | | |
| Civilian noninstitutional population | 44,313 | 45,382 | 45,075 | 44,313 | 45,424 | 45,471 | 45,353 | 45,382 | 45,075 |
| Civilian labor force | 32,763 | 33,663 | 33,128 | 33,181 | 33,799 | 33,373 | 33,420 | 33,521 | 33,616 |
| Percent of population | 73.9 | 74.0 | 73.5 | 74.9 | 74.5 | 73.4 | 73.7 | 73.9 | 74.4 |
| Employed | 31,704 | 32,216 | 31,804 | 32,210 | 32,570 | 32,057 | 32,018 | 32,087 | 32,117 |
| Employment-population ratio | 71.5 | 71.0 | 70.1 | 72.7 | 71.7 | 70.5 | 70.8 | 70.7 | 71.3 |
| Unemployed | 1,059 | 1,347 | 1,323 | 971 | 1,189 | 1,315 | 1,402 | 1,434 | 1,399 |
| Unemployment rate | 3.2 | 4.0 | 4.6 | 2.9 | 3.5 | 3.9 | 4.2 | 4.3 | 4.2 |
| College graduates | | | | | | | | | |
| Civilian noninstitutional population | 45,790 | 46,877 | 46,985 | 45,790 | 46,870 | 47,371 | 47,225 | 46,877 | 46,985 |
| Civilian labor force | 38,476 | 37,071 | 37,140 | 38,465 | 38,918 | 37,157 | 37,324 | 37,101 | 37,106 |
| Percent of population | 79.7 | 79.1 | 78.0 | 79.6 | 79.8 | 78.4 | 78.0 | 79.1 | 79.0 |
| Employed | 35,873 | 36,045 | 36,013 | 35,878 | 36,006 | 36,153 | 36,223 | 35,980 | 36,013 |
| Employment-population ratio | 78.3 | 76.9 | 76.8 | 78.4 | 78.8 | 78.3 | 76.7 | 76.7 | 76.6 |
| Unemployed | 608 | 1,028 | 1,127 | 587 | 910 | 1,004 | 1,101 | 1,141 | 1,093 |
| Unemployment rate | 1.7 | 2.8 | 3.0 | 1.8 | 2.5 | 2.7 | 2.9 | 3.1 | 2.9 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Includes high school diploma or equivalent.

³ Includes the categories, some college, no degree, and associate degree.

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Table A-4. Selected employment indicators

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| CHARACTERISTIC | | | | | | | | | |
| Total employed, 16 years and over | 134,462 | 134,235 | 132,139 | 135,870 | 135,004 | 134,615 | 134,253 | 134,055 | 133,468 |
| Married men, spouse present | 43,048 | 42,879 | 42,566 | 43,304 | 43,089 | 42,983 | 42,861 | 42,772 | 42,823 |
| Married women, spouse present | 34,180 | 33,514 | 33,440 | 33,832 | 33,604 | 33,227 | 33,330 | 33,339 | 33,174 |
| Women who maintain families | 8,299 | 8,504 | 8,313 | 8,381 | 8,274 | 8,256 | 8,331 | 8,458 | 8,366 |
| OCCUPATION | | | | | | | | | |
| Managerial and professional specialty | 41,339 | 41,853 | 41,554 | 41,450 | 41,813 | 41,840 | 41,825 | 41,890 | 41,898 |
| Technical, sales, and administrative support | 39,886 | 38,970 | 38,480 | 39,981 | 38,891 | 38,628 | 38,546 | 38,573 | 38,557 |
| Service occupations | 17,822 | 18,408 | 18,238 | 18,222 | 18,402 | 18,406 | 18,456 | 18,532 | 18,563 |
| Precision production, craft, and repair | 14,651 | 14,513 | 14,144 | 14,808 | 14,857 | 14,802 | 14,837 | 14,507 | 14,432 |
| Operators, fabricators, and laborers | 17,808 | 17,365 | 16,719 | 16,124 | 17,654 | 17,586 | 17,311 | 17,179 | 17,032 |
| Farming, forestry, and fishing | 2,656 | 3,028 | 2,988 | 3,317 | 3,281 | 3,264 | 3,267 | 3,371 | 3,467 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture: | | | | | | | | | |
| Wage and salary workers | 1,721 | 1,715 | 1,674 | 1,671 | 1,882 | 1,898 | 1,886 | 1,879 | 1,917 |
| Self-employed workers | 1,070 | 1,211 | 1,188 | 1,188 | 1,278 | 1,290 | 1,276 | 1,313 | 1,311 |
| Unpaid family workers | 20 | 20 | 35 | 27 | 24 | 25 | 12 | 27 | 49 |
| Nonagricultural industries: | | | | | | | | | |
| Wage and salary workers | 122,969 | 122,781 | 121,022 | 124,128 | 123,186 | 122,710 | 122,507 | 122,196 | 122,145 |
| Government | 19,183 | 19,418 | 19,238 | 18,953 | 19,280 | 19,223 | 19,172 | 19,183 | 19,047 |
| Private industries | 103,806 | 103,364 | 101,784 | 105,175 | 103,898 | 103,487 | 103,335 | 103,013 | 103,098 |
| Private households | 820 | 743 | 690 | 862 | 804 | 867 | 790 | 738 | 725 |
| Other industries | 102,986 | 102,620 | 101,094 | 104,313 | 103,092 | 102,620 | 102,545 | 102,277 | 102,373 |
| Self-employed workers | 8,559 | 8,408 | 8,114 | 8,661 | 8,556 | 8,505 | 8,507 | 8,534 | 8,213 |
| Unpaid family workers | 124 | 101 | 107 | 112 | 101 | 95 | 77 | 82 | 97 |
| PERSONS AT WORK PART TIME | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 3,683 | 4,388 | 4,470 | 3,288 | 4,148 | 4,329 | 4,208 | 4,267 | 3,973 |
| Stack work or business conditions | 2,445 | 2,943 | 3,072 | 2,029 | 2,798 | 2,983 | 2,798 | 2,809 | 2,549 |
| Could only find part-time work | 895 | 1,117 | 1,047 | 834 | 1,064 | 1,108 | 1,121 | 1,161 | 1,089 |
| Part time for noneconomic reasons | 18,977 | 19,801 | 18,566 | 18,696 | 18,798 | 18,644 | 18,587 | 18,540 | 18,291 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 3,559 | 4,189 | 4,249 | 3,172 | 4,015 | 4,222 | 4,017 | 4,119 | 3,781 |
| Stack work or business conditions | 2,359 | 2,828 | 2,955 | 1,955 | 2,704 | 2,898 | 2,679 | 2,717 | 2,448 |
| Could only find part-time work | 894 | 1,103 | 1,023 | 935 | 1,045 | 1,082 | 1,098 | 1,138 | 1,068 |
| Part time for noneconomic reasons | 18,509 | 19,228 | 18,071 | 18,139 | 18,232 | 18,065 | 18,007 | 17,860 | 17,717 |

NOTE: Persons at work excludes employed persons who were absent from their job during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time

but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and bad weather.

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Table A-5. Selected unemployment indicators, seasonally adjusted

| Category | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---|--|-----------|-----------|---------------------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| CHARACTERISTIC | | | | | | | | | |
| Total, 16 years and over | 5,857 | 6,259 | 7,922 | 4.2 | 5.0 | 5.4 | 5.8 | 5.8 | 5.8 |
| Men, 20 years and over | 2,549 | 3,712 | 3,716 | 3.6 | 4.3 | 4.8 | 5.2 | 5.2 | 5.2 |
| Women, 20 years and over | 2,202 | 3,278 | 2,954 | 3.5 | 4.4 | 4.8 | 4.9 | 5.2 | 4.8 |
| Both sexes, 16 to 19 years | 1,136 | 1,271 | 1,252 | 13.7 | 14.9 | 15.4 | 15.7 | 16.2 | 18.1 |
| Married men, spouse present | 1,007 | 1,518 | 1,544 | 2.3 | 2.8 | 3.1 | 3.3 | 3.4 | 3.5 |
| Married women, spouse present | 889 | 1,280 | 1,173 | 2.6 | 3.3 | 3.6 | 3.6 | 3.7 | 3.4 |
| Women who maintain families | 573 | 731 | 719 | 6.4 | 7.1 | 6.8 | 6.0 | 6.0 | 7.9 |
| Full-time workers | 4,693 | 6,820 | 6,871 | 4.0 | 5.0 | 5.4 | 5.8 | 5.8 | 5.7 |
| Part-time workers | 1,183 | 1,383 | 1,240 | 4.8 | 4.6 | 5.5 | 5.8 | 5.8 | 5.2 |
| OCCUPATION² | | | | | | | | | |
| Managerial and professional specialty | 744 | 1,233 | 1,244 | 1.8 | 2.4 | 2.7 | 2.8 | 2.9 | 2.9 |
| Technical, sales, and administrative support | 1,433 | 2,114 | 2,005 | 3.5 | 4.4 | 4.7 | 5.1 | 5.2 | 4.9 |
| Precision production, craft, and repair | 581 | 889 | 965 | 3.7 | 4.9 | 5.8 | 5.8 | 5.8 | 6.3 |
| Operators, fabricators, and laborers | 1,355 | 1,738 | 1,780 | 7.0 | 7.7 | 8.5 | 9.1 | 9.2 | 9.5 |
| Farming, forestry, and fishing | 237 | 284 | 298 | 6.7 | 7.2 | 6.4 | 6.8 | 7.3 | 7.9 |
| INDUSTRY | | | | | | | | | |
| Nonagricultural private wage and salary workers | 4,633 | 6,839 | 6,505 | 4.2 | 5.2 | 5.8 | 6.0 | 6.2 | 5.9 |
| Goods-producing industries | 1,384 | 2,072 | 2,055 | 4.8 | 6.2 | 6.7 | 7.1 | 7.4 | 7.4 |
| Mining | 12 | 32 | 29 | 2.2 | 5.0 | 5.8 | 5.3 | 6.1 | 5.9 |
| Construction | 545 | 734 | 790 | 6.7 | 7.8 | 8.3 | 8.9 | 8.9 | 8.4 |
| Manufacturing | 827 | 1,306 | 1,236 | 4.1 | 5.6 | 6.0 | 6.4 | 6.8 | 6.6 |
| Durable goods | 482 | 845 | 798 | 4.0 | 5.8 | 6.5 | 6.9 | 7.2 | 7.0 |
| Non-durable goods | 345 | 460 | 438 | 4.4 | 5.4 | 5.3 | 5.5 | 6.1 | 5.9 |
| Service-producing industries | 3,249 | 4,767 | 4,450 | 4.0 | 4.9 | 5.5 | 5.8 | 5.8 | 5.4 |
| Transportation and public utilities | 231 | 497 | 500 | 2.9 | 3.9 | 6.0 | 6.1 | 6.1 | 6.2 |
| Wholesale and retail trade | 1,260 | 1,893 | 1,730 | 4.9 | 5.9 | 6.1 | 6.4 | 7.1 | 6.3 |
| Finance, insurance, and real estate | 189 | 244 | 184 | 2.3 | 2.8 | 2.8 | 3.5 | 3.0 | 2.2 |
| Services | 1,469 | 2,063 | 2,037 | 3.9 | 4.8 | 5.5 | 5.4 | 5.5 | 5.4 |
| Government workers | 422 | 475 | 440 | 2.2 | 2.2 | 2.3 | 2.4 | 2.4 | 2.3 |
| Agricultural wage and salary workers | 194 | 199 | 219 | 9.0 | 7.8 | 9.0 | 9.3 | 9.6 | 10.3 |

¹ Unemployment as a percent of the civilian labor force.² Seasonally adjusted unemployment data for service occupations are not available

because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

Table A-6. Duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 3,072 | 2,841 | 3,468 | 2,631 | 2,807 | 3,084 | 3,090 | 3,024 | 2,978 |
| 5 to 14 weeks | 2,094 | 2,749 | 2,795 | 1,940 | 2,298 | 2,522 | 2,575 | 2,724 | 2,636 |
| 15 weeks and over | 1,450 | 2,287 | 2,673 | 1,357 | 1,907 | 2,042 | 2,317 | 2,410 | 2,546 |
| 15 to 26 weeks | 707 | 1,186 | 1,430 | 709 | 1,084 | 1,136 | 1,207 | 1,285 | 1,418 |
| 27 weeks and over | 714 | 1,103 | 1,244 | 648 | 823 | 906 | 1,110 | 1,118 | 1,127 |
| Average (mean) duration, in weeks | 12.2 | 14.8 | 14.2 | 12.6 | 13.3 | 13.0 | 14.4 | 14.6 | 14.8 |
| Median duration, in weeks | 5.5 | 8.3 | 8.1 | 5.9 | 7.3 | 7.4 | 7.6 | 8.2 | 8.8 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 46.8 | 34.4 | 38.9 | 44.4 | 39.6 | 40.3 | 36.7 | 37.1 | 36.7 |
| 5 to 14 weeks | 31.8 | 36.8 | 31.3 | 32.7 | 33.4 | 33.0 | 32.2 | 33.4 | 31.9 |
| 15 weeks and over | 21.8 | 29.8 | 29.9 | 22.9 | 26.9 | 26.7 | 29.0 | 29.5 | 31.4 |
| 15 to 26 weeks | 10.7 | 15.4 | 16.0 | 12.0 | 15.3 | 14.9 | 15.1 | 15.9 | 17.8 |
| 27 weeks and over | 10.8 | 14.4 | 13.9 | 10.9 | 11.8 | 11.8 | 13.9 | 13.7 | 13.9 |

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-7. Reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 3,405 | 4,420 | 5,365 | 2,782 | 3,595 | 4,297 | 4,501 | 4,492 | 4,354 |
| On temporary layoff | 1,567 | 1,183 | 1,753 | 1,002 | 1,114 | 1,288 | 1,157 | 1,107 | 1,124 |
| Not on temporary layoff | 1,839 | 3,237 | 3,611 | 1,780 | 2,481 | 3,009 | 3,344 | 3,385 | 3,231 |
| Permanent job losers | 1,223 | 2,463 | 2,784 | (1) | (1) | (1) | (1) | (1) | (1) |
| Persons who completed temporary jobs | 616 | 774 | 848 | (1) | (1) | (1) | (1) | (1) | (1) |
| Job leavers | 616 | 614 | 684 | 613 | 619 | 680 | 648 | 626 | 679 |
| Reentrants | 1,885 | 2,051 | 2,270 | 1,821 | 2,102 | 2,113 | 2,197 | 2,361 | 2,191 |
| New entrants | 376 | 393 | 417 | 439 | 466 | 466 | 497 | 495 | 479 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers and persons who completed temporary jobs | 31.7 | 37.6 | 60.0 | 46.5 | 51.5 | 55.4 | 56.0 | 54.4 | 55.1 |
| On temporary layoff | 23.8 | 15.4 | 19.8 | 16.9 | 16.0 | 16.6 | 14.4 | 13.4 | 14.2 |
| Not on temporary layoff | 27.9 | 42.2 | 40.4 | 29.7 | 35.5 | 38.8 | 41.6 | 41.0 | 40.9 |
| Job leavers | 12.4 | 10.6 | 9.9 | 13.7 | 11.7 | 11.3 | 10.5 | 11.0 | 11.1 |
| Reentrants | 30.1 | 26.7 | 25.4 | 32.4 | 30.1 | 27.2 | 27.3 | 28.8 | 27.7 |
| New entrants | 5.7 | 5.1 | 4.7 | 7.4 | 6.7 | 6.0 | 6.2 | 6.0 | 6.1 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2.4 | 3.1 | 3.8 | 1.9 | 2.5 | 3.0 | 3.2 | 3.2 | 3.1 |
| Job leavers | .6 | .6 | .6 | .6 | .6 | .6 | .6 | .6 | .6 |
| Reentrants | 1.4 | 1.4 | 1.6 | 1.4 | 1.5 | 1.5 | 1.5 | 1.7 | 1.5 |
| New entrants | .3 | .3 | .3 | .3 | .3 | .3 | .3 | .3 | .3 |

¹ Not available.

Table A-8. Range of alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| J-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 1.0 | 1.6 | 1.9 | 1.0 | 1.3 | 1.4 | 1.6 | 1.7 | 1.8 |
| J-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.4 | 3.1 | 3.8 | 1.9 | 2.5 | 3.0 | 3.2 | 3.2 | 3.1 |
| J-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 4.7 | 5.4 | 6.3 | 4.2 | 5.0 | 5.4 | 5.6 | 5.8 | 5.6 |
| J-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 4.9 | 5.6 | 6.5 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| J-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 5.5 | 6.3 | 7.3 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| J-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 6.1 | 6.9 | 10.5 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |

¹ Not available.

NOTE: This range of alternative measures of labor underutilization replaces the U1-U7 range published in table A-7 of this release prior to 1994. Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers,

a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures," in the October 1995 issue of the Monthly Labor Review.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-9. Unemployed persons by sex and age, seasonally adjusted

| Age and sex | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---------------------------------|---|-----------|-----------|---------------------------------|------------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Dec. 2001 | Jan. 2002 | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 | Jan. 2002 |
| Total, 16 years and over | 5,887 | 6,259 | 7,922 | 4.2 | 5.0 | 5.4 | 5.6 | 5.8 | 5.6 |
| 16 to 24 years | 2,138 | 2,679 | 2,853 | 9.5 | 10.8 | 11.5 | 11.7 | 11.9 | 11.9 |
| 16 to 19 years | 1,138 | 1,271 | 1,252 | 13.7 | 14.9 | 15.4 | 15.7 | 16.2 | 16.1 |
| 16 to 17 years | 529 | 566 | 487 | 16.6 | 16.8 | 17.4 | 17.5 | 18.8 | 17.0 |
| 18 to 19 years | 589 | 722 | 749 | 11.5 | 13.9 | 14.2 | 14.8 | 14.8 | 15.2 |
| 20 to 24 years | 1,652 | 1,408 | 1,401 | 7.2 | 8.6 | 9.3 | 9.5 | 9.8 | 9.7 |
| 25 years and over | 3,708 | 5,429 | 5,298 | 3.1 | 3.8 | 4.2 | 4.4 | 4.5 | 4.4 |
| 25 to 54 years | 3,244 | 4,674 | 4,655 | 3.2 | 3.9 | 4.4 | 4.6 | 4.7 | 4.7 |
| 55 years and over | 501 | 773 | 675 | 2.7 | 3.2 | 3.4 | 3.5 | 4.0 | 3.5 |
| Men, 16 years and over | 3,186 | 4,389 | 4,358 | 4.2 | 5.0 | 5.5 | 5.9 | 5.8 | 5.8 |
| 16 to 24 years | 1,228 | 1,483 | 1,436 | 10.2 | 11.5 | 12.4 | 13.0 | 12.8 | 12.5 |
| 16 to 19 years | 637 | 687 | 640 | 14.8 | 16.0 | 17.2 | 17.7 | 17.2 | 16.3 |
| 16 to 17 years | 306 | 306 | 249 | 19.0 | 19.7 | 20.3 | 20.4 | 20.0 | 17.6 |
| 18 to 19 years | 329 | 382 | 393 | 11.9 | 14.5 | 15.1 | 16.2 | 15.8 | 15.1 |
| 20 to 24 years | 589 | 796 | 799 | 7.7 | 9.1 | 9.8 | 10.5 | 10.5 | 10.8 |
| 25 years and over | 1,958 | 2,883 | 2,908 | 3.1 | 3.7 | 4.2 | 4.5 | 4.5 | 4.5 |
| 25 to 54 years | 1,677 | 2,413 | 2,532 | 3.1 | 3.8 | 4.3 | 4.6 | 4.5 | 4.7 |
| 55 years and over | 301 | 447 | 408 | 2.9 | 3.3 | 3.7 | 4.1 | 4.2 | 3.8 |
| Women, 16 years and over | 2,701 | 3,860 | 3,568 | 4.1 | 5.0 | 5.3 | 5.4 | 5.8 | 5.4 |
| 16 to 24 years | 952 | 1,196 | 1,214 | 8.8 | 10.1 | 10.6 | 10.3 | 11.0 | 11.3 |
| 16 to 19 years | 499 | 584 | 612 | 12.5 | 13.8 | 13.8 | 13.7 | 15.1 | 15.8 |
| 16 to 17 years | 220 | 258 | 238 | 14.0 | 14.3 | 14.5 | 14.5 | 17.8 | 16.4 |
| 18 to 19 years | 269 | 340 | 365 | 11.1 | 13.3 | 13.3 | 13.3 | 14.0 | 15.2 |
| 20 to 24 years | 463 | 612 | 601 | 6.7 | 8.1 | 8.7 | 8.3 | 8.7 | 8.7 |
| 25 years and over | 1,750 | 2,545 | 2,380 | 3.2 | 4.0 | 4.2 | 4.4 | 4.6 | 4.3 |
| 25 to 54 years | 1,567 | 2,281 | 2,123 | 3.3 | 4.0 | 4.4 | 4.7 | 4.8 | 4.6 |
| 55 years and over | 200 | 326 | 287 | 2.4 | 3.2 | 3.2 | 2.8 | 3.7 | 3.0 |

¹ Unemployment as a percent of the civilian labor force.

Table A-10. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Jan. 2001 | Jan. 2002 | Jan. 2001 | Jan. 2002 | Jan. 2001 | Jan. 2002 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 69,841 | 72,014 | 28,206 | 27,276 | 43,635 | 44,738 |
| Persons who currently want a job | 4,474 | 4,672 | 1,801 | 2,140 | 2,673 | 2,732 |
| Searched for work and available to work now ¹ | 1,290 | 1,509 | 668 | 746 | 622 | 763 |
| Reason not currently looking | | | | | | |
| Discouragement over job prospects ² | 303 | 319 | 194 | 198 | 109 | 122 |
| Reasons other than discouragement ³ | 987 | 1,190 | 474 | 548 | 513 | 641 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 7,134 | 6,863 | 3,659 | 3,633 | 3,475 | 3,320 |
| Percent of total employed | 5.3 | 5.3 | 5.1 | 5.2 | 5.5 | 5.3 |
| Primary job full time, secondary job part time | 4,001 | 3,859 | 2,267 | 2,187 | 1,733 | 1,852 |
| Primary and secondary jobs both part time | 1,480 | 1,517 | 405 | 483 | 1,075 | 1,034 |
| Primary and secondary jobs both full time | 251 | 225 | 173 | 143 | 78 | 80 |
| Hours vary on primary or secondary job | 1,379 | 1,353 | 784 | 811 | 595 | 542 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.² Includes those with no work available, could not find work, lacks schooling or training, employer thinks too young or old, and other types of discouragement.³ Includes those who did not actively look for work in the prior 4 weeks for such⁴ Includes persons who work part time on their primary job and full time on their secondary job(s), not shown separately.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|------------|-----------|-----------|------------|------------|
| | Jan. 2001 | Nov. 2001 | Dec. 2001P | Jan. 2002P | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001P | Jan. 2002P |
| Total private | 33.9 | 34.0 | 34.4 | 33.6 | 34.4 | 34.1 | 34.0 | 34.1 | 34.1 | 34.0 |
| Goods-producing | 40.1 | 40.2 | 40.4 | 39.9 | 40.5 | 40.2 | 40.0 | 40.0 | 40.1 | 40.3 |
| Mining | 42.5 | 43.0 | 43.1 | 42.2 | 43.1 | 43.5 | 43.1 | 43.2 | 43.1 | 42.9 |
| Construction | 38.1 | 38.9 | 38.3 | 38.5 | 39.1 | 39.1 | 38.7 | 39.2 | 38.8 | 39.7 |
| Manufacturing | 40.9 | 40.7 | 41.3 | 40.4 | 41.0 | 40.6 | 40.5 | 40.3 | 40.6 | 40.5 |
| Overtime hours | 4.0 | 4.0 | 4.1 | 3.7 | 4.2 | 3.9 | 3.8 | 3.7 | 3.8 | 3.9 |
| Durable goods | 41.1 | 40.9 | 41.6 | 40.7 | 41.3 | 40.9 | 40.7 | 40.4 | 40.9 | 40.8 |
| Overtime hours | 4.0 | 3.8 | 4.1 | 3.6 | 4.1 | 3.8 | 3.7 | 3.6 | 3.8 | 3.8 |
| Lumber and wood products | 39.4 | 40.6 | 40.6 | 39.7 | 39.8 | 41.1 | 40.6 | 40.5 | 40.7 | 40.1 |
| Furniture and fixtures | 39.0 | 38.7 | 39.9 | 39.8 | 39.2 | 38.8 | 38.3 | 38.4 | 38.9 | 40.0 |
| Stone, clay, and glass products | 41.9 | 44.1 | 43.6 | 43.3 | 43.0 | 44.0 | 43.9 | 43.8 | 43.6 | 44.4 |
| Primary metal industries | 43.9 | 43.2 | 44.5 | 43.4 | 43.8 | 43.7 | 43.2 | 42.6 | 43.9 | 43.3 |
| Blast furnaces and basic steel products | 44.7 | 43.8 | 43.8 | 43.3 | 44.7 | 45.5 | 44.0 | 43.3 | 43.8 | 43.2 |
| Fabricated metal products | 41.6 | 41.2 | 42.2 | 41.0 | 41.7 | 41.2 | 41.0 | 40.7 | 41.3 | 41.1 |
| Industrial machinery and equipment | 41.7 | 40.2 | 41.0 | 40.3 | 41.5 | 40.3 | 40.4 | 39.9 | 40.1 | 40.1 |
| Electronic and other electrical equipment | 40.3 | 39.3 | 40.2 | 38.4 | 40.3 | 39.1 | 39.0 | 38.6 | 39.3 | 38.4 |
| Transportation equipment | 41.6 | 41.8 | 42.8 | 42.3 | 42.0 | 41.5 | 41.3 | 41.3 | 41.8 | 42.7 |
| Motor vehicles and equipment | 41.5 | 42.7 | 44.1 | 43.7 | 42.1 | 42.3 | 41.9 | 42.2 | 43.1 | 44.5 |
| Instruments and related products | 41.2 | 40.6 | 41.2 | 40.2 | 41.0 | 41.1 | 40.7 | 40.3 | 40.5 | 40.1 |
| Miscellaneous manufacturing | 37.9 | 37.3 | 38.2 | 37.1 | 38.3 | 37.6 | 37.5 | 37.1 | 37.8 | 37.5 |
| Nondurable goods | 40.5 | 40.5 | 40.8 | 39.9 | 40.6 | 40.2 | 40.2 | 40.0 | 40.2 | 40.0 |
| Overtime hours | 4.1 | 4.2 | 4.2 | 3.8 | 4.3 | 4.1 | 4.1 | 3.9 | 4.0 | 4.0 |
| Food and kindred products | 41.0 | 41.5 | 41.6 | 40.4 | 41.3 | 41.0 | 41.1 | 40.8 | 40.9 | 40.7 |
| Tobacco products | 39.0 | 40.3 | 41.3 | 38.7 | 40.4 | 40.0 | 40.2 | 39.8 | 40.6 | 40.1 |
| Textile mill products | 40.6 | 39.8 | 40.5 | 40.0 | 40.7 | 39.8 | 39.7 | 39.5 | 40.0 | 40.0 |
| Apparel and other textile products | 37.2 | 37.0 | 37.7 | 36.5 | 37.6 | 36.9 | 36.8 | 36.9 | 37.3 | 36.8 |
| Paper and allied products | 42.2 | 41.9 | 42.3 | 41.6 | 41.9 | 41.6 | 41.5 | 41.3 | 41.5 | 41.4 |
| Printing and publishing | 38.1 | 38.4 | 38.4 | 37.3 | 38.4 | 38.1 | 38.0 | 37.8 | 37.9 | 37.5 |
| Chemicals and allied products | 42.6 | 42.4 | 42.5 | 41.9 | 42.6 | 42.2 | 42.3 | 42.1 | 41.9 | 42.0 |
| Petroleum and coal products | 44.7 | 41.8 | 41.3 | 40.7 | (2) | (2) | (2) | (2) | (2) | (2) |
| Rubber and misc. plastics products | 41.1 | 40.9 | 42.0 | 40.9 | 41.0 | 40.8 | 40.5 | 40.7 | 41.2 | 40.9 |
| Leather and leather products | 36.6 | 37.0 | 37.6 | 37.7 | 36.9 | 36.3 | 36.0 | 36.6 | 37.5 | 38.1 |
| Service-producing | 32.4 | 32.5 | 33.0 | 32.1 | 32.9 | 32.6 | 32.6 | 32.6 | 32.7 | 32.8 |
| Transportation and public utilities | 38.2 | 37.7 | 38.3 | 37.2 | 38.7 | 37.6 | 37.8 | 37.8 | 38.0 | 37.6 |
| Wholesale trade | 37.9 | 38.2 | 38.6 | 37.9 | 38.3 | 38.3 | 38.1 | 38.2 | 38.3 | 38.2 |
| Retail trade | 28.2 | 28.5 | 29.2 | 28.0 | 29.1 | 28.7 | 28.7 | 28.8 | 28.9 | 28.8 |
| Finance, insurance, and real estate | 36.0 | 36.0 | 36.7 | 35.8 | 36.2 | 36.2 | 36.0 | 36.2 | 36.1 | 36.0 |
| Services | 32.3 | 32.5 | 32.9 | 32.2 | 32.7 | 32.6 | 32.5 | 32.6 | 32.7 | 32.5 |

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employees on private nonfarm

payrolls.

² This series is not published seasonally adjusted because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------------------|------------------------|-------------------------|-----------|------------------------|------------------------|
| | Jan. 2001 | Nov. 2001 | Dec. 2001 ^P | Jan. 2002 ^P | Jan. 2001 | Nov. 2001 | Dec. 2001 ^P | Jan. 2002 ^P |
| Total private | \$14.10 | \$14.56 | \$14.64 | \$14.67 | \$477.99 | \$495.04 | \$503.62 | \$492.91 |
| Seasonally adjusted | 14.03 | 14.54 | 14.59 | 14.59 | 482.63 | 495.81 | 497.52 | 496.06 |
| Goods-producing | 15.60 | 16.18 | 16.25 | 16.18 | 625.56 | 650.44 | 658.50 | 645.58 |
| Mining | 17.67 | 17.79 | 17.90 | 18.03 | 750.98 | 784.97 | 771.49 | 760.87 |
| Construction | 18.17 | 18.51 | 18.65 | 18.48 | 692.28 | 720.04 | 714.30 | 711.48 |
| Manufacturing | 14.59 | 15.07 | 15.19 | 15.17 | 596.73 | 613.35 | 627.35 | 612.87 |
| Durable goods | 14.98 | 15.55 | 15.68 | 15.64 | 615.68 | 636.00 | 652.29 | 636.55 |
| Lumber and wood products | 12.13 | 12.41 | 12.37 | 12.36 | 477.92 | 503.85 | 502.22 | 490.69 |
| Furniture and fixtures | 11.92 | 12.40 | 12.56 | 12.60 | 464.88 | 479.88 | 501.14 | 501.48 |
| Stone, clay, and glass products | 14.65 | 15.18 | 15.23 | 15.35 | 613.84 | 668.56 | 684.03 | 684.66 |
| Primary metal industries | 16.66 | 17.31 | 17.26 | 17.21 | 731.37 | 747.79 | 768.07 | 746.91 |
| Blast furnaces and basic steel products | 20.16 | 20.75 | 20.61 | 20.68 | 901.15 | 908.85 | 902.72 | 895.44 |
| Fabricated metal products | 13.99 | 14.44 | 14.63 | 14.56 | 581.98 | 594.93 | 617.39 | 596.96 |
| Industrial machinery and equipment | 15.73 | 16.15 | 16.33 | 16.34 | 655.94 | 649.23 | 669.53 | 658.50 |
| Electronic and other electrical equipment | 14.07 | 14.87 | 15.01 | 14.97 | 567.02 | 584.39 | 603.40 | 574.85 |
| Transportation equipment | 18.57 | 19.51 | 19.85 | 19.49 | 772.51 | 815.52 | 841.02 | 824.43 |
| Motor vehicles and equipment | 18.77 | 19.96 | 20.19 | 19.99 | 778.96 | 852.29 | 890.38 | 873.56 |
| Instruments and related products | 14.64 | 15.03 | 15.16 | 15.20 | 603.17 | 610.22 | 624.59 | 611.04 |
| Miscellaneous manufacturing | 11.98 | 12.46 | 12.67 | 12.58 | 454.04 | 464.76 | 483.99 | 466.72 |
| Nondurable goods | 13.97 | 14.37 | 14.45 | 14.47 | 585.79 | 581.99 | 589.56 | 577.35 |
| Food and kindred products | 12.70 | 13.11 | 13.21 | 13.11 | 520.70 | 544.07 | 549.54 | 529.64 |
| Tobacco products | 21.34 | 22.32 | 22.21 | 21.87 | 832.26 | 899.50 | 917.27 | 846.37 |
| Textile mill products | 11.32 | 11.43 | 11.52 | 11.61 | 459.59 | 454.91 | 466.56 | 464.40 |
| Apparel and other textile products | 9.39 | 9.58 | 9.69 | 9.73 | 349.31 | 354.46 | 365.31 | 355.15 |
| Paper and allied products | 16.53 | 17.13 | 17.17 | 17.23 | 697.57 | 717.75 | 726.29 | 716.77 |
| Printing and publishing | 14.59 | 14.93 | 15.04 | 15.08 | 555.88 | 573.31 | 577.54 | 561.74 |
| Chemicals and allied products | 18.34 | 18.74 | 18.81 | 18.93 | 781.28 | 794.58 | 799.43 | 793.17 |
| Petroleum and coal products | 22.10 | 22.38 | 21.95 | 21.79 | 987.87 | 935.48 | 906.54 | 886.85 |
| Rubber and misc. plastics products | 13.24 | 13.53 | 13.67 | 13.68 | 544.16 | 553.38 | 574.14 | 559.51 |
| Leather and leather products | 10.51 | 10.09 | 10.25 | 10.22 | 384.67 | 373.33 | 385.40 | 385.29 |
| Service-producing | 13.65 | 14.09 | 14.19 | 14.24 | 442.26 | 457.93 | 468.27 | 457.10 |
| Transportation and public utilities | 16.58 | 17.23 | 17.26 | 17.30 | 632.59 | 649.57 | 661.06 | 643.56 |
| Wholesale trade | 15.58 | 15.91 | 16.16 | 16.09 | 589.72 | 607.76 | 623.78 | 609.81 |
| Retail trade | 9.69 | 9.98 | 9.99 | 10.05 | 273.26 | 284.43 | 291.71 | 281.40 |
| Finance, insurance, and real estate | 15.45 | 16.04 | 16.21 | 16.18 | 556.20 | 577.44 | 594.91 | 579.24 |
| Services | 14.39 | 14.92 | 15.09 | 15.08 | 464.80 | 484.90 | 496.46 | 485.58 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry, seasonally adjusted

| Industry | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 ^P | Jan. 2002 ^Q | Percent change from: Dec. 2001-Jan. 2002 |
|--|-----------|------------|-----------|-----------|------------------------|------------------------|--|
| Total private: | | | | | | | |
| Current dollars | \$14.03 | \$14.45 | \$14.47 | \$14.54 | \$14.59 | \$14.59 | 0.0 |
| Constant (1982) dollars ² | 7.90 | 8.02 | 8.06 | 8.11 | 8.16 | N.A. | (3) |
| Goods-producing | 15.67 | 16.04 | 16.05 | 16.15 | 16.21 | 16.24 | .2 |
| Mining | 17.49 | 17.67 | 17.73 | 17.85 | 17.80 | 17.84 | .2 |
| Construction | 18.28 | 18.36 | 18.38 | 18.46 | 18.58 | 18.55 | -.2 |
| Manufacturing | 14.54 | 14.96 | 14.97 | 15.05 | 15.10 | 15.13 | .2 |
| Excluding overtime ⁴ | 13.83 | 14.28 | 14.31 | 14.38 | 14.41 | 14.43 | .1 |
| Service-producing | 13.54 | 13.88 | 14.01 | 14.07 | 14.13 | 14.12 | -.1 |
| Transportation and public utilities | 16.51 | 17.02 | 17.09 | 17.23 | 17.23 | 17.26 | .2 |
| Wholesale trade | 15.53 | 15.95 | 15.89 | 15.91 | 16.04 | 16.07 | .2 |
| Retail trade | 9.64 | 9.87 | 9.91 | 9.98 | 9.99 | 9.99 | .0 |
| Finance, insurance, and real estate | 15.44 | 16.01 | 16.05 | 16.07 | 16.16 | 16.16 | .0 |
| Services | 14.25 | 14.76 | 14.81 | 14.87 | 14.94 | 14.93 | -.1 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was .5 percent from November 2001 to

December 2001, the latest month available.

⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry (1982=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|------------|-----------|-----------|------------------------|------------------------|
| | Jan. 2001 | Nov. 2001 | Dec. 2001 ^P | Jan. 2002 ^P | Jan. 2001 | Sept. 2001 | Oct. 2001 | Nov. 2001 | Dec. 2001 ^P | Jan. 2002 ^P |
| Total private | 147.0 | 149.2 | 150.5 | 143.1 | 152.2 | 149.9 | 148.9 | 148.7 | 148.7 | 148.1 |
| Goods-producing | 110.1 | 108.7 | 107.3 | 102.5 | 114.4 | 109.5 | 108.3 | 107.5 | 107.1 | 106.9 |
| Mining | 50.4 | 55.2 | 54.2 | 51.3 | 52.5 | 55.1 | 54.8 | 54.8 | 54.1 | 53.7 |
| Construction | 168.1 | 189.2 | 178.9 | 167.9 | 187.6 | 188.0 | 185.5 | 187.9 | 185.7 | 188.2 |
| Manufacturing | 101.4 | 94.6 | 95.1 | 91.6 | 102.5 | 95.9 | 94.9 | 93.4 | 93.4 | 92.6 |
| Durable goods | 106.5 | 97.2 | 98.1 | 94.4 | 107.4 | 99.4 | 97.9 | 96.0 | 96.2 | 95.3 |
| Lumber and wood products | 133.5 | 136.2 | 134.4 | 129.3 | 137.4 | 138.6 | 136.1 | 135.1 | 135.1 | 133.4 |
| Furniture and fixtures | 134.2 | 119.2 | 123.6 | 122.1 | 135.2 | 123.2 | 119.5 | 118.3 | 120.2 | 123.2 |
| Stone, clay, and glass products | 111.2 | 117.4 | 113.4 | 109.0 | 117.8 | 117.8 | 117.0 | 116.0 | 114.7 | 115.4 |
| Primary metal industries | 88.8 | 77.9 | 79.5 | 76.0 | 88.3 | 81.7 | 79.9 | 76.5 | 78.0 | 75.5 |
| Blast furnaces and basic steel products | 67.8 | 61.5 | 60.8 | 57.3 | 68.2 | 65.3 | 63.2 | 60.6 | 60.5 | 57.4 |
| Fabricated metal products | 118.1 | 109.4 | 111.2 | 106.5 | 118.3 | 111.1 | 109.7 | 107.4 | 108.3 | 107.0 |
| Industrial machinery and equipment | 101.2 | 85.5 | 86.4 | 84.0 | 100.6 | 88.2 | 87.5 | 85.1 | 84.2 | 83.3 |
| Electronic and other electrical equipment | 106.3 | 86.9 | 87.5 | 82.9 | 106.1 | 89.6 | 87.9 | 85.5 | 85.2 | 82.7 |
| Transportation equipment | 111.4 | 107.1 | 108.8 | 104.1 | 113.3 | 108.0 | 105.9 | 105.4 | 105.6 | 105.8 |
| Motor vehicles and equipment | 143.0 | 139.0 | 143.5 | 135.4 | 146.5 | 139.9 | 135.3 | 136.5 | 138.5 | 139.2 |
| Instruments and related products | 76.1 | 70.7 | 71.7 | 70.1 | 75.7 | 72.9 | 71.9 | 70.5 | 70.5 | 69.8 |
| Miscellaneous manufacturing | 94.2 | 89.0 | 90.6 | 86.3 | 96.6 | 90.2 | 89.6 | 87.3 | 89.3 | 88.6 |
| Nondurable goods | 94.5 | 91.1 | 91.0 | 87.9 | 95.7 | 91.0 | 90.8 | 89.8 | 89.6 | 89.0 |
| Food and kindred products | 113.0 | 117.0 | 115.5 | 111.0 | 118.0 | 113.7 | 115.5 | 114.5 | 113.9 | 113.7 |
| Tobacco products | 47.0 | 50.5 | 51.7 | 49.4 | 48.0 | 47.5 | 47.8 | 47.3 | 48.3 | 49.7 |
| Textile mill products | 70.9 | 62.0 | 62.1 | 60.0 | 71.2 | 63.7 | 62.8 | 61.4 | 61.2 | 60.3 |
| Apparel and other textile products | 49.7 | 44.4 | 44.4 | 42.4 | 51.4 | 45.7 | 44.9 | 44.1 | 44.1 | 43.9 |
| Paper and allied products | 101.5 | 97.5 | 98.0 | 96.0 | 100.9 | 96.7 | 96.5 | 96.2 | 95.9 | 95.5 |
| Printing and publishing | 117.9 | 112.9 | 112.7 | 107.5 | 119.3 | 113.4 | 112.5 | 110.7 | 110.2 | 108.4 |
| Chemicals and allied products | 99.6 | 96.8 | 96.4 | 94.8 | 99.7 | 96.9 | 96.8 | 96.2 | 95.2 | 95.1 |
| Petroleum and coal products | 69.8 | 71.5 | 69.8 | 66.6 | 73.1 | 73.4 | 71.6 | 71.7 | 71.1 | 69.5 |
| Rubber and misc. plastics products | 142.0 | 132.6 | 135.7 | 131.2 | 142.3 | 134.5 | 132.6 | 131.8 | 132.9 | 131.9 |
| Leather and leather products | 28.0 | 25.3 | 24.8 | 24.9 | 28.9 | 25.7 | 24.9 | 24.7 | 24.8 | 25.7 |
| Service-producing | 163.6 | 167.4 | 169.9 | 161.4 | 169.2 | 168.1 | 167.1 | 167.1 | 167.4 | 166.6 |
| Transportation and public utilities | 137.6 | 135.8 | 137.3 | 131.0 | 140.8 | 136.7 | 136.3 | 135.0 | 135.1 | 133.9 |
| Wholesale trade | 129.6 | 129.9 | 130.9 | 127.0 | 132.3 | 130.6 | 129.7 | 129.3 | 129.7 | 129.4 |
| Retail trade | 140.5 | 146.5 | 151.6 | 138.7 | 147.5 | 145.7 | 144.8 | 145.3 | 145.5 | 145.2 |
| Finance, insurance, and real estate | 137.2 | 138.8 | 141.4 | 138.8 | 139.2 | 140.0 | 139.3 | 140.2 | 139.5 | 138.8 |
| Services | 205.2 | 210.8 | 212.2 | 203.7 | 212.4 | 212.4 | 211.1 | 211.1 | 211.7 | 210.5 |

¹ See footnote 1, table B-2.^P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-6. Diffusion indexes of employment change, seasonally adjusted

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|-------|------|------|------|------|-------|-------|------|-------|-------|-------|-------|
| Private nonfarm payrolls, 353 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1998 | 63.2 | 56.2 | 59.3 | 60.2 | 58.9 | 57.1 | 55.4 | 58.4 | 54.8 | 55.0 | 58.2 | 56.4 |
| 1999 | 55.1 | 59.6 | 52.8 | 57.2 | 58.2 | 54.2 | 57.1 | 54.4 | 55.2 | 57.9 | 59.9 | 56.8 |
| 2000 | 55.7 | 59.3 | 61.0 | 54.2 | 47.7 | 60.5 | 57.8 | 55.1 | 52.0 | 54.8 | 55.1 | 54.2 |
| 2001 | 53.7 | 50.4 | 55.8 | 45.0 | 46.6 | 44.3 | 45.5 | 43.9 | 44.1 | 38.7 | 38.7 | P41.2 |
| 2002 | P50.1 | | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1998 | 65.3 | 66.1 | 64.6 | 65.7 | 62.2 | 57.9 | 57.5 | 58.4 | 59.1 | 59.2 | 59.3 | 59.2 |
| 1999 | 60.8 | 57.8 | 58.5 | 55.8 | 58.1 | 57.9 | 57.2 | 59.2 | 59.8 | 59.1 | 61.0 | 60.6 |
| 2000 | 61.6 | 63.3 | 61.9 | 56.2 | 55.1 | 57.9 | 61.5 | 56.4 | 54.1 | 53.3 | 55.7 | 53.3 |
| 2001 | 51.7 | 54.1 | 48.6 | 49.2 | 42.5 | 47.4 | 40.5 | 39.9 | 38.8 | 35.8 | P35.0 | P38.1 |
| 2002 | | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1998 | 70.4 | 67.4 | 65.0 | 62.5 | 63.6 | 60.5 | 59.2 | 58.6 | 57.9 | 59.6 | 60.6 | 59.9 |
| 1999 | 59.8 | 59.8 | 58.2 | 60.3 | 56.7 | 59.2 | 61.8 | 60.8 | 62.2 | 61.2 | 62.3 | 64.9 |
| 2000 | 63.5 | 60.6 | 62.6 | 63.7 | 61.5 | 55.5 | 56.1 | 58.6 | 54.2 | 54.8 | 51.8 | 54.2 |
| 2001 | 52.0 | 50.6 | 48.6 | 45.3 | 44.1 | 38.5 | 37.1 | 35.8 | P34.4 | P35.4 | | |
| 2002 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1998 | 69.7 | 67.6 | 67.4 | 66.0 | 64.0 | 62.7 | 61.9 | 62.0 | 60.9 | 59.3 | 60.8 | 58.8 |
| 1999 | 61.2 | 60.2 | 58.2 | 60.8 | 60.8 | 61.6 | 62.2 | 61.3 | 63.9 | 63.0 | 61.3 | 60.9 |
| 2000 | 62.5 | 63.0 | 61.8 | 59.5 | 58.4 | 56.8 | 55.7 | 56.5 | 54.2 | 53.4 | 53.0 | 51.7 |
| 2001 | 49.6 | 47.7 | 45.0 | 43.1 | 40.5 | P39.5 | P39.4 | | | | | |
| 2002 | | | | | | | | | | | | |
| Manufacturing payrolls, 136 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1998 | 57.4 | 51.5 | 53.7 | 53.3 | 43.8 | 48.2 | 38.2 | 51.5 | 41.9 | 41.5 | 41.2 | 43.4 |
| 1999 | 46.0 | 44.5 | 43.0 | 42.3 | 50.4 | 39.3 | 51.5 | 39.3 | 45.2 | 46.3 | 53.3 | 46.7 |
| 2000 | 44.9 | 56.6 | 55.5 | 46.7 | 41.2 | 54.8 | 53.7 | 38.6 | 34.6 | 41.5 | 43.8 | 44.1 |
| 2001 | 37.9 | 32.4 | 41.5 | 31.3 | 29.4 | 33.1 | 39.0 | 27.6 | 36.0 | 29.4 | 25.7 | P28.7 |
| 2002 | P40.8 | | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1998 | 59.6 | 59.6 | 55.9 | 50.4 | 46.7 | 37.9 | 41.5 | 41.5 | 41.9 | 38.2 | 36.8 | 40.8 |
| 1999 | 41.2 | 39.0 | 38.2 | 41.5 | 40.8 | 45.2 | 39.0 | 45.2 | 40.8 | 44.9 | 46.3 | 46.0 |
| 2000 | 50.0 | 54.0 | 52.9 | 42.3 | 43.0 | 48.5 | 48.2 | 33.8 | 28.7 | 30.5 | 39.0 | 35.7 |
| 2001 | 28.3 | 29.4 | 24.6 | 26.5 | 22.4 | 24.6 | 21.0 | 19.9 | 19.9 | 21.0 | P17.3 | P21.7 |
| 2002 | | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1998 | 63.2 | 54.4 | 50.4 | 40.4 | 44.5 | 40.1 | 37.5 | 36.4 | 34.9 | 40.1 | 37.1 | 34.2 |
| 1999 | 36.0 | 38.2 | 37.5 | 41.2 | 36.8 | 39.7 | 43.0 | 41.5 | 46.0 | 40.4 | 46.3 | 51.5 |
| 2000 | 51.5 | 44.5 | 48.5 | 55.1 | 43.8 | 34.9 | 33.5 | 34.6 | 30.1 | 29.4 | 25.0 | 27.9 |
| 2001 | 26.8 | 25.4 | 19.9 | 20.6 | 20.2 | 15.1 | 13.2 | 14.0 | P11.8 | P15.8 | | |
| 2002 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1998 | 54.8 | 52.2 | 51.8 | 48.7 | 40.4 | 40.1 | 38.2 | 37.5 | 36.4 | 34.6 | 35.7 | 34.2 |
| 1999 | 38.6 | 34.6 | 32.4 | 36.0 | 37.9 | 39.0 | 40.1 | 40.4 | 44.5 | 46.0 | 44.9 | 44.5 |
| 2000 | 46.3 | 45.2 | 41.2 | 37.9 | 33.8 | 31.3 | 31.3 | 31.3 | 27.6 | 25.4 | 24.3 | 21.0 |
| 2001 | 19.1 | 16.5 | 14.7 | 16.2 | 15.1 | P12.1 | P14.0 | | | | | |
| 2002 | | | | | | | | | | | | |

¹ Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span. Data are centered within the span.

P = preliminary.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.



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LETTER OF TRANSMITTAL

November 6, 2000

To the Members of the Joint Economic Committee:

Transmitted hereby is a *Compendium of Staff Studies on International Economic Policy*. It is comprised of five Joint Economic Committee studies written by Christopher Frenze, Chief Economist to the Vice Chairman, and Robert E. Keleher, Chief Macroeconomist to the Vice Chairman.

The views expressed in this paper are those of the authors and do not necessarily represent the views of the individual Members of the Joint Economic Committee.

Sincerely,

Jim Saxton,
Vice Chairman.

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An International Lender of Last Resort, The IMF, and the Federal Reserve

AN INTERNATIONAL LENDER OF LAST RESORT, THE IMF, AND THE FEDERAL RESERVE

I. INTRODUCTION

Recent international financial turbulence has stimulated discussion about reform of the "international financial architecture." Some of this discussion centers on the IMF and its potential role as an international lender of last resort (LOLR). Unfortunately, descriptions of the international LOLR function are particularly vague, with different premises, definitions, and understandings of that function creating semantic problems that often cloud the discussion.

This paper clarifies this discussion by briefly summarizing the functions of a domestic LOLR and describing two alternative ways such LOLR services can be supplied. The role of an international LOLR and the means by which its services can be supplied are then discussed. It is shown that international LOLR services cannot be provided by the IMF as it is presently constituted. Instead, under current circumstances, such services can be provided by the central banks of key reserve currency countries, and especially the Federal Reserve. Finally, recommendations as to how international LOLR services may best be provided are described.

II. A SUMMARY OF THE DOMESTIC LOLR FUNCTION

Relevant, key elements of the domestic LOLR function can be succinctly summarized in the form of the following propositions:¹

- The need for a LOLR arises because of two important institutional characteristics of contemporary monetary systems, namely, fractional reserve banking and government monopoly of legal tender issuance. The first creates a need for a LOLR; the second, the means for satisfying that need. The LOLR is a money-creating backstop or liquidity guarantor which acts to prevent a panic-induced collapse of the fractional reserve banking system.
- The LOLR has a macroeconomic rather than a microeconomic responsibility. The monetary stabilization duty of the LOLR relates to market-wide (macroeconomic) effects and not to individual bank (microeconomic) effects. The LOLR function pertains to the responsibility of guaranteeing the liquidity of the entire economy but not necessarily the liquidity of particular institutions in the economy. Moreover, the LOLR role is not to prevent all

¹ For a thorough historical discussion of the lender of last resort, see Thomas M. Humphrey and Robert E. Keleher, "The Lender of Last Resort: A Historical Perspective," *Cato Journal*, vol. 4, no. 1 (spring/summer 1984). This section's summary of the domestic LOLR function draws from this earlier discussion.

disturbances to the financial system, but rather to minimize the secondary repercussions of such disturbances. Accordingly, the LOLR is charged with averting contagion, spillover, or domino effects which might threaten the stability of both the financial system as well as the value of money.

- In no case does the LOLR have a duty to sustain unsound banks. The LOLR should not intervene in the lending decisions of individual financial intermediaries. Poorly managed banks should be allowed to fail, with the LOLR only ensuring that such failures do not have important spillover effects. In short, the LOLR must distinguish clearly between promoting monetary stability and protecting the interests of bank owners and management. The former is a macro responsibility and the latter is not.
- The purpose of a LOLR is to prevent credit problems from becoming monetary crises. Although the operation of a LOLR should prevent system-wide runs on banks, large-scale loan call-ins, and collapses of asset prices, loans, and credit, its ultimate purpose is to prevent monetary collapses — to promote monetary stability.² To accomplish this goal, the LOLR must be able to respond both quickly and massively to a crisis.
- The LOLR function is a short-run stabilization role which does not conflict with longer-run central bank objectives. Prompt, vigorous LOLR action (activated only during temporary periods of emergency) will allay panic within a very short time and, consequently, well before longer-term goals such as price stability are threatened. As a result, any deviation of general prices from a longer-term target will be small in magnitude and duration. Price stability and LOLR goals, therefore, are complementary rather than conflicting central bank goals. Indeed, the pursuit of price stability normally results in the provision of last resort liquidity.
- The LOLR should be transparent. The LOLR's objectives and operations should be fully acknowledged and widely announced to the public before any crisis occurs. Credible assurance of this kind reduces uncertainty about the LOLR's willingness to act, in turn promoting confidence and thus generating stabilizing expectations that work to avert future panics and lessen the need for LOLR action. To minimize "moral hazard" problems, such advance announcement should indicate that assistance will not be provided to unsound banks but only "to the market" or to solvent, sound banks with good collateral, that are experiencing temporary liquidity problems. In short, advance widespread public notification should leave no doubt that insolvent banks will not be bailed out.

² The effective exercise of this emergency liquidity function will prevent a drastic, widespread call-in of loans as well as a dramatic fall (or collapse) of asset prices. Thus, in providing this function, the LOLR indirectly ensures that banks needing to sell liquid assets will not have to do so at large losses that might otherwise bring about insolvency and its adverse effects.

III. THE PROVISION OF LOLR SERVICES

LOLR services can be provided via alternative mechanisms: namely, through the central banks' discount window using traditional Bagehot principles or via open market operations.³

Traditional Bagehot Principles

Traditionally, LOLR services are provided via the famous lending rule of Walter Bagehot: lend freely to the market at a penalty rate on good collateral. "Lending freely" on good collateral ensures that adequate last resort liquidity is available to sound banks, thereby providing enough liquidity to prevent any serious internal (reserve) drains.⁴ Penalty rates ration scarce reserves among eager borrowers; encourage lending to remain short-term; ensure borrowers will exhaust private sources of funds, thereby making such lending genuinely "last resort;" and work to attract foreign capital, thereby minimizing external drains or depreciation of the exchange rate.

This traditional approach, therefore, has the distinct advantage of working to resolve banking crises (internal drains) and currency crises (external drains) at the same time. The disadvantage of such lending is that some time is normally required to properly evaluate the condition or collateral of borrowing banks, ensuring that last resort lending might not occur as quickly as possible in a sudden crisis.

Open Market Operations

A second method of providing LOLR liquidity is supplying such reserves directly to the market via open market operations. Open market purchases are a particularly efficient way of providing liquidity to the market, having the advantage of (almost instantaneous) speed as well as of regulating the total amount of market reserves, but not its allocation among particular users. In situations where external currency drains or rapid exchange rate depreciation accompany internal liquidity demands, however, large scale open market purchases to provide LOLR liquidity could serve to (at least temporarily) exacerbate these drains or depreciation. In this sense, open market purchases are a crude instrument relative to the discount-window-based Bagehot rule. Nevertheless, for accommodating emergency demands for high-powered money, open market operations are quick, convenient, efficient, and flexible.

³ Historically, LOLR principles were developed by Henry Thornton, the Banking School writers, and most completely by Walter Bagehot, the editor of the *Economist*. Bagehot's rule was to lend freely to the market on good collateral at a penalty rate. See Humphrey and Keleher, *op. cit.*, pp. 299-305.

⁴ Under commodity (gold) standards, increased demands for liquidity could result in internal gold drains. In other regimes, internal currency drains could result from sharp increases in demand for liquidity.

IV. AN INTERNATIONAL LOLR

Most descriptions of the LOLR functions pertain to domestic LOLRs. While international LOLRs have been mentioned in the literature, descriptions remain particularly vague and ill-defined. Different underlying premises, definitions, or semantic problems often cloud the discussion. Analogous to domestic LOLRs, an international LOLR is relevant in circumstances of fractional reserve banking and an international medium of exchange serving as a world reserve currency. While no international legal tender monopoly exists, global reserve, key, and vehicle currencies persist under different exchange rate regimes.⁵ History indicates that dominant international monies evolve very slowly in the market place and are not easily substitutable once well-established.⁶ This suggests that in the very short-run — the time frame in which LOLR decisions often must necessarily be made — reserve currencies are for all practical purposes analogous to monopoly issuance. There are no ready alternative reserve currencies in such short-run time frames. This, in turn, suggests that in global financial crises (liquidity shortage) situations, managers of dominant international currencies should accept responsibility to supply needed world liquidity: to act as international LOLR.⁷

For an organization to function as an international LOLR, it must be able to create international reserves or money: i.e., to provide global liquidity quickly and in any amount on demand.⁸ The world's central banks would turn to an international LOLR only if such an entity was the ultimate source of international reserves.

This is particularly relevant in circumstances of fixed exchange rates where national currencies are fully convertible into a common international reserve money.⁹ In this case, for example, if the demand for an international medium of exchange increases and banks face runs from foreign depositors seeking to remove their money, it is possible that the respective central banks of these countries would face a run on their international reserves. If these central banks desire to maintain

⁵ Reserve currencies serve as reserve assets and provide a store of value function. Key currencies serve the unit of account function and are often used as a peg in defining parities. Vehicle currencies provide the means of payment functions and are often used as intervention currencies in foreign exchange markets. See, for example, the discussion of reserve, key, and vehicle currencies in Benjamin J. Cohen, *The Future of Sterling as an International Currency*, MacMillan, St. Martin Press, London, 1971, pp 16-22.

⁶ See, for example, Benjamin Klein and Michael Melvin, "Competing International Monies and International Monetary Arrangements," *The International Monetary System*, edited by Michael Connolly, Praeger, N.Y., 1982.

⁷ Kindleberger, in effect, suggests that the responsibility of an international LOLR falls to reserve currency managers. See, for example, Charles Kindleberger, "Key Currencies and Financial Centers," *Reflections in a Troubled World Economy, Essays in Honor of Herbert Giersch*, St. Martin's Press, New York, 1983, p. 84, 87; Charles Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises*, Basic Books, New York, 1978, p. 226.

⁸ See R.G. Hawtrey, *The Art of Central Banking*, Frank Cass and Co., Ltd., London, 1962, p. 274.

⁹ Even though many countries do not now operate under a fixed rate system, understanding its operation is important in order to grasp the international LOLR function under current exchange rate arrangements.

a fixed exchange rate, they may ultimately have to borrow from other central banks or from an international LOLR (the ultimate source of international money) which can supply such an international media of exchange rapidly on demand.

Although exact parallels cannot be easily drawn, the purpose of an international LOLR is to provide a backstop or mechanism to prevent a sharp collapse of international money or liquidity: i.e., to stabilize the value of such international money and to prevent various disturbances from developing into world money crises.

Under the post-Bretton Woods flexible exchange rate system, international (reserve, key, and vehicle) currencies have continued to exist. Many countries, for example, continue to use the dollar as a reserve asset, to peg their currencies to international reserve currencies like the dollar, and to denominate many of their transactions in terms of dollars. In short, there continues to be demand for such global reserve currencies even under current floating rate systems. Indeed, the magnitude of international reserve flows actually increased, rather than decreased, under existing floating exchange rate arrangements.¹⁰ Under existing institutional arrangements, therefore, it should be recognized that the U.S. dollar has served as a most important international reserve or money.¹¹ Accordingly, it follows that Federal Reserve policy can importantly affect and create world reserves.

V. THE IMF: A POTENTIAL INTERNATIONAL LOLR?

The IMF is often characterized as an actual or potential international LOLR. Some analysts contend that the IMF currently can serve as an international LOLR since it has substantial financial resources, the power to both raise additional funds and to issue Special Drawing Rights (SDRs), as well as a sizable gold stock.

The creators of the IMF, however, deliberately rejected the notion of an international LOLR or world central bank. Various proposals for a reserve-creating international bank were explicitly rejected by the U.S. and other countries at the time because of concern that such an institution would create excessive international money. The original IMF architects, therefore, made sure that the IMF did not have money-creating powers. Instead, the IMF was designed to assist member countries with short-term balance of payments problems through extensions of short-term loans.

As currently structured, the IMF cannot qualify as a genuine LOLR because it lacks several of the necessary characteristics of such an institution. The IMF lacks distinguishing features of an international LOLR, including the following:

¹⁰ See, for example, Robert Mundell, "The Future of the Exchange Rate System," Paper Prepared for the Rocca di Salimbeni Conference, Monte dei Paschi di Siena, Siena, Italy, November 24, 1994, p.12.

¹¹ To a lesser extent, Japanese yen and German marks have served these purposes.

- The IMF cannot create international money or reserves. The IMF cannot truly serve as an international LOLR since it cannot create high-powered money or international reserves. The funds it can make available are those resulting from borrowing: i.e., limited contributions made by member countries. Under current practices, once these quotas are consumed, available funding is limited and cannot readily be replenished.¹² Therefore, the IMF cannot "lend freely" without limit and therefore cannot prevent a sudden collapse of international money because, in accordance with its design, it simply does not have the necessary liquid resources to do so.

While the IMF can issue SDRs, such issues are limited and not readily acceptable as international reserves. Furthermore, such issues are administratively clumsy since they cannot be made without prior authorization from membership. Similarly, the IMF gold stock is a (one-time) source of funds which, under current practice, in effect, is illiquid because of IMF fears that sizable gold sales will bring about sharp gold price declines in a thin gold market.

- The IMF cannot act quickly enough to serve as a LOLR. Genuine LOLR decisions often must be made very quickly, sometimes within hours (as in a banking liquidity crisis). Under current practices, however, IMF decision-making is ordinarily quite slow and cumbersome. For example, in providing money to a borrowing country, the IMF conducts lengthy negotiations involving reform programs and related conditionalities. Letters of intent and memoranda of understandings are drawn up. IMF executive board decisions are subject to the votes of executive directors who often consult their national authorities. All of this takes a good deal of time.

Admittedly, there are inherent, informational reasons for some sluggishness in lending decisions. An international lender seeking to follow Bagehot's rule simply does not have ready access to the information essential to making rapid lending decisions. As one analyst recently explained:

"...it is unlikely that (an) international lender of last resort would have the experience with countries, their financial systems, their assets and their collateral that national central banks have acquired by dealing with their banks every day."¹³

Accordingly, an international LOLR often simply does not have sufficient information to be able to quickly distinguish between an illiquid and insolvent entity.¹⁴

¹² The IMF can borrow from world capital markets, although it has never chosen to do so.

¹³ Geoffrey Wood, "A Lender of Last Resort? It's a Foolish Proposition," *Wall Street Journal*, Thursday, October 29, 1998 (parenthesis added).

¹⁴ See William A. Niskanen, "Reshaping the Global Financial Architecture: A Comment," Paper presented at Cato Institute's 16th Annual Monetary Conference cosponsored with the *Economist*, October 22, 1998, Washington, DC. See also Anna

- The IMF is not transparent. Successful LOLR practices also involve pre-announced objectives and procedures in order to both reduce uncertainties regarding the LOLR's willingness to act and to generate stabilizing expectations working to avert panics. Further, such advance announcements serve to notify prospective borrowers that last resort lending is exclusively short-term, for sound, illiquid entities and not for insolvent entities involving long-term structural problems. By so informing prospective borrowers, such advance announcements work to minimize moral hazard.

These transparent procedures are clearly not followed by the IMF; its practices routinely violate these conditions. Accordingly, IMF lending in recent years has worked to prop up insolvent entities and create serious moral hazard problems.

As presently constituted, therefore, the IMF cannot act as an international LOLR.¹⁵ It cannot create reserves or international money, cannot act quickly enough to serve as an international LOLR, and does not operate in a transparent manner. Further, IMF lending currently (indirectly) serves to bailout insolvent institutions, something wholly inappropriate for an international LOLR.

VI. THE FEDERAL RESERVE: AN INTERNATIONAL LOLR

One of the undeniable characteristics of current international monetary arrangements is the existence of and demand for reserve currencies. Despite the fact that major currencies float against one another, important currencies continue to serve and be held as international monies or reserves. The U.S. dollar remains the dominant and most important of these international monies or reserve currencies and it serves several functions for the global system. In particular, the dollar serves as an international reserve, key, and vehicle currency.

Circumstances involving international liquidity shortages or sharp increased demands for international liquidity normally entail increased demand for the dollar as a reserve currency or international money. Such situations highlight the responsibilities of an international lender of last resort. In such cases, the international LOLR should prevent any sharp decline in international liquidity or a collapse of international money: i.e., it should provide conditions supporting a stable price anchor for the international monetary system.

Schwartz, "Time to Terminate the ESF and the IMF," Foreign Policy Briefing, Cato Institute, August 26, 1998, pp. 6-7.

¹⁵ Substantial restructuring of the IMF, however, could change this situation. For a recent proposal to restructure the IMF, see Charles W. Calomiris, "Blueprints for a New Global Financial Architecture," Joint Economic Committee, October 7, 1998.

- The Federal Reserve can act as an international LOLR. When such global liquidity shortages arise, the Federal Reserve — unlike the IMF — has international reserve or money-creating powers and, accordingly, can act to satisfy increased demands for liquidity; it can act as an international LOLR. In addition to powers to create acceptable international money, the Fed can act to create liquidity quickly via open market operations rather than through the slower, more cumbersome discount window mechanism.¹⁶ Providing such reserves via open market operations rather than through the discount window would also be much preferable on political grounds.¹⁷

In short, the responsibilities of an international LOLR currently fall on reserve currency central banks. Since the dollar is the dominant reserve currency and the Federal Reserve is the principal institution that can create world dollar reserves, this responsibility falls largely on the U.S. central bank. In serving as an international LOLR, the Federal Reserve can prevent a collapse in international money or liquidity, help stabilize or anchor the value of international money, and thereby prevent various (e.g., credit) disturbances from developing into world monetary crises.

Robert Mundell has long recognized this Federal Reserve responsibility:

“The Federal Reserve... has the power to determine... the size of foreign exchange reserves abroad... In a practical sense, the Federal Reserve System is the lender of last resort to the international banking system, and the determinant of the dollar value of world reserves.”¹⁸

- The Federal Reserve should explicitly recognize this function. While the Federal Reserve can quickly generate international reserves and thereby serve as an international LOLR, the Federal Reserve has not embraced this role in a transparent manner. The Federal Reserve should explicitly recognize this important role and openly clarify its international responsibilities before a crisis occurs. Credible assurance of this kind would not only reduce uncertainties about the provision of international LOLR services, but would also work to promote confidence and generate stabilizing expectations, thereby reducing the need for future LOLR action. By pre-announcing that LOLR assistance will be provided to the market, but not to insolvent, unsound entities, moral hazard problems would be minimized.

Notably, the provision of this short-term crisis function need not jeopardize longer-run objectives such as price stability. Prompt LOLR action activated only during temporary periods of emergency will allay panic within a short time, and, consequently, well before

¹⁶ Since the global economy is closed, the international LOLR need not be concerned about external drains; attention can be focused on satisfying liquidity demands.

¹⁷ International reserve-creating central banks should never lend to insolvent institutions via the discount window.

¹⁸ Mundell, Robert A., *International Monetary Options*, Cato Journal, vol. 3, no. 1, Spring 1983, p.191.

longer-term goals such as price stability are threatened.¹⁹ Consequently, any deviations of prices from a longer-term target will be small in magnitude and duration. International LOLR and price stability objectives, therefore, are complementary rather than conflicting goals for central banks with international reserve creating powers.

- This function can be readily implemented. The Federal Reserve can implement these responsibilities by using a number of indicators to supplement their domestic indicators. These indicators become relevant for policymaking during periods when international liquidity shortages emerge. Accordingly, these indicators should provide useful, timely information relating to the movement of global prices and world liquidity. Because LOLR decisions must often be made very quickly (sometimes in a matter of hours), data requirements also call for high frequency, readily available sources of data. Fortunately, there are a number of relevant indicators that meet these requirements. Several measures of global price movements, for example, are available. Such measures should be monitored in conjunction with a set of readily available market price indicators that provide up-to-date information highlighting actual and prospective global price movements and world liquidity. In particular, measures of world commodity prices, various bi-lateral and multi-lateral measures of the dollar exchange rate, and indices of global bond yields can be jointly assessed to gain information on prospective global price movements and world liquidity.²⁰

When international liquidity shortages (or sharp increases in the demand for international liquidity) occur, for example, these indicators often provide useful information when assessed together with global price movements. In this case, world inflation may be declining at the same time the dollar appreciates, world commodity prices soften, and global bond yields decline. Risk spreads may be widening at the same time. When all of these indicators signal a global liquidity shortage, the Federal Reserve should consider appropriate policy response: i.e., a more rapid supply of reserves or liquidity than would otherwise be the case. This easier policy stance is appropriate until the above-cited indicators suggest the liquidity shortage has abated.

VII. SUMMARY AND CONCLUSIONS

Recent discussions relating to reform of "the international financial architecture" have focused attention on the function of an international LOLR. There are, however, few, if any, clear delineations of this important function, partly because of differing premises, definitions, and understandings of an international LOLR role. After summarizing well-established domestic LOLR functions, this paper describes the international LOLR role. The question as to whether the IMF or Federal Reserve can provide such international services is then addressed.

¹⁹ Responsible international LOLRs would absorb reserves later, after liquidity crises abate.

²⁰ These data can be supplemented with data measuring changes of liquidity preference, various risk spreads, bank stock movements, and other data pertaining to financial crises.

Under existing institutional arrangements, the IMF cannot serve as a genuine LOLR. Specifically, the IMF cannot create reserves, cannot make quick decisions, and does not act in a transparent manner in order to qualify as an authentic international LOLR. The Federal Reserve, however, does meet the essential requirements of an international LOLR. It can quickly create international reserves and money, although it has not openly embraced international LOLR responsibilities. The Federal Reserve can easily implement this function by employing several readily available market price indicators and global price measures.

Robert Keleher
Chief Macroeconomist

IMF Gold Sales in Perspective

IMF GOLD SALES IN PERSPECTIVE

There have been a number of recent calls for the International Monetary Fund (IMF) to sell part of its 103 million ounce gold holdings as part of a debt relief plan for the heavily indebted poor countries (HIPC). One such proposal has been advanced by the Administration, and officials of several other nations as well as the IMF have voiced support for similar plans. The proposed gold sales would require Congressional approval, and debate on this change in policy is already underway.

Although the exact form of the proposal is not yet clear, there are several reasons for Congress to closely examine this proposal and review the potential negative consequences:

- The proposal is not transparent in that its content and full ramifications are unclear, and it may ultimately facilitate financing for certain IMF operations without conventional authorization and oversight.
- The proposed gold sales would tap a hidden IMF gold reserve that can be viewed as belonging to member countries. The cost of the proposal to the U.S. would amount to half a billion dollars, relative to restitution to member countries.
- Continued gold sales may weaken the IMF's balance sheet. With one-third of its outstanding credit from its main account owed by Russia and Indonesia, it is reasonable to question whether potential weakening of the IMF's financial position is desirable at this time. The money contributed by the taxpayers of the U.S. and other nations is exposed in IMF lending, and IMF gold sales would increase this exposure further by reducing the capital cushion of the IMF.
- Gold sales may deepen already serious moral hazard problems by leading to expectations by other distressed borrowers of further gold sales for debt relief. The volume of proposed gold sales already has expanded significantly in recent months.
- The proposal could help perpetuate and reinforce the IMF's drift toward becoming another development bank similar in many respects to the World Bank.
- The proposal may encourage the IMF to continue its policy of deeply subsidized interest rates; this would include the IMF's reluctance to fully comply with the Congressional reforms mandated in 1998.
- The proposal has put downward pressure on gold prices and harmed poor nations that are also gold producers.

IMF Gold Holdings

The IMF holds 103 million ounces of gold originally acquired as quota contributions and through its transactions during the period when gold was a central element of the international monetary system. The collapse of the Bretton Woods system of fixed exchange rates in the early 1970's and subsequent policy decisions to demonetize gold were reflected in the second amendment to the IMF's Articles of Agreement in 1978. The second amendment officially demonetized gold and placed severe limitations on its use by the IMF or IMF member nations.

During the 1970s about one-third of the gold holdings of the IMF were disposed of in gold sales. The remaining gold was retained for a number of reasons, according to the IMF. These reasons include, "the potential unrealized gain on these assets may be considered a significant element adding to the overall strength of the IMF, that is, its basic—or ultimate—reserve;" in case of a "...need to meet creditors' claims on the institution in the event of liquidation..." and to provide resources if needed to "...encash members' reserve positions in the institution..." and for "...unexpected systemic developments—that is, gold should be held as a reserve against future, unspecified contingencies..."¹

Thus the gold reserve can be viewed as serving several purposes, including a provision for bad loans and a reserve against potential withdrawals of reserve positions by major donor nations. The potential use of gold as a reserve against donor withdrawals of reserves also reinforces the point made during Joint Economic Committee (JEC) hearings that padding or double counting of reserve accounts can be used as an accounting device to reduce the apparent level of usable resources available for IMF operations, thus justifying additional IMF appropriations. In any event, the IMF has identified a number of reasons to continue holding significant gold reserves.

On the other hand, the IMF identified several potential advantages to selling gold, including reduction of carrying and opportunity costs. In 1995 the IMF restated its policy on gold, recognizing that "any mobilization of gold should be carefully thought out to avoid any weakening in the IMF's overall financial position..."² and that "It must take great care to avoid causing disruption that would have an adverse impact on all gold holders and gold producers, as well as on the functioning of the gold market."³ The IMF also maintained its position that "gold provides a fundamental strength to the IMF's balance sheet."⁴

In 1947 the IMF Executive Board asserted that the "gold and currency subscribed to the Fund are clearly within its unrestricted ownership. They do not belong in any way to the subscriber."⁵ In the context of the Bretton Woods system and the official price of gold it established, this contention had an unambiguous meaning because the subscription price and the market value were essentially the same. However, the breakdown of the system in the early 1970s created for the first time the possibility of a large discrepancy between the official and the market price of gold. Only under these new circumstances could the value of the gold holdings increase significantly over their subscription value, and create the question of ownership of a surplus (capital gain). As we shall see, the IMF's restitution procedure renders this potentially troublesome legal issue largely irrelevant for the purposes of this analysis.

Perhaps in part due to the possibility of restitution to the member countries, the IMF values the gold on its financial statement at the old official price equivalent to about \$48 per fine ounce, though its market value has been far higher since the mid-1970s. In light of potential restitution, this conservative accounting is quite defensible, but it does lead to potential issues in

¹ Treasurer's Department (IMF), *Financial Organization and Operations of the IMF*, Washington, D.C., 1998, p.117.

² *Ibid.*, p.117.

³ *Ibid.*, p.118.

⁴ *Ibid.*, p.117.

⁵ Testimony of Harold J. Johnson, Jr., and Gary T. Engel, General Accounting Office, before the Joint Economic Committee, July 21, 1999, p.21.

a broader policy context. For example, the value of the gold held in excess of \$48 per ounce then becomes, in effect, a hidden reserve, and attempts to use this reserve for various policy objectives may have the effect of obscuring their costs to affected parties.

As noted, one of these policy objectives is to sell IMF gold to finance debt relief under the HIPC initiative. A review of this proposal brings to light several important problems. These problems include a lack of transparency, costs to the taxpayer, excessive IMF loan exposure, potential effects on IMF reform, and counterproductive effects on vulnerable poor countries. The balance of this paper will examine these issues in more detail.

Problems Posed by IMF Gold Sales

Lack of Transparency

According to recent GAO testimony before the Joint Economic Committee,⁶ many of the details of the gold sales proposal are "non-public." Furthermore, in addition to its direct cost, the effects of the gold sales on IMF finances are very difficult to evaluate because of the obscurity of IMF financial statements which have proven confusing even to IMF officials in the past.

For example, as a lending institution, the IMF does not refer to its loans from its main lending account as "loans," but as "currency purchases." The central IMF budget is treated as a classified document, and separates usable from nonusable resources in IMF operations, a distinction that is not typically made in the public presentation of IMF financial accounts.

As noted, the details of the gold sales proposal, including even the amounts available for debt relief, are confidential. A complete and transparent analysis of the gold sales proposal on IMF finances is impossible because this would require comparison of the confidential information of the gold sales proposal to data in a classified budget. This lack of transparency means that Congress is unable to make a fully informed decision on the gold sales proposal in consultation with independent experts and academics.

Although the available public information about the proposal is very inadequate, enough information can be assembled to show that the proposed gold sales raise funds by absorbing part of the hidden gold reserve not shown on the IMF's balance sheet.⁷ These gold "profits" could then be invested in securities, and the interest generated used for debt relief. By tapping this hidden reserve, the proposal can be presented as a "free lunch" in that assets worth billions of dollars could be made available for IMF use without an apparent cost to anyone. However, at least from one point of view reflected in the IMF's own charter, most of the proceeds raised through the gold sales can be viewed as disguised contributions from major donor countries, though this fact is veiled in obscure IMF accounting and procedures.

⁶ *Transparency and the Financial Structure of the IMF*, hearing of the Joint Economic Committee, July 21, 1999.

⁷ A footnote to the IMF balance sheet does note the market value of gold holdings.

These concerns about IMF gold sales were recognized in 1975 in a joint bipartisan statement by Senator Ribicoff (D-Conn.) and Senator Taft (R-Ohio):

Either the gold belongs to the IMF, or it belongs to the member states, which contributed the gold in proportion to their quotas. **In either case, the profits should be distributed to the member nations in proportion to their quotas.**

The IMF is not designed to be a relief agency, nor an investment agency. If the nations owning stock in the International Bank for Reconstruction and Development [World Bank] wish to increase their subscriptions, or to increase their bilateral aid, out of IMF gold sale profits or with any other funds, then well and good. However, such a decision should be taken openly, by each nation, unencumbered by an artificial link between the question of aid and the role of gold in international payments.⁸

Taxpayer Expense

As noted, IMF gold holdings reflect member contributions to, and transactions with, the IMF at a time when gold had a central role in the monetary system. After the collapse of the Bretton Woods system, gold was demonetized, but disagreements about the role of gold were reflected in a compromise amendment to the IMF charter in 1978 that severely limited the IMF's use of gold but permitted certain gold sales,⁹ including what IMF documents refer to as "restitution." Dictionaries define restitution as "restoring to the rightful owner of something that has been taken away, lost, or surrendered." While significant restitution of IMF gold to members in the near term has not been proposed, restitution does provide a useful benchmark of the opportunity costs imposed by alternative proposals.

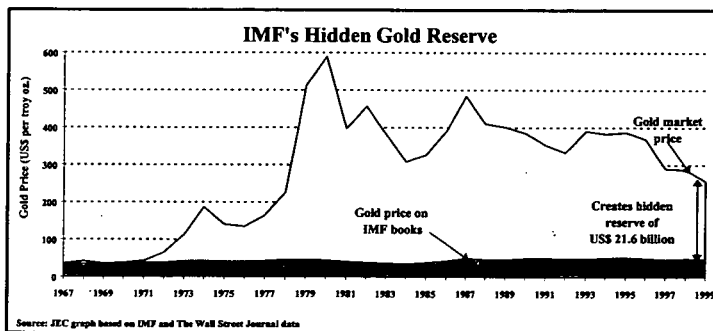
Under IMF rules, the IMF could restitute gold to member countries at a price currently equivalent to \$48, according to a formula based on member contributions in 1975. Under this formula the U.S. would receive 23 percent of the amount of any gold restitution. For example, if 10 million ounces were restituted, the U.S. would receive 2.3 million ounces. Under current market conditions, the U.S. would pay \$110 million for this gold (2.3 million ounces multiplied by \$48 per ounce), but then receive an asset worth \$592 million, leading to a total net gain of \$482 million.¹⁰ Restitution is a useful benchmark to use in evaluating other forms of gold sales in terms of potential costs to the taxpayers of the U.S. and other affected nations.

⁸ Comments of Senators Ribicoff and Taft, *The Proposed IMF Agreement on Gold*, Report of the Subcommittee on International Economics, Joint Economic Committee, December 17, 1975, p.11 (emphasis added).

⁹ Treasurer's Department, *op. cit.*, pp.109-110.

¹⁰ Assuming a price of \$48 per fine ounce for 2.3 million ounces would generate \$110.4 million in revenue to the IMF. The 2.3 million ounces of gold held by the U.S. would be worth \$592 million, resulting in a net profit of \$482 million. This is based on a market price of \$257.30 per fine ounce as of August 4, 1999.

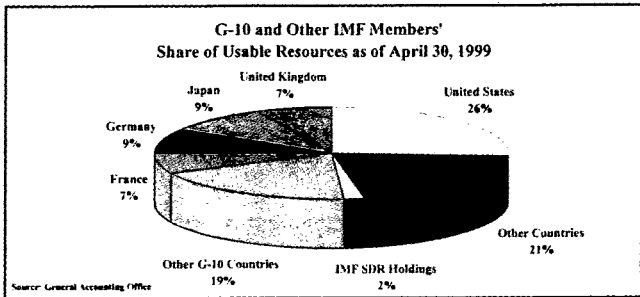
As noted, the gold held by the IMF is valued on the IMF balance sheet at equivalent to \$48 per fine ounce, relative to a current market price of about \$257. The undervalued IMF book value of gold creates a hidden IMF gold reserve of over \$21 billion (see graph below). The recent IMF gold sales proposal would tap part of this hidden reserve to finance the debt restructuring plan. If 10 million ounces of gold were sold for about \$2.6 billion at current market prices, about \$2.1 billion of the total would be generated by the value of gold not shown on the balance sheet. This is the hidden cost to donor countries in terms of foregone profits. The effect would be the same if some other mechanism were used to tap into the gold reserve to finance debt relief.



Though the proposal has been presented as something of a "free lunch" by its sponsors, the hidden or obscured nature of its costs do not make them nonexistent. By tapping the value of gold not appearing on the IMF's balance sheet, these costs can be obscured, but once identified, these costs are quite significant. Relative to the restitution benchmark, the proposed gold sales will cost the U.S. and its taxpayers \$482 million. For every billion dollars of IMF gold sales not in the form of restitution, the U.S. cost is \$187 million.¹¹ Furthermore, in addition to the proceeds from the gold value not on the balance sheet, the capital value of the gold, or \$48 per ounce, goes directly to the main IMF account, the General Resources Account (GRA).

Potential taxpayer expense is an important issue especially in light of the highly concentrated financing of the IMF as a whole. The U.S. already provides 26 percent of the IMF's \$195 billion of usable contributions; the G-10 countries as a whole provide 77 percent of the usable resources for IMF operations (see graph below). Many of these same nations will again make another disproportionate contribution if the proposed IMF gold sales were approved.

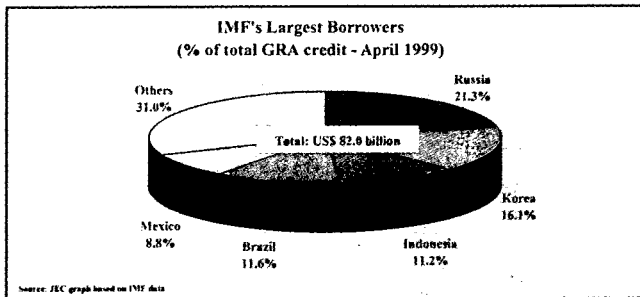
¹¹ This figure is derived from the United States' share of \$230 million (or 894,000 ounces) out of total restitution amounting to \$1 billion. This \$230 million of gold minus \$43 million in payments to the IMF leaves a net value of \$187 million.



It is interesting to note that the remaining 171 members of the IMF contribute only 21% of its usable resources. Nearly half of IMF member nations maintain little or no reserve positions at the IMF. Many of these nations make required hard currency contributions to satisfy IMF membership requirements, and then immediately withdraw these contributions without affecting their voting rights. In short, the voting shares of countries has little relation to their financial participation.

IMF Loan Exposure

As an "ultimate reserve," IMF gold sales must be viewed in the context of the IMF's finances and lending policies. The lack of diversification in IMF lending, including a heavy concentration in certain countries that are questionable credit risks, is not very well known. As of April 30, 1999, about 70 percent of IMF outstanding loans from the IMF main account were owed by the IMF's five largest borrowers.¹² Russia and Indonesia together account for one-third of all outstanding credits. Neither Russia nor Indonesia is regarded as a very good credit risk by international credit rating agencies. The pie chart below shows major IMF borrowers:

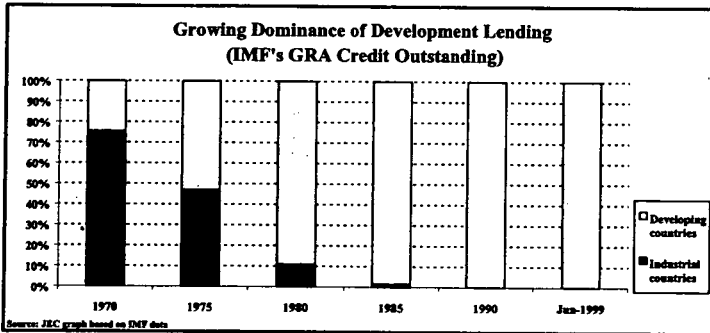


¹² International Monetary Fund *Financial Statements*, Quarter Ending April 30, 1999, p.10.

It may be argued that any concerns about IMF loan exposure are overstated and that historically the IMF has not experienced significant defaults. However, the lack of IMF transparency and *de facto* debt rescheduling make it difficult to empirically evaluate the past or present problems. Furthermore, the changes in the nature of IMF lending and the relaxation of loan limits have led to a very different current situation that is unprecedented.

Past guidelines used by the IMF had restricted the level of borrowing to a nation's quota level (100 percent of quota). This policy was presumably intended to promote loan diversification and limit IMF donor exposure. However, since these guidelines were relaxed, IMF loans may rise as high as several hundred percent of a borrower's quota contribution (around 500 percent in the case of Korea). Over its entire history, it is doubtful that the IMF has ever had such a sizeable proportion of its outstanding credit owed by such large and dubious credit risks, at least one of which has had to borrow from the IMF for the purpose of servicing its IMF loan. Thus, it is reasonable to question whether further erosion in the financial position of the IMF is desirable at this time by liquidation of reserves that could help cover potential loan losses and help create the confidence of its ability to do so.

Underlying the concentration of IMF lending to dubious credit risks is a major change in the nature of IMF lending. Over the last few decades, the IMF has transformed itself from a lender for balance of payments purposes to a longer-term lender for development and economic restructuring. This transformation reflects the collapse of the Bretton Woods system and the search for a new mission to justify IMF activities, but it also entails potentially greater risks. Recent IMF borrowers have broader and deeper systematic problems than the kind of balance of payments pressures financed by the IMF in the previous era. This evolution entails the potential for higher risk from longer loan maturity, type and use of loans, and the credit risk of borrowers. The graph below documents the trend in IMF lending since the collapse of the Bretton Woods arrangement.



The drift of the IMF towards becoming another development lender similar to the World Bank raises a number of important policy issues regarding the IMF's finances. The fact that IMF gold holdings could act as a loan loss reserve suggests that the greater risks of recent IMF lending should be balanced by retention of the gold reserve, at least for the foreseeable future.

Furthermore, given the changing view of gold by official institutions, the current proposal can be seen as a precedent for similar IMF gold sales in the future. This could lead to further pressures to erode more of the gold reserve in a way that is not in the interest of the taxpayers of donor countries.

The proposed gold sales would also enhance moral hazard in several ways. The perception that gold sales are something of a "free lunch" may ultimately encourage other IMF borrowers to favor or expect gold sales to relieve their debt burdens. IMF borrowers from the main General Resources Account (GRA) who are experiencing severe economic setbacks or difficulties may also come to expect some measure of debt relief financed by further gold sales.

Gold Sales and Debt Relief

Part of the proceeds from the IMF gold sales of the 1970's financed the Structural Adjustment Facility, later to become the Enhanced Structural Adjustment Facility (ESAF), a development lending program charging interest rates typically as low as 0.5 to 1 percent. The creation of this loan program marked the beginning of an important transition in the evolution of the IMF from its previous monetary role at the center of a fixed exchange rate system into a major lender for development and structural adjustment projects. By the 1990s, a large portion of IMF lending was devoted to various large-scale economic restructuring purposes, which were very different in nature from lending to bridge temporary balance of payments problems.

Unfortunately, the official development lending of which ESAF was a part seems to have become more of a hindrance than a help to many of the poor borrowing countries. The IMF recognizes that the total debt burden of many countries is larger than many of these borrowers are willing or able to service, and so the IMF has agreed to assist in financing the HIPC initiative. To help do so, the IMF would seek contributions from members and if these did not suffice, the IMF would attempt to win approval for gold sales. However, this juncture also provides an opportunity to reevaluate this IMF-sponsored activity and whether it should be continued.

Given the current controversy over debt relief, it is reasonable to question whether it is necessary or desirable for the IMF to sponsor something like ESAF, a lending program more appropriately conducted by the World Bank. ESAF has become part of the official debt burdening underdeveloped countries, and it appears that the proceeds from gold sales could be used to help maintain its operations for the next several years. If ESAF were terminated, over \$2 billion in ESAF reserves might be made available for other purposes, including debt relief. The termination of ESAF would be a desirable first step in refocusing the IMF on short-term crisis lending and away from a continued evolution into another development bank.

Alternatively, the implementation of the gold sales proposal would help gloss-over the failures of the development strategies fostered by the official institutions. This proposal would also continue, if not reinforce, the IMF's current drift into development and structural lending, not only in ESAF but in the lending from the General Resources Account (GRA) of the IMF as well. An alternative policy approach would be to terminate ESAF as an activity more appropriately conducted by the World Bank than by the IMF. ESAF reserves might be made available for debt restructuring and relief.

IMF Reform and Gold Sales

The IMF makes loans that are all heavily subsidized in varying degrees by the use of below market interest rates. For example, the standard IMF loan rate, currently about 3.8 percent, is considerably below the standard international reference rates such as LIBOR (London Interbank Offered Rate). The IMF's alternative premium rate for circumstances typical in bailout situations is currently about 6.8 percent.

The IMF's subsidized interest rates were one focus of the debate over the 1998 IMF appropriation in Congress. These interest rate subsidies became an issue because they distort price signals, are economically inefficient, and deepen already pervasive moral hazard problems. Much of the debate on these issues was stimulated by the *IMF Transparency and Efficiency Act*, a reform measure that provided for the use of market interest rates on all IMF loans. At the final stage of the legislative process, JEC staff was asked to assist in drafting reform language regarding IMF interest rates on loans used in typical crisis situations. This language, a version of which finally became law, stipulates that IMF interest rates under these crisis circumstances must be adjusted for risk. A formula for a minimum interest rate was provided for the sole purpose of preventing excessive discretion, and not for pegging the interest rate.

However, it remains unclear whether the IMF recognizes that the reform legislation requires an adjustment for risk, and does not replicate existing IMF interest rate formulae. In any event, as an alternative method of financing the IMF's HIPC contribution, the IMF could use a true adjustment for risk on affected loans, and thus generate higher interest earnings for debt relief. These premium interest rates would no longer be as deeply subsidized, and could provide the approximately \$100 million annually for debt relief that is called for. Another option would be to slightly increase the deeply subsidized standard IMF loan interest rate.

It is to be expected that the IMF will resist such suggestions to reduce interest rate subsidies. Exorbitant interest subsidies are central to IMF's current operations. Additionally, the IMF would presumably argue that it is not desirable to use interest earnings from the main IMF account and channel part of it to ESAF for debt relief. However, the gold and certain interest, both already associated with the GRA, have been considered as sources of funding for debt relief, and an argument that only some proceeds arising from the GRA can be tapped but not others is not very persuasive. Furthermore, it appears likely that the funds raised by the gold sales would ultimately end up in the GRA.

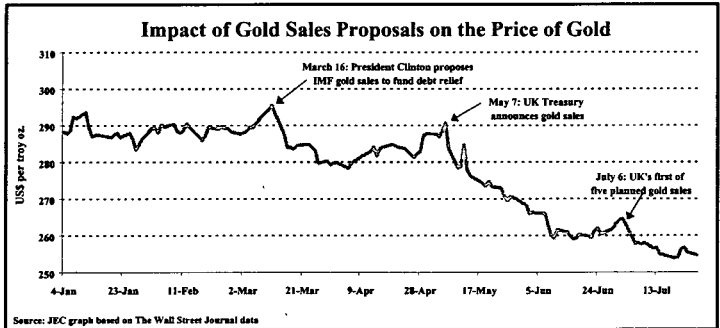
A very small rise in IMF interest rates could easily cover the costs of the debt relief initiative, as could the \$2 billion in reserves already in the ESAF. However, these options would require the IMF to modestly reform its practices or use its own resources, but neither of these choices seems to have been seriously considered. Instead, a veiled way of tapping more resources by the IMF at taxpayer expense through gold sales has been the preferred course.

Market Disruptions

For an agency that presents itself as a stabilizing force in international markets, the effects of the IMF's proposed gold sales have been especially ironic. In the wake of clear signals from central banks, especially the Bank of England, that the status of gold was changing and that market sales were looming, the IMF and other proponents persisted in the proposal for additional market sales. While sorting out the precise impact of this proposal and its endorsement by the G-7 finance ministries is not possible, there is a widespread view that the IMF proposal has been a negative force in the gold markets (see graph below). After the IMF proposal was finalized, gold market prices drifted below the costs of production in at least one key producer country.

As the IMF Treasurer's Department itself pointed out only last year:

An important element in considering potential gold sales by the IMF is that such sales -- or even the announcement of an intent to sell -- could, at least in the short run, cause the market price of gold to fall. Various official holders of gold that value their stock at or in relation to the market price may view with concern a sharp decline in the value of their holdings because of an announced program of gold sales by the IMF.¹³



¹³ Treasurer's Department (IMF), *op. cit.*, p.117.

Conclusion

Proposals for use of taxpayer resources by the IMF should be fully explained in a transparent manner. The failure of the IMF and Administration to provide details on the proposed gold sales to Congress and the public does not permit fully informed consideration of this policy and possible alternatives. A complete explanation of this or any similar proposal should be provided to Congress and the public by the IMF or the Treasury. The costs of the proposal, and all costs associated with the IMF, should also routinely be delineated and provided to Congress, instead of the official pronouncements that there are no taxpayer costs associated with participation in the IMF.

Congressional concerns about lack of IMF transparency and IMF interest rate subsidies are reflected in enacted reforms that have become law. Approval of the proposed IMF gold sales could have the effect of delaying needed IMF reforms and be viewed as sanctioning IMF loan subsidies and current development policy under the IMF and ESAF. On the other hand, rejection of the proposed gold sales would send a strong message to the IMF that its current policies of loan subsidization and development lending lack support in Congress, and that genuine IMF reform is required.

Christopher Frenze
Chief Economist to the Vice Chairman

Alexandre Ferraz de Marins provided research assistance for this study.

**JEC Statements Before the
International Financial Institution Advisory Commission
September 9, 1999**

STATEMENT OF CHRISTOPHER FRENZE
CHIEF ECONOMIST TO THE VICE CHAIRMAN
JOINT ECONOMIC COMMITTEE

Chairman Meltzer and Members of the Commission, thank you for the opportunity to appear before you today to discuss some of the financial issues related to the Joint Economic Committee's (JEC) review of the International Monetary Fund (IMF). I am accompanied today by Robert Keleher, Chief Macroeconomist to the Vice Chairman, who will make the second half of our presentation before the question period. As you know, the work of the JEC in this area was initiated two years ago by Congressman Jim Saxton, who was the JEC Chairman in the last Congress and continues as Vice Chairman in the current Congress.

We do not have all the answers to questions about the IMF and its financial operations, but we have asked some of the right questions and these have produced much useful information. The public record shows that two years ago there was relatively little clear and current data on total IMF usable contributions and resources, the division of usable and nonusable resources, the U.S. contribution as a share of total usable resources, certain IMF reserves, and other data needed to adequately understand the financial operations of the IMF.

The JEC tried to change this situation by gaining more public release of IMF financial information and thus reducing incentives for excessive secrecy. Over a year ago Mr. Saxton asked the General Accounting Office (GAO) to obtain much of this information from the IMF's operational budget and other sensitive documents, and the results were presented to the Joint Economic Committee in hearings in 1998 and 1999. Shortly after the first of these two hearings, the IMF began posting much more detailed financial information on its web site.

This JEC effort to obtain increased transparency was quite successful, but much more remains to be done. The GAO has been extremely helpful, and has folded some of our additional questions about IMF lending into a new report to be released in the near future that will provide yet more detailed information. However, this commission could also be extremely effective in fostering more IMF financial transparency and facilitating the publication of additional information. The commission could direct detailed questions on IMF finances directly to the IMF to provide needed historical and current information on many aspects of IMF activities including time series of annual quota levels, lending, usable contributions, loan rollovers, interest charges, loan conditions, and so forth.

The absence of much of this information in the public domain reflects a lack of IMF transparency that is not consistent with the IMF's own transparency standards it applies to member countries. Some of this information is publicly available, but only in a fragmentary or partial form that is not readily accessible given the confusing nature of IMF financial statements.

I would like to turn to a review of part of the IMF's public financial statements and explain their format. It is our view that the IMF's financial statements were designed for use in an institutional and economic environment that no longer exists. In the current context these financial statements can be confusing and they are not fully transparent, as conceded by a

member of the IMF Executive Board in congressional testimony last year. For example, the IMF does not consider its loans from its central account to be loans, so the term loan does not appear, but instead the IMF uses the term "currency purchases."

The widespread use of such obtuse concepts contributes significantly to a lack of transparency. Even so, the quarterly IMF financial statements and the IMF booklet called *Financial Organization and Operations of the IMF*, although very difficult and obtuse, are useful in reviewing IMF finances.

When new quota contributions are made 25 percent is typically paid in international reserve assets and the remaining 75 percent normally in promissory notes or letters of credit denominated in the members own currency. The reserve asset portion of the new quota subscription is added to what the fund calls the "reserve tranche position" of the individual member. In addition, the IMF can encash the notes and letters of credit on demand to support its lending and other financial activities. These notes are reflected in a category called "IMF holdings of currencies." The quotas are part of the General Resources Account (GRA), the central account of the IMF.

The IMF is sometimes described as a cooperative or compared to a credit union, suggesting a broad-based support for lending. However, as a practical matter, the IMF is largely financed by a relatively small group of countries. In addition to their reserve positions, the IMF tends to encash the promissory notes of some countries much more heavily than others.

On the other hand, many other nations withdraw their reserve position, leaving all of their quota essentially in promissory notes. Nations can even borrow their reserve payments under quota increases, and then immediately withdraw these borrowed funds and repay borrowers. In this way they technically comply with IMF membership requirements but provide little or no usable resources to the IMF. Incidentally, the Exchange Stabilization Fund (ESF) has apparently been used to facilitate such borrowing.

The first entry in the briefing books we have provided is an overview of IMF finances from the quarter ending April 30, 1999. The last page of this overview contains a line item for the United States denominated in SDRs. As one can see, the quota of the U.S. is 37 billion SDRs, equal to about 50 billion dollars. The U.S. has 17 billion SDRs, or 46 percent, of its quota in its reserve position. The remaining 20 billion SDRs (54 percent) is in the column under IMF's holding of currencies. The amounts in this category are largely promissory notes and letters of credit.

| Quotas, IMF's Holdings of Currencies, and Reserve Tranch Positions As of April 30, 1999 (In Thousands of SDRs.) | | | | |
|---|------------|------------------------------|------------------|-------------------------|
| General Resources Account | | | | |
| Member | Quota | IMF's Holdings of Currencies | | Reserve Tranch Position |
| | | Total | Percent of Quota | |
| United States | 37,149,300 | 20,082,770 | 54.1 | 17,061,852 |
| Ukraine | 1,372,000 | 3,341,372 | 243.5 | 7 |
| Turkmenistan | 48,000 | 48,000 | 100 | 5 |

Source: International Monetary Fund

In other words, the sum of a *creditor* country's reserve position and IMF holdings of its currency is the amount of the quota. If the IMF were to encash more U.S. promissory notes this would raise the amount of the U.S. reserve tranche position and lower the amount of Fund holdings of currencies correspondingly.

The entry for Ukraine reflects the position of a net borrowing country. The Ukraine's quota is 1.4 billion SDRs, with virtually none of it in the reserve tranche position, but instead under IMF holdings of currencies. The Ukraine has provided what is essentially an IOU to the IMF equivalent to its borrowings of about 2 billion SDRs secured by its domestic currency provided to the Fund. This is reflected in the holdings of currencies; this amount is the sum of virtually all of the Ukraine's quota plus the value of its borrowing from the IMF. Borrowing countries typically have withdrawn most or all of their reserve positions so virtually all of their quota is in IMF holdings of currency. The amounts borrowed, reflected in domestic currency securing the loans, also are added in this category.

The case of Turkmenistan reflects the position of a member that is neither a creditor nor a borrower. This country has virtually no reserve tranche position and is not a borrower. Virtually all of its quota is in "holdings of currencies." This country currently is neither a creditor nor a borrower member.

This discussion may seem quite dry if not tedious, but provides a useful framework for review of the public IMF financial statements. As one scans through the statement of members' financial positions from the quarterly reports of the IMF, it is clear which countries maintain large reserve tranche positions providing support for IMF operations, and which on the other hand provide little or no support. The lower the percent of quota held in currencies, the higher the member's reserve position and relative degree of financial support for the IMF. On the other hand, it can be readily seen that many countries have all or nearly all of their quota in holdings of currency, meaning they have little or no reserve position to participate in the financing of IMF operations.

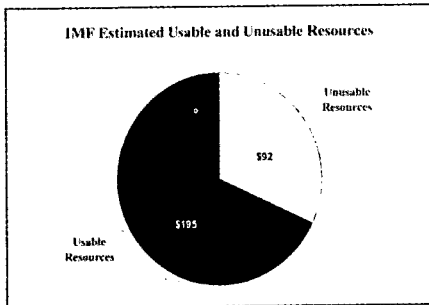
When the holding of currencies approaches or exceeds 100 percent, this typically means the member's reserve position is very low or zero. Nearly half of the IMF members currently maintain little or no reserve position, even after a recent quota increase. This suggests that the borrowing and immediate withdrawal of reserves required under a quota increase is quite widespread. The presence of these members does, however, provide a ready pool of current and potential future borrowers; about half the IMF's membership are current borrowers.

As previously noted, the reserve positions supply the funds for IMF lending. At the bottom of this statement from the IMF quarterly report, one can see the total of 63 billion SDRs in the reserve position, and 61 billion SDRs loaned from these contributions.

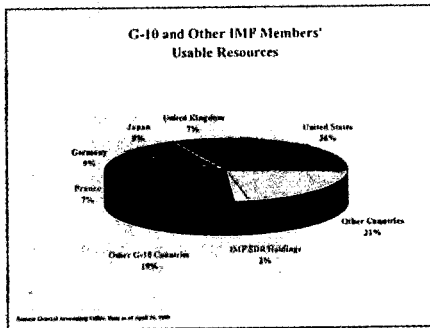
A separate issue regards the portion of quotas that can be used by the IMF for its lending. The public financial statements do not reflect the fact that many of the members have provided quota contributions, which are not regarded as usable by the IMF. In the IMF's confidential operational budget, the division is made between usable and nonusable resources. This is a critical distinction and has important implications for allocating the actual sources of funding for

IMF operations. This was one of the first pieces of information Mr. Saxton asked the GAO to obtain from the IMF through a review of the operational budget. The level of usable contributions is needed to know the amount of actual resources available to the IMF before lending, and also to gain a more accurate view of the financing burden borne by the donor nations.

This graph presented shows the usable and nonusable contributions. Of \$287 billion of total contributions, \$195 billion is usable and \$92 billion is unusable. As noted previously, nearly half of the IMF members do not have significant reserve positions, and many of these also would not have currencies that would be deemed usable by the IMF in the operational budget.

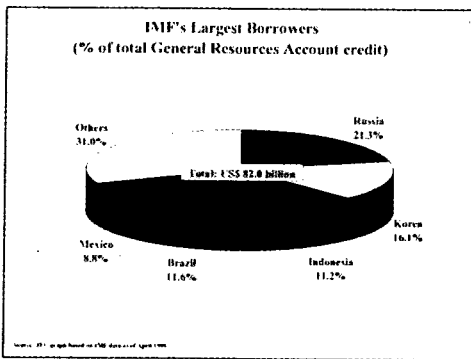


Once the level of usable resources is determined, an accurate picture of the IMF's sources of funds can be provided. The second graph displayed shows the portion of usable resources contributed by the major creditor nations. As shown, the G-10 nations supply 77 percent of the IMF's usable funds in its main account. The other 171 member nations supply about 21 percent of the usable funds. This graph shows the actual burden of financing once the nonusable quota subscriptions of many members are set aside.



The official line is that the U.S. provides 18 percent of the quotas, but the U.S. share of usable contributions is actually 26 percent. This relatively large U.S. position is reflected in the strong influence of the U.S. Treasury in IMF decision making. This graph illustrates the preeminent U.S. position, but also the high overall concentration in IMF financing, as opposed to the notion of broadly-shared financing often conveyed through the public quota statistics.

IMF lending is also highly concentrated. The next graph shows that the top 5 users of credit from the main IMF account for 70 percent of its outstanding credit. Russia and Indonesia together account for fully one third of these outstanding loans. The potential exposure of the IMF and its creditors from this high concentration of IMF lending is considerable. The relaxation of past IMF standards capping borrowing at 100 percent of member quota has led to the current situation. Borrowing can now be several hundred percent of quota contributions as more recent annual quota limits have also been further relaxed in recent years.



In summary, both IMF usable contributions and IMF lending are highly concentrated. A core group of advanced industrial nations is the primary source of funds. A distinct and much larger group of current and potential borrowers exist, most of who do not provide significant financial support for IMF activities. Even so, the IMF's lending is highly concentrated, with politically and socially unstable borrowers currently accounting for a large share of outstanding credit.

I would like to close on a related issue that may be of interest. Our review of IMF procedures found last year no evidence of credible IMF procedures to monitor or track the use of IMF loan proceeds. Mr. Saxton took note of the lack of accounting safeguards a year ago in connection with the loans to Russia, now the subject of several inquiries. A letter from Majority Leader Armer and Mr. Saxton last March to then Secretary Rubin in connection with the new Russian loan asked for a public disclosure and explanation of any such accounting controls, but none was forthcoming.

Thus it appears that when the IMF disburses funds to a member's central bank, it does not really have an independent way of knowing exactly what happens to it after that point. Perhaps such accounting safeguards would be difficult or unfeasible to administer, but their absence would seem to require a much higher degree of vigilance and effort to protect taxpayer funds from potential misuse. Clearly the loaning of billions of dollars to countries with pervasive corruption problems would run the risk that at least some of it would be misused. In the absence of such accounting controls, it is not clear what procedures the IMF has available to ensure that significant misuse of loan proceeds does not occur aside from simply not making a loan in such cases.

The second part of our presentation by Robert Keleher will focus on the costs of U.S. participation in the IMF, along with several related issues.

STATEMENT OF DR. ROBERT KELEHER
CHIEF MACROECONOMIST TO THE VICE CHAIRMAN
JOINT ECONOMIC COMMITTEE

INTRODUCTION

The Joint Economic Committee's (JEC) focus or interest in analyzing the International Monetary Fund (IMF) has *not* been to examine the specific details of loans or conditional loan programs in Russia, Indonesia, Thailand, Brazil, Korea or any other country. Rather, the JEC has focused on various aspects of the IMF *itself*.

In particular, we focused on the IMF's financial structure, the way the institution operates, and the costs of U.S. participation of the IMF. In our view, before Congressional policymakers can make sensible decisions about future IMF funding, IMF gold sales, or make constructive recommendations for reform, some essential, yet understandable information about how the IMF functions is required. In other words, information about, and some understanding of the institution is a prerequisite for sensible reform.

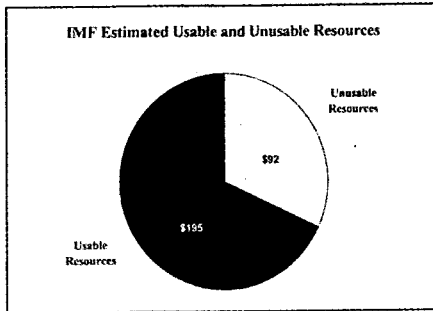
One of our goals was to highlight this relevant information; in a sense, to bring more transparency to the IMF. This has occurred in part through a series of JEC hearings, studies, and press releases. The JEC has used these vehicles of communication to highlight the resources available to the IMF, how the IMF's financial structure operates, and what is especially relevant to the Congress and the public, the costs of U.S. participation in the IMF.

On the other hand, we view our efforts as "work in progress" and as outsiders without access to confidential IMF information, do not pretend to have complete knowledge of the workings of the IMF.

With this in mind, I will quickly review IMF available resources (as requested by Chairman Meltzer); summarize some lessons we have learned about the costs of U.S. participation; and make some brief comments about the IMF's financial structure.

I. IMF AVAILABLE RESOURCES

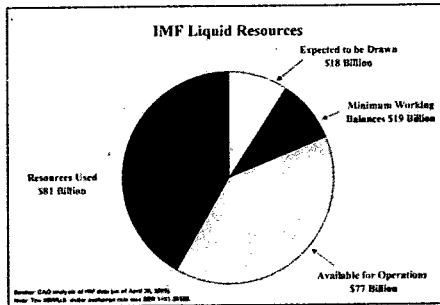
I have some charts I will be referring to in order to help illustrate my points. As my first chart demonstrates, the total resources available to the IMF are now about \$287 billion. These are the total resources in the IMF's General Resources Account (GRA) obtained primarily from quotas.



The United States contributes 17.7% of the total, which is the largest share of all the IMF member countries. This percentage is the oft-cited contribution that importantly determines voting rights.

Of the total \$287 billion, the IMF deems a sizable portion (\$92 billion) to be unusable, leaving \$195 billion as usable. This *unusable* portion is about 1/3 of the total and consists of the currencies of those contributions not sufficiently strong economically to permit their currencies to be used for IMF operations.

As the next chart illustrates, this leaves \$195 billion as usable resources. Of the \$195 billion, \$81 billion is outstanding credit already extended (leaving \$114 billion), \$18 billion has been committed to countries needing assistance, and \$19 billion is deemed necessary for minimum working balances. This leaves \$77 billion available for additional credit to IMF members.



This \$77 billion figure does *not* include three other possible funding sources. First, the IMF can borrow from members. The General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB) currently amount to \$46 billion. Second, the IMF can borrow from credit markets which conservative estimates suggest could amount to \$70 - \$80 billion or more. Third, potential gold sales are an option which over the long term, could amount to about \$26-\$27 billion. Therefore, depending on how much of these additional resources are deemed (practically) obtainable, current usable IMF resources amount to anywhere from \$77 billion to roughly in the neighborhood of \$200 billion.

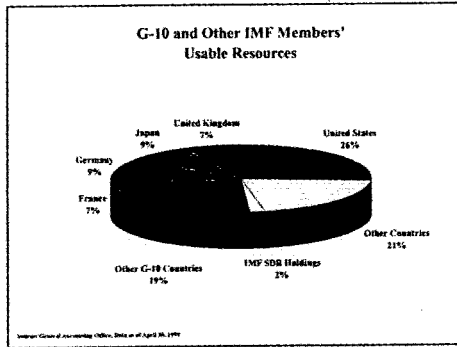
II. LESSONS ABOUT THE COSTS OF U.S. PARTICIPATION

As I mentioned earlier, another critical question for Congress and taxpayers relates to the cost of U.S. participation in the IMF. In examining this issue, we learned a number of lessons about these costs that I would like to briefly summarize for you this afternoon. As background, however, the U.S. contributes about 17.7 percent of total IMF quota subscriptions. It is this 17.7 percent figure that importantly determines the voting rights of IMF member countries and is often equated to, or identified as, the member country's official financial contribution.

However, the actual costs of U.S. participation in the IMF differ from this widely-cited 17.7 percent figure. In particular, evidence indicates that the U.S. is shouldering a larger burden than suggested by this figure. These additional costs are often inadvertently obscured by accounting practices and procedures as well as by difficulties in calculating various hidden costs, opportunity costs, subsidies, or risk factors.

Some of the lessons learned about the costs of U.S. participation in the IMF include the following: First, the U.S. contributes about 26 percent of *usable* financial resources to the IMF. As mentioned earlier, the IMF deems about 1/3 of member currency contributions to be "unusable" for IMF usage. Once you set aside these unusable currencies, the U.S. share of usable IMF quota contributions rises to about 26 percent, i.e., the U.S. contributes 26 percent of usable IMF quotas. Since this figure represents the proportion of those contributions that actually can be used for lending, it is economically more meaningful than the 17.7 percent figure. An implication is that the U.S. is contributing a higher percentage of usable resources than its voting shares would suggest.

The next chart shows the usable resource contributions of key IMF members. Of usable IMF resources, the U.S. contributes 26 percent, by far the largest contributed share. The next largest countries' contributed share are Germany's 9 percent and Japan's 9 percent. In other words, the United States' share is almost triple the size of the next largest member's share. It is also worthy to note that the G-10 countries' contributions to the IMF's usable resources clearly dominate all other sources. (The G-10 total is about 77 percent.) The implication is that IMF lending is largely being financed by a relatively small number of industrialized economies. As far as *usable* resources, then, the IMF does *not* have the broad-based support that is often suggested in the literature.



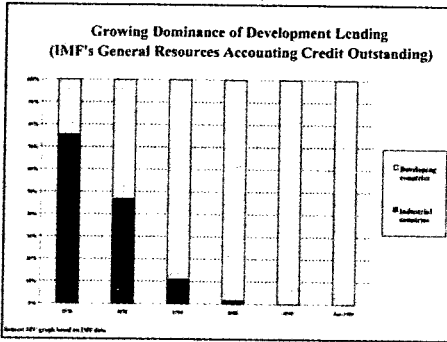
Second, the U.S. share of contributions to the GAB credit line is also significantly higher than its share of quota contributions: the U.S. share of this credit line commitment is about 25 percent. This commitment's share also exceeds the oft-cited quota-based, voting rights share (of 17.7 percent).

Third, the U.S. is remunerated for (part of) its reserve tranche position. This rate of remuneration, however, is at a rate of interest below that of comparable U.S. Treasury rates and therefore involves a subsidy. The current rate of interest remunerated on U.S. funds is about 3.4 percent. In other words, the U.S. government is lending at more favorable rates than the cost of money to the government. This subsidy should be recognized as a cost. In fact, the *President's Commission on Budget Concepts* defines the budget cost of an "exchange of assets" program as the difference between the Treasury's cost of funds for the term of the provision of resources and its rate of remuneration. (The Treasury rate minus the remuneration rate equals the cost.) Conservative estimates of this cost suggest it is not trivial; it could be as high as hundreds of millions of dollars per year.

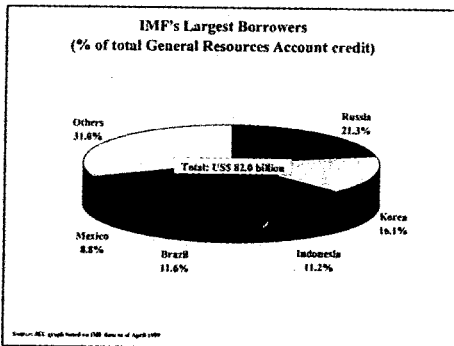
The United States also has a non-remunerated portion of its reserve position that (percentage-wise) involves an even larger subsidy. This unremunerated portion of the U.S. reserve position amounts to about \$2.3 billion. The cumulative value of lost interest payments (from 1975-1999) may amount to several billion dollars. (A GAO witness estimated it to be \$3.5 billion, but some private sources think it is even larger.) In any case, these costs are non-trivial and are not generally recognized by policymakers, the public, or taxpayers.

Fourth, IMF remunerations do not adequately reflect the increased riskiness of IMF lending. IMF lending however, has become riskier over time. Earlier, the IMF made relatively safe, short-term (low-risk) loans to high-grade industrial countries (such as the UK, France, or Italy). Recently, it increasingly has made significantly higher-risk, longer-term loans to lower-rated countries such as Russia, Indonesia, Brazil, Mexico, or Korea.

The next chart shows how IMF lending has changed over time from industrialized to developing country lending. As you can see, in earlier periods, more loans were made to industrial countries than is now the case. Currently, almost all loans are made to developing countries.



The next chart shows the IMF's largest borrowers. At times, the IMF loan portfolio has become highly concentrated with loans to riskier developing countries like Russia, Indonesia, Brazil, Mexico, and Korea. This has occurred as lending limits have been raised substantially. Note that almost 70 percent of current IMF lending goes to only five countries and 1/3 of these loans go to Russia and Indonesia alone.



Note that these loans are not only riskier, lower-rated borrowers and highly concentrated, but also longer-term in nature. Since these higher risks expose the lender, lenders should be compensated for these higher risks. But this risk factor is generally not reflected in interest rates received by lenders to the IMF. This uncompensated risk factor is (in effect) another form of subsidy and cost borne by lenders such as the U.S. (and its taxpayers). This cost is yet another cost that is not generally recognized by Congress, the public, or taxpayers.

Fifth, I will simply mention that unrestituted gold sales can entail substantial costs to U.S. taxpayers.

In short, the sum of these costs can be substantial. There are several dimensions to the costs of U.S. participation in the IMF that policymakers, taxpayers, and the public should understand. These include a substantial shouldering of usable financial contributions and commitments to the IMF that exceed the oft-cited voting rights share, the costs of subsidized interest rates, the cost of the absorption of risk, and aspects of gold sales. Conservative estimates suggest that the costs of U.S. participation in the IMF are substantial, in the neighborhood of half a billion dollar per year. (Notably, the best quantitative estimates can be found in Adam Lerrick's study for the Bretton Woods Committee.)

All of this suggests that the United States is shouldering a significantly higher proportion of the IMF's financial resources than the oft-cited 17.7 percent quota share would suggest. Furthermore, these facts have not been transparent to policymakers, the public, or the taxpayer. These costs to the U.S. taxpayer too often have been understated, or obscured (perhaps inadvertently) by IMF accounting practices and procedures.

III. SOME BRIEF COMMENTS ON THE IMF'S FINANCIAL STRUCTURE

Finally, in addition to these costs, it is important to highlight the changing nature of the IMF financial structure. I have mentioned earlier about IMF lending and borrowing. IMF lending has become increasingly concentrated with longer-term, riskier borrowing from developing countries than was earlier the case. At the same time, usable resources of the IMF are largely provided by a relatively small group of industrialized countries. In fact, the IMF does not have broad-based financial support as is often reported. As much as 77 percent of IMF usable resources are supplied by the G-10 countries. In short, the IMF is a much different institution than was earlier the case: the IMF is using resources from a small number of industrialized countries and lending this money to a small number of risky developing countries at subsidized interest rates.

CONCLUSION

In conclusion, there are many dimensions to the costs of U.S. participation in the IMF that policymakers and the taxpaying public should understand. I have tried to summarize several important aspects of these costs this afternoon.

**Research Findings Regarding
The Costs of U.S. Participation
In the IMF**

RESEARCH FINDINGS REGARDING THE COSTS OF U.S. PARTICIPATION IN THE IMF

Introduction

The finances of the IMF are relevant to U.S. taxpayers because of the prominent role of the U.S. in funding the IMF and guiding its decisions. Consequently, IMF quota increases and most significant IMF gold sales are considered as important policy issues before the Congress. However, informed policy decisions by Congress require adequate IMF transparency to ensure the availability of necessary information. Only with adequate transparency can Congress, in consultation with academic and other experts, develop a thorough understanding of the IMF's financial structure and the costs of U.S. participation in the IMF.

Over the last two years, the Joint Economic Committee (JEC) has promoted essential transparency through hearings, research papers and press statements. This paper reviews some of the key conclusions of JEC research concerning IMF financial structure and costs of U.S. IMF participation.¹

This paper reviews several findings derived from an examination of the IMF financial structure and costs of U.S. IMF participation. While there are obviously many other important policy issues involved in examining IMF policy (e.g. moral hazard, conditionality), this paper focuses on summarizing the costs of U.S. participation in the IMF. The paper also discusses the changed IMF's financial structure and comments on IMF transparency.

Costs of U.S. Participation in the IMF

The U.S. contributes about 17.7 percent of total IMF quota subscriptions. It is this percentage of quota resources that determines the voting rights of IMF member countries and is often equated to the member country's official financial contribution.

However, the actual economic costs of U.S. participation in the IMF differ significantly from this widely cited 17.7 percent figure. In particular, the evidence demonstrates that in a number of ways the U.S. is shouldering a significantly larger burden than is suggested by the Treasury or official IMF statements. These additional

¹ The General Accounting Office has provided helpful assistance to the JEC in this effort in response to a request by then-Chairman Saxton in 1998. See, the GAO reports "The Transparency and Financial Structure of the IMF," hearing before the Joint Economic Committee, One Hundred Fifth Congress, Second Session, July 23, 1998; and "Transparency and the Financial Structure of the IMF," hearing before the Joint Economic Committee, One Hundred Sixth Congress, First Session, July 21, 1999. JEC research papers related to the IMF include: Christopher Frenze, *IMF Gold Sales in Perspective*, August 1999; Robert Keleher, *An International Lender of Last Resort, the IMF, and the Federal Reserve*, February 1999; Christopher Frenze and Robert Keleher, *IMF Financing: A Review of the Issues*, March 1998; and Robert Keleher, *Financial Crises in Emerging Markets: Incentives and the IMF*, August 1998. For this and more information on the IMF, please visit our website at www.house.gov/jec.

costs are often obscured by accounting practices and procedures as well as by related difficulties in calculating various hidden costs, opportunity costs, subsidies, risk factors, or their accruals over time. Some observations relating to this issue include the following:

- **The U.S. contributes about 26 percent of usable financial resources to the IMF.**

In its quarterly operating budget, the IMF separates usable contributions from the unusable contributions from countries in weak economic condition. (There is little, if any, demand for the currencies of these later countries for international transactions.) With these unusable quota contributions set aside, the U.S. share of usable IMF quota contributions rises to about 26 percent. Since this figure represents the proportion of those contributions that actually can be used for lending, it is an economically more meaningful figure than the overall quota percentage. It demonstrates that the U.S. is contributing a significantly larger share of financial resources than suggested by the quota percentage often cited by the Treasury and the IMF.

- **The U.S. contributes a higher proportion of its quota in international reserve assets than the initially required 25 percent of quota.**

Under IMF procedures, 25 percent of quotas are initially paid in international reserve assets, primarily foreign exchange. The other 75 percent ordinarily takes the form of local currency or promissory notes. But some countries, such as the U.S., persistently contribute more than initial 25 percent of quota in reserve assets, including hard currency. In fact, the U.S. reserve tranche position as a percentage of quota currently is about 42.3 percent. The reasons for this are that (1) the U.S. — unlike many other countries — does not normally run down its reserve tranche position and (2) the IMF "encashes" U.S. promissory notes to raise additional funds for IMF lending. In so doing, the IMF enlarges the U.S. reserve tranche position. Accordingly, countries like the U.S. provide the extra marginal resources used for additional IMF lending programs. At the same time, many other countries — nearly one half of IMF membership — maintain virtually no reserve positions.² Furthermore, under the recent quota increase, over half of the IMF members immediately withdrew the economically meaningful portion of their contribution. According to the GAO:

Between January 1999, when the Eleventh General Review quota became effective, and April 30, 1999, 92 members withdrew the entire \$3.6 billion of usable currencies or SDR, replacing them with their national currencies.³

In sum, the additional reserve positions financing the IMF are largely from the U.S. and a relatively small group of other advanced countries, whereas a large share of

² See "Transparency and the Financial Structure of the IMF," hearing before the Joint Economic Committee, One Hundred Sixth Congress, First Session, July 21, 1999.

³ GAO, "Observations on the IMF's Financial Operations," September 1999, p.36.

IMF members contribute little or no usable monies. Indeed, of the total amount contributed in excess of 25 percent of member quota in hard currency, about 30.8 percent is contributed by the United States.

In short, the U.S. is contributing significantly more than 17.7 percent of both usable and hard currency contributions to the IMF. Thus, U.S. taxpayers are contributing proportionately more meaningful financial resources than the 17.7 percent implied by their oft-cited quota-determined voting rights percentage.

- **The U.S. share of contributions to the General Arrangements to Borrow (GAB) credit line is also significantly higher than its share of quota contributions.**

The U.S. share of total credit arrangements of the GAB amounts to 25%. Again, this amounts to a commitment whose share exceeds that of the oft-cited quota-based voting rights share. Accordingly, it indicates the U.S. is shouldering a larger share of the credit line commitment than suggested by its quota contribution share. This is case even when the New Arrangements to Borrow (NAB) are considered, although the combined share does decline to 19.7 percent.

- **The U.S. is remunerated for (part of) its reserve tranche position used by the IMF. This rate of remuneration, however, is at a rate of interest below that of comparable U.S. Treasury rates, and, therefore, involves a subsidy.**

The current rate of interest that is remunerated on U.S. funds is about 3.4 percent, a rate below that on U.S. Treasury securities. In other words, the U.S. government is lending at more favorable interest rates than the cost of money to the government. The government, therefore, is lending at "below-cost" rates involving a subsidy that should be recognized.⁴

From another perspective, the U.S. is essentially financing and providing the IMF with predominately long-term money (its reserve position at the IMF) while receiving a short-term rate of remuneration. This involves a subsidy to the IMF and a corresponding cost to U.S. taxpayers.⁵

- **The U.S. also has an unremunerated portion of its reserve position that constitutes a significant subsidy.**

⁴ As Lerrick has argued, the 1967 *President's Commission on Budget Concepts* "defines the budget cost of an 'exchange of assets' program as the difference between the Treasury's cost of funds for the term of the provision of resources and its rate of remuneration." See Adam Lerrick, *Private Sector Financing for the IMF: Now Part of an Optimal Funding Mix*, The Bretton Woods Committee, Washington D.C., April 1999, p.11.

⁵ See Lerrick, *op. cit.*, pp.11-13.

In addition to the portion of the U.S. reserve position that receives interest payments (or remuneration), there is an unremunerated portion as well that does not generate interest payments.⁶ Accordingly, this portion involves an even larger (percentage wise) subsidy than the remunerated portion. In other words, there is a portion of our reserve position that is, in effect, providing "free money" to the IMF. According to the new report by the General Accounting Office, the cumulative value of lost interest payments amounts to \$2.7 billion dollars.⁷ This unremunerated portion of the U.S. reserve position constitutes another sizable subsidy to the IMF and a significant cost to the U.S. taxpayer.

- **IMF interest payments do not adequately reflect the increased riskiness of IMF lending.**

Another issue relating to IMF operations is the increased riskiness of IMF lending. In particular, over the years IMF lending has changed from making a large share of relatively safe, short-term (low risk) loans to high-grade industrial countries such as the U.S., U.K., France, and Italy to making significantly higher risk, longer-term loans to lower-rated countries such as Russia, Indonesia, Brazil, Mexico, and Korea. At times, the IMF loan portfolio has been highly concentrated with the latter type of loans since IMF lending limits have been raised substantially. In short, the IMF loan portfolio has become considerably riskier over time.

Since these higher risks expose the lender, the IMF's donor countries should be compensated for these higher risks via higher interest rates; the interest rate charged the borrower and compensating the lender should reflect this higher risk. Yet this additional risk factor is generally not recognized or reflected in the interest rates paid by borrowers from the IMF and received by lenders to the IMF. This uncompensated risk factor is another subsidy and cost borne by lenders such as the U.S. and its taxpayers. But this risk factor is exceedingly difficult to accurately calculate or quantify for a number of reasons. One recent study recognizes and discusses the problems of calculating such risk factors. In particular, Lerrick recommends that "a risk premium or allowance for credit losses should be included in the cost of providing resources" to the IMF.⁸

- **Gold sales can entail substantial costs to U.S. taxpayers.**

IMF proposals to sell gold from its sizable reserves and use the proceeds for various IMF purposes, instead of restituting the gold to the original contributors, also entail significant costs to U.S. taxpayers. Costs associated with U.S. gold contributions are often hidden or obscure and usually not adequately taken into account in most

⁶ This portion originated in the mid-1970s with the demonetization of gold. When the second amendment to the articles of agreement was passed in 1978, the gold stayed with the Fund. The U.S. reserve account was credited with an equivalent amount of reserve assets. This portion was deemed non-interest paying.

⁷ GAO, "Observations on the IMF's Financial Operations," September 1999, p.56.

⁸ See Lerrick, *op. cit.*, p.15.

discussions of IMF gold sales. Such hidden costs are another non-transparent element of the costs of U.S. participation in the IMF.⁹

Gold is carried on the IMF books at about \$48 per ounce, well below current market prices. Accordingly, this below-market value hides the (higher) economic value of these reserves. Consequently, any gold sale which occurs at market prices will entail sizable gains to the seller. Relative to the restitution provisions under the IMF charter, such gains would come at the expense of the original contributors of the IMF gold. In any event, the potential profits from gold sales were nonexistent when the gold was initially contributed and should not be usurped by the IMF, but returned to the member nations.

This was forcefully recognized in a bipartisan manner in 1975, when earlier discussions about the proceeds of gold sales occurred. According to the view of Senator Ribicoff (D-Conn.) and Senator Taft (R-Ohio), expressed in a joint statement from a Joint Economic Committee subcommittee document:

Either the gold belongs to the IMF, or it belongs to the members states, which contributed the gold in proportion to their quotas. In either case, the profits (of sales) should be distributed to the member nations in proportion to their quotas.¹⁰

The IMF currently owns 103 million ounces of gold. Since the IMF's restitution formula provides for an U.S. share of about 23 percent of this gold, any restitution to the U.S. would entail a sizable sum. For purposes of illustration, for example, at a market price of \$260/ounce, the U.S. taxpayer share of potential restitution of the entire IMF gold stock would be approximately 23 percent of the gain, or about \$5.02 billion.¹¹ The U.S. gain amounts to about \$190 million for each billion dollars of gold sales.

On the other hand, U.S. taxpayers would forgo this amount in the case of non-restituted sales. For example, a 10 million ounce sale without restitution, as recently proposed, would cost the U.S. taxpayer about \$488 million.¹² These are not trivial sums. But these costs are seldom recognized in discussions of alternative gold sale proposals.

- The sum of these costs is substantial.

There are many dimensions to the costs of U.S. participation in the IMF that policymakers, taxpayers, and the public should understand. These include a

⁹ These costs are examined and detailed in a recent JEC study. See Christopher Frenze, *IMF Gold Sales in Perspective*, Joint Economic Committee, August 1999.

¹⁰ Comments of Senators Ribicoff and Taft, *The Proposed IMF Agreement on Gold, Report of the Subcommittee on International Economics*, Joint Economic Committee, December 17, 1975, p.11 (emphasis and parenthesis added).

¹¹ The U.S. share of a total 103 million ounce sale would be 23 percent of the \$260-\$48 gain, or about \$5.02 billion.

¹² The U.S. share of the 10 million ounce sale would be 23 percent of the \$260-\$48 gain, or about \$488 million.

disproportionate shouldering of financial contributions and commitments to the IMF, subsidized interest rates, absorption of risk, and aspects of gold sales. Conservative estimates of the costs of U.S. participation in the IMF (following the *President's Commission on Budget Concepts*) suggest that these costs are substantial.¹³ In summarizing these costs, it is reasonable to conclude the following:

- The U.S. is contributing a disproportionate share of usable funds to the IMF.
- The U.S. is contributing a disproportionate share of reserves to the IMF.
- The U.S. commits a disproportionate share of credit line support to the IMF.
- The U.S. is providing subsidized remunerated funds to the IMF.
- The U.S. is providing subsidized unremunerated resources to the IMF.
- The costs of riskier lending are being borne by creditor countries including the U.S.
- Gold sales without restitution to original gold donors would constitute a significant cost to U.S. taxpayers.

All of this indicates that the U.S. is shouldering a significantly greater proportion of the IMF's financial resources than the oft-cited 17.7 percent quota share would suggest. Furthermore, these facts have not been transparent to policymakers, the public, or the taxpayer. These costs to the U.S. taxpayer too often have been understated, hidden, or obscured by IMF accounting practices and procedures. Indeed, a number of these costs are not adequately accounted for in U.S. budgetary documents as recommended, for example, in the *1967 President's Commission on Budget Concepts*.¹⁴ In this context, it will be recalled that a year or so ago, IMF and Treasury sources were claiming that U.S. participation in the IMF was costless! Efforts to make IMF finances more transparent would help to put an end to such misrepresentations.

The changing IMF financial structure.

Identifying the many dimensions to the costs of U.S. participation in the IMF is one aspect of our examination of IMF financial practices. Another key point relates to the IMF's changing financial structure.

The IMF's original procedures, practices, and structure were designed in an era of fixed exchange rates, with gold and the U.S. dollar at the center of the Bretton Woods System. For the most part, IMF lending largely pertained to (short-term) loans to highly-rated, creditworthy, industrialized countries experiencing temporary balance of payments disturbances. Being temporary, such lending was seen as an approximation to short-term asset exchanges. Since interest rates were relatively low, interest charges and related subsidies were deemphasized and viewed as of secondary importance.

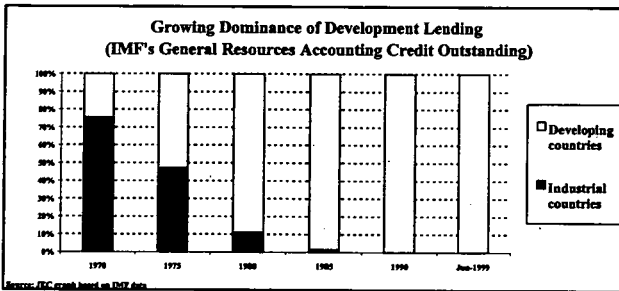
¹³ See Lerrick, *op. cit.*

¹⁴ Under the *1967 President's Commission on Budget Concepts*, approaches were recommended to costing various programs, including loan programs or asset exchanges. Subsidization of the cost of funds as well as default risk were to be considered in making cost calculations. See Lerrick, *op. cit.*

In the years since the demise of the Bretton Woods System, however, IMF practices and its clientele have changed significantly in a number of important ways. The IMF's portfolio, for example, has become riskier with a longer-term maturity structure. The IMF has evolved into an organization that is redistributive in nature in that the flow of subsidies is from one group of donors to a different and much larger group of borrowers.

The IMF's portfolio has become riskier in a number of ways. For the most part, IMF lending to lower-rated, higher-risk developing economies has replaced the lending to higher-grade, lower-risk industrial countries.

Further, loans are significantly longer-term and often more structural or developmental in nature than was earlier the case. Indeed, developing country lending now constitutes virtually all of IMF lending as compared to a significantly lesser share, for example, in 1970 (see graph).



An additional element of risk has been added by the liberalization of IMF loan limits that formerly capped borrowing to 100 percent of a member's quota. Not only have these limits been relaxed, but even the new rules have been grossly exceeded in recent years. As the JEC has pointed out, this relaxation of IMF lending limits has led to an unhealthy concentration of IMF lending to a small number of high-risk borrowers, thereby subjecting the IMF's lenders to considerable risk exposure. These JEC findings have also been noted by the GAO:

In the past 4 years, the IMF has provided financing to five large developing countries that have experienced financial crises. This financing was in amounts that were all well in excess of the IMF's limit on cumulative borrowing.¹⁵

¹⁵ GAO, "Observations on the IMF's Financial Operations," September 1999, p.28.

In addition to having a riskier, longer-maturity portfolio, the IMF has evolved into an organization that is redistributive in nature. As mentioned, loans and associated subsidies are increasingly concentrated among lower-rated, lower-income developing countries in contrast to the industrialized country lending of earlier periods. At the same time, financial support is narrowly-based among the G-10 countries. In fact, the IMF does not have broad-based financial support. This is illustrated by the fact that as much as 77 percent of the IMF's usable resources are supplied by the G-10 countries, and nearly half of IMF members maintain little or no reserve positions. In short, financial support is increasingly supplied by a small number of industrialized countries while borrowers are typically developing economies facing long-term structural problems. In sum, the IMF portfolio has become more redistributionist over time.

Transparency and the IMF.

The above-cited costs as well as the IMF's changing financial structure have been obscured from Congressional policymakers, the public, and U.S. taxpayers. Yet in order for well-informed Congressional decisions pertaining to the IMF to be made, such information is essential. Part of the reason policymakers have been uninformed on some of these matters is due to a lack of transparency on the part of the IMF.

Transparency, of course, has many different dimensions, and it means different things to different people. In brief, however, transparent policy is characterized by a lack of secrecy, obfuscation, or ambiguity and should be clear, simple, and understandable to policymakers as well as to the taxpayer public. It involves goal clarification as well as clear reporting on a real time, "ex-ante," and "ex-post" basis.¹⁶ Unfortunately, while the IMF has made some limited improvements in the dissemination of data and information, the IMF has a long way to go before it can be viewed as a truly transparent institution.

Numerous examples support this finding of non-transparency. The language used by the IMF, for example, illustrates this contention. The IMF refers to its lending from its principle account not as "loans," but rather as "currency purchases." Furthermore, changed IMF objectives -- as reflected in its dramatically altered financial structure -- have never been spelled out in a meaningful way. IMF financial documents as well as its accounting practices and procedures are neither clear nor understandable even to some senior IMF officials themselves.

Many of the costs of participation in the IMF (cited earlier) are difficult to calculate because much of the information needed to make such calculations is unavailable, obscure, hidden, or difficult to understand or to collect. Accurate information related to usable versus unusable resources, for example, are in operational budgets which are not available to the public. Similarly, the calculation of remunerated interest subsidies can be difficult. The costs of non-remuneration of interest are even less well-known since the concept has been hidden and calculation of the unremunerated reserve tranche position is not straightforward. Similarly, calculation of risk premium

¹⁶ See, for example, Robert Keleher, *Transparency and U.S. Dollar Policy*, Joint Economic Committee, July 1999, p.2.

and associated costs of risk is a complicated and difficult task that is not undertaken by the IMF. The cost related to non-restituted gold sales is hidden and obscure as well-documented in a recent JEC study.¹⁷ Much of the essential information pertaining to the recent IMF gold sales proposal, for example, was not available to the public. Accordingly, no rational and informed discussion was able to occur among policymakers in consultation with academic experts and academics.¹⁸

In sum, despite recent improvements in disseminating some data and information, a good deal more reform should be undertaken in order to make the IMF a truly transparent organization.

Summary and Conclusions:

The U.S. Congress is responsible for decisions related to IMF quota increases as well as to IMF gold sales. To make informed decisions, policymakers must have a certain amount of essential, yet understandable information. An understanding of the IMF's financial structure and the costs of U.S. participation in the IMF is especially pertinent. The JEC has worked to provide and highlight some of this essential information in the form of hearings, research papers, and press releases.

This paper has reviewed some of the key findings identified in examining IMF financial structure and costs of U.S. IMF participation. Further areas of investigation remain (e.g., the workings of the SDR department, accurate quantification of risk, etc.). Nonetheless, it is important that the information conveyed in these lessons be made available and accessible to policymakers and the taxpaying public.

There are many dimensions to the costs of U.S. participation in the IMF that policymakers and the taxpaying public need to understand. These include the disproportionate U.S. burden of financial contributions and commitments to the IMF, subsidized interest rates, absorption of risk, and aspects of non-restituted gold sales. Conservative estimates of the costs of U.S. participation in the IMF suggest that these costs are substantial. All of this suggests that the U.S. is shouldering a significantly greater proportion of the IMF's financial resources than the oft-cited 17.7 percent quota share would indicate.

In addition to these U.S. costs, it is important to highlight the changing nature of the IMF financial structure. The IMF's portfolio has become riskier in a number of ways. Longer-term loans are increasingly made to lower-grade, higher-risk developing countries. The IMF's portfolio has become concentrated with a small number of large loans of this type. Further, the IMF has evolved into an organization that is increasingly redistributionist in nature. Financial support is increasingly supplied by a small number of industrialized countries while borrowers are for the most part developing countries facing long-term structural problems.

¹⁷ See Frenze, *op. cit.*

¹⁸ See Frenze, *op. cit.*, p.3.

All of this information, while essential for Congressional decisionmaking, has generally not readily been available to Congressional policymakers or the taxpaying public. A major reason policymakers and the public are not well informed on these matters is a lack of transparency on the part of the IMF.

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Can IMF Lending Promote Corruption?

CAN IMF LENDING PROMOTE CORRUPTION?

Introduction

Emerging evidence of widespread corruption in several countries receiving substantial IMF assistance has raised questions related to a number of issues. For example, do corrupt governments tend to receive government-to-government assistance? What is the relationship between such assistance and corruption? Does financial assistance reduce such corruption? Or, could government assistance actually foster corruption?

The emerging evidence about corruption also raises questions about the policies underlying IMF procedures surrounding such assistance. Analysts, for example, have questioned how borrowed monies are monitored or tracked to ensure they are used for the purposes intended by the donors. Others question the anti-corruption conditionalities attached to lending agreements.

While most analysts agree some corruption is present in all countries and is often "home-grown," there are a number of reasons to believe that under certain conditions, government-to-government assistance and lending can actually promote corruption. This paper explores these corruption-promoting circumstances. The relevant foreign aid literature is reviewed and then related to IMF lending before remedies are prescribed.

Can Foreign Assistance Promote Corruption?

Recent research tentatively identifies certain conditions that tend to promote corruption. Leite and Weidmann (1999), for example, argue that among other things, corruption depends on governmental policies and the concentration of bureaucratic power.¹ Tanzi (1998) suggests that factors tending to promote corruption over time include government regulations and authorizations, certain characteristics of tax and government spending systems, government provision of goods and services at below market prices, and bureaucratic traditions.² In an earlier paper, Tanzi (1994) argued that opportunities for corruption increase with a larger role of the state in the economy. In his own words, "The more pervasive is the role of the public sector (through regulations, taxes, etc.)... the greater will be the scope for corruption."³ Lane and Tornell (1996) suggest that corrupt activity can operate in economies with powerful interest groups and weak institutions.⁴ Further, it is now widely recognized that centrally planned economies were closely associated both with many of these characteristics and a significant degree of corruption.

¹ Leite, Carlos and Jens Weidmann, "Does Mother Nature Corrupt? Natural Resources, Corruption and Economic Growth." IMF Working Paper, WP/99/85, July 1999.

² Tanzi, Vito, "Corruption Around the World: Causes, Consequences, Scope, and Cures." IMF Working Paper WP/98/63, May 1998, pp.3, 6, 10-16.

³ Tanzi, Vito, "Corruption, Government Activities, and Markets," IMF working paper No. 94/99, August 1994, p. iii.

⁴ Lane, Philip R., and Aaron Tornell, "Power, Growth, and the Voracity Effect," *Journal of Economic Growth*, Volume 1: 213-241 (June, 1996).

Literature dealing with foreign economic aid recognizes that government-to-government foreign economic assistance often can (inadvertently) promote those conditions that foster corruption. This is especially the case when a significant degree of corruption is already present in recipient countries.

Foreign assistance and lending, for example, is sometimes conditioned on budget deficit reduction, i.e., on proposals that can effectively increase a country's tax burden. Such assistance has also been identified with strengthening the public-sector bureaucracy which directly receives the aid, thereby promoting this bureaucracy's concentration of power. It is also known that the availability of foreign assistance encourages rent-seeking behavior and that government-to-government transfers often result in increased government spending on the part of aid recipients.⁵ While this literature pertains to the effects of foreign economic aid, it readily applies to the type of longer-term subsidized IMF lending that has occurred in recent years.

On the whole, this research suggests that while the objectives of foreign economic assistance are commendable, foreign aid and lending can have important (unintended) corruption-promoting effects on recipient economies for a number of reasons:

- **Foreign aid strengthens the government sector relative to the private sector.**

Foreign aid is usually provided from centralized government sources to centralized government recipients. More specifically, such aid is financed by taxing the private sector of donor countries and subsequently transferring the resulting resources, via centralized government-to-government means to recipient governments. This process works to subsidize and strengthen the public sector of the recipient country. Part of the explanation relates to the incentives of recipients.

As Bauer emphasized:

Unlike manna from heaven, official aid does not descend indiscriminately on the population of the recipient country; it accrues to specific groups of people in positions of power and sets up repercussions often damaging to development, notably by contributing to the politicisation of economic life.⁶

Specific recipients of aid monies have economic incentives that may differ or conflict with the intentions of donors. They have incentives, for example, to reward their friends, supporters, and special interest constituents. Because of these realities, foreign aid can in practice work to strengthen the role of the recipient countries' public sector relative to its private sector.⁷ Aid has tended to promote centralized economic control and fostered a concentration of bureaucratic power in recipient governments.⁸ This is corroborated by the fact that government-to-

⁵ See, for example, World Bank, *Assessing Aid: What Works, What Doesn't and Why*, World Bank and Oxford University Press, 1998, pp.64-66.

⁶ Bauer, P.T., *Dissent on Development*, Harvard University Press, Cambridge, Mass., 1976, p.21.

⁷ See Milton Friedman, "Foreign Economic Aid: Means and Objectives," *The Yale Review*, vol. XLVII, June 1958 No. 4, p.503.

⁸ See Bauer, *op. cit.*, p.128.

government transfers often lead to increases in government spending.⁹ And, as one researcher concluded, "Aid... does increase the size of government."¹⁰

• **Foreign aid can perpetuate or strengthen existing corruption.**

Research relating to foreign aid shows that such aid is dispersed not on the basis of need, but on the basis of strategic and geo-political considerations.¹¹ That is, aid tends to support existing recipients who generally are supportive of existing donors. Donors, after all, have incentives to provide aid to those forces, supporters, and organizations that will help them remain in power. In practice, these characteristics are more important to donors than forces of change. A World Bank survey of research on foreign aid, for example, indicates that "there is little relationship between changes in aid and policy reform."¹² Foreign aid, then, often has not worked to promote reform. Consequently, aid tends to subsidize -- and thereby strengthen -- existing government connections and structures since aid recipients also will distribute this aid so as to preserve their political positions. In short, political elites can benefit from aid. In practice, aid subsidizes and strengthens existing regimes so they become solidified and entrenched. When existing regimes are corrupt, such regimes can be strengthened by foreign aid. It has been shown, for example, that foreign aid seldom includes meaningful incentives to alter governmental behavior with regard to corruption. In sum, when existing regimes are corrupt, the result is that these corrupt political regimes can benefit from foreign aid and become more firmly entrenched.¹³

Recent research by Alesina and Weder (1999) corroborates this view. They find that foreign economic aid actually is directly associated with corruption.¹⁴ More specifically, Alesina and Weder contend that: "...our results ...suggest that foreign aid may increase, or at best, has no effect on corruption."¹⁵ Their research shows that there is no evidence whatsoever that less corrupt governments receive more aid, or that aid donors discriminate against corruption.¹⁶ Their research indicates that foreign aid appears to go to more corrupt governments.¹⁷ According to the authors, "there is some evidence that more corrupt governments receive more" aid.¹⁸ Alesina and Weder go on to say that multilateral aid seems to pay no attention to the level of corruption and there is some evidence that "multilateral aid is positively correlated to corruption."¹⁹

⁹ World Bank, *op. cit.*, p.64.

¹⁰ Boone, Peter. "Politics and Effectiveness of Foreign Aid." NBER Working Paper #5308, October 1995 (Abstract).

¹¹ Alesina, Alberto and David Dollar (1998), "Who Gives Foreign Aid and Why?" NBER Working Paper, No. 6612. See also Alesina, Alberto and Beatrice Weder, "Do Corrupt Governments Receive Less Foreign Aid?" NBER Working Paper No. 7108, May 1999, p.5.

¹² World Bank, *op. cit.*, p.49 (see also p.3).

¹³ The World Bank survey finds that governments in power a long time are less likely to implement reforms. World Bank, *op. cit.*, p.52.

¹⁴ Alesina and Weder, *op. cit.*, p.13.

¹⁵ *Ibid.*, p.5.

¹⁶ *Ibid.*, p. 13.

¹⁷ *Ibid.*, p. 5.

¹⁸ *Ibid.*, p. 13.

¹⁹ *Ibid.*, p.16. (Note that the later evidence, however, is not statistically significant.) See also, p. 4.

Other researchers as well as Alesina and Weder also find support for what they call a "voracity effect" of foreign aid. This "voracity effect" indicates that when a recipient country obtains a foreign aid windfall, lobbying and redistribution efforts are heightened and corruption worsens. As a result, the windfall is turned into a social loss.²⁰ Because of this effect, more foreign aid tends to produce more corruption; that is, "countries that receive more (foreign) aid tend to have higher corruption."²¹

In sum, there appear to be logical reasons and empirical evidence that foreign aid can, and in fact does, foster corruption.

• **Foreign aid can delay pressures for reform and efforts to reduce corruption.**

Similarly, foreign aid can create incentives to maintain existing institutions and inhibit reform; foreign aid can work to further entrench the *status quo*. Foreign aid, for example, may inhibit efforts to reform for several reasons. As countries come to expect economic aid from external sources, the impetus to develop the necessary preconditions for advancement may dissipate. Necessary efforts to reform attitudes, institutions, and incentive structures, and to minimize corruption may become subordinate to efforts to obtain such aid. The availability of foreign aid therefore may spawn efforts to obtain this external aid instead of efforts to develop the necessary, essential ingredients for corruption-free internally driven growth. In short, foreign aid may redirect attention away from necessary governmental policy reforms that weed out corruption, and toward aid procurement.²² In this way such aid may inhibit the commitment to reform and to reduce corruption.

In cases where significant corruption already exists, foreign aid typically has not worked to alleviate it. Recent research indicates that "there is little relationship between changes in aid and policy reform."²³

Occasionally, conditionalities on aid are prescribed as methods to counter corruption. But, as recent research suggests, such conditionality is unlikely to work for a number of reasons. Conditionality, for example, is inherently difficult to monitor, is typically in force for limited time frames, and is administered under the strong pro-disbursing incentives of donor agencies. This research generally remains skeptical "about the ability of conditionality to promote reform in countries where there is no strong local movement in that direction."²⁴

In sum, the foreign aid literature clearly makes the case that however commendable the objectives of foreign economic aid, such aid can promote (1) conditions fostering corruption, (2) the public sector relative to the private sector, (3) the status quo and existing corruption, and (4) delays in reform efforts to reduce corruption.

²⁰ *Ibid.*, p. 12. See also Lane and Tornell, *op. cit.*

²¹ Alesina and Weder, *op. cit.*, p.20 (parenthesis added).

²² See Bauer, *op. cit.*, pp.100-3.

²³ See World Bank, *op. cit.*, p.49.

²⁴ World Bank, *Ibid.*, p.51.

Relevance to IMF Lending

Most of the above remarks pertaining to foreign aid are directly applicable to IMF lending. IMF assistance loans, after all, are heavily subsidized and increasingly longer-term in nature.²⁵ These loans are dispersed from a highly centralized (multilateral) government agency to centralized government recipients. The loans, therefore, go to those in power, supporting existing established elites. Furthermore, many of these loans recently have been made to lower-rated developing countries with especially high degrees of corruption as calibrated by various measures of corruption. In fact, many of these countries were identified as highly corrupt by the IMF's own research staff.²⁶ All of this suggests that IMF lending may subsidize and foster corruption.

Furthermore, the conditions placed on IMF loans to these countries often may (perhaps unwittingly) foster circumstances spawning further corruption. Conditions promoting increases in taxation, government spending, and subsidies to the bureaucracy, for example, may be counterproductive. IMF lending may also more directly promote corruption through the "voracity effect:" i.e., by increasing the conflict among powerful special interest groups and factions, their power and influence is strengthened and corruption thereby promoted. The fact that many countries receiving IMF loans have remained dependent on IMF assistance for extended time periods with little evidence of genuine reform suggests that the entrenchment of the (sometimes corrupt) *status quo* may be related to IMF lending.²⁷

Despite widespread evidence of corruption in recipient countries, IMF lending has seldom, if ever, been associated with controls, safeguards, monitoring procedures, earmarking, or tracking systems to ensure such funds are used consistent with the wishes of donors.²⁸ Corruption-preventing conditionalities also have seldom been associated with IMF lending; such lending is not contingent on a lack of corruption. Further, there is little evidence that corrupt governments get less IMF support or that IMF lending reduces corruption.

In short, the evidence suggests the IMF knowingly makes loans to corrupt governments while recognizing that some of its loan conditions and procedures can create circumstances promoting additional corruption. Yet no important safeguards or preventive conditionalities have been attached to these loans. Thus, IMF lending operations may be consistent with subsidizing corruption.

²⁵ See Robert Keleher and Christopher Frenze, "JEC Findings Regarding IMF Financial Structure and Cost of U.S. Participation in the IMF." Joint Economic Committee study, October 1999.

²⁶ See, for example, Tanzi (1998) *op. cit.*, Table 1 (pp.23-4) where Russia, Indonesia, Philippines, Brazil, Mexico, Thailand, and South Korea are all identified as being relatively corrupt. See also the data presented in Pranab Bardhan, "Corruption and Development: A Review of Issues," *Journal of Economic Literature*, Sept. 1997, pp.1343-6.

²⁷ See, for example, Doug Bandow, "The IMF: A Record of Addiction and Failure," in *Perpetuating Poverty*, edited by Doug Bandow and Ian Vasquez, Cato Institute, Washington D.C., 1994, p.19.

²⁸ Since the IMF does not lend money for specific purposes and money is fungible, as long as macro conditions are satisfied, there is normally no strict monitoring of funds associated with IMF lending.

Remedies

Current forms of IMF assistance can foster or perpetuate corruption. To minimize the possibility of this occurring, several types of IMF reforms or procedural changes have been proposed. These proposals take the following forms:

- **Reduce and reform IMF lending:** Minimizing IMF lending is one obvious way to prevent IMF assistance from promoting corruption. But refocusing such lending away from longer-term structural lending and toward the type of temporary, shorter-term balance-of-payment lending that earlier characterized the IMF also would work in this way. Adopting prudent lending limits and thereby embracing smaller-scale lending is consistent with such an approach. Elimination of pervasive IMF interest subsidies would also work to reduce the potential for corruption.
- **Impose strong conditionalities:** Another proposal to minimize the corruption-promoting effects of IMF assistance is to impose strong conditionalities on such lending. Pre-screening countries by requiring certain legal standards, anti-corruption codes, and accounting practices be established prior to obtaining IMF funds could work to minimize corruption.
- **Establish monitoring procedures:** A third approach to minimize the possibility of enhanced corruption is to establish monitoring or earmarking systems to reliably track IMF funds. These procedures would presumably ensure these funds are utilized in ways consistent with the wishes of donors. This might involve the establishment of separate accounts or accounting practices used exclusively for IMF funds.

While these proposals seem reasonable, few, if any of such proposals have been taken seriously or successfully implemented. Nonetheless, such changes appear to offer viable options at this time.

Summary and Conclusions

Evidence of widespread corruption in several countries receiving IMF assistance has raised questions about the relationship between such assistance and corruption. Research pertaining to corruption indicates that the more pervasive the public sector's role in the economy, the more likely is corruption to flourish.²⁹

However commendable the objectives of foreign aid, such assistance often can create the very conditions that foster corruption. Such aid can strengthen existing public sector bureaucracy, result in larger government spending and a larger public sector (relative to the private sector), promote more rent seeking activity, entrench a corrupt status quo elite, and foster delays in reforming existing corruption.

²⁹ See Tanzi, 1994, *op. cit.*, p.iii.

All of this is directly relevant to current IMF operations. IMF funds currently can be distributed to corrupt public bureaucracies and elites and are often (unwittingly) used to promote those conditions fostering additional corruption. Despite widespread evidence of corruption, IMF lending has been associated with neither safeguards or controls, nor contingencies related to the absence of corruption. This suggests IMF lending may work to foster corruption. Reducing or reforming IMF lending, imposing strict conditionalities, and/or establishing reliable monitoring methods appear to be alternative remedies available at this time.

Robert Keleher
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to the Vice Chairman

THE STRATEGIC PETROLEUM RESERVE

HEARING

before the

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED SIXTH CONGRESS

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THE STRATEGIC PETROLEUM RESERVE

Wednesday, September 27, 2000

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 10:00 a.m., in Room 311, Cannon House Office Building, the Honorable Jim Saxton, Vice Chairman of the Committee, presiding.

Present: Representatives Saxton, Sanford, Pitts, Maloney, and Watt; Senators Bennett and Kennedy.

Staff Present: Chris Frenze, Robert Keleher, Darryl Evans, Jason Fichtner, Colleen J. Healy, Joe Pasetti, Howard Rosen, Daphne Clones, Michael Kapsa, and Russell Comeau.

OPENING STATEMENT OF

REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

Representative Saxton. Good morning. I am pleased to welcome our witness, Assistant Secretary Robert Kripowicz, before the Joint Economic Committee (JEC) this morning. Although it was not planned this way, this hearing on the Strategic Petroleum Reserve (SPR) appears to be especially timely. We had scheduled this hearing before this issue became front and center, but in light of the fact that it was scheduled and in light of the fact that this is a topic that is of interest to many Members of Congress, as well as the public, it is a timely hearing.

The purpose of the hearing today is to examine the SPR in the context of U.S. energy policy. In recent days, there has been tremendous interest in the SPR, but a lot of important questions remain unanswered. One such important question relates to the various possible methods of tapping the SPR and whether they would prove effective in the short-run as well as in the long-run. The hearing today is not intended to promote any particular point of view, but merely to examine the underlying facts. These include the amounts of oil in the SPR and home heating oil reserve; the quality of this oil; the mechanics of release through swaps and other effects on prices and supplies; and the physical removal of the oil from the SPR.

Since last winter, I have been on record favoring a release of oil from the SPR to deal with the shortages, especially in home heating oil. Senator Kennedy and I were just talking about the effect of this situation on the Northeast. Obviously, last winter, consumers were faced with a

very, very difficult situation. Everyone knows that, but there was another group of people who were very much affected as well, and those are the people with the fleets of trucks that go to deliver the oil.

What happened was the price spiked from about \$1.00 to \$2.00, so consumers were unable to make timely payments. However, the delivery people couldn't get product unless they paid for it, and so they were the people who were put in the middle; a difficult situation for all of them and an impossible situation for some.

If market forces were determining oil prices, then an SPR release would be somewhat problematic, but is less so when state-owned firms from the OPEC countries are exercising their monopoly power. An SPR release would counteract OPEC's anti-market policies, at least in the short-run when inventories are low. In addition, the use of the oil weapon by some countries makes counter-action appropriate in the short-run. OPEC's restraint on oil supplies reflects the influence of the hard-line price hawks within the cartel. Moreover, Iraq also exports a significant amount of oil to the U.S., a factor that could threaten the U.S. yet again.

However, an SPR release is only a temporary measure and is not a panacea. The U.S. must do everything in its power to undermine the OPEC cartel and its monopoly power over supply and prices. The health of the national and international economy is very positive, but it has led to higher demand for oil, and OPEC has moved to fully exploit this development. U.S. consumers and taxpayers are paying a heavy price for the OPEC exploitation.

Even as they put the squeeze on U.S. consumers, several of the hard-line OPEC price hawks and other OPEC members and allies are currently receiving U.S. taxpayer subsidies through the International Monetary Fund (IMF). I have introduced legislation mandating the U.S. Executive Director of the IMF to oppose new loans to OPEC members and allies who exercise their monopoly power to the detriment of the U.S. economy, but much more pressure on OPEC is needed. Currently Venezuela, Indonesia and Algeria are all receiving IMF subsidies at the expense of the U.S. taxpayers, and so U.S. taxpayers are being gouged twice, once by IMF subsidies and the contributions we make to it, and second by paying high prices at the pump.

Fortunately, new exploration and extraction technologies are leading to the discovery of vast new oil deposits that can be tapped in more efficient ways. As the former Saudi oil minister has acknowledged, the OPEC's days are numbered. However, today we are focusing on the

short-run problem and whether it can be effectively addressed through the SPR.

I would like to thank Mr. Kripowicz for being here this morning, and we look forward to your testimony, but before that, we are going to hear from our good friend from the Northeast, Senator Kennedy.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 35.]

OPENING STATEMENT OF SENATOR EDWARD M. KENNEDY

Senator Kennedy. Thank you very much, Mr. Chairman, and thank you for renewing your continued support of the release of oil in the SPR and for calling this hearing to get the facts. I think this is enormously important at any time and particularly important now.

As you know, Mr. Chairman, first of all, the judgment that has been made by the President and the Secretary has had broad support in the Congress and not just limited to our side of the aisle. It has been broadly supported by the Chairman of our Finance Committee, Senator Roth, Senator Specter, by Senator Collins, Senator Snowe, Senator Jeffords, all Republicans, Congressman Gilman, Chairman of the House Foreign Relations Committee, as well as yourself.

So this has had a broad range of support because this is the only means available to make an impact in terms of home heating oil in the Northeast, and other parts of the country. This is against a background, as this chart on my left would indicate, that portrays the normal range of reserves that are held in the East, and that is, the purple line goes through here we see the normal range.

[The chart entitled, "Distillate Stocks are Low - Especially on the East Coast," appears in the Submissions for the Record on page 39.]

If you look at December of last year, we were just below the normal range and yet - and we also, as the next chart we will see, but I want to hold this one, there was a relatively mild winter. At that time we went from 80 cents a barrel up to \$2 a barrel. This had an enormously devastating impact, particularly on elderly families, particularly on fixed income families. If you look now back at the chart, you will see that the reserves that will be held this year, this time, are still well below, generally throughout the Northeast, 40 percent of what they were last year in New England, specifically 60 percent. So it is a very ominous situation.

[The chart entitled, "Regional Residential Heating Oil Prices," appears in the Submissions for the Record on page 40.]

The next chart will show even last – well, this next chart shows what has happened in the different parts of the country where home heating oil, residual heating oil, has been used. You have New England, the Mid-Atlantic, the South-Atlantic and Midwest, all on that chart going back for several years. What you see from this chart here is the dramatic spike that took place in New England, for a number of different reasons we don't have the extensive kinds of areas for reserves, although in the previous chart it showed you in that other line that we are way below even the reserves that we could hold. And last year with the fact that we didn't even keep the reserves where they should have been and could have been kept, the dramatic spike, this shows it is particularly sensitive in New England.

The next chart shows like last year, where the temperature was, the black line indicates what the normal temperature would be; the red, the actual temperature. So you have really a warmer than normal winter with the price going right up through the roof. You have now the reserves in the Northeast generally, and particularly in New England, well down from last year, which is rather ominous.

[The chart entitled, "Winter Demand Impacted by Weather," appears in the Submissions for the Record on page 41.]

This final chart, Mr. Chairman, would show the past where there has been the release of the strategic reserves. I take note, particularly the 1996 release where it was 28 million barrels of oil sold to raise revenues as directed by the Congress as part of the balanced budget regime, I dare say providing relief for hard-pressed families that are involved in life and death situations clearly should have a priority even over that particular proposal.

[The chart entitled, "Strategic Petroleum Reserve Releases," appears in the Submissions for the Record on page 42.]

In the most recent times, we have seen in July of this year the swap that was made in order to provide some relief to two major oil companies. So the fact remains that there has been the release in the past, and I think there has been sufficient authority to do it.

I want to just conclude, Mr. Chairman, that we have seen now the commitment of the release of 30 million barrels. Translated, that is about three to five million barrels in our region of the country. It is having a positive impact generally on the heating oil prices, a reduction in the overall costs of a barrel of oil, about 15 percent reduction. That will have

a very positive impact. It will be good for the next 30 days. We may very well be in a situation – we only get, as it works out with the refinery, with the 30 million barrels, three to five million barrels for home heating oil in our region because others refined in ways for gasoline and other different gas products. So we may very well have, at the period of time, 30 days from now, a requirement to release additional funds.

This is always against the fact that the administration can sell higher than they buy the futures market, which is now about \$24 a barrel. So it is a good savings, a good investment for our country and, of course, we haven't always taken advantage of the lower price. We missed the opportunity to provide another 200 million barrels just recently in the last few years because the Congress made a determination not to have that investment. There is sufficient protection for our national security, most importantly, the authority is there to release it.

We take note that now that the Spanish Government is considering releasing some of their comparable SPR for their own economy, they have been supportive of the administration's position, and I also draw the attention of the Committee to the fact that the G-7 has also, this last Monday, supported this position. So we are grateful to your leadership, Mr. Chairman, as someone who understands this issue. We thank you for having these hearings. We look forward to hearing from our witnesses, but it is important to put this into some kind of perspective. Our fellow New Englanders, Republican and Democrat alike, are appreciative of the action that has been taken. If this action wasn't taken, there would be no other action that could be taken, in the short-term. The devastating impact on families would be realized. That is not going to happen and we are glad that the action has been taken. I thank the Chair.

[The prepared statement of Senator Kennedy appears in the Submissions for the Record on page 37.]

Mr. Saxton. Thank you very much, Senator Kennedy.

Senator Bennett has requested an opportunity to make an opening statement. What I would like to do is to permit him to make his opening statement and perhaps have one more from your side. Will that work out for everybody? Okay. Fine. We will have Senator Bennett for five minutes and then we will move on to another Member from the Minority.

Senator Bennett.

OPENING STATEMENT OF SENATOR ROBERT F. BENNETT

Senator Bennett. Thank you, Mr. Chairman. There has not been unanimous joy at the suggestion that the oil reserves be tapped. Secretary Summers took the unusual step of writing the President a memo in which he strongly opposed tapping the oil reserve and quoted Alan Greenspan as supporting that. This is an unusual move. The Chairman of the Federal Reserve usually does not allow himself to be quoted on matters of this kind, but he and the administration's chief economic advisor, the Secretary of the Treasury, both said this was a serious mistake. It also has given rise to an interesting editorial or op-ed piece in *The New York Times* that appeared yesterday. Thomas Friedman, who normally is not known as a supporter of Republican causes, was very, very negative in his reaction to it. If I may quote from some of the Friedman column, he says we either have to start to consume less oil by shrinking our SUVs, raising gasoline taxes or, again, taking conservation seriously, or find more nonOPEC oil, which means figuring out how to tap more of Alaska's huge natural gas reserves without spoiling Alaska's pristine environment or else we pay the price.

I should note that the Congress twice has tried to move in that direction. Twice, the President has vetoed the Congress' initiative and now we pay the price.

Mr. Friedman goes on, Mr. Gore knows this but instead of laying it on the line, he opted for an Olympic quality, full body pander, offering a quick fix to garner votes and pain-free solutions for the future; prime the pumps, prime the polls and pay later. He says this is dangerous. Another name for the Gore strategy would be the Saddam Hussein *Rehabilitation Act of 2000*, because tapping into the Strategic Reserve without conservation or exploration only guarantees OPEC's dominance.

He goes on, and I will not quote the rest of his column because, frankly, it gets quite political and talks about the election. It makes a suggestion as to how people might vote in the election as a result of this. But I think we should recognize that Secretary Richardson, in his announcement, said the release was to increase supply and not to lower prices. The people in New England who think that this release will in fact lower prices are, I believe, deluding themselves. Right now the refineries are at 96 percent of capacity.

They are at full capacity and an addition of crude oil that is unrefined simply means that there is more supply available for the refineries when they get around to shifting from refining gasoline to

refining crude oil into home heating oil. But my expectation is that the high prices for home heating oil that we had last year are going to be realized again this year. The charts that the Senator from Massachusetts has given us do not demonstrate to me that we are going to get any lower prices for home heating oil. If anything, the prices for home heating oil are going to be higher.

And the key comment from the Senator from Massachusetts was, gee, this is the best we can do in the short-term. The column by Friedman indicates that our problem is a long-term problem and it is not going to be taken care of by short-term solutions. There may be a little bit of benefit that would come out of this release, but the long-term exclusions lie in the directions that Thomas Friedman talks about and the President is going to have to put away his veto pen or the next president is going to have to put away his veto pen and allow the Congress to go ahead with the initiatives we have already been pushing, which would increase the supply of American crude in the long-term.

We are now seeing that the policies of this administration to hold down the supply of energy across the board, be it natural gas or crude oil, are beginning to come home to roost now in dramatically higher prices and dramatically greater dependence upon foreign oil. We have no short-term solution for that. That long-term problem is with us and will remain with us until the administration decides to listen to the Congress and allow increased supply of domestic energy sources, be it natural gas or oil or preferably both, together with increased supply of hydroelectric power, which this administration has also opposed, or we are going to see energy prices continue to skyrocket for the years ahead.

Representative Saxton. Senator Bennett, thank you very much. We have one additional statement from the Minority.

Mrs. Maloney.

OPENING STATEMENT OF

REPRESENTATIVE CAROLYN B. MALONEY

Representative Maloney. Thank you very much, Mr. Saxton, for calling this hearing today. Winter energy prices deserve our full attention, and I am pleased that we are here to talk about one solution that has been put forward to the problem, swapping oil from the Strategic Petroleum Reserve. Senator Kennedy pointed out that this has wide bipartisan support, national support and international support from the G-7 and others. While Governor Bush has criticized the decision to swap oil from the Reserve, I am convinced that it is a timely and sensible way

to really help the suffering of consumers, especially in the Mid-West and Northeast and especially with home heating costs.

One thing that troubles me is that he is very critical, or certain people are very critical. Yet they don't have any other alternative. And oil companies have really tripled their profits over this last year. We can't expect American families to believe that current prices are entirely due to OPEC decisions alone. Oil companies' profits have exploded. When we compare their profit margins between June of 2000 and 1999 as reported in *Standard & Poors*, here are the increase in profits.

I would like to put this in the record. I mean, these are huge profit margins, again, that comes from *Standard & Poors*, Unocal Corporation, 872 percent; Phillips, 274 percent; Chevron, 140 percent; Marathon, 203 percent. *The New York Times* recently reported and I quote, "that the 14 major oil companies during the first 8 months of this year earned a total of \$15.5 billion, nearly triple the profits during the same period in 1999 when oil prices were depressed," according to the energy information administration.

[The chart entitled, "Oil Company Profits Exploded Over the Past Year," appears in the Submissions for the Record on page 43.]

Yesterday Secretary Richardson testified that the refineries are able to handle this, and we have already seen that prices have gone down.

I would like to put in the record two letters that I think are important, and I think that they are related to the energy debate that we have. While OPEC is meeting today in Venezuela and oil companies are making huge profits, oil lobbyists are working behind the scenes, as we speak, in this Congress, with the Majority, to increase their company's bottom lines at the expense of the public and the taxpayers. And I would like to bring up two issues that are moving through this Congress right now. One is the *Commodity Futures Modernization Act of 2000*, which has passed the House Banking Commerce and Agricultural Committees. This would have the effect of allowing trading in energy futures to move off of public exchanges and on to private electronic exchanges out of sight where the public will have no ability to monitor changes in energy prices.

[One letter appears in the Submissions for the Record on page 44; the other was not received.]

For example, currently the market participants on open exchanges with more than 200 contracts, the equivalent of 200,000 barrels of oil, must report their positions to the Commodity Futures Trading Commission (CFTC) and the exchange and the CFTC makes the

information available to the public. Trades often exchanged will not have the audit trail available to reconstruct fraud. A situation could occur where consumer energy prices spike based on trades and energy derivatives, products conducted on private multilateral exchanges that the energy companies themselves even own.

And I would like to put into the record a letter from Chairman Rainer from the CFTC in which he basically says that he cannot audit or monitor the energy exchanges if this exemption for energy, that allows them for their future tradings, to go off of the public trading. I think that is an important point that would have a long-term effect on pricing and our ability to monitor what is taking place.

[The letter from Chairman Rainer appears in the Submissions for the Record on page 45.]

I would also like to point out yet another giveaway to the oil industry. In 1996, along with Chairman Horn, we held a series of hearings where we documented efforts by the oil industry to cheat taxpayers out of millions of dollars owed in royalties for oil taken out of Federal lands. These hearings and subsequent investigations by the GAO led the subcommittee to conclude that major oil companies were paying royalties to the Federal Government based on prices that were far lower than the market value of the oil they were buying and selling. To date, lawsuits against the oil industry have resulted in more than \$300 million being returned to the U.S. treasury. Overall, the oil industry has been forced to pay over \$5 billion to the Federal Government, states and Indian tribes. The revised oil valuation regulations which have emerged from these lawsuits will restore an additional \$66 million each year to the U.S. Treasury.

With that money, we could put dollars into the LIHEAP (Low Income Home Energy Assistance Program) program, which has been a priority of Senator Kennedy. We could do a lot with that money. Now we find out the Senate Energy and Natural Resources Committee plans to attach a provision designed to thwart the new valuation rule to the *Energy Policy and Conservation Act* that authorizes the Strategic Petroleum Reserve, and finally authorizes the desperately needed Northeast Home Heating Oil Reserve.

I am truly disturbed and astonished that we would consider attaching a giveaway to the oil industry in the midst of a bill designed to help consumers deal with rising oil prices. I have written Secretary Bruce Babbitt urging him to strongly oppose this provision, and I would like

also to put that in the record. I am hopeful that the Senate will pass it without this particular rider.

[The letter to Secretary Babbitt appears in the Submissions for the Record on page 47.]

Representative Saxton. The gentlelady is well past her time. Can you finish up?

Representative Maloney. Just in conclusion, oil companies are making record profits. This step is a reasonable one. It will – it is a swap that will – the oil will come back into the Reserve, and at the same time, there are two giveaways moving their way through Congress right now that will have an impact on consumer prices from the oil industry.

Representative Saxton. I don't want to interfere, but you are way past your time. Thank you very much for concluding.

Representative Watt. Mr. Chairman.

Representative Saxton. We are going to move now to our witnesses. We had an agreement, Mr. Watt, that we were going to have originally one statement on each side and then in fairness, I expanded to two statements on each side and so we are going to move to our witnesses.

Representative Watt. Well, I did not realize, Mr. Chairman, that I was going to have to flip a coin with one of my colleagues about who was going to make an opening statement. Is there some reason that we are in a hurry? Are these gentlemen who are testifying in a hurry to go somewhere else? Are we in a hurry?

Representative Saxton. We are all anxious to move forward with the hearing and hear from the experts on the issue.

Mr. Kripowicz.

Representative Watt. Is there some reason that we have waived opening statements for one person and not the other people?

Representative Saxton. As I stated, Mr. Watt, when we came into the room it was my intention to have one opening statement on each side. That was the agreement, and in fairness to both sides we expanded it to an additional opening statement on each side.

Mr. Kripowicz.

**OPENING STATEMENT OF ROBERT S. KRIPOWICZ,
ACTING ASSISTANT SECRETARY FOR FOSSIL ENERGY;
ACCOMPANIED BY RICHARD FURIGA, THE DEPUTY ASSISTANT
SECRETARY FOR PETROLEUM RESERVES**

Mr. Kripowicz. Mr. Chairman, Members of the Committee, I am pleased to be here to discuss the Strategic Petroleum Reserve.

Representative Watt. Can we ask the speaker to at least pull his microphone forward and let us hear him?

Mr. Kripowicz. Mr. Chairman, Members of the Committee, I am pleased to be here to discuss the Strategic Petroleum Reserve. I understand that when this hearing was first scheduled, the Committee was interested in a general description of the Reserve and the way we maintain its readiness. Given the President's direction to the Department last Friday, we also have a specific circumstance to discuss. So I will be pleased to answer both general questions about the Reserve and any specific questions members have regarding the way we are responding to the President's direction.

I have with me at the table Mr. Richard Furiga, the Deputy Assistant Secretary for petroleum reserves, who oversees the day-to-day operations of the Strategic Petroleum Reserve, and who is charged with implementing the exchange initiative.

The Strategic Petroleum Reserve is the world's largest emergency stockpile of crude oil. It was authorized in 1975 when President Ford signed into law the *Energy Policy and Conservation Act*. We began adding the first crude oil in July of 1977.

Today the Reserve holds 571 million barrels of crude oil. Contrary to what a lot of people envision, the Reserve is not a typical tank farm. In fact, very little of the Reserve's crude oil is contained in above ground tanks. Virtually all of the inventory is stored in deep underground salt caverns. These caverns were created by using water to dissolve massive cavities in the salt domes that are prevalent along the Gulf of Mexico coast.

The top of a typical storage cavern may be as deep as 2,000 feet underground and extend another 2,000 feet to its bottom. It is large enough to hold one of the towers of the World Trade Center. We have 62 of these caverns at four sites in Texas and Louisiana. These caverns have the capacity to hold 700 million barrels of crude oil, although, as I said, they currently hold 571 million barrels.

Why do we use salt caverns? One reason is cost. When we built the Reserve, we could store crude oil in the caverns for one-tenth of the cost of above ground. It is the most economical way to store large quantities of crude oil. A second reason is environmental safety. At the depths of these caverns, the natural geologic pressure will seal any cracks that might develop in the salt formation.

This provides a very secure way to store oil and avoids problems of above ground tank spillage and other environmental concerns.

The salt domes also permitted us to site the Reserve's storage locations near our major refining centers. Each site is connected to commercial pipelines and shipping terminals that also provide ready access to refineries and distribution points throughout the country.

We can move oil into the market, if necessary, at rates up to 4.1 million barrels per day, and we can sustain that rate for three months. At one million barrels per day, we can deliver oil to the market for nearly a year and a half.

The Reserve has been used once before by presidential order to avert a possible supply shortage. That was during Operations Desert Shield and Desert Storm. During Desert Shield, in September of 1990, President Bush directed that we conduct a test sale to ensure the readiness of the Reserve.

When the Persian Gulf conflict escalated in January 1991 and Desert Shield became Desert Storm, the President ordered a full precautionary drawdown of the Reserve.

Together, the two actions released 21 million barrels of oil into the market, four million in the test sale and 17 million in the full drawdown.

We have also used the Reserve on a more limited basis in the past. This summer, for example, we exchanged 1 million barrels of crude oil to refineries in Louisiana that were threatened with supply shortages because of a shipping channel blockage.

In 1996, we carried out a similar exchange because of a commercial pipeline blockage.

In 1998, we exchanged a lower grade of crude oil for a higher grade that was more compatible with our drawdown and delivery system.

And in 1996 and 1997, we carried out three budget-related sales in accordance with Congressional appropriations.

This past Friday, President Clinton directed the Department to conduct the largest exchange to date, as a way of boosting domestic oil supplies. We are especially concerned about the critically low

inventories of heating oil that many families will need this winter. We believe that a temporary infusion of 30 million barrels of oil into the market over a 30-day period will likely add an additional three to five million barrels of heating oil this winter, if refineries are able to match higher runs and yields seen in the past. This will be extremely important nationwide, where distillate inventories are 19 percent lower than they were a year ago, and it will be especially important on the East Coast, where distillate inventories are 40 percent lower and in New England where inventories are 65 percent lower than last year.

This past Monday, my office issued the solicitation for the exchanges. We are asking companies to submit bids by this Friday. In the bids, companies will specify how much additional oil they will return between August and November of next year. We will choose the winning bids and award contracts by the following Friday.

This is an important point, Mr. Chairman. The President ordered an exchange of crude oil, not a sale. That means we will get the oil back, plus a bonus percentage. Bids will be awarded on the basis of which company offers to return the largest amount of additional oil of comparable or higher quality. In other words, we are not depleting the Reserve, rather we will be adding to it.

Our solicitation specifies November as the month for delivering the crude oil. However, the three Reserve sites we are using will be ready to accommodate earlier deliveries if the companies can make suitable transportation arrangements. We could be seeing the first oil move into the market perhaps as early as mid-October.

I would point out, Mr. Chairman, that the President's decision last Friday is one of a series of actions we are taking to prepare for this winter. Another is the creation of a two million barrel heating oil reserve in the Northeast. We are exchanging a small portion of the crude oil from the Reserve, about 2.8 million barrels, for two million barrels of heating oil stocks and the storage capacity to hold them this winter.

All of our contracts are in place for the heating oil reserve, and we are beginning to fill it. In fact, over half the oil is already in place. And we expect the Reserve to be fully stocked in the next few weeks, well before the original end of October target date.

With that, Mr. Chairman, let me conclude my opening statement and along with Mr. Furiga, answer any questions that you and the other members may have.

[The prepared statement of Acting Assistant Secretary Kripowicz appears in the Submissions for the Record on page 49.]

Representative Saxton. Thank you very much, sir.

Mr. Furiga, do you have an opening statement, sir?

Mr. Furiga. No, I don't.

Representative Saxton. Would you just say for the record who you are and what your position is? You will have to pull the microphone closer.

Mr. Furiga. My name is Richard Furiga. I am the Deputy Assistant Secretary for the Strategic Petroleum Reserve, and as such, I oversee the operations of the office here in Washington, D.C. and our project office which is located in New Orleans.

Representative Saxton. Thank you very much. Are you going to answer questions also or do we direct our questions all to Mr. Kripowicz?

Mr. Kripowicz. If you would direct them to me, Mr. Chairman, if I can't answer them, I will have Mr. Furiga help me.

Representative Saxton. As you know, I have thought that it would be a good idea to use some of the Strategic Petroleum Reserve for purposes of increasing supply. As I said in my opening statement, last winter was particularly difficult in the Northeast, where there is such a high reliance on home heating oil for purposes of homeowners heating their homes.

As a result of the situation that I described in my opening statement, in February, I wrote a letter to Secretary Richardson and asked him to consider doing something similar to this, and at that time he was opposed to it and told me so. Then I wrote another letter in March because the situation had not improved and, again, the administration was opposed to the policy that is today the administration's policy.

Then on September 15th of this year, I wrote another letter knowing things were not better. So the record of my position on this issue is quite clear.

Having said that, I think it would be a cruel hoax on the American people to put in place this policy only to see prices spike again. So I would like to try to have you help us put into the correct perspective exactly what it is that we can expect. So I have some questions that may help us to get there.

I am aware that in the recent past the OPEC countries have agreed to increased production by, I believe, 800,000 barrels per day; is that correct?

Mr. Kripowicz. That is correct, yes, sir.

Representative Saxton. I believe it is also true that the OPEC countries have had three such announcements of approximately the same magnitude; is that correct?

Mr. Kripowicz. Yes, sir. Our calculation is that between the OPEC countries and the other oil-producing countries of the world, that since these first announcements that were made, approximately three and a half to four million new barrels per day of oil are now available for the market, or will be once OPEC starts producing this last 800,000.

Representative Saxton. Now that would be the international market, wouldn't it?

Mr. Kripowicz. Yes, sir.

Representative Saxton. How does that relate to additional imports into the United States?

Mr. Kripowicz. Our level of imports, as I recall, has risen slightly over the past year. I think it has to do with overall supply in the world, not necessarily directed at the United States. A lot of those imports could have been coming from other stocks.

Representative Saxton. Now, is this increased production which results in increased imports into the United States, how does that relate to 30 million barrels per month? In other words, the release of petroleum product from the SPR, 30 million barrels sounds like a lot, but on the other hand, if you look at it in a different way, I read this morning that it is about a day and a half's supply for the American consumer. How does the OPEC increase in production relate to that kind of increase that we expect from the release from the SPR?

Mr. Kripowicz. The overall world production is approximately 75 million to 76 million barrels a day, and our use is approximately 25 percent of that or 19 million barrels a day, so our increase of 1 million barrels a day is approximately a 5 percent increase in the amount of oil that would be available on U.S. markets. I would point out that as little as a two million barrel swing in the amount of oil in the world markets has been responsible largely for the large increases in oil prices over the past year and a half.

Representative Saxton. The OPEC countries withholding production, you are saying?

Mr. Kripowicz. It is a combination of reduced production and then later increased demand. So, you know, a small amount of oil in the neighborhood of a few million barrels, even though there are 75 million barrels a day produced in the world, has a large impact on price.

Representative Saxton. Do you expect the 800,000-barrel-per-day increase – announced increase, we hope it takes place, and other increases that have occurred to make a significant impact on oil supply in this country?

Mr. Kripowicz. The indications from our Energy Information Administration are that the combination of the increases by both OPEC and other world producers will allow for the beginning of the resumption of inventory building that needs to take place in order for prices to stabilize.

Representative Saxton. And then if we are beginning to increase supply, does that mean that it should increase enough to hold prices down this winter?

Mr. Kripowicz. Again, our Energy Information Administration believes that over the next few months the prices should remain relatively stable, but then will start decreasing after the winter months.

Representative Saxton. So you expect stable prices this winter?

Mr. Kripowicz. According to our projections, yes, sir.

Representative Saxton. Let me move on to another subject that has been of interest to me: There seems to be conflicting reports about existing spare refining capacity, as Senator Bennett pointed out in his opening statement. I too have heard that we are at 96 or 97 percent of refining capacity. Several analysts have reported that refineries are currently producing at near capacity, and Secretary Richardson said Friday that U.S. refineries have spare capacity. What is the situation with respect to refining capacity at this time, in your opinion?

Mr. Kripowicz. My understanding is that the average utilization is approximately 94 to 95 percent right now, but we are going into a period where refinery capacity is usually somewhat less utilized so that if the refineries produce at higher rates, we will be able to get, as I said in my testimony, some three to five million barrels more heating oil for stocks out of the 30 million barrels we intend to release. Generally speaking, at this time of the year there is a lot of maintenance done in the refineries and their utilization drops considerably. I believe Secretary Richardson is going to meet with the refiners later this week to talk to them about deferring some of that maintenance and keeping their high levels of utilization in order to produce more heating oil.

Representative Saxton. Common sense tells me that this time of the year, beginning in October, would seem to me to be the time of the

year when refinery capacity would be more fully utilized, getting ready with product for November and December. Is that not true?

Mr. Kripowicz. Typically, to my knowledge, is that in September and October is when the refineries usually do maintenance turnaround so their capacity utilization is somewhat lower. Capacity utilization in the refinery industry is always very high. It is usually at least 90 percent or higher even during turnaround time. So we are not talking about going from very low to very high utilization.

Representative Saxton. Tell me about the inventory situation. How are our inventories of oil at this time?

Mr. Kripowicz. Senator Kennedy had some charts up there that came from our Energy Information Administration. There is no question that crude oil stocks are below normal levels this year. They are at 289 million barrels, which is at least 25 million barrels below what would be the normal lower limit. For crude inventories, I have some updated information from this morning that shows that nationally we have 115 million barrels of distillate product, which is 21 percent lower than last year; and for the eastern region of the country we have 40 million barrels, which is 42 percent below last year's levels. For New England heating oil, which is the concern that we have and why we are releasing the reserves, there are 4.3 million barrels of stocks in place, which is 70 percent below last year's levels. So we are indeed in a very tight inventory situation.

Representative Saxton. Is there a relationship between the inventory levels and subsequent price levels?

Mr. Kripowicz. Price levels are determined by demand, basically by supply and demand. If you have a lot of demand and low inventories, the natural result is higher prices.

Representative Saxton. So in summary, since my five minutes have expired, you believe – or are at least hopeful – that the increased production by OPEC countries, with the release from the SPR, coupled with the needed excess refining capacity, would produce enough extra product on the market to stabilize prices this winter? Is that what you said, essentially?

Mr. Kripowicz. Stabilize them at higher prices than they were last year but stabilize them, yes, sir. Now if there are unusual weather circumstances, there could be some significant volatility in prices, and that is always the case.

Representative Saxton. Now let me clarify again to be sure. Did you just say at higher levels than last year?

Mr. Kripowicz. Yes, sir.

Representative Saxton. So you believe again this winter, in spite of the current administration policy, which I am not fighting with, that we could see prices spike above where they were last year?

Mr. Kripowicz. I am talking about nominal prices, not necessarily spikes in price. I don't know - I am not predicting any spikes in price but I am saying if, for instance, the price of heating oil in New England could average around \$1.32, which is--

Representative Saxton. It went to \$2.00 last year.

Mr. Kripowicz. But not an average. On average, it was much lower than that.

Representative Saxton. Do you expect there to be a spike of up to \$2.00 or above this year?

Mr. Kripowicz. We are not predicting any spikes, sir. Those are very hard to predict. If you have normal weather and the production that we project, then there wouldn't be any price spikes.

Representative Saxton. So it sounds like you are hopeful there won't be price spikes?

Mr. Kripowicz. Yes, sir.

Representative Saxton. But you don't know that?

Mr. Kripowicz. Yes, sir, we can't predict that.

Representative Saxton. It is very important that we don't leave the impression with the American people that we have provided an ironclad fix to this problem and then have a price spike occur or prices rise, let us not even call it a spike, prices rise to last year's levels or above and find out that their government has put in place policies that they said would work and it didn't work.

I think that is crucially important, and at the same time, if there is going to be a bad situation with heating oil this winter in spite of the fact that I have advocated certain programs that you have subsequently put in place, I don't want them to hear you or me or Senator Kennedy or anybody else say this is going to fix the problem if we don't think it is. That is why I am so persistent about this point.

Mr. Kripowicz. If things remain normal, there should be no price spikes. There is no way that we can guarantee that that won't happen. We can't guarantee that there won't be bad weather and disruptions in shipping because of freezes or other things of that nature.

Representative Saxton. Senator Bennett points out that this year's average price is still higher than last year's; is that correct?

Mr. Kripowicz. Yes, sir.

Representative Saxton. Do we expect the current policy that has been proposed to lower average prices?

Mr. Kripowicz. A 30-day release of oil from the Strategic Petroleum Reserve will only have a temporary effect on prices. Overall, because of the increases in production from OPEC and other countries, our Energy Information Administration projects that the prices of oil will gradually decrease over the next six to nine months.

Representative Saxton. Senator Kennedy.

Senator Kennedy. Thank you, Mr. Chairman.

Let me just come back to this issue about what we might be able to anticipate through the winter. I think you have made the point that the release of several million barrels of oil does have an impact, a ripple effect, within the worldwide industry that is not insignificant and that the swing of two or three million barrels even a day in a world that is consuming 77 million, has at least, as you related, a positive impact of lowering the costs for consumers. Let us get back to the home heating oil now.

We have, as you have pointed out, with the announcement of the President, three to five million barrels that will be available in the Northeast and now you have also indicated that there is an expectation that there will be some increase in terms of production. I want to know what is going to happen after 30 days. Are we going to be able to rely on a continuation of some release if we are not going to get this increased production, if we are going to see a drawdown in terms of these reserves, if we are going to have an increase or a lowering of the temperatures up there in New England? What will be your recommendations – if that circumstance develops? Because we are glad, as we look down the road now, and we are reassured by what you are saying, but we understand that you are going to have to make a decision reasonably quickly.

We were mindful last year when this whole issue developed and the administration didn't release or swap, the answer that we received from them, if they let the oil go out then, take the time to refine it, and by that time the weather would get warmer and that is why there was a good deal of resistance to doing it. A big point is being made about a changed position by some people because they were against it at a time when it wouldn't make any difference versus making a decision and supporting

now where it will make a difference, and that point hasn't evidently sun in. I keep hearing it made on the television.

My question to you is, what is going to happen now, after these next 30 days or so, if we don't get an increase in production? Are we going to have to depend upon another increase? Should we? Should we anticipate that now so we are not going to see these kinds of swings that are going to perhaps protect the heating oil user now, but later in February or March send the price up through the roof?

Mr. Kripowicz. Sir, we are continually reassessing the situation. As a matter of fact, we have instituted daily meetings to discuss the oil supply situation and the heating oil supply situation. At the end of 30 days or sooner, if there is any indication that such action is necessary, we will reevaluate our position. We need to look at the stocks of heating oil and distillates and what the refiners are doing and what OPEC and other suppliers are doing and factor all of those things together to keep after this constantly.

Senator Kennedy. But you are not going to leave us high and dry, hopefully?

Mr. Kripowicz. No, sir. That is our pledge.

Senator Kennedy. Let me just ask you – and that is reassuring with the release of 30 million barrels from the Strategic Petroleum Reserve over 30 days, the Reserve currently holds 570 million barrels – what risks, if any, are there of allowing the Reserve to temporarily fall to 540 million barrels in terms of our national security? How much of a risk is that?

Mr. Kripowicz. Senator, we think that the risk is minimal. We still have the capability to release the Reserve at over four million barrels a day, even with the – for 90 days, even with the release of the 30 million barrels. So we think it has very little effect, particularly since we will be returning the oil to the Reserve beginning early next fall.

Senator Kennedy. Yes. How long will it take to build the Reserve back up to 570 million?

Mr. Kripowicz. We are expecting to have the oil come back from between August and November of next year.

Senator Kennedy. Of next year?

Mr. Kripowicz. Yes, sir.

Senator Kennedy. Didn't the administration recommend to Congress that we buy 200 million more barrels when oil prices were low? Do you know?

Mr. Kripowicz. There was never a budget request for that item, Senator, although we did institute a royalty-in-kind program, taking some of the oil that would have been sold for \$10 a barrel and putting in the Reserve, and we are in the process of putting 28 million barrels of royalty-in-kind oil into the Reserve.

Senator Kennedy. Finally, why has the Congress failed to reauthorize the Strategic Petroleum Reserve? Do you know?

Mr. Kripowicz. I wish I did, Senator. The House has—

Senator Kennedy. Well, we are hearing so much about this issue now by members, particularly — I don't want to say on the other side of the aisle, because we have had bipartisan support for this particular proposal, but at least some Senators are excited about this. But there seemingly hasn't been the sense of urgency in terms of the orderly legislative process in terms of reauthorizing. I hope we get about the business of doing that.

I want to thank you very much for your responses. It was very helpful. I want to thank the Chairman for having these hearings as well.

Representative Saxton. Senator Kennedy, thank you very much.

I would like now to turn to Senator Bennett.

Senator Bennett. Thank you, Mr. Chairman.

I am finding myself grateful that I live in a part of the country that doesn't use home heating oil, although the price of natural gas has more than doubled and my constituents are going to be paying twice as much this winter.

A few quick comments. It is my understanding that one of the reasons why refineries don't have the demand in September and October is that the summer driving season is over and they can switch from refining gasoline to refining home heating oil. Currently with gasoline over \$2.00 a gallon in some parts of the country, the demand for gasoline stays high and that is one of the reasons why the refineries are operating at 96 percent of capacity, which means if they switched to home heating oil, they are going to have to stop making as much gasoline. So would that indicate that in an attempt to deal with the home heating oil challenge, which you have outlined, which strikes me as stark, that there is going to be no relief out of this release from the Strategic Petroleum Reserve with respect to gasoline for people in those States? Is that a correct assumption?

Mr. Kripowicz. No, sir. We are releasing 30 million barrels of oil and that will go for multiplicity of products, including gasoline and diesel fuel.

Senator Bennett. But if the refineries can't do it – I am not talking about the amount of crude oil stacked up outside of the refinery. If the refinery is operating at virtually full capacity, which at 96 percent it is, and it says, okay, we have to increase the amount we are making for home heating oil, that is a sum zero game for the refinery; for the refinery to increase the amount going into home heating oil, it has to decrease the amount going into gasoline. The amount standing on the dock coming in makes no difference in terms of the refinery capacity, isn't that true?

Mr. Kripowicz. If, in fact, the refineries are using all of their capacity, and as I had stated earlier, the refineries at this time of the year generally reduce their capacity utilization—

Senator Bennett. I understand that, but they are reducing the capacity because the demand for gasoline goes down so that they can say, all right, we now don't have to produce as much. The demand for gasoline is not going down. The demand for gasoline atypically right now is very high by virtue of the high prices, the demand to say give us more gas to drive the prices down. So I think there is a bottleneck here in the refinery that we have to recognize is going to impact here.

Let me switch to another comment that you made, because frankly, these numbers disturb me, the numbers you are giving. You say we are 70 percent lower than we were last year at this point with respect to home heating oil in New England?

Mr. Kripowicz. Yes, sir.

Senator Bennett. That is a huge gap that has to be made up, at a time when the demand on the refineries for other products remains high. So when you say you are going to end up with an average price higher than last year, that strikes me as an understatement. I think the economies and the physical capacity of this industry that you are talking about absolutely guarantees that you are going to be higher than you were last year. I accept your statement that you can't predict spikes, but people don't live on spikes. They live on the average price that they pay, and if they are going to be paying an average that is higher than last year, which you said they would, and I think that is absolutely dictated by the fact that you are only – you are 70 percent lower than last year. I say "you." I don't mean "you" in the Strategic Petroleum. I should say "we."

Last year when the prices were so high that people were stunned by them, Secretary Richardson said we were caught napping. It just boggles

my mind that if he was caught napping last year and the prices were so high that it was an issue, that he could come into this year 70 percent lower than he was last year. I don't think the executives of the oil companies had anything to do with that. Did they? Did the executives of the oil companies dictate that we would be 70 percent less in New England this year than we were last year?

Mr. Kripowicz. No, sir, and the administration is taking steps; this release of oil from the Strategic Petroleum Reserve being one to build up those heating oil supplies. The second is to establish the Northeast Heating Oil Reserve, which will, before the end of October, add 50 percent to the supplies that exist in the New England area.

Senator Bennett. But didn't they see this coming, with 70 percent below last year, and last year was a crisis? It would seem to me, if I am doing any long-range planning, last year is a crisis and I admit publicly that I was caught napping by that crisis, I would want to be above last year, not 70 percent below when we are coming into this. I agree with Senator Kennedy that the concern is not what is going to happen over the next 30 days. What is going to happen as you get into this whole situation and you are going into it 70 percent farther away than you were at this point last year, and last year was a disaster?

Now that is not technically the subject of this hearing. The subject of this hearing has to do with understanding about the release of this oil and, as I say, I simply look at what Secretary Summers and Chairman Greenspan and others have said that this was a mistake, but maybe we are in such a disaster situation that we have to do it and that it is an emergency that has to be done. But the question that arises clearly in my mind is how did the administration get us in such an emergency where they are at the point where there is 70 percent, I just have to keep coming back to this, 70 percent below where we were in a year that everybody up here remembers as a disaster year? What got us to that 70 percent figure?

Again, it clearly wasn't the oil companies. They love to sell oil. So somebody, if we were asleep at the switch or we were caught napping last year, somebody clearly did it again, it seems to me.

Mr. Kripowicz. Senator, if I may respond, the administration moved rather quickly to try to establish a regional home heating oil reserve because we knew that there were low heating oil inventories in the Northeast, and when inventories did not start to increase, as they normally do around this time, we moved to try to establish enough crude oil supply to get another three to five million barrels of heating oil before

the bulk of the heating season starts. The idea is to get us back up to at least the levels that we were last year.

Low inventories are an endemic problem, not just in heating oil but in crude oil and gasoline and all other products, caused by circumstances that began as long as two years ago, whenever oil prices were \$10 a barrel and production was originally cut back by OPEC. We lost production in our own country, and over that period of time, our inventories were reduced drastically. I wouldn't accuse the oil companies of reducing them on purpose. Nor would I accuse the government of doing anything to make them be reduced, either.

Senator Bennett. I don't think the government did anything deliberately shortsighted. I don't accuse anybody of that. But I do think, given the numbers you have given us here, not any numbers I brought from staff, numbers you have given us here, we have to say that their actions were, in fact, shortsighted. They may have been well intentioned. They undoubtedly were. As I say, I will not impute evil motives to anybody here.

Mr. Kripowicz. Yes, sir.

Senator Bennett. But clearly, the numbers speak for themselves. We are facing a situation where the people in New England, by your own testimony, are going to be paying a substantially higher level on average for home heating oil this year than they did last year, and that is if everything works as you hope it works. If there are some glitches, which you appropriately say you can not predict, it will be even worse than that.

So we are facing a situation where a best case, people in New England are going to be paying higher prices on the average this year than they were last year, even if everything works out.

Mr. Kripowicz. Yes, sir.

Senator Bennett. Okay.

Mr. Kripowicz. If I may add one other thing. It is that the administration has worked very hard over the past year to have OPEC and non-OPEC producers increase their production, and that has resulted in an additional four million barrels a day that are now available for use.

Senator Bennett. That gets back to the comment in my opening statement. They may have worked to try to get OPEC nations to increase production, but at the same time, for eight years, they have been doing everything they can to make American producers produce less, not only with respect to oil but every other form of energy. But that is a debate for another time.

Representative Saxton. Senator Bennett, thank you very much.
Mrs. Maloney.

Representative Maloney. Thank you. Thank you very much. As we were discussing, one of the contributing factors to the high price of oil is the depletion of inventories, and as you testified we are 70 percent below or lower in the inventories of the private sector. So my question is, why have U.S. refineries allowed inventories to fall so low?

Mr. Kripowicz. This is, Congresswoman Maloney, this is part of the answer that I was giving to Senator Bennett, it is a long process that started with oil prices being \$10 a barrel in 1998 when we had excess inventories, and OPEC cut back production. We lost production in the United States because it became uneconomic and we began to utilize the large inventories, both in the United States and across the world, because there was not enough production to meet demand. In addition, demand increased tremendously, both because of economic activity in the United States but also Asia has recovered from the period of recession they were in whenever oil prices were \$10 a barrel. So all of those inventories were used up partly by decreased production and partly by increased demand.

A second thing that is occurring in the market is that with existing high prices, with low future prices, there is no incentive for anybody to store oil in inventory because they would be selling it to a market where prices are going to be lower. So there is no incentive. If prices stabilize with increased production and they become closer to what future prices are, then there will be some more incentive for refiners to store product.

Representative Maloney. I guess the main question is how do we use this opportunity to make sure that this doesn't happen in the future? The line of questioning seemed to indicate that the government was doing something that interfered with the private sector maintaining inventories, but is there some way we can work to make sure that – or work where this does not happen in the future? You testified that this was a short-term approach to the high cost. Is there some way that we can encourage refineries to replenish their inventories and use this opportunity for future economic stability, oil stability?

Mr. Kripowicz. I think it is a long-term question, although it may not be in terms of many years but it is certainly in terms of many months. We need to increase production to meet demand and to somewhat exceed demand so that we can have enough oil to start restoring inventories. Once they are restored to normal levels, then we shouldn't have the problem of high prices because of short inventories.

Representative Maloney. How much oil is the royalties-in-kind program expected to bring into the Reserve over the next year?

Mr. Kripowicz. We have already processed 10 million barrels into the Reserve, and we have another 18 million barrels which will be delivered in the next year.

Representative Maloney. Could you clarify for us how the swaps work from the Reserve, and what happens if oil continues to rise in price; will oil companies be obligated to repay the oil even though it might be more expensive than it is today?

Mr. Kripowicz. Yes, ma'am. Our solicitation asks for bids for returning the oil between August and November of next year, at least on a one-for-one basis but, you know, we expect the offers to be considerably more than one-for-one, and once based on the anticipated market conditions, the bidders propose a certain amount of oil to be returned to the Reserve; even if market conditions change, if prices are not actually lower but higher next summer, they would still have to return the same amount of oil. So there is not a price adjustment. The contracts are on strictly a quantity-for-quantity basis.

Representative Maloney. Oh, I see. And how long does it take for oil, once released from the Reserve, to get to people's homes in the form of heating oil?

Mr. Kripowicz. That is sort of a variable number. Within days of release, or of signing the contracts, the oil can actually be released to refineries and we can get it there within a week. Once it is refined, it would take, in some cases, a minimum of a couple of weeks to deliver that refined product to, say, the Northeast. So we are talking about anywhere from a month to two months, but generally speaking, we believe that if the oil is delivered on our schedules, that the refined product will probably be available by the end of the calendar year.

Representative Maloney. Vice Presidential Candidate Richard Cheney has called for more oil exploration and drilling in the Alaskan wilderness. Would you comment on that proposal?

Mr. Kripowicz. The administration does not support drilling, as the Congresswoman is aware of. The administration has actively opened up the National Petroleum Reserve in Alaska for oil drilling and continues to pursue aggressive oil sales in other areas of the country such as the deep offshore Gulf Coast where we have had large increases in production and in other areas in Alaska.

Representative Maloney. I guess more broadly, how much oil is available in the currently known oil fields around the world? And based on current consumption patterns, do we have any idea how long this oil will last?

Mr. Kripowicz. I don't have those numbers available at my fingertips, Congresswoman, but I can get that information for the record. Our projections are, for example, that through 2020 the projections of our Energy Information Administration are that there is enough oil for production at prices nominally less than what they are today.

Representative Maloney. What would have happened to oil prices had the President not authorized a release from the strategic oil reserve? We are seeing them drop, what, \$7.00 so far? But what would have happened?

Mr. Kripowicz. I am not sure I know the answer to that question. It is clear that when you add more supply to the market that the oil prices will go down, and they have, although this is the short-term effect. In the long-term, we expect that the oil prices, even absent the release from the Reserve, would have moderated based on anticipated production and demand and they would have gone down eventually.

Representative Maloney. Say if after 30 days the price of oil still remains high, above \$30 a barrel, what additional steps might the Energy Department be prepared to take?

Mr. Kripowicz. We still have all of the options available for the release of the Strategic Petroleum Reserve, or for an additional exchange. We would look at all of those options and will continue to follow all of those options, as I said to Senator Kennedy, because of the seriousness of the situation.

Representative Maloney. Could you just share with us what programs are available now to help people cope with the rising price of oil? Are these programs limited by region, income, or some other criteria?

Mr. Kripowicz. The programs that are available are the LIHEAP programs, and they do have formulas for both income and distribution to the various states. I think the President just released an additional 400 million in low income energy assistance last Saturday.

Representative Maloney. I would like to give you a letter that Commissioner Rainer sent to me expressing concern about the movement in Congress to move off the exchange, the futures trading and oil. The way I know what oil prices are is that I see it on the exchange. I open up

the paper. It is on the exchange. Their argument is if we move it off the exchange, they will not be able to audit or monitor what the future exchange rates are for oil. Could you comment on this? Is this – I see it as a problem because that is how I understand what is going on, and I can see if it is not on the exchange that it would be hard for me and other consumers, and really policy people who are concerned about the price of oil, and unlike financial instruments that are infinite, it is a commodity, oil is a commodity, it is a very finite product and it seems to me it should be on the exchanges as is corn and other commodities.

Mr. Kripowicz. Ma'am, that is not my area of expertise. I would be happy to take a look at the letter and we will provide some comments, but I don't have the expertise to be able to say, other than the fact that it makes sense; to be able to know what those prices are.

Representative Maloney. It seems like common sense. We have bipartisan support on keeping the exchange transparent so that consumers and everyone else knows what is going on.

Thank you very much for your testimony and for being here today.

Representative Saxton. Thank you, Mrs. Maloney.

Before I recognize Mr. Pitts, I would just like to comment on Mrs. Maloney's question relative to inventories. You indicated that there is no incentive. I want to make sure I understand. Let me just say this, and then you tell me if what I interpret is correct. I have information from the Department of Energy that there may be some expectation that oil prices will begin to decrease at some point in the future.

You say here the growth of non-OPEC oil has played a significant role in the erosion of OPEC's marketshare over the past two decades, and then you go on to discuss this issue, and you conclude that prices may begin to come down because of the looser grip that OPEC will have on supply. Therefore, is what you are saying about inventory that because prices are high today and it would cost refiners a significant amount more to put in place inventories today than they might expect it to cost sometime down the road, is that what is causing the lack of incentive?

Mr. Kripowicz. It is a question of what you expect to be able to sell something for, and the original cost. So that if you are buying very expensive oil now, you want to be able to sell it now while the prices are still high. There is no incentive to hold the inventory if you expect prices to drop. If the futures prices were somewhat higher, or near term prices lower then there would be incentive to store and wait for the higher prices. That is the effect of a very large difference, which there is now of \$5 or \$6 between current prices and future prices. It pays a refiner to

ship the product immediately, and it pays whoever is storing that product to get rid of that product as quickly as they can while prices are still high.

Representative Saxton. Thank you very much.

Mr. Pitts.

Representative Pitts. Thank you, Mr. Chairman.

Mr. Kripowicz, there seems to be a good deal of confusion as to the criteria or the mandate for using the Strategic Petroleum Reserve. What constitutes a crisis? What objective criteria exists for using the Reserve's mandate?

Mr. Kripowicz. Mr. Pitts, the *Energy Policy and Conservation Act* spells out criteria that the President needs to use in order to draw down the Strategic Petroleum Reserve, and I will talk about that in a second. But in this case, what we are doing is an exchange and not a sale, not an actual drawdown. Since we are exchanging oil are going to get it back. So the President did not have to strictly adhere to these particular guidelines, although he still used the overall basis for the program that the supply of heating oil would be very short and that was the reason for the exchange. The criteria for an actual sale from the Reserve are a little more stringent. What they require is a national energy supply shortage of significant scope and duration, which will cause a major adverse impact on the national economy, which would result – which is likely to result from either an interruption of supply of imported products or domestic products, or some act of God, and those things are spelled out in the law and are reviewed very carefully before the President would actually decide whether or not to make a release from the Reserve, to sell the oil rather than to do something like an exchange.

Representative Pitts. What are the actual criteria for using an exchange versus a drawdown or sale?

Mr. Kripowicz. There are no established criteria for an exchange, although the President clearly made his decision based on the fact that we could provide additional supplies of heating oil, which were in short supply in the Northeast.

In addition, one of the requirements of an exchange that we have used for all of our other exchanges that we are using here is that we will actually acquire more oil for the Reserve through the exchange.

Representative Pitts. *The New York Times* reported that other G-7 countries are considering releasing oil from their own oil reserve stockpiles. Is this a policy that may be adopted by other countries and is

there a role for international coordination of such policies? What provisions have been made for such a strategy?

Mr. Kripowicz. There is an international coordination role whenever you have sales from the Reserve. There is not the necessity for international coordination if you have an exchange, although I know that we – that the Department talked to several governments before we actually made the exchange solicitation.

Representative Pitts. You mentioned that refining capacity is approximately 94 percent, and that this is a time of the year the refiners usually decrease refining to focus on maintenance. If refiners are at near full capacity, will the release from the Reserve and the increase in refining capacity increase the cost of refining?

Mr. Kripowicz. We don't believe so, or if it does, it would only be a marginal increase. The refining industry has been able to produce at 90 or 99 percent capacity with very little increase in cost.

Representative Pitts. If the refiners have to delay maintenance, what exactly does that mean for refiners, their ability to maintain production, the impact on the environment?

Mr. Kripowicz. Probably experts in that don't sit at this table, but I would say that for short periods of time delay of maintenance would not be a problem. If you were talking about delaying maintenance for significant periods of time, then you might begin to run into operational problems.

Representative Pitts. What about the impact on the environment?

Mr. Kripowicz. The refiners are required to meet the environmental standards and guidelines that they operate under, and we are not asking that those guidelines be waived.

Representative Pitts. Finally, according to the plan—

Representative Saxton. Mr. Pitts, if I may, something is wrong that red light should not be on. You have almost four minutes remaining.

Representative Pitts. Thank you, Mr. Chairman. According to the plan, oil refineries will replace oil in the Reserve. If demand or prices do not fall to an equitable level, what effect will this have on the refineries' ability to replenish the Reserve?

Mr. Kripowicz. It will be more expensive for them to do so, but the government will still get its oil. The risk falls on the purchasers of – or the exchangers of the oil. When they take the oil, they take the risk in the future markets and if, in fact, prices stay up and don't go down, then it will be more expensive for them.

Representative Pitts. It will cause an increase in prices, is that correct?

Mr. Kripowicz. What I would suspect would happen is that the exchangers would come back to us and ask us to further delay the exchange and create even additional oil for the Reserve while they bet on the futures market again.

Representative Pitts. Thank you, Mr. Chairman.

Representative Saxton. Thank you very much, Mr. Pitts.

Mr. Watt.

Representative Watt. Thank you, Mr. Chairman. I appreciate the Chairman having the hearing and I appreciate the Chairman being balanced in his approach and comments on this issue.

I do have some concern that some of the other people on the other side who have asked questions and made comments may not be quite as balanced about this and may be impliedly suggesting that this administration has more blame than I believe it has, and that perhaps there is a revisionist view on their part of the history of the Republican Party's involvement in this and a number of Republicans' involvement in this. So I would like to spend a minute or two, since I didn't get a chance to have an opening statement, kind of setting the record straight here for everybody that wants to have the record set straight.

My research indicates that when President Bush sold oil from the Strategic Reserve during the Gulf War, prices were actually lower than they are now and that President Bush stated that the release of oil was not for national security reasons but to, quote, "calm the markets," closed quote, is what he said at that time.

In 1996, Republicans twice passed laws requiring the sale of oil from the Reserve, a total of over 28 million barrels, to help pay for budget priorities. That is 1996. In 1999, Republican leaders Dick Armey, Tom DeLay, Roy Blunt and 35 others introduced a bill that would have eliminated the Department of Energy and abolished the Strategic Reserve, and since the Republicans have been in control, they have let the President's authority to fully use the Reserve lapse three times, totaling 18 months, and in 1999, they blocked the proposal to buy 100 million barrels of oil for the Reserve when crude prices were \$10 a barrel, not anywhere close to the 30-some dollars a barrel they are today.

So I think we need to set the record straight here before we start implying that there is some blame here that should be on our side on this issue.

Additionally, since I have been here, my Republican colleagues have spent the last five years cutting conservation and renewable energy programs, and for those of you who are trying to blame this on us, we understand that supply and demand operate in this equation, not just supply. So despite the fact that the Republican presidential candidate has called for more spending on energy conservation, Republicans have underfunded solar, renewable and conservation programs by \$1.3 billion below the President's funding request since 1995, \$1.3 billion less.

In 1995, Republicans cut energy efficiency programs by 26 percent dropping funding from \$1.117 billion in 1995 to \$840 million in 1996. If they had not cut the Weatherization Assistance Program by 50 percent in 1995, over 250,000 more households could have helped decrease the demand for heating oil this year. So, again, supply and demand both play into this.

They have also failed to support domestic producers by passing proposals for tax credits to keep marginal wells in production and buying domestic crude during times of low prices.

So I think we ought to understand that this is a very complex issue and this is not the time to be pointing fingers across the aisle at each other and pretending that in this election year, the Democratic presidential candidates, or a Democratic Congress, has real responsibility for that.

Even in this Congress, when heating bills will be over 30 percent higher this winter, this Republican Congress has yet to pass a bill to fully authorize the President to create a Northeast Heating Oil Reserve.

On June 15, Republicans voted down a Democratic proposal to buy \$10 million in fuel for a home heating oil reserve, and the American Petroleum Institute reported last week that heating oil inventories are 20 percent lower than last winter and, of course, the witnesses have attested to that.

In 1995, my Republican colleagues voted to eliminate the Low Income Home Energy Assistance Program, and in 1996 they proposed counting LIHEAP assistance against the income limits for food stamps and tried to force disadvantaged families to choose between food and heating their homes.

So this is an issue that has been going on awhile, and I think the Chairman of our Committee has been very balanced in his approach, but I want to be clear that since I may have next to the last word on this, I know the Chairman is going to have the last word on it, that those of you who are casting stones and aspersions about this issue should not be doing so. This is a complex issue. I personally support what the

President has done to deal with this, what we hope -- what we all hope, hope on a bipartisan basis, is a short-term shortage, but we have got to continue to do whatever we can to increase supplies, alternative sources of fuels and to reduce demand; and all of those things have to play into the equation if we are going to have any kind of security in this area in the future.

I appreciate the Chairman giving me some time, and I will be happy to yield back whatever time I have.

Representative Saxton. Thank you very much, Mr. Watt.

For a minute there I had my eyes closed and I dreamt I was at the CCC listening to a conversation, but anyway, I would like to yield for final thought to my friend, Senator Bennett.

Senator Bennett. Well, thank you, Mr. Chairman. I listened to Congressman Watt and I accept his rebuke for partisanship. I hope it is a bipartisan rebuke because we started off with the demonization of oil companies and an attack on oil companies, and the rhetoric that has been in the presidential campaign. I do agree absolutely with Congressman Watt that this is a very complicated issue. It is a long-term issue, and while I would maybe have a different interpretation, Mr. Watt, than you do with respect to some of the congressional actions you have described, I do sustain my belief that this administration has, in fact, pursued an overall policy that has discouraged energy creation in the United States. I have seen it in my own state.

I have seen it throughout the West where a very large percentage of our natural resources for energy exists. We have seen it in the bills the Congress has passed that would increase American production of energy sources, which the President has vetoed, and in my opening statement, the reference by Thomas Friedman, who is not a Republican, indeed if you read his column regularly, you know he is not a Republican, I do not expect that he will vote for Mr. Bush, but he is scathing in his denunciation of the long-term neglect of energy sources in the United States. And I add the additional comment about refineries because no matter how much energy you have, it all has to go, in terms of home heating oil and gasoline, through a refinery, and I have seen, again, firsthand in my own state, the environmental policies of this administration discourage and ultimately in some cases -- discourage the building of refineries, in some cases force the closing of refineries, so that our refinery capacity becomes the bottleneck through which all of this is going.

Representative. Watt. Will the gentleman be kind enough to yield briefly?

Senator Bennett. Sure, I will be happy to.

Representative. Watt. I just want to make the point that I think there is enough blame to go around for both sides. I am not trying to say that this is you-all's fault or our fault. I think there is enough blame to go around in the public sector, in the private sector, you know compensation, failure to conserve. None of us is exempt from the blame here, and I don't think we do ourselves much of a service to get into the blame game here. We need to try to roll up our sleeves and come up with a sounder policy in the future that keeps us out of these kinds of situations.

So I think I generally agree that there is plenty of blame to go around.

Senator Bennett. On the last final comment from me, I have just purchased a vehicle that gets 70 miles to the gallon, so I am doing whatever little bit I can to deal with the conservation issue. The fact that my six children have now left home has a great deal to do with it because it has only two seats, and for most of my married life, I couldn't handle that.

Thank you, Mr. Chairman.

Representative Saxton. Well, thank you. I would like to thank all the Members of the Joint Economic Committee for having been here today, and Mr. Kripowicz and Mr. Furiga, thank you for being here. The purpose of today's hearing was to get the facts out on the table. I think for the last hour and 40 minutes or so we have been able to do that. So I would like to thank everyone for their participation and I hope that we have taken a small step in moving the process forward to solving what is obviously a very, very serious situation in our country, particularly in the northeastern part of our country. Thank you very much, and the hearing is adjourned.

[Whereupon, at 11:45 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

I am pleased to welcome our witness, Assistant Secretary Robert Ripowicz, before the Joint Economic Committee (JEC) today. Although it was not planned this way, this hearing on the Strategic Petroleum Reserve (SPR) appears to be especially timely. The purpose of the hearing today is to examine the SPR in the context of U.S. energy policy. In recent days there has been tremendous interest in the SPR, but a lot of important questions remain unanswered. One such important question relates to the various possible methods of tapping the SPR and whether they would prove effective in the short run and in the long run.

The hearing today is not intended to promote any particular point of view, but merely to examine the underlying facts. These include the amounts of oil in the SPR and home heating oil reserve, the quality of this oil, the mechanics of releases through swaps and their effects on prices and supplies, and the physical removal of the oil from the SPR.

Since last winter I have been on record favoring a release of oil from the SPR to deal with short-run shortages, especially for home heating oil. When market forces were determining oil prices, an SPR release would be problematic, but is less so when the state owned firms of the OPEC countries are exercising their monopoly power. An SPR release would counteract OPEC's anti-market policies -- at least in the short-run -- when inventories are low.

In addition, the use of the oil weapon by some countries makes a counter-action appropriate in the short run. OPEC's restraint of oil supplies reflects the influence of the hard line price hawks within the cartel. Moreover, Iraq also exports a significant amount of oil to the U.S., a factor that could threaten the U.S. yet again.

However, an SPR release is only a temporary measure and is not a panacea. The U.S. must do everything in its power to undermine the OPEC cartel and its monopoly power over supply and prices. The health of the national and international economy is very positive, but it has led to higher demand for oil, and OPEC has moved to fully exploit this development. U.S. consumers and taxpayers are paying a heavy price for OPEC exploitation.

Even as they put the squeeze on U.S. consumers, several of the hard-line OPEC price hawks and other OPEC members and allies are currently receiving U.S. taxpayer subsidies through the International

Monetary Fund (IMF). I have introduced legislation mandating the U.S. executive director of the IMF to oppose new loans to OPEC members and allies who exercise their monopoly power to the detriment of the U.S. economy, but much more pressure on OPEC is also needed. Currently Venezuela, Indonesia, and Algeria are all receiving IMF subsidies at the expense of U.S. taxpayers.

Fortunately, new exploration and extraction technologies are leading to the discovery of vast new oil deposits that can be tapped in more efficient ways. As the former Saudi oil minister has acknowledged, the OPEC's days are numbered. However, today we are focusing on the short run problem and whether it can be effectively addressed through the SPR. I would like to thank Mr. Kripowicz for his appearance before the Committee today.

from the office of

*Senator Edward M. Kennedy
of Massachusetts*

FOR IMMEDIATE RELEASE
September 27, 2000

CONTACT: Will Keyser
(202) 224-2633

STATEMENT BY SENATOR EDWARD M. KENNEDY AT THE
JOINT ECONOMIC COMMITTEE HEARING ON
THE STRATEGIC PETROLEUM RESERVE

The Strategic Petroleum Reserve is an important resource for the nation's security, and I commend Chairman Saxton for calling this hearing on its capabilities. This is a timely subject of urgent importance to millions of Americans.

Families in the Northeast cannot keep warm just on the plans and promises that have been circulating as the winter approaches. While many discuss long term solutions to the nation's energy problems, short term inventories of home heating oil have become ominously low in our region. Today, inventories are 40% lower than last year in the Northeast, and 65% lower than last year in New England.

Last year was an unusually warm winter—but because inventories were low, families throughout the Northeast were hit with \$2 a gallon heating oil costs, while families in other regions paid almost \$1 less. Had last winter been colder than normal in New England, the shortages and emergencies could have been much more severe.

Clearly, something had to be done about the low current inventories. Last week, President Clinton took decisive and timely action by tapping the Strategic Petroleum Reserve for 30 million barrels of crude oil over 30 days. This SPR release was the only realistic way to increase inventories of heating oil in the Northeast. The Energy Department projects that the increase will be 3 to 5 million barrels by November, or 10% above existing inventories. The alternative to the SPR release was to do nothing, which would have been unacceptable in the face of the serious potential risks.

It's disappointing, therefore, that some have criticized last week's SPR release as political. The SPR release has already proved to be a useful option, and it was probably the only option. No one has proposed another practical solution to our region's short-term heating oil needs. Those needs are immediate and overwhelming, and numerous Republicans had joined Democrats in asking the Administration to release SPR oil, including Senators Roth, Specter, Jeffords, Chafee, Collins, and Snowe, along with our distinguished Chairman, Congressman Saxton, and Congressman Ben Gilman, the Chairman of the House International Relations Committee, and a number of other House Republicans.

-more-

(37)

Releasing oil from the Strategic Petroleum Reserve was sound policy. In addition to bipartisan support in Congress, the G-7 Finance Ministers and Central Bank Governors called the decision good for the world economy, and issued a statement in support of it. Certainly, American truckers and consumer groups were pleased with the decision to increase distillate stocks. The market itself has shown its approval. The price of November crude oil has dropped over \$6—or 15%—between the day we had urged Secretary Richardson to release SPR oil, and this morning.

We are also interested in ways that Congress can strengthen the Strategic Petroleum Reserve. It currently can store 700 million barrels of crude oil, but Congress has only provided funds for 571 million barrels. Because Congress did not allocate the resources needed to fill SPR when oil was \$10 a barrel, we now face costs of over \$30 a barrel.

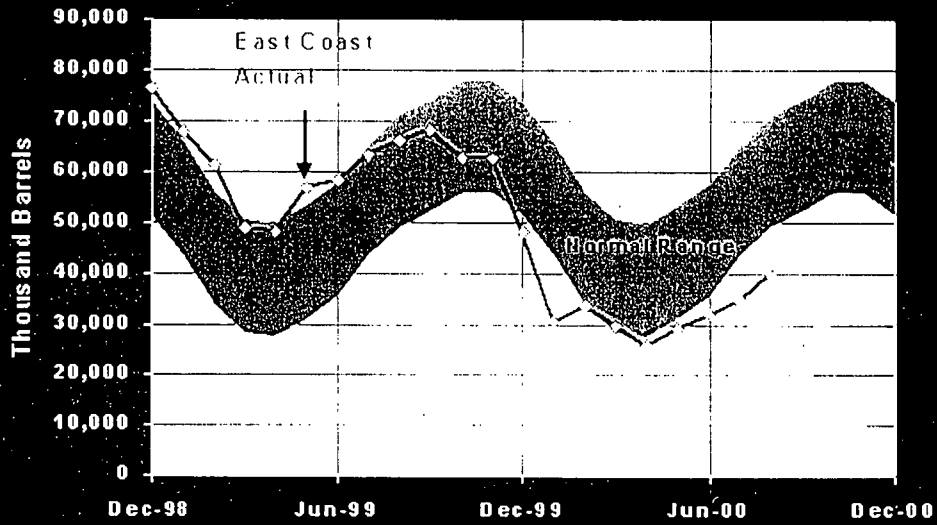
In 1996, Congress directed the sale of 28 million barrels to raise money for the government. Yet now, some complain that the Administration's decision to release 30 million barrels of oil will jeopardize national security. Clearly, these positions are inconsistent, and I look forward to our witness's assessment of the relative security risks that various releases of SPR pose to the nation, as well as what can be done to strengthen the reserve.

The nation looks to both Congress and the Administration for leadership on energy policy. When it comes to heating homes in the Northeast, the issue is a matter of life and death for millions of families. Cold doesn't discriminate between Republicans and Democrats. The Strategic Petroleum Reserve is a major part of the solution this winter, and so is increased funding for the Low Income Home Energy Assistance Program. LIHEAP helps protect 106,000 families in Massachusetts, and over 3 million nationwide, from having to choose between heating and eating. We need to deal with all aspects of these energy challenges, and produce both the short-term and long-term energy solutions that the nation needs.

I look forward to today's hearing, and to working with my colleagues to achieve a bipartisan energy policy worthy of this nation.

Distillate Stocks are Low – Especially on the East Coast

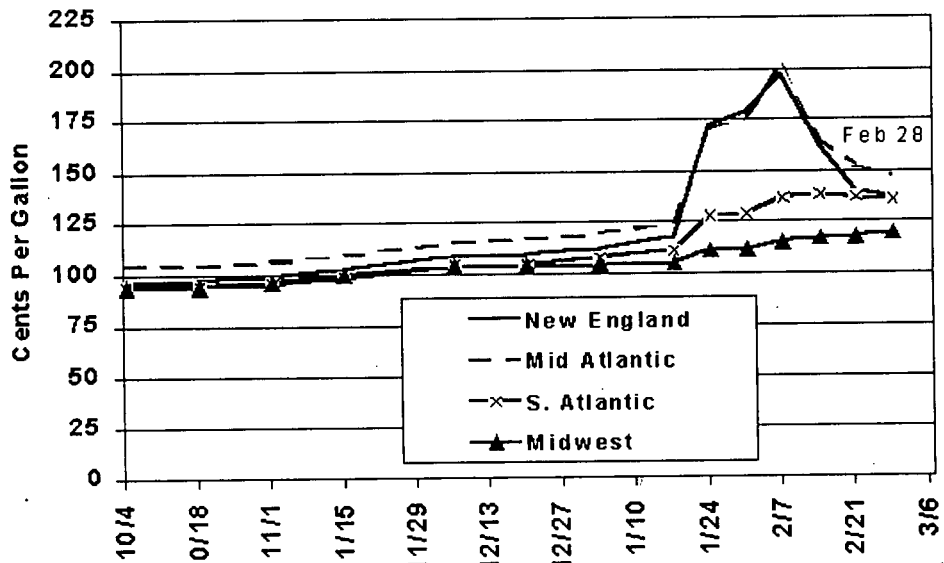
East Coast Total Distillate



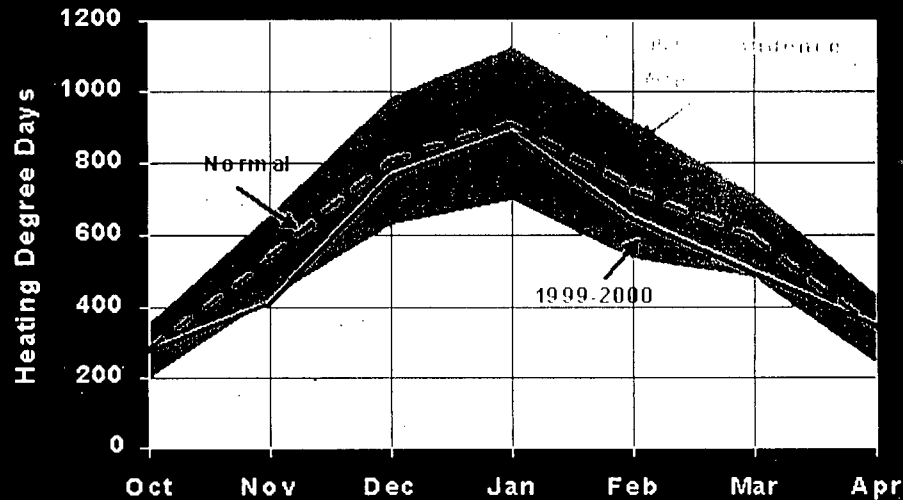
Source: EIA



Regional Residential Heating Oil Prices



Winter Demand Impacted by Weather



Source: National Oceanographic and Atmospheric Administration; Normals: EIA.



STRATEGIC PETROLEUM RESERVE RELEASES

- | | |
|----------------------|---|
| July 2000 | Exchange 1 million barrels for 1.03 million barrels when refinery ship access blocked. |
| April 1999 | Begin exchanging 28 million barrels for 28 million barrels plus transportation and quality improvements. |
| December 1998 | Exchanged 11 million barrels of low grade crude oil for 8.5 million barrels of sweet crude that is more valuable and easier to refine. |
| 1996 | Exchange 900,000 barrels plus \$2 million to meet Arco's emergency pipeline filling needs. |
| 1996 | 28 million barrels of oil sold to raise revenue as directed by Congress. |
| 1991 | Iraq war, 17.5 million barrels released during Desert Storm. |
| 1990 | Test sale of 3.5 million barrels during Desert Shield. |
| 1986 | Test sale of 1 million barrels directed by Congress. |

Oil Company Profits Exploded Over the Past Year

(profit margin increases between June 2000 and June 1999)

| | |
|---------------------|------|
| Unocal Corporation | 872% |
| Phillips Petroleum | 274% |
| Marathon Group | 203% |
| Chevron Corporation | 140% |
| Texaco Incorporated | 125% |
| Exxon Mobil | 123% |

CAROLYN B. MALONEY
14TH DISTRICT, NEW YORK

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GOVERNMENT REFORM

JOINT ECONOMIC COMMITTEE



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September 7, 2000

William J. Rainer
Chairman
Commodity Futures Trading Commission
Three Lafayette Center
1155 21st Street, NW
Washington, DC 20581

Dear Chairman Rainer:

On July 27, 2000, the House Banking Committee reported H.R. 4541, the Commodity Futures Modernization Act. The intent of this legislation is to increase legal certainty in financial derivatives markets and to enhance overall market stability.

While I am supportive of the goals of the legislation relating to financial products, I am concerned with language that may have the effect of moving substantial trading in energy products off of public exchanges. Unlike unique financial derivatives products of infinite supply, many questions remain about the susceptibility of energy products to market manipulation. Investigations of the energy markets are currently ongoing and energy prices are near all-time highs. Under current circumstances, I do not believe it is the appropriate time to further undermine consumer confidence in energy prices by moving trading in energy products off of public exchanges where they are closely monitored by your agency and where market information is available to the public.

As this legislation may shortly move to the House floor, I respectfully request that your agency forward me an analysis of the language relating to exemptions for nonfinancial products in H.R. 4541 and the other commodity market modernization bills pending before the House.

Thank you for your timely response to this request.

Sincerely,

Carolyn B. Maloney
CAROLYN B. MALONEY
Member of Congress



U.S. COMMODITY FUTURES TRADING COMMISSION

Three Lafayette Centre, 1155 21st Street, NW, Washington, DC 20581

William J. Rainer
Chairman

September 19, 2000

(202) 418-5030
(202) 418-5520 Facsimile

The Honorable Carolyn B. Maloney
Member of Congress
U.S. House of Representatives
430 Rayburn House Office Building
Washington, D.C. 20515-3214

Dear Representative Maloney:

I am pleased to write you on behalf of the Commodity Futures Trading Commission in response to your recent letter asking for the Commission's position with respect to language in H.R. 4541 that would exempt energy and metals products from regulation under the Commodity Exchange Act.

Before addressing the specifics of the energy and metals exemptions, I would like to emphasize the Commission's support for swift Congressional action on legislation establishing legal certainty for over-the-counter financial derivatives consistent with the unanimous recommendations of the President's Working Group on Financial Markets.

However, all versions of H.R. 4541 also contain provisions that effectively exempt most forms of trading in energy products from the Commodity Exchange Act, contrary to the recommendations of the PWG. As stated previously in testimony in both the House and Senate, the Commission is deeply concerned that these exemptions are not based upon sufficient evidence to warrant their inclusion in the legislation. One of the principal factors cited by the PWG in recommending an exclusion for OTC financial derivatives was that nearly every dealer in those products is either subject to, or affiliated with, an entity subject to federal financial regulation. This cannot be said with respect to most participants in trading energy products.

The Commission also notes that the views of other agencies with responsibilities for regulating various aspects of the cash markets in energy products have not been solicited. The recommendations of the President's Working Group on Financial Markets for treatment of OTC financial transactions was preceded by nearly a year of deliberation and study by the four principal agencies of the Working Group, resulting in a consensus on treatment of those products. No such process has been undertaken by the agencies with responsibilities for various aspects of trading in energy products, and we are therefore concerned that the potential consequences of this part of the legislation have not been thoroughly considered.

The Honorable Carolyn B. Maloney
Page 2

While the exemption in energy products is common to all three versions of the legislation – those of the Committees on Agriculture, Banking & Financial Services and Commerce, respectively – the Commerce Committee version extends the exemption to apply to metals products, as well.

With respect to the exemption for metal commodities, the Commission has serious reservations about the extent to which H.R. 4541 would exempt these products from the CEA. In the Commission's experience, metal commodities have an unambiguous history of susceptibility to manipulation and we believe that futures and options transactions in these commodities require full regulatory oversight by the CFTC to protect the markets and their participants from unlawful practices. For example, in 1998 the Commission settled a major copper manipulation case, in which one company acquired a dominant and controlling cash and futures market position during 1995 and 1996 that caused copper prices worldwide to rise to artificially high levels. That case resulted in the offending company's paying the largest civil monetary penalty in U.S. history to that time. In fact, the President's Working Group Report explicitly stated that these markets have been susceptible to manipulation and to supply and pricing distortions and therefore recommended that they not be excluded from the CEA.

The Commission recognizes that the legislation attempts to address some of these concerns by providing the agency with anti-fraud and anti-manipulation authority. Charging the Commission with the responsibility to police for fraud and manipulation, however, without conferring commensurate authority to promulgate regulations, where necessary, leaves the CFTC inadequately equipped to fulfill those responsibilities.

While there are many important provisions of H.R. 4541 that warrant enactment, the Commission cannot recommend that the Congress move forward on those provisions unless the basic issues outlined here are addressed. The Commission is pleased to continue working with you and other interested parties to reach a satisfactory solution to these important issues.

Sincerely,



William J. Rainer

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COMMITTEE:
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GOVERNMENT REFORM

JOINT ECONOMIC COMMITTEE



Congress of the United States

House of Representatives

Washington, DC 20515-3214

September 13, 2000

The Honorable Bruce Babbitt
Secretary of the Interior
1849 C Street, NW
Washington, DC 20240

Dear Secretary Babbitt:

It has recently come to my attention that Senator Murkowski, without any committee consideration, will offer an amendment to drastically expand the Royalty-in-Kind program. As a Member who has worked for years to make sure that taxpayers receive the fair amount of oil royalty payments, I am extremely concerned that this proposed amendment could seriously affect the ability of the Federal government to collect the appropriate amount of royalties from oil taken from Federal lands.

Specifically, I am concerned that this amendment would replace the existing standard for "fair market value" of oil sold from Federal lands with one that is vaguely worded and potentially designed to benefit the oil industry's legal challenges to the recently enacted oil valuation rule. Earlier this year, after years of industry resistance, your Department was finally able to implement a new oil and gas valuation rule to ensure that the Federal government is properly reimbursed for oil taken from Federal lands. The new rule requires oil companies to value oil based on market-based spot pricing (i.e., fair market value) instead of so-called "posted prices" which companies determine on their own. As a result of these changes, the Federal government will finally end an industry scam that was costing taxpayers more than \$66 million each year. Language to fundamentally redefine the "fair market value" of oil in statute could effectively undermine the new valuation regulations. This is completely unacceptable. This issue is too important to be rushed through Congress in the waning hours of this session.

In addition, I am extremely concerned that Congress is on the verge of fully authorizing a program which has never been considered in committee and which the General Accounting Office(GAO) expressed concern about as recently as August 1998. The GAO is currently reexamining the Royalty-in-Kind program to see if any progress has been made. I strongly urge you to oppose this legislation until we have the opportunity to hear from the GAO and the appropriate committees on this critically important issue.

Instead of this unnecessary amendment, I ask that you urge the Senate to recede to the House on the FY 2001 Interior Appropriations bill and allow the Royalty-In-Kind pilot program

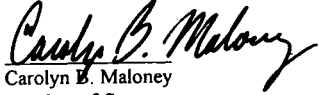
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to deduct transportation and processing costs for one year. In that way, we can learn more about the viability of the concept and also allow Congress the time to more carefully and collegially consider this proposal.

I look forward to hearing your views on this legislation and hope you will join me in publicly opposing it. Thanks in advance for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Carolyn B. Maloney". The signature is written in black ink and is positioned above the printed name and title.

Carolyn B. Maloney
Member of Congress

cc: Senator Barbara Boxer
Senator Richard Durbin
Director Walt Rosenbusch

**Statement of Robert S. Kripowicz
Acting Assistant Secretary
For Fossil Energy
U. S. Department of Energy
Before the Joint Economic Committee
on
September 27, 2000**

Mr. Chairman and Members of the Committee, I am pleased to be here to discuss the Strategic Petroleum Reserve and the actions taken this past week by President Clinton to use the Reserve to help avert possible fuel shortages this winter.

The Reserve was authorized in 1975 in the aftermath of the first Arab oil embargo. The Energy Policy and Conservation Act, signed into law by President Gerald Ford on December 22, 1975, provides that the Reserve may consist of up to one billion barrels of petroleum products. The current plan for the Reserve, however, provides for 750 million barrels of crude oil and 2 million barrels of heating oil.

The Strategic Petroleum Reserve consists of four oil storage sites – two in Louisiana and two in Texas – with capacity to store 700 million barrels. The first oil for the Reserve was delivered on July 21, 1977, and today the Reserve holds 571 million barrels of crude oil. The most common measure of the relative size of the Strategic Petroleum Reserve is to compare its inventory to the net daily volume of petroleum imported into the United States. The Reserve inventory now equates to between 50 and 60 days of import protection.

We also are establishing a regional reserve of heating oil in the Northeast as a component of the Strategic Petroleum Reserve. One million barrels of heating oil are to be located in the New Jersey portion of New York harbor and another one million barrels in New Haven, Connecticut. A portion of the heating oil stocks is already in place, and the entire 2 million barrels will be in place early in October.

The Gulf Coast Reserve crude oil is stored in caverns that have been hollowed from massive salt domes. These domes are common through the Gulf region, and provide the most advanced, lowest cost, and environmentally friendly method of long term petroleum storage. Our facilities are located near major refinery centers and connected to commercial pipelines and shipping terminals, which allow the rapid release of oil to the marketplace.

The President's Decision to Use the Strategic Petroleum Reserve

On September 22, 2000, President Clinton directed the Department of Energy to use the Strategic Petroleum Reserve to help bolster domestic oil supplies, especially the critically low inventories of heating oil that many families will need this winter.

The Department of Energy will exchange crude oil from the Reserve. Companies that obtain oil will be required to return comparable or higher quality crude oil to the Reserve in the fall of 2001. Because oil prices are expected to be lower then, the companies will return the amount they obtained plus additional quantities as a bonus percentage that will be specified in the offers. This ultimately will increase the amount of oil in the Reserve and enhance the nation's "insurance" against future energy supply disruptions.

The President made the decision to carry out the oil exchange because of concerns that lagging petroleum product inventories could create potentially severe hardships for many American families this winter. Today, distillate inventories across the country, which include heating oil, are 19 percent lower than they were a year ago. On the East Coast, where 36 percent of families use heating oil to stay warm, distillate inventories are lower still: 40 percent less than last year's levels. In New England, heating oil inventories are closer to 65 percent lower than last year.

While global oil production has been increased in recent months due in part to the Administration's diplomatic efforts – production increases have added three-and-a-half million barrels of oil per day to the world market – demand continues to siphon off the extra barrels before they move into inventories. Thus, U.S. crude stocks remain very low, and stocks of heating oil and other distillate fuels are at critically low levels.

The President's action will add the equivalent of a million barrels per day to the U.S. market over a period of 30 days, a temporary infusion of oil that could begin quickly to restore a better balance between supply and demand. The action will likely add an additional 3-to-5 million barrels of heating oil this winter, if refineries could match higher runs and yields seen in the past.

This past Monday, September 25, the Energy Department issued the exchange solicitation from its New Orleans office. Offers will be due this Friday, September 29. The Energy Department will evaluate the bids and negotiate "best and final" offers next week, and contracts are expected to be awarded on Friday, October 6. Companies offering to return the most crude oil of a comparable or higher grade next August through November will be awarded contracts.

The solicitation calls for moving the crude oil to successful offerors during November, although the Energy Department will be able to accommodate earlier deliveries if an offeror can make the necessary transportation arrangements.

Statutory Authorities for Exchanging Reserve Oil

The exchange initiative is authorized by Section 106 of the Energy Policy and Conservation Act. This section authorizes the Secretary, for purposes of implementing the Strategic Petroleum Reserve Plan, to place in storage, transport, or exchange:

- 1) crude oil produced from Federal lands, including crude oil produced from the Naval Petroleum Reserves to the extent that such production is authorized by law;
- 2) crude oil which the United States is entitled to receive in kind as royalties from production on Federal lands; and
- 3) petroleum products acquired by purchase, exchange, or otherwise. (*emphasis added*)

Emergency Oil Sales from the Reserve

I've noted, the President's action this past week has been to offer an exchange of crude oil as a way to supplementing supplies on the market over the next two months while replenishing – adding to – the Strategic Reserve's inventory next year. The Committee has also expressed interest in the process for an emergency sale and drawdown of Strategic Reserve oil.

The authority to draw down the Reserve is dependent on a Presidential finding of severe energy supply interruption or that a drawdown is necessary to comply with our international obligations. I've attached to this statement the relevant language from the Energy Policy and Conservation Act that defines the conditions under which the Reserve can be used in this manner.

In the event of an emergency oil sale, refiners and trading companies would be the bidders for Strategic Reserve oil under standard sales provisions which we have distributed to prospective bidders and are posted on our web site. Knowing in advance the procedures for a competitive sale permits companies to respond to a solicitation and the government to carry out its bid evaluation and award process in a rapid and efficient manner.

To ensure that our operation and potential use of the Strategic Petroleum Reserve remains consistent with the practices of private industry, we routinely meet with companies that could potentially be involved in the use of the Reserve. Recently, for example, we have had customer service teams visit 30 companies this year that account for 96 percent of the Nation's refining capacity.

Close coordination with industry is one of the primary reasons why the Department can issue a solicitation for an emergency oil sale within 24 hours of a Presidential finding and complete the process and be ready to deliver oil to successful offerors within 15 days.

Should we be called upon to counter a major disruption, the Reserve can supply oil to commercial buyers at a rate of more than 4.1 million barrels per day for 90 days. During this time, the Reserve would be equivalent of the fifth largest oil producing country in the world.

After the 90-day maximum drawdown period, the rate of oil release would decrease as storage caverns are emptied. At one million barrels per day, the Strategic Reserve could supply a steady flow of crude oil to the market for approximately a year-and-a-half.

The large volumes of oil and the rapidity with which it can be moved into the marketplace make the Strategic Petroleum Reserve a formidable deterrent to countries that might consider using the flow of oil into world markets for political leverage.

Since the creation of the Reserve the only time a President has made such a finding was during the Gulf War in 1991, at which time the Energy Department offered nearly 34 million barrels and sold about 17 million barrels of Reserve oil.

The Need for Reauthorizing EPCA

As Members are aware, the Energy Policy and Conservation Act (EPCA) expired on March 31, 2000. Our General Counsel staff and senior legal staff at the Department of Justice, however, have concluded that the authorities of EPCA to manage the Strategic Petroleum Reserve have been effectively extended by Congressional enactment of current year (FY2000) appropriations for the Reserve.

It is important, however, that there be no ambiguity about the President's ability to use the Strategic Petroleum Reserve in the future. EPCA provides the only direct and full authority to operate the Reserve and is the strongest underpinning for our emergency oil response capability. That is why the President and Secretary Richardson have continued to call on Congress to renew the authorities of EPCA. The House of Representatives has acted twice in the past several months to reauthorize the legislation, and hopefully, the Senate will take action in the near future.

EPCA reauthorization is also important because the Act provides limited antitrust protection for U. S. oil companies assisting us and the International Energy Agency to plan for and respond to an oil emergency in a coordinated manner.

Meeting Our International Obligations

The U.S. Strategic Petroleum Reserve is the world's largest emergency stockpile of crude oil. As such, it helps the United States satisfy its international obligations to other member nations of the International Energy Agency. Under the *Agreement on an International Energy Program*, the United States and other member countries of the International Energy Agency (IEA) have agreed to store the equivalent of 90 days of net petroleum imports against the possibility of supply interruptions, and to jointly respond to such interruptions. The U.S. meets its obligations by a combination of Government-owned stocks and private sector inventories. In total the member countries of the IEA account for approximately 1.2 billion barrels of petroleum reserves.

The Desert Storm drawdown of 1991 was conducted in coordination with the IEA and other OECD nations. This concerted effort was one of the primary reasons why oil markets stabilized and prices moderated during the Persian Gulf conflict.

Mr. Chairman, this concludes my opening statement and I will be pleased to answer any questions that you and the Members of the Committee may have.

**The Energy Policy and Conservation Act
Statutory Provisions for an SPR Drawdown**

DEFINITIONS

SEC. 3. As used in this Act:

(8) The term "severe energy supply interruption" means a national energy supply shortage which the President determines -

- (A) is, or is likely to be, of significant scope and duration, and of an emergency nature;
- (B) may cause major adverse impact on national safety or the national economy; and
- (C) results, or is likely to result, from (i) an interruption in the supply of imported petroleum products, (ii) an interruption in the supply of domestic petroleum products, or (iii) sabotage or an act of God.

DRAWDOWN AND DISTRIBUTION OF THE RESERVE

SEC. 161.

(2) For purposes of this section, in addition to the circumstances set forth in section 3(8), a severe energy supply interruption shall be deemed to exist if the President determines that -

- (D) an emergency situation exists and there is a significant reduction in supply which is of significant scope and duration;
- (B) a severe increase in the price of petroleum products has resulted from such emergency situation; and
- (C) such price increase is likely to cause a major adverse impact on the national economy.

(g)(1) The Secretary shall conduct a continuing evaluation of the Distribution Plan. In the conduct of such evaluation, the Secretary is authorized to carry out test drawdown and distribution of crude oil from the Reserve. If any such test drawdown includes the sale or exchange of crude oil, then the aggregate quantity of crude oil withdrawn from the Reserve may not exceed 5,000,000 barrels during any such test drawdown or distribution.

(h)(1) If the President finds that -

- (A) a circumstance, other than those described [above] exists that constitutes, or is likely to become, a domestic or international energy supply shortages of significant scope or duration; and
- (B) action taken....would assist directly and significantly in preventing or reducing the adverse impact of such shortage,

then the Secretary may...draw down and distribute the Strategic Petroleum Reserve.

- (2) In no case may the Reserve be drawn down under this subsection -
- (A) in excess of an aggregate of 30,000,000 barrels with respect to each such shortage;
 - (B) for more than 60 days with respect to each such shortage;
 - (C) if there are fewer than 500,000,000 barrels of petroleum product stored in the Reserve; or
 - (D) below the level of an aggregate of 500,000,000 barrels of petroleum product stored in the Reserve.



**THE EMPLOYMENT SITUATION:
FEBRUARY 2001**

HEARING

before the

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

—————
March 9, 2001
—————

Printed for the use of the Joint Economic Committee



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THE EMPLOYMENT SITUATION:

FEBRUARY 2001

Friday, March 9, 2001

**CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.**

The Committee met, pursuant to notice, at 9:33 a.m., in Room 1334, Longworth House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Present: Representatives Saxton and English. Senator Corzine.

Staff Present: Chris Frenze, Bob Keleher, Darryl Evans, Colleen J. Healy, Daphne Clones-Federling, Corine Bradshaw, Amber Williams and Russell Comeau.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Good morning. It is a pleasure to welcome Commissioner Abraham before the Committee once again to report on the release of new employment and unemployment data for February.

Recent current economic conditions indicate that the economy has slowed from the remarkable pace present through the middle of last year. The array of economic data shows that the economy has been in a slowdown for the last two quarters. For example, the rate of GDP growth has fallen two quarters in a row. The consumer spending and investment growth have also slipped. However, there are some signs of a residual economic strength in certain sectors, such as construction and the service-producing industries. In addition, overall employment growth has slowed but has generally been positive.

The employment-population ratio remains high, and labor market conditions for the most part remain fairly tight as reflected by the relatively low unemployment rate. The slowdown does make the economy more vulnerable to shocks and disruptions, but the economy remains in positive territory.

The Federal Reserve is aware of the softness of the economy, and its recent survey indicates that that is a continuing problem.

The employment data released today seemed to be influenced by the slowing pace of the economy. Payroll job growth for February was 135,000, considerably lower than the 225 to 250,000 range typical during the healthy economic expansion. The unemployment rate remained unchanged at 4.2 percent. Given the weakening of the economy since the middle of last year, the case for change in economic policy is quite strong.

The tightness of Federal Reserve monetary policy should be relaxed, and the Fed has taken steps in this direction earlier this year, although

more remains to be done. Further rate cuts by the Fed are needed. As a matter of fact, for quite some time I have been questioning Fed policy. As far back as November, 1999, I began to question Fed tightening policy and did so again in March of 2000 and finally again earlier this year.

Congress can also do its part by reducing the fiscal drag on the economy from the excessive tax burden imposed on our tax system. The House took a step in that direction yesterday, and the Senate will work its will later as time goes by. The tax system is counterproductive, and now is a good time to reduce its negative effects. This will not make the economy turn on a dime, but it will improve the prospects for continual economic growth now and in the future. The current economic outlook poses challenges that should not be taken lightly. Changes in macroeconomic policy are needed to get the economy back on track.

Commissioner Abraham, let me again welcome you to today's hearing. We are certainly anxious to hear your report in the very articulate way that you have been accustomed to delivering it to us. Before I do that, I would like to welcome my colleague from New Jersey for the first time, Senator Jon Corzine, who is no stranger, to say the least, to the world of economics and economic growth and investment, having been extremely successful in his real life adventure; and now he is here with us in Congress. As he just walked into the room for his first time, I don't know whether he may have an opening statement, but we certainly want you to feel welcome here and to make an opening statement if you would like to.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 16.]

Senator Corzine. Mr. Chairman, thank you for the welcome. I have a formal statement I will submit for the record, but it is a great pleasure to be here with you and working on issues that I think will make a difference with regard to our economic picture in the long run.

I am anxious to hear about unemployment statistics, which I used to watch very closely on a day-to-day and a second-to-second minute; and I think we all have grave concerns about the state of the economy. So I very much look forward to this morning's discussion.

But mostly, I want to say thank you for your welcoming remarks and I look forward to working very closely with you over the years.

[The prepared statement of Senator Corzine appears in the Submissions for the Record on page 19.]

Representative Saxton. I thank my colleague. Commissioner Abraham, you may begin. The floor is yours.

**OPENING STATEMENT OF KATHARINE G. ABRAHAM,
 COMMISSIONER, BUREAU OF LABOR STATISTICS:
 ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE
 COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS;
 AND PHILIP L. RONES, ASSISTANT COMMISSIONER OF
 CURRENT EMPLOYMENT ANALYSIS**

Ms. Abraham. Thank you, Mr. Chairman. It is a pleasure to be seeing you again in this new year; and, good morning, Senator Corzine.

As always, we are happy to have the opportunity to comment on the labor market data that we released. The unemployment rate, as you noticed, was unchanged in February at 4.2 percent, and payroll employment rose by 135,000. Since early last fall, the growth in payroll employment has slackened. In the five months since September, the average monthly increase in payroll employment has been 103,000. In contrast, during the first nine months of last year, payroll employment had grown by 187,000 a month, on average.

You should have in front of you a small package with some charts.

The first chart relates to what has been happening with payroll employment. The data shown there are only for the private sector, for the reason that the buildup and drawdown in Federal employment related to the census otherwise would have distorted the figures. I think you can see looking at those data the slowdown in the rate of growth of payroll employment in recent months.

[The chart package appears in the Submissions for the Record on page 45.]

Focusing on what happened in February, the key features of the February data in my view are, first, the continued reduction in manufacturing employment and hours; second, the more than offsetting job gains in services and some other industries; and, thirdly, the over-the-month rise in average hourly earnings.

Let me talk first about manufacturing employment. Manufacturing employment fell by 94,000 in February following a decline of about the same magnitude in January. Those declines bring total factory job losses since last June to 371,000.

The second chart in the small package that I gave you shows what has been happening to manufacturing employment. There has been a period of time you will recall back in the spring of 1998 when, around the Asian economic crisis, we started to see declines in manufacturing employment; and then for a period of time things seemed to have leveled out. Since last summer, however, we have again been seeing rather substantial declines in manufacturing employment. I think the thing that is noteworthy about what we are seeing in February is how widespread those declines in manufacturing employment are. That is shown in the next little chart. Even the electronic components industry has a small job loss over the month. That was an industry within manufacturing that had been on an upward trend for a couple years. The only manufacturing industry with a sizable over-the-month increase was motor vehicles, but

that gain of 13,000 was just a fraction of the loss that had occurred in January. So even that has to be put in some context. On net, auto industry employment has fallen by nearly 80,000 since June.

Manufacturing hours and overtime hours also continued on their downward trend in February. That is shown in the fourth chart in this package. Since June, the average factory workweek has declined by a full hour, and overtime has fallen by 8/10ths of an hour. The factory workweek is now at its lowest level since the spring of 1991, outside of two months when winter storms caused sharp temporary reductions in hours back in December; and then in January of 1996 you can see sharp declines related to weather. Weakness in manufacturing may have affected some other industries. For example, wholesale trade, which serves as an intermediary between manufacturers and customers, has lost 22,000 jobs since November. This is the largest such decline in that industry since early 1993.

Employment in help supply services, which is mainly temporary help firms that provide workers to manufacturing as well as to other industries, was little changed in February but has fallen by 200,000 since April of 2000. Help supply had been a big job gainer during most of the economic expansion that began in the spring of 1991. So these recent losses do represent a real change.

Employment in the services industry as a whole rose by 95,000 in February. Health services had the largest job increase among the services industries, as employment in hospitals continued to benefit from recent exchanges in Medicare payment schedules. Employment also rose in social services, computer services, and private education. Public education accounted for a large share of the rise in government jobs over the month.

Maybe I could digress for just a moment from my prepared statement at this point. I commented at the beginning of my remarks about the slowdown in overall employment growth that we have seen over the last five months or so. Manufacturing has been hard hit. We have seen a real turnaround in help supply. If you look at the rest of the economy, you don't see any evidence of that slowdown. The slowdown in employment growth has really been very concentrated in just a couple of areas. In the services sector in particular, things have held up pretty well; and in a number of services industries we have actually seen somewhat faster growth over the last five months than previously.

Following a very large gain in January, construction employment added 16,000 jobs in February. That is another industry where we have not seen any slowdown. Since October, employment in construction has been increased by 37,000 a month on average. In the 12 months prior to October, the average monthly increase had been only 23,000.

From our survey of employers, average hourly earnings were up seven cents in February. The over-the-year increase was 4.1 percent. This was the fourth month in a row that the over-the-year increase in average hourly earnings was 4 percent or higher. Throughout most of

1999 and 2000 those over-the-year gains had remained in the 3.5 to 3.8 percent range.

As I mentioned at the beginning of my statement, the unemployment rate was unchanged in February at 4.2 percent. There is a chart that shows the average hourly earnings figures. The unemployment rate was unchanged in February at 4.2 percent. In February, the number of newly unemployed, those unemployed less than 5 weeks, and also the number of unemployed job losers who were not on temporary layoff, both rose for the second month in a row.

Other cyclical indicators from our survey of households, such as the number of people working part-time for economic reasons, that is, working part time despite the preference for full-time work, and also the number of people outside the labor force who have stopped looking for work, have shown no clear signs of an upward trend.

In summary, the sharp downturn in manufacturing employment and hours continued in February. Still, overall payroll employment continued to rise, and the unemployment rate remained relatively low. Finally, earnings gains appear to have picked up in recent months.

So that is the basic picture as we see it, looking at these data. We would, of course, be happy to answer any questions that you might have. [The prepared statement of Commissioner Abraham and the accompanying Press Release No. 01-57 appear in the Submissions for the Record on page 20.]

Representative Saxton. Commissioner, thank you. It would appear that the initial reaction among the members of the economic community was somewhat of a surprise earlier this morning when these employment numbers were released. There was an expectation that, among those who were awaiting these numbers, that they would be somewhat weaker than they were. Do you have any explanation for, while these are not strong numbers, they are stronger than the expectations would have indicated? Do you have any explanation that we might consider as to why this happened?

Ms. Abraham. I am almost thinking this might be a better question to address to your colleague. You are quite correct that the expectations were for somewhat lower payroll employment growth than we in fact reported, though the expectations for unemployment were about in line with what we reported.

It may be that people were expecting construction to be weaker this month than it actually turned out to be. In January, we had an enormous increase in construction employment. Part of that was probably an anomaly related to very bad weather in November and December, so people having been let go earlier in the year than they usually are and not getting layoffs in January that we would have expected. But it was stronger than you could have explained just on that basis.

And people may have expected, as often occurs, that, given that very strong January number, that we would see declines in February. We didn't get that. Construction employment actually rose.

I don't know, with respect to other things, exactly where the discrepancy may have come.

Representative Saxton. Commissioner, you indicated that the weakness in job growth was particularly evident in manufacturing.

Ms. Abraham. Correct.

Representative Saxton. Matter of fact, what was the number, 94,000 job loss in February and about the same in January?

Ms. Abraham. Correct.

Representative Saxton. This tracks in terms of manufacturing jobs with a long-term trend, does it not?

Ms. Abraham. Well, the long-term trend in manufacturing for many years has been downward. The declines in recent months have really accelerated. I think they are sharper than you can explain just on the basis of a long-run trend.

Representative Saxton. When I say many years, actually the declines in manufacturing began in the 1997-1998 time-frame, did they not?

Ms. Abraham. There were declines through the early '90s and then some pickup and then some declines, interrupted by increases and then further declines.

If you take a much longer time perspective, the tendency clearly has been towards declines in manufacturing. It is really not just the last few years.

Phil has got numbers here that go back further. If you go back to the mid '70s, for example, when our overall economy was much smaller, manufacturing employment for the late '70s was in excess of 20 million. And despite growth in the economy since then, manufacturing has fallen to 18.5 million, that kind of range.

Representative Saxton. I only have limited data before me – I can see where we are at 18.9, 18.8, 18.9 in 1998.

Ms. Abraham. Right. I mean, we have come down about three quarters of a million since then. That is true.

Representative Saxton. So there has been a trend downward over the long-term, and there has been a specific trend down over the shorter-term since 1998, and it became an especially steep decline beginning about January 2000, is that—

Ms. Abraham. I might date it in the summer, rather than in January, but, yes, declines have accelerated.

Representative Saxton. And, at the same time, the civilian unemployment rate during those years – in spite of the fact that manufacturing employment has declined – the unemployment rate has declined along with it, meaning that other sectors of the economy have picked up jobs.

Ms. Abraham. Right. That is right.

Representative Saxton. But then we see, in terms of the unemployment rate, beginning in the second quarter of 2000 unemployment started to increase again, did it not?

Ms. Abraham. Well, I guess I would characterize the unemployment rate slightly differently. I would say that for a long period of time, I think it was 15 months, the unemployment rate hovered in a very narrow range. From October of 1999 through December of 2000, it never got outside of the range from 3.9 to 4.1 percent. So I would characterize it as having been quite stable at a very low level over that period. It has been a little higher over the last two months.

Representative Saxton. 4.2 percent.

Ms. Abraham. Right.

Representative Saxton. Okay. So there is obvious reason for concern about the loss of manufacturing jobs, and there is reason for us to examine why the unemployment rate has continued to go down. Obviously, that is because of increases in job growth in other sectors. But now we see that while we continue to lose jobs in the manufacturing sector, job growth in the other sectors is not as robust, and that started during the last half of 2000, is that right?

Ms. Abraham. Let me try to state what my sense of this is: we have seen slowdowns in overall payroll employment growth, but those have been very concentrated. They have been concentrated in the last few months, as compared to earlier in 2000. They have been concentrated in manufacturing and in temporary help. Employment in the rest of the economy really has not slowed at least over that time frame. These recent declines have been quite concentrated. The recent slowdown has been quite concentrated.

Representative Saxton. When you say recent slowdown, you are talking about the last half of 2000?

Ms. Abraham. Yes.

Representative Saxton. There have also been widespread reports of layoffs in the private sector, but they are hard to evaluate in the context because some job growth has been going on, as we have been saying. What do your figures show about the layoff situation and its impact on employment and unemployment?

Ms. Abraham. Let me just describe the information that we have on layoffs. We have information on mass layoffs that show up through people registering for unemployment insurance. If there is a company that lays people off and 50 or more of their people register for unemployment insurance, we pick that up and are able to track that.

At the end of last year, November, December, we saw a substantial pickup in the volume of layoff activity. January's number wasn't out of line with what we had seen a year earlier. I guess it remains to be seen what the numbers for February, March and so on are going to show.

The November and December numbers certainly do show a higher incident of layoff activity than we had seen in this data series before. These data only go back five years, six years, so we don't have a long

time series. But the numbers for the end of 2000 were certainly quite high by historical standards, standards of the recent past.

Representative Saxton. Let me just go to general impression. I know that some of the information I have here is not data that you developed. It is obviously very closely related. Slowdown in employment growth over the last seven or eight months tracks with the slowdown in GDP as well, is that correct?

Ms. Abraham. Generally speaking, I think all of that economic data that we have seen recently are telling a fairly consistent story.

Representative Saxton. And the slowdown started—

Ms. Abraham. At the end of last year.

Representative Saxton. Third quarter of last year.

Ms. Abraham. Unfortunately, I don't have the GDP figures in front of me. I take your word for it on that one.

Representative Saxton. The GDP growth in the second quarter of last year was 5.6 percent. According to the figures I have in front of me, the third quarter was 2.2 percent; and in the fourth quarter it was 1.1 percent. That sounds about right.

Ms. Abraham. That sounds like a slowdown.

Representative Saxton. And personal consumption follows the same downward trend, or appears to. In the third quarter of '99, it was very robust; and during 2000 consumption began to decrease fairly rapidly. And that tracks with the figures that you are seeing, I assume.

And retail sales, the same thing occurred in January of 2000. Actually, in May of 1999 consumption started to fall. Retail sales started to fall and have continued to fall.

I am not sure whether you have evaluated those numbers or not, but is it your general agreement that that has occurred?

Ms. Abraham. General agreement that the picture seems to be pretty consistent.

Representative Saxton. I am not going to go through all these figures, but my staff has provided measure after measure that shows the decline in the economy started six months ago, according to some figures, a year ago according to other measures. Would you generally agree with that, that is the case?

Ms. Abraham. The figures that we focus on, of course, are the employment figures. Employment growth in 2000 was below employment growth in '99, but sort of within that, as we look at those data, the last several months, five months, is where the slowdown has been particularly pronounced.

Representative Saxton. It is consistent with the slowdown, correct?

Ms. Abraham. [Witness nodded.]

Representative Saxton. Thank you very much.

Senator Corzine, do you have any questions at this point?

Senator Corzine. Thank you, Mr. Chairman.

Commissioner Abraham, I guess my question would be, acknowledging the pattern of other economic measurements that the Chairman cited, have you done any work on the historical perspective of how we enter into a recession and what – if we were, in previous periods, how long the lag is and what kinds of early warning signals within the detail of the employment statistics would red flag that? Are there any signs along those lines? The temporary hiring patterns, corporations have often been cited as one of those places where you might look first.

Ms. Abraham. That is not something that we devote resources to. That really gets away from the production of the data into the analysis of the data.

I know there are things that people do look at. Some people, as I think we were suggesting, look at employment in help supply, mainly the temporary help firms. Some people look at the number of people unemployed for fewer than five years, the newly unemployed, as kind of an indicator. Sometimes people look at the other labor market indicators like people working part-time when they would rather have a full-time job or people giving up on job search. But, no, we have not attempted to analyze past cycles and pull out of the data what we should be looking at to diagnose what is happening now.

Senator Corzine. With regard to your comments on electronic components, does that tie to some of the slowdown that we have seen in the dot-com phenomenon and slowdown or is that really a different picture into the economy?

Ms. Abraham. What the electronic components really are are semiconductors, communications equipment, that sort of thing. So it may be related, I suppose, to what is going on with some of these dot coms. To the extent that the dot-coms are in retail activity, they would be categorized elsewhere.

Senator Corzine. Then, finally, I would ask a question about your comment that health services held strong in this period and tied to recent changes in Medicare payment schedules. I don't know whether you want to comment on whether you think this is a temporary phenomenon or one that you believe might be sustainable in employment growth.

Ms. Abraham. It is very clear in the data that we have seen a pickup in employment growth in health services over the period beginning in about October. For the five months October, November, December, January, February, health services as a whole was growing by about 22,000 a month, compared with just 14,000 over the earlier part of 2000. Health services is an area where our long-term employment projections suggest we can expect continued robust employment growth, just reflecting the demographics of the society, if nothing else. So health services is an area where I would expect strong employment growth over the long term to continue.

How much of any pickup we have gotten as a result of these Medicare changes might be persistent versus temporary, I don't really know.

Senator Corzine. Mr. Chairman, I think that is good for me. Thank you very much.

Representative Saxton. Thank you very much, Senator. Very good questions.

I would like to introduce to you, Commissioner Abraham, Congressman Phil English, who is at this hearing for the first time and appeared yesterday at a JEC hearing for the first time. Phil has been with us since 1994 in Congress. He is a member of the Ways and Means Committee, and we lobbied hard to get him on this Committee because of his interest in economics.

Phil, welcome, and the floor is yours.

Representative English. Thank you, Mr. Chairman.

Commissioner Abraham, it is a privilege to take your testimony.

I was wondering if I could get to you elaborate further on some of the trends you see in the manufacturing sector, manufacturing being obviously a critical sector but being a category that is so broad that it almost conceals more than it reveals. I am wondering if you could give us a sense, for example, of what the job patterns have been within the steel industry within the last month.

Ms. Abraham. Maybe I could put some of this in a bit of a longer-term perspective as well.

Representative English. Certainly.

Ms. Abraham. There are a number of parts of manufacturing that have really been on a long-term, secularly declining employment path. The two that jump to mind are apparel and also other textile products, which have just over long periods of time been shedding jobs at a fairly rapid pace.

You asked specifically about what has been happening in steel. Steel is the biggest part of what we call primary metals. Over the month, primary metals fell by 5,000. It fell by 6,000 in the month before that. It was down by a couple thousand a month over the prior 12 months. So the last couple months have been substantially worse than the average for the recent past.

Parts of manufacturing had actually been doing fairly well up through the middle of 1998. Manufacturing as a whole had been doing well through the middle of 1998. We had seen employment growth in aircraft, we had seen employment growth in industrial machinery, electronic components had been doing well. Then manufacturing got hit by the Asian economic crisis, and in a lot of those industries you started seeing employment declines.

Things had leveled off in many of them for a period of time, but all of these industries have been experiencing employment declines in recent months.

Representative English. Do you have the data broken out to help us identify some other sectors? What I am trolling for here is there are certain sectors that are obviously import sensitive. There are others that are very sensitive to changes in export conditions. And I wonder, for example, do you have a break-out for machine tooling or do you go down to that far in – do you identify sectors that narrowly?

Ms. Abraham. In the data that we put out for the current month, we don't have data that go down to that level of detail. When we put out data later on, we do have data that are more detailed and would include things like that.

Representative English. What was the trend—

Ms. Abraham. We do have a data series that we put together – maybe we could ask Phil Rones to talk about this – that is designed to track employment in industries that are export sensitive. We don't have a corresponding one for industries that are import sensitive. But maybe you could—

Representative English. Mr. Rones, would you comment?

Mr. Rones. We have several series that track industry employment related to defense, exports, construction. So we try to look beyond just the specific employment growth in those industries. In what we call the export sensitive industries, overall the over-the-month change was minus 24,000. So we lost 24,000 jobs in what we call the export sensitive industries. And what we are looking at there are industries that have at least 20 percent of their gross revenues in exports. Over the year, we have lost 66,000 jobs in those industries.

Representative English. May I ask, under the category of fabricated metal products of which we have a significant component in Western Pennsylvania, I see there is a significant projected fall-off for this month. I realize month-to-month it is very difficult to predict what is going on, but there has been, since November and December, looks from these statistics seasonally adjusted to be a fairly significant drop. Can you comment on that?

Ms. Abraham. We need to verify that, in fact, that is what we are seeing. It was both this month and last month that industry lost 13,000 jobs, and it lost jobs as well in December. Up through November it had actually been holding its own and even adding a bit. So it is really the last several months where we have seen declines, in the last two months rather sharp declines have occurred in employment in that industry.

Representative English. And under industrial machinery and equipment I see there is also a significant drop-off just over the last couple of months seasonally-adjusted.

Ms. Abraham. Correct. We had seen some declines earlier for industrial machinery, but it was down and up, down and up. Last three months have all been declines, with a rather sharp decline this month.

Representative English. Thank you. That is extremely helpful; and, Mr. Chairman, I appreciate the opportunity to participate.

Representative Saxton. Thank you very much, Mr. English.

Commissioner Abraham, if I may just ask you about New Jersey for a minute, the New Jersey economic situation. And understanding that these figures are from January, what do the recent trends in employment and unemployment suggest about the State's economy and in what industries does employment growth seem strongest and in New Jersey which sectors seem to be the weakest?

Ms. Abraham. Let's see, Phil Rones I know has brought a package with some information for the State of New Jersey. I have also got here, if I could pull this out, some information on the employment.

[The chart package concerning the state of New Jersey appears in the Submissions for the Record on page 51.]

Maybe you could comment on the unemployment picture, Phil; and I will comment on the employment.

Mr. Rones. What we prepared for you is a map that has unemployment rates in New Jersey by county, and we will give this to you. What we see here is that the New Jersey unemployment rate is 3.8 percent, and that was an average for the year 2000 which is just slightly below the unemployment rate for the Nation as a whole, which averaged 4 percent.

One thing you will see from this, there is a very dramatic range in unemployment. There are parts of New Jersey where the unemployment rate is between 1 and 2 percent and has been for a sustained period of time, and there are counties in southern New Jersey where the unemployment rate is higher than 10 percent. So there is a substantial spread in the economic conditions in different parts of New Jersey.

Ms. Abraham. You also asked about what was happening with employment in New Jersey. Employment in the State of New Jersey was up by 1.7 percent over the year ending in January of 2001. In terms of the pattern of that employment growth, it looks not unlike that of the Nation as a whole. Construction employment growth has been very strong in New Jersey over the year, up 3.8 percent. Manufacturing employment was down over the year by 1.7 percent. We saw strong growth in services.

So I would provide for you as well the figures that break out the mix of employment growth, which sectors have been growing and which have not. But the broad picture is certainly consistent with what we are seeing for the Nation as a whole.

Representative Saxton. Senator.

Senator Corzine. We have a little interest in this chart here on this side of the table, regardless of our political affiliations. I appreciate the information. I think the dispersion is really quite striking. I suppose that is the case if we looked at almost every state in the country.

Ms. Abraham. That is true. There tend to be pockets, often in more rural or more isolated parts of the geography, where the unemployment is higher.

Senator Corzine. I hope that we will be able to take advantage of this New Jersey connection on a consistent basis, the Joint Economic Committee. Thank you very much, Commissioner.

Representative Saxton. Has your analysis of the unemployment or employment situation in New Jersey taken into account industry by region or job opportunities by region, or are you able to offer any explanation generally why it appears that perhaps our most rural New Jersey counties – and we do have rural New Jersey counties – are doing significantly less well than counties that might be considered suburban growing counties or urban New Jersey counties?

Ms. Abraham. We would be happy to take a closer look at the data to see whether there is any light beyond what you see in the figures that we can shed on that.

Representative Saxton. Well, thank you very much.

Let me ask one final question and then see if either of my colleagues have a final question.

Commissioner, you have indicated to us in the past on a consistent basis, as has your predecessor, that in effect you warned against reading too much into one month's data; and I have delivered the same message to us fairly consistently. Are the data reported today any exception to that rule?

Ms. Abraham. Oh, no. I think there are some things in the data for this month that seem at this point to represent a trend that has continued over several months. But we are by no means willing to make predictions about what might happen next month.

Representative Saxton. And can you just articulate what that or those trends may be?

Ms. Abraham. Well, it is the things that we have already discussed. I think clearly there has been slowing employment growth overall that seems to be concentrated in manufacturing and help supply. In terms of changes, there seems to have been a pickup in recent months in the rate of growth of average hourly earnings. Having said that, unemployment has remained low and we have not seen any slowdown in employment growth outside of, broadly speaking, the sectors that I already identified.

Representative Saxton. But back to the thrust of my original question, I guess – and I don't mean that you didn't answer my original question because I asked you about trends and you told me what they were – but back to – let me just backtrack to my original question, and that is that the data reported today are no exception to the rule in terms of reading too much into whether or not we are seeing any kind of a change in job growth or job loss.

Ms. Abraham. The more data you accumulate, the clearer the picture.

Representative Saxton. Thank you very much.

Senator or Congressman, do you have – Senator Corzine.

Senator Corzine. Commissioner Abraham, the unemployment rate for African-Americans jumped up from 7.6 to 8.4 December to January and then I think it fell back to 7.5 percent. These numbers, these are pretty volatile changes. I presume that has something to do with sampling size.

Ms. Abraham. That is a good example of the point Congressman Saxton was making.

Senator Corzine. I wonder what we could do, given a desire to have greater tracking? What do we have to do to make sure that we get a more steady read statistically over time?

Ms. Abraham. If we were to get a more steady read month-to-month, the only real option would be to substantially increase the size of our monthly household survey. The monthly household survey is roughly 50,000 households that are interviewed every month. Different groups are represented, roughly in proportion to their share of the population. So African-Americans represent, very roughly, 10 percent of that sample. So naturally any statistics for that group are going to have, as you said, much higher sampling variability. The only real way to address that would be to substantially increase the size of the sample for that group which would add to the expense of doing the survey.

Senator Corzine. Do you have any sense of taking the 50,000 and making it 75,000, or is there – and then with obviously commensurate pickup in the various distributional aspects, how much that runs, just a gauge?

Ms. Abraham. The current budget for the monthly household survey – you would know that, Phil. That is your responsibility.

Mr. Rones. The BLS share, which covers most of these monthly data that we are talking about, is around \$38 million a year for the monthly survey. If we increase the sample by 50 percent to 75,000, you are probably talking about close to a \$15 to \$20 million increase in the budget.

I wouldn't try to talk you out of increasing the size of the CPS, but you would still end up with fairly volatile estimates for these smaller groups, even at an increase of 50 or even a 100 percent. The overall national unemployment rate is accurate to within about 2/10ths of a percentage point each month. For some of these smaller groups we are talking about month-to-month variability that could be a full percentage point or even more. That would be reduced, but it would not provide estimates that would be comparable to the large groups we are talking about.

Senator Corzine. Over time hopefully I can form an opinion about being able to question the cost-benefit element as we watch various groups where you have these high concentrations of unemployment.

Ms. Abraham. I might add, if there were particular interest in particular groups, it could also be possible to target sample increases on those groups, which might make it somewhat less expensive rather than just expanding the whole survey.

Senator Corzine. Sure. That is one of those things that, as we go through this process of reviewing this data, the more precise in my question – I am concerned about you can draw pretty extreme conclusions off of very volatile data if you are not careful – not you but those of us who use the data.

Ms. Abraham. I might note for some of these subgroups within the population, taking data averages over several months, for example, obviously gives you a more precise fix. You just don't have it so precisely for the current month.

Senator Corzine. Thank you, Commissioner.

Representative Saxton. Mr. English.

Representative English. No questions.

Representative Saxton. Commissioner, thank you again for your usual fine presentation. We appreciate it very much, and we look forward to seeing you very soon in the future.

Ms. Abraham. Thank you.

[Whereupon, at 10:23 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

It is a pleasure to welcome Commissioner Abraham before the Committee once again to report on the release of new employment and unemployment data for February.

A review of current economic conditions indicates that the economy has slowed from the remarkable pace present through the middle of last year. An array of economic data shows that the economy has been in a slowdown for the last two quarters. For example, the rate of GDP growth has fallen two quarters in a row, and consumer spending and investment growth have also slipped.

However, there are some signs of residual economic strength in certain sectors such as construction and some service-producing industries. In addition, overall employment growth has slowed but has generally been positive.

The employment-population ratio remains high, and labor market conditions, for the most part, remain fairly tight, as reflected in the relatively low unemployment rate. The slowdown does make the economy more vulnerable to shocks and disruptions, but the economy remains in positive territory. The Federal Reserve is aware of the softness in the economy and its recent survey indicates that this is a continuing problem.

The employment data released today seem to be influenced by the slowing pace of the economy. Payroll job growth for February was 135,000, considerably lower than the 225,000-250,000 range typical during the healthy economic expansion. The unemployment rate remained unchanged at 4.2 percent.

Given the weakening of the economy since the middle of last year, the case for change in economic policy is strong. The tightness of Federal Reserve monetary policy should be relaxed, and the Fed has taken steps in this direction earlier this year, although more remains to be done. Further rate cuts by the Fed are needed.

Congress can also do its part by reducing the fiscal drag on the economy from the excessive tax burden imposed by our tax system. The tax system is counterproductive, and now is a good time to reduce its negative effects. This will not make the economy turn on a dime, but it will improve the prospects of continued economic growth now and into the future.

The current economic outlook poses challenges that should not be taken lightly. Changes in macroeconomic policy are needed to get the economy back on track.

SEN. JACK REED (RI)
RANKING MEMBER

SEN. EDWARD M. KENNEDY (MA)
SEN. PAUL S. SARIBANES (MD)
SEN. JEFF BINGAMAN (NM)
SEN. JON CORZINE (NJ)
REP. FORTNEY PETE STARK (CA)
REP. CAROLYN B. MALONEY (NY)
REP. MELVIN L. WATT (NC)

Congress of the United States

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PATRICIA RUGGLES
STAFF DIRECTOR

Opening Statement

Senator Jack Reed
Ranking Member

March 9, 2001

I want to welcome Commissioner Abraham to the Committee this morning. I also want to thank Chairman Saxton for holding this hearing. These hearings are an important tradition at the Joint Economic Committee.

No matter how you look at it, over the last ten years, we have experienced the strongest economy in over a generation. Unemployment has decreased to historic lows, the gap between the richest and poorest has finally started to shrink, and poverty has dropped markedly.

However, in recent months, we have seen signs of a pause in the economy. We are at a crossroads and we must remain vigilant if we are to continue to build on our past successes.

Last week, the Bush administration proposed a tax cut that could be as much \$2.2 trillion. If enacted, a tax cut of such magnitude could reverse the past decade of economic progress and could undermine the prosperity that Americans have worked so hard to achieve.

I fear this \$2.2 trillion tax cut could return us to the days of budget deficits and stagnant wages.

I bring up the tax cut because I believe the data we receive from the commissioner is very relevant. Numbers like productivity are especially important to the tax debate. On Tuesday, the BLS reported that productivity growth during the last quarter of 2000 was 2.2 percent. For all of 2000, productivity surged 4.3 percent, the best showing since 1983. Healthy productivity growth is necessary to sustain high levels of economic growth and

maintain improvements in wages and salaries, without igniting inflation. We must do all we can to insure that productivity growth remains high; we must do all we can to prevent the recent dip in the last quarter from continuing.

Private investment in plant and equipment, education and training and research and development are key to raising productivity growth. Some of my colleagues like to argue that cutting taxes alone promotes more investment. But if we learned anything from the last 20 years, it is that investors are much smarter than that. They know that the real cost of capital – based on interest rates and inflation – is more important than tax cuts.

If we want to sustain the prosperity of the last few years, we must be vigilant against the prospect of returning to budget deficits, which would push up interest rates and stifle private investment once again. I hope we will not return to these failed policies but commit ourselves, instead, to paying down the debt.

Recent statistical releases have raised some fears over the prospect of renewed inflation. The core CPI inflation rate jumped to 2.6% year-over-year in January 2001, compared to 2.0 percent at the beginning of 2000. It is important to remember not to read too much into one month's or quarter's data. Second, I return to what I said before: modest increases in wages and prices do not need to be inflationary, as long as productivity growth is strong.

Again, I want to especially welcome Commissioner Abraham before the Committee this morning and I look forward to hearing from you and your colleagues about the current economy and its impact on American workers and their families.

**PREPARED STATEMENT OF
SENATOR JON CORZINE**

Thank you, Mr. Chairman. As this is my first hearing of the Joint Economic Committee, let me say that I am very happy to be here, and to be a member of the Committee. Given my background in the private sector, I am hopeful that I will be able to make a contribution. And I am glad to have an opportunity to serve with such a distinguished colleague from my own home State.

Mr. Chairman, I am looking forward to hearing from Commissioner Abraham and learning more about the most recent employment data. I have been following these and other economic indicators closely, as I did in my previous career, and, frankly, I have grown quite concerned. It seems to me that we are in a period of great economic uncertainty, and real down side risk.

For that reason, I have been working on a proposal with my colleague from Florida, Senator Graham, to provide a middle class tax cut that would provide a real boost to the economy. Our proposal would establish a new ten percent rate bracket for couples with combined incomes up to \$19,000, meaning that most families would get a tax cut of \$950. The tax cut would be retroactive, so that it would have an immediate stimulative impact. And, of course, the faster we put money in peoples' pockets, the greater the likelihood that we can avoid a recession and return to a path of strong economic growth.

In any case, Mr. Chairman, while I do have concerns about the state of our economy, I hope we will hear some good news today. And I look forward to hearing from Commissioner Abraham.

FOR DELIVERY: 9:30 A.M., E.S.T.
FRIDAY, MARCH 9, 2001

Advance copies of this statement are made available to the press under lock-up conditions with the explicit understanding that the data are embargoed until 8:30 a.m. Eastern Standard Time.

Statement of

Katharine G. Abraham
Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, March 9, 2001

Mr. Chairman and Members of the Committee:

I appreciate this opportunity to comment on the labor market data we released this morning.

The unemployment rate was unchanged at 4.2 percent in February, and payroll employment rose by 135,000. Since early last fall, the growth in payroll employment has slackened. In the 5 months since September, the average monthly increase in payroll employment has been 103,000. In contrast, during the first 9 months of last year, payroll employment had grown by 187,000 a month, on average. The key features of the February data, in my view, are the

continued reduction in manufacturing employment and hours, the more-than-offsetting job gains in services and some other industries, and the over-the-month rise in average hourly earnings.

Manufacturing employment fell by 94,000 in February. This follows a decline of about the same amount in January and brings total factory job losses since last June to 371,000. The decline in February was widespread throughout manufacturing. Even the electronic components industry had a small job loss over the month; employment in this industry has been on an upward trend since the spring of 1999. The only manufacturing industry with a sizable over-the-month increase was motor vehicles, but that gain (13,000) was only a fraction of the loss that occurred in January (48,000). On net, auto industry employment has fallen by 77,000 since June.

Both manufacturing hours and overtime also continued on downward trends in February. Since June, the average factory workweek has declined by a full hour, and overtime has fallen by 0.8 hour. The factory workweek is now at its lowest level since the spring of 1991, except for 2 months when winter storms caused sharp, temporary reductions in hours.

Weakness in manufacturing may have affected some other industries. For example, wholesale trade--an intermediary between manufacturers and customers--has lost 22,000 jobs since November. This is the largest such decline in the industry since early 1993. Employment in help supply services, which is dominated by temporary help firms that provide workers to manufacturing as well as other industries, was little changed in February but has fallen by 200,000 since April. Help supply had experienced dramatic job growth during most of the economic expansion that began in the spring of 1991.

Employment in the services industry as a whole rose by 95,000 in February. Health services had the largest job increase among the services industries, as employment in hospitals continued to benefit from recent changes in Medicare payment schedules. Employment also rose in social services, computer services, and private education. Public education accounted for a large share of the rise in government jobs over the month.

Retail trade employment rose by 37,000 in February, after seasonal adjustment, following 2 months of very small gains. Mortgage banking continued to add jobs due to high levels of refinancing activity. Following a very large gain in January, construction added 16,000 jobs in February.

Since October, employment in the industry has increased by 37,000 a month, on average. In the 12 months prior to October, the average monthly increase was only 23,000.

Average hourly earnings were up 7 cents in February; the over-the-year increase was 4.1 percent. This was the fourth month in a row that the over-the-year increase was 4 percent or above. Throughout most of 1999 and 2000, the over-the-year gains had remained in the 3.5- to 3.8-percent range.

As I mentioned at the beginning of my statement, the unemployment rate was unchanged in February at 4.2 percent. The jobless rate for blacks, which had risen in January, returned to its fourth-quarter level of 7.5 percent. In February, the number of newly unemployed (those unemployed less than 5 weeks) and the number of unemployed job losers who were not on temporary layoff both rose for the second month in a row. Other cyclical indicators from our survey of households, such as the number of people working part time despite their preference for full-time work and the number of people outside the labor force who have stopped looking for work, have shown no clear sign of an upward trend.

In summary, the sharp downturn in manufacturing employment and hours continued in February. Still, overall

payroll employment continued to rise, and the unemployment rate remained relatively low. Finally, earnings gains appear to have picked up in recent months.

My colleagues and I would be glad to answer your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Internet address: <http://stats.bls.gov/newsrels.htm>

Technical information:

Household data: (202) 691-6378

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Establishment data:

691-6555

Media contact:

691-5902

Transmission of material in this release is embargoed until 8:30 A.M. (EST), Friday, March 9, 2001.

THE EMPLOYMENT SITUATION: FEBRUARY 2001

The unemployment rate held at 4.2 percent in February, and total nonfarm employment rose by 135,000, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Large job losses continued in manufacturing, where employment declined by 94,000. Employment gains in several other industries, including services, accounted for the net increase in payroll employment. Average hourly earnings rose by 7 cents over the month.

Chart 1. Unemployment rate, seasonally adjusted, March 1988 - February 2001

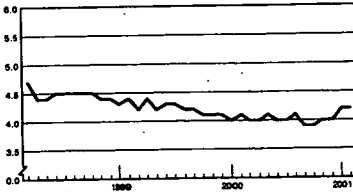
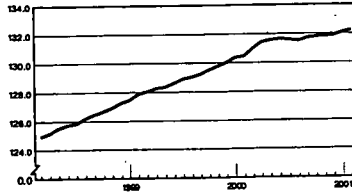


Chart 2. Nonfarm payroll employment, seasonally adjusted, March 1988 - February 2001



Unemployment (Household Survey Data)

Both the number of unemployed persons (5.9 million) and the unemployment rate (4.2 percent) were essentially unchanged in February. The jobless rates for most of the major worker groups—adult men (3.5 percent), adult women (3.7 percent), teenagers (13.6 percent), whites (3.7 percent), and Hispanics (6.3 percent)—were little changed from January. The unemployment rate for blacks declined to 7.5 percent, the same level as in the last quarter of 2000. (See tables A-1 and A-2.)

In February, both the number of newly unemployed (those unemployed less than 5 weeks) and the number of unemployed job losers who did not expect to be recalled rose for the second consecutive month. (See tables A-6 and A-7.)

Total Employment and the Labor Force (Household Survey Data)

Total employment was essentially unchanged at 135.8 million, seasonally adjusted, in February. The civilian labor force, at 141.8 million persons, also was little changed over the month. The labor force

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | Jan.- Feb. change |
|---|--------------------|---------|--------------|----------|----------|-------------------------|
| | 2000 | | 2000 | 2001 | | |
| | III | IV | Dec. | Jan. | Feb. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 140,706 | 141,208 | 141,489 | 141,955 | 141,751 | -204 |
| Employment..... | 135,049 | 135,593 | 135,836 | 135,999 | 135,815 | -184 |
| Unemployment..... | 5,657 | 5,616 | 5,653 | 5,956 | 5,936 | -20 |
| Not in labor force..... | 69,235 | 69,358 | 69,254 | 68,934 | 69,275 | 341 |
| Unemployment rates | | | | | | |
| All workers..... | 4.0 | 4.0 | 4.0 | 4.2 | 4.2 | .0 |
| Adult men..... | 3.3 | 3.4 | 3.4 | 3.6 | 3.5 | -0.1 |
| Adult women..... | 3.6 | 3.4 | 3.4 | 3.6 | 3.7 | .1 |
| Teenagers..... | 13.5 | 12.9 | 13.1 | 13.8 | 13.6 | -2.2 |
| White..... | 3.5 | 3.5 | 3.5 | 3.6 | 3.7 | .1 |
| Black..... | 7.6 | 7.5 | 7.6 | 8.4 | 7.5 | -.9 |
| Hispanic origin..... | 5.6 | 5.6 | 5.7 | 6.0 | 6.3 | .3 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 131,619 | 131,836 | 131,878 | p132,102 | p132,237 | p135 |
| Goods-producing ¹ | 25,680 | 25,623 | 25,569 | p25,639 | p25,564 | p-75 |
| Construction..... | 6,688 | 6,732 | 6,717 | p6,875 | p6,891 | p16 |
| Manufacturing..... | 18,453 | 18,350 | 18,312 | p18,216 | p18,122 | p-94 |
| Service-producing ¹ | 105,940 | 106,213 | 106,309 | p106,463 | p106,673 | p210 |
| Retail trade..... | 23,189 | 23,225 | 23,245 | p23,250 | p23,287 | p37 |
| Services..... | 40,553 | 40,752 | 40,797 | p40,884 | p40,979 | p95 |
| Government..... | 20,536 | 20,435 | 20,435 | p20,502 | p20,539 | p37 |
| Hours of work ² | | | | | | |
| Total private..... | 34.4 | 34.3 | 34.1 | p34.3 | p34.2 | p-0.1 |
| Manufacturing..... | 41.5 | 41.0 | 40.4 | p40.9 | p40.6 | p-.3 |
| Overtime..... | 4.5 | 4.2 | 3.9 | p4.1 | p3.8 | p-.3 |
| Indexes of aggregate weekly hours (1982=100) ² | | | | | | |
| Total private..... | 151.2 | 151.2 | 150.6 | p151.8 | p151.0 | p-0.8 |
| Earnings ² | | | | | | |
| Average hourly earnings, total private..... | \$13.79 | \$13.95 | \$14.02 | p\$14.03 | p\$14.10 | p\$0.07 |
| Average weekly earnings, total private..... | 474.03 | 478.13 | 478.08 | p481.23 | p482.22 | p.99 |

¹ Includes other industries, not shown separately.

² Data relate to private production or nonsupervisory workers.

p=preliminary.

participation rate—the proportion of the population age 16 and older who are either working or looking for work—edged down by 0.1 percentage point to 67.2 percent, still relatively high by historical standards. (See table A-1.)

About 7.6 million persons (not seasonally adjusted) held more than one job in February. These multiple jobholders represented 5.6 percent of total employment, compared with 5.8 percent a year earlier. (See table A-10.)

Persons Not in the Labor Force (Household Survey Data)

About 1.3 million persons (not seasonally adjusted) were marginally attached to the labor force in February, the same as a year earlier. These people wanted and were available to work and had looked for a job sometime in the prior 12 months. They were not counted as unemployed, however, because they had not actively searched for work in the 4 weeks preceding the survey. The number of discouraged workers was 289,000 in February, about the same as a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment increased by 135,000, seasonally adjusted, in February. Since last September, the average monthly growth in payroll employment has been 103,000, compared with an average gain of 187,000 during the first 9 months of last year. In February, major job losses continued in manufacturing. These losses, however, were more than offset by gains in services and most other major industry divisions. (See table B-1.)

In the goods-producing sector, manufacturing employment fell by 94,000 in February, following a similar loss (as revised) in January. Together, these losses exceeded the total employment decline in this industry for all of 2000. With the exception of motor vehicles, where some workers returned from temporary layoffs, employment declines in manufacturing were widespread in February. Job losses continued in fabricated metals (13,000) and in industrial machinery (11,000). Electrical equipment and apparel also lost 11,000 jobs each. Smaller employment declines occurred in a number of other industries, including furniture, primary metals, textiles, printing and publishing, paper, and rubber and plastics.

Elsewhere in the goods-producing sector, construction employment rose by 16,000, seasonally adjusted, in February, following an unusually large increase in January. Mining employment rose by 3,000 in February, after having increased by 8,000 in January. Employment in oil and gas extraction continued to grow; this industry has gained 25,000 jobs over the last year.

In the service-producing sector, services employment increased by 95,000 in February, about in line with its average monthly increase during 2000. In February, health services employment rose by 28,000, as hospitals added 11,000 jobs. Business services gained 24,000 jobs, after 4 consecutive months of job losses. Within business services, employment rose by 15,000 in computer services, following weak growth in January. Help supply employment was little changed over the month; in the prior 4 months, job declines totaled 181,000. Social services added 15,000 jobs in February, and private education employment grew by 20,000.

Employment in finance, insurance, and real estate rose by 16,000 in February, continuing the growth trend that began last August. Strong demand for mortgage refinancing boosted employment in mortgage banks, which grew by 5,000 over the month. Employment increased by 5,000 in insurance carriers,

Employment in transportation and public utilities grew by 28,000, following a decline in January. Job growth in February was nearly double the industry's average monthly gain for 2000. Air transportation, which had accounted for most of the loss in January, added 15,000 jobs in February.

Employment in retail trade increased by 37,000 in February, following 2 months of little change. Gains were widespread. Employment in department stores, however, was little changed; this industry has lost 60,000 jobs over the year. Wholesale trade employment declined for the third consecutive month.

Government employment increased by 37,000 in February. Employment in local government grew by 26,000, including an increase of 16,000 jobs in local education. There was little change in federal government employment.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged down by 0.1 hour in February to 34.2 hours, seasonally adjusted. The manufacturing workweek fell by 0.3 hour to 40.6 hours; since June, the factory workweek has fallen by 1.0 hour. Manufacturing overtime declined by 0.3 hour in February to 3.8 hours, the lowest level since 1992. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls declined by 0.5 percent to 151.0 (1982=100), seasonally adjusted. The manufacturing index fell by 1.4 percent to 101.1. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls increased by 7 cents in February to \$14.10, seasonally adjusted. Over the month, average weekly earnings increased by 0.2 percent to \$482.22. Over the year, average hourly earnings rose by 4.1 percent and average weekly earnings grew by 2.9 percent. (See table B-3.)

The Employment Situation for March 2001 is scheduled to be released on Friday, April 6, at 8:30 A.M. (EDT).

March 2000 National Benchmarks

In accordance with standard practice, BLS will release nonfarm payroll employment benchmark revisions with the May data on June 1, 2001. The March 2000 benchmark level has been finalized and will result in an upward revision of 469,000 to total nonfarm employment for the March 2000 reference month, an adjustment of 0.4 percent.

Also concurrent with the release of the March 2000 benchmark revisions on June 1, BLS will continue the implementation of a new probability-based sample design for the payroll survey that began last year with the wholesale trade industry. Estimates for the mining, construction, and manufacturing industries will incorporate the new sample design with this release. Further information is available on the Internet (<http://stats.bls.gov/ceshome.htm>) or by calling (202) 691-6555.

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 50,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. In June 2000, the sample included about 300,000 establishments employing about 48 million people.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are *not in the labor force*. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as Federal, State, and local government entities. *Employees on*

nonfarm payrolls are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-producing sector.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.
- The household survey includes people on unpaid leave among the employed. The establishment survey does not.
- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.
- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from BLS upon request.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

In both the household and establishment surveys, most seasonally adjusted series are independently adjusted. However, the adjusted series for many major estimates, such as total payroll employment, employment in most major industry divisions, total employment, and

unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

The numerical factors used to make the seasonal adjustments are recalculated twice a year. For the household survey, the factors are calculated for the January-June period and again for the July-December period. For the establishment survey, updated factors for seasonal adjustment are calculated for the May-October period and introduced along with new benchmarks, and again for the November-April period. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 376,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -276,000 to 476,000 (100,000 +/- 376,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. The 90-percent confidence interval for the monthly change in unemployment is +/- 258,000, and for the monthly change in the unemployment rate it is +/- .21 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on substantially incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth (and other sources of error), a process known as bias adjustment is included in the survey's estimating procedures, whereby a specified number of jobs is added to the monthly sample-based change. The size of the monthly bias adjustment is based largely on past relationships between the sample-based estimates of employment and the total counts of employment described below.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.3 percent, ranging from zero to 0.7 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$26.00 per issue or \$50.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household survey data published in this release. For unemployment and other labor force categories, these measures appear in tables 1-B through 1-H of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables 2-B through 2-J of that publication.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| TOTAL | | | | | | | | | |
| Civilian noninstitutional population | 206,907 | 210,889 | 211,028 | 206,907 | 210,378 | 210,577 | 210,743 | 210,889 | 211,028 |
| Civilian labor force | 140,185 | 141,049 | 141,228 | 140,880 | 141,000 | 141,136 | 141,489 | 141,855 | 141,751 |
| Participation rate | 67.1 | 66.9 | 66.9 | 67.4 | 67.0 | 67.0 | 67.1 | 67.3 | 67.2 |
| Employed | 131,854 | 134,462 | 134,774 | 136,120 | 135,484 | 135,478 | 135,836 | 135,999 | 136,215 |
| Employment-population ratio | 64.1 | 63.8 | 63.9 | 64.7 | 64.4 | 64.3 | 64.5 | 64.5 | 64.4 |
| Agriculture | 2,973 | 2,811 | 2,794 | 3,287 | 3,281 | 3,176 | 3,274 | 3,179 | 3,135 |
| Nonagricultural industries | 130,881 | 131,651 | 131,980 | 131,753 | 132,223 | 132,302 | 132,562 | 132,819 | 132,880 |
| Unemployed | 8,231 | 6,587 | 6,454 | 5,740 | 5,526 | 5,658 | 5,653 | 5,856 | 5,306 |
| Unemployment rate | 4.4 | 4.7 | 4.8 | 4.1 | 3.9 | 4.0 | 4.0 | 4.2 | 4.2 |
| Not in labor force | 68,723 | 69,841 | 69,798 | 68,047 | 69,378 | 69,441 | 69,254 | 68,934 | 68,276 |
| Persons who currently want a job | 4,431 | 4,474 | 4,500 | 4,378 | 4,377 | 4,351 | 4,532 | 4,417 | 4,455 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 100,330 | 101,367 | 101,428 | 100,330 | 101,075 | 101,175 | 101,280 | 101,367 | 101,428 |
| Civilian labor force | 74,808 | 75,149 | 75,118 | 75,268 | 75,371 | 75,388 | 75,582 | 75,815 | 75,547 |
| Participation rate | 74.6 | 74.1 | 74.1 | 75.1 | 74.8 | 74.5 | 74.8 | 74.8 | 74.6 |
| Employed | 71,311 | 71,405 | 71,430 | 72,533 | 72,427 | 72,554 | 72,534 | 72,589 | 72,369 |
| Employment-population ratio | 71.1 | 70.4 | 70.4 | 72.1 | 71.7 | 71.5 | 71.6 | 71.6 | 71.5 |
| Unemployed | 3,497 | 3,744 | 3,687 | 3,025 | 2,944 | 3,032 | 3,048 | 3,226 | 3,187 |
| Unemployment rate | 4.7 | 5.0 | 4.9 | 4.0 | 3.9 | 4.0 | 4.0 | 4.3 | 4.2 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 92,082 | 93,184 | 93,227 | 92,082 | 92,989 | 93,061 | 93,117 | 93,184 | 93,227 |
| Civilian labor force | 70,704 | 71,161 | 71,139 | 70,852 | 71,155 | 71,135 | 71,289 | 71,482 | 71,298 |
| Participation rate | 76.8 | 76.4 | 76.3 | 77.0 | 76.5 | 76.4 | 76.5 | 76.7 | 76.5 |
| Employed | 67,889 | 68,101 | 68,114 | 68,877 | 69,174 | 69,083 | 69,448 | 69,616 | 69,781 |
| Employment-population ratio | 73.7 | 73.1 | 73.1 | 74.7 | 74.0 | 73.8 | 74.0 | 74.0 | 73.8 |
| Agriculture | 2,018 | 1,907 | 1,908 | 2,283 | 2,219 | 2,122 | 2,232 | 2,122 | 2,154 |
| Nonagricultural industries | 65,871 | 66,194 | 66,206 | 66,594 | 66,955 | 66,961 | 67,216 | 67,494 | 67,627 |
| Unemployed | 2,825 | 3,060 | 3,025 | 2,375 | 2,281 | 2,432 | 2,441 | 2,576 | 2,527 |
| Unemployment rate | 4.0 | 4.3 | 4.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.6 | 3.6 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 106,577 | 109,522 | 109,598 | 106,577 | 109,303 | 109,402 | 109,463 | 109,522 | 109,598 |
| Civilian labor force | 65,377 | 65,889 | 65,120 | 65,492 | 65,629 | 65,750 | 65,897 | 66,140 | 66,204 |
| Participation rate | 60.2 | 60.2 | 60.3 | 60.3 | 60.0 | 60.1 | 60.2 | 60.4 | 60.4 |
| Employed | 62,642 | 63,057 | 63,344 | 62,797 | 63,037 | 63,124 | 63,302 | 63,410 | 63,456 |
| Employment-population ratio | 57.7 | 57.8 | 57.8 | 57.8 | 57.7 | 57.8 | 57.8 | 57.8 | 57.9 |
| Unemployed | 2,734 | 2,842 | 2,777 | 2,705 | 2,592 | 2,626 | 2,605 | 2,730 | 2,748 |
| Unemployment rate | 4.2 | 4.3 | 4.2 | 4.1 | 3.9 | 4.0 | 4.0 | 4.1 | 4.2 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 100,886 | 101,543 | 101,888 | 100,886 | 101,448 | 101,533 | 101,612 | 101,643 | 101,686 |
| Civilian labor force | 61,576 | 62,184 | 62,335 | 61,488 | 61,529 | 61,619 | 61,625 | 61,819 | 62,220 |
| Participation rate | 61.2 | 61.2 | 61.3 | 61.1 | 60.6 | 60.7 | 60.6 | 61.1 | 61.2 |
| Employed | 59,351 | 59,790 | 60,005 | 59,285 | 59,425 | 59,506 | 59,708 | 59,894 | 59,932 |
| Employment-population ratio | 58.9 | 58.8 | 58.8 | 58.8 | 58.6 | 58.6 | 58.9 | 58.9 | 58.9 |
| Agriculture | 804 | 777 | 794 | 854 | 748 | 707 | 822 | 852 | 839 |
| Nonagricultural industries | 58,547 | 59,013 | 59,211 | 58,431 | 58,677 | 58,799 | 58,886 | 59,042 | 59,093 |
| Unemployed | 2,245 | 2,404 | 2,329 | 2,203 | 2,103 | 2,110 | 2,111 | 2,232 | 2,288 |
| Unemployment rate | 3.6 | 3.9 | 3.7 | 3.6 | 3.4 | 3.4 | 3.4 | 3.6 | 3.7 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 16,149 | 16,083 | 16,113 | 16,149 | 15,980 | 15,983 | 16,014 | 16,083 | 16,113 |
| Civilian labor force | 7,805 | 7,724 | 7,785 | 8,420 | 8,317 | 8,378 | 8,381 | 8,337 | 8,243 |
| Participation rate | 48.1 | 48.1 | 48.2 | 52.1 | 52.1 | 52.4 | 52.4 | 51.9 | 51.2 |
| Employed | 6,754 | 6,801 | 6,855 | 7,258 | 7,285 | 7,289 | 7,280 | 7,188 | 7,122 |
| Employment-population ratio | 41.8 | 41.1 | 41.3 | 44.9 | 45.5 | 45.5 | 44.7 | 44.2 | 44.2 |
| Agriculture | 151 | 128 | 84 | 330 | 274 | 257 | 220 | 205 | 143 |
| Nonagricultural industries | 6,604 | 6,475 | 6,581 | 7,028 | 6,991 | 7,032 | 7,060 | 6,983 | 6,880 |
| Unemployed | 1,151 | 1,123 | 1,110 | 1,162 | 1,052 | 1,087 | 1,101 | 1,149 | 1,121 |
| Unemployment rate | 14.8 | 14.5 | 14.3 | 13.8 | 12.8 | 13.0 | 13.1 | 13.8 | 13.5 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 173,888 | 175,246 | 176,328 | 173,888 | 174,899 | 176,034 | 175,145 | 175,246 | 175,328 |
| Civilian labor force | 117,154 | 117,822 | 117,863 | 117,803 | 117,840 | 117,845 | 117,845 | 118,278 | 118,287 |
| Participation rate | 67.4 | 67.1 | 67.2 | 67.2 | 67.2 | 67.2 | 67.3 | 67.5 | 67.5 |
| Employed | 112,375 | 112,768 | 113,029 | 113,501 | 113,584 | 113,509 | 113,811 | 114,015 | 113,902 |
| Employment-population ratio | 64.7 | 64.3 | 64.5 | 65.3 | 64.9 | 64.8 | 65.0 | 65.1 | 65.0 |
| Unemployed | 4,578 | 4,854 | 4,859 | 4,180 | 4,019 | 4,131 | 4,134 | 4,261 | 4,386 |
| Unemployment rate | 3.9 | 4.1 | 4.1 | 3.5 | 3.4 | 3.5 | 3.5 | 3.6 | 3.7 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 60,043 | 60,285 | 60,336 | 60,285 | 60,286 | 60,280 | 60,349 | 60,494 | 60,487 |
| Participation rate | 77.1 | 76.7 | 76.7 | 77.4 | 76.9 | 76.8 | 76.8 | 77.0 | 76.9 |
| Employed | 57,927 | 57,927 | 57,975 | 58,555 | 58,557 | 58,478 | 58,581 | 58,571 | 58,581 |
| Employment-population ratio | 74.4 | 73.7 | 73.7 | 75.2 | 74.7 | 74.5 | 74.8 | 74.5 | 74.5 |
| Unemployed | 2,116 | 2,338 | 2,360 | 1,732 | 1,729 | 1,802 | 1,768 | 1,923 | 1,908 |
| Unemployment rate | 3.5 | 3.9 | 3.9 | 2.9 | 2.9 | 3.0 | 2.9 | 3.2 | 3.2 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 50,418 | 50,488 | 51,019 | 50,263 | 50,281 | 50,335 | 50,527 | 50,794 | 50,854 |
| Participation rate | 60.5 | 60.6 | 60.7 | 60.3 | 60.0 | 60.0 | 60.2 | 60.5 | 60.6 |
| Employed | 48,040 | 48,171 | 48,303 | 48,702 | 48,777 | 48,825 | 48,873 | 49,270 | 49,155 |
| Employment-population ratio | 58.5 | 58.6 | 58.7 | 58.5 | 58.2 | 58.2 | 58.4 | 58.7 | 58.5 |
| Unemployed | 1,578 | 1,677 | 1,716 | 1,561 | 1,504 | 1,510 | 1,654 | 1,524 | 1,699 |
| Unemployment rate | 3.1 | 3.3 | 3.4 | 3.1 | 3.0 | 3.0 | 3.1 | 3.0 | 3.3 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 6,893 | 6,858 | 6,829 | 7,113 | 7,038 | 7,025 | 7,069 | 6,988 | 6,945 |
| Participation rate | 52.6 | 51.3 | 51.4 | 55.9 | 55.4 | 55.3 | 55.7 | 55.1 | 54.8 |
| Employed | 5,808 | 5,870 | 5,752 | 6,248 | 6,250 | 6,206 | 6,257 | 6,174 | 6,186 |
| Employment-population ratio | 45.6 | 44.7 | 45.3 | 49.1 | 49.2 | 48.9 | 49.3 | 48.7 | 48.7 |
| Unemployed | 885 | 839 | 778 | 867 | 786 | 819 | 812 | 814 | 760 |
| Unemployment rate | 13.2 | 12.9 | 11.9 | 12.2 | 11.2 | 11.7 | 11.5 | 11.7 | 10.9 |
| Men | 15.5 | 15.8 | 14.3 | 13.8 | 11.8 | 12.4 | 12.2 | 13.3 | 12.8 |
| Women | 10.7 | 9.8 | 9.4 | 10.4 | 10.5 | 10.9 | 10.7 | 9.8 | 9.2 |
| BLACK | | | | | | | | | |
| Civilian noninstitutional population | 25,078 | 25,282 | 25,412 | 25,078 | 25,329 | 25,378 | 25,408 | 25,382 | 25,412 |
| Civilian labor force | 16,842 | 16,577 | 16,511 | 16,721 | 16,827 | 16,732 | 16,742 | 16,773 | 16,681 |
| Participation rate | 66.0 | 65.3 | 65.0 | 67.7 | 66.8 | 66.9 | 66.9 | 66.1 | 65.7 |
| Employed | 15,184 | 15,170 | 15,192 | 15,418 | 15,401 | 15,485 | 15,470 | 15,372 | 15,440 |
| Employment-population ratio | 60.5 | 59.8 | 59.8 | 61.5 | 60.8 | 61.3 | 60.9 | 60.6 | 60.6 |
| Unemployed | 1,378 | 1,407 | 1,319 | 1,305 | 1,226 | 1,247 | 1,272 | 1,401 | 1,251 |
| Unemployment rate | 8.3 | 8.5 | 8.0 | 7.8 | 7.4 | 7.5 | 7.6 | 8.4 | 7.5 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,365 | 7,372 | 7,317 | 7,414 | 7,383 | 7,387 | 7,437 | 7,433 | 7,374 |
| Participation rate | 73.3 | 72.4 | 71.8 | 73.9 | 72.8 | 72.8 | 73.5 | 73.0 | 72.4 |
| Employed | 6,771 | 6,800 | 6,770 | 6,891 | 6,868 | 6,868 | 6,867 | 6,818 | 6,807 |
| Employment-population ratio | 67.5 | 66.8 | 66.4 | 68.7 | 67.5 | 67.8 | 67.8 | 68.0 | 67.6 |
| Unemployed | 594 | 571 | 547 | 523 | 515 | 509 | 540 | 512 | 487 |
| Unemployment rate | 7.9 | 7.8 | 7.5 | 7.1 | 7.0 | 6.9 | 7.3 | 6.8 | 6.6 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 8,299 | 8,314 | 8,305 | 8,319 | 8,282 | 8,325 | 8,333 | 8,340 | 8,336 |
| Participation rate | 66.0 | 65.2 | 65.1 | 66.2 | 65.0 | 65.4 | 65.4 | 65.4 | 65.3 |
| Employed | 7,719 | 7,718 | 7,780 | 7,777 | 7,768 | 7,808 | 7,801 | 7,731 | 7,804 |
| Employment-population ratio | 61.4 | 60.5 | 61.1 | 61.9 | 61.3 | 61.3 | 61.7 | 60.8 | 61.5 |
| Unemployed | 670 | 598 | 508 | 542 | 476 | 517 | 472 | 609 | 482 |
| Unemployment rate | 8.9 | 7.2 | 6.1 | 6.5 | 5.8 | 6.2 | 5.7 | 7.3 | 5.8 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 880 | 891 | 889 | 888 | 882 | 1,010 | 872 | 1,032 | 891 |
| Participation rate | 36.3 | 36.3 | 36.1 | 38.9 | 38.9 | 41.0 | 38.5 | 40.8 | 38.8 |
| Employed | 673 | 684 | 683 | 748 | 747 | 799 | 712 | 723 | 689 |
| Employment-population ratio | 27.2 | 28.6 | 28.3 | 30.2 | 30.4 | 32.1 | 28.8 | 28.4 | 28.4 |
| Unemployed | 225 | 238 | 286 | 240 | 235 | 221 | 260 | 280 | 282 |
| Unemployment rate | 25.0 | 28.7 | 29.9 | 24.3 | 23.8 | 21.9 | 28.7 | 27.9 | 28.8 |
| Men | 21.9 | 27.8 | 27.8 | 23.0 | 22.0 | 22.5 | 30.1 | 28.9 | 31.7 |
| Women | 28.9 | 28.5 | 28.6 | 28.6 | 29.2 | 21.9 | 23.4 | 28.9 | 25.7 |

See footnotes at end of table.

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Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin — Continued

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| HISPANIC ORIGIN | | | | | | | | | |
| Civilian noninstitutional population | 22,106 | 22,769 | 22,630 | 22,106 | 22,618 | 22,687 | 22,748 | 22,769 | 22,630 |
| Civilian labor force | 15,157 | 15,513 | 15,652 | 15,194 | 15,491 | 15,528 | 15,671 | 15,540 | 15,653 |
| Participation rate | 68.7 | 68.1 | 68.6 | 68.7 | 68.5 | 68.8 | 68.9 | 68.2 | 68.6 |
| Employed | 14,267 | 14,525 | 14,629 | 14,322 | 14,711 | 14,686 | 14,772 | 14,812 | 14,679 |
| Employment-population ratio | 64.5 | 63.8 | 64.1 | 64.8 | 65.0 | 64.7 | 64.9 | 64.2 | 64.3 |
| Unemployed | 921 | 988 | 1,024 | 872 | 780 | 940 | 899 | 927 | 980 |
| Unemployment rate | 6.1 | 6.4 | 6.6 | 5.7 | 6.0 | 6.0 | 6.0 | 5.7 | 6.3 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to total

Table A-3. Employment status of the civilian population 25 years and over by educational attainment

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| Less than a high school diploma | | | | | | | | | |
| Civilian noninstitutional population | 27,378 | 27,857 | 27,191 | 27,378 | 27,531 | 27,851 | 27,883 | 27,957 | 27,191 |
| Civilian labor force | 11,838 | 12,065 | 11,732 | 11,896 | 12,192 | 11,959 | 11,822 | 12,008 | 12,074 |
| Percent of population | 42.5 | 43.2 | 43.1 | 43.8 | 43.7 | 42.9 | 42.7 | 43.0 | 44.4 |
| Employed | 10,629 | 11,070 | 10,708 | 11,263 | 11,408 | 11,171 | 11,077 | 11,193 | 11,140 |
| Employment-population ratio | 38.8 | 39.8 | 39.4 | 41.1 | 40.8 | 40.1 | 40.0 | 40.0 | 41.0 |
| Unemployed | 809 | 995 | 1,028 | 733 | 784 | 787 | 745 | 816 | 934 |
| Unemployment rate | 7.0 | 8.2 | 8.7 | 6.1 | 6.4 | 6.6 | 6.3 | 6.8 | 7.7 |
| High school graduates, no college² | | | | | | | | | |
| Civilian noninstitutional population | 57,471 | 58,082 | 57,817 | 57,471 | 57,365 | 57,562 | 57,809 | 58,082 | 57,817 |
| Civilian labor force | 37,403 | 37,611 | 37,230 | 37,504 | 36,995 | 37,129 | 37,187 | 37,415 | 37,308 |
| Percent of population | 65.1 | 64.7 | 64.6 | 65.3 | 64.5 | 64.5 | 64.2 | 64.4 | 64.8 |
| Employed | 35,832 | 35,950 | 35,644 | 36,030 | 35,707 | 35,630 | 35,508 | 35,696 | 35,695 |
| Employment-population ratio | 62.5 | 61.9 | 61.8 | 62.9 | 62.2 | 62.2 | 62.0 | 61.9 | 62.3 |
| Unemployed | 1,471 | 1,861 | 1,584 | 1,301 | 1,278 | 1,299 | 1,281 | 1,429 | 1,414 |
| Unemployment rate | 3.9 | 4.4 | 4.3 | 3.5 | 3.5 | 3.5 | 3.4 | 3.8 | 3.8 |
| Less than a bachelor's degree³ | | | | | | | | | |
| Civilian noninstitutional population | 44,486 | 44,313 | 45,283 | 44,486 | 44,767 | 44,770 | 44,598 | 44,313 | 45,283 |
| Civilian labor force | 32,942 | 32,763 | 33,414 | 32,842 | 32,696 | 32,776 | 33,045 | 33,102 | 33,079 |
| Percent of population | 74.1 | 73.9 | 73.8 | 73.8 | 73.0 | 73.2 | 74.1 | 74.7 | 73.1 |
| Employed | 31,911 | 31,704 | 32,423 | 31,715 | 32,103 | 31,897 | 32,141 | 32,121 | 32,197 |
| Employment-population ratio | 71.7 | 71.5 | 71.8 | 71.3 | 71.7 | 71.2 | 72.1 | 72.5 | 71.1 |
| Unemployed | 1,036 | 1,059 | 991 | 927 | 793 | 879 | 904 | 981 | 882 |
| Unemployment rate | 3.1 | 3.2 | 3.0 | 2.8 | 2.4 | 2.7 | 2.7 | 3.0 | 2.7 |
| College graduates | | | | | | | | | |
| Civilian noninstitutional population | 45,247 | 45,780 | 46,167 | 45,247 | 45,785 | 45,708 | 45,638 | 45,730 | 46,167 |
| Civilian labor force | 36,242 | 36,479 | 36,683 | 36,161 | 36,022 | 36,237 | 36,480 | 36,478 | 36,602 |
| Percent of population | 80.1 | 79.7 | 79.3 | 79.9 | 78.7 | 79.3 | 79.9 | 79.7 | 79.3 |
| Employed | 35,642 | 35,673 | 36,104 | 35,570 | 35,431 | 35,674 | 35,894 | 35,909 | 36,032 |
| Employment-population ratio | 78.8 | 78.3 | 78.2 | 78.8 | 77.4 | 78.1 | 78.3 | 78.4 | 78.0 |
| Unemployed | 690 | 806 | 579 | 591 | 591 | 563 | 586 | 567 | 570 |
| Unemployment rate | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Includes high school diploma or equivalent.

³ Includes the categories, some college, no degree; and associate degree.

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Table A-4. Selected employment indicators

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| CHARACTERISTIC | | | | | | | | | |
| Total employed, 18 years and over | 133,654 | 134,482 | 134,774 | 135,120 | 135,484 | 135,478 | 135,638 | 135,660 | 135,815 |
| Married men, spouse present | 43,187 | 43,048 | 43,080 | 43,437 | 43,345 | 43,251 | 43,293 | 43,134 | 43,340 |
| Married women, spouse present | 33,848 | 34,180 | 34,059 | 33,841 | 33,622 | 33,533 | 33,535 | 34,249 | 34,059 |
| Women who maintain families | 8,228 | 8,259 | 8,348 | 8,251 | 8,449 | 8,495 | 8,501 | 8,428 | 8,373 |
| OCCUPATION | | | | | | | | | |
| Managerial and professional specialty | 40,745 | 41,330 | 41,701 | 40,803 | 40,745 | 41,083 | 41,078 | 41,430 | 41,770 |
| Technical, sales, and administrative support | 39,544 | 39,898 | 39,781 | 39,559 | 39,521 | 39,618 | 39,553 | 40,085 | 39,781 |
| Service occupations | 18,271 | 17,822 | 18,301 | 18,289 | 18,255 | 18,471 | 18,559 | 18,158 | 18,283 |
| Precision production, craft, and repair | 14,535 | 14,851 | 14,748 | 14,729 | 15,050 | 14,748 | 14,849 | 14,889 | 14,970 |
| Operations, laborers, and laborers | 17,828 | 17,808 | 17,439 | 18,284 | 18,305 | 18,194 | 18,171 | 18,022 | 17,888 |
| Farming, forestry, and fishing | 3,080 | 2,856 | 2,808 | 3,555 | 3,318 | 3,236 | 3,357 | 3,372 | 3,252 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture: | | | | | | | | | |
| Wage and salary workers | 1,749 | 1,721 | 1,587 | 2,024 | 2,041 | 2,005 | 2,019 | 1,883 | 1,839 |
| Self-employed workers | 1,180 | 1,070 | 1,187 | 1,303 | 1,182 | 1,180 | 1,198 | 1,182 | 1,291 |
| Unpaid family workers | 33 | 20 | 20 | 47 | 32 | 25 | 34 | 25 | 29 |
| Nonagricultural industries: | | | | | | | | | |
| Wage and salary workers | 122,346 | 122,889 | 123,438 | 122,872 | 123,461 | 123,532 | 123,613 | 124,035 | 124,089 |
| Government | 19,888 | 19,183 | 19,523 | 19,259 | 19,073 | 19,146 | 19,202 | 18,845 | 19,103 |
| Private industries | 102,880 | 103,808 | 103,916 | 103,713 | 104,388 | 104,486 | 104,461 | 105,182 | 104,986 |
| Private households | 883 | 850 | 830 | 880 | 812 | 827 | 879 | 889 | 823 |
| Other industries | 101,888 | 102,888 | 103,087 | 102,733 | 103,576 | 103,659 | 103,582 | 104,293 | 104,143 |
| Self-employed workers | 6,555 | 6,559 | 6,393 | 6,780 | 6,561 | 6,533 | 6,600 | 6,688 | 6,817 |
| Unpaid family workers | 79 | 134 | 147 | 78 | 138 | 128 | 121 | 110 | 142 |
| PERSONS AT WORK PART TIME | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 3,298 | 3,883 | 3,424 | 3,149 | 3,222 | 3,416 | 3,234 | 3,327 | 3,273 |
| Sick leave or business conditions | 1,879 | 2,445 | 2,308 | 1,829 | 1,809 | 2,183 | 1,884 | 2,035 | 2,043 |
| Could only find part-time work | 1,027 | 885 | 947 | 1,015 | 947 | 886 | 888 | 954 | 933 |
| Part time for noneconomic reasons | 19,849 | 18,877 | 20,014 | 18,882 | 18,798 | 18,898 | 18,893 | 18,888 | 19,221 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 3,138 | 3,559 | 3,291 | 2,887 | 3,044 | 3,286 | 3,088 | 3,227 | 3,143 |
| Sick leave or business conditions | 1,874 | 2,359 | 2,133 | 1,731 | 1,808 | 2,052 | 1,832 | 1,971 | 1,970 |
| Could only find part-time work | 1,015 | 884 | 932 | 984 | 923 | 871 | 877 | 945 | 910 |
| Part time for noneconomic reasons | 18,280 | 18,009 | 19,583 | 18,257 | 18,200 | 18,322 | 18,437 | 18,040 | 18,208 |

NOTE: Persons at work excludes employed persons who were absent from their jobs during the entire reference week for reasons such as vacation, illness, or industrial disputes. Part time for noneconomic reasons excludes persons who usually work full time

but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and bad weather.

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Table A-5. Selected unemployment indicators, seasonally adjusted

| Category | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---|---|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| CHARACTERISTIC | | | | | | | | | |
| Total, 16 years and over | 5,740 | 5,958 | 5,936 | 4.1 | 3.9 | 4.0 | 4.0 | 4.2 | 4.2 |
| Men, 20 years and over | 2,375 | 2,578 | 2,527 | 3.3 | 3.3 | 3.4 | 3.4 | 3.6 | 3.5 |
| Women, 20 years and over | 2,200 | 2,232 | 2,289 | 3.6 | 3.4 | 3.4 | 3.4 | 3.6 | 3.7 |
| Both sexes, 16 to 19 years | 1,162 | 1,149 | 1,121 | 13.8 | 12.8 | 13.0 | 13.1 | 13.8 | 13.6 |
| Married men, spouse present | 903 | 1,003 | 1,007 | 2.0 | 2.1 | 2.2 | 2.2 | 2.3 | 2.3 |
| Married women, spouse present | 908 | 882 | 912 | 2.6 | 2.5 | 2.6 | 2.6 | 2.5 | 2.6 |
| Women who maintain families | 544 | 576 | 541 | 6.2 | 5.4 | 5.2 | 5.1 | 6.4 | 6.1 |
| Full-time workers | 4,540 | 4,768 | 4,738 | 3.9 | 3.8 | 3.9 | 3.9 | 4.1 | 4.0 |
| Part-time workers | 1,184 | 1,192 | 1,179 | 4.9 | 4.5 | 4.5 | 4.8 | 4.8 | 4.8 |
| OCCUPATION² | | | | | | | | | |
| Managerial and professional specialty | 692 | 748 | 753 | 1.8 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 |
| Technical, sales, and administrative support | 1,482 | 1,405 | 1,437 | 3.6 | 3.6 | 3.6 | 3.5 | 3.4 | 3.5 |
| Precision production, craft, and repair | 809 | 870 | 872 | 3.9 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Operators, fabricators, and laborers | 1,182 | 1,260 | 1,416 | 6.1 | 6.4 | 6.3 | 6.4 | 7.1 | 7.3 |
| Farming, forestry, and fishing | 212 | 234 | 252 | 5.6 | 6.7 | 7.1 | 6.3 | 6.5 | 7.2 |
| INDUSTRY | | | | | | | | | |
| Nonagricultural private wage and salary workers | 4,548 | 4,685 | 4,914 | 4.2 | 4.0 | 4.0 | 4.0 | 4.3 | 4.5 |
| Goods-producing industries | 1,289 | 1,410 | 1,486 | 4.4 | 4.7 | 4.5 | 4.4 | 4.9 | 5.2 |
| Mining | 20 | 11 | 27 | 3.8 | 7.1 | 3.5 | 3.8 | 2.2 | 4.6 |
| Construction | 549 | 554 | 558 | 7.2 | 6.5 | 6.9 | 6.5 | 6.8 | 7.0 |
| Manufacturing | 700 | 845 | 909 | 3.4 | 4.0 | 3.6 | 3.6 | 4.2 | 4.5 |
| Durable goods | 367 | 501 | 501 | 3.1 | 3.8 | 3.5 | 3.4 | 4.2 | 4.2 |
| Nonurable goods | 313 | 343 | 402 | 3.8 | 4.3 | 3.9 | 4.0 | 4.3 | 5.0 |
| Service-producing industries | 3,279 | 3,275 | 3,428 | 4.1 | 3.8 | 3.8 | 3.8 | 4.0 | 4.2 |
| Transportation and public utilities | 250 | 215 | 229 | 3.2 | 2.8 | 2.8 | 3.2 | 2.8 | 2.9 |
| Wholesale and retail trade | 1,432 | 1,365 | 1,412 | 5.3 | 4.8 | 4.7 | 4.8 | 5.0 | 5.1 |
| Finance, insurance, and real estate | 218 | 191 | 210 | 2.7 | 2.3 | 1.9 | 2.1 | 2.3 | 2.5 |
| Services | 1,261 | 1,514 | 1,575 | 3.8 | 3.6 | 3.7 | 3.8 | 4.0 | 4.2 |
| Government workers | 418 | 431 | 395 | 2.1 | 2.0 | 2.3 | 2.2 | 2.2 | 1.8 |
| Agricultural wage and salary workers | 144 | 198 | 196 | 6.6 | 6.8 | 9.4 | 8.9 | 9.0 | 8.2 |

¹ Unemployment as a percent of the civilian labor force.² Seasonally adjusted unemployment data for service occupations are not available

because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

Table A-6. Duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|-----------------------------------|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,517 | 3,072 | 2,732 | 2,582 | 2,810 | 2,531 | 2,440 | 2,813 | 2,707 |
| 5 to 14 weeks | 2,315 | 2,094 | 2,115 | 1,230 | 1,755 | 1,798 | 1,852 | 1,977 | 1,889 |
| 15 weeks and over | 1,401 | 1,420 | 1,817 | 1,282 | 1,811 | 1,517 | 1,358 | 1,371 | 1,480 |
| 25 weeks and over | 772 | 707 | 861 | 667 | 702 | 713 | 675 | 731 | 783 |
| 27 weeks and over | 629 | 714 | 728 | 605 | 609 | 604 | 651 | 640 | 667 |
| Average (mean) duration, in weeks | 12.5 | 12.2 | 12.8 | 12.5 | 12.4 | 12.4 | 12.8 | 12.8 | 12.8 |
| Median duration, in weeks | 6.8 | 5.5 | 6.8 | 6.1 | 6.1 | 6.1 | 6.1 | 5.9 | 6.0 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 40.4 | 48.6 | 42.3 | 45.3 | 45.0 | 44.8 | 43.4 | 43.8 | 47.0 |
| 5 to 14 weeks | 37.1 | 31.8 | 32.7 | 32.1 | 31.5 | 31.8 | 33.0 | 33.2 | 38.0 |
| 15 weeks and over | 22.8 | 21.8 | 25.0 | 22.7 | 23.5 | 23.3 | 23.8 | 23.0 | 25.0 |
| 15 to 26 weeks | 12.4 | 10.7 | 13.8 | 12.0 | 12.6 | 12.6 | 12.0 | 12.9 | 13.9 |
| 27 weeks and over | 10.1 | 10.8 | 11.2 | 10.8 | 10.8 | 10.7 | 11.8 | 10.7 | 11.7 |

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Table A-7. Reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 3,029 | 3,408 | 3,309 | 2,614 | 2,448 | 2,501 | 2,514 | 2,742 | 2,883 |
| On temporary layoff | 1,134 | 1,267 | 1,286 | 833 | 825 | 877 | 837 | 1,032 | 945 |
| Not on temporary layoff | 1,895 | 1,839 | 2,023 | 1,781 | 1,621 | 1,624 | 1,577 | 1,711 | 1,938 |
| Permanent job losers | 1,281 | 1,223 | 1,451 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Persons who completed temporary jobs | 814 | 816 | 872 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Job leavers | 777 | 818 | 830 | 767 | 815 | 768 | 746 | 836 | 820 |
| Reentrants | 2,057 | 1,985 | 1,996 | 1,852 | 1,808 | 1,830 | 1,898 | 1,856 | 1,827 |
| New entrants | 357 | 378 | 327 | 400 | 398 | 429 | 486 | 446 | 372 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers and persons who completed temporary jobs | 48.8 | 51.7 | 51.2 | 45.3 | 44.3 | 44.4 | 44.7 | 45.8 | 47.8 |
| On temporary layoff | 18.2 | 23.8 | 19.9 | 14.4 | 14.9 | 15.8 | 16.7 | 17.2 | 15.8 |
| Not on temporary layoff | 30.4 | 27.9 | 31.3 | 30.9 | 29.3 | 28.8 | 28.0 | 28.8 | 32.0 |
| Job leavers | 12.5 | 12.4 | 12.8 | 13.3 | 14.7 | 13.8 | 13.3 | 14.0 | 13.7 |
| Reentrants | 33.2 | 30.1 | 30.9 | 34.8 | 33.8 | 34.4 | 33.8 | 32.7 | 32.3 |
| New entrants | 5.7 | 5.7 | 5.1 | 6.9 | 7.2 | 7.8 | 6.3 | 7.4 | 6.2 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2.2 | 2.4 | 2.3 | 1.9 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 |
| Job leavers | .8 | .8 | .8 | .5 | .6 | .5 | .5 | .6 | .6 |
| Reentrants | 1.5 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.4 |
| New entrants | .3 | .3 | .2 | .3 | .3 | .3 | .3 | .3 | .3 |

¹ Not available.

Table A-6. Range of alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 1.0 | 1.0 | 1.1 | .9 | .9 | .9 | .9 | 1.0 | 1.1 |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.2 | 2.4 | 2.3 | 1.9 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 4.4 | 4.7 | 4.6 | 4.1 | 3.8 | 4.0 | 4.0 | 4.2 | 4.3 |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 4.8 | 4.9 | 4.8 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 5.3 | 5.5 | 5.5 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 7.8 | 8.1 | 7.9 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |

¹ Not available.

NOTE: This range of alternative measures of labor underutilization replaces the U1-U7 range published in table A-7 of this release prior to 1994. Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers,

a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures," in October 1995 issue of the Monthly Labor Review.

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Table A-9. Unemployed persons by sex and age, seasonally adjusted

| Age and sex | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---------------------------------------|---|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Jan. 2001 | Feb. 2001 | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 | Feb. 2001 |
| Total, 16 years and over | 5,740 | 5,958 | 5,838 | 4.1 | 3.9 | 4.0 | 4.0 | 4.2 | 4.2 |
| 16 to 24 years | 2,220 | 2,205 | 2,187 | 9.8 | 8.8 | 9.1 | 9.2 | 9.6 | 9.5 |
| 16 to 18 years | 1,182 | 1,149 | 1,121 | 13.8 | 12.6 | 13.0 | 13.1 | 13.8 | 13.6 |
| 18 to 17 years | 518 | 554 | 555 | 15.6 | 15.2 | 15.4 | 15.8 | 17.4 | 17.2 |
| 18 to 19 years | 535 | 585 | 550 | 12.5 | 11.1 | 11.4 | 11.8 | 11.5 | 11.0 |
| 20 to 24 years | 1,058 | 1,058 | 1,046 | 7.4 | 6.8 | 6.8 | 7.0 | 7.2 | 7.2 |
| 25 years and over | 3,510 | 3,767 | 3,708 | 3.0 | 2.9 | 3.0 | 3.0 | 3.2 | 3.2 |
| 25 to 54 years | 3,006 | 3,282 | 3,282 | 3.0 | 3.0 | 3.0 | 3.0 | 3.2 | 3.2 |
| 55 years and over | 524 | 509 | 519 | 2.9 | 2.8 | 2.9 | 2.6 | 2.7 | 2.8 |
| Men, 16 years and over | 3,035 | 3,228 | 3,187 | 4.0 | 3.9 | 4.0 | 4.0 | 4.3 | 4.2 |
| 16 to 24 years | 1,205 | 1,234 | 1,282 | 10.1 | 9.4 | 9.5 | 9.7 | 10.3 | 10.8 |
| 16 to 18 years | 680 | 650 | 660 | 14.8 | 13.4 | 13.6 | 14.1 | 15.0 | 15.5 |
| 18 to 17 years | 295 | 335 | 305 | 16.6 | 17.5 | 17.5 | 18.4 | 20.5 | 18.5 |
| 18 to 19 years | 358 | 320 | 343 | 13.5 | 10.7 | 11.3 | 11.7 | 11.8 | 13.1 |
| 20 to 24 years | 545 | 584 | 622 | 7.3 | 7.3 | 7.3 | 7.2 | 7.6 | 8.2 |
| 25 years and over | 1,815 | 1,987 | 1,891 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.0 |
| 25 to 54 years | 1,555 | 1,679 | 1,619 | 2.9 | 2.9 | 2.9 | 2.9 | 3.1 | 3.0 |
| 55 years and over | 274 | 309 | 291 | 2.7 | 2.8 | 2.9 | 2.8 | 3.0 | 2.9 |
| Women, 16 years and over | 2,705 | 2,730 | 2,749 | 4.1 | 3.9 | 4.0 | 4.0 | 4.1 | 4.2 |
| 16 to 24 years | 1,015 | 971 | 885 | 9.4 | 8.4 | 8.6 | 8.7 | 8.8 | 8.1 |
| 16 to 18 years | 522 | 498 | 480 | 12.5 | 11.9 | 12.3 | 12.1 | 12.4 | 11.6 |
| 18 to 17 years | 221 | 219 | 250 | 14.3 | 12.8 | 13.4 | 13.2 | 14.1 | 15.7 |
| 18 to 19 years | 279 | 274 | 208 | 11.3 | 11.6 | 11.5 | 11.6 | 11.3 | 8.7 |
| 20 to 24 years | 513 | 472 | 424 | 7.6 | 6.3 | 6.3 | 6.7 | 6.7 | 6.1 |
| 25 years and over | 1,695 | 1,789 | 1,875 | 3.1 | 3.0 | 3.1 | 3.0 | 3.2 | 3.4 |
| 25 to 54 years | 1,451 | 1,583 | 1,643 | 3.1 | 3.1 | 3.2 | 3.1 | 3.4 | 3.5 |
| 55 years and over | 250 | 205 | 228 | 3.1 | 2.8 | 2.7 | 2.4 | 2.5 | 2.7 |

¹ Unemployment as a percent of the civilian labor force.

Table A-10. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 2000 | Feb. 2001 | Feb. 2000 | Feb. 2001 | Feb. 2000 | Feb. 2001 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 65,723 | 69,788 | 25,522 | 26,310 | 43,500 | 43,478 |
| Persons who currently want a job | 4,431 | 4,500 | 1,743 | 1,871 | 2,888 | 2,629 |
| Searched for work and available to work now ¹ | 1,273 | 1,339 | 577 | 613 | 697 | 727 |
| Reason not currently looking: | | | | | | |
| Discouragement over job prospects ² | 262 | 289 | 159 | 188 | 103 | 103 |
| Reasons other than discouragements ² | 1,011 | 1,050 | 418 | 427 | 594 | 623 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ³ | 7,735 | 7,582 | 4,037 | 3,969 | 3,698 | 3,603 |
| Percent of total employed | 5.8 | 5.5 | 5.7 | 5.5 | 5.9 | 5.7 |
| Primary job full time, secondary job part time | 4,267 | 4,259 | 2,465 | 2,496 | 1,802 | 1,762 |
| Primary and secondary jobs both part time | 1,802 | 1,827 | 970 | 459 | 1,131 | 1,168 |
| Primary and secondary jobs both full time | 290 | 304 | 181 | 210 | 109 | 94 |
| Hours vary on primary or secondary job | 1,547 | 1,300 | 909 | 792 | 638 | 588 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.² Includes those who do not actively look for work in the prior 4 weeks for such reasons as child-care and transportation problems, as well as a small number for which reason for nonparticipation was not determined.³ Includes those who work part time on their primary job and full time on their secondary job(s), not shown separately.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|-----------|-----------|------------|------------|
| | Feb. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P |
| Total private | 34.2 | 34.2 | 33.9 | 33.9 | 34.6 | 34.4 | 34.3 | 34.1 | 34.3 | 34.2 |
| Goods-producing | 40.8 | 40.3 | 40.0 | 39.5 | 41.3 | 40.9 | 40.5 | 39.8 | 40.4 | 39.9 |
| Mining | 44.1 | 44.9 | 44.8 | 45.0 | 44.7 | 45.6 | 44.9 | 44.8 | 45.3 | 45.3 |
| Construction | 38.7 | 37.7 | 37.7 | 37.2 | 39.7 | 39.3 | 38.5 | 37.9 | 38.9 | 38.0 |
| Manufacturing | 41.5 | 41.2 | 40.7 | 40.3 | 41.8 | 41.4 | 41.2 | 40.4 | 40.9 | 40.6 |
| Overtime hours | 4.4 | 4.4 | 3.9 | 3.6 | 4.7 | 4.5 | 4.3 | 3.9 | 4.1 | 3.8 |
| Durable goods | 42.1 | 41.6 | 41.0 | 40.6 | 42.3 | 41.9 | 41.7 | 40.7 | 41.1 | 40.9 |
| Overtime hours | 4.7 | 4.4 | 3.9 | 3.6 | 4.9 | 4.6 | 4.4 | 3.9 | 4.0 | 3.7 |
| Lumber and wood products | 40.4 | 40.0 | 39.3 | 39.3 | 41.0 | 40.6 | 40.6 | 39.8 | 39.7 | 40.2 |
| Furniture and fixtures | 39.8 | 40.0 | 39.9 | 38.4 | 40.3 | 39.7 | 39.4 | 38.8 | 39.0 | 39.1 |
| Stone, clay, and glass products | 42.4 | 41.9 | 41.0 | 40.8 | 43.5 | 43.2 | 42.7 | 41.7 | 42.2 | 41.8 |
| Primary metal industries | 44.4 | 43.3 | 42.6 | 42.1 | 44.5 | 43.8 | 43.6 | 42.5 | 42.5 | 42.1 |
| Basic iron and steel products | 45.3 | 43.5 | 42.7 | 42.4 | 45.4 | 44.2 | 44.1 | 43.2 | 42.7 | 42.5 |
| Fabricated metal products | 42.2 | 41.7 | 41.3 | 41.0 | 42.4 | 42.1 | 41.7 | 40.6 | 41.4 | 41.3 |
| Industrial machinery and equipment | 42.4 | 42.2 | 41.9 | 41.3 | 42.3 | 42.1 | 42.0 | 41.2 | 41.8 | 41.3 |
| Electronic and other electrical equipment | 41.5 | 41.5 | 40.7 | 40.1 | 41.6 | 41.2 | 40.9 | 40.4 | 40.7 | 40.3 |
| Transportation equipment | 43.9 | 42.2 | 41.5 | 41.0 | 44.0 | 43.1 | 42.9 | 40.8 | 41.8 | 41.1 |
| Motor vehicles and equipment | 45.0 | 41.6 | 40.9 | 40.4 | 45.0 | 44.0 | 43.2 | 40.1 | 41.0 | 40.3 |
| Instruments and related products | 41.3 | 41.3 | 40.9 | 41.0 | 41.2 | 41.2 | 41.0 | 40.4 | 40.8 | 40.8 |
| Miscellaneous manufacturing | 39.3 | 39.5 | 38.9 | 39.0 | 39.5 | 39.3 | 39.1 | 38.6 | 39.3 | 39.2 |
| Nondurable goods | 40.8 | 40.7 | 40.2 | 39.8 | 41.0 | 40.6 | 40.4 | 40.0 | 40.5 | 40.1 |
| Overtime hours | 4.1 | 4.2 | 3.9 | 3.6 | 4.5 | 4.3 | 4.1 | 3.9 | 4.1 | 3.9 |
| Food and kindred products | 40.9 | 41.5 | 40.9 | 39.9 | 41.6 | 41.4 | 41.2 | 40.7 | 41.2 | 40.7 |
| Tobacco products | 39.2 | 39.9 | 37.8 | 37.4 | 40.6 | 39.9 | 39.8 | 38.6 | 38.5 | 38.1 |
| Textile mill products | 41.3 | 41.0 | 40.4 | 39.7 | 41.7 | 40.9 | 40.5 | 40.5 | 40.4 | 39.8 |
| Apparel and other textile products | 37.6 | 36.8 | 36.2 | 36.1 | 37.7 | 36.9 | 36.8 | 36.3 | 36.6 | 36.1 |
| Paper and allied products | 43.0 | 42.8 | 42.7 | 42.0 | 43.5 | 42.5 | 42.6 | 41.9 | 42.6 | 42.4 |
| Printing and publishing | 38.0 | 38.3 | 37.7 | 37.6 | 38.3 | 38.2 | 38.0 | 37.7 | 38.1 | 37.9 |
| Chemicals and allied products | 42.5 | 43.2 | 42.7 | 42.5 | 42.7 | 43.0 | 42.6 | 42.4 | 42.9 | 42.7 |
| Petroleum and coal products | 43.4 | 44.2 | 46.2 | 46.5 | (2) | (2) | (2) | (2) | (2) | (2) |
| Rubber and misc. plastics products | 41.4 | 41.0 | 40.7 | 40.3 | 41.6 | 41.1 | 41.0 | 40.1 | 40.9 | 40.4 |
| Leather and leather products | 37.7 | 37.5 | 37.3 | 36.9 | 38.1 | 37.4 | 38.1 | 37.1 | 38.0 | 37.1 |
| Service-producing | 32.6 | 32.7 | 32.4 | 32.6 | 32.8 | 32.7 | 32.8 | 32.7 | 32.8 | 32.8 |
| Transportation and public utilities | 38.1 | 38.6 | 38.1 | 38.3 | 38.3 | 38.6 | 38.5 | 38.7 | 38.6 | 38.5 |
| Wholesale trade | 38.1 | 38.4 | 38.0 | 38.1 | 38.5 | 38.5 | 38.6 | 38.4 | 38.5 | 38.4 |
| Retail trade | 28.5 | 28.9 | 28.2 | 28.4 | 29.1 | 28.8 | 28.9 | 28.7 | 29.1 | 28.9 |
| Finance, insurance, and real estate | 36.1 | 36.1 | 35.9 | 36.2 | 36.1 | 36.1 | 36.1 | 36.2 | 36.1 | 36.2 |
| Services | 32.6 | 32.5 | 32.3 | 32.5 | 32.7 | 32.6 | 32.6 | 32.6 | 32.6 | 32.6 |

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employees on private nonfarm

payrolls.

² This series is not published seasonally adjusted because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonteam payrolls by industry

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------|------------|-------------------------|-----------|------------|------------|
| | Feb. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P | Feb. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P |
| Total private | \$13.58 | \$14.03 | \$14.09 | \$14.15 | \$464.44 | \$479.83 | \$477.65 | \$479.89 |
| Seasonally adjusted | 13.54 | 14.02 | 14.03 | 14.10 | 466.48 | 478.08 | 481.23 | 482.22 |
| Goods-producing | 15.07 | 15.67 | 15.61 | 15.64 | 614.86 | 631.50 | 624.40 | 617.78 |
| Mining | 17.20 | 17.17 | 17.22 | 17.13 | 758.52 | 770.93 | 771.46 | 770.85 |
| Construction | 17.42 | 18.21 | 18.20 | 18.22 | 674.15 | 688.52 | 686.14 | 677.78 |
| Manufacturing | 14.19 | 14.68 | 14.61 | 14.65 | 588.89 | 604.82 | 594.63 | 590.40 |
| Durable goods | 14.73 | 15.26 | 15.15 | 15.19 | 620.13 | 634.62 | 621.15 | 616.71 |
| Lumber and wood products | 11.63 | 11.96 | 11.94 | 11.96 | 469.65 | 478.40 | 469.24 | 470.03 |
| Furniture and fixtures | 11.51 | 12.01 | 11.99 | 12.05 | 458.10 | 480.40 | 466.41 | 462.72 |
| Stone, clay, and glass products | 13.96 | 14.50 | 14.48 | 14.51 | 591.90 | 607.55 | 593.68 | 589.11 |
| Primary metal industries | 18.28 | 18.64 | 18.55 | 18.56 | 722.83 | 720.51 | 709.29 | 697.18 |
| Steel furnaces and basic steel products | 19.32 | 19.22 | 19.50 | 19.16 | 875.20 | 838.07 | 832.65 | 812.38 |
| Fabricated metal products | 13.67 | 14.12 | 14.09 | 14.11 | 576.67 | 588.80 | 581.92 | 578.51 |
| Electronic and other electrical equipment | 15.40 | 16.04 | 15.99 | 15.94 | 652.96 | 676.89 | 669.98 | 658.32 |
| Transportation equipment | 13.72 | 14.05 | 14.03 | 14.10 | 569.38 | 563.08 | 571.02 | 565.41 |
| Motor vehicles and equipment | 16.58 | 16.70 | 16.28 | 16.43 | 615.66 | 631.34 | 600.12 | 596.63 |
| Instruments and related products | 19.03 | 20.36 | 19.75 | 19.95 | 856.35 | 851.05 | 807.78 | 805.98 |
| Miscellaneous manufacturing | 14.41 | 15.06 | 14.82 | 14.97 | 595.13 | 621.98 | 610.23 | 613.77 |
| | 11.53 | 11.91 | 11.80 | 11.91 | 453.13 | 470.45 | 462.91 | 464.49 |
| Nondurable goods | 13.36 | 13.80 | 13.79 | 13.82 | 542.42 | 561.66 | 554.36 | 550.04 |
| Food and kindred products | 12.23 | 12.66 | 12.64 | 12.60 | 500.21 | 525.39 | 516.98 | 502.74 |
| Tobacco products | 17.48 | 18.54 | 18.29 | 18.77 | 688.22 | 739.75 | 687.33 | 702.00 |
| Textile mill products | 10.85 | 11.02 | 11.04 | 11.04 | 448.11 | 451.82 | 446.02 | 438.29 |
| Apparel and other textile products | 9.03 | 9.21 | 9.24 | 9.23 | 339.53 | 338.93 | 334.49 | 333.20 |
| Paper and allied products | 15.99 | 16.54 | 16.45 | 16.36 | 687.57 | 707.91 | 702.42 | 687.12 |
| Printing and publishing | 14.13 | 14.58 | 14.55 | 14.59 | 536.94 | 556.41 | 548.54 | 548.58 |
| Chemicals and allied products | 17.67 | 18.33 | 18.24 | 18.46 | 750.96 | 791.86 | 778.85 | 784.55 |
| Petroleum and coal products | 22.03 | 21.68 | 21.84 | 22.10 | 956.10 | 958.26 | 969.77 | 1027.65 |
| Rubber and misc. plastics products | 12.57 | 13.03 | 13.05 | 13.03 | 520.40 | 534.23 | 531.14 | 525.11 |
| Leather and leather products | 9.96 | 10.22 | 10.28 | 10.21 | 375.49 | 383.25 | 383.44 | 376.75 |
| Service-producing | 13.11 | 13.54 | 13.64 | 13.71 | 427.39 | 442.76 | 441.94 | 446.95 |
| Transportation and public utilities | 16.05 | 16.53 | 16.59 | 16.68 | 611.51 | 638.06 | 632.08 | 636.84 |
| Wholesale trade | 14.91 | 15.59 | 15.54 | 15.59 | 568.07 | 598.66 | 590.52 | 593.96 |
| Retail trade | 9.35 | 9.65 | 9.68 | 9.68 | 266.48 | 278.89 | 272.96 | 274.91 |
| Finance, insurance, and real estate | 14.93 | 15.32 | 15.46 | 15.64 | 538.97 | 553.05 | 555.01 | 566.17 |
| Services | 13.77 | 14.29 | 14.36 | 14.42 | 448.90 | 464.43 | 463.83 | 466.65 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry, seasonally adjusted

| Industry | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001 ^P | Feb. 2001 ^P | Percent change from: Jan. 2001-Feb. 2001 |
|--|-----------|-----------|-----------|-----------|------------------------|------------------------|--|
| Total private: | | | | | | | |
| Current dollars | \$13.54 | \$13.88 | \$13.96 | \$14.02 | \$14.03 | \$14.10 | 0.5 |
| Constant (1982) dollars ² | 7.87 | 7.89 | 7.91 | 7.93 | 7.90 | N.A. | (3) |
| Goods-producing | 15.20 | 15.57 | 15.66 | 15.63 | 15.70 | 15.75 | .3 |
| Mining | 17.14 | 17.06 | 17.13 | 17.06 | 17.01 | 17.00 | -.1 |
| Construction | 17.60 | 18.00 | 18.20 | 18.14 | 18.32 | 18.32 | .0 |
| Manufacturing | 14.21 | 14.56 | 14.63 | 14.60 | 14.58 | 14.67 | .6 |
| Excluding overtime ³ | 13.45 | 13.81 | 13.90 | 13.93 | 13.89 | 14.00 | .8 |
| Service-producing | 13.01 | 13.36 | 13.44 | 13.53 | 13.52 | 13.61 | .7 |
| Transportation and public utilities | 16.00 | 16.38 | 16.42 | 16.51 | 16.54 | 16.66 | .7 |
| Wholesale trade | 14.89 | 15.36 | 15.46 | 15.57 | 15.48 | 15.57 | .6 |
| Retail trade | 9.32 | 9.58 | 9.60 | 9.66 | 9.61 | 9.65 | .4 |
| Finance, insurance, and real estate | 14.87 | 15.18 | 15.27 | 15.34 | 15.44 | 15.58 | .9 |
| Services | 13.66 | 14.00 | 14.12 | 14.20 | 14.22 | 14.31 | .6 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was -.4 percent from December 2000 to

January 2001, the latest month available.

⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.
N.A. = not available.
P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-6. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry (1982=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|-----------|-----------|------------|------------|
| | Feb. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P | Feb. 2000 | Oct. 2000 | Nov. 2000 | Dec. 2000 | Jan. 2001P | Feb. 2001P |
| Total private | 146.4 | 151.8 | 148.5 | 147.0 | 150.8 | 151.6 | 151.5 | 150.6 | 151.8 | 151.0 |
| Goods-producing | 112.5 | 113.3 | 109.7 | 108.0 | 117.5 | 116.1 | 114.7 | 112.2 | 114.6 | 112.5 |
| Mining | 49.1 | 51.1 | 50.3 | 50.3 | 51.0 | 52.2 | 51.1 | 50.6 | 52.1 | 51.9 |
| Construction | 163.2 | 173.7 | 165.8 | 163.2 | 186.0 | 186.4 | 181.4 | 178.1 | 188.6 | 183.2 |
| Manufacturing | 105.8 | 104.2 | 101.5 | 99.8 | 107.0 | 105.0 | 104.3 | 101.9 | 102.5 | 101.1 |
| Durable goods | 111.2 | 109.4 | 106.1 | 104.6 | 112.1 | 110.2 | 109.7 | 106.7 | 107.0 | 105.7 |
| Lumber and wood products | 143.0 | 138.0 | 133.0 | 131.8 | 147.6 | 142.3 | 141.3 | 137.6 | 136.4 | 137.7 |
| Furniture and fixtures | 137.7 | 137.3 | 131.9 | 128.8 | 139.4 | 137.0 | 135.8 | 132.6 | 132.7 | 131.2 |
| Stone, clay, and glass products | 108.8 | 108.7 | 104.0 | 102.4 | 115.7 | 114.8 | 112.6 | 108.7 | 117.2 | 108.9 |
| Primary metal industries | 82.1 | 88.1 | 85.7 | 83.9 | 82.3 | 80.0 | 89.4 | 86.2 | 85.4 | 83.8 |
| Blast furnaces and basic steel products | 71.6 | 87.3 | 85.1 | 84.4 | 72.1 | 83.0 | 88.9 | 86.7 | 85.2 | 84.9 |
| Fabricated metal products | 120.1 | 119.4 | 116.7 | 114.4 | 120.7 | 120.5 | 119.6 | 116.0 | 116.9 | 115.4 |
| Industrial machinery and equipment | 106.0 | 105.3 | 104.5 | 102.2 | 105.4 | 104.6 | 104.4 | 102.6 | 104.0 | 101.9 |
| Electronic and other electrical equipment | 107.1 | 110.3 | 106.8 | 104.8 | 107.5 | 108.2 | 108.0 | 107.1 | 107.1 | 105.1 |
| Transportation equipment | 126.8 | 118.0 | 111.7 | 111.3 | 127.0 | 120.9 | 120.4 | 113.7 | 112.6 | 111.8 |
| Motor vehicles and equipment | 170.8 | 151.9 | 140.7 | 140.8 | 170.9 | 161.0 | 157.0 | 144.4 | 141.3 | 140.2 |
| Instruments and related products | 74.6 | 74.5 | 73.6 | 74.3 | 74.3 | 73.6 | 73.8 | 72.9 | 73.6 | 74.1 |
| Miscellaneous manufacturing | 100.5 | 99.1 | 95.8 | 96.0 | 102.2 | 99.5 | 99.0 | 97.9 | 98.4 | 97.4 |
| Nondurable goods | 86.3 | 87.2 | 85.0 | 83.3 | 100.0 | 97.9 | 97.0 | 95.4 | 96.5 | 94.8 |
| Food and kindred products | 112.6 | 115.9 | 112.7 | 109.5 | 117.0 | 116.6 | 115.6 | 114.2 | 116.1 | 114.4 |
| Tobacco products | 53.6 | 53.1 | 49.0 | 48.3 | 52.3 | 48.2 | 47.8 | 47.8 | 45.8 | 44.0 |
| Textile mill products | 79.2 | 76.5 | 73.3 | 70.9 | 80.2 | 77.2 | 75.4 | 74.7 | 73.7 | 71.4 |
| Apparel and other textile products | 57.9 | 53.5 | 52.1 | 51.6 | 58.5 | 54.5 | 54.0 | 52.8 | 53.7 | 51.8 |
| Paper and allied products | 105.1 | 103.6 | 103.0 | 100.6 | 106.7 | 103.8 | 103.4 | 101.3 | 102.6 | 101.7 |
| Printing and publishing | 120.8 | 123.2 | 119.9 | 118.5 | 122.0 | 122.8 | 121.5 | 120.2 | 121.5 | 120.0 |
| Chemicals and allied products | 102.2 | 101.4 | 99.5 | 98.8 | 102.6 | 101.0 | 100.3 | 99.4 | 100.1 | 99.3 |
| Petroleum and coal products | 63.1 | 57.9 | 59.1 | 60.5 | 66.3 | 62.0 | 61.0 | 58.2 | 62.5 | 64.1 |
| Rubber and misc. plastics products | 147.8 | 142.6 | 140.2 | 138.3 | 148.3 | 144.5 | 143.6 | 139.3 | 141.0 | 138.2 |
| Leather and leather products | 31.9 | 30.2 | 29.2 | 28.6 | 32.8 | 30.5 | 31.0 | 29.6 | 29.8 | 29.1 |
| Service-producing | 161.6 | 169.0 | 162.9 | 164.6 | 165.5 | 167.6 | 168.0 | 167.9 | 168.4 | 168.3 |
| Transportation and public utilities | 132.9 | 141.4 | 136.8 | 137.4 | 134.7 | 139.2 | 139.2 | 140.4 | 140.0 | 139.7 |
| Wholesale trade | 129.6 | 133.2 | 130.1 | 130.4 | 132.1 | 133.3 | 134.0 | 133.2 | 133.3 | 132.7 |
| Retail trade | 136.4 | 149.9 | 139.4 | 138.9 | 144.9 | 144.6 | 145.4 | 144.4 | 146.3 | 145.5 |
| Finance, insurance, and real estate | 137.5 | 139.3 | 136.4 | 139.6 | 138.6 | 139.5 | 139.8 | 140.3 | 140.3 | 141.2 |
| Services | 203.2 | 209.8 | 204.3 | 208.2 | 208.7 | 210.5 | 210.9 | 211.0 | 211.0 | 211.3 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-6. Diffusion indexes of employment change, seasonally adjusted

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Private nonfarm payrolls, 356 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1997 | 57.3 | 59.7 | 62.8 | 63.2 | 57.7 | 57.7 | 61.2 | 60.1 | 61.5 | 65.3 | 62.1 | 61.2 |
| 1998 | 63.2 | 56.6 | 60.5 | 58.7 | 58.3 | 59.7 | 53.9 | 58.1 | 56.2 | 53.8 | 59.0 | 57.4 |
| 1999 | 54.1 | 53.8 | 53.9 | 59.8 | 52.8 | 57.9 | 58.8 | 53.8 | 57.3 | 60.7 | 60.8 | 59.0 |
| 2000 | 60.6 | 54.1 | 60.7 | 56.5 | 45.9 | 56.2 | 58.7 | 51.4 | 53.7 | 55.2 | 50.6 | 53.4 |
| 2001 | P52.1 | P47.2 | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1997 | 62.6 | 64.0 | 66.3 | 66.7 | 63.2 | 62.1 | 61.5 | 66.2 | 67.4 | 69.4 | 69.0 | 69.1 |
| 1998 | 64.3 | 66.8 | 63.2 | 66.3 | 63.6 | 58.0 | 57.4 | 57.9 | 59.7 | 58.1 | 58.6 | 59.4 |
| 1999 | 58.3 | 57.3 | 58.4 | 54.4 | 57.3 | 58.8 | 58.1 | 60.7 | 59.6 | 63.5 | 64.3 | 63.1 |
| 2000 | 61.0 | 62.6 | 61.9 | 57.4 | 56.7 | 58.3 | 57.9 | 58.4 | 50.8 | 52.1 | 52.9 | P52.8 |
| 2001 | P50.0 | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1997 | 66.3 | 67.0 | 66.6 | 66.3 | 65.8 | 67.1 | 66.3 | 68.5 | 69.0 | 70.4 | 69.7 | 70.4 |
| 1998 | 69.8 | 67.4 | 65.2 | 61.8 | 62.9 | 61.4 | 59.0 | 58.4 | 57.4 | 59.7 | 59.3 | 59.1 |
| 1999 | 60.0 | 58.0 | 57.8 | 58.6 | 54.4 | 59.7 | 60.4 | 62.1 | 64.0 | 62.8 | 65.2 | 64.6 |
| 2000 | 65.6 | 60.8 | 61.0 | 61.9 | 59.3 | 56.0 | 54.4 | 57.2 | 54.5 | P51.8 | P49.7 | |
| 2001 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1997 | 69.0 | 67.3 | 68.3 | 69.7 | 69.5 | 70.1 | 70.1 | 70.4 | 70.5 | 70.1 | 69.4 | 70.4 |
| 1998 | 69.7 | 67.3 | 67.3 | 65.9 | 63.9 | 62.5 | 61.5 | 62.1 | 61.0 | 59.8 | 59.8 | 58.1 |
| 1999 | 60.3 | 58.3 | 57.6 | 59.4 | 59.6 | 60.5 | 61.9 | 61.0 | 62.6 | 62.9 | 62.5 | 63.2 |
| 2000 | 64.9 | 63.8 | 60.8 | 59.8 | 57.9 | 55.2 | P54.4 | P52.9 | | | | |
| 2001 | | | | | | | | | | | | |
| Manufacturing payrolls, 139 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1997 | 49.8 | 52.5 | 56.1 | 54.0 | 51.4 | 54.3 | 50.7 | 53.6 | 56.5 | 61.9 | 60.4 | 55.4 |
| 1998 | 57.9 | 50.7 | 53.6 | 50.7 | 47.1 | 50.0 | 37.8 | 50.0 | 45.7 | 39.9 | 41.7 | 43.9 |
| 1999 | 45.0 | 41.0 | 42.8 | 46.4 | 40.3 | 46.4 | 54.7 | 38.1 | 46.4 | 51.8 | 51.4 | 50.4 |
| 2000 | 52.2 | 47.8 | 51.1 | 51.1 | 45.7 | 51.1 | 57.6 | 36.3 | 38.8 | 45.7 | 42.8 | 40.6 |
| 2001 | P38.5 | P28.1 | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1997 | 50.7 | 53.2 | 55.8 | 56.1 | 53.2 | 52.5 | 52.5 | 55.8 | 59.7 | 66.5 | 64.7 | 64.0 |
| 1998 | 56.8 | 56.8 | 52.2 | 52.2 | 48.6 | 41.4 | 39.2 | 40.3 | 43.2 | 37.1 | 36.7 | 40.6 |
| 1999 | 36.7 | 37.1 | 37.1 | 34.5 | 37.8 | 43.5 | 39.9 | 45.0 | 42.1 | 50.4 | 51.1 | 50.7 |
| 2000 | 47.8 | 52.5 | 49.3 | 48.9 | 48.6 | 53.6 | 44.2 | 36.3 | 28.6 | 35.3 | 36.0 | P32.0 |
| 2001 | P24.1 | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1997 | 53.2 | 53.2 | 52.5 | 52.9 | 51.8 | 53.2 | 54.7 | 61.2 | 61.2 | 64.4 | 64.7 | 63.7 |
| 1998 | 60.1 | 54.3 | 50.4 | 39.9 | 43.5 | 42.1 | 38.6 | 36.7 | 36.0 | 39.9 | 34.5 | 32.7 |
| 1999 | 36.6 | 33.5 | 33.5 | 37.1 | 32.7 | 38.8 | 41.0 | 45.7 | 48.2 | 43.2 | 46.6 | 51.1 |
| 2000 | 51.4 | 47.5 | 50.4 | 53.6 | 45.0 | 38.1 | 33.5 | 35.3 | 29.9 | P25.2 | P22.3 | |
| 2001 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1997 | 54.7 | 52.5 | 54.0 | 54.0 | 55.4 | 56.8 | 57.2 | 57.9 | 58.3 | 56.6 | 56.8 | 57.2 |
| 1998 | 55.0 | 51.8 | 51.8 | 46.8 | 40.6 | 39.9 | 37.8 | 38.1 | 37.1 | 36.0 | 34.2 | 33.5 |
| 1999 | 37.4 | 32.4 | 31.7 | 35.3 | 36.0 | 37.1 | 38.8 | 39.6 | 42.4 | 42.4 | 42.4 | 46.0 |
| 2000 | 47.8 | 44.6 | 39.2 | 34.2 | 39.2 | 29.9 | P28.4 | P24.5 | | | | |
| 2001 | | | | | | | | | | | | |

¹ Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span. Data are centered within the span.

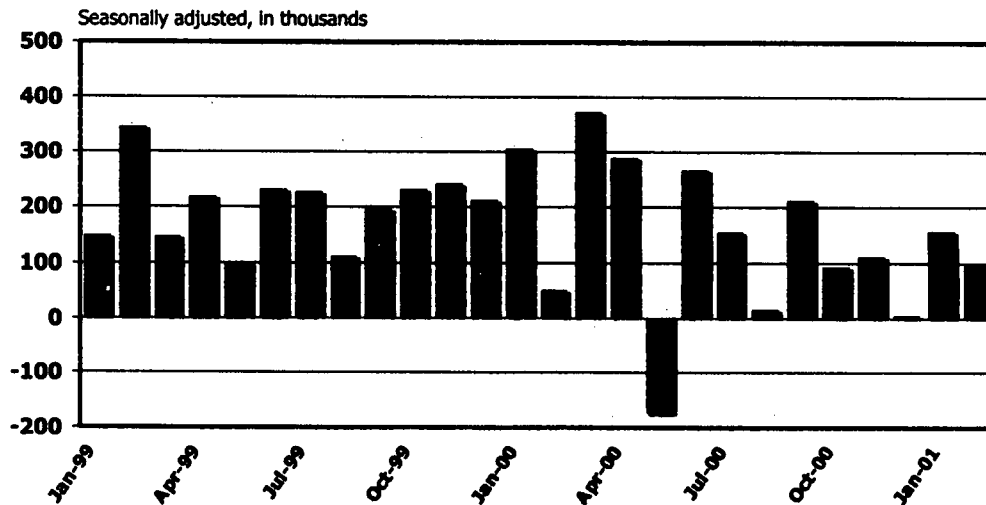
P = preliminary.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

**Katharine G. Abraham
Commissioner
Bureau of Labor Statistics**

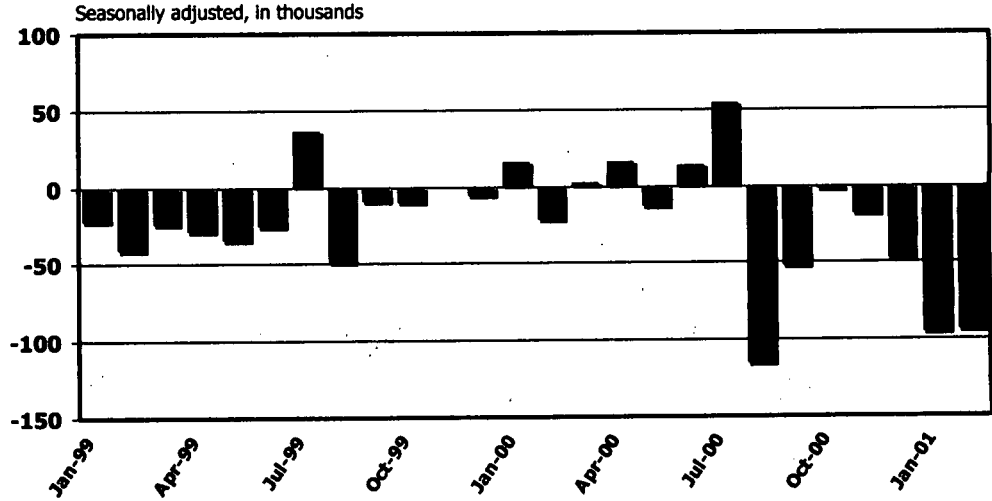
Friday, March 9, 2001

Employment in total private nonagricultural establishments Over-the-month change, 1999 - 2001



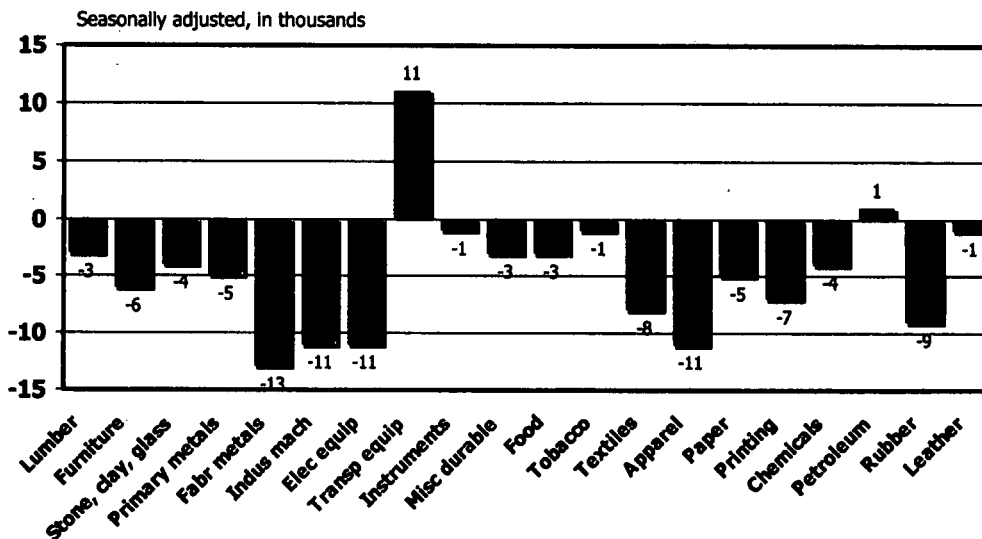
Source: Bureau of Labor Statistics, March 9, 2001

Over-the-month change, 1999 - 2001



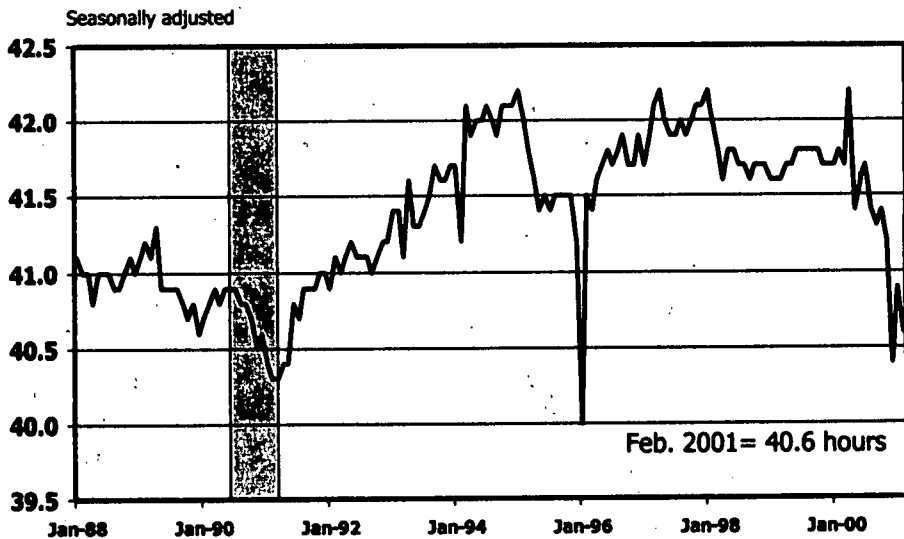
Source: Bureau of Labor Statistics, March 9, 2001

Employment in manufacturing industries Over-the-month change, February 2001



Source: Bureau of Labor Statistics, March 9, 2001

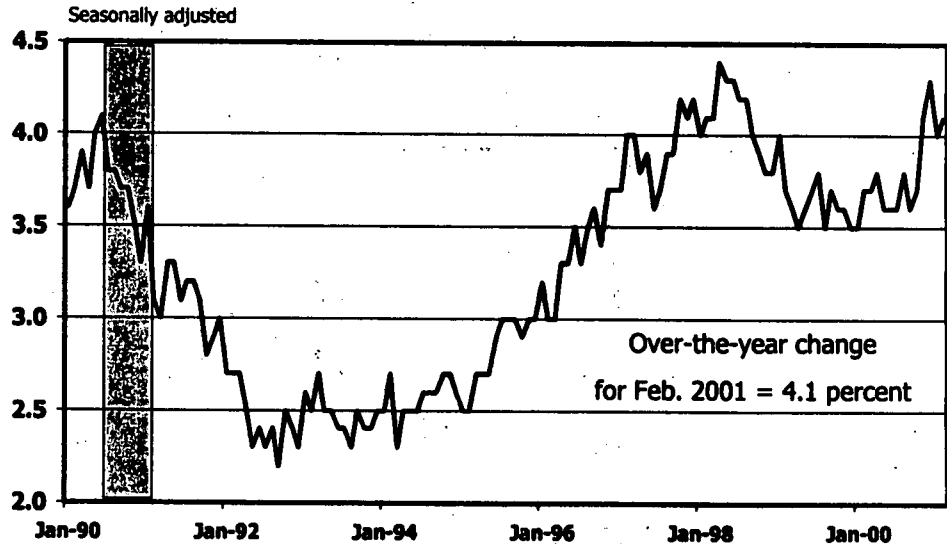
Average weekly hours in manufacturing, 1988-2001



Note: Shaded area denotes recession.

Source: Bureau of Labor Statistics, March 9, 2001

Over-the-year percent change in average hourly earnings, 1990-2001



Note: Shaded area denotes recession.

Source: Bureau of Labor Statistics, March 9, 2001

Unemployment rates by county in New Jersey

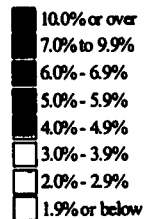
Provisional 12-month averages for 2000

(New Jersey = 3.8 percent; U.S. = 4.0 percent)



SOURCE: Bureau of Labor Statistics
Local Area Unemployment Statistics
March 2001

NOTE: Data are based on preliminary 12-month averages.
Benchmarked annual averages will be available
approximately May 2, 2001.



NEW JERSEY
Labor Force Data by County, Provisional 12-month Averages for 2000

- *High unemployment rate counties are found in the Southern part of the state, where tourism and agriculture are important industries.*
- *Two Northern counties that have experienced losses in manufacturing jobs and have high concentrations of minorities also exhibit higher than average unemployment.*
- *Low unemployment rate counties are predominantly in the Western and Central parts of the state.*

| County | Labor Force | Employment | Unemployment | |
|-----------------------|-------------|------------|--------------|------|
| | | | Level | Rate |
| Atlantic County, NJ | 126,550 | 119,206 | 7,344 | 5.8 |
| Bergen County, NJ | 446,705 | 432,867 | 13,838 | 3.1 |
| Burlington County, NJ | 227,646 | 221,004 | 6,642 | 2.9 |
| Camden County, NJ | 262,498 | 252,208 | 10,290 | 3.9 |
| Cape May County, NJ | 45,435 | 41,474 | 3,961 | 8.7 |
| Cumberland County, NJ | 63,864 | 59,160 | 4,704 | 7.4 |
| Essex County, NJ | 372,925 | 355,194 | 17,731 | 4.8 |
| Gloucester County, NJ | 132,478 | 127,455 | 5,023 | 3.8 |
| Hudson County, NJ | 283,193 | 266,736 | 16,457 | 5.8 |
| Hunterdon County, NJ | 69,914 | 68,692 | 1,222 | 1.7 |
| Mercer County, NJ | 168,641 | 163,182 | 5,459 | 3.2 |
| Middlesex County, NJ | 410,640 | 397,610 | 13,030 | 3.2 |
| Monmouth County, NJ | 310,478 | 300,141 | 10,337 | 3.3 |
| Morris County, NJ | 265,053 | 258,852 | 6,201 | 2.3 |
| Ocean County, NJ | 213,607 | 205,096 | 8,511 | 4.0 |
| Passaic County, NJ | 233,538 | 221,865 | 11,673 | 5.0 |
| Salem County, NJ | 32,530 | 31,110 | 1,420 | 4.4 |
| Somerset County, NJ | 170,339 | 166,614 | 3,725 | 2.2 |
| Sussex County, NJ | 76,842 | 74,584 | 2,258 | 2.9 |
| Union County, NJ | 269,101 | 258,341 | 10,760 | 4.0 |
| Warren County, NJ | 51,534 | 49,885 | 1,649 | 3.2 |

NEW JERSEY
Seasonally Adjusted Statewide
Labor Force Statistics

| Month | Labor Force | Employment | Unemployment | |
|-------------|-------------|------------|--------------|------|
| | | | Level | Rate |
| 1998 | | | | |
| Jan | 4,165,138 | 3,967,222 | 197,916 | 4.8 |
| Feb | 4,152,852 | 3,959,195 | 193,657 | 4.7 |
| Mar | 4,144,944 | 3,950,400 | 194,544 | 4.7 |
| Apr | 4,146,341 | 3,947,264 | 199,077 | 4.8 |
| May | 4,141,002 | 3,950,321 | 190,681 | 4.6 |
| Jun | 4,133,688 | 3,945,029 | 188,659 | 4.6 |
| Jul | 4,128,871 | 3,940,596 | 188,275 | 4.6 |
| Aug | 4,125,663 | 3,940,142 | 185,521 | 4.5 |
| Sep | 4,136,146 | 3,948,654 | 187,492 | 4.5 |
| Oct | 4,143,365 | 3,956,857 | 186,508 | 4.5 |
| Nov | 4,148,087 | 3,959,057 | 189,030 | 4.6 |
| Dec | 4,163,423 | 3,973,049 | 190,374 | 4.6 |
| 1999 | | | | |
| Jan | 4,179,224 | 3,987,209 | 192,015 | 4.6 |
| Feb | 4,189,882 | 4,001,057 | 188,825 | 4.5 |
| Mar | 4,205,447 | 4,006,111 | 199,336 | 4.7 |
| Apr | 4,213,970 | 4,014,756 | 199,214 | 4.7 |
| May | 4,216,722 | 4,013,185 | 203,537 | 4.8 |
| Jun | 4,218,690 | 4,015,577 | 203,113 | 4.8 |
| Jul | 4,223,781 | 4,022,508 | 201,273 | 4.8 |
| Aug | 4,218,454 | 4,021,093 | 197,361 | 4.7 |
| Sep | 4,207,290 | 4,015,470 | 191,820 | 4.6 |
| Oct | 4,203,570 | 4,017,039 | 186,531 | 4.4 |
| Nov | 4,195,747 | 4,016,015 | 179,732 | 4.3 |
| Dec | 4,190,871 | 4,017,403 | 173,468 | 4.1 |
| 2000 | | | | |
| Jan | 4,171,225 | 4,014,086 | 157,139 | 3.8 |
| Feb | 4,167,808 | 4,007,463 | 160,345 | 3.8 |
| Mar | 4,162,672 | 4,011,896 | 150,776 | 3.6 |
| Apr | 4,166,187 | 4,012,688 | 153,499 | 3.7 |
| May | 4,168,471 | 4,013,251 | 155,220 | 3.7 |
| Jun | 4,169,074 | 4,014,697 | 154,377 | 3.7 |
| Jul | 4,166,934 | 4,013,575 | 153,359 | 3.7 |
| Aug | 4,182,682 | 4,023,868 | 158,814 | 3.8 |
| Sep | 4,197,873 | 4,037,564 | 160,309 | 3.8 |
| Oct | 4,214,409 | 4,053,940 | 160,469 | 3.8 |
| Nov | 4,234,038 | 4,071,388 | 162,650 | 3.8 |
| Dec | 4,252,271 | 4,091,633 | 160,638 | 3.8 |
| 2001 | | | | |
| Jan | 4,250,978 | 4,098,429 | 152,549 | 3.6 |

^p preliminary

U.S. Department of Labor
 Bureau of Labor Statistics
 Local Area Unemployment Statistics
 March 2001

106th
CONGRESS
2nd Session



JOINT COMMITTEE PRINT



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106-74

**COMPENDIUM OF STAFF STUDIES
OF CURRENT ISSUES IN
MONETARY POLICY**

**SUBMITTED TO THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**



DECEMBER 2000

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67-508

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LETTER OF TRANSMITTAL

December 6, 2000

To the Members of the Joint Economic Committee:

Transmitted hereby is a *Compendium of Staff Studies of Current Issues in Monetary Policy*. It is comprised of four Joint Economic Committee studies written by Robert E. Keleher, Chief Macroeconomist to the Vice Chairman.

The views expressed in this compendium are those of the author and do not necessarily represent the views of the individual Members of the Joint Economic Committee.

Sincerely,

Jim Saxton,
Vice Chairman.

(iii)

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Transparency and U.S. Dollar Policy

(1)

TRANSPARENCY AND U.S. DOLLAR POLICY

INTRODUCTION

This paper makes the case for a more transparent Treasury Department foreign exchange (dollar) policy. More transparent dollar policy would complement a growing consensus on the desirability for transparency in the conduct of governmental policies in general, and (international) monetary policy in particular. Convincing cases for more transparency on the part of Federal Reserve monetary policy and in IMF operations have already been made.¹

More transparency in Treasury Department dollar policy dealings is long overdue for a number of reasons:

- It has long been recognized that Treasury dollar policy is overly secretive and non-transparent from a wide variety of perspectives.² Some of the rationale for secrecy in foreign exchange dealings is no longer relevant.
- There are a number of important economic benefits to improved transparency in dollar policy.
- With ever-increasing global integration and capital mobility, dollar movements become more important as a factor impacting the open macroeconomy. The foreign exchange rate has become one of the key channels in the transmission of monetary policy and therefore is increasingly integral to the transparency of overall monetary policy.
- The *1993 Government Performance and Results Act* mandates that agencies of the government clarify their objectives and explain their operations. The Treasury Department is subject to the letter and spirit of this law.
- Improved transparency complements congressional oversight. Congressional oversight of dollar policy could be enhanced with more transparent Treasury Department foreign exchange operations. Since Congress delegated authority for dollar policy to the Treasury Department, and because taxpayer funds are

¹ See, for example, Robert Keleher, "Transparency and Federal Reserve Monetary Policy," Joint Economic Committee, November 1997, and Christopher Frenze and Robert Keleher, "IMF Financing: A Review of the Issues," Joint Economic Committee, March 1998.

² See, for example, Anna J. Schwartz, "From Obscurity to Notoriety: A Biography of the Exchange Stabilization Fund," *Journal of Money Credit and Banking*, Volume 29, Number 2, May 1997, pp.135-153. Even Treasury officials themselves have recognized this secrecy. See the testimony of David Mulford, "Review of Treasury Department's Conduct of International Financial Policy," Hearing before the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, One Hundred First Congress, Second Session, August 14, 1990, p.62.

involved, Congress has a responsibility and duty to monitor such activity. Improved transparency would help in this effort to promote more accountability.

After delineating both the meaning and importance of transparency, this paper examines various aspects of Treasury international financial or dollar policy from the perspective of transparency. The case is made that there is a good deal of room for more transparent dollar policy. A number of recommendations are made to improve the transparency of such policy.

MEANING OF TRANSPARENCY

Transparency is defined in dictionaries as "easily seen through or detected; obvious, candid or open, clear; free from guile." Transparent dollar policy, therefore, is characterized by a lack of secrecy, obfuscation, or ambiguity, and should be clear, simple, and understandable to those outside the policy process including both ordinary citizens as well as legislators responsible for policy oversight.

The transparency of dollar policy, however, has multiple dimensions. Transparency is relevant for clarifying policy goals as well as identifying policy procedures undertaken to achieve stated goals. Goal clarification can be a most important component of transparent dollar policy since such clarification itself can help to ferret out or identify those procedures best suited to achieve given objectives.

Clear reporting is another important aspect of transparency that also takes on different dimensions. Prompt "real-time" reporting provides visibility of policy action at the time such policy occurs. "Ex ante" transparency occurs when policymakers announce ahead of time what action will be taken under given circumstances (i.e., policy rules are established). "Ex post" transparency explains afterward what policymakers have done.³

In short, prompt disclosure of policy objectives, rules, procedures and rationale used in implementing policy, as well as any progress in achieving stated objectives are all important elements of an open dollar policy. Transparent dollar policy, therefore, necessarily involves not only the clarification of dollar objectives, but also the timely and more complete disclosure of policy decisions and their underlying rationale.

NON-TRANSPARENT TREASURY DOLLAR POLICY

The dollar policy of the U.S. Treasury Department violates the above-described transparency guidelines or parameters in a variety of ways. A number of questions, uncertainties, or ambiguities remain in most areas of the Treasury's foreign exchange policy. Problems of non-transparency, for example, characterize the following aspects of dollar policy:

³ See Charles Enoch, "Transparency in Central Bank Operations in the Foreign Exchange Market," Paper on Policy Analysis and Assessment of the International Monetary Fund, PPAA/98/2 March 1998, p.2.

- ***Ambiguous Policy Objectives.*** One fundamentally important aspect of any transparent policy is an unambiguous, clear, and understandable statement of policy objectives. Yet Treasury's dollar policy objectives remain ambiguous, unclear, and confused, as pointed out by Bordo and Schwartz:

The principles that guide central bank governors and finance ministers in their choice of exchange rates to support have never been explained.⁴

There are a number of reasons for this ambiguity. For example, over the years there have been significant differences of opinion as to the proper objectives of foreign exchange policy. At times, some Treasury officials have suggested that dollar policy should have trade or current account balance objectives as guidelines to policy. At other times, goals related to economic growth or inflation have found support. A most important barrier to goal transparency has been the propensity to frame foreign exchange policy goals as if they were fully independent of monetary policy. More specifically, given (revealed) preferences for both capital mobility and domestic goals for Federal Reserve monetary policy, the "trilemma" choice facing the U.S. necessarily implies that Treasury Department-influenced exchange rate objectives be subordinate to capital mobility and Federal Reserve objectives such as price stability.⁵ Despite this stark reality, such a proper hierarchy of policy objectives involving both Treasury and the Federal Reserve has never been explicitly delineated since the demise of Bretton Woods. A reluctance to clarify these objectives is understandable. In part, it stems from Congress' delegation of separate foreign exchange and monetary policy powers to two distinct, powerful, and turf-conscious organizations, each with differing agendas. The reluctance also stems from the widely held expectation that reform of the international monetary system was inevitable so that any formal policy structure under one regime would have to be disassembled and constructed anew under an alternative regime.

Accordingly, Treasury officials currently go through the motion of voicing a dollar policy as if it were independent of monetary policy. Since dollar policy cannot be independent in this way, such non-transparent posturing results in unnecessary uncertainty, confusion, and market volatility.

⁴ Michael Bordo and Anna J. Schwartz, "What Has Foreign Exchange Market Intervention Since the Plaza Agreement Accomplished?", NBER Working Paper No. 3562, December 1990, p.21.

⁵ The limitations that capital mobility impose on monetary policy and exchange rate management are sometimes summarized in the concept of an "inconsistent trinity" or "open-economy trilemma." As Obstfeld explains: "...a country cannot simultaneously maintain fixed exchange rates and an open capital market while pursuing a monetary policy oriented toward domestic goals. Governments may choose only two of the above. If monetary policy is geared toward domestic considerations, either capital mobility or the exchange rate target must go. If fixed exchange rates and integration into the global capital market are the primary desiderata, monetary policy must be subjected to those ends... (In practice), the greater the attention given to the exchange rate, the more constrained monetary policy is in pursuing other objectives." Maurice Obstfeld, "The Global Capital Market: Benefactor of Menace?", Journal of Economic Perspectives, volume 12, Number 4, Fall 1998, pp.14-15.

- **Non-Transparent Treasury Foreign Exchange Intervention Policy:** Another non-transparent dimension of Treasury dollar policy relates to foreign exchange intervention procedures or conventions of the Exchange Stabilization Fund (ESF).⁶ These foreign exchange operations are non-transparent in a number of ways.

"Appropriate" intervention has not been defined.

"Appropriate" intervention, for example, has never been defined or consistently pursued during the post-1973 floating rate regime. As Broaddus and Goodfriend have argued:

Officially, the objective of foreign exchange rate operations is to counter "disorderly market conditions," but that phrase has never been defined operationally.⁷

Because objectives have not been defined operationally, it is understandable that intervention has been inconsistently implemented and non-transparent. Nonetheless, this inconsistent intervention results in unnecessary confusion and heightens uncertainties as to when, why, or under what conditions intervention will take place.

Intervention is often secret.

Further, foreign exchange intervention itself is often secret and is sometimes referred to as "unannounced," "stealth," or "discreet" intervention. These operations are not publicly announced so traders can only guess at the size of an official action.⁸ This type of intervention is non-transparent by definition. While there may be peculiar situations when secrecy may be called for, such non-transparent activity nonetheless also creates uncertainties and confusion, therefore promoting market volatility.^{9,10}

⁶ The Treasury Department has authority for, and normally takes the lead on, deciding when to intervene in the foreign exchange market. While the Federal Reserve participates equally on a financial basis and implements (as an agent) Treasury Department decisions, this paper assumes that ultimate responsibility for decisions relating to foreign exchange operations rests with the Treasury.

⁷ J. Alfred Broaddus Jr., and Marvin Goodfriend, "Foreign Exchange Operations and the Federal Reserve," Federal Reserve Bank of Richmond Annual Report 1995, p.12.

⁸ Most intervention operations are anonymous. More specifically, as explained in Dominguez and Frankel, "There is no central trading floor and brokers are not obliged to reveal the identity of counterparties." See Kathryn M. Dominguez and Jeffrey A. Frankel, *Does Foreign Exchange Intervention Work?* Institute for International Economics, Washington, D.C., September 1993, p.60.

⁹ For an enumeration of the rationale for such secrecy, see Dominguez and Frankel, pp.60-62.

¹⁰ Dominguez showed that secret intervention by both the Federal Reserve and the Bundesbank generally increased exchange rate volatility in the 1980s. See *ibid.*, p.108 and references cited therein.

Intervention is sterilized.

Additionally, U.S. foreign exchange intervention is routinely sterilized by the Federal Reserve. This means, for example, that any money-expanding purchases of foreign exchange is offset ("sterilized") by an equivalent amount of money-contracting (dollar-denominated) security sales so that no net change in reserves, money, or short-term interest rates occurs. Thus, policy fundamentals do not change. Since sterilized intervention does not change fundamentals or the stance of policy, professional economists for the most part believe that sterilized intervention has little lasting effect on foreign exchange markets. A good deal of empirical research supports this position. In other words, sterilized intervention is not the separate policy tool that many purport it to be.

From the perspective of policy openness, therefore, sterilized intervention is certainly not transparent since it promotes the erroneous impression that intervention is an independent policy tool. It appears to identify a goal for policy that policymakers cannot genuinely achieve, thereby misleading the public. This misleading perception promotes further confusion, unnecessary uncertainties, and associated market volatility. It also can undermine the credibility of policymakers.¹¹

Any "Signaling Channel" Depends on Non-Transparency.

Recent research in this area suggests that sterilized intervention may work to impact exchange rates through a "signaling" channel. This mechanism works when policymakers convey information about their future policy intentions by intervening in the foreign exchange market.

According to Dominguez and Frankel:

Through the signaling channel, sterilized intervention can have an effect on exchange rates if it provides the market with relevant information, not known or not fully incorporated in determining the current exchange rate. This channel... relies on the existence of a difference between what is known by the (policy) authority and what is known by market participants.¹²

In short, for this mechanism to work, intervention authorities are assumed to have more (inside) information about future policy moves than the market; they have information that they have withheld from the market. This information about future policy moves is conveyed to the market via foreign exchange intervention. Such

¹¹ As Broaddus and Goodfriend put it, the spectacle of "failed (sterilized) foreign exchange operations are costly because they give the impression that the authorities are either unable or unwilling to achieve a prominent objective that they appear to be pursuing... Widely publicized policy failures undermine (policymakers) credibility." Broaddus and Goodfriend, *ibid.*, p.17 (parentheses added).

¹² See Dominguez and Frankel, *op. cit.*, p.59 (parentheses added).

signaling, then, depends on secrecy or non-transparency on the part of the policy authority. But, as Bordo and Schwartz contend, intervention authorities "need not engage in such a devious way of informing the public of its objectives and the policies it favors to achieve them."¹³ This signaling view also means that sterilized intervention is not an independent tool to control foreign exchange rates; it needs the supporting change in policy to be effective.

Non-transparency of Intervention is Revealed in Reporting Discrepancies.

The secrecy or non-transparency of U.S. intervention policy is also revealed in research that documents a significant, systematic difference between actual intervention activity and market-reported intervention activity. This difference -- which is corroborated in a number of research studies -- demonstrates that official reporting of intervention activity is non-transparent: i.e., the market is not receiving all pertinent information about intervention at the time it occurs.¹⁴ In short, this divergence of reported versus actual intervention activity is prima facie evidence of non-transparent intervention policy. It relates not only to reporting delays and secrecy of intervention, but to the vagueness, the poor quality and substance of disclosure that often occurs.

G7 (coordinated) Intervention Activity is also Non-transparent.

Not only is U.S. foreign exchange intervention itself non-transparent, but U.S. participation in G7 or coordinated intervention activity suffers from non-transparency as well. G7 meetings are normally surrounded by an enormous amount of publicity and fanfare that serves to "heighten uncertainty whether the Federal Reserve will support sterilized operations with monetary policy action."¹⁵ Since G7 meetings are dominated by finance ministers, however, discussions tend to be conducted as if foreign exchange intervention policy is independent of monetary policy. G7 discussions are routinely secret and G7 decisions are often informal and vague. G7 communiqués are well-known for their lack of clarity, ambiguity, and obfuscatory language: i.e., these communiqués are not transparent. All of this exacerbates confusion and uncertainty and raises further questions about the objectives of intervention policy.

- ***Ambiguous Treasury and Federal Reserve Dollar Relations.*** In addition to ambiguous policy objectives and non-transparent intervention practices, institutional relations between the Treasury and the Federal Reserve regarding foreign exchange responsibilities are unclear and contradictory in a number of ways. In short, these

¹³ See Bordo and Schwartz, *op. cit.*, p.21.

¹⁴ See, for example, William P. Osterberg and Rebecca Wetmore Humes, "The Inaccuracy of Newspaper Reports of U.S. Foreign Exchange Intervention," *Economic Review*, Federal Reserve Bank of Cleveland, Vol. 29, No. 4, 1993, pp.25-33; and William P. Osterberg and Rebecca Wetmore Humes, "More on the Differences Between Reported and Actual U.S. Central Bank Foreign Exchange Rate Intervention," Federal Reserve Bank of Cleveland, Working Paper 9501, May 1995 and citations therein.

¹⁵ See Broadus and Goodfriend, *op. cit.*, p.12.

relations are not transparent. This raises a number of questions about a subordinate role of Federal Reserve intervention activity as well as the obscure, non-transparent (and legally questionable) way in which Treasury foreign exchange operations can be financed.

The Division of Responsibility is Unclear and Ambiguous.

As Destler and Henning indicate, the "ambiguous statutory treatment of the prerogatives and responsibilities (of the Treasury and the Federal Reserve) in exchange rate management"¹⁶ has provided wide latitude in interpreting the practical responsibilities of these two agencies. These authors go on to argue that:

the law defines the exchange rate authorities of the Treasury and the Federal Reserve only ambiguously... the legal basis of the division of responsibility between the Treasury and the Federal Reserve with respect to exchange rates is unusually obscure.¹⁷

For example, both agencies have authority to intervene in the foreign exchange market but the law is ambiguous as to whether either can block intervention by the other. In effect, the institutions have shared responsibilities worked out after years of negotiation, compromise, and practice. Both agencies generally have found it in their self-interest to cooperate. But the Treasury maintains it is the first among equals in regard to intervention and the Federal Reserve has not challenged this view.¹⁸ Nonetheless, the division of responsibilities is characterized by a sizable degree of non-transparency.

Warehousing and SDR Monetization are not Transparent Financing Methods.

Ambiguous intervention responsibilities are not the only non-transparent element of Treasury-Federal Reserve relations. Questionable, backdoor methods of financing the Treasury's Exchange Stabilization Fund (ESF) involving the Federal Reserve also merit attention. In particular, "warehousing" is a financing method that enables the Federal Reserve to make funds available to the Treasury's ESF without congressional appropriation.¹⁹ Many analysts view this circumvention of congressional appropriation as questionable (perhaps even illegal) and possibly working to compromise the

¹⁶ I.M. Destler and C. Randall Henning, *Dollar Politics: Exchange Rate Policymaking in the United States*, Institute for International Economics, Washington DC, 1989, (emphasis and parenthesis added).

¹⁷ Destler and Henning, *ibid.*, p.85 (emphasis added).

¹⁸ *Ibid.*, pp.86-88. See Destler and Henning (pp.83-90) for a discussion on this ambiguous Treasury-Federal Reserve relationship.

¹⁹ "Warehousing" is a transaction whereby the Federal Reserve lends dollars to the ESF in exchange for the ESF's foreign currency. By "warehousing" its foreign currency at the Federal Reserve, Treasury can obtain more dollars with which to intervene on its own account.

independence of the Federal Reserve. Similar arguments apply to Federal Reserve monetization of ESF's SDR holdings, an operation that is initiated at the option of the Treasury Secretary.²⁰

Criticism and skepticism concerning these methods have come from numerous sources. Several analysts contend that these methods circumvent the budgetary prerogatives of the Congress, misuse Federal Reserve off-budget status, and compromise the independence of the Federal Reserve.²¹ But the skepticism has reached within the Federal Reserve System itself. One Federal Reserve Bank President, for example, argued that:

Fed financing of foreign exchange operations... by warehousing funds for the ESF sidesteps congressional authorization and obscures the funding.²²

Further, at an FOMC meeting in March 1990, several FOMC members challenged the legality of these methods:

Governors Angell and John LeWare and Cleveland Federal Reserve Bank President Lee Hoskins not only voted against the warehousing and foreign currency authorizations, but they openly challenged the legal basis for these facilities... In the public FOMC record, they stated that warehousing "could be viewed as avoiding the congressional appropriations process called for under the Constitution."²³

In sum, the non-transparent nature of Treasury and Federal Reserve relations is well-known to experts.

- ***The Overly Secretive ESF.*** Non-transparency also characterizes Treasury's ESF, the institution through which Treasury dollar policy is implemented. Treasury officials themselves have on occasion acknowledged the culture of secrecy or non-transparency shrouding the ESF. In testimony before Congress in 1990, for example, Treasury Undersecretary David Mulford stated that the creators of the ESF wanted its

²⁰ Treasury's ESF can monetize its SDR holdings by issuing SDR certificates to the Federal Reserve in exchange for dollars. See Henning (1994), p.112 (footnote 101).

²¹ See, for example, Schwartz, *op. cit.*, Walker F. Todd, "Disorderly Markets: The Law, History, and Economics of the Exchange Stabilization Fund and U.S. Foreign Exchange Market Intervention," Research in Financial Services Public and Private Policy, Volume 4. George Kaufman, ed. (Greenwich, CT: JAI Press, 1992) pp.111-179; and U.S. House of Representatives, Committee on Banking, Finance, and Urban Affairs, Review of Treasury Department's conduct of International Financial Policy, Hearing 14 August 1990, 101st Congress, 2nd Session (Washington, DC, GPO, 1990).

²² See Broaddus and Goodfriend, *op. cit.*, p.18.

²³ See Henning (1994), p.296.

operations veiled "in the greatest secrecy."²⁴ This culture of secrecy is underscored by Schwartz:

The (ESF) was conceived to operate in secrecy under the exclusive control of the Secretary of the Treasury, with the approval of the President, "whose decisions shall be final and not subject to review by any other officer of the United States."... The intention was to cloak foreign exchange market intervention... The secrecy promoted two objectives. One was to conceal from the public and Congress the exchange rates at which foreign currencies were bought and sold, particularly if they involved losses. A second objective was to permit the Treasury, if it so desired, to conceal information about any other operations the ESF might undertake... The ESF in its original design as a creature of the Executive Branch, immune to legislative oversight, breaches the separation of powers.²⁵

Although some improvements have occurred over the years, this culture of secrecy persists. The ESF's non-transparency is embedded in its financing mechanisms, and is evident in both its "mission creep" and reporting. Since the ESF was originally set up to be self-financing, the Fund is not required to justify and explain its operations during the annual congressional appropriations process. Questions about operations, objectives, or procedures never have to be answered. Self-financing, therefore, has a very important implication: it has significantly contributed to the secrecy of the ESF.

Over the years, Treasury has managed to muster other sources of financing that have also ably served this same purpose: namely, to enable the ESF to operate in relative secrecy, without congressional oversight or scrutiny. This has been one of the key criticisms of Federal Reserve warehousing. Specifically, by removing the necessity to go before Congress for funding, warehousing contributed to the secrecy of the ESF.²⁶ Similar assessments of SDR monetizations by the Federal Reserve could also be made.

In addition to ESF's financing, non-transparency of the ESF is also evident in "mission creep:" its adoption of responsibilities for which it has no explicit mandate. The stated mission of the ESF, after all, was to stabilize the exchange rate of the dollar. There was no stated objective or mandate for the type of stabilization lending that has occurred over the years. In lending to various favored countries, therefore, the ESF has "assumed a role that had no mandate."²⁷

²⁴ Mulford, *op. cit.*, p.62.

²⁵ Schwartz, *op. cit.*, pp.137-38 (emphasis added).

²⁶ Schwartz, for example, notes that "the concern (regarding warehousing) was that warehousing removed from Congress the appropriation power, eliminating the necessity for Treasury to turn to Congress to obtain funds it did not have to acquire foreign currency." Schwartz, *op. cit.*, p.145.

²⁷ Schwartz, *op. cit.*, p.135.

Not only are clearly specified objectives of such lending difficult to find, but ESF reporting of these loan transactions as well as the terms and conditions of these loans are especially non-transparent. This is evident in the case of recent Brazilian loans, but it is also evident historically. In reviewing the ESF's historical documentation of these loans, for example, Schwartz observed the "notable omission (of) any reference to the interest rate that these countries were required to pay for dollar loans."²⁸

- *Reporting Non-transparencies*

A number of informational reporting improvements have occurred over the years; transparency of dollar policy is better than was earlier the case. The ESF, for example, currently issues a number of periodic reports regarding its operations.²⁹ And daily Treasury intervention data are now available, albeit with a one-year lag.³⁰ Despite various improvements, however, reporting of U.S. dollar policy cannot be considered highly or adequately transparent.

While dollar-related reports are issued periodically, these reports can be non-transparent in a number of important ways. Reports, for example, may not provide complete, comprehensive, or pertinent information. Reports may not delineate policy objectives for intervention or for stabilization loans. They may not provide adequate "real time," "ex ante," or even "ex post" transparency.

Reports may not be timely, clearly written, or contain adequate information to be understandable to policymakers, interested parties, or ordinary citizens. In short, the issuance of periodic reports does not, in and of itself, guarantee a high or adequate degree of transparency.

There are a number of ways in which existing Treasury dollar policy reports are not as transparent as they could be. As described above, research documenting significant discrepancies between actual intervention and news reports of intervention is prima facie evidence of such non-transparency. Some general examples of existing dollar-policy reporting non-transparencies include the following:

²⁸ *Ibid.*, p.147.

²⁹ More specifically, the following periodic reports are issued by Treasury's ESF: (1) An ESF Annual Report, which includes a statement of financial position (a balance sheet), an income statement, and a statement of cash flows. (2) A bi-annual Treasury Interim Report to the Congress on International Economic and Exchange Rate Policy. (3) A Quarterly Report on Treasury and Federal Reserve Foreign Exchange Operations. (4) A Quarterly ESF balance sheet report published in the Treasury Bulletin with a six-month lag. (5) A monthly ESF financial statement report to the congressional Banking Committees along with a monthly report on foreign exchange operations, both of which are confidential. (6) A periodic report to Congress' Foreign and International Relations Committees citing credit arrangements with foreign governments, sixty days after they occur.

³⁰ Dominguez and Frankel, *op. cit.*, p.71; and Ostenberg, et al. (1995), *op. cit.*, p.5.

- The objectives of intervention policy and their relation to monetary policy have never been meaningfully clarified. Similarly, the objectives of ESF lending have not been carefully explained.
- Contemporaneous intervention activity is often secret with reporting delayed for months. Intervention activity often has to be inferred from various reports issued with a significant lag.
- Treasury's "risks of financial gains or losses are often not presented explicitly, or in a timely manner, to Congress or to the public."³¹ Detailed specification of realized gains and losses is often incomplete.
- G7 foreign exchange discussions often remain secret and G7 communiqués are notoriously vague, imprecise, and incomplete.
- The ESF does not adequately report on a timely basis the terms and conditions of its lending. Its balance sheet could be reported much more frequently on a non-confidential basis.

While several reports related to ESF operations are issued on a regular basis, these reports could be more transparent than is currently the case. Balance sheet information, to cite one example, could be issued more frequently, say monthly, and on a timelier basis.³² Treasury's biannual report to Congress on International Economic and Exchange Rate Policy -- mostly a narrative on economic and exchange rate developments with a lag of several months -- generally is not policy specific. A small section of U.S. exchange rate policy is vague and imprecise.³³ Objectives of exchange rate policy and foreign exchange intervention guidelines and their relation to monetary policy objectives are seldom, if ever, discussed or clarified in a meaningful way.

Similarly, quarterly reports on Treasury and Federal Reserve Foreign Exchange Operations are mostly narratives on past exchange rate developments and reserve holdings, delayed several months. Dollar policy goals, purposes, and "ex ante" perspectives (explaining intended future policy under given circumstances) are not developed or clarified. Exchange rate policy is rarely meaningfully related to monetary policy. Reports to congressional committees are often confidential and therefore not readily available to interested parties or the general public. In sum, many of these reports could be substantially more informative and transparent than is currently the case.

³¹ Todd, *op. cit.*, p.115.

³² ESF balance sheet data are currently issued both in the ESF Annual Report and in the quarterly Treasury Bulletin, lagged six months.

³³ The lack of any substantive explanation as to the June 17, 1998 foreign exchange intervention serves as an example. See Annual Report to Congress on International Economic and Exchange Rate Policy, January 22, 1999, p.10.

BENEFITS OF TRANSPARENT POLICY

Adopting a more transparent approach to dollar policy, as suggested here, would produce a number of economic benefits. More transparency and disclosure, for example, would reduce unnecessary uncertainties and minimize risk premiums, thereby working to stabilize foreign exchange markets. Exchange rates would be less volatile and more predictable. The more accurate information available to the market, after all, the better the market performs. Economic performance improves when policymakers provide a stable, less uncertain environment. As James Meigs argued decades ago:

Whatever U.S. policies are, disclosing them promptly and fully to the world should reduce uncertainty and should make variations in exchange rates less than it would be in the absence of such disclosure. Disclosure would at least reduce that part of the variance in exchange rates that is attributable to uncertainty about U.S.... policies...³⁴

In addition to promoting this stabilizing effect, more transparency would also help ensure the accountability of policymakers and constrain their discretionary powers.

RECOMMENDED ACTION

Adopting a less secretive, more open dollar policy should include changes in several dimensions of transparency: namely, (1) establishing clear, unambiguous policy objectives, (2) promoting understandable policy procedures, (3) insisting on accurate, timely, transparent reporting, (4) advancing a more transparent ESF, and (5) establishing rigorous oversight procedures.

Specific measures to achieve such dollar policy goals include the following:

- ***Establish clear, understandable dollar policy objectives that are consistent with monetary policy goals.*** Delineate what constitute appropriate and inappropriate policy goals. Given capital mobility and price stability objectives, this implies that exchange rate objectives necessarily must be subordinate to these alternative goals.
- ***Promote clear, understandable procedures for intervention activity.*** Set up clear guidelines as to what constitutes "appropriate" intervention. Minimize (or eliminate) sterilized intervention. Should intervention be called for, employ non-sterilized intervention.

³⁴ James Meigs, "The Role of Information Disclosure in International Monetary Policy," in Federal Reserve Policies and Public Disclosure, edited by Richard Erb, American Enterprise Institute, Washington DC, 1978, p.70.

- **Require more transparent dollar policy reporting from institutions charged with foreign exchange management responsibilities.** Improve the timeliness, frequency, accuracy, policy content, and clarity of existing reports. Publicly announce most intervention activity. Work to improve the openness of G7 reporting, minutes of G7 meetings, and G7 communiqués. Remove confidential status of Treasury's reports to Congress.
- **Clarify dollar policy responsibilities of Treasury vis-à-vis the Federal Reserve.** Minimize (eliminate) obscure financing schemes involving warehousing or SDR monetization by the Federal Reserve. Consider Federal Reserve assumption of intervention responsibilities.
- **Insist on a more transparent and reformed ESF.** Clarify objectives for both ESF intervention and lending activities. Require more transparent ESF reporting including both monthly publication of the ESF balance sheet and public reporting of the terms and conditions of ESF lending. Require annual congressional appropriations for ESF loans in excess of \$1 billion as detailed in H.R. 1540, the *ESF Transparency and Accountability Act*. Insist on an independent Federal Reserve; end SDR monetization by the Federal Reserve and consider cessation of warehousing practices by the Federal Reserve. Require congressional appropriations, should more funding of the ESF be essential.
- **Establish rigorous oversight procedures for these reforms.** Such oversight should not involve minute-to-minute foreign exchange management or decisionmaking but rather should establish objectives, procedures, accountability, and transparent reporting. Oversight should include thorough monitoring of the foreign exchange policies and operations of both Treasury and the Federal Reserve including intervention activities, ESF operations, Federal Reserve warehousing activities, as well as frequent and detailed testimony from Treasury and Federal Reserve officials. Oversight should include monitoring of U.S. participation in international organizations such as the G7, IMF, and others as they pertain to dollar policy and international monetary reform.

SUMMARY AND CONCLUSIONS

The case for a more transparent U.S. dollar policy is compelling. In addition to producing a number of economic benefits, a more transparent policy would complement a growing consensus on the desirability of transparency in the conduct of government policy in general and monetary policy in particular. More open disclosure in dollar policy is long overdue for a number of important reasons. Further, improved transparency would parallel Treasury's requirement to comply with the letter and spirit of the *Government Performance and Results Act*, which mandates a clarification of objectives and clear explanation of operations.

Transparency has multiple dimensions, involving not only the clarification of dollar policy objectives, but also the timely and complete disclosure of policy decisions and their underlying rationale.

Current dollar policy violates conventional transparency guidelines or parameters in a number of ways. Policy objectives are unclear, intervention policy is non-transparent from several perspectives, Treasury and Federal Reserve dollar relations are ambiguous, and ESF financing methods are obscure. Further, the ESF is overly secretive and current informational reporting is not nearly as transparent as it could be.

A number of specific recommendations for improving dollar policy transparency include the following:

- Establish clear, understandable dollar policy objectives that are consistent with monetary policy goals.
- Promote clear, understandable procedures for intervention activity.
- Require more transparent dollar policy reporting from institutions charged with foreign exchange management responsibilities.
- Clarify dollar policy responsibilities of Treasury vis-à-vis the Federal Reserve.
- Insist on a more transparent and reformed ESF.
- Establish rigorous oversight procedures for these reforms.

Dr. Robert E. Keleher
Chief Macroeconomist to the Vice Chairman

ASSESSING THE CURRENT EXPANSION

INTRODUCTION

After briefly summarizing recent macroeconomic developments as well as the salient features of the current expansion, this paper outlines the reasons for the expansion's sustainability. A key reason for this remarkable longevity relates to the pursuit of appropriate macroeconomic policy, in particular, to the maintenance or adoption of those policies promoting long-run efficiency and growth without inflation. More specifically, proper policies evolved from the gradual recognition that monetary and fiscal policies should be directed at different and independent objectives. Monetary policy should focus on achieving price stability objectives by gradually reining in aggregate demand, whereas fiscal strategies should be focused on open market, growth-promoting tax and spending-restraint policies encouraging entrepreneurial activity: i.e., policies promoting aggregate supply.

More detailed reasons for the economy's remarkable sustainability include the following:

- The many growth-enhancing effects of a gradual and credible anti-inflationary monetary policy.
- The growth-promoting effects of credible government spending restraint together with an accompanying less intrusive role of government in the economy.
- The long-term growth effects of an efficiency-promoting incentive structure embedded in the tax code, as epitomized by marginal income tax rates that remain lower than those of the 1950s, 1960s, and 1970s.
- The effects on aggregate supply and capacity of substantial investment in equipment as well as in productivity-enhancing new technologies.
- The specialization and efficiency-promoting effects of increased international integration and open markets, or globalization.

These reasons for the expansion's remarkable sustainability have common elements. In particular, they all foster economic growth while at the same time reducing pressures on price inflation; they all promote growth without inflation.

In addition to explaining the sustainability of the U.S. expansion, the paper examines an alternative "explanation." In particular, the Administration's claim that its policies of raising tax rates to reduce the budget deficit and interest rates brought about the current sustained recovery prove inadequate for a number of reasons. Raising taxes, for example, does not promote economic growth without inflation. The economic recovery began almost two years before Clinton was inaugurated and the budget deficit began falling well before Administration policies could have been implemented. The timing of interest rate movements is decidedly inconsistent with the Administration's arguments. In addition, Administration officials as well as Democratic-controlled Congressional committees are on record recognizing the contractionary nature of such

policy. Finally, the Administration provides an inaccurate explanation of the disappearance of budget deficits.

CHARACTERISTICS OF THE CURRENT EXPANSION: THE RECORD, A SUSTAINED RECOVERY

The current economic expansion is now approaching its ninth birthday and is the longest expansion on record. Furthermore, this sustained expansion is expected to continue into the foreseeable future since few obvious major cyclical imbalances are evident that have disrupted earlier recoveries.¹ Notably, this expansion followed the 1980s expansion (see Figure 1)², which is the second longest peacetime expansions on record (92 months). In short, the U.S. is experiencing back-to-back the first and second longest peacetime expansions in American history. And the brief, mild recession that occurred between these record-breaking expansions was exceptionally short (8 months).

For much of this recent expansion, GDP growth has exceeded conventional estimates of "potential" GDP growth as calculated, for example, by the Congressional Budget Office (CBO). (See Figure 2.)

While most private-sector GDP components have shared in this expansion's growth, a few sectors have made notable, healthy contributions. Consumption, investment spending, and exports, for example, have all been key,

Figure 1
Real Gross Domestic Product
SAAR, Bt Cbn 1996S

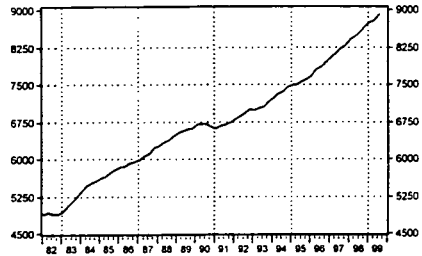
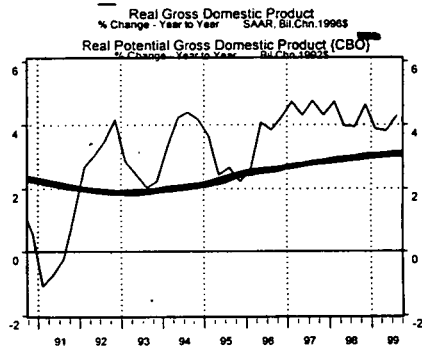


Figure 2



¹ In particular, factors such as inventory imbalances, corporate or bank balance sheet distortions, overbuilding in the construction industry, resurgencies of inflation, or sharp interest rates increases are for the most part neither evident nor expected.

² The source for all graphs, unless otherwise stated, is Haver Analytics.

leading sectors for most of this expansion, generally growing at rates exceeding that of aggregate GDP. Accompanying figures show that both investment and exports have grown as a percentage of GDP. Investment in business equipment (and information processing investment) especially contributed to this advance. (See Figure 3.) Inventory investment, however, has been increasingly better managed as evidenced by significantly lower inventory/sales ratios. This development enhances the likelihood of continued economic expansion since it minimizes the likelihood of important inventory corrections.

For most of this expansion, exports have also made a significant contribution. For the most part, export growth has exceeded GDP growth, and thus the export sector's GDP share has steadily grown during this expansion. (See Figure 4.)

One sector that has not grown as rapidly as GDP during this expansion is federal government spending. The accompanying chart shows that federal government spending as a percentage of GDP has fallen continually during this sustained expansion. (See Figure 5.)

The Labor Market

Employment gains have also continued to mount during much of this expansion. In fact, more than 21 million jobs have been added to non-farm payrolls since the recovery began in the early 1990s.

Figure 3

Real Gross Private Domestic Investment as a percentage of Real GDP

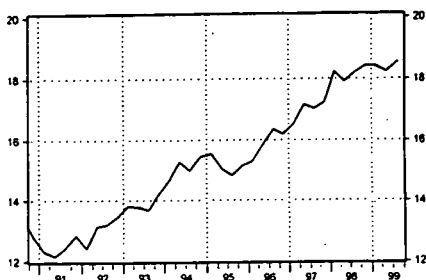


Figure 4

Real Exports as a percentage of Real GDP

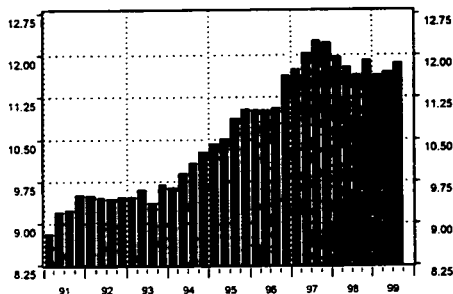
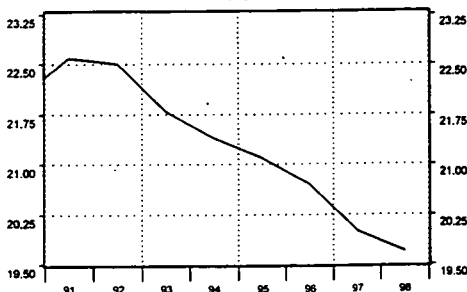


Figure 5

Federal Outlays as a Percentage of GDP
% NSA



The civilian unemployment rate has fallen well below estimates of the non-accelerating inflation rate of unemployment (NAIRU) and to the lowest rates since the early 1970s. (See Figure 6.)

Similarly, both the employment/population ratio and the labor participation rate have increased during this expansion and remain close to their all-time highs. The high employment-to-population ratio indicates that a higher proportion of the population has jobs now than in the past. The high participation rate means that more people are participating in the labor force (i.e., either have jobs or are seeking work) now than in the past. Both measures suggest that the labor market is tight relative to historical norms. In short, then, this expansion has been characterized by significant increases in the inputs of both capital and labor.

Lower, More Stable Inflation

Another important characteristic of this expansion is the notable absence of inflationary pressures that have often plagued previous recoveries. Most broad-based measures of inflation such as GDP deflators or the core Consumer Price Index (all items less food and energy) have been remarkably well behaved. (See Figure 7.)

Similarly, wage costs remain relatively tame despite unemployment rates remaining below those levels sometimes associated with rising price and wage pressures. Furthermore, forward-looking market price indices (such as commodity price indicators), which in the past have accurately signaled rising expectations of future inflation, currently remain relatively well-behaved, although they have increased in recent months.

Figure 6

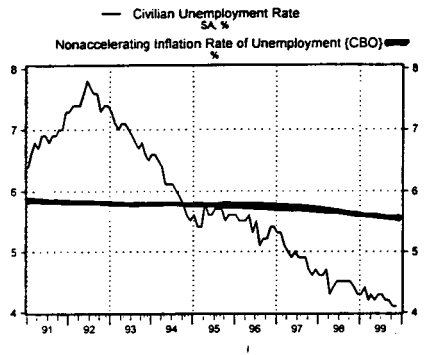
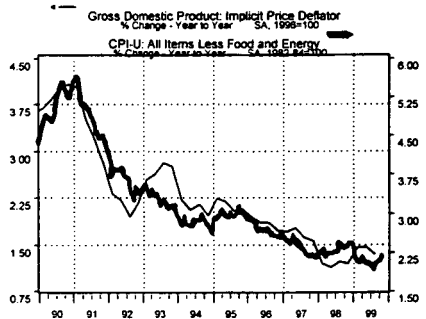
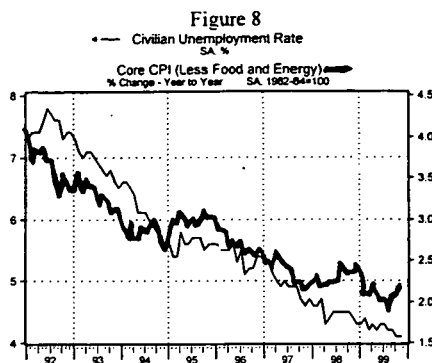


Figure 7



One of the remarkable features of this expansion, therefore, is the simultaneous achievement of low rates of inflation and unemployment together with relatively robust rates of economic growth. More generally, the U.S. has experienced the phenomena of sustained growth and lower inflation for an extended period. As Figure 8 shows, for the most part inflation and unemployment have fallen together for nearly eight years. This phenomenon was clearly not predicted by conventional (demand-side) macroeconomic models, which embody a trade-off between the rates of unemployment and inflation.



REASONS FOR THIS EXCELLENT PERFORMANCE

The primary reason for this excellent sustained performance relates to the operation of a number of well-established policies, which promote efficiency and growth without inflation. These policies fell into place as a result of the gradual recognition that monetary and fiscal policies should be directed at different and independent objectives; that is, monetary policy should focus on achieving price stability objectives by gradually reining in aggregate demand, whereas fiscal strategies should be focused on the longer-term benefits of open market, growth-promoting tax and spending-restraint policies encouraging entrepreneurial activity, i.e., policies promoting aggregate supply that, in fact, were in large part initiated in the 1980s. The common element of all these policies is that they foster efficiency and growth without inflation; these policies promote more growth, lower inflation, or both.

Notably, the record of sustained growth together with lower inflation registered during this expansion was not predicted by conventional Keynesian macroeconomic analysis. Such analysis, after all, downplays the capacity-enhancing and output effects that foster growth while lessening pressures on price inflation. Further, this conventional analysis also downplays the many growth-enhancing effects of price stability.

Key policies that explain the economy's excellent, sustained performance include (1) the growth-enhancing effects of a gradual and credible price stabilizing monetary policy, (2) the growth-promoting effects of credible, government spending restraint, (3) the long-term effects of an efficiency-promoting incentive structure embedded in the tax code, (4) the output effects of substantial investment in business equipment as well as in productivity-enhancing new

technologies, and (5) the efficiency-promoting effects of increased international integration, open markets, or globalization.

• **The growth-enhancing effects of a gradual, credible price-stabilizing monetary policy.**

A key ingredient of recent Federal Reserve monetary policy has been a persistent emphasis on price stability as a key policy objective. Federal Reserve officials have embraced this objective in the form of policy statements as well as in policy action. As a result, Federal Reserve inflation-fighting credibility has become established and most broad-based measures of inflation have generally continued to moderate during this expansion.

Indeed, the sustained downtrend in inflation has brought some broad-based inflation measures to their lowest rates in decades with few signs of any meaningful resurgence.

This credible, sustained reduction in inflation has important growth-promoting implications related to the durability of the expansion. In particular, lower inflation:

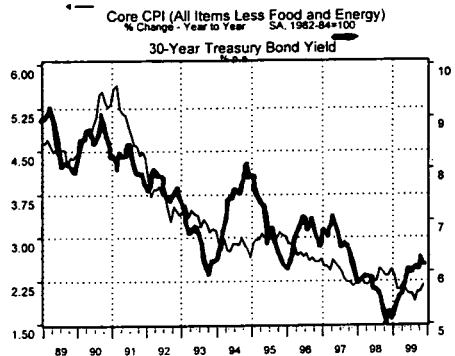
(1) Lowers interest rates:

This credible, sustained reduction in inflation has gradually lowered expectations of future inflation. Accordingly, the inflation expectation component of interest rates dissipated from the structure of both short- and long-term interest rates; interest rates are lower as a result. Figure 9 depicts the relationship between inflation and long-term interest rates.

(2) Stabilizes financial markets and interest sensitive sectors: As inflation diminishes, the variability of inflation is reduced. Lower inflation is associated with lower volatility of inflation. Accordingly, financial markets have less tendency to over- or undershoot their fundamental values. This lower volatility has the effect of reducing uncertainty premiums of interest rates; financial markets tend to become more stable and predictable. In short, lower inflation stabilizes financial markets.

As a result, market participants tend to become more confident and more willing to invest, take risk, and innovate. Businesses are able to better plan, coordinate, and control inventories, thereby improving efficiency. Furthermore, this enhanced financial stability

Figure 9



works to stabilize various interest-rate sensitive sectors of the economy and, therefore, the macroeconomy as well.

(3) Enhances the workings of the price system: Lower inflation is associated with lower (relative) price dispersion. Lower inflation lowers the variability between individual prices or reduces the noise and distortions in the price system. As a result, the price system can better serve its information and allocative functions. Consequently, the economy operates more efficiently and, therefore, grows faster.

(4) Acts like a tax cut: Lower inflation is analogous to a tax cut in several important ways. Lower inflation removes distortions in the price system and also minimizes those interactions of inflation with existing non-indexed portions of the tax code that effectively result in higher taxation.³

In short, credible disinflation and price stability work to lower interest rates, stabilize financial markets and interest-sensitive sectors of the economy, promote efficient operation of the price system, and effectively lower taxation. All of these effects contribute to promoting the sustainability of the expansion.

• **The growth-enhancing effects of government spending restraint.**

Another key policy, which helps to explain the economy's excellent sustained performance, relates to the long-term growth-promoting effects of government spending restraint. Empirical evidence suggests that beyond some point, an increasing share of government spending has a negative effect on economic growth.⁴ As government expands and increasingly provides goods and services that the private sector is better suited to supply, inefficiencies and diminishing returns mount. The disincentives of financing such increased spending mount and growth inevitably suffers.

Government spending as a share of GDP, however, has actually declined during much of this expansion, and is smaller in the U.S. than in many other countries. This smaller share of government enables more economic resources to be allocated and utilized more efficiently and productively in the private sector, allowing more growth to occur without upward pressures on price inflation. Congressional efforts to restrain government spending have aided significantly on this score.

³ Remaining portions of the tax code that are not indexed, for example, include capital gains taxation, estate taxation, and forms of corporate taxation.

⁴ See, for example, James Gwartney, Robert Lawson, and Randall Holcombe. "The Size and Functions of Government and Economic Growth." Joint Economic Committee. April 1998.

- **The long-term effects of an efficiency-promoting incentive structure embedded in the tax code.**

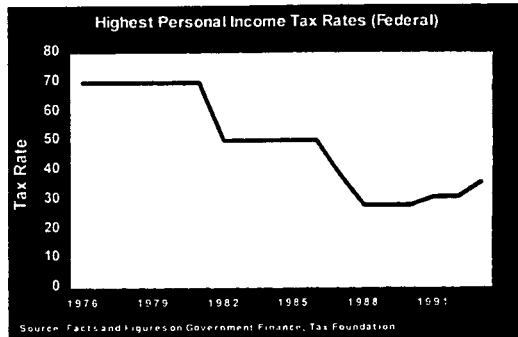
Tax policy is also central to any explanation of this long-term, record-setting, back-to-back expansion and sustained growth of recent years. In particular, the substantial marginal income tax rate reductions in the 1980s embedded into the tax code an incentive structure that has encouraged and fostered steady and long-run improvements in work effort, investment, innovation, and entrepreneurial activity that recent years have witnessed. Because such tax cuts encourage the supply of labor and capital as well as innovation and entrepreneurial activity, they impact aggregate supply and increases in the capacity of the economy to grow: i.e., such tax cuts foster economic growth. While some backsliding has

occurred with the rate increases in some brackets in 1990 and 1993, most marginal rates still remain lower than comparable rates which existed in the 1950s, 1960s, and 1970s. (See Figure 10.) Thus, these lower rates continue to provide the basis for an efficiency-promoting incentive structure conducive to the increased innovation, entrepreneurship, labor supply, and investment observed during this expansion. Since this structure fosters aggregate supply and capacity, all other things equal, it also helps to lessen pressure on price inflation and thus helps to explain the recent phenomenon of sustained economic growth without inflation.

- **The effects on aggregate supply of substantial investment in business equipment and productivity-enhancing new technologies.**

Another key event that necessarily plays a prominent role in any explanation of the sustained, low inflation expansion is the substantial increase in technological innovation and in the resultant investment boom that has occurred in recent years. Investment clearly has been a leading sector in this expansion and has grown substantially as a percentage of GDP. Such investment has not only grown substantially faster than GDP but has added significantly to business capacity. Computer equipment and software are major components of this advance. Since such investment increases capacity and therefore bolsters aggregate supply as well as aggregate demand, it helps to explain the observed sustained economic growth without inflation. Some of the impetus for such strong investment, of course, was provided by tax cuts as well as the technological advances of recent years.

Figure 10



This rapid investment and technological improvement have been associated with greater-than-expected productivity gains in recent years. These gains have allowed sizable wage increases to occur without inflation consequences, providing further support to this explanation of the sustained, low inflation expansion.

- **The efficiency and growth-promoting effects of increased international integration, open markets, and globalization.**

A final policy dimension helping to explain the economy's excellent sustained, low inflation performance relates to the efficiency or growth-promoting effects of increased international integration (globalization) and open markets. Pro-trade policy initiatives working to lower tariff (tax) barriers -- dating at least from the early 1980s -- have worked to encourage growth in both exports and imports. The U.S. economy, for example, has become increasingly open as measured by the fraction of GDP accounted for by the sum of what is exported and imported. Moreover, export growth has generally exceeded GDP growth in most years of the current expansion; for the most part, exports have been a leading sector in the expansion.

These trends have enabled the U.S. economy to take advantage of larger markets and to become more specialized and therefore more efficient, productive, and competitive than earlier was the case. In short, these trends enable the economy to produce more goods with the same or less input at the same or lower prices: i.e., to grow faster while promoting competition and lower prices.

The explanations presented here help to explain how the economy has persistently grown at a healthy pace without higher inflation. These explanations have a common element: they all indicate how aggregate supply or efficiency can be promoted so as to foster growth without inflation.

Invalid Explanations of this Sustained Performance

The Clinton Administration has argued that economic policies it sponsored in large part "explain" the robust economic performance witnessed in recent years. The *1999 Economic Report of the President*, for example, argues that the recent economic successes "are the result of an economic strategy that we have pursued since 1993... Our new economic strategy was rooted first and foremost in fiscal discipline ...the market responded by lowering long-term interest rates."⁵ The centerpiece of the Administration's 1993 "fiscal discipline" was increased tax rates. These tax increases, or tight fiscal policy, purportedly reduced the budget deficit, and from a Keynesian perspective, lowered aggregate demand by draining spending power. This restrictive (lower budget deficit) policy, in turn, lowered interest rates, thereby eventually stimulating the

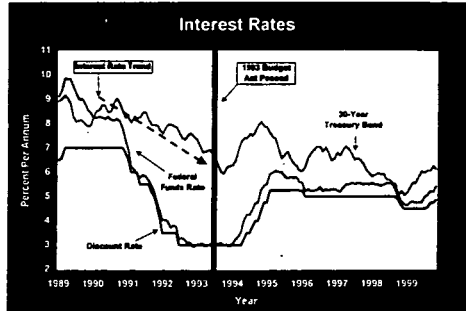
⁵ *1999 Economic Report of the President*, U.S. GPO, Washington DC, 1999, p.3.

economy.⁶ Some argue that this new "tight" fiscal policy was consciously accompanied by an "easy" monetary policy. This explanation has been often repeated by Administration officials in testimony, speeches, or press interviews.

There are a number of problems with this explanation. Some key inconsistencies of the explanation, for example, include the following:

- The timing of interest rate movements is decidedly inconsistent with the Administration's explanation. According to the Clinton Administration, the passage of the Budget Act in 1993 was followed by a decline in interest rates. Yet movements in both short-term and long-term interest rates contradict the Administration explanation. First, for example, both long-term and short-term interest rates fell for

Figure 11



several years prior to the enactment of the *1993 Budget Act* (see figure 11).⁷ Clearly, these interest rate declines had nothing to do with Clinton Administration fiscal policy. Second, both short-term and long-term interest rates substantially increased rather than decreased after the *1993 Budget Act* was passed. Thus, the Budget Act did not cause a fall in interest rates as claimed by the President or other Clinton Administration officials. Moreover, the substantial increase in short-term interest rates after the Budget Act was enacted demonstrates that the Federal Reserve did not adopt an easier policy at that time. Additionally, both short- and long-term interest rates for the most part remained above summer 1993 interest rate levels for years after the Act's passage. In

⁶ In the words of the President's *Economic Report*, "The market responded (to the Administration's policy) by lowering long-term interest rates. Lower interest rates in turn helped more people buy homes and borrow for college..." *ibid*, p.3 (parenthesis added).

⁷ Since the *Budget Act of 1993* passed Congress by the narrowest of margins, explanations of interest rate movements prior to enactment that rely on expectations of future passage make little sense.

sum, interest rate movements clearly are inconsistent with the Administration's oft-voiced explanation.⁸

- The factors underlying the Administration's explanation do not foster economic growth without inflation. Logical explanations as to why economic growth has persisted for years without inflation increasing in a meaningful way presumably should be based on forces promoting aggregate supply or increased efficiency that do not foster inflation. The explanations presented earlier in this paper have this element in common. The Administration's explanation, however, does not; raising tax rates promotes neither economic growth nor lessened pressures on price increases.
- The current expansion was not initiated by Clinton Administration policy. The economic expansion began in early 1991, almost two years before Clinton's inauguration. Clearly, the expansion itself was not initiated by any policy action of the Clinton Administration.
- The federal budget deficit actually began contracting well before Clinton Administration policies were implemented. Actual budget deficit figures indicate that the budget deficit began declining in a significant way after FY 1992 (i.e., by the start of FY 1993 in October 1992). In particular, the budget deficit fell from \$290 billion in FY 1992 to \$255 billion in FY 1993, a drop of \$35 billion. Since Clinton Administration budget policies were not implemented until (at the earliest) the fall of 1993, they could not have materially impacted budget numbers until FY 1994. Thus, budget deficit declines experienced during this expansion could not have been initiated by the Clinton Administration.
- The Clinton Administration's own economic projections at the time were not consistent with its after-the-fact (ex-post) explanation. Shortly after the enactment of the tax increase in August of 1993, for example, the Administration revised its own growth assumptions downward for 1993 and 1994. This downward adjustment was in accord with the period's contemporary conventional wisdom about the economic effects of the Clinton plan. According to the Democratic majority of the Joint Economic Committee at the time, the Clinton plan "will continue to exert downward pressure on economic activity through the next five years."⁹ Furthermore, Administration budget forecasts have consistently understated the economy's performance in recent years, suggesting

⁸ Notably, the empirical relationship between interest rates and budget deficits is neither strong nor particularly reliable. During periods of the 1980s, for example, budget deficits widened while interest rates fell. During other periods during the same decade, deficits narrowed as interest rates fell. For a survey of the budget deficit interest rate relationship, see George Iden and John Sturrock, "Deficits and Interest Rates: Theoretical Issues and Empirical Evidence," Staff Working Papers, Congressional Budget Office, January 1989.

⁹ See 1993 *Joint Economic Report* (Washington, DC, Government Printing Office, 1996) p.10. Also see Christopher Frenze, "Whither the Budget Deficit?," Joint Economic Committee Study, July 1996, p.2.

that even Clinton Administration officials did not believe the Clinton policy was stimulative.

- The Clinton Administration's explanation of the recovery ignores the growth-enhancing effects of a gradualist, price-stabilizing monetary policy. As described above, such monetary policy, by gradually lowering inflation, contributed significantly to the sustainability of the expansion in a number of ways. Many of these beneficial effects are unrecognized by the Administration. Since monetary policy, not fiscal policy, dominates movements in aggregate demand, it cannot be ignored in interpretations of this period's macroeconomic performance.¹⁰
- The Clinton Administration provides an inaccurate explanation of the disappearance of budget deficits. The Administration's explanation -- that tax rate increases worked to erase the deficit -- ignored the well-documented fact that budget deficits are importantly endogenous (or largely determined by economic factors). In fact, the significant deficit reduction witnessed in recent years is in large part the result of the strong economic expansion together with other economically driven factors such as low interest rates and sizable capital gain realizations.¹¹ As the economy expands, tax revenue from income, payroll, and other revenue sources increase whereas several forms of government spending (e.g. welfare payments, unemployment insurance) decrease, causing the budget deficit to shrink. In short, the reduced deficit is importantly the result of these economically driven factors rather than the cause of them. This has been documented during the current expansion by studies including, for example, Frenze.¹²

Data from CBO also support this contention although they may understate the positive fiscal impact of the expansion.¹³ In particular, about two-thirds of the fall in the budget deficit projected by CBO over this expansion is accounted for by economic and technical factors rather than legislative changes.¹⁴ To be more specific, in 1993 CBO projected the FY 1998 baseline deficit would be \$357 billion. The actual 1998 "deficit" turned out to be a surplus of \$69 billion. The \$426 billion difference between the projected and actual deficit for 1998 can be explained largely by economic and

¹⁰ Articles reviewing the argument that monetary policy dominates fiscal policy as a determinant of aggregate spending include, for example, Bennet T. McCallum, "Monetary Versus Fiscal Policy Effects: A Review of the Debate," in *The Monetary Versus Fiscal Policy Debate: Lessons From Two Decades*, edited by R.W. Hafer, Rowman & Allanheld Publishers, Totown, NJ, 1986 (see esp. pp. 10, 23-24); and Lawrence Meyer and Robert Rasche, "Empirical Evidence on the Effects of Stabilization Policy," in *Stabilization Policies: Lessons From the '70's and Implications for the '80's*, Center for the Study of American Business, 1980 (see pp. 51,54).

¹¹ Tax rate increases may not work to meaningfully reduce budget deficits since such increases can slow economic growth.

¹² Christopher Frenze, "Whither the Budget Deficit?," Joint Economic Committee Study, July 1996.

¹³ The data were provided by CBO (Table 1 in letter of August, 1999).

¹⁴ Technical factors include economically driven factors such as capital gains realizations.

technical factors, which account for 70 percent of the difference. The next most important explanation is changes in legislated outlays (which account for 19 percent of the difference). The least important explanatory factor is legislated revenue changes, which account for just 11 percent of the difference. Endogenous or non-legislated factors, therefore, explain the bulk of this deficit decline. The Clinton Administration's interpretation ignores these important endogenous or economic factors which involve causation running counter to their explanation.

In sum, there are a number of serious inconsistencies in the Administration's narrow explanation of the reasons for the current sustained expansion.

Longer-term Prospects for Continued Expansion

The current expansion is expected to persist into the foreseeable future. In part, this expansion relates to the absence of substantial existing imbalances in the economy. In particular, inventory imbalances, corporate or bank balance sheet distortions, overbuilding in the construction industry, serious resurgences of inflation, or substantial interest rate increases are neither evident nor expected. This expectation also relates to the expected continuation of those policies outlined earlier in this paper. More specifically, a price-stabilizing monetary policy, an incentive structure involving low tax rates built into the existing tax code, a policy of government spending restraint, and promotion of open markets and international integration are all expected to be maintained.

As long as no policy errors occur involving efforts to reverse the above-mentioned policies, the economic expansion should continue. That is, so long as the Federal Reserve keeps inflation at bay, substantial tax rate increases or budget-busting increases in government spending are avoided, restrictive trade practices, capital controls, or policies shackling new technologies are not embraced, the recovery should persist and establish new longevity records.

SUMMARY AND CONCLUSIONS

The current economic expansion is remarkably resilient and sustained. One of the remarkable features of the expansion is the simultaneous achievement of low rates of inflation and unemployment together with relatively robust rates of economic growth.

A key reason for the durability of the expansion owes to the maintenance of macroeconomic policies promoting long-run efficiency and growth without inflation. Appropriate macroeconomic policies evolved from the gradual recognition that monetary and fiscal policies should be directed at different and independent objectives; monetary policy should focus on achieving price stability whereas fiscal policy should focus on open market, growth-promoting tax and spending restraint policies encouraging entrepreneurial activity (i.e., policies promoting aggregate supply).

More specific reasons for the economy's remarkable sustainability all promote growth without inflation and include the following:

- The many growth-enhancing effects of a gradual and credible anti-inflationary monetary policy.
- The growth-promoting effects of credible government spending restraint.
- The long-term growth effects of an efficiency-promoting incentive structure embedded in the tax code (as epitomized by marginal income tax rates that remain lower than those of the 1950s, 1960s, and 1970s).
- The effects on aggregate supply and capacity of substantial investment in equipment as well as in productivity-enhancing new technologies.
- The specialization and efficiency-promoting effects of increased international integration and open markets (globalization).

The Administration offers an alternative explanation. It contends that its 1993 policy of raising tax rates worked to reduce the budget deficit and interest rates and to foster sustained recovery. This view proves inadequate for a number of reasons including the following:

- Raising taxes does not promote economic growth without inflation.
- The current expansion began well before the inauguration of President Clinton, and thus could not have been initiated by Clinton Administration policies.
- The budget deficit began contracting well before Clinton Administration policy could have been implemented. Hence, the budget deficit reductions were not initiated by Clinton policy.
- The timing of interest rate movements is decidedly inconsistent with the Administration's explanation.
- The Clinton Administration's own economic projections were not consistent with its after-the-fact explanations.
- The Clinton Administration's explanation of the recovery ignores the growth-enhancing effects of a gradualist, price stabilizing monetary policy.
- The Clinton Administration provides an inaccurate explanation of the disappearance of budget deficits.

The prospects for continued expansion look favorable so long as appropriate macroeconomic policies are maintained and no serious policy errors are made.

Robert Keleher
Chief Macroeconomist
to the Vice Chairman

International Dimensions to U.S. Monetary Policy

INTERNATIONAL DIMENSIONS TO U.S. MONETARY POLICY

INTRODUCTION

Traditionally, Federal Reserve monetary policy has focused on the domestic economy. Although international factors have not been ignored, they have been subordinate to domestic concerns. International concerns are rarely important rationale influencing Federal Reserve monetary policy decisions; further, the global impacts of U.S. monetary policy decisions seldom receive much attention from monetary officials.

Recent trends and developments, however, suggest this domestic orientation may not be entirely satisfactory for U.S. monetary policy. There is a growing recognition of the fact that financial capital is increasingly mobile, and financial markets are evermore globally integrated. At the same time, varying degrees of dollarization have occurred in several emerging market economies and the dollar remains the world's principal international currency despite evolving developments in exchange rate arrangements. These considerations have a number of important implications for U.S. monetary policy. For example, they help to explain why changes in U.S. monetary policy can have increasingly potent effects on emerging market economies that should be recognized and why the Federal Reserve's implicit international lender-of-last-resort (LOLR) responsibilities are so important.¹ These international considerations can be taken into account by anchoring prices with a price stabilization policy goal and using key market price indicators as policy guides.

After briefly describing these evolving circumstances -- namely, increased capital mobility, dollarization, and the international role of the dollar -- this paper briefly reviews the evidence suggesting that changes in Federal Reserve monetary policy have implications for both emerging markets and the global economy. Implications for the Federal Reserve's international LOLR role are highlighted and some recommendations for monetary policy are outlined.

Recent Trends and Developments

- Increasing Financial Integration and Growing Capital Mobility.

Clearly, one important trend of recent years is increasing international financial integration and growing capital mobility.² Most economists now recognize the inexorable trend toward globalization or growing international integration of financial markets and increasing capital mobility. Empirical results, for example, increasingly provide

¹ For a discussion of these responsibilities, see Robert E. Keleher, "An International Lender of Last Resort, the IMF, and the Federal Reserve," Joint Economic Committee, February 1999.

² The word integration denotes the bringing together of parts into a whole. The more integrated markets are, the more they behave as a unified whole, rather than segmented parts. Financial market integration increases the degree of interdependence among financial markets and such integration is alternatively defined as (1) the extent to which markets are connected, (2) the degree of responsiveness and sensitivity to foreign disturbances, or (3) the degree of openness.

evidence of growing capital mobility. In particular, data on capital flows as well as interest rate differentials indicate that a growing degree of capital market integration or increased capital mobility has occurred since the 1970s.³ The U.S. economy, along with most other economies, is more open. Many experts believe these trends are largely inevitable and irreversible, partly because they are being driven by communications and informational technological change and partly because policymakers increasingly recognize the many compelling benefits of regulatory changes that foster financial integration.⁴ Accordingly, a growing consensus among economists is that there is no turning back: i.e., that capital mobility is here to stay.⁵

There are a number of important implications of this increased international financial integration. This more open environment, for example, implies that changes in monetary policy involve a somewhat different transmission mechanism. In particular, the more integrated the economy, the more quickly and substantially do divergent policies affect financial markets and capital flows. And the foreign exchange rate may play an increasingly important role in transmitting changes in monetary policy to the macroeconomy. Accordingly, exchange rate movements potentially may contain more useful information about changes in monetary policy than in previous, more closed (less integrated) circumstances.

- Clarification of the "policy trilemma"

These altered conditions of increased capital mobility also place important constraints on monetary policy, commonly referred to as the "policy trilemma." As Obstfeld ably describes it:

The limitations that open capital markets place on exchange rates and monetary policy are summed up by the ideas of the 'inconsistent trinity' or ... 'the open-economy trilemma' ...that is, a country cannot simultaneously maintain fixed exchange rates and open capital markets while pursuing a monetary policy oriented toward domestic goals. Governments may choose only two of the above.⁶

If capital mobility is, indeed, an irreversible given, the policy choices circumscribed by the above trilemma are increasingly limited. In particular, policy choices are now between flexible exchange rate/domestic policy goal (e.g., inflation targeting) regimes and fixed exchange rate/without domestic goal regimes.⁷ If

³ See, for example, Maurice Obstfeld, "The Global Capital Market: Benefactor of Menace?", *Journal of Economic Perspectives*, Volume 12, Number 4, Fall 1998, pp.9-30; Maurice Obstfeld and Alan M. Taylor, "The Great Depression as a Watershed: International Capital Mobility over the Long Run," in *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, Edited by Michael D. Bordo, Claudia Goldin, and Eugene N. White, University of Chicago Press, Chicago, 1998, pp.353-402.

⁴ See Barry Eichengreen, *Toward A New International Financial Architecture*, Institute for International Economics, Washington DC, 1999, pp.2-3.

⁵ See, for example, Eichengreen, *op. cit.*, p.3.

⁶ Obstfeld, (1998) *op. cit.*, pp.14-5.

⁷ These might take the form of currency boards or dollarization regimes.

policymakers fix the exchange rate, they lose control of the interest rate; if they peg the interest rate they can't control the exchange rate. In starker terms, capital mobility "confronts national authorities with a decision over controlling either interest rates or exchange rates."⁸ Some authors [e.g., Obstfeld (1998), Eichengreen (1996)] suggest that in recent years, the choice has moved mostly in favor of the flexible exchange rates/domestic policy alternative: i.e., mostly in favor of "controlling" interest rates rather than exchange rates.⁹ The U.S. has evolved into such a regime: namely, a *de facto* informal "inflation targeting" position.¹⁰ For most countries, this result may be due in part to considerations of political economy; contemporary political forces may mandate that domestic policy goals be given attention.¹¹ Nonetheless, the trend does underscore the constraints brought to bear on policy choices by increased capital mobility.

- The Continued International Currency Role of the Dollar

Another important trend relates to the continued international currency role of the U.S. dollar. Despite the collapse of the dollar-based Bretton Woods (fixed exchange rate) system and the move to more flexible exchange rate arrangements, the dollar continues to be used as the principal international currency. As Robert Mundell has aptly stated:

Flexible exchange rates did not dispense with the need for international reserves or end the dominant role of the dollar. In one sense the dollar became more important than ever. The need for an international unit of account for purposes of international trade and finance was just as great as ever, and the increased uncertainty associated with flexible exchange rates increased, rather than eliminated the need for international reserve assets... The dollar remained the principal international monetary reserve (in the 1980s and 1990s). The enhanced role of the dollar under flexible exchange rates was reflected in the rapid expansions of dollar reserves which has more than kept pace with the growth of trade...¹²

More specifically, the dollar continues to provide the principal functions of an international money and thereby remains the dominant international key, vehicle, and reserve currency. This fact has been documented by several recent studies [such as McKinnon (2000) and Hartmann (1998)].¹³

⁸ Obstfeld, 1998, *op. cit.*, p.18.

⁹ For an alternative perspective, see Jeffrey Frankel, "No Single Currency Regime is Right for All Countries of at All Times," NBER Working Paper 7338, September 1999.

¹⁰ Inflation targeting in and of itself does not have to be exclusively "inward looking" in the U.S., but instead can be implemented in a way that recognizes international concerns (see below).

¹¹ See, for example, Barry Eichengreen, *Globalizing Capital*, Princeton University Press, Princeton, 1996, p.195.

¹² R.A. Mundell, "The Future of the Exchange Rate System," paper prepared for the Rocca di Salimbeni Conference, Monte dei Paschi di Siena, Siena, Italy, November 24, 1994, p.12 (parentheses added).

¹³ See Ronald McKinnon, "Mundell, the Euro, and the World Dollar Standard," paper prepared for presentation at the American Economic Association, January 8, 2000, pp.8-10, and Philipp Hartmann, *Currency Competition and Foreign Exchange Markets: The Dollar, the Yen, and the Euro*, Cambridge University Press, Cambridge, 1998, pp. 35-39, especially Chapter 2.

The continued use of international currency suggests there remains an important demand for the services of international currency: i.e., continued demand for a "money for other monies." Given this existing global demand, important responsibilities accrue to the supplier of this principal global currency, the Federal Reserve. In particular, if the supplier of international reserve currency pays attention to changes in its demand and, accordingly, adjusts supply to match changes in the demand for international currency, global stability may be promoted. This suggests that the Federal Reserve should focus attention on price signals and should provide a stabilizing price anchor for the current fiat money system. It also suggests that the Federal Reserve -- as the supplier of the dominant international reserve asset -- should recognize that when it tightens policy (thereby restricting the supply of international reserves), other central banks may well tighten, and when it eases, others may ease. In short, its policy moves can be magnified or made more potent because of these reactions. Additionally, the use of global reserves suggests the need for the services of an international lender of last resort (LOLR) for liquidity crisis situations involving sharp increases in the demand for international reserves.¹⁴ Since the Federal Reserve is the ultimate supplier of this liquidity, these international LOLR responsibilities fall upon the Federal Reserve.

- The Dollarization of Emerging Market Economies

Another notable and related development relates to the dollarization -- the official and unofficial use of the dollar to displace domestic currency -- in several emerging market economies. A number of studies examining the extent of such dollarization suggest that it is substantial in a number of countries, especially those in Latin America as well as in Russia.¹⁵ Related evidence indicates that foreigners hold significant percentages (above 50 percent) of dollar notes in circulation.¹⁶

This widespread dollarization suggests that changes in U.S. monetary policy may have important impacts on the many users of dollars. Accordingly, there may be potential implications for Federal Reserve monetary policy. Since these effects of changes in Federal Reserve policy can be nontrivial, it may be desirable to consider them in policymaking deliberations.

Implications

The trends and developments outlined here can have some important implications. All of these factors -- the increased international integration of financial markets together with dollarization and the continued international currency role of the dollar -- suggest that changes in Federal Reserve monetary policy may have differing effects than revealed in earlier experience. With this more open economy and key role of the dollar, the transmission mechanism of U.S. monetary policy may have changed. In particular,

¹⁴ See Robert E. Keleher, "An International Lender of Last Resort, the IMF, and the Federal Reserve" Joint Economic Committee, February, 1999.

¹⁵ See Kurt Schuler, "Basics of Dollarization," JEC Staff Report, July 1999.

¹⁶ See, for example, Richard D. Porter and Ruth A. Judson, "The Location of U.S. Currency: How much is Abroad?" *Federal Reserve Bulletin*, October 1996, pp.883-903.

various financial markets (e.g., foreign exchange, bonds, equities) may currently play a more significant role in transmitting changes in monetary policy. Changes in U.S. monetary policy may have more potent impacts on foreign countries than earlier was the case. And the global economy itself may experience different impacts of changes in Federal Reserve policy.

Some Emerging Empirical Evidence

A growing body of empirical evidence suggests that changes in Federal Reserve monetary policy can have significant impacts on foreign countries, on international financial variables, and, indeed, on the global economy. This evidence, however, is dispersed among varieties of research concerned with related, but differing topics; for example, empirical evidence on the Federal Reserve's international effects has emerged from studies examining the determinants of capital flows in emerging markets, the causes of recent banking and currency crises, and the choice of exchange rate regimes. The evidence is not centralized in readily accessible literature, in part because there are multiple channels through which changes in U.S. monetary policy can have its foreign impact. The form of this impact, moreover, depends in part on the existing exchange rate regime.

This diverse literature relating to the international dimension of changes in Federal Reserve policy is organized into three categories and briefly surveyed as follows:

- Studies examining the determinants of capital flows.

Recently, a number of studies have analyzed the determinants of sensitive capital flows to emerging market economies. Initially, researchers focused on the performance and differing characteristics of individual countries in explaining these capital flows; however, they soon noticed that capital flows tended to affect many emerging economies at the same time, despite their differing characteristics. In short, common (international) factors appeared to be important determinants of these movements.

More specifically, investigators found that factors external to these emerging market economies -- such as international interest rate movements in large industrialized economies and financial centers such as the U.S. -- played a significant role in explaining these capital flows. In particular, changes in U.S. monetary policy tended to be associated with changes in financial (money, bond, and equity) markets in several emerging market economies. This was aptly stated by Calvo, *et al.* (1996):

The tightening of monetary policy in the U.S. and the resulting rise in interest rates in early 1994 made investment in Asia and Latin America relatively less attractive... higher interest rates quickly and markedly affected developing country debt prices. Indeed, the rise in U.S. rates also triggered market corrections in several emerging stock markets. It seems likely that with highly integrated and technologically sophisticated financial markets, changes

in relative rates of return will quickly translate into cross-border capital flows.¹⁷

Similarly, Goldstein and Turner (1996) argued that:

...empirical evidence suggests that movements in international interest rates can explain between one-half and two-thirds of the swings in private capital inflows to developing countries in the 1990s.¹⁸

Studies reaching conclusions consistent with these arguments include: Calvo *et al.* (1993), Dooley *et al.* (1994), Chuhan *et al.* (1993), Goldstein (1995), Fernandez-Arias (1994), Eichengreen (1991), and Eichengreen and Fishlow (1996).¹⁹

In short, this literature establishes that changes in external (or global) factors such as movements in the interest rates of leading industrial countries like the U.S. significantly influence emerging market financial markets and can be dominant determinants of capital flows to these emerging economies (especially in Latin America).

- Studies Examining the Causes of Recent International Financial or Banking Crises

A number of studies have examined the factors causing recent international financial or banking crises. While these studies identify multiple factors contributing to these crises, the literature does find that many banking crises in developing economies are associated with prior increases in the interest rates of key developed economies such as the U.S.

Eichengreen and Rose (1998), for example, note that:

Our central finding is a large, highly significant correlation between changes in industrial-country (including U.S.) interest rates and banking

¹⁷ Guillermo Calvo, Leonard Leiderman, and Carmen Reinhart, "Inflows of Capital to Developing Countries in the 1990s," *Journal of Economic Perspectives*, Volume 10, Number 2, Spring 1996, p. 126.

¹⁸ Morris Goldstein and Philip Turner, "Banking Crises in Emerging Economies: Origins and Policy Options," B.I.S. Economic Papers No. 46, October 1996, p. 10.

¹⁹ Guillermo Calvo, Leonard Leiderman, and Carmen Reinhart, "Capital Inflows and Real Exchange Rate Appreciation in Latin America," *IMF Staff Papers*, Vol. 40, No. 1, March 1993, pp. 108-151; Michael Dooley, Eduardo Fernandez-Arias, and Kenneth Kletzer, "Recent Private Capital Flows to Developing Countries: Is the Debt Crisis History?," *NBER Working Paper*, No. 4792, July 1994; Punam Chuhan, Stijn Claessens, and Nlandu Mamingi, "Equity and Bond Flows to Asia and Latin America: The Role of Global and Country Factors," Policy Research Working Papers, International Economics Department, World Bank, WPS 1160, July 1993; Morris Goldstein, "Coping With Too Much of a Good Thing," Policy Research Working Paper 1597, International Economics Department, The World Bank, September 1995; Eduardo Fernandez-Arias, "The New Wave of Private Capital Inflows: Push or Pull?" Policy Research Working Paper 1312, The World Bank, November 1994.; Barry Eichengreen, "Trends and Cycles in Foreign Lending," in Horst Siebert (ed.), *Capital Flows in the World Economy*, Tubingen; Mohr, 1991, pp. 3-28; Barry Eichengreen and Albert Fishlow, *Contending With Capital Flows: What is Different About the 1990s?* A Council on Foreign Relations Paper, 1996.

crises in emerging markets... Northern interest rates rise sharply and significantly (relative to their level in non-crisis control group cases) in the year preceding the onset of banking crises, before peaking in the crisis year and the year following.

This result... points strongly to the role played by external financial conditions -- and in particular to the effect of rising interest rates in worsening the access of developing-country banking systems to offshore funds...

Our finding of an important role for world interest rates in the onset of banking crises reinforces the conclusions of (others)... for increases in world interest rates to precipitate banking problems.²⁰

Others have come to similar conclusions. Frankel and Rose (1996) find that increases in developed country (including U.S.) interest rates significantly enhance the likelihood of a currency crash in developing countries; increases in foreign (e.g., U.S.) interest rates play a meaningful role in predicting currency problems.²¹ Kaminsky and Reinhart (1996) suggest that external factors such as increases in interest rates in the U.S. may play an important role in explaining the prevalence of banking and balance of payment crises.²² Results consistent with this argument were attained by Chang and Velasco (1998). These authors contend that "the 1997-98 crises in Asia were in fact a consequence of international illiquidity" which could in turn be partly rectified by the liquidity provision of an international lender-of-last resort.²³

In addition to evidence on the effects of changes in U.S. interest rates on recent international financial crises, evidence also exists as to the causal effects of changes in the foreign exchange value of the dollar on such crises.²⁴ While several authors mention the role of dollar movements as contributing factors in the recent Asian financial crisis, Whitt (1999) provides convincing evidence that dollar appreciation prior to the recent Asian financial turbulence was a significant contributing factor to this crisis.²⁵ Specifically, several key emerging economies in Asia tied their currencies to the dollar, yet maintained significant trading relationships with Japan. Consequently, a significant appreciation of the dollar relative to the yen impelled these countries to follow the dollar (and U.S. monetary policy), thereby causing their currencies to appreciate against the

²⁰ Barry Eichengreen and Andrew K. Rose, "Staying Afloat When the Wind Shifts: External Factors and Emerging-Markets Banking Crises," NBER Working Paper 6370, January 1998, pp. 5, 6 (parentheses added).

²¹ Jeffrey A. Frankel and Andrew K. Rose, "Currency Crashes in Emerging Markets: An Empirical Treatment," *Journal of International Economics*, 41, Nos. 3/4, November 1996, pp. 351-366.

²² Graciela L. Kaminsky and Carmen M. Reinhart, "The Twin Crises: The Causes of Banking and Balance Payments Problems," International Finance Discussion Papers, Federal Reserve Board, 1996-554, p. 8.

²³ Roberto Chang and Andres Velasco, "The Asian Liquidity Crisis," NBER Working Paper 6796, November 1998 (quoted from abstract).

²⁴ Changes in the foreign exchange value of the dollar can importantly reflect changes in U.S. monetary policy.

²⁵ See Joseph Whitt, "The Role of External Shocks in the Asian Financial Crisis," *Economic Review*, Federal Reserve Bank of Atlanta, Second Quarter 1999, pp. 18-31, and studies cited therein (p. 24).

yen. Consequently, their trade positions with Japan were severely effected just before the currency attacks began, thereby significantly contributing to the financial crises in Asia.²⁶

- Other Evidence

Evidence on the impact of changes in U.S. monetary policy on foreign (international) interest rates recently has emerged from research related to the choice of exchange rate regime literature. In considering alternative exchange rate regimes available to emerging market countries, for example, Frankel and others have examined the interest rate responses in emerging countries to changes in U.S. (Federal Reserve) interest rates.²⁷ Frankel finds that when the Federal Reserve raises interest rates, these increases are quickly and entirely passed through to those emerging market economies with exchange rates rigidly tied to the dollar. Such exchange rate regimes require the emerging economy to follow the same monetary policy as the U.S. regardless of its appropriateness to local economic conditions. The situation is even more dramatic, Frankel finds, for emerging market economies that maintained a "loose link" to the dollar (such as Brazil or Mexico). In these cases, a Federal Reserve interest rate hike induces local interest rates to increase by more than those in the U.S.; these emerging market rates turn out to be more sensitive to U.S. policy moves and rise by more than one-for-one.²⁸ (Similar results are found by Hausmann *et al.*, and Frankel and Okongwu.) Frankel argues that the reason for this surprising result is that the U.S. interest rate increase has a large negative effect on capital flows and international investors are nervous about the loose exchange rate link, requiring an extra risk premium for devaluation and default risk as well as for the lack of credibility on the part of macroeconomic policymakers.

In short, this evidence indicates that changes in U.S. monetary policy can have potent impacts on the interest rates in emerging market economies under different exchange rate regimes. The evidence suggests that as international financial markets become more integrated, interest rates in emerging economies may become increasingly sensitive to changes in the interest rates of large developed countries.

The empirical evidence briefly outlined here indicates that changes in U.S. monetary policy importantly affect financial markets in emerging markets in a number of ways. These changes may dominate capital flows in emerging market economies and

²⁶ See also Ronald I. McKinnon, "Euroland and East Asia in a Dollar-Based System," The International Economy, September/October 1999, p. 45, 67.

²⁷ See Jeffrey A. Frankel, "No Single Currency Regime is Right for All Countries," Testimony before the Subcommittee on Domestic and International Monetary Policy of the Committee on Banking and Financial Services, U.S. House of Representatives, May 21, 1999(a); Jeffrey A. Frankel, "No Single Currency Regime is Right for All Countries or at All Times," NBER Working Paper 7338, September 1991(b); Jeffrey A. Frankel and Chudozie Okongwu, "Liberalized Portfolio Capital Inflows in Emerging Markets: Sterilization, Expectations, and the Incompleteness of Interest Rate Convergence," International Journal of Finance and Economics, Vol. 1, No. 1, January 1996, pp. 1-23; and Ricardo Hausmann, Michael Gavin, Carmen Pages-Serra, and Ernesto Stein, "Financial Turmoil and the Choice of Exchange Rate Regime," Inter-American Development Bank, Office of Chief Economist, Working Paper #400, 1999. The discussion here follows Frankel 1999(a).

²⁸ See Frankel 1999(a), pp. 7-8; and Frankel 1999 (b), p. 22.

U.S. rate hikes have been associated with banking or financial crises in these developing economies. Further, movements in U.S. interest rates may have potent effects on interest rates in emerging markets under differing exchange rate regimes.

- Anecdotal Evidence: The Interest Rate Cuts in the Fall of 1998

In addition to this growing collection of formal empirical evidence, anecdotal evidence is also relevant. In particular, assessments of the three Federal Reserve interest rate cuts in the fall of 1998 led several analysts and "Fed watchers" to conclude that international factors may have weighed heavily in precipitating this Federal Reserve action.

These interest rate cuts, it will be remembered, took place in the context of international financial market turbulence associated with the Russian devaluation and debt moratorium in mid-August 1998. It was during this period that the Federal Reserve cut interest rates and took to monitoring risk and liquidity spreads after world financial markets threatened to "seize up" following the Russian problems.

The official rationale for these rate cuts was always framed in terms of their effects on the U.S. economy. Nevertheless, FOMC minutes indicated the moves were undertaken in light of the effects of the prevailing global (international) turmoil including its impact on the liquidity of financial markets.²⁹

In assessing the episode, various economists, "Fed watchers," and market observers generally concurred with the need for Federal Reserve action. Their interpretations of this action, however, often more explicitly recognized the international dimension of the Federal Reserve policy moves and of the Federal Reserve's implicit assumption of important international lender-of-last-resort responsibilities (associated with the dollar's reserve currency status).

One well-known market observer, Allen Sinai, for example, argued that:

The Greenspan Federal Reserve appears to have shifted regime, operating with a new policy framework that takes the world economy and financial system into account, viewing the U.S. as one component in this system.³⁰

Another market observer remarked:

The Fed Chairman understood that he had to act quickly to convince markets the U.S. central bank was ready to assist the world economy in crisis.³¹

²⁹ See, for example, "Minutes of the Federal Open Market Committee," *Federal Reserve Bulletin*, January 1999, p. 45.

³⁰ Sinai was quoted in Gerald Baker, "Man of the Year Alan Greenspan: Guardian Angel of the Financial Markets," *Financial Times*, December 24, 1998, p. 9.

³¹ Baker, *ibid.*

Similarly, in remarks to the American Economic Association in January 1999, the IMF's Stanley Fischer stated that:

... in recent months the leading central banks, in recognition of the feedbacks between the emerging market and the industrialized economies, have taken actions in the interests of their own countries that stabilize the world economy.³²

In short, in taking this action, the Federal Reserve indicated it is capable of taking international, global factors into account and, indeed, providing important international lender-of-last-resort services, thereby serving to calm skittish world financial markets in situations of sharp increases in demand for international liquidity.³³ This is another manifestation of the international dimensions of Federal Reserve policy, which is sometimes not explicitly recognized.

Summary

Federal Reserve monetary policy has traditionally focused on the domestic economy. Over time, however, a number of significant trends have underscored the potential importance of the international dimension of contemporary monetary policy. Such trends include the following:

- Financial markets continue to become increasingly integrated internationally; capital is evermore mobile.
- The U.S. dollar continues to remain the world's principal international (key, reserve, and vehicle) currency despite evolving exchange rate arrangements.
- Official and unofficial dollarization continues in several emerging market economies.

These trends suggest that monetary policy may have differing transmission mechanisms increasingly involving international variables than was earlier the case. In addition to these trends, empirical evidence recently has accumulated showing that changes in U.S. monetary policy can significantly impact emerging market economies in a number of ways. For example, changes in U.S. monetary policy can (1) dominate capital flows in emerging market economies, (2) be associated with financial crises in these countries, and (3) significantly impact interest rates and financial markets in emerging economies under differing exchange rate arrangements. Furthermore, experience shows that the Federal Reserve can successfully assume international lender-

³² Stanley Fischer, "On the Need for an International Lender of Last Resort," paper prepared for delivery at the American Economic Association, New York, January 3, 1999.

³³ It should be noted that key market price indicators (i.e., commodity prices, bond yields, and the foreign exchange value of the dollar) were signaling the Federal Reserve to ease at the time and broad measures of price inflation were benign.

of last-resort responsibilities and stabilize world financial markets in situations of international liquidity crises.

Implications for U.S. Monetary Policy

Several important implications for U.S. monetary policy emerge from these trends and growing empirical evidence. They include the following:

- Given capital mobility and the practical reality that political pressures will dictate a preference for domestic monetary policy goals, the “policy trilemma” for the U.S. boils down to flexible exchange rate arrangements and a price stability objective for monetary policy.
- The Federal Reserve cannot deviate from or lose sight of its price stability goal, and the Federal Reserve should not sacrifice domestic for other goals. Nonetheless, it may be desirable to recognize the significant, increasingly important international repercussions of changes in U.S. monetary policy in order to better achieve these domestic goals. Recognizing these repercussions and their potentially important feedback effects suggest that changes in U.S. monetary policy may be more potent and wide-ranging than earlier believed. Consequently, to best achieve domestic goals in a nondisruptive manner, the degree or speed of policy moves may need to be adjusted accordingly.

If these increasingly important repercussions and their potential feedback effects (e.g. changes in exports, import prices, or capital flows) can be identified, anticipated, and taken into account, their effects potentially may be offset, resulting in smoother transitions for the domestic economy and for financial markets. By taking these effects into account, implementation of policy changes can result in a less volatile, less costly, less disruptive outcome. Policy implementation may be improved. In short, informal “inflation targeting” by the Federal Reserve may be implemented in a way that recognizes international concerns.

- Recognizing these growing international impacts of changes in monetary policy suggests that in order for the Federal Reserve to best achieve its goals, policy changes may need to be undertaken in a well-telegraphed, gradual, deliberate manner so that no policy surprises or unanticipated repercussions occur, disrupting international and domestic markets. In short, to promote stability, the Federal Reserve may be well advised whenever possible to avoid sharp, rapid, and unexpected policy changes.
- The Federal Reserve should increasingly recognize international LOLR responsibilities and be prepared to respond to international liquidity crises.³⁴

³⁴ For a discussion of these responsibilities and ways to implement them, see Keleher *op. cit.*, p. 9.

- These international factors may best be taken into account by maintaining a stable price environment and carefully, jointly monitoring forward-looking market prices such as various bilateral and broad trade-weighted measures of the dollar exchange rate, commodity prices, and bond yields as policy indicators. These market price indicators may in turn be supplemented by various measures of global prices, world commodity prices, and global bond yields to gain information about prospective global price movements, global price expectations, and world liquidity.³⁵

Dr. Robert E. Keleher
Chief Macroeconomist to the Vice Chairman

³⁵ See discussion in Keleher, *op. cit.*, p.9.

**The Performance of Current
Monetary Policy Indicators**

THE PERFORMANCE OF CURRENT MONETARY POLICY INDICATORS

INTRODUCTION

The Federal Reserve necessarily uses intermediate indicators in implementing a price-stabilizing monetary policy because of the well-known lags involved as well as the need for occasional pre-emptive action. With a quasi (informal) inflation targeting approach in place, the Fed's intermediate indicators must provide reliable signals of future changes in inflation. In recent years, however, mainstream economists (and their favored indicators) have done a relatively poor job of forecasting inflation. Inflation has been routinely overestimated: i.e., forecasted inflation has been higher than actual inflation. "Standard tools" or conventional indicators commonly used for forecasting inflation in many of these models involve the gap between actual unemployment and NAIRU¹ or between actual and potential GDP. In recent years, these policy guides (and models making use of such guides) have fared poorly, persistently overestimating inflation.

This paper briefly reviews the poor performance of these indicators in recent years and describes important problems of using real economic variables to forecast inflation. An alternative approach using market price indicators is briefly described, its advantages outlined, and its performance reviewed. These market price indicators consistently provided accurate signals as to future movements in core inflation and, accordingly, appear to have outperformed the conventional indicators.

The Policy Framework

A great deal of agreement has emerged in recent years as to the proper goal of monetary policy. In particular, under current exchange rate arrangements, the credible maintenance of price stability or a stable value of money has come to be viewed as the proper ultimate objective of monetary policy.² The obvious nature of this monetary policy goal was perhaps best summarized by Swedish economist Knut Wicksell more than a century ago:

There is no need to waste words proving how important it is that the exchange value of money or, what is the same thing seen from the opposite angle, the general level of ... prices, remains as stable and constant as possible. Money is the standard of all values, the basis of all property transactions, and daily becomes more and more so. All commodities are exchanged for money, and moreover, we produce only in order to exchange, and to exchange for money. What then can be more important

¹ NAIRU is an acronym for non-accelerating inflation rate of unemployment. If actual unemployment falls below NAIRU, inflation is projected to increase (and vice versa).

² The case for and advantages of price stability have been made elsewhere and will not be repeated here. See, for example, Robert Keleher, "Establishing Federal Reserve Inflation Goals," a Joint Economic Committee study, April 1997.

than that what constitutes the standard of everything else, should itself remain a constant magnitude.³

In pursuit of price stability, the Federal Reserve in recent years has in effect adopted a quasi (informal) inflation targeting procedure, which has succeeded in lowering and containing inflation.⁴ With price stability the central focus of monetary policy, the policy apparatus chosen should be that which best contributes to achieving this goal. Key elements of this policy apparatus are the intermediate indicators or guides used to achieve price stability. Such intermediate indicators are essential to this effort because of well-known policy lags, the frequent need for pre-emptive policy action, and other well-known problems with direct price targeting.⁵ Appropriate intermediate indicators should be reliable forerunners or proxies for inflation or inflationary expectations: indicators or guides that reliably signal future changes in inflation or changes in inflationary expectations.

Currently, there is a good deal of disagreement among economists as well as Federal Reserve policymakers as to the best set of intermediate indicators to use in obtaining the Fed's goal. Conventional analysts, for example, use models that typically embody a "Phillips curve" relationship relating inflation positively to an "output gap." That is, these analysts employ the gap between actual unemployment and NAIRU or the gap between actual GDP and potential GDP as key inflation indicators or guides.⁶ These are among their standard tools for forecasting inflation.⁷

Forecast Errors of Mainstream Models

In recent years, however, the inflation forecasts of mainstream economists (and their models) have been inaccurate and off the mark. Analysts generally agree that, for the most part, economists have done a poor job forecasting inflation. In particular, inflation has generally been overestimated; inflation forecasts have been persistently higher than actual inflation. An evaluation of inflation forecasts by the Congressional Budget Office (CBO), for example, indicates that the Blue Chip consensus persistently overestimated (two-year average) inflation rates from 1991-1992 to 1998-1999.⁸

³ Wicksell, Knut, "The Influence of the Rate of Interest on Commodity Prices," in Knut Wicksell: Selected Papers on Economic Theory, edited by Erik Lindahl, Harvard University Press, Cambridge, Mass., 1958, p. 67 (originally published in 1898).

⁴ See, for example, the testimony of Federal Reserve Chairman Alan Greenspan: *The Economic Outlook and Monetary Policy*, Hearing before the Joint Economic Committee, Congress of the United States, One Hundred Fifth Congress, First Session, October 29, 1997. See especially page 14.

⁵ See, for example, Manuel Johnson and Robert Keleher, Monetary Policy: A Market Price Approach. Quorum Books, Westport, Conn., 1996, p. 23.

⁶ If actual unemployment falls below NAIRU, inflation is projected to increase (and vice versa). If actual GDP growth exceeds potential GDP growth, inflation is projected to increase (and vice versa).

⁷ Relationships similar or analogous to these are ingredients in approaches used by the Congressional Budget Office and by the staff at the Federal Reserve Board. See, for example, Douglas Hamilton, "Description of Economic Models," CBO Paper, November 1998, p. 7; and David Reifschneider, Robert Tetlow, and John Williams, "Aggregate Disturbances, Monetary Policy, and the Macroeconomy: The FRB/US Perspective," Federal Reserve Bulletin, January 1999, p. 7.

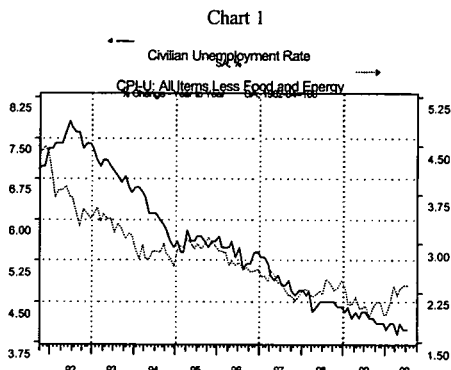
⁸ See Matthew Solomon, "Appendix B: Evaluating CBO's Record of Economic Forecasts," The Budget and Economic Outlook: Update. CBO, July 2000, Table B-4, p. 61. Analysis of forecasts by St. Louis Federal Reserve

Part of the reason for these inaccurate forecasts relates to unreliable indicators used in forecast formulation. In particular, models using the actual unemployment rate relative to NAIRU (or actual GDP relative to potential GDP growth) as key ingredients in their inflation forecasts were inaccurate; these models persistently overestimated inflation. For example, CBO -- which employs such variables as important ingredients in its inflation forecasts -- assessed its recent forecasts and established that CBO has persistently overestimated inflation since the early 1990s.⁹ Similarly, staff at the Federal Reserve Board (FRB) recognized inadequacies of inflation forecasts based on Phillips Curve or NAIRU concepts. A recent FRB study of such relationships, for example, found that actual inflation consistently fell short of their model's predictions of inflation over a recent five-year period.¹⁰ This led them to remark that:

The tendency of our baseline equations to significantly overpredict inflation since the mid-1990s... is an indication of structural change... or of misspecification.¹¹

Some Simple Observations

It is not necessary, however, to engage in sophisticated forecast assessment to recognize the inadequacies of these Phillips curve-type guides as indicators of inflation. These inadequacies can readily be observed with a few simple graphs. For most of the past eight years, for example, the unemployment rate and core inflation have fallen together (see Chart 1¹²). During this lengthy period, there is little sign of an inverse relation between these two variables as is sometimes suggested by Phillips curve proponents.



Bank Economists draws similar conclusions. See William T. Gavin and Rachel J. Mandal, "Mixed Signals?" *National Economic Trends*, Federal Reserve Bank of St. Louis, July 2000.

⁹ See Solomon, *op. cit.*, p. 61.

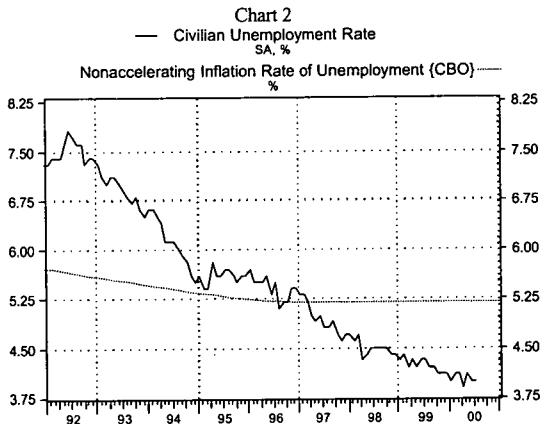
¹⁰ Flint Brayton, John M. Roberts, and John C. Williams, "What's Happened to the Phillips Curve?" Division of Research and Statistics, Federal Reserve Board, Washington, DC, September 1999.

¹¹ *Ibid.*, p. 4.

¹² The source for all graphs is Haver Analytics.

As Chart 2 reveals, the civilian unemployment rate has fallen for eight years, has remained below 6 percent for more than six years, below 5 percent for more than three years, and has vacillated in the neighborhood of 4 percent during the past year. As late as the mid-1990s, estimates of NAIRU were typically in the neighborhood of 6 percent.¹³ As Robert Gordon noted in 1998:

In contrast to the near universal forecasts of accelerating inflation that would accompany a dip in the unemployment rate below 6 percent, inflation actually decelerated significantly between 1994 and 1998.¹⁴

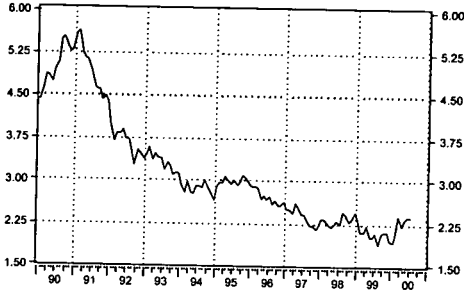


Accordingly, as unemployment continued to fall with no signs of accelerating inflation, erroneous estimates of NAIRU were downward-revised. Current (downward-revised) CBO estimates of NAIRU are also shown in Chart 2. Even with a downward-revised estimate of NAIRU, the unemployment rate has remained below NAIRU for almost 3 1/2 years. Yet the core rate of inflation, as measured, for example, by the core CPI, has remained relatively well behaved, as Chart 3 illustrates. In short, these charts suggest that in recent years the unemployment rate, either alone or relative to NAIRU, has not been a reliable guide or indicator of future inflation.

¹³ See, for example, Arturo Estrella and Frederic S. Mishkin, "Rethinking the Role of NAIRU in Monetary Policy: Implications of Model Formulation and Uncertainty," NBER Working Paper No. 6518, April 1998, p. 1.

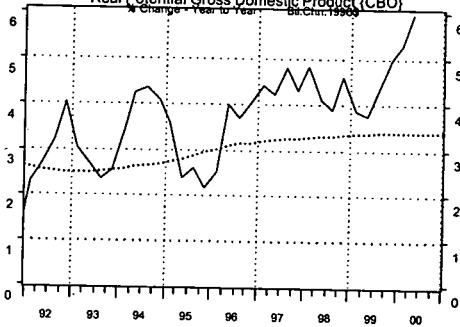
¹⁴ Robert J. Gordon, "Foundations of the Goldilocks Economy: Supply Shocks and the Time-Varying NAIRU," February 3, 1999. Revision of paper presented at the Brookings Panel on Economic Activity, September 4, 1998, p. 1.

Chart 3
CPI-U: All Items Less Food and Energy
% Change - Year to Year SA, 1982-84=100



As Chart 4 indicates, similar observations about the inadequacies of inflation guides can be made with respect to the growth of actual GDP relative to estimates of potential GDP growth. Real GDP growth has consistently exceeded estimates of potential GDP growth (on a year-over-year basis) since the mid-1990s: i.e., for almost five years. Yet for the most part core inflation decelerated over this period. And analogous to NAIRU, as this gap persisted while core inflation continued to decelerate, (erroneous) estimates of potential GDP have repeatedly been revised upward, from the neighborhood of 2 1/2 percent to about 3 1/2 percent. Nonetheless, the conclusion remains inescapable: this actual GDP-potential GDP gap has been an unreliable guide to future movements of inflation.

Chart 4
Gross Domestic Product
% Change - Year to Year SAAR, Bil. Chn. 1996\$
Real Potential Gross Domestic Product (CBO)
% Change - Year to Year Bil. Chn. 1996\$



The charts depicted here lead to a number of observations. In particular, in recent years:

- Low unemployment, even when it is low relative to downward revised estimates of NAIRU, has not been reliably associated with increased inflation.
- Economic growth persistently in excess of (upward-revised) estimates of potential GDP growth has not meaningfully stimulated core inflation or inflationary expectations.
- The gap between actual unemployment and NAIRU as well as the gap between actual GDP growth and potential GDP growth have been inaccurate guides to or indicators of inflation. These variables have contributed to inaccurate inflation forecasts. Indeed, for much of the late 1990s, these variables sometimes have not even predicted the correct direction of core inflation movements; core inflation has often continued to decelerate when these gaps have widened.

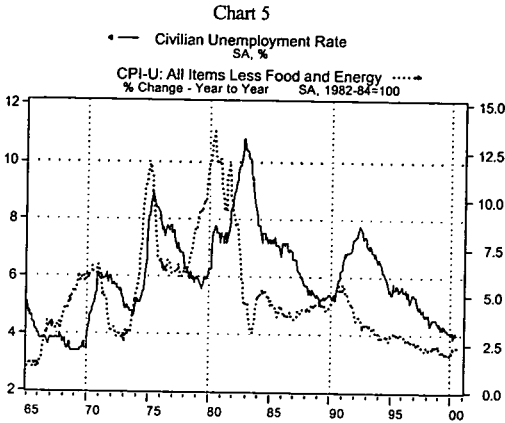
Problems with using conventional “gap” models to forecast inflation.

There are a number of theoretical and empirical problems with using real economic variables -- such as the gap between actual and “non-inflationary” unemployment or the gap between actual and potential GDP growth -- to forecast inflation. These problems, for example, include the following:

- The relationship between real economic activity and inflation is ambiguous. For decades it was generally believed that prices were pro-cyclical: i.e., that output and prices were positively correlated. Often, some form of Phillips curve relationship (associated with demand-side disturbances) was used to rationalize such correlation.¹⁵ Recent evidence, however, indicates that properly assessed, this correlation is negative over the post-war period.¹⁶ And from a long-term trend perspective, unemployment and inflation move together i.e., they are positively correlated as indicated in Chart 5. This suggests that robust real economic activity does not necessarily lead to higher inflation.

¹⁵ See, for example, Wouter J. den Haan, “The Comovement Between Output and Prices,” *Journal of Monetary Economics*, 46 (2000), p. 4.

¹⁶ See, for example, Michael Pakko, “The Cyclical Relationship between Output and Prices: An Analysis of the Frequency Domain” *Journal of Money, Credit, and Banking*, Vol. 32, No. 3, August 2000, part 1, p. 382 and the evidence cited therein.



Part of the reason for this ambiguity is that using real economic activity to forecast inflation often does not adequately distinguish between demand-side and supply-side disturbances. These respective disturbances, however, can have very differing impacts on the output-price relationship. Demand-side stimulus, for example, can produce short-term output gains with increases in inflation. On the other hand, supply-side stimulus such as productivity advances can produce output gains with falling inflation. Furthermore, stable, decelerating inflation can serve to promote economic growth. The unreliability of this output/inflation relationship suggests that real economic variables may be misleading policy guides for the Federal Reserve in an inflation-targeting monetary policy strategy.

- Potential GDP and NAIRU are unobservable and the latter cannot be estimated with precision: Since both potential GDP and NAIRU are unobservable, there is an inherent problem of estimating or measuring these variables. The only truly foolproof way to determine or verify whether actual GDP is meaningfully above or below potential is to observe aggregate price movements. Similarly, the only foolproof way to truly verify whether actual unemployment is in the vicinity of NAIRU is to observe price or wage movements.

Furthermore, recent research has demonstrated that NAIRU cannot be estimated with much precision; there is significant uncertainty in the empirical estimates of NAIRU. Empirical analysis by Staiger et al., demonstrates that estimates of NAIRU are quite imprecise with large, wide confidence bands.¹⁷ This suggests a

¹⁷ Staiger, Douglas, James H. Stock and Mark Watson, "How Precise are Estimates of the Natural Rate of Unemployment?" in *Reducing Inflation: Motivation and Strategy*, edited by Christina D. Romer and David H.

lack of confidence as to the actual estimates. In assessing the Staiger et. al., analysis, for example, one commenter stated:

...The data are incapable of distinguishing between a wide range of estimates of the natural rate... a variety of plausible models yield widely differing estimates of the natural rate at a point in time... The standard errors of the estimated natural rates are quite large -- a typical 95% confidence interval runs from 5 to 8 percent... Even with forty-two years of monthly time-series observations, the data just do not provide precise estimates.¹⁸

For all practical purposes, the size of this imprecision and uncertainty precludes the use of NAIRU as a reliable guide for a price-stabilizing monetary policy.

- Potential GDP (or NAIRU) is constantly changing in unpredictable ways: In a dynamic economy, potential GDP and NAIRU are constantly changing in unpredictable ways. NAIRU, for example, was estimated to be around 5% in the 1960s, 7% in the 1970s, and 6% in the early to mid-1990s. More recently (and following NAIRU's poor inflation forecasting record) estimates of NAIRU have been revised down again. These changes in NAIRU are related to a number of factors including changing labor force demographics, government unemployment programs, or regional economic disturbances among other factors.¹⁹ In practice, these unpredictable changes contribute to forecasting error and make NAIRU an unreliable policy guide in a price stabilizing monetary policy regime.

In short, there are a number of theoretical, empirical, and practical problems associated with the use NAIRU or potential GDP as policy guides in a price-stabilizing monetary policy strategy. These problems, together with the recent poor forecasting record of these variables, suggest that alternative policy guides should be considered.

Some Alternative Monetary Policy Indicators: Market Price Guides to Monetary Policy

An alternative set of monetary policy indicators appropriate for price stability goals has recently been proposed. A detailed description of the approach using these indicators has been given elsewhere and will only be briefly summarized here.²⁰ This approach uses certain market price indicators -- broad indices of commodity prices, various measures of the foreign exchange value of the dollar, and long-term bond yields -- as guides for a price-stabilizing monetary policy. All of these sensitive market prices yield early warning signals pertaining to changes in the value of, or price of money: i.e., relevant to movements in the general price level. Being

Romer, University of Chicago Press, Chicago, 1997(a); Staiger, Douglas, James H. Stock and Mark Watson, "The NAIRU, Unemployment, and Monetary Policy," *Journal of Economic Perspectives* 11:33-49, 1997(b).

¹⁸ Alan B. Krueger, "Comment," in *Reducing Inflation: Motivation and Strategy*, edited by Christina D. Romer and David H. Romer, University of Chicago Press, Chicago, 1997, pp. 242-3.

¹⁹ John Judd, "NAIRU: Is it Useful for Monetary Policy?" Federal Reserve Bank of San Francisco, *Economic Letter* No. 97-35; November 21, 1997, p. 2.

²⁰ For a through description of this approach see Manuel Johnson and Robert Keleher, *Monetary Policy. A Market Price Approach*. Quorum books, Westport, Connecticut, 1996.

prices, these indicators signal movements in demand relative to supply and accordingly potentially can be more useful than the above-described "gap" models. These market prices are intended to serve as informational indicators, not policy targets. Other things equal, each indicator can signal the relative "ease" or "tightness" of monetary policy.

These market prices have a number of distinct advantages over competing intermediate indicators of monetary policy. Such market price data, for example, are observable, easy-to-understand, timely, and readily available, literally minute-by-minute. They are accurate, less subject to sampling error, and unaffected by revision, rebenchmarks, seasonal adjustments, or shift-adjustments that sometimes plague quantity data. Several formal studies investigating the usefulness of various forms of economic statistics conclude that market price data are superior to other forms of data.²¹ Furthermore, they are forward-looking and can signal future changes in inflation and inflationary expectations. If these market price indicators are carefully assessed in conjunction with one another, they can be useful forerunners of inflation and helpful guides for a price-stabilizing monetary policy.

Recent Performance

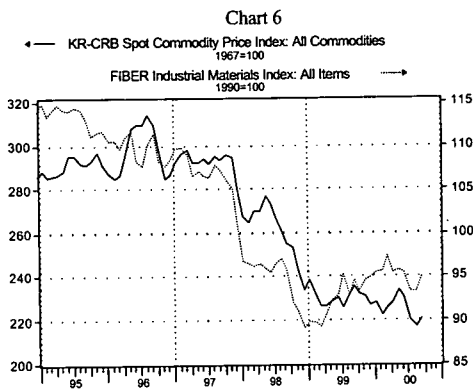
Recently, while conventional models were overestimating actual inflation, market price indicators provided relatively reliable signals as to future movements of general prices. In particular, these indicators accurately foretold the persistent disinflation of core CPI prices, for example, and have accurately suggested that no important resurgence of inflation was imminent. These guides indicated that monetary policy generally remained in an anti-inflation mode rather than "easy" as suggested by the above-cited conventional "gap" models.

Each major market price indicator contributed to this interpretation as follows:

- Commodity prices: Since the mid-1990s, broad indices of commodity prices have generally signaled that monetary policy remained in an anti-inflation mode. Broad indices of core commodity prices have generally remained stable or persistently trended down since 1995 with some commodity prices indices remaining below commodity price levels registered in the early 1980s. The KR-CRB spot index (which does not include energy prices), for example, has persistently trended down since the mid-1990s and remains at levels below those registered in the early 1980s²² (see Chart 6). This commodity price measure, therefore, served as a reliable forerunner of persistent downward trends of core CPI inflation during the latter half of the 1990s.

²¹ See, for example, Oskar Morgenstern, *On the Accuracy of Economic Observations*, Princeton University Press, Princeton, N.J., 1963; and Victor Zarnowitz, "On Functions, Quality, and Timeliness of Economic Information," NBER Working Paper Series, No. 608, December 1980.

²² The source for the Commodity Research Bureau Commodity (KR-CRB) price indices is Knight-Ridder financial.



Various other indices of commodity prices provide some variation of this general picture but generally corroborate the central theme. The KR-CRB futures index (which includes energy prices) has trended down from 1995, but ticked up with energy prices early in 1999 before cooling in mid-2000. Similarly, as shown in Chart 6, popular indices of industrial materials prices (which also include energy prices) generally trended down after 1994 but ticked up with energy prices in 1999 and early 2000 before cooling in mid-2000²³. Apparently, the recent energy price increase generated some heightened inflationary expectations during 1999. Abstracting from the effects of energy prices, therefore, for the most part these commodity price indices signaled that from the mid-1990s, core inflationary pressures were benign with no significant resurgence of inflation expected. These indicators, therefore, suggested that monetary policy remained in an anti-inflation mode during the second half of the 1990s. They served as accurate forerunners of the persistent lower trends in core inflation as measured, for example, by core CPI (as depicted in Chart 3).

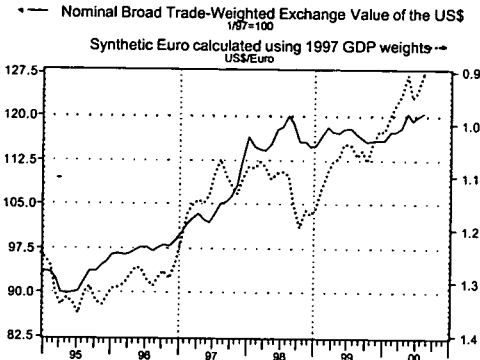
- **Foreign Exchange Rates:** Various measures of the foreign exchange rate of the dollar also yield potentially important information about future inflation and inflationary expectations (relative to other countries). In recent years, and especially since 1995, certain bilateral and most multilateral measures of the dollar's value have steadily appreciated, thereby persistently signaling (other things equal) that U.S. monetary policy has been firm relative to that in other countries.²⁴ In particular, as Chart 7 indicates, the dollar has firmed on (various measures of) a trade-weighted basis, against the yen until 1998, and especially against (synthetic measures of) the Euro. Notably, this persistent

²³ Popular indices of industrial materials prices include the FIBER (Foundation for International Business and Economic Research) industrial materials price index or the JOC-ECRI (Journal of Commerce-Economic Cycle Research Institute) industrial price index.

²⁴ Exchange rate movements measure changes in the value of money relative to other monies.

appreciation occurred during a period when core CPI continued to decelerate (as depicted in Chart 3 above), suggesting that (other things equal) these dollar movements accurately signaled a continuing disinflationary environment despite unemployment falling below NAIRU and robust (above potential) GDP growth. In short, during the period after the mid-1990s, this market price indicator continued to yield accurate signals as to the inflationary environment while "gap" models persistently overestimated inflation.

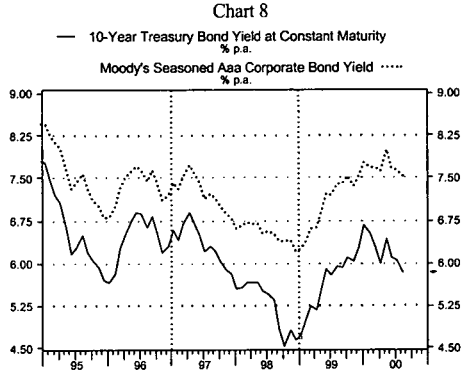
Chart 7



- Long-Term Interest Rates:** Another market price indicator that provides useful information in assessing the prospects for inflation and expected inflation is long-term interest rates. From early 1995 to early 1999, for example, bond market yields trended down, thereby presaging a benign inflationary environment. Early in 1999, however, changes in several factors impacted the bond market. Sharp increases in energy prices influenced most general inflation indices even though core measures of inflation remained relatively well-behaved. This generated an increase in inflationary expectations as measured, for example, by some survey and market-based gauges.²⁵ Partly because of these altered expectations, anticipations about Federal Reserve policy began to change; the market began to expect tighter Fed policy in the future. The Fed did raise the fed funds rate six times beginning in June 1999, hiking the rate 175 basis points to 6.50 percent by May, 2000. These factors worked to increase long-term interest rates during 1999, before these rates cooled in 2000 as Chart 8 indicates. But while long-term rates advanced during this period, short-term rates increased even more, inducing the yield spread to narrow and by some measures to invert, signaling a more restrictive monetary

²⁵ For example, year-ahead household inflation expectations as measured by the University of Michigan's Survey of Consumers as well as market-based measures based on inflation indexed Treasury securities both indicated that inflationary expectations increased beginning in early 1999.

policy.²⁶ By mid-2000, therefore, long-term rates had fallen from their peak and expectations of inflation had again moderated; the inflationary environment had regained a tamer demeanor.



- **A Joint Assessment of Market Price Indicators:** The market price indicators discussed here all provide useful information as to the inflationary environment and therefore to monetary policymakers. While useful, these market price indicators are not infallible; each has drawbacks. These indicators, therefore, should be assessed jointly or in conjunction with one another in order to minimize misinterpretation. Such joint assessments provide superior information than indicators analyzed in isolation.²⁷

Generally, during most of the post-1995 period, these guides consistently indicated that a resurgence of core inflation was not a serious concern. More specifically, for most of the post-1995 period, broad indices of "core" (ex-energy) commodity prices remained weak, various bilateral and multilateral measures of the foreign exchange value of the dollar remained strong, and except for the early 1999-Spring 2000 period, bond yields remained benign. For the most part, these indicators suggested that a resurgence of inflation was not likely and that significant inflationary pressures were not an important concern. The inflation message of these indicators was consistent with the actual benign core inflation that characterized the period. In this sense, these market price indicators provided more accurate inflationary signals than the above-described "gap" models that consistently predicted higher than actual inflation.

²⁶ Some moderation of long-term U.S. government security rates during the later portion of this period reflected diminished issuance and the debt paydown program. Nonetheless, spreads between the fed funds rate and quality corporate bond yields showed a similar pattern during this period.

²⁷ For a discussion of the rationale for such joint assessments, see Johnson and Keleher, *op. cit.*, especially pp. 39-40 and Chapter 11 (pp. 183-216).

SUMMARY AND CONCLUSIONS

Price stability is currently a central focus of U.S. monetary policy. Because of well-known policy lags and the need for preemptive policy action, the Federal Reserve necessarily uses intermediate indicators to help attain its inflation goals. Currently, there is a good deal of disagreement among economists as well as Federal Reserve policy makers as to the proper set of intermediate indicators to use in conducting a price stabilizing monetary policy.

Some analysts, for example, use models that typically embody a "Phillips curve" relationship relating inflation positively to an "output gap" typically using the gap between actual unemployment and NAIRU or the gap between actual GDP and potential GDP as inflation guides. In recent years, however, these models have not performed well; their inflation forecasts have persistently been higher than actual inflation. There are a number of problems associated with the use of NAIRU or potential GDP as policy guides in a price stabilizing monetary policy strategy. These problems, together with the recent poor inflation forecasting record of these variables, suggest that alternative policy guides should be considered.

Market price indicators are such an alternative useful set of guides to a price stabilizing monetary policy. These indicators -- commodity price indices, the foreign exchange value of the dollar, and long-term bond yields -- have a number of advantages as policy guides, especially when they are jointly assessed in conjunction with one another. Recently, these indicators consistently provided reliable signals as to the direction of, and to future movements in, core general prices. The inflation signals of these indicators were consistent with the actual benign core inflation that characterized the period. In this sense, these indicators provided more reliable inflationary signals than the above-described "gap" models that consistently predicted higher than actual inflation.

Assessments of this period add further empirical support to a market price approach to monetary policy and suggest that when jointly assessed in conjunction, these market price indicators are viable, useful intermediate guides to monetary policy, particularly in a (quasi) inflation targeting regime.²⁸

Dr. Robert E. Keleher
Chief Macroeconomist to the Vice Chairman

²⁸ Empirical support for these market price indicators is presented in Johnson and Keleher, *op. cit.* (see chapters 8-10, 12, 13).

THE ECONOMIC OUTLOOK AND TAX POLICY

HEARING

before the

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

May 23, 2001

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THE ECONOMIC OUTLOOK AND TAX POLICY

Wednesday, May 23, 2001

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 11:00 a.m. in Room 311 of the Cannon House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Present: Representatives Saxton, Dunn, English, and Maloney.
Senators Reed and Corzine.

Staff Present: Chris Frenze, Robert Keleher, Darryl Evans, Colleen J. Healy, Brian Higginbotham, Chad Stone, Daphne Clones-Federing, Frank Sammartino, Matt Salomon, and Diane Rogers.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Chairman Hubbard, it is a pleasure to welcome you before the Joint Economic Committee (JEC) this morning. I believe this is your first appearance before Congress as Chairman of the President's Council on Economic Advisers (CEA), and we look forward to your testimony.

The long period of economic growth that began in the 1980s has continued, aside from a short and mild recession in the 1990-91 period. The economic benefits of such a sustained period of economic growth are reflected in the general prosperity and health of the economy evident through the middle of last year. Real gross domestic product (GDP) growth has been strong as labor productivity gains led to higher output and income. Inflation has been reduced by the Federal Reserve, interest rates have trended downward, and rates of unemployment and poverty have fallen over the course of the expansion.

However, as I noted last December, the economy has entered into a sharp slowdown that began the middle of last year. Real GDP growth fell from 5.6 percent in the second quarter of 2000 to only 1 percent by the end of the year. Investment, consumption, and employment have also reflected the sharp slowdown. Manufacturing employment has been declining since July of last year, and employment losses are now spreading to other sectors of the economy.

The Federal Reserve has responded by sharply reducing short-term interest rates and relaxing monetary policy, which began five months ago. I believe the actions of the Fed will significantly improve the prospects for a resumption of healthy economic growth later this year. However, I remain concerned about current economic conditions as reflected in the two consecutive declines in payroll employment. Although I do not believe the tax bill currently under consideration will make the economy turn on a dime, I do think it will have a positive effect over the next year that is much needed for the current economic weakness.

The weak economy is bearing the burden of a tax system that is systematically biased against work, savings and investment, and is literally counterproductive. Real bracket creep gradually continues to push taxpayers into higher tax brackets. The additional burdens of what economists call "deadweight losses" are a significant problem that is not well recognized by many policymakers.

Essentially, deadweight losses arise because the tax system imposes added economic costs in addition to the revenues raised by taxation. In other words, for every incremental dollar raised in revenue, the tax system imposes other costs amounting to 30 or 40 cents on the economy. Thus, each dollar in tax reduction can provide significantly more than a dollar in benefits to the economy. In my view, this is a key reason to reduce the burden of our counterproductive tax system.

Fortunately, progress is being made on a bipartisan tax bill to reduce the tax burden on the U.S. economy. It will not solve all of our immediate problems, but it will improve the prospects for healthier economic growth in the years ahead. The stronger economy will in turn help us to address the long-term economic and budget challenges faced by our Nation.

We have a tremendous opportunity to enhance the economic future of America by reducing the weight of our counterproductive tax system. [The prepared statement of Chairman Saxton appears in the Submissions for the Record on page 26.]

Representative Saxton. I would like at this time to ask Mrs. Maloney if she has any opening comment, and then we will turn to Dr. Hubbard.

OPENING STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY

Representative Maloney. Thank you, Mr. Chairman. I understand Ranking Member Reed, Senator Reed, is on his way, in between votes in the Senate, but I do want to thank you for having this hearing today on the state of the economy, and it is a particular honor to welcome Dr. Hubbard. As a New Yorker, I understand he served at one of our great institutions, Columbia, before joining the administration.

As we have seen since the middle of last year, economic growth has slowed dramatically. The manufacturing sector has lost over a million jobs. Only continuing strength in the service sector and strong household spending have kept a recession from spreading throughout the economy. Unfortunately, recent signs are cause for concern. The recent sharp rise in the unemployment rate and the potential impact of high energy prices on household budgets could lead to increased economic difficulty. The current administration's one-note answer to all these problems has been its tax cut proposal. While I am personally certain that Congress could pass a historically large, responsible tax cut on a bipartisan basis, the bill that we will vote on later this week is no such agreement. I believe the tax proposal risks a return to deficits and it is fundamentally unfair to lower-income workers and to my State of New York.

As introduced, the Bush tax bill was so large and based on economic assumptions that can vary so greatly, that we risk deficits if our numbers are only slightly off. The Senate bill is only marginally better. The Congressional Budget Office (CBO), whose rosy projections are the basis for the tax cuts, indicated that its average error margin in projecting budget surpluses or deficits for the fiscal year in progress has historically been about 0.5 percent of the GDP. In the current economy, this would be roughly \$54 billion in one year.

As for projecting five years out, CBO's average error has been 3.1 percent of GDP, a sixfold increase. Many of the Bush tax cuts do not fully phase in for 10 years in order to hide the tremendous cost. To borrow a Bush catch phrase, using CBO projections passed on continued strong economic growth for the next 10-years is truly "faith-based" budgeting.

While the tax cut itself is large, it is not so large that it provides relief to the lower-income Americans who pay the majority of their taxes through payroll taxes rather than income taxes. Ironically it is these Americans whose household budgets are most affected by rising energy prices. While President Bush has suggested that the tax cut be enacted to pay for skyrocketing energy costs, his plan does not benefit these very workers.

Finally, the tax bill on its face is fundamentally misleading. Provisions granting marriage penalty relief and estate tax repeal are so costly that they do not fully phase in for a decade, well after President Bush's return to Texas. The full force of these provisions will confront the country just as the baby boom generation increases its reliance on Social Security and prescription drugs.

Most misleading about this tax bill is the way it treats taxpayers with similar incomes far differently, based on the state in which they reside. This is because it greatly increases the impact of the alternative minimum tax (AMT), which reduces deductions such as state and city taxes. The nonpartisan Joint Committee on Taxation estimates that our current tax code will push 20 million taxpayers into the AMT over the next 10 years. The Bush plan increases this number to 35 million. This impact is not news to the Bush administration. The President knew when he introduced his plan that the \$1.6 trillion in tax cuts was not, quote, just right and that an AMT fix is necessary. Signs from the administration and Congressional leadership are that any such fix will only be included in the next tax bill. No doubt this next tax bill will also be loaded with other provisions.

I do not believe this is a responsible way to pass a tax cut or a budget that has yet to take into account the defense review. The administration has argued that their tax bill will boost the struggling economy. At the same time, they say that the economy is strong enough that a large tax cut is not fiscally irresponsible. I am afraid that they have missed both targets. Thank you, Mr. Chairman.

[The prepared statement of Representative Maloney appears in the Submissions for the Record on page 28.]

Representative Saxton. I thank the gentlelady. Let me just do two things, if you will bear with us for a moment, Dr. Hubbard. Let me welcome Congresswoman Jennifer Dunn to the Committee, her first hearing with the Committee. We are really pleased that you are with us and we look forward to a very productive time here this year and the next on the Joint Economic Committee.

Also, Senator Reed and Senator Corzine have come over from the Senate. We know that you have a very busy schedule today and that you may have to leave us for votes, and so at this point, Senator Reed would just like to say a word and, I believe, ask that his statement be included in the record.

Senator Reed. Thank you, Mr. Chairman, and thank you, Dr. Hubbard, for joining us this morning. As the Chairman indicated, we are in the midst of a debate on the tax bill. We will have to leave momentarily, but I do want to submit my statement for the record and also yield to Senator Corzine for a moment if he has a statement that he would like to put in the record.

[The prepared statement of Senator Reed appears in the Submissions for the Record on page 30.]

Senator Corzine. It is great to be here and I appreciate, Mr. Chairman, you holding this hearing. I had an opportunity to visit with Dr. Hubbard personally, and then also at the Banking Committee hearing. I think all of us have many questions with regard to the economy and the impact of the tax program on it, but he is a very worthy commentator and participant in this process. Thank you.

[The prepared statement of Senator Corzine appears in the Submissions for the Record on page 32.]

Senator Reed. Thank you, Mr. Chairman.

Representative Saxton. Thank you.

Dr. Hubbard, welcome to the Joint Economic Committee. We are very pleased that you are here and we, without further ado, would like to move on to hear your thoughts as you care to present them.

OPENING STATEMENT OF DR. R. GLENN HUBBARD, CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS

Dr. Hubbard. Thank you, Mr. Chairman, and Senator Reed, and Members of the Committee for inviting me. I hope this will be the beginning of a dialogue between the Council of Economic Advisers and the Committee, both on the current outlook for the economy and where economic policy stands.

Mr. Chairman, you already gave a quite nice view of the economic situation. I will be comparatively brief in my own version of events in the testimony, and then I wanted to spend some time talking about the President's proposals.

I think the backdrop of the current situation traces, exactly as you noted, Mr. Chairman, to the long boom that goes back to the early 1980s.

I think it is, of course, first and foremost, traced to efforts and innovation and activity in the private sector but also to responsible public policy. The Federal Reserve's actions to contain inflation and bring down the rate of inflation acts as a very large tax cut on investment and contributes greatly to the economic stability that we have seen.

Second, we saw in that long boom period generally favorable developments in tax policy, with the exception of the early 1990s. We saw reduction generally in the level of marginal tax rates.

And third, a broad deregulation of commercial and economic activity that allowed incentives in the private sector to promote growth.

In this period we have seen fairly substantial improvements in GDP growth, investment, and productivity. Those had accelerated prior to the recent slowdown during the course of the late 1990s. And of course, as I have indicated, all of these accomplishments in the real economy have also coincided with a period of low inflation, suggesting their sustainability.

Now, of course, more recently, commencing around the middle of the year 2000, we have seen a growth slowdown. I like to refer to this as an unacceptably slow rate of growth, because the rate of growth the economy has been experiencing is dwarfed by its potential rate of growth. Hence, it should be unacceptable to all of us.

The peak in the conference board's index of coincident indicators, which you can think of as kind of a snapshot of the current situation in the economy, occurred in September of 2000.

Now, despite this deceleration in the rate of growth, we are not now, in my opinion, nor are we likely to be in a recession. So we have seen a growth slowdown, a growth slowdown that is painful to all of us, but I don't think portends a recession.

The May Blue Chip Consensus Forecasts, produced by professional forecasters, has real GDP growth at around 2.2 percent for year 2001, accelerating to 3.4 percent in 2002.

Now, why are we in this position of a growth slowdown when we had a period really of almost unparalleled prosperity? Where are the pressures coming from on the economy?

First, on the consumption side, consumer spending has been relatively resilient in this growth slowdown. It indeed is probably responsible for why we have not seen worse. There are reasons to still be concerned. The wealth effect in consumption – that is, the effect of declines in equity values and consumer spending – occurs with a lag. And consumer confidence, while rebounding a little, is still relatively shaky.

On investment, we have of course seen declines in overall business fixed investment over the past two quarters. There are bright spots. Construction investment, for example, is up sharply. The sector that we all know has been hit most significantly – and is especially important because of the attention paid to the new economy – is information technology equipment. It is my own view that we should see a rebound

in IT, information technology equipment spending, toward the end of this year and into next year, conditional on the fiscal stimulus that is being debated, being in place. I say this in part because depreciation of this equipment is relatively rapid.

There are those, to be candid, who would indicate that current weak profits might portend a longer period of an adjustment in the IT sector. But even that view indicates that the downturn works through in about a year.

Another factor that has already come up this morning is the role of energy prices. The easiest way to think about the run-up in energy prices over the past two years is that they function as a kind of tax on consumers and on firms. It is a tax that has contributed to the growth slowdown in the economy.

In terms of the rest of the world, certainly the weak growth in the short term in the U.S. economy has been exported abroad; that is to say, the weakness in the U.S. has not been good news for our trading partners, and at the same time, weakness abroad has restrained growth a bit in the U.S.

With all this discussion of the short term, in the description of economic outlook, I want to be sure to leave with you what I think most economists would tell you: that the long-term outlook for the U.S. economy is very bright. The improvements in living standards that we all seek for our country are reflective of productivity growth, and most of the estimates for long-term productivity growth that underlie everything from the long-term budget forecast that we debate and the long-term forecast of our own living standards as Americans, are still very good.

There is, however, a caution in that statement. I use it as a segue to talking about economic policy as opposed to the current outlook. Current productivity growth does not happen in a vacuum. It is dependent, really, on at least two very important things: one, the continued pace of innovation and entrepreneurial activity in the private sector and two, sound economic policy and public policy.

So, while I think that outlook for productivity growth is bright, it does not mean that it is invariant to whatever policy we might pursue.

Now, to discuss the impacts of the President's proposals, I think it is important to revisit the setting of the President's tax plan. I had the privilege of working with the President quite a bit, on the tax plan during the campaign and, as you well know, the setting at the time did not require talking about economic stimulus. Indeed, a principal reason for the President's consideration of sharp reductions in marginal tax rates was the rising tax share and income tax share due, in particular to the phenomenon of real bracket creep.

To be concrete, if you look at the first half of the 1990s, between 1990 and 1995, about 8.1 percent of GDP was paid in individual income taxes each year. By the year 2000, closing the decade, that ratio had risen

to 10.2 percent, which was an all-time high for individual income taxes. Absent law changes, that share will continue to grow.

This is not fiscal drag in the usual sense— automatic stabilizers in a budget that in good times collect more and in bad times collect less. This is a structural issue attributable to real bracket creep. While we have indexed brackets in nominal terms, as we have seen improvements in real growth, thank goodness, the progressive tax system is a very powerful machine for raising the growth of the public sector.

With the President's tax plan, part of this growth, although by no means all of it, would be attenuated.

A second issue that the President spoke about repeatedly in the campaign, and he has repeatedly used in advancing the tax bill with the Congress, is that high marginal tax rates aren't just about budget numbers or tax shares. They are about discouraging, as you put it, Mr. Chairman, work and saving and entrepreneurship, and in this setting it is important to think about potential stimulus effects of a cut in marginal tax rates.

First, the announcement of a permanent cut in marginal tax rates is, in and of itself, stimulative. If you were to query any of a number of forecasters in the private sector, or academics who look at more longer-term models, you would get very large effects on economic activity of a large, believable, permanent cut in marginal tax rates.

A second source of stimulus that is now being discussed, is related to the President's call for an acceleration of the tax cut to deal with the short-term growth pressures — an up-front stimulus. But I think it is important not to lose sight also of the big-picture effect of cuts in marginal rates themselves.

A third area of interest and importance to the President in the tax plan is that while marginal tax rates are to be cut, there should be no damage done to the fairness of the tax system. The largest percentage of tax cuts go to individuals at the bottom, not the top, of the income scale.

It is often thought that high marginal tax rates are a problem of the rich or of high income, but there are high marginal tax rates at many points in the Internal Revenue Code, something you all know well. Many low-income households, and secondary earners deciding to work, and other situations face high marginal tax rates. This is not a rich person's problem.

Now, one of the great frustrations, I think, in the current debate, is I think too little attention is being paid to the economic impacts of the tax plan; not just the President's proposal, but what is being debated currently on the House and Senate side. The President's plan focuses on reducing marginal tax rates, and any bill that comes out, I am sure, will have that focus as well. There is by now a very large body of evidence among economists that improving marginal incentives, that is, rewards to effort, to investment, to innovation and a variety of other activities, is the key.

Now you mentioned the concept of deadweight loss, Mr. Chairman. It always warms an economist's heart to hear words like deadweight loss, but I think the simple way to think about it is as pure waste. As we think

about a tax system, we don't want a tax system which is, in effect, throwing away economic resources as it collects money. And the 30- to 40-cent waste to which you referred, Mr. Chairman, is a real economic cost of high marginal tax rates.

Without boring you with formulas, suffice it to say that as you cut marginal tax rates, you are getting a more than proportional reduction in the waste associated with the tax system. Conversely, if we were thinking about raising marginal tax rates, the waste would increase faster than the rate of increase of the tax.

Now, what is the visible benefit of this reduced waste beyond economists muttering? One is participation in work effort for low-wage workers. There is a quite significant literature in labor economics suggesting both participation and hours responses to cuts in marginal tax rates for low-income Americans.

Second is secondary-earner effects. The decision to participate in the labor force and how much to participate of secondary-earners, is quite responsive to tax changes. And so again, there is very large waste associated with high marginal tax rates on secondary-earners -- the so-called marriage penalty issue.

A third area of interest lies in entrepreneurship, and the growth of business clearly is a big factor in the innovative boom that we have seen. To be concrete, if we were to reduce the top rate from 39.6 percent to 33 percent, say, it would raise by most economists' estimates small business capital outlays by about 12 percent and small business payroll growth by four percent.

Now, there are two ways to think about statements like that: one is sort of an "econ-speak" of thinking about elasticities of responses. But there is a far more important way to think of it. When we are thinking about reducing the top rate on business people -- who are, by the way, more than half of the top-rate filers -- the issue is not so much what is the effect on the tax bill of that businessperson, but the spillover effect to suppliers, investment in capital, and employees. So this is a very big deal indeed.

As regards the top rate, there is again quite a large literature among economists of effects on incentives broadly; not simply entrepreneurship, but risk taking, financial engineering and so on, that has been summarized by the induced increase in taxable income. Perhaps the most prominent of these studies is by Martin Feldstein, who is a predecessor of mine as Chairman of the Council of Economic Advisers. He found very elastic, very large, responses of taxable income to changes in the top rate. This reflects two things that are of interest to all of us. One is this waste point that the Chairman wisely raised, but also the issue of revenue. It reminds us that as we cut taxes, part of this revenue comes back to us in the term of increased taxable income.

Now, how does the President's plan measure up against these goals? First, there are broad-based cuts in marginal tax rates. Second, the plan would eliminate the death tax, which is a tax that is tied to capital

accumulation. Third, by permitting non-itemizers a charitable deduction, the plan bolsters the role of the not-for-profit sector in the economy. Fourth, as regards human capital, expansions in the child credit, marriage penalty, and education savings accounts are important. And, finally, on technology, the proposal by the President to permanently extend the R&D tax credit will be very beneficial.

Let me give you a quick bottom line. I think it would be fair to say that almost any economist that sat before you today would suggest quite substantial effects on economic growth of the President's tax plan. There are two ways to see that. One would be in short-run, macro-econometric models that you often see brought to you as evidence. Those models would have an effect on aggregate demand growth over the next few years, probably in the four-tenths of a percentage point range. I think that estimate understates the long-term effect of the President's plan. Most of the work on longer-term models of capital accumulation would give you a still greater result.

The other bottom line that I wanted to leave you with is an admonition about uncertainty. It is the case that forecasters in the private sector have already taken a fairly significant tax cut to the bank in their forecasts. Consumers and firms, in making decisions about confidence, have taken into account a large tax cut. Uncertainty over the likelihood of the tax cut, uncertainty over the phasing in of provisions, let me be perfectly clear, has fairly significant negative consequences for the recovery.

So thank you again, Mr. Chairman, for giving me this opportunity to talk with you today about the state of the economy and the President's proposals for long-term economic growth, and I would be delighted to answer any of your questions so far as I am able.

[The prepared statement of Dr. Hubbard appears in the Submissions for the Record on page 34.]

Representative Saxton. Dr. Hubbard, thank you very much. Let me just say at the outset that over the past six and one half years, during which period I was first Vice Chairman in 1995-1996, Chairman in 1997 and 1998, and then Senator Mack was Chairman, in the ensuing two years, and now, I have the privilege of being the Chairman again, we have tried to define our mission rather specifically; and that is, to see what is going on in the economy, and then to try to determine what it is about Federal policy that is having an effect on the economy, positive or negative.

And so to that extent, let me just ask some questions. First of all, you mentioned that until the end of the second quarter of 2000, the economy seemed to be doing very well, as a matter of fact, and you mentioned a period of 17 years or so of economic growth with one short mild recession in 1990-1991. But then the beginning of the third quarter of 2000, or during the third quarter of 2000, real GDP growth, which had averaged about 6 percent during the prior four quarters, fell to an average of about 1.7 percent during the next three quarters. And, similarly, consumption slowed beginning in the second quarter; also, investment

growth shows a very similar pattern. Gains in employment also declined significantly after mid-year of 2000. Manufacturing employment decreased significantly during the second half of the year. Industrial production also slowed during the same time frame, falling seven months in a row as a matter of fact, and eight of 10 months since June of 2000.

Clearly, this is evidence of a slowdown of significant nature. Would you agree with that?

Dr. Hubbard. Certainly we have seen a quite significant growth slowdown. I definitely agree.

Representative Saxton. Also, given the economic slowdown that clearly developed last year, what do you think were the principal economic causes or explanations of the slowdown?

Dr. Hubbard. As with most slowdowns, there is no smoking gun. There is no single force, but rather a number of forces acted to slow the economy. The decline in equity prices impacted both consumer spending and investment. The increasing perception that there might have been some excess investment in the information technology equipment sector hurt investment in that sector. Energy prices acted as a brake both on consumer spending and investment spending, and, of course, there were delayed effects of monetary policy actions as well. All of these factors contributed to the slowdown, along with, of course, the fiscal drag that had been built into the tax system.

Representative Saxton. Given what you see as the causes, do you expect this slowdown to be rather brief or more protracted? What do you think, will happen?

Dr. Hubbard. I think the growth slowdown is likely to be brief, but this view is contingent on observations about policies. To be specific, I think that the recent Federal Reserve policy action will begin affecting the economy quite vigorously toward the end of the year, and, should the Congress pass quickly a tax cut and it goes into effect relatively quickly, that will also be affecting aggregate demand toward the end of the year. So I think, conditional on those policy responses, we will see a response of the economy at the end of the year and into 2002.

Representative Saxton. With regard to Federal tax policy, isn't it true that there is an additional effect, which I referred to in my opening statement, and that you referred to also in your statement, that economists refer to as deadweight losses, which means that the actual loss on a dollar-for-dollar basis is larger in the economy than the actual dollar of taxes that is paid or taken out of the economy and put into the public sector?

Dr. Hubbard. That is correct. That loss comes from a variety of factors. I referred to it as waste, because it is individuals curtailing effort they might otherwise have made, or entering unproductive transactions that they might otherwise not have; and, as you noted in your remarks, most of the estimates are on the order of 30 to 40 cents on the dollar. For some taxes the waste is even larger.

Representative Saxton. Is this a broadly accepted notion in economics generally?

Dr. Hubbard. The idea of deadweight loss is universally accepted as one of the effects of taxes on the economy. In terms of empirical evidence of deadweight loss, there are ranges of estimates, but the 30-to-40-cent range is toward the midpoint of those estimates. There are certainly estimates that would be many times that large.

Representative Saxton. So in considering tax policy, would it be prudent for Congress to take into consideration this waste or deadweight loss that you are discussing?

Dr. Hubbard. I think it would be entirely appropriate to do so, Mr. Chairman, in the form of impact statements, if nothing else, that would go along with standard revenue scoring and distributional analysis.

Representative Saxton. This subject seems to have been strangely absent from the debate in this Institution and in the Senate as well, and it seems kind of strange to me that we haven't talked about this more. We talked about it in previous administrations. And I am just curious, have you heard much discussion on this topic?

Dr. Hubbard. There was an effort a few years ago by the Joint Committee on Taxation to explore some of the concepts. But you are right, there has not been much effort in recent years. I think that the Treasury Department remains interested in bringing together academics to work with the Treasury on this subject, and my hope would be that the Joint Committee would feel the same way.

Representative Saxton. And you, I believe, made reference in your opening statement that the current tax package under consideration would have some long-term economic effects partly, or maybe largely, because of this concept. Is that right?

Dr. Hubbard. The effects would be twofold. One would be genuine effects on real economic activity, which is why, of course, we are talking about the tax bill. The other effects are on taxable income and have to do with the way individuals arrange their affairs and the effort that they make.

Representative Saxton. Would it be fair to say that a key reason for tax cuts would be to reduce deadweight loss?

Dr. Hubbard. I think that is a key reason to focus on marginal tax rate cuts. The reason the President focused on marginal rates was that he thought those were the most efficient ways of recycling money to the American taxpayers.

Representative Saxton. Well, thank you. I think it is an extremely important concept and one that we have worked with, I think, in a very significant way over the last decades. And I thank you for being here to discuss it with us morning.

Mrs. Maloney.

Representative Maloney. Thank you, Mr. Chairman. Senator Reed and Senator Corzine have inquired if they would be able to place their questions in writing and have them—

Representative Saxton. Without objection.

[The questions of Senator Reed, along with the responses from Dr. Hubbard, appear in the Submissions for the Record on page 44.]

Representative Maloney. Dr. Hubbard, in your statement you focused a great deal on the marginal rates. And what evidence is there that the tax cuts will boost economic growth? How can anyone argue that marginal rates hurt productivity, given the extremely wonderful expanding economy, the best economy in my lifetime, that we have experienced in the last years. And this expanded with the marginal rates. So what proof is there that cutting the rates are going to expand the economy? The economy slowed down particularly during this debate when we have been talking about cutting marginal rates.

Dr. Hubbard. You have really asked two questions. I will take them in turn. The first question is what do we know about the effect of marginal tax rates on the rate of economic growth. There is a large body of research that suggests high marginal tax rates discourage labor supply, hours worked, savings decisions, investment, and entrepreneurial decisions. I think that is a fairly uncontroversial statement.

Representative Maloney. But for the past eight years we had these marginal rates and it was the best economy in my lifetime.

Dr. Hubbard. Right, exactly. Your second question is a difference between moving along a curve and shifting a curve. It is a classic issue. The question is what are you holding constant? It is true that we had a number of strong tail winds in the U.S. economy that were very positive over the past decade. The point is if one controls for those, as a number of these empirical studies do, there is still a deleterious effect on effort and entrepreneurship and activity. So the right counterfactual is: controlling for those positive forces that we did see? What could we have seen? We could have seen even more. As the economy begins to weaken, those forces become in greater relief. So I take your point that the 1990s were very good economic times, but I think most economists believe they could have been even better.

Representative Maloney. Well, I would like to question it and focus on the sharpening of the yield curve. Long-term rates are rising, yet the Fed has been cutting rates, and yet the long-term rate has risen roughly 1 percent. I mean, that is like a hidden tax on everyone when these rates rise. And couldn't this be interpreted as a lack of trust, shall we say, from the markets with this huge projected tax cut that could put us back into deficits and other economic challenges, shall we say?

Dr. Hubbard. That is not how I would read it. I would read the uptake as reflecting improved prospects over the long term for the economy and for credit demand. I don't think you would find too many Wall Street economists worried about the long-term fiscal position of the government at the moment especially in setting long-term rates.

Representative Maloney. But the long-term yield going up, the rate going up 1 percent, I think most economies would be worried about that.

Dr. Hubbard. Again, rates are prices and reflect supply and demand. So the question is: why does the rate go up? The two principal reasons one would think about the long-term rates going up would either be inflationary expectations, which appear to be quite modest, or increases in credit demand. I think that's where most of the attention has been.

Representative Maloney. I would like to go back to 1990 and 1993. There were dire predictions that tax rate increases would cause an economic downturn. Yet we got just the opposite. And isn't growth more likely in our economy if the government follows a prudent fiscal policy of paying down the debt? Paying down the debt really lowered the rates on all Americans for interest rates, mortgage payments, rates on cars, which in a sense was a tax cut to all Americans. And isn't growth more likely if we continue a strong policy of paying down the debt?

Dr. Hubbard. Your question raises a very important point, which is what is the gain to the economy of cutting marginal tax rates as opposed to doing other things with the surplus — paying down the debt comes to mind.

I think you are absolutely right that a sound fiscal policy is important for economic growth. I think it contributed to the long boom. I would question the premise that the alternative to cutting marginal tax rates in the current environment is simply paying down the debt. I don't think we have seen the fiscal restraint on the spending side that would be associated with paying down the debt. So I think that getting the money back to the taxpayers would be more salutary than simply spending the surplus, which I see as the other alternative.

Representative Maloney. Because so much of the administration's and the House and Senate's tax cut proposal occurs in the second half of the 10 year projection period, it is clear that the cost of the tax cut of the second 10 years is much higher than estimates in the first. Some estimates suggest that the cost will be almost twice as high, yet it is during the second ten years that the budgetary pressures of the baby boom retirement will hit with full force. And isn't the large tax cut proposed by the administration fiscally imprudent in the face of the budgetary pressures that we know we are going to confront in the next ten years?

Dr. Hubbard. Well, the short answer would be I don't think so. I think most people who have looked at the out-year or, quote, steady-state cost of the tax cut still think that it is quite affordable, again conditional on the productivity growth forecasts.

You raised a very important point, however, about long-term pressures on the budget that come from entitlement programs. The President has been quite focused on directing the Social Security Commission to report back to him on reform of Social Security. I think you are absolutely right to highlight those pressures.

Representative Maloney. In your prior statement you talked about that you thought if we spent the surplus, this was not a good thing to do. Yet government spending as a share of GDP has been falling and democratic budget proposals have called for smaller tax cuts and more debt reduction, and government is not consuming a rising share of resources. And so my question is: What has been happening to Federal spending as a share of GDP? It has been falling, which is counter to what we said we would be doing.

Dr. Hubbard I think there are two points in question, one is on debt reduction. Of course, under any of the plans that you are considering, on either side of the aisle, there is an enormous amount of debt reduction because of the dedication, wisely so, of Social Security surpluses to Social Security.

Let's be clear, there is an awful lot of debt reduction. My comment on spending had to do with observations of recent increases in the number of proposals for, and, the rate of growth of, discretionary spending, which would likely not have happened had there not been such a surplus to fund that spending. Going back to what I had said before, I don't think the statement of debt reduction is necessarily the correct premise in the current budget environment.

Representative Maloney. Along with preserving Social Security and tax cuts and so forth, but isn't it somewhat of a scare tactic to talk about rising spending when that is not the case? Government spending as a share of GDP has been going down in both the Democratic and Republican plans.

Dr. Hubbard. It is not an issue of a scare tactic so much as asking when we have this great opportunity created by the private sector for this surplus – what do we do with it? What is the most efficient? And I think that among the three choices – tax cuts, debt reduction, and spending increases – probably most economists would put spending increases third of the three.

Representative Maloney. Well, that is the Democratic proposal, a third for spending, a third for tax cuts, and a third for paying down the debt.

Dr. Hubbard. When I said "third," let me be more clear. I mean the bottom. In terms of priority ordering, I think most of the evidence would say we get the largest efficiency gains from cutting certain marginal tax rates where they are high, a la the President's proposal; second, the debt reduction that is being done via Social Security; and third, spending increases only where the payoff is high – for example, the President's educational proposals.

Representative Maloney. Well, the Chairman has indicated my time is up. Thank you. Thank you, Mr. Chairman.

Representative Saxton. Thank you.

Ms. Dunn.

Representative Dunn. Thank you, Mr. Chairman, and I am happy to be a Member, a new Member of your Committee, and glad to have the chance to listen to you, Dr. Hubbard.

I have a few questions for you. During the most recent debate over President Bush's tax plan, some of us, some Members of Congress, including myself, became very distressed at the effect of the scoring system that we have in the Congress of the United States. Some of the cost estimates that were provided to us by the Joint Committee on Taxation, for example, seemed very overblown in certain cases, and in other cases failed to take into account the positive effects that might occur among some of the results on the tax plan. For example, when we dealt with changes, potential changes in capital gains rate reductions and changes on the death tax repeal bill, none of the unlocking of assets was taken into consideration, and yet other omissions from the income tax as a result of taking away the gift tax were considered as a negative effect.

As you talk about deadweight losses, the compliance costs when you are dealing with preparing for a death tax bill seem to me to be an example that the scoring system should have taken into consideration, because those would be dollars in a year that would be left in the economy instead of pulled out to purchase estates and that kind of thing.

I would like to know about your opinion about the efficacy of dynamic scoring and I would be interested in knowing whether this administration has any plans to target our scoring system so that we can be far better informed, particularly since we seem to be estimating in 10-year numbers of years, a tough way to estimate. More importantly, how can we encourage government economists to pursue more realistic assumptions, economic assumptions?

Dr. Hubbard. Those are all great questions. On the Joint Committee staff and the Treasury staff, I think you have very talented economists who are playing by what is perceived to be the rules of the game. The death tax, for example, is an area – as you know better than anyone in this room – that has a lot of complications. And there I share your concerns with some of the estimates we have seen on the death tax. As to the larger question of dynamic scoring, during the campaign, President Bush always used static numbers. There was no attempt to engage in dynamic scoring, and the administration in presentation of the first budget has not done so.

Having said that, we think that the Congress and the public would be better informed if information about the impact of major tax changes – not every small change, but major tax changes like the bills that are being discussed now – had an economic impact assessment. I think we would encourage the Treasury in-house, and also the Joint Committee to think about providing that information. Whether it is done formally as a part of the scoring process depends on your requests of the Joint Committee. But I think as Members, you deserve that information in your deliberations.

Representative Dunn. I appreciate that attitude because I think we are ending up with some assumptions that are based on incorrect

information as we take a look at the costs of some of these tax bills over the short and the long-term.

I read recently an article in *The Post* that stated according to IRS data, the highest-earning 400 Americans paid as much income tax as the lowest-earning 40 million Americans.

Critics of the President's tax plan claim that the rate reduction is skewed toward the wealthy and will erode the progressive nature of the Federal income tax.

Dr. Hubbard, would you elaborate on the progressivity that is found in the President's plan; for example, the estimate that six million people will be taken completely off the plan and that a single mother of two children can make up to somewhere around \$31,000 in income a year before she will begin to pay the income tax.

Dr. Hubbard. Sure. You have already given two very good examples. I think more generally it is important to look at the tax system we have right now, a system that is collecting the bulk of the income tax from very high-income taxpayers. As it stands under current law, individuals at the top of the income distribution are carrying the vast bulk of the tax system. Just by arithmetic, any changes that were across the board in marginal tax rates would give a large share of a tax cut to those individuals.

That is not how we typically think about progressivity. Basically we would want to compare the difference between the share of taxes being paid in the old system, what we have now, with the share of the cuts in the new system. The proposal by the President, and the versions you are considering in your deliberations, are progressive – the very high-income taxpayers receive a smaller share of the benefits, of the cuts, than they have as a share of the taxes paid now. So I think you are quite right.

Having said that, there will be claims – which are true – that the largest shares of the tax cuts go to high-income people. But, again, that is because they are the ones paying the taxes.

Representative Dunn. I think that is a point that is missed a lot of the time. I think the fact that this is a tax relief program for people who pay income tax, and obviously people who are higher-income earners are going to pay more, they are obviously going to get more dollars back, but the share they get back is, in fact, less than the share of the lower-income earner.

Dr. Hubbard. That's right. And your question makes the important point that this isn't an across-the-board cut in marginal rates. The largest effective cuts in marginal rates are for low-income households, not for high-income households.

Representative Dunn. Let me ask you an energy question. As you are aware, my part of the country, the West, is experiencing an energy crisis. I would call it that. I am representing a district where costs are beginning to go up on energy prices and I suspect that this will spread eventually. The President has responded with a long-range plan that differs or that offers a balanced menu of solutions.

In your written remarks, which I thought were excellent, you briefly mention energy prices and how they relate to the economy. Could you please expand a bit on your remarks that you had in your written statement? In your estimation, for example, how will the energy crisis affect the economy in the short-term and in the long-term? Should it be considered a regional problem or a national problem? And lastly, I would be interested in your thought on the effects of price caps on energy supply.

Dr. Hubbard. Sure. As to the three questions, let me first discuss energy price increases in the economy. Energy price increases have had a negative effect on the economy in the past two years. I gave you, I think, a calculation in the testimony that was drawn from an International Monetary Fund study that indicated it was about four-tenths of a percentage point on the growth rate of GDP.

I think, however, there is a tendency to focus in those types of calculations on simply prices of inputs, like crude oil or natural gas. What we will see a bit this summer and what we will continue to see, absent action, is a deficit in our Nation's infrastructure for energy both on the electricity side in power generation, and on the petroleum side in oil refining. We have not had the investments that we need in those sectors and we are, frankly, going to experience capacity problems even if crude prices, and raw material prices, come down.

So what we see as regional problems, I don't think are regional problems. I think they are a national policy problem. I think in the energy policy report that the President submitted, he outlined a number of excellent suggestions both in refining and electricity.

On the question of price caps, price caps are simply bad policy. And the way to see this is to think about the problem I just mentioned: we need improvements in electricity generating capacity, and new infrastructure investments. Picture yourself as a businessperson. If I say I would like you to make this very long-term investment, but, oh, by the way, if times are good I am simply going to take the profit, and if times are bad it is your problem. Now, what kind of long-term investment decisions do you think we would observe? I think price caps are exactly the wrong answer, and I think condemnation of price caps reflects not at all a lack of interest in the problem, but rather a big interest in the problem that we need to encourage infrastructure investments.

Representative Dunn. Let me just ask you as follow-up, the President's budget has suggested a \$300 million increase in the funds that will go to the LIHEAP (Low Income Home Energy Assistance Program) program, which, as you know, is the low-income energy program that could help folks in my district get through this tough time. Are there any other short-term solutions that you think are appropriate or that are put forward by — could be put forward either by the administration or by the Congress?

Dr. Hubbard. Well the LIHEAP program is a great example of trying to focus on the problem. That is, we are assisting low-income households, as opposed to a blunt approach of subsidies or price caps that

are less sufficient. More generally, as the President suggested, if there were up-front stimulus as part of whatever tax package is passed by the Congress, that would also compensate for the, quote, tax that we have seen in higher energy prices. So that is another response.

Representative Dunn. And so the up-front stimulus would be what

Dr. Hubbard. In other words, in the tax bill that is passed, there is an up-front stimulus in terms of money given quickly to taxpayers that would cushion higher energy prices this summer.

Representative Dunn. Okay, thank you. One last question, and I appreciate the Chairman's letting me do this, since I have how many seconds – 56 left.

I am interested in your opinion on an issue that deals with trade. We have not been successful in the last few years in negotiating bilateral original trade agreements. We have only finished two of them in the last eight years. That concerns me a lot. Other nations or regions like the European Union have completed 27 trade agreements in the same time period. The past decade has witnessed a flourishing free trade environment. The United States has undoubtedly played a major role in cultivating the new environment. In addition to shepherding regional agreements such as NAFTA, the United States has continued to serve as an uncompromising advocate for greater free trade among other nations. Unfortunately, trade agreements often bog down in Congress.

What is the negative effect on the United States' economy of the delay in implementing the bilateral and multilateral trade agreements, and what do you think, Dr. Hubbard, would be the economic benefit of providing the President with TPA, or trade promotion authority, as he has asked us to do the fast-track trade negotiating authority?

Dr. Hubbard. That is a wonderful question. While I can't give you a specific numerical answer off the top of my head, I would note that the big gainers, the big beneficiaries of what the President is asking for, are all of us as consumers. We are the winners from free trade. I think when the President referred to this as a moral imperative, he was thinking of this as a problem of raising consumers' living standards. And I think you can count on not simply the President's remarks, but Ambassador Zoellick's great efforts in trying to work quickly should we get the Congress' permission on Fast Track.

Representative Saxton. Dr. Hubbard, I would just like to pick up on something that Ms. Dunn was talking about. Every time I see the numbers on the chart to your right, they amaze me. That chart indicates – and I am wonder if you would care to comment – that the top 5 percent of the wage earners in this country pay 95.79 percent of the total tax revenues that are taken in, and that the bottom 50 percent of tax filers pay little better than 4 percent in personal income tax. That is amazing.

And as you work back to the left on the chart, the chart shows that the top 25 percent of the tax filers in personal income tax pay 82 percent, top 10 percent pay 65 percent, top 5 percent pay 53 percent, and the top 1 percent pay 34 percent. It is amazing. And that is one that always

ads me to ask: How do you have tax cuts without having the top 50 percent have a bigger tax cut than the bottom 50 percent?

The chart appears in the Submissions for the Record on page 54.]

Dr. Hubbard. Your chart makes the point, actually, much more articulately than I did when I was trying a few minutes ago. Simply the arithmetic of any tax cut that is going to focus on rates faces this pattern because the income tax burdens are so skewed. We have successfully taken many low-income Americans off the tax rolls, we have reduced income tax burdens for low-income Americans, and income growth has been very good for very high-income Americans. So I think your chart portrays quite nicely that any income tax cut will give very large dollar gains to high-income taxpayers.

Again, I would note for you that the President's tax cut is not an across-the-board cut. The distribution of the President's tax cut doesn't look like this. It would give more of the gains, net gains, to lower-income households.

Representative Saxton. Thank you. We have discussed in general terms three general pieces of Federal policy that are having an effect on the economy this morning, the first being tax policy. There are different opinions, but certainly we have discussed that at some length.

The second is energy policy. Would you discuss briefly what you think needs to be done in terms of energy and what the short- and long-term effects of a successful energy policy would be?

Dr. Hubbard. Well, I think the first premise of a successful energy policy is to focus on the marketplace and market incentives. We have seen improvements in energy intensity in the United States over the past two decades that are the result of market forces. Higher prices change behavior. So first and foremost to allow market forces to work is very important.

Second, where very long-lived investments required -- related to the discussion about refining and electricity generation -- we must make sure we have minimal or as-low-as-possible regulatory uncertainty so that we get these investments built. If we create the expectation that we will change environmental regulations repeatedly over time or change a variety of review regulations repeatedly over time, it would come as no surprise that those investments would be curtailed. The short answer to our question is to let markets work and to stabilize the regulatory environment that utilities and the oil industry face.

Representative Saxton. Let me ask you about a third Federal policy that we don't have a lot to do with, but is hopefully going to have an effect on economic performance, and that is Fed policy. As we all know, the Fed has cut short-term rates by 250 basis points since early January. When do you expect to begin to see some result, or will we see a result? And if so, when, in your estimation, will we begin to see some economic impact as a result of Fed policy?

Dr. Hubbard. Well, first let me note that because of the Federal Reserve's independence, I don't want to comment too much on monetary

policy. The Fed shares the same objectives of wanting high living standards that we all do. I think the Fed's policy actions over the past several months should be having very positive effects toward the end of the year, working through asset prices and working through the cost of funds for investments. One of the reasons I am optimistic about the end of the year, and about next year, is this combination of Fed policy, which you just referred, and the tax cut that I trust you will be passing soon.

Representative Saxton. Thank you.

Mrs. Maloney.

Representative Maloney. First of all, could I request a copy of the chart so that I could see it? And this is personal income, right? And you have said, you know the President's plan is focusing on reducing the marginal tax rates, yet the low-income families actually face the highest effective marginal tax rates because of the combination of income tax, Federal payroll taxes, and the phaseout of benefits such as the EITC. And while the administration's plan does attempt to reduce some of the high rates, it would still leave many low-income families with significant barriers to work.

And is it the right way to measure the progressivity of the tax system to look at shares of a particular tax paid — in this case it is the income tax — or should we look at how the entire tax system is affecting the distribution of after-tax incomes and what has happened to the after-tax income share of those highest income households in the past decade?

Dr. Hubbard. You have raised a number of questions. First, regarding payroll taxes and the marginal tax rates faced by low-income households, the President's plan does significantly reduce the marginal tax rate for low-income families precisely because the child credit and the reduced lower bracket counteract some of the phaseout problem that you noted on the EITC. I think payroll taxes generally are a harder subject because, after all, payroll taxes are not a net tax. They are payments in contribution for a benefit. I think if one wanted to distribute the payroll tax, the minimum intellectually acceptable requirement would be to distribute the net tax that is involved, not the gross tax. So I think you would want to focus, at least for this purpose, more on income tax. And if this is personal income taxes, you might also well want to add the distribution of other nonpersonal capital income taxes that are borne by individuals, like the corporation tax.

Representative Maloney. What does the administration's policy mean for households that will be faced with higher gas and electricity prices this summer? Does the administration really believe what it says about the tax plan being part of the answer? The tax plan doesn't benefit the households who will be in the most need of greater cash flow for their purchases to pay their energy bills this summer.

Dr. Hubbard. As I had answered earlier, there will be an important cash component for all households to the extent that the Congress has a rebate as part of its proposals. That money could be used for anything

household finds most pressing, whether it is energy or a number of other needs. I think the President has wisely focused on long-term energy issues. The problems that are facing the country with energy aren't really specific to this summer. Perhaps less exciting, but very important, are long-term infrastructure issues. I think you will see improvements in energy prices and energy sufficiency in the future if we go that route.

Representative Maloney. Will they support the rebate that is in the Senate plan, the administration?

Dr. Hubbard. I think it is important for the Congress to work this out first. The President has called for an up-front piece in acceleration of his tax plan, and I am sure that the President would be willing to work with the Congress to make that happen.

Representative Maloney. And being a New Yorker, I am very concerned about the alternative minimum tax (AMT). And the Bush administration does not have much of a response to the AMT problem other than to claim it is a problem that was created by the Clinton administration. But that isn't quite honest. President Bush's tax plan would certainly worsen the AMT problem. And anyway, how can the Bush administration be so unwilling to handle the problems you claim you inherited from the Clinton administration, while being so willing to spend the surplus you inherited from the Clinton administration?

And we know that now in the AMT there are 20 million Americans in it, and with the Bush plan many economists estimate that it will grow to 35 million. So these people will not experience any type of tax cut.

Dr. Hubbard. You raise a very important point in the AMT. I don't want to get into finger-pointing about which administration is or isn't responsible, but I have to comment on the surplus. We don't inherit surpluses from Presidents. We inherit them from the energy and efforts of the American people.

On the AMT, you are absolutely right. It is a big problem. What the President said was, let's focus first on the problems we think have the highest deadweight loss – to use the Chairman's terms – and he believed that those were marginal rates.

The President has said, and the Secretary of the Treasury has said, that this is not likely to be the last tax proposal that you are going to see from the administration. There is keen interest in the administration in AMT reform.

Representative Maloney. Well then, it should be part of this proposal, because for the 20 million families that are in it now, growing to 35 million, many of them in states like New York that have a state and city tax, these are middle-class families that are going to be pushed into the AMT, and they will possibly have more taxes to pay in certain categories. And to say, don't worry, that is going to be in the future; it should have been part of this plan, wouldn't you think?

Dr. Hubbard. I don't think so, but as a west-sider in New York, I share the same concerns as you have on the east side.

Representative Maloney. I bet it affects you, right, the AMT?

Dr. Hubbard. No, it doesn't affect me, but it might soon, having moved here. Again, it is not so much that we are ignoring the problem but that in the list of priorities, the President selected the marginal tax rate reductions first. I don't think you should take that as a statement of lack of interest in the AMT.

Representative Maloney. Well, I hope you are right. It certainly doesn't help the 20 million that are suffering from it now, many of whom are middle class, and many of whom are in States like New York.

On bracket creep, the two top brackets have only a small percentage of taxpayers, but that is where a great deal of the income growth occurred. And isn't it strong income growth among people in the top brackets that accounts for a significant share of the growth in revenue, not bracket creep; and isn't this just the progressive tax system working as it should?

Dr. Hubbard. There are really two factors that come up. One is for people who are in every period in the same rate bracket, and their gross income. As you pointed out correctly, in pre-tax income, growth at the top of the income distribution has been high relative to the general public. But there is also a great deal of mobility in our society. Moving up comes both from taking risks and from improving one's wage profile over time. I think the estimates indicate that real bracket creep is still a fairly substantial portion of the problem. As real incomes grow, people move into these higher tax brackets. You are quite correct that income growth at the top has also been high.

Representative Maloney. Getting back to energy. Is there a trade-off between environmental quality and economic growth? Should conservation be reserved as a, quote, private virtue and not pursued as a public goal? And what did the Vice President mean by this? And isn't conservation a truly important public good that justifies a role of government in conservation?

Dr. Hubbard. Of course, I don't want to try to interpret the Vice President's statements. You would have to ask him that. But I think that we have seen a lot of conservation in the U.S. from very straightforward market incentives. It has happened naturally.

Your larger question, which is extremely important, is on whether there is a tension between the energy goals on the one hand and environmental goals on the other. I will give you two answers on that. One, as a general matter, I don't think there needs to be, particularly with the technology changes we are experiencing. I think the encouragement of alternative technologies, part of which is in the President's energy plan, lessens that tension.

But having said that, I think we as a society have to keep in mind that when we have certain environmental regulations, we may affect capacity decisions. We have to decide as we think about how many power plants we need and what kind of energy infrastructure we need, what is the marginal value of those regulations. That, indeed, is a tension.

Representative Maloney. Well, earlier when we were talking about the alternative minimum tax, you were saying don't worry, we are going to take care of that in the future. But what really bothers me is there are a lot of things that the administration is saying is a, quote, priority that we are going to take care of in the future, such as defense, the IDEA spending. And you know, where is that in the budget; and doesn't not taking care of it now in effect threaten Social Security and Medicare and the reserves we are building up there, because we haven't taken care of defense, IDEA or the alternative minimum tax in this current tax plan.

Dr. Hubbard. I don't think so. After all, you identified a number – we could identify even more – of high-priority issues for the country. The question is the timing, getting things developed in the administration, and getting through the Congress. The budget information from both the CBO and the Office of Management and Budget indicates that there is room for the priorities that the President has articulated. The solutions on Social Security are dependent upon what the Social Security Commission recommends to the President, and then what he decides to present to Congress.

Representative Maloney. I would like to go back to your statements on the distributional analysis of the tax policies. And really following the pressure of many people this Congress and others, the administration did come out with its own form of annual distributional analysis, and why did the numbers focus on changing shares of income taxes paid or on percentage changes in income taxes rather than a more meaningful examination of what happens to the distribution of after-tax incomes?

Dr. Hubbard. I think the reason is that most common-sense discussions of progressivity focus on those percentage measures that are easiest. I think that the Treasury reported a wide variety of measures just to give as much information to you as possible.

Representative Maloney. And why did they leave out the effects of repealing the estate tax in that assumption, even though Treasury distributes the estate tax as part of its standard methodology?

Dr. Hubbard. There are two parts to your question; I will take the last part first. There is no longstanding tradition in Treasury of distributing the estate tax. It has been done in recent years. In the past it hasn't. But the more substantive answer to your question is that distributing the estate tax is not a straightforward exercise. Further, the internal calculations in Treasury that have distributed the estate tax still have a distribution table that is quite progressive for the entire plan.

Representative Maloney. My time is up. I thank the Chairman.

Representative Saxton. Thank you. Dr. Hubbard, let me try to summarize where I think we are in this tax debate. You have indicated that various things that occur sometimes as a result of Federal policy, sometimes as a result of other things that happen, affect people's behavior. Today's energy costs this summer will affect people's behavior in some way, not that I know exactly how, but there is bound to be an effect. We are hoping that Fed policy, current Fed policy, has an effect

on people's behavior and that that will cause positive effects in the economy.

Republicans and Democrats have both argued these points and at certain points agreed on this very basic premise that economic stimulus affects people's behavior and that sometimes, therefore, we have positive or negative effects on the economy.

The first person that I remember on the Democrat side arguing this point successfully was John Kennedy in 1963 in his State of the Union address. Forgive me if I don't have these words exactly, but something like, "We can't expect to be a world leader if we fail to set the economic pace at home." And he went on in the rest of his State of the Union address, talking about how he thought we should reduce the tax burden on people to have an effect on their behavior and hopeful positive effect on economic growth.

And then in the early '80s, someone who the Republicans championed, Ronald Reagan, made a similar speech. And it wasn't until after he made his speech that we realized that we Republicans didn't invent the notion that Federal policy can have an effect on people's behavior, and in turn that can have an effect on the state of the economy but we were very proud of the notion that Ronald Reagan espoused that we needed to cut taxes in order to relieve the burden on people and to produce the positive results that we saw subsequent to that.

We saw economic growth after the Kennedy tax cuts. We saw economic growth after the Reagan tax cuts. As a matter of fact, I would go so far as to argue that much of what we have seen in the last 17 years has been partially, maybe largely, but partially a result of the tax policies that were put in place in the early '80s.

So much has been said about this. And further in your statement, you argued that the proposed tax cuts are significantly smaller than either the Kennedy or the Reagan tax cuts.

Would you talk about this tax proposal in the historic perspective in terms of this notion that, simply put, we are hoping and believe that we will affect people's behavior and cause long-term economic growth?

Dr. Hubbard. Yes. I think you made two excellent points. One is the point that partisanship should have nothing to do with interest in marginal tax rates. A Democratic administration and a Republican administration, in your examples, had very large marginal tax rate cuts indeed larger in terms of their steady-state cost than those we are talking about today. I think the interest should be in improving living standards for all Americans.

Again, I think the evidence is abundant. Cuts in marginal tax rates both improve the real growth prospects for us all, but also root out much of the waste in the tax system that you correctly identified. The other point is that the proposal of the President, and the proposal you are debating in the Congress, is smaller than these examples. This isn't a radical departure in fiscal policy. It is really more trying to stabilize the individual income tax share of GDP.

Representative Saxton. Dr. Hubbard, thank you. I have no further questions at this point. We would again like to thank you for taking time to come and visit with us and share your thoughts this morning. We will continue our task here at looking at Federal policy, and from time to time we hope we will be able to call on you for your thoughts and input on these subjects. Thank you very much for being with us.

Dr. Hubbard. Thank you, Mr. Chairman.

Representative Saxton. The hearing is adjourned.
Whereupon, at 12:25 p.m., the hearing was adjourned.]

**PREPARED STATEMENT OF
REPRESENTATIVE JIM SAXTON, CHAIRMAN**

Chairman Hubbard, it is a pleasure to welcome you before the Joint Economic Committee this morning. I believe this is your first appearance before Congress as Chairman of the President's Council of Economic Advisers, and we look forward to your testimony.

The long period of economic growth that began in the 1980s has continued, aside from a short and mild recession in the 1990-1991 period. The economic benefits of such a sustained period of economic growth are reflected in the general prosperity and health of the economy evident through the middle of last year. Real GDP growth has been strong, labor productivity gains led to higher output and income. Inflation has been reduced by the Federal Reserve, interest rates have trended downward, and rates of unemployment and poverty have fallen over the course of the expansion.

However, as I noted last December, the economy has entered into a sharp slowdown that began around the middle of last year. Real GDP growth fell from 5.6 percent in the second quarter of 2000 to only 1.1 percent by the end of the year. Investment, consumption, and employment have also reflected the sharp slowdown. Manufacturing employment has been declining since July of last year, and employment losses are now spreading to other sectors of the economy.

The Federal Reserve has responded by sharply reducing short-term interest rates and relaxing monetary policy over the last five months. I believe the actions of the Fed will significantly improve the prospects for a resumption of healthy economic growth later this year. However, I remain concerned about current economic conditions as reflected in the recent two consecutive declines in payroll employment. Although I do not believe the tax bill currently under consideration will make the economy turn on a dime, I do think it will have a positive effect over the next year that is much needed in the current environment.

The weak economy is bearing the burden of a tax system that is systematically biased against work, saving and investment, and is literally counterproductive. Real bracket creep gradually continues to push taxpayers into higher tax brackets. The additional burdens of what economists call deadweight losses are a significant problem that is now well recognized by many policymakers.

Essentially, deadweight losses arise because the tax system imposes added economic costs in addition to the revenues raised by taxation. In other words, for every incremental dollar raised in revenue, the tax system imposes other costs amounting to 30 or 40 cents on the economy. Thus, each dollar in tax reduction can provide significantly more than a dollar in benefits to the economy. In my view this is a key reason to reduce the burden of our counterproductive tax system.

Fortunately, progress is being made on a bipartisan tax bill to reduce the tax burden on the U.S. economy. It will not solve all our immediate problems, but it will improve the prospects for healthier economic growth.

in the years to come. The stronger economy will, in turn, help us to address the longer-term economic and budget challenges facing the nation. We have a tremendous opportunity to enhance the economic future of America by reducing the weight of our counterproductive tax system.

**Statement of Rep. Carolyn B. Maloney
Joint Economic Committee Hearing on the Economic Outlook
May 23, 2001**

Thank you Mr. Chairman for holding this hearing today on the state of the economy. As we have seen since the middle of last year, economic growth has slowed dramatically.

The manufacturing sector has lost over half a million jobs. Only continuing strength in the services industry and strong household spending have kept a recession from spreading throughout the economy.

Unfortunately, recent signs are cause for increased concern. The recent sharp rise in the unemployment rate and the potential impact of high energy prices on household budgets could lead to increased economic difficulty.

The current Administration's one-note answer to all these problems has been its tax cut proposal. While I am personally certain that Congress could pass historically large, responsible tax cuts on a bipartisan basis, the bill that we will vote on later this week is no such agreement. The President's plan risks a return to deficits and is fundamentally unfair to lower income workers and to my state of New York.

As introduced, the Bush tax bill was so large and based on economic assumptions that can vary so greatly that we risk deficits if our numbers are only slightly off. The Senate bill is only marginally better.

CBO, whose rosy projections are the basis for the tax cuts, indicated that its average error margin in projecting budget surpluses or deficits for a fiscal year in progress has historically been about 0.5 percent of the Gross Domestic Product (GDP). In the current economy this would be \$54 billion in one year.

As for projecting five years out, CBO's average error has been 3.1 percent of GDP, a six-fold increase. Many of the Bush tax cuts do not fully phase-in for 10 years in order to hide their tremendous cost. To borrow a Bush catch phrase, using CBO projections based on continued strong economic growth for the next 10 years is truly "faith-based" budgeting.

While the tax cut itself is large, it is not so large that it provides relief to the lower income Americans who pay the majority of their taxes through payroll taxes rather than income taxes.

Ironically, it is these Americans whose household budgets are most affected by rising energy prices. While President Bush has suggested that the tax cut be enacted to pay for sky-rocketing energy costs, his plan does not benefit these very workers.

Finally, the tax bill on its face is fundamentally misleading. Provisions granting marriage penalty relief and estate tax repeal are so costly that they do not fully phase-in for a decade. Well

after President Bush has returned to Texas, the full force of these provisions will confront the country just as the baby boom generation increases its reliance on Social Security and prescription drugs.

Most misleading about this tax bill is that it treats taxpayers with similar incomes far differently based on the state in which they reside. This is because it greatly increases the impact of the Alternative Minimum Tax which eliminates deductions for state taxes.

The non-partisan Joint Committee on Taxation estimates that our current tax code will push 20 million taxpayers into the AMT over the next 10 years. The Bush plan increases this number to 35 million. This impact is not news to the Bush Administration. The President knew when he introduced his plan that the \$1.6 trillion in tax cuts was not "just right" and that an AMT fix is necessary. Signs from the Administration and Congressional leadership are that any such fix will only be included in the next tax bill. I do not believe this is a responsible way to pass a tax cut or a budget that has yet to take into account the defense review.

The Administration has argued that its tax bill will boost the struggling economy, and, at the same time, that the economy is strong enough that a large tax cut is not fiscally irresponsible. I am afraid they have missed both targets.

Opening Statement
of
Senator Jack Reed, Ranking Member
Joint Economic Committee Hearing on the Economic Outlook
May 23, 2001

Thank you, Mr. Chairman. I want to commend you for holding this hearing. This is a critical time to be examining questions about how the economy is performing and whether we are pursuing the best policies for achieving the kind of sustainable growth that brings prosperity to all of our citizens. It is fitting that our witness is the Chairman of the Council of Economic Advisers, our sister agency, created along with the Joint Economic Committee by the Employment Act of 1946.

Mr. Chairman, over the last 10 years, the United States has experienced its longest economic expansion on record. It has been an expansion in which the unemployment rate has fallen to levels that were last seen 30 years ago, one in which inflation has remained tame, and one in which investment and productivity growth have been particularly strong. One especially noteworthy aspect of this expansion is how well traditionally disadvantaged groups have fared. They have seen job opportunities open up and they have seen their incomes grow, after a couple of decades of stagnation. However, the expansion has hit some speed bumps recently and we want to be sure that we are pursuing policies that keep the economy on track.

I think it is worth reflecting on the policies that helped generate this strong expansion. The policy approach of the 1990s rested on three major pillars: fiscal discipline, investing in people and technology, and opening markets at home and abroad. One of the most important of these pillars was the fiscal discipline that turned massive budget deficits into surpluses and that has created a budget outlook in which we have the opportunity, if we act wisely, to address critical long-term budget challenges such as paying down the national debt and preparing for pressures that will be put on medicare and social security by the retirement of the baby boom.

I look forward to hearing Dr. Hubbard's views on the economic outlook and his analysis of the policies that he believes will best keep the economy on track in the short run and promote prosperity in the long run. But I also hope we can engage in a constructive dialogue about whether the policies being promoted by the Administration are in fact the best policies for achieving those goals. I am particularly concerned about whether this Administration remains committed to sound fiscal policies and the importance of investment in people.

Mr. Chairman, a President's first budget is an important statement of his Administration's priorities, and it seems pretty clear that President Bush is intent on passing a large tax cut. Many of us think that the tax cut is too large, given the uncertainty that exists in the forecasts of the baseline budget surpluses. It leaves too little room for other important national priorities such as education, national defense, and prescription drugs, unless the actual budget surpluses turn out to be much greater than expected. Such an outcome is possible, of course, given the wide range of uncertainty in the CBO budget forecast; but unless the economy recovers quickly and strongly, it seems more likely that the surpluses will be smaller than currently projected rather than larger.

Based on an analysis of its own forecasting record, the CBO says there is a \$600 billion margin of error in its baseline surplus estimate just five years out. CBO's forecast assumes a brief slowing in the economy this year, but recent economic data on employment and industrial production suggest that we may experience even slower growth in the short run than CBO assumes. If the tax cut actually provided the stimulus that the budget resolution calls for, we might have some reason to be confident that the economy could get back on track quickly. But stimulus got left out of this tax cut, so the risk would seem to be on the side of slower growth and smaller surpluses in the short run.

In the long run, the size of the surplus depends on how fast the economy grows, and that depends on productivity growth. The most recent data suggest that productivity declined in the first quarter of this year. This probably just reflects the short-term business cycle, in which case it will be short-lived. But if we are, in fact, seeing a decline in long-run trend productivity, the surpluses will be smaller than projected. CBO's estimates suggest that 1 percent per year slower growth in productivity would reduce the 10-year surplus by \$2.4 trillion.

So I am interested in Dr. Hubbard's view of how the tax cut will affect the economic and budget outlook, not just over the next 10 years, but over the years immediately following when the baby boom starts to retire. I am worried that we are throwing away the fiscal discipline that was one of the key policy pillars on which the long economic expansion of the past decade was built in order to enact a large tax cut with great haste and little consideration.

Earlier, I mentioned how the recent expansion has helped traditionally disadvantaged groups to do better economically. In addition to pursuing fiscal policies that promoted strong private investment, the previous Administration focused on making work pay by raising the minimum wage and expanding the Earned Income Tax Credit. This Administration's priorities seem to lie in another direction. The key elements of the President's tax plan seem to be lowering the marginal tax rates paid by the small minority of taxpayers at the very top of the income distribution and repealing an estate tax that few Americans face a realistic probability of paying. I hope Dr. Hubbard can help us understand how the Administration's economic plan will affect ordinary Americans.

Finally, I hope we talk about all the ways that government can promote economic prosperity for all Americans, not just by providing incentives through the tax system but also by promoting national saving through fiscal discipline and by encouraging prudent investments in infrastructure and people. One of our roles at the Joint Economic Committee should be to encourage policy discussions about the trade-offs involved in our different policy choices. For example, the decision to cut taxes substantially is at the same time a decision to reduce government saving. Are the incentive effects from the tax cut large enough to offset the loss of national saving? What would be the effect of spending more on education that improved the skills and flexibility of our future workers and less on a tax cut? These are the kinds of questions we should be asking.

I thank the Chairman, and I look forward to Dr. Hubbard's testimony and to opening up a dialogue with him on these important issues.

**Statement of Senator Jon Corzine
Joint Economic Committee Hearing
Hearing on America's Future Economic Outlook
May 23, 2001**

Thank you Mr. Chairman. It's a pleasure to be at this, my first, hearing as a member of the Joint Economic Committee. And its focus – on our nation's future economic outlook – is obviously an important one.

I look forward to the testimony of the Chairman of the President's Council of Economic Advisors. Having heard Mr. Hubbard earlier this year during his confirmation before the Senate Banking Committee, it'll be interesting to see what, if any, new insights he has to share regarding the state of our economy.

As we are all well aware, our nation's economy has been mired in a slowdown, and been on the verge of a recession. Retail numbers have flattened out, business investment has decreased and productivity has declined. Job growth has leveled off, layoffs are on the rise and initial claims for unemployment insurance have reached their highest levels in eight years. Additionally, consumption has waned and Americans are increasing their debt burden at an alarming rate.

The Federal Reserve, and Chairman Greenspan, have taken an aggressive approach to stemming this negative economic tide, most recently by lowering interest rates by half a percentage point. Over the first five months of this year the Fed has cut short-term interest rates by 250-basis points.

But despite the best efforts of the Fed, threats abound. Energy prices along with rising long-term interest rates may discourage further investment, decrease productivity and feed greater pessimism about inflation.

Households, investors and businesses have all registered their concerns regarding our future economic outlook in the consumer confidence indices and in our markets. They have witnessed a Congress that cannot – or will not – exercise the type of fiscal discipline that our current economic situation requires. They're concerned about the increased prospects of deficit spending and decreased prospects for continuing economic growth.

As we have debated the reconciliation tax bill in the Senate these past several days, I find myself growing less optimistic that this Congress and this administration will exert the type of fiscal leadership that our nation needs during this period of enormous economic uncertainty.

We appear destined to repeat mistakes that we made in 1981, when Congress approved a tax cut plan that was eerily similar to this one. Many of us here remember that that tax cut drew our economy into a deep recession that our nation needed an entire decade to recover from.

Frankly, America deserves better than to be led, blindfolded, down the road to economic ruin.

I look forward to a lively discussion today and thank you again Mr. Chairman for holding this hearing.

Thank you.

Statement of
R. Glenn Hubbard
Chairman
Council of Economic Advisers

before the

Joint Economic Committee

Wednesday, May 23, 2001

Mr. Chairman, Senator Bennett, Senator Reed and Members of the Committee:

I am delighted to have the opportunity to appear before you in my capacity as Chairman of the Council of Economic Advisers. The Council and I look forward to working with the Committee in its analysis of the economy and economic policy. Today, I welcome the opportunity to comment upon the outlook for the U. S. economy, and to present our view upon the policy challenges facing the Nation.

BACKDROP

The Long Boom

The current expansion is the most recent manifestation of accelerated long-term growth that began in the 1980s with the advent of a number of changes in the private economy and policy direction. These new policies include the pursuit of price stability through a steady monetary policy, an extensive process of deregulation in many sectors of the economy, and reductions in the tax burden facing American households and firms.

From 1982 onward, real GDP has grown at an average rate of 3.5 percent per year, as compared with 3.0 percent during the previous decade. Similarly, productivity in the nonfarm business sector has grown at an annual rate of 2.0 percent since 1982, as compared with 1.4 percent in the earlier period. From 1995, the acceleration in trend productivity was even more pronounced, with growth averaging 2.6 percent per year. These accomplishments have coincided with a period of low inflation. Inflation rates have declined from an average 8.8 percent during the 1972-81 period, to an average 3.3 percent from 1982 onward. Moreover, the volatility of inflation has also declined from 3.5 percent to 1.6 percent. These macroeconomic achievements are built upon a foundation of microeconomic initiatives such as: the deregulation of the airline and trucking industries, as well as the oil and natural gas producing sectors. Also very important, reductions in marginal tax rates (with the notable exception of the early 1990s

increases) have set the stage for increased labor force participation, as well as the entrepreneurial achievements that have made American prosperity and technological prowess objects of emulation

Recent Developments

Since late 2000, the economy's rate of growth has slowed substantially. Beginning in the fourth quarter of 2000, growth declined from the unsustainable rate of 4.2 percent recorded in the first three quarters. Real GDP growth slowed to 1 percent in the fourth quarter, and 2 percent in the first quarter of 2001. The Conference Board's index of coincident indicators peaked last September at 116.6, dipped to 116.3 in January, and at 116.5 in April, remains below the September peak.

Despite the recent deceleration in economic growth, it is unlikely that the U.S. economy is in a recession, as real growth has been and is anticipated to remain positive. The May Blue Chip consensus of economic forecasters foresees real GDP to grow 2.2 percent during the four quarters of 2001, and 3.4 percent during 2002. Nevertheless, there are some negative factors that threaten to delay a full recovery in growth.

Pressures on the Economy

Consumption. Consumption, which accounts for approximately two-thirds of aggregate demand, has held up relatively well during the recent growth slowdown. The resilience of consumption is especially remarkable given the reduction in wealth that has accompanied the decline in equity prices, as consumption (relative to income) tends to track wealth over the medium term. Estimates of the change in consumption for a dollar's change in wealth range from three to five cents, with the lag extending up to about two years after the shock. To the extent that these relationships hold, one should expect a period of slow consumption growth.

In line with the downturn in some asset prices and economic growth, indicators of consumer confidence have also posted warning signs. The University of Michigan index of consumer sentiment has been trending downward since November, but has recently retraced a fraction of that loss. The preliminary reading for May is 92.6, up from a final measure of 88.4 in April. Despite the decline over the past six months, the index remains above its historical average.

A key question in assessing consumption prospects is whether the rate of unemployment will continue to rise, and whether the associated income uncertainty will depress consumer spending. The payroll unemployment rate rose from 4.0 percent in December to 4.5 percent in April. Private payroll employment fell in March and April, with losses continuing in manufacturing and help-supply services. The recent level of initial claims for unemployment insurance suggests that the unemployment rate will likely continue to rise over the next several months, although last week's figures on unemployment insurance claims were somewhat more positive.

Investment. Business fixed investment spending overall has stagnated over the past two quarters. Equipment and software growth declined noticeably in the fourth and the first quarter and orders suggest a further decline in the second. In contrast, investment in non-residential construction is up sharply, with first-quarter real investment 10 percentage points above its level a year ago. This growth is being led by construction in energy extraction industries, and is likely to continue as more electricity generating plants are built.

Investment in information technology (IT) equipment has also decreased. Earlier increases in equity values in this sector may have encouraged a bit too much investment. The legacy of this possible over-investment may take a few quarters to re-equilibrate. Given the rapid technology gains and rapid depreciation, we expect IT investment to rebound by year-end.

There are basically two ways to calculate how adjustment to the equilibrium capital stock -- determined by output and the user cost of capital -- will be achieved. The first is to estimate a model wherein investment expenditures adjust in a manner to gradually work off the excess amount of capital. The second approach relies upon a cash flow model to determine the investment rate -- the greater the retained earnings, the greater the amount of investment.

Estimating the overhang is a challenging task because our knowledge of the economic rate of depreciation of IT equipment and software is limited. Assuming smooth adjustment to the desired capital stock, the overhang might be eliminated quite quickly. However, if investment is highly dependent upon corporate cash flow, the adjustment might be sharper.

Energy Prices. The rising cost of energy over the past two years has exerted a kind of tax on both consumers and those firms that are not energy producers. Although the share of the households' budgets devoted to energy needs are not at historical highs, the elevation of relative prices comes at a time when the economy is fragile. Similarly, firms face increased energy costs in a period of slackening demand.

Petroleum. From late 1998 through 2000, the prices of many energy products rose sharply from their low levels. Imported crude oil rose from as little as \$10 per barrel to over \$30 per barrels; as recently as 1997, it had cost \$20 per barrel.

In order to assess the economic consequences of higher oil prices, it is important to make the distinction between permanent and temporary energy price increases. To the extent it is unlikely that the oil prices in 1998 were long-term equilibrium prices, it may be more reasonable to use the \$20 price as a baseline. Evaluated from this perspective, the relevant price increase (that might be expected to persist for some years) was about \$10 a barrel or approximately 50 percent (the price of West Texas Intermediate currently is approximately \$28 per barrel).

A recent International Monetary Fund analysis^{*} of oil price shocks on the U.S. economy determined that a price shock of this magnitude results in a 0.2 percentage point reduction in output below what it otherwise would have been in the first year after the shock, and a 0.4 percentage point reduction in the second year, with the effect diminishing thereafter. The shock adds 0.2, 0.7 and 0.5 percentage points, respectively, to core inflation in the years after the shock. Another macroeconomic model suggests that an increase of \$10 per barrel yields a 0.4 percent reduction in output relative to baseline in the first year. While the models differ in their exact predictions, they yield similar magnitudes of effects. Given relative stability in oil prices through the latter part of 2000 and indications from futures markets of a slight decline in prices, barring future negative shocks, we anticipate the effects of the oil price increase should dissipate over the next year.

Natural Gas. In assessing the impact of higher natural gas prices, it is important to recall virtually all of the 16 percent of natural gas consumption that is accounted for by imports originates in Canada, a large importer of U.S. goods. Thus the net "withdrawal" of spending from the U.S. economy is relatively small because a large proportion of the resulting Canadian spending returns as U.S. exports.

Compared with oil, the reduction of GDP due to natural gas spending leaking abroad is roughly one-sixth to one-seventh the impact experienced from higher oil prices.** Overall, the largest economic effects are domestic and redistributive in nature -- from natural gas consumers to natural gas producers.

Natural gas prices are higher relative to trend all over the country. However, they are highest in California. Even there, a recent study published by the Federal Reserve Bank of San Francisco notes that "...although rising natural gas prices have hurt some producers and consumers in the Twelfth [Federal Reserve] District, there is little evidence that rising costs have significantly slowed economic growth in the region." Further, the study observes that expenditures on natural gas in the Twelfth District amount to less than one percent of gross state product.***

It is also of interest that some firms have stopped production, not because they cannot afford to purchase natural gas, but because they have forward contracts for natural gas, and find it more profitable to resell the gas than to use it to produce their goods.

The differential prices for natural gas observed across the regions, and occasional interruptions in gas supply, buttress the Administration's argument that more resources need to be devoted to enhancing the Nation's natural gas delivery infrastructure. Accordingly, the National Energy Development Policy task force has highlighted this policy measure in its report.

^{*}Benjamin Hunt, Peter Isard and Douglas Laxton, "The Macroeconomic Effects of Higher Oil Prices," *IMF Working Paper* WP/01/04, 2001.

^{**}This calculation compares the change in import value due to higher prices, relative to GDP

^{***}Mary Daly, "Economic Impact of Rising Natural Gas Prices," *Federal Reserve Bank of San Francisco Economic Letter* 2001-04 (February 9, 2001)

California and the Electricity Situation. Most analysts have concluded that the reductions in electricity consumption (due to rolling blackouts and voluntary outages) have thus far had only a small impact on gross California state product and hence national GDP. The likely impact of the outages during the upcoming summer months is much more difficult to determine given the vagaries of the weather and the uncertain quantitative impact on demand of the new rate structure implemented by the California Public Utilities Commission on May 15. The damage from summer blackouts is likely to be limited because firms with critical needs for uninterrupted power have installed backup generators. Assuming some reduction in demand due to higher retail prices, and a moderate summer, third-quarter GDP growth might not be reduced noticeably, while an unseasonably hot summer, combined with no additional action on the pricing front, would result in a clearly noticeable impact.

The major impact on California will be felt in the longer term, as firms make decisions regarding where to locate. Firms that rely upon a stable, uninterrupted supply of electricity, or use energy as a key component of their production process, are most likely to opt for locating outside of California, and perhaps even outside of the United States.

The Foreign Sector: Effects on the Rest of the World. Changes in economic conditions have not been restricted to the United States. The global economy has also experienced substantial reductions in growth and employment. These changes are not completely unrelated; rather they represent a complex set of interactions between the U.S. economy and its economic partners.

As the largest single economy and financial market in the world, trends in the United States have a substantial impact upon the rest of the world. Rapid growth in the United States during 1999 and 2000 sustained, through demand for their exports, the economic buoyancy of East Asia and (to a lesser extent) Europe. The slowdown in the U.S. economy, particularly in electronics and semiconductor products, has resulted in a substantial decline in growth prospects in those East Asian economies that specialized in these export markets.

The Euro area in particular is perhaps more susceptible to U.S. economic influences than many European policymakers have perceived. Most of the focus had been on the fact that trade flows between the United States and the Euro area are not particularly large. However, in this era of highly integrated product and financial markets, developments in asset markets can have ramifications far outside national borders.

The Foreign Sector: Rest-of-World Effects on the United States. While events outside of the United States can have an effect upon the U.S. economy, quantifying those effects is not straightforward. In general, it is our view that, aside from a systemic financial crisis, it is unlikely that events outside the United States will have a large impact upon domestic economic prospects, largely because trade accounts for a small share of the U.S. economy. As a proportion of GDP, exports are about 11 percent. Moreover, the United

States is not overly sensitive to developments in regions vulnerable to recession; for example, U.S. goods exports to the Japan only comprise 8.3 percent of total U.S. exports.

Furthermore, foreign financial markets are small compared to those in the United States. Even to the extent that the United States relies upon foreign savings, there does not appear to be cause for current alarm from recent trends. As U.S. economic growth has slowed, and equity markets experienced a correction, the willingness of foreign investors to purchase U.S. assets has not abated. Inflows of capital to purchase U.S. equities continued into the fourth quarter of 2000 (the last period for which data are available), despite declines in the major indices. As a further indication of this phenomenon, the value of the dollar has continued its upward trend in the first quarter, even as U.S. equity indices continued their decline and euro area growth rates exceeded that of the United States.

The current account deficit, which includes net payments such as interest, dividends and remittances, was \$435.4 billion in 2000, or 4.4 percent of GDP. This current account balance reflects the desire of global investors to invest in the U.S. economy.

Long-term Outlook

Over the longer term, the prospects for the U.S. economy remain bright. I say this because of the acceleration of trend productivity growth observed over the last few years, and the accompanying rise in the growth rate of potential output, making possible rising living standards and low inflation. Over the 1973 to 1994 period, the average annual growth rate of labor productivity in the nonfarm business sector was 1.3 percent. Since 1995, it has been 2.6 percent. Over the same period, manufacturing productivity has grown at 4.7 percent annum, versus the 2.5 percent per annum rate observed in the earlier period.

The latest release on productivity growth has given some observers pause for thought. Two cautionary points are in order. First, labor productivity is procyclical, so that some reduction in productivity growth is to be expected. Second, the surprisingly low productivity growth rate for the first quarter is likely to be downwardly biased because of the difficulty in measuring self-employed hours. Subsequent observations on productivity are likely to reaffirm a higher trend growth rate.

Rapid productivity growth, upon which our future prosperity rests, does not occur in a vacuum. It depends upon the appropriate policy framework. This framework should consist of policies that minimize interference with the accumulation of factors that contribute to growth.

IMPACTS OF THE PRESIDENT'S PROPOSALS

The President's tax plan is one example of such policies. Let me begin by reviewing the context in which the President's tax proposals were developed. The

President's plan was developed in the midst of a sustained period of rapid economic growth that had increased the overall tax burden (Federal tax revenues as a share of GDP) to over 20 percent – a post-war high. Over the course of that expansion the underlying fiscal position of the Federal government improved. Having taken steps to improve the sustainability of the Social Security system and reduce significantly the outstanding debt held by the public, the President's budget proposes to reduce the overall tax burden efficiently and fairly.

Now, since the inception of the President's proposals, immediate attention has swung from a rapidly growing economy to the need to ensure the continuation of steady growth. The tax cut was not initially designed to be a "stimulus package." The goal was to return a significant portion of the on-budget surplus to taxpayers in an economically efficient fashion. Fortunately, it can serve as both. Permanent cuts in marginal tax rates will have immediate and significant economic effects. Indeed, the evidence is that a purely temporary "stimulus" tax change would have much more modest impacts than the President's plan.

Still, the plan is primarily targeted toward long run objectives. Viewed from this perspective, an unfortunate feature of most of the debate has been its focus on "size." Some critics have argued that the economy somehow cannot afford to return \$1.6 trillion dollars to the citizens who earned it.

This concern is somewhat surprising. The President's budget outlines clearly how the tax cut co-exists with preserving Social Security and Medicare, and prudent increases in other necessary government programs. Moreover, when viewed in the context of the large U.S. economy, the cuts are quite modest. Over the budget window, the tax plan amounts to only 1.2 cents in each dollar of GDP. In comparison, the President's proposed tax cuts are less than one-half the size of the Kennedy tax cut, roughly one-fourth the size of tax cuts proposed by President Reagan, and takes place in an overall context of budgetary discipline.

Or, taking another perspective, the President's tax cut compensates for "real bracket creep." The idea of bracket creep is familiar. Taxpayers once were forced into higher tax brackets due to purely inflationary increase in their nominal incomes. Indexing tax brackets for inflation solved this kind of bracket creep. However, the tax system is not immune to *real* bracket creep. As the economy grows, the real incomes of households rise; pushing them into higher tax brackets. In the absence of a significant tax cut, real bracket creep will result in an increasing share of income being paid on taxes. The President's tax cut will simply reduce the share of individual income paid on taxes to levels that were in existence in the prior ten years.

A second unfortunate aspect of the public discussion has been some of the misleading assertions regarding the fairness of the tax cut. The President believes that everyone who pays income taxes should receive an income tax cut. However, consistent with his concerns for our least-well-off citizens, the largest percentage tax cuts are reserved for lower-income families.

The percentage reduction in income tax burdens under the President's proposal is the largest – a reduction of 136 percent – for the lowest income group (under \$30,000). The percentage reduction is smaller but above average for families with incomes between \$30,000 and \$100,000. The percentage reductions are below average – -9.5 percent – for families with incomes over \$100,000.

In addition, under the President's plan, the share of income taxes paid by upper-income households will rise. Families with incomes under \$100,000 will pay a smaller share of the total income tax burden under the President's proposal than they do under current law: 25.8 percent versus 30 percent. Conversely, families with incomes of \$100,000 or more will pay a larger share of the total income tax burden under the President's proposal than they do under current law: 74.2 percent versus 70 percent. By standard measures, the proposed tax cut is progressive.

However, from my perspective, the most dissatisfying aspect of much of the discussion has been that it fails to address the economic impacts of the President's proposals.

To begin, the key to the President's plan is its focus on reducing marginal tax rates. We are now quite familiar with the notion that accumulating physical capital, human capital – education, skills, and training – and new technologies is the heart of sustained economic growth and prosperity. There is now a large body of evidence that improving marginal incentives – the additional reward to effort, investment, innovation, and other activities – is the key to ensuring these investments in our economic future.

Almost all taxes interfere with the smooth functioning of a market economy, leading to reduced labor supply, investment, and GDP – economists have labeled these losses the “deadweight loss.” High marginal tax rates are especially damaging, so the gains to reducing high marginal rates are quite striking. Cutting marginal rates in half, for example, yields reductions in deadweight loss by more than a factor of two. By reducing marginal tax rates, the President's plan will enhance economic performance.

The visible benefits of lower marginal tax rates will be seen across the spectrum of economic activity. Economic research has established strongly the link between taxes and the decision to start or continue working: reductions in taxes bring low-wage and low-income individuals into the labor force, lower marginal tax rates – both explicit and implicit in our social insurance programs – permit the continued work effort of our most experienced and skilled workers: America's older workers. Lower marginal tax rates also have been shown to induce second-earners in two-earning families to work more frequently and longer.

Among the most damaging aspects of high marginal tax rates are their impact on the willingness to undertake economic risks. In particular, recent research has shown that tax rates have a profound influence on entry into entrepreneurship and entrepreneurial activity. Reducing marginal tax rates allows entrepreneurial businesses to grow faster,

enables greater purchases of capital, and allows small business to hire additional workers and increase payrolls. Marginal rate reductions also improve access to capital and the vitality of the entrepreneurial sector.

For example, recent research by economists Douglas Holtz-Eakin and Harvey Rosen indicates that reducing the top marginal tax rate from 39.6 percent to 33 percent will raise the fraction of high-income small businesses that undertake a capital expansion by 12.5 percent, and raises the average size of the capital outlays by 11.9 percent.

Cutting the top marginal tax rate raises the fraction of high-income small businesses whose prospects are good enough to afford outside help by 12.1 percent. For existing employers, cutting the top marginal tax rate from 39.6 percent to 33 percent permits payroll growth of 4 percent, taking the form of both higher wages and more workers. The effects on capitalization, employment, and incentives of lowering the top marginal tax rate from 39.6 percent to 33 percent causes the sales of high-income small businesses to rise by 8.2 percent.*

Finally, a commitment to lower marginal tax rates should be viewed as part of our continued efforts to encourage young people to acquire education and skills.

It is important to emphasize that the benefits of lower marginal rates and lower deadweight losses accrue to the economy as a whole. For example, when entrepreneurs expand, small businesses purchase more capital, benefiting their suppliers. They hire more workers and increase their payrolls. In addition, their growth and innovation provides consumers with a greater range of products and choices.

The incentives provided by lower marginal tax rates are especially important for the top marginal tax rate. A large body of economic research has examined the adjustments, seen and unseen, to improved incentives – more days and hours of work, greater effort on the job, increased risk-taking and entrepreneurial activity, reduced tax-based financial engineering, and so forth – are summarized by the increase in taxable income induced by a cut in marginal tax rates.

Cutting the top marginal tax rate leads to the greatest response in taxable income. Research by Martin Feldstein – a former Chairman of the Council of Economic Advisers – indicates that the response of taxable income to increases in the “tax price”—one minus the marginal tax rate-- may approach unity. However, even those who find the most modest impacts indicate that the response is at least one-half of this size.

It is easy to see the virtues of reducing the top marginal tax rate on the identifiable entrepreneurs who face tax-based costs of decisions to expand their facilities, hire new workers, reward their best employees, and push their businesses forward. The evidence on the response of taxable income reflects the benefits of lower marginal tax rates on all forms of economic activity.

*Computations based on Douglas Holtz-Eakin and Harvey S. Rosen, “Economic Policy and the Start-Up, Survival, and Growth of Entrepreneurial Ventures,” May 2001.

How does the President's plan measure up? First, the focus is on an across the board reduction in marginal tax rates – including reducing the top marginal income tax rate from 39.6 percent to 33 percent.

Second, the President's plan will encourage the saving and investment. By phasing out and eliminating the death tax, the plan reduces a tax on capital accumulation that has the highest marginal tax rates in the tax code. At the same time, by permitting non-itemizers a deduction for their charitable contributions, tax-free withdrawals from IRA for charity, and raising the cap on corporate charitable contributions, the President's plan will allow non-profits to compete more equally for the infrastructure to economic growth.

Third, the President's proposals will raise the accumulation of "human capital" at all stages of the life cycle. Expanding the generosity of the child tax credit will provide families additional resources to pay for education, childcare, and other costs associated with child rearing. At the same time, the President's proposals to reduce the marriage penalty will address both an issue of basic fairness, as well as lowering marginal tax rates on second earners. Finally, the proposed expansions of Education Savings Accounts will promote human capital investment in education.

Finally, the President's plan addresses as well the third component of sustained economic growth – increases in technology – by proposing to make permanent the Research and Experimentation tax credit.

Taken as a whole, the President's plan would have substantial beneficial effects on economic growth. Macroeconometric models focusing on the short run generally predict modest effects on aggregate demand growth of income tax reductions. Long-term equilibrium models that incorporate effects of tax reductions on incentives generally predict larger gains in output growth.

Thank you, Mr. Chairman, for providing me this opportunity to discuss the state of the economy and the President's proposals to enhance long-term economic growth and economic security. I would be happy to answer your questions.



THE CHAIRMAN

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON, D.C. 20502

July 31, 2001

Dear Senator Reed:

Many thanks for your letter of May 30, 2001, in which you posed some questions as follow-up to my testimony of May 23 before the Joint Economic Committee. I do apologize for the delay in answering your questions. We did not receive the letter until June 18, 2001 (via fax). The answers to your questions are enclosed. I would be happy to call on you to discuss these issues in greater detail.

Once again, I am sorry not to get you this material earlier. Please let me know if I can be of further assistance.

Yours sincerely,

A handwritten signature in cursive script that reads "Glenn Hubbard".

R. Glenn Hubbard

The Honorable Jack Reed
Joint Economic Committee
Room 804
Hart Senate Office Building
Washington, D.C. 20510-6602

Enclosure

Question #1: On page 7 of your testimony you express surprise that many believe we cannot afford the President's tax cut. Yet the budget resolution, which has a smaller tax cut than the one in the President's plan, leaves inadequate resources for important priorities once the Social Security and Medicare trust funds are reserved.

- Do you agree with the budget resolution that the Social Security and Medicare trust funds should be reserved?

Answer: The President has clearly stated his intention to preserve the Social Security surpluses, and every dollar of Medicare taxes is being spent on Medicare. Nevertheless, I am sympathetic to what I perceive to be your concern over financing of Medicare. For precisely this reason, the Administration has unveiled a comprehensive medicare reform proposal designed to address the long-run solvency of the program. We look forward to working with Congress on this important initiative.

- The budget resolution has a cumulative surplus of \$504 billion after reserving Social Security and Medicare. Where will the resources come from to address the alternative minimum tax (about \$300 billion); meet the Administration's likely defense request (\$300 billion); fund IDEA (S.1) (\$149 billion); or fund the additional interest costs of new proposals? Which of these should not be funded in order to afford the tax cut?

Answer: Thank you for your concern over the structure of fiscal policy, which I share and applaud. As you know, the President's Budget provided a set of tax and program initiatives embedded in a sound overall budget setting. While the Administration has not yet completed its Mid-Session Review of the Budget, making it premature for me to comment on specifics, the President's commitment to sensible, responsible budgeting has not wavered.

- Treasury Secretary O'Neill has said that this tax cut is the first not the last. Where in the President's budget were the resources set aside to pay for these additional tax cuts? What other priorities would have to give way in order to make room for additional tax cuts?

Answer: I am pleased to work with Secretary O'Neill and commend his leadership within the Administration. It is best, however, for you to direct your requests for clarification to him directly.

- Do you agree with the experts who believe that fundamental Social Security reform will have substantial transition costs? Where in the President's budget were the resources set aside to pay for these transition costs while preserving the existing Social Security surplus for its intended purpose of funding benefits that have already been promised?

Answer: The Social Security system is on an economically unsustainable path. While the OASDI program is currently running cash surpluses of approximately 2.22% of payroll, the intermediate projections of the Social Security Trustees indicate that the program will begin to run cash deficits in 2016. Without structural changes to the system, these cash deficits are projected to grow at an unsustainable pace, exceeding \$300 billion annually by 2035 (in constant 2001 dollars). In the existing system, these shortfalls must be financed through tax increases, benefit or other spending cuts, or the issuance of additional public debt.

The President has clearly stated in his principles of reform that benefits to current and near retirees will not be reduced. He has also made it clear that reform must include voluntary, individually controlled personal accounts. If personal accounts are to be implemented with no change in benefits to current and near retirees, as the President has stated, it will be necessary to simultaneously fund current benefit payments and the personal accounts. This resource requirement is often referred to as the "transition cost," although this name is misleading because it is not a "cost" in a true economic sense. Rather, it is the setting aside of real economic resources today to help meaningfully pre-fund future benefit payments.

The magnitude of the resources required to finance a transition depends on the exact nature of the reform proposal, such as the size of the accounts, the source of funding, and so forth. At this time, there is no specific proposal on the table. The Commission to Strengthen Social Security has met twice and has not yet begun to discuss its policy recommendations. Therefore, it would be premature to speculate on the size of the transition financing needs.

The President is firmly committed to using Social Security surpluses for Social Security, and in fact, has made this commitment one of his principles for reform. Historically, these surpluses have been credited to the OASDI Trust Funds, but this does not mean that these resources were set aside for the future in an economically meaningful way. As was pointed out in President Clinton's year 2000 budget, contributions to the Trust Fund "are available to finance future benefit payments and other trust fund expenditures – but only in a bookkeeping sense... They do not consist of real economic assets that can be drawn down in the future to fund benefits." The President is firmly committed to using Social Security surpluses for their intended purpose of funding benefits for current and future retirees, but this does not imply that crediting the Trust Fund is the only, or most effective, way to achieve this.

Question 2: You have been a strong critic of the standard methodology used to distribute tax burdens, arguing that sorting people according to their annual income provides a biased picture. Most people recognize that the United States' economic system is one of the most fluid in the world, with movement up and down the economic ladder. But is there not evidence that "permanent" or lifetime income is also distributed very unequally and that a large share of the benefits of

the tax cut will go to those with high permanent incomes? Are a \$25,000 waitress and a \$250,000 corporate lawyer really people with roughly similar lifetime incomes who happen to be at different points in their career?

Answer: I am, indeed, skeptical of the distributional analyses that are exclusively focused on snapshot measures at a single point in time. Instead, it is useful to incorporate notions of economic mobility to our understanding of the distributional impacts of tax (and other) policies. The underpinnings of this view would require an extremely long response. Fortunately it is not necessary to do so, as the Treasury has produced an excellent study. ("U. S. Department of Treasury. Office of Tax Analysis: 1992. "Household Income Mobility During the 1980s: A statistical Analysis based on Tax Return Data. Washington, D. C: U.S. Department of Treasury"), a copy of which I enclose for your use.

Question 3: On page 7 of your testimony you say that the President's tax cut proposal is less than one-half the size of the Kennedy tax cut and roughly one-fourth the size of the tax cuts proposed by President Reagan. But aren't these comparisons misleading?

- How large is President Bush's proposed tax cut as a share of GDP?
- A Department of the Treasury study estimates that the fully phased-in cost of the Kennedy tax cut was 1.6 percent of GDP. Is this twice the size of the President's proposal, or even the smaller tax cut the Congress is likely to pass?
- The Center for Budget and Policy Priorities uses the same Treasury study to estimate that the cost of the Reagan tax cut was 2.1 percent of GDP. Is this roughly four times the size of the Bush plan?

Answer to all parts of #3 above: The key feature of my remarks is not the specific numerical comparisons, but rather that the President's budget outlines a tax cut that requires only 1.2 cents in each dollar of GDP over the budget window, and that this should provide beneficial economic effects while preserving Social Security and Medicare, allowing for prudent increases in other programs, and otherwise maintaining budgetary discipline.

Question 4: Why is the Administration pursuing an energy policy of increasing supply rather than conserving demand? Hasn't technology not only made it possible for energy producers to produce more with less pollution, but also for consumers to buy products that are just as functional but use less energy, or for producers to deal more easily with higher fuel efficiency or emissions standards?

Answer: In sculpting our energy policy, the Administration has sought the most efficient way to bring us out of the imbalance between supply and demand that has caused higher energy prices. This does involve addressing both the supply of and demand for energy. As you point out, technology has enabled *both* lower

cost, cleaner production, and less expensive means of meeting existing consumer needs while using less energy. As you can see in the National Energy Policy document, there are several recommendations that focus on expanding conservation by increasing funding for energy efficiency programs, encouraging the development of fuel-efficient vehicles, creating tax credits to encourage consumer conservation, and expanding DOE conservation programs. These recommendations can be broken down into two groups: those that promote the diffusion of existing, cutting-edge technology for increased energy efficiency; and those that promote emerging technologies. Recommendations targeting the diffusion of existing technology include incentives for combined heat and power projects, and extensions to the Energy Star program. Recommendations promoting emerging technology include the recommendation for the review of current funding and historic performance of energy efficiency research and development programs, with an eye towards improving their performance in generating new or improved energy efficiency technologies.

As you indicate, addressing our Nation's energy problems require us to correct any market failures that may be impeding either the provision of additional supply or the introduction of more energy efficient technologies. Indeed this balance is reflected in the recommendations presented in the National Energy Policy report.

Question 5: You claim in your testimony that the benefits of marginal rate reductions accrue to all citizens through business expansion that leads to greater employment and wages. What evidence is there that the Reagan tax rate reductions produced these gains for everyone? What happened to median household income between the business cycle peaks of 1979 and 1989? What happened to the distribution of real after-tax income?

Answer : The 1980s were an exceptional period in the nation's history and provide an example of how a solid business expansion generally improves the well being of all citizens. During this period, we not only achieved one of the longest expansions on record but also saw American living standards begin to rise again after the relatively sluggish period in the 1970s. During the 1980s, real per capita income—one of the broadest measures of economic well being—rose as did real family income. As well, nominal and real median household incomes rose.

These developments reflected the fact that labor market conditions improved markedly in the 1980s as real compensation rose and employment opportunities grew. In fact, nearly all regions of the country shared in the benefits and unemployment rates dropped for all major demographic groups. To be sure, you are correct in noting that the real after-tax income distribution shifted somewhat. But, much of the shift reflected the longer-term economic trend toward higher returns to education and experience.

In addition, the durability of the expansion and of the income gains in the 1980s reflected advances in private sector productivity. It is not a coincidence that the 1980s witnessed a restoration of America's competitiveness—especially in manufacturing industries. While the private sector played the biggest role in the nation's success during the period, the Reagan economic plan—especially the tax plan—helped set the stage for these developments.

Question 6: Your statement did not mention that the tax cut would lower national saving in the long run. A permanent decline in national saving, for whatever reason, permanently lowers the economy's potential output. Does it matter for the economy whether the decline in national saving stems from a reduction in a federal surplus or from an increase in a federal deficit? In other words, if it was crucial to U.S. growth that we reduce the federal deficit, an effort that took most of the last decade, why does the Administration not believe it inimical to economic growth that we use the surplus to finance a tax cut rather than eliminate the national debt?

Answer: I agree that more saving is generally associated with higher growth. But the saving path in the Federal baseline—that is without the tax cut—was not likely to come about. And if it did occur, it would have presented the country with formidable problems.

First and most important, without the tax cut, the surpluses would likely be much smaller than projected in the current-services baseline. Large and rising surpluses would have tempted the future Administrations and future Congresses to spend more. Large projected surpluses would have led to bigger government, rather than higher savings and investment.

Second, the current-services path of debt elimination was too swift, necessitating either Federal ownership of business or the buy back of Treasury bonds before maturity. By the end of FY 2000, the Federal government had \$3.4 trillion of outstanding debt held by the public, but only \$2.2 trillion of this debt would have come due during the 10-year budget window. It would have cost American taxpayers an additional \$100 billion or so to retire this debt before maturity. The higher prices would have been needed to coax the holders to sell their increasingly scarce holdings of Treasury securities. With the tax cut the Treasury will not need to buy back Federal debt before maturity. Even so, the debt held by the public will be reduced.

Of course Federal purchase of private securities (and the accumulation of a Federal asset) is a possible—but ill-advised—alternative to buying back Treasury securities. Under such a plan, the Federal government would own capital that would be better left in the private sector; the Federal government is not a good business manager.

Question 7: You claim that cutting the top marginal tax rate will be particularly helpful to small businesses. Yet only a small fraction of true small businesses pay the top marginal rate. Wouldn't lowering the 15 percent tax rate be more helpful to small businesses?

Answer : I agree that lowering the 15 percent tax bracket will help small businesses. It is also important to point out that cuts in the top marginal tax rates will be particularly helpful to many small businesses and will have important consequences for the economy. Lower tax rates will increase cashflow, which will, in turn, increase the demand for investment and labor. Lower tax rates also provide an incentive for wage earners to become entrepreneurs and for existing entrepreneurs to expand their scale of their operations.

Overall, the reduction in the tax rates will affect the majority of small business owners. Of the nearly 24 million flow-through entities (e.g., sole proprietorships, farm proprietorships, partnerships, S Corporations) in 1998, roughly three-quarters will benefit directly from the tax cut. For the top tax tiers, over a million taxpayers will benefit from cuts in the 36 percent and 39.6 percent rates. However, I should note that nearly 2 1/2 million taxpayers in these tax brackets will receive no tax benefit because of the alternative minimum tax (AMT).

Question 8: Since the time CBO published its most recent projection, the unemployment rate has risen by half a percentage point and the Federal Reserve has cut its target for the federal funds rate five times in order to stimulate the economy. At the same time, investment in equipment and software have fallen and productivity declined. Do these developments make you more or less confident that the surplus over the next ten years will be as large as projected?

Answer: The economic news that you cite (the Federal Reserve's interest-rate cuts, the declines in equipment and software investment, and the decline in labor productivity in the first quarter) are all interesting short-run developments. But it tells us little about growth over the ten-year budget window.

Long-term budget planning should be based on the long run trend in output, and it is important to separate the cycle from the trend. The economic slowdown that we are experiencing is a perturbation of the cycle—not the trend. Although economic forecasters have lowered projected economic growth in 2001, they have raised their estimates of growth in 2003. On balance, the consensus forecast of the long-run level of real GDP has been revised down only slightly.

Even with the slight downward revision to the consensus level of real GDP, the Administration's projection remains conservative. The Administration estimates the long-term growth rate of real GDP at about 3.1 percent—0.2 percentage point below the consensus of economic forecasters.

The near-term economic slowdown likely will reduce the projected increase in the budget surplus in the short-run. But the effect on the projected total surpluses over the ten-year budget window will be small, as the Administration's long-term economic assumptions are reasonable, and even conservative relative to the Blue Chip consensus.

Question 9: Is the Administration concerned about the risks of a sharp collapse in the exchange value of the dollar as well as the consequences of such a collapse for domestic saving and investment? What are the Administration's policies for the dollar:

Answer: As Secretary O'Neill has said, "We are for a strong dollar, and we are going to continue to be for a strong dollar ... it has served us very well."

Question 10: Someone working full time at the current minimum wage would not earn enough for a parent and child to be above the poverty level. What is the Administration's policy on the minimum wage? If not the minimum wage, what other policies does the Administration support to make work pay for low-income working families?

Answer: Any increase in the minimum wage needs to recognize differences across states and provide for state flexibility because all states have not shared equally in prosperity. The Administration's tax cut will help working families.

Question 11: Regarding the argument on the so-called "deadweight losses," or inefficiency that the tax system generates, isn't it true that at least some deadweight loss is unavoidable in a tax system that isn't completely arbitrary in nature (that is, a system where tax burdens rise with income, where credits and deductions are given for certain types of behavior, and where certain forms of income are given preferential treatment over other forms)? And since the President's plan doesn't do anything to change the most inefficient parts of the federal tax system (such as the AMT, the corporate tax structure, and the various phase-outs), will it really be that effective at substantially decreasing deadweight loss? And by how much?

Answer: While it is true that no real-world tax system has been devised to eliminate all the "dead-weight losses," the President's tax plan made significant progress toward improving the efficiency of the U.S. tax system. Without a doubt, lowering marginal tax rates permanently while preserving a surplus reduces dead-weight losses. But let me also say that I agree with the premise of your question. We need to look more closely into the federal tax code to find and ultimately eliminate inefficient tax provisions. I look forward to the opportunity of working with you in the future to explore these possibilities.

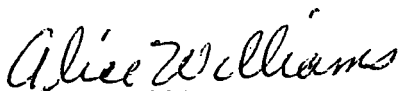
EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS

August 1, 2001

Senator Jack Reed

Please replace this page in the enclosure to the letter to you dated July 31, 2001 from Dr. Glenn Hubbard in response to your letter of May 30, 2001.

Thank you.



Alice Williams

Executive Assistant to the
Chairman

Attachment: corrected page

the tax cut will go to those with high permanent incomes? Are a \$25,000 waitress and a \$250,000 corporate lawyer really people with roughly similar lifetime incomes who happen to be at different points in their career?

Answer: I am, indeed, skeptical of the distributional analyses that are exclusively focused on snapshot measures at a single point in time. Instead, it is useful to incorporate notions of economic mobility to our understanding of the distributional impacts of tax (and other) policies. The underpinnings of this view would require an extremely long response. Fortunately it is not necessary to do so, as the Treasury has produced an excellent study. ("U. S. Department of Treasury. Office of Tax Analysis: 1992. "Household Income Mobility During the 1980s: A statistical Analysis based on Tax Return Data. Washington, D. C: U.S. Department of Treasury").

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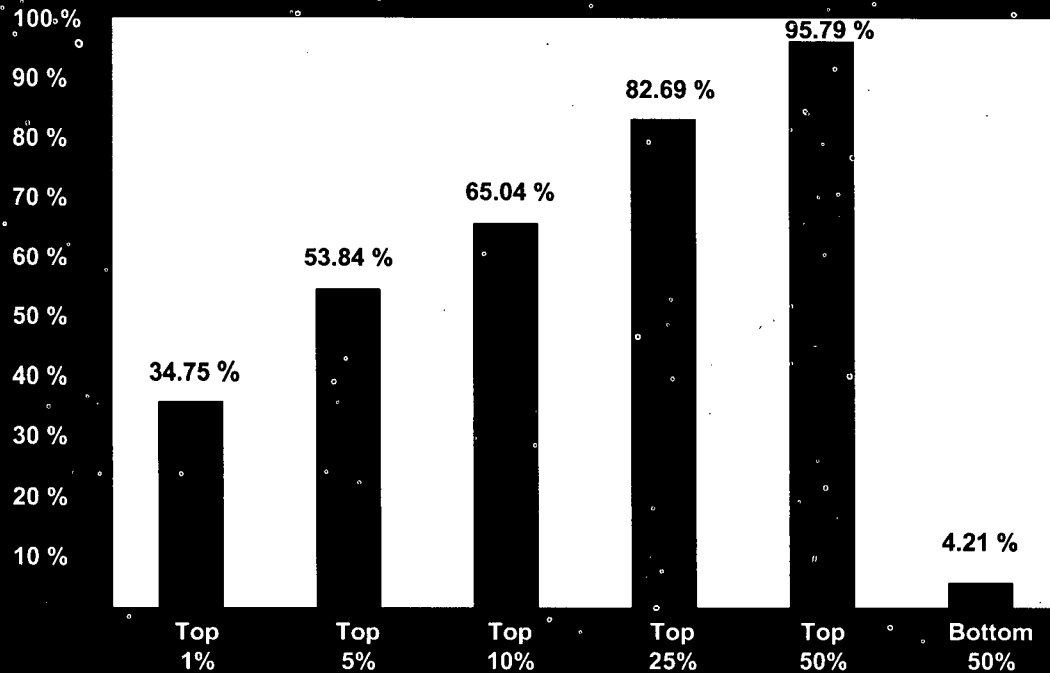
- How large is President Bush's proposed tax cut as a share of GDP?
- A Department of the Treasury study estimates that the fully phased-in cost of the Kennedy tax cut was 1.6 percent of GDP. Is this twice the size of the President's proposal, or even the smaller tax cut the Congress is likely to pass?
- The Center for Budget and Policy Priorities uses the same Treasury study to estimate that the cost of the Reagan tax cut was 2.1 percent of GDP. Is this roughly four times the size of the Bush plan?

Answer to all parts of #3 above: The key feature of my remarks is not the specific numerical comparisons, but rather that the President's budget outlines a tax cut that requires only 1.2 cents in each dollar of GDP over the budget window, and that this should provide beneficial economic effects while preserving Social Security and Medicare, allowing for prudent increases in other programs, and otherwise maintaining budgetary discipline.

Question 4: Why is the Administration pursuing an energy policy of increasing supply rather than conserving demand? Hasn't technology not only made it possible for energy producers to produce more with less pollution, but also for consumers to buy products that are just as functional but use less energy, or for producers to deal more easily with higher fuel efficiency or emissions standards?

Answer: In sculpting our energy policy, the Administration has sought the most efficient way to bring us out of the imbalance between supply and demand that has caused higher energy prices. This does involve addressing both the supply of and demand for energy. As you point out, technology has enabled *both* lower

Percentage of Federal Personal Income Tax Paid by Different Income Percentiles



THE EMPLOYMENT SITUATION: AUGUST 2001

HEARING

before the

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

September 7, 2001

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THE EMPLOYMENT SITUATION: AUGUST 2001

Friday, September 7, 2001

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 9:30 a.m., in Room 1334, Longworth House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Present: Representatives Saxton and Dunn; Senators Bennett and Corzine.

Staff Present: Christopher Frenze, Robert Keleher, Colleen J. Healy, Brian Higginbotham, Matthew Salomon, Daphne Clones-Federing, Jason Fichtner, Reed Garfield and Stephen Thompson.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. We will get started relatively on time.

We are expecting some other Members to join us as we go along here, but let me just begin by welcoming Commissioner Abraham to report on the release of new economic employment and unemployment data for August.

Recent economic data continue to suggest that the economic slowdown that began in the middle of 2000 continues. The rate of real GDP growth has slowed quite sharply since the second quarter of 2000, barely remaining positive in the second quarter of 2001. Manufacturing employment has fallen sharply since July of 2000, posting cumulative job losses of slightly over 1 million in the last 13 months. Investment has plunged over the last several quarters, and corporate profits are weak.

Fortunately, however, consumer spending and housing have held up quite well. In addition, since last January the Fed has reduced interest rates, Congress has lowered the tax drag on the economy, and energy prices are falling from their recent highs. These factors could reasonably be expected to lead to a recovery in economic activity by the first quarter of next year, but the report this morning only reinforces my concerns about the current weakness of the domestic and international economy, and I know the administration is likewise concerned as recent data has prompted the President to suggest a further economic stimulus package.

The employment data released today reflect the seriousness of the economic slowdown. Payroll employment plunged by 113,000. The payroll declines were focused on the manufacturing sector and only add to the previous severe job losses in manufacturing under way since the middle of 2000, bringing the total to 1 million jobs lost. The diffusion index, a measure of the breadth of employment growth, declined again, with the manufacturing component falling to especially low levels. The diffusion index has tended downward since June of 2000. The unemployment rate has climbed to 4.9 percent.

As I have noted previously, one way to address the weakness of the domestic and international economy is through the international easing of monetary policy. The steps taken by the U.S., European, and Japanese central banks over the last month show movement in the right direction, but more action along these lines will likely be needed. Further changes in fiscal policy may also be needed, as was recently noted by the President.

In sum, the 13 months of economic stagnation have been costly to the American economy. The manufacturing sector has been especially hard hit and has suffered the brunt of the significant economic losses now totaling over a million. However, the economy has not fallen into recession. Over the next several months policymakers must remain focused on the condition of the economy and the policy alternatives available in the event further action is needed.

Now I would like to turn to my colleague from New Jersey, Senator Corzine.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 16.]

Senator Corzine. Thank you, Mr. Chairman. I appreciate your holding this hearing.

I think it is particularly apt that we do this on current set of statistics and current environment because certainly it appears to me I think many of us see accumulating weakness occurring, and I know we have serious concern particularly with regard to our current budgetary situation.

I am anxious to hear Ms. Abraham's comments on the underlying context of these statistics and what they mean for personal income and therefore consumer spending and that two-thirds of the economy that has been sort of the lifeline to at least marginal growth in our economy in the first six months of this year. I think the statistics and those implications have real impact on future monetary policy which I certainly hope will continue to be supportive of economic growth but I think raise the question of whether revisiting the nature and structure of our tax program in the country is appropriate with more fiscal stimulus now being in order.

So I look forward to having a good dialogue on what I think are very important indicators of where we are and where we are going and look forward to a good session.

Representative Saxton. Thank you very much.

Commissioner, the floor is yours. We are anxious to hear your perspective this morning, so you may begin.

**OPENING STATEMENT OF KATHARINE G. ABRAHAM,
COMMISSIONER, BUREAU OF LABOR STATISTICS:
ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE
COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS;
AND PHILIP L. RONES, ASSISTANT COMMISSIONER OF
CURRENT EMPLOYMENT ANALYSIS**

Ms. Abraham. Thank you. As always, I appreciate the opportunity to appear before this Committee to discuss the data that we have to release.

As you have both noted in your opening remarks, the labor market continued to weaken in August. The jobless total swelled by more than a half million over the month, and the unemployment rate rose to 4.9 percent, its highest level in nearly four years. Nonfarm payroll employment fell by 113,000 in August, bringing net job losses since March to 323,000. Manufacturers continued to slash jobs in August, and there was also a large employment decline in transportation and public utilities. Most other major industries showed little or no change in employment over the month.

Manufacturing employment fell by 141,000 in August. Since July of 2000 the industry has lost slightly more than a million jobs. The unemployment rate for manufacturing workers rose in August to 5.7 percent, up from 3.5 percent a year earlier.

Employment reductions occurred throughout manufacturing in August, with almost every component industry losing jobs. Industrial machinery and electrical equipment, however, continued to account for a disproportionate share of the overall decline in manufacturing employment.

Manufacturing woes continued to affect transportation employment, which fell substantially in August, most notably in trucking and warehousing.

Construction employment was little changed over the month. This industry, which had added 221,000 jobs last year in calendar year 2000 and continued to expand into the first part of this year, has shown no net job growth since March.

Services employment rose by 72,000 in August. Even with that gain, however, employment growth in services has averaged only 10,000 per month over the past five months, compared with 93,000 per month in 2000 and 131,000 per month in 1999.

In August the overall gain reflected continued strength in health services. There was also an unusually large gain in social services employment. Combined with a weak July, the August increase put the industry back on its trend growth path.

Computer services employment declined by 5,000 in August. This was the first monthly decline for that industry since February of 1988, although growth in the industry had slowed in recent months.

Employment growth also has slowed in engineering and management services, another industry that had been expanding rapidly. Help supply

employment – that is mainly temporary help employment – was about unchanged in August, following sharp declines totaling more than 400,000 since last September.

Turning now to the data from our survey of households, the number of unemployed and the unemployment rate rose sharply in August, and employment fell by nearly a million. Both the increase in the number of unemployed persons and the decrease in employment occurred disproportionately among young workers, by which I mean those age 16 to 24. Overall, the unemployment rate jumped four-tenths of a percentage point to 4.9 percent over the month, after having remained in the 4.4 to 4.5 percent range since April. While still low by historical standards, the August rate is the highest posted since September of 1997.

It is interesting that over the month both the number of newly unemployed persons – those who have been unemployed less than five weeks – and the number of long-term unemployed – those unemployed 15 weeks or more – rose substantially. Long-term unemployment in August total 1.8 million, up from about 1.3 million in at the end of last year.

In summary then, the unemployment rate rose in August to 4.9 percent, its highest level in nearly four years. Job losses continued to mount in manufacturing, and the employment situation in most other industries remained weak.

[The prepared statement of Commissioner Abraham appears in the Submissions for the Record on page 17.]

Representative Saxton. Commissioner, thank you very much. We are obviously always interested in the information that you bring to us, and certainly today is no exception. We wish the news were better. However, as you have pointed out, we continue to see weakness in the economy.

As you also have pointed out many times in the past, the monthly numbers and data that you bring to us are a snapshot in time, and so I would like to explore with you some trends over a longer period of time as well as to ask you about this month's data.

Let me just begin by looking back over where we have been over the last several quarters – over the last year, actually. Let me just ask you this. What were the average monthly gains in payroll employment in the 12 months prior to July of 2000 so that we can put this in some perspective?

Ms. Abraham. Let me just take a July-to-July number. The average monthly gains from July of 1999 through July of 2000 were running at 240,000 per month.

Representative Saxton. \$240,000 on the plus side—

Ms. Abraham. 240,000 people per month.

Representative Saxton. 240,000 people.

Ms. Abraham. 240,000 jobs added per month.

Representative Saxton. Right. So that would be considered healthy growth from July of 1999 until July of 2000.

Ms. Abraham. That pace of growth is very much in line with the annual average growth that we were seeing throughout the 1990s, a little higher sometimes and a little lower sometimes, but beginning in 1993 up through the end of 1999, one year that was higher and one year that was below 200,000 but numbers in more or less that range through that whole period.

Representative Saxton. So that was obviously part of the healthy economic climate that we saw, and things were continuing up through July of 2000 to be considered fairly healthy. While you have got your calculator out, then, can you tell us what the average monthly gains were after July of 2000 until perhaps July of 2001 or August of 2001?

Ms. Abraham. Up through the present time, that 13-month period, we have on net added 33,000 jobs per month.

Representative Saxton. So we have seen during the last – was that 12 or 13 months that you did?

Ms. Abraham. I did 13 months, and Phil is going to check my calculation – 33,000.

Representative Saxton. So the average over the past 13 months has been an increase of just 33,000?

Ms. Abraham. I might characterize the data slightly differently in that I think there are two different subperiods within that longer period. If you take December, 1999, through December of 2000, we were still running at a pace of 187,000 jobs per month, dropping down to 101,000 jobs per month between September and March of this year, and then it has really been since March that things have taken another step downwards. From March through August we have in fact lost an average of 65,000 jobs a month. But whichever way you—

Representative Saxton. The slower growth began in July of 2000, though, isn't that correct, particularly in manufacturing jobs?

Ms. Abraham. If you want to focus on manufacturing, that would be correct. Regardless of where exactly you break the numbers and which period you look at, clearly things have weakened substantially.

Representative Saxton. Let us talk about manufacturing for a moment. What has been the trend in the manufacturing employment since July of 2000?

Ms. Abraham. Looking at manufacturing as a whole, since July of 2000 we have lost nearly a million jobs, actually just over a million jobs. So you could figure out the average monthly decline implied it is 78,000 a month from July of 2000 through August of this year.

Representative Saxton. And the chart that we brought with us again this month shows that we had relatively significant – at least a steady manufacturing base up until July of 2000 and that beginning in 2000 we began to see a significant downturn in manufacturing.

Ms. Abraham. Right. We have seen some declines earlier related to the Asian crisis and the impact that had on the manufacturing sector, and then you can see a plateau in employment, some declines beginning, as you said, along about July of last year and then a significant acceleration in the rate of decline beginning around the start of this year.

Representative Saxton. Let me focus on employment trends in some of the major industries within the manufacturing sector. What has been the trend in employment in the fabricated metals since July of 2000?

Ms. Abraham. Fabricated metals had an employment peak in July of 2000 and since that has dropped off by nearly 80,000.

Representative Saxton. How about the primary metals sector?

Ms. Abraham. Primary metals has also dropped significantly. If you want to stick with the July of 2000 reference point, primary metals has shed 55,000 jobs since July of 2000.

Representative Saxton. What has happened to the level of payroll employment in the electronic and electrical equipment industry over the same period of time?

Ms. Abraham. As I noted, that is one of the industries that has been a heavy job loser. Employment in that industry actually peaked in August rather than July. So if we take the year over year change, it has lost 168,000 jobs.

Representative Saxton. And, finally, the industrial machinery and equipment over the same period?

Ms. Abraham. Which again I might note is another significant job loser. Over the 13 month period from July of 2000 to August of this year, it has lost 156,000 jobs.

Representative Saxton. Transportation equipment?

Ms. Abraham. Transportation equipment has lost since July of 2000 just over a hundred thousand jobs, 108,000 jobs.

Representative Saxton. Well, Commissioner, in each of these sectors – and we continue to see a slide which, of course, is negative, but in each of these sectors this trend began 12 or 13 months ago; is that correct?

Ms. Abraham. Some of the industries within manufacturing, not particularly those that you just identified, have been in long-term decline, but I think almost without exception we have seen a worsening of conditions across the board in manufacturing.

Representative Saxton. Thank you very much.

Senator Corzine.

Senator Corzine. Yes. Commissioner Abraham, do you have any historic perspective on income growth tied to the kind of decline in employment data that we have seen that might give us an indication of strength that we might or might not see in consumer spending as a function of this decline in the last 13 months of manufacturing but six months in other categories?

Ms. Abraham. As you are well aware, labor income is a very big share of total income in our economy. We are at this point seeing declines in employment which are going to translate into general declines in – or at least slowing in the growth of aggregate earnings, which is going to have an impact on the personal income, for example, in the GDP. I don't have figures here on what the numbers we have reported today might if you just, you know, push them through and assumed other things weren't changing would imply, though that is a back-of-the-envelope calculation that we could try to do. Clearly, the impact is going to be negative.

Senator Corzine. Right. My premise underlying that is the consumer sector, as said in the opening remarks, has been the sustaining strength of our economy, and this is the most dramatic indicator that this might move away from being that underlying pillar. Do you have any review of consumer sentiment, particularly with regard to job availability? Have you seen some of those surveys and do they parallel what we are seeing here going on in the job market?

Ms. Abraham. We don't do those surveys. There are other private survey organizations that do.

Have you by chance looked at those, Phil?

Senator Corzine. And do you look at and have you over any period of time looked at any of the correlations or at least the relationships between retail spending and these numbers?

Ms. Abraham. No. I am sorry. We have not.

Senator Corzine. Again, I am pressing only because I think these are indicative of real trouble ahead with regard to consumer spending. I think those relationships are one certainly markets and economists are evaluating.

Let me ask – Senator Sarbanes last month asked a question about discouraged workers. What would be the unemployment rate if you included discouraged workers and do we have a read on how much that is increased this year, how much it is growing? Do we have a sense of it?

Ms. Abraham. We do calculate a range of alternative unemployment measures that are either more or less comprehensive than the official unemployment rate. The most comprehensive measure that we produce is one that includes the unemployed, everyone who says that they would like a job who did any looking for work within the last year, even if they didn't look within the last four weeks, which includes the discouraged workers, plus those people who are working part time even though they would have preferred full-time work. So it is a considerably more comprehensive measure.

In fact, the unemployment rate on a not seasonally adjusted basis year over year went up from 4.1 percent a year ago to 4.9 percent this month. That more comprehensive measure was seven percent in August of 2000, and it has gone up to 8.1 percent in August of 2001. So we are also seeing increases in some of those other things.

Senator Corzine. Right. Do you have numbers with regard to women in the workplace?

Ms. Abraham. Yes.

Senator Corzine. And what has gone on with those rates, the changes?

Ms. Abraham. In August of 2001, this past month, the unemployment rate for women age 20 and over was 4.2 percent, slightly below the men's rate of 4.4 percent. The male unemployment rate has actually gone up more than the female rate. The unemployment rate for adult men in the past year has gone up from 3.3 to 4.4 percent. The rate for adult women has only gone up half a point, from 3.7 to 4.2 percent. That may be related to the different employment mix that we see for men as compared to women. It is not—

Senator Corzine. You also keep a statistic, though, on primary support, those who are the primary—

Ms. Abraham. People who are heads of households or people who maintain families?

Senator Corzine. Yes.

Ms. Abraham. We do have an unemployment rate for women who maintain families. Is that the one you are thinking of?

Senator Corzine. Yes.

Ms. Abraham. Over the last year that rate is higher than it is for women overall. The unemployment rate for women who maintain families in August was 6.7 percent, and it has gone up by seven-tenths — from six percent to 6.7 percent.

Senator Corzine. All right. I have other questions, but I will cede for the moment at least.

Representative Saxton. Senator Bennett. Thank you.

Senator Bennett. Thank you, Mr. Chairman. I have got to turn on the machinery so that you can hear me.

First, just an observation about the economy as a whole. While it is not scientific the way your analysis tries to be, I have learned over the years that there is a fairly good barometer of when we are going into a recession and when we are coming out. And the current slowdown, which I consider a recession even though statistically we are just barely above zero GDP growth, and so statistically the economists say we are not in a recession, the best indicator that we are going to go into a recession is absolute unanimity among forecasters that there is no trouble whatsoever ahead and we are in very, very good shape; and the best indication that we are coming out of one is when there is absolute unanimity that there is no bottom and we have nothing but disaster ahead of us.

As I look at the GDP figures that are available, it comes right at the end of the second quarter of 2000 that everything looks really, really good historically and then third quarter is almost dropping off a cliff by comparison in terms of GDP output. So I guess I am looking for real

gloom and doom in your figures in the hope that that will signal that we are coming out of the current slowdown, and I don't see them. 4.9 is, yes, bad in terms of where we have been, but 4.9 historically is by no means recession-level unemployment. Is that an accurate historical observation?

Ms. Abraham. I think you make a good point that we do want to look at these numbers in a longer historical context, and it wasn't all that long ago that people were sure that the natural rate of unemployment, the rate below which we couldn't sustain the unemployment rate, was in the vicinity of six percent, so—

Senator Bennett. That is the number that I was always taught, that if you got to six percent unemployment, you had de facto full employment. So now we are more than a point below that six, and unfortunately, if my observation is correct, we are going to have to get to six or even higher before we begin to see a turnaround in this slowdown that we are in.

In your statement you say that the statistical group where the decrease in employment has occurred disproportionately is young workers, those age 16 to 24. As you quoted the statistics to Senator Corzine about unemployment among adult men and unemployment among adult women, neither group approached 4.9, so it must be the young workers who don't qualify as adult men or women who take the average up to 4.9. Do you have a separate statistic for that age group?

Ms. Abraham. We do. Let me pull that out. The unemployment rate for 16- to 24-years-olds, I need to look at a different sheet here.

Just while I am looking for this I might comment it is always been true as far back as you go that unemployment for young workers has exceeded that for older workers. They are much more likely to be going in and out of the labor force, and that translates into substantially higher unemployment rates.

The unemployment rate for 16- to 24-year-olds as a group in August was 11.5 percent, up from 10.1 percent in July. So that was a—

Senator Bennett. Can you go back a few months as well?

Ms. Abraham. If we go back to August of 2000, it was 9.4 percent. So over the year it was up by 2.1 percentage points. The numbers for that group do jump around a lot from month to month, but I think over the year clearly you have seen a meaningful increase in the unemployment rate for that group.

Senator Bennett. So what percentage of the total work force falls into that category?

Ms. Abraham. The 16- to 24-year-olds accounted in August for about 16 percent of the labor force, about 15 percent of employment. They accounted for 37 percent of the unemployed and for an even bigger share of the over-the-month increase in unemployment, about 47 percent of the over-the-month increase in unemployment.

Senator Bennett. Do you have any statistics as to how many of them are working at minimum wage?

Ms. Abraham. We do have data on minimum wage employment. I would probably have to spend a little time doing the calculation to say of that group what fraction—

Senator Bennett. If it is a problem, you can always furnish that for me. If you have it at your fingertips, I can wait a few more minutes, but I don't want to delay the committee.

Ms. Abraham. What I can tell you is that those young workers do account for a disproportionate share of the minimum wage workers. 53 percent of all minimum wage workers are 16- to 24-year-olds, and that compares to their share of employment of about 15 percent. So they are three and a half times as likely as other workers to be working at the minimum wage.

Senator Bennett. Okay. Fine. Thank you.

Finally, and I know that Senator Corzine wants to get into this, let us talk about regional unemployment and impact in New Jersey and Utah, to pick two states at random. I wouldn't expect you to have those exact figures, but can you give us any kind of sense about regional unemployment? Is the West better than the East Coast? Is the Sun Belt in better shape than the Rust Belt? Do you have any light that you can shed on that concern?

Ms. Abraham. We do have those data. We in fact have some data here, totally at random for Utah and New Jersey, which we could take a look at as well, if you would like. The most recent data that we have on unemployment broken out regionally are for July rather than for August; they lag slightly.

Looking just at the unemployment picture where we have seen the biggest increases in unemployment on a regional basis, we have seen increases in the Midwest, a little less in the South and the Northeast. The increase in unemployment in the West has actually been the smallest of all the four broad regions that we look at though the unemployment—

Senator Bennett. The West includes California, obviously.

Ms. Abraham. Includes California. Though the unemployment rate there has been relatively high.

Senator Bennett. So if you take out California for the West, the rest of us in the West probably are doing better than the rest of the country?

Ms. Abraham. Yes, that is correct. What I have here in front of me is the mountain states, as opposed to the states along the Pacific coast; and the mountain states have been doing relatively better.

Senator Bennett. That is because we are building all those facilities for the Olympics.

Ms. Abraham. I have driven on your roads in the not too distant past and observed that.

Senator Bennett. Okay. Thank you, Mr. Chairman.

Representative Saxton. Senator Corzine, do you have further questions?

Senator Corzine. I think we could both ask for perspective on New Jerseys statistics, mid-Atlantic. If I read our statistics right, we had a huge drop in unemployment in July. We seem to be doing reasonably well by comparison to other areas. Am I reading this right?

Ms. Abraham. Phil's staff was responsible for pulling this information together; so, if I may, I will let him comment on it.

Mr. Rones. There was a half percentage point drop in the unemployment rate in July, but I caution you, as we often do when you go down to the state level estimates, in a single month you may get a change in either direction that perhaps seems exaggerated and that is a good warning sign to kind of wait to see some more data to see if that is confirmed.

Senator Corzine. What was driving that decline in July? I haven't had a chance to review that. Do you see that?

Mr. Rones. Well, other than the overall unemployment rate itself, we don't know very much about the components of unemployment at a state level. The data for demographics that we get from our survey in any individual State are very, very thin. There is not enough sample. We do know a bit about payroll employment change in each state.

Just for perspective, the over-the-year change for the United States in payroll employment was four-tenths of one percent. We had talked about that earlier. For New Jersey, it was five-tenths of one percent. So really the state is about at the national average. And of course that national average, as we said before, is substantially slower than it had been in the prior several years.

Senator Corzine. Right. I am sure my colleague from New Jersey will have some questions that he may have with regard to our rates there, but one macro question is the unemployment rate for blacks and what have we seen happening there? I think, if my staff folks are serving me right, the rise was 1.2 percentage points in August, to 9.1 percent?

Ms. Abraham. That is correct. Just to pick up on a point that Phil was just making with respect to the state data, similarly when you look at data for individual groups such as blacks or Hispanics, those numbers are a lot more volatile. You need a change of 1.2 percent to be in the margin of statistical significance as compared to 0.2 for the overall rate. But the figures that you cited are correct. The rate for blacks did jump up—

Senator Corzine. If we have done the calculations right, that is the highest in seven years, and I do accept that the sample are smaller and you will get more volatility.

Ms. Abraham. It is the highest since July of 1998.

Senator Corzine. 1998?

Ms. Abraham. It blipped up to 9.5 percent in July of 1998. It was above nine for several of the early months of that year.

It is only in the very recent past, I might note, that we essentially ever saw unemployment rates in the single digits for blacks.

Senator Corzine. I was actually talking about the increment from month to month. That is a sizable amount, and I think that is what they are referencing.

Ms. Abraham. That may well be right.

Senator Corzine. I think the concern – the reason I ask about women head of households as well as blacks is that, as is typical when you see these rising levels of unemployment and decline in employment opportunity, it hurts the most vulnerable. I would presume that you would agree with that assessment?

Ms. Abraham. It is certainly the case that you do want to look carefully at the mix of where these increases in unemployment are occurring and think about the groups that are being affected.

Senator Corzine. Thank you.

Representative Saxton. Ms. Dunn.

Representative Dunn. Thank you, Mr. Chairman.

And I must apologize, Commissioner. I am sorry I wasn't here. I was in another meeting, so I wasn't able to hear your opening statement.

I just caught the end of Senator Corzine's question, so I may be asking you a question you can't answer. But, according to the BLS statistics, the Washington State's unemployment rate has been fairly steady during 2001 at about six percent, which is above – unfortunately above the national level, and even though we are very happy that these days we have a diverse economy, it is no longer like the 1970s when Boeing was our only large employer. In my district it is the innovative sector that is strongest as employers, and I am wondering if you can tell me what accounts for the discrepancy in the unemployment figures? Is it due to the dot-com layoffs, and do you think that these layoffs have impacted the labor sector nationwide as well in a negative way?

Ms. Abraham. We often, as you might imagine, get questions about the dot-coms and the impact that their experience they have been having on the economy overall. We don't keep data for dot-coms specifically. They are spread across a number of industries in the data that we look at.

But what I can say is that as we look at the figures that we have we can identify industries that by virtue of having a lot of research and development workers and other things we might characterize as high tech, and it is clearly the case that we have seen rather sharp declines in employment in the high tech industry as we define it based on those criteria. So that at least is clearly a piece of what is going on.

Representative Dunn. So you are not able to say directly what is affecting Washington State to a greater degree than what is affecting the national economy? I think that is what I am searching for, and that could be the answer.

Ms. Abraham. One thing that we could do would be to go back and take a look at the mix of employment in Washington State and the degree to which it is concentrated in industries that have been especially hard

hit. I would be happy to see what we can do on that and try to provide it for you.

Representative Dunn. Would you do that? That would be very helpful.

Ms. Abraham. Certainly.

Representative Dunn. Thank you.

[The information on the employment situation in Washington state appears in the Submissions for the Record on page...]

Representative Dunn. Commissioner, in recent months we have heard or read of massive layoffs in high tech companies like Dell and Motorola, Lucent Technologies, to name a few. Many of these companies rely heavily on exports. In your estimation would increasing or encouraging greater export activity help the manufacturing sector rebound from our economic slowdown that we are seeing now? For example, the engagement in trade agreements that has been very, very slow over the last few years, is that going to be a help in trying to reverse this trend that we have seen in your report of yesterday?

Ms. Abraham. Given our role as an agency responsible for providing objective statistics, what I can tell you is that if you look at our data in the same way that we are able to identify industries that are high tech based on observable criteria, we can isolate those industries that are more heavily dependent on exports than others, and again similarly to the high tech industries, we have seen substantial declines in employment in industries that are export sensitive. It would really be going beyond what I feel I can comment on to go from that to recommendations regarding policy.

You are right that there is an issue in the sense that export-sensitive industries have been losing jobs. I don't have a comment on what one should do about it.

Representative Dunn. Thank you.

I think, Mr. Chairman, this is an area that we do need to look at. I have requested a study on the impact on our labor force of the slowness in the numbers of trade agreements we have been involved in, and I am hopeful that our staff on this Committee will be able to press forward with our report.

Thank you.

Representative Saxton. Thank you.

Commissioner, let me turn to some historic perspective on how we may have gotten where we are. With regard to what causes an economic slowdown, obviously from time to time there are different factors, but I recall during 1999 a great deal of concern about labor shortage and the cost of labor and the pressures that would result as a result of the increased cost of labor on potential inflation, and there was a fair amount of concern with regard to that. You testified earlier – you showed us figures earlier that showed very robust monthly growth in employment during 1999; is that correct?

Ms. Abraham. That is correct.

Representative Saxton. There was, as I recall, a great deal of concern with regard to this employment growth and the potential labor shortage and inflation. As a matter of fact, in June of 1999, the Fed became so concerned that they instituted the first of six interest rate increases; is that correct?

• **Ms. Abraham.** I am sorry? They—

Representative Saxton. In June of 1999 the Fed became so concerned that they instituted the first of six rate increases. I know this is not your bailiwick exactly.

Ms. Abraham. I am certainly aware that the Fed over a period of time did raise rates, but I would hesitate to go on record as to the dates or the number. I will take your word for it.

Representative Saxton. As a matter of fact, it was in June of 1999 that we had the first of six rate increases when rates were increased from four and three quarters percent in the Federal Open Market Committee. The Fed funds rate was increased from four and three quarters to five percent in June of 1999, and following that increase there were five additional increases which peaked the Fed funds rate at six and a half percent in early 2000. Interestingly enough, the interest rate increases apparently had a marked effect. Because in July, just 13 months after the first increase, we began to see a loss or a slowing in the number of jobs created as a result of something.

I would suggest that these interest rate increases over the months ahead when we saw the six rate increases, which began in June and lasted for most of the following 12 months, and then we began to see a slowdown in the economy — at about the same time, interestingly enough, another major economic event was occurring and that was that we saw major increases in energy prices. They actually began in early 1999, and the increase in energy prices lasted for a full two years.

As energy prices, particularly oil prices, increased until the middle of 2000, we saw another negative economic stimulus that occurred at the same time the interest rate increases were occurring; and by the middle of 2000 again, in July of 2000, we began to see this economic downturn that we continue to experience. I wondered if you had any data that would relate to these two occurrences which seem to coincide perfectly as potential causes of this economic downturn that we have seen.

Ms. Abraham. Certainly, the data that we have produced have been used by a variety of analysts who try to look at connections between this sort of external development and what happens with employment. We have not done analyses of those sorts.

Representative Saxton. Something must have happened prior to July of 2000. We were steaming along with the longest, most robust period of economic growth in modern history, and in July of 2000 we saw a downturn, and I find it very curious that we had these interest rate increases in parallel with dramatic increases in energy prices just prior to

July of 2000. It is quite a coincidence that these things occurred and that the economic slowdown took place immediately thereafter.

Ms. Abraham. It would be surprising if developments as major as these didn't have an impact on employment, but, as I said, we have no analysis that would let us quantify it based on our own work.

Representative Saxton. Thank you very much.

Further questions? Ms. Dunn?

Commissioner, thank you for being with us again. This is always very helpful to us as Members of Congress, policymakers who have some responsibility with regard to Federal policy that may have an effect on economic growth. So we thank you again for being here with us, and we look forward to seeing you in the months ahead.

Ms. Abraham. Thank you for giving us the opportunity to be here. [Whereupon, at 10:27 a.m., the Committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

I would like to welcome Commissioner Abraham before the Committee once again to report on the release of new employment and unemployment data for August.

Recent economic data continue to suggest that the economic slowdown that began in the middle of 2000 continues. The rate of real GDP growth has slowed quite sharply since the second quarter of 2000, barely remaining positive in the second quarter of 2001. Manufacturing employment has fallen sharply since July of 2000, posting cumulative job losses of slightly over 1 million over the last 13 months. Investment has plunged over the last several quarters, and corporate profits are weak.

Fortunately, however, consumer spending and housing have held up quite well. In addition, since last January the Fed has reduced interest rates, Congress has lowered the tax drag on the economy, and energy prices are falling from their recent highs. These factors could reasonably be expected to lead to a recovery in economic activity by the first quarter of next year, but the report this morning only reinforces my concerns about the current weakness in the domestic and international economy.

The employment data released today reflect the seriousness of the economic slowdown. Payroll employment plunged by 113,000. The payroll declines were focused in the manufacturing sector, and only add to the previous severe job losses in manufacturing underway since the middle of 2000, bringing the total to 1 million jobs. The diffusion index, a measure of the breadth of employment growth, declined again, with the manufacturing component falling to especially low levels. The diffusion index has trended downward since June of 2000. The unemployment rate climbed to 4.9 percent.

As I have noted previously, one way to address the weakness in the domestic and international economy is through an international easing of monetary policy. The steps taken by the U.S., European, and Japanese central banks over the last month show movement in the right direction, but more actions along these lines will likely be needed. Further changes in fiscal policy may also be needed to stimulate a renewal of healthy economic growth.

In sum, the 13 months of economic stagnation have been costly to the American economy. The manufacturing sector has been especially hard hit, and has suffered the brunt of significant job losses now totaling over 1 million. However, the economy has not fallen into recession. Over the next several months policymakers must remain focused on the condition of the economy and the policy alternatives available in the event further actions are needed.

FOR DELIVERY: 9:30 A.M., E.D.T.
FRIDAY, SEPTEMBER 7, 2001

Advance copies of this statement are made available to the press under lock-up conditions with the explicit understanding that the data are embargoed until 8:30 a.m. Eastern Daylight Time.

Statement of

Katharine G. Abraham
Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, September 7, 2001

Mr. Chairman and Members of the Committee:

I would like to thank you for the opportunity to comment on the August labor market data we released this morning.

The labor market continued to weaken in August. The jobless total swelled by more than half a million over the month, and the unemployment rate rose to 4.9 percent, its highest level in nearly 4 years. Nonfarm payroll employment fell by 113,000 in August, bringing net job losses since March to 323,000. Manufacturers continued to slash jobs in August, and there was also a large employment decline in

transportation and public utilities. Most other major industries showed little or no change in employment over the month.

Manufacturing employment fell by 141,000 in August. Since July 2000, the industry has lost slightly more than 1 million jobs. The unemployment rate for manufacturing workers rose in August to 5.7 percent, up from 3.5 percent a year earlier.

Employment reductions occurred throughout manufacturing in August, with almost every component industry losing jobs. Industrial machinery (-25,000) and electrical equipment (-19,000), however, continued to account for a disproportionate share of the overall decline in manufacturing employment. Two other manufacturing industries with particularly large employment declines in August were apparel (-20,000) and furniture (-10,000).

Manufacturing's woes continued to affect transportation employment, which fell substantially in August, most notably in trucking and warehousing (-8,000).

Construction employment was little changed over the month. This industry, which had added 221,000 jobs in 2000 and continued to expand into the first part of this year, has shown no net job growth since March.

Services employment rose by 72,000 in August. Even with that gain, however, employment growth in the industry has averaged only 10,000 per month over the past 5 months, compared with 93,000 per month in 2000 and 131,000 per month in 1999. In August, the overall gain reflected continued strength in health services (32,000). There was also an unusually large gain in social services employment (33,000); combined with a weak July, this increase put the industry back on its trend growth path. Computer services employment declined by 5,000 in August; this was the first monthly decline since February 1988, although growth in the industry had slowed in recent months. Employment growth also has slowed in engineering and management services, another industry that had been expanding rapidly. Help supply employment was about unchanged in August, following sharp declines totaling more than 400,000 since last September.

Turning now to data from our survey of households, the number of unemployed and the unemployment rate rose sharply in August, and employment fell by nearly 1 million. Both the increase in the number of unemployed persons and the decrease in employment occurred disproportionately among young workers (those aged 16 to 24). Overall, the unemployment rate jumped four-tenths of a percentage point over the month to 4.9 percent, after having remained in the

4.4- to 4.5-percent range since April. While still low by historical standards, the August rate is the highest posted since September 1997. Both the number of newly-unemployed persons (those jobless less than 5 weeks) and the number of long-term unemployed (those jobless 15 weeks and longer) rose substantially in August. Long-term unemployment totaled 1.8 million, up from 1.3 million at the end of last year. The number of discouraged workers—those who have stopped seeking work because of discouragement over their job prospects—was 335,000 in August, somewhat higher than a year earlier.

In summary, the unemployment rate rose in August to 4.9 percent, its highest level in nearly 4 years. Job losses continued to mount in manufacturing, and the employment situation in most other industries remained weak.

My colleagues and I now would be glad to answer your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information:

Household data: (202) 691-6378
<http://www.bls.gov/cps/home.htm>

USDL 01-293

Establishment data: 691-6555
<http://www.bls.gov/ces/home.htm>

Transmission of material in this release is
embargoed until 8:30 A.M. (EDT),
Friday, September 7, 2001.

Media contact: 691-5902

THE EMPLOYMENT SITUATION: AUGUST 2001

Employment fell and the unemployment rate rose sharply to 4.9 percent in August, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment declined by 113,000, due primarily to another large drop in manufacturing and a decline in transportation and public utilities. Most other major industries showed little or no change in employment over the month.

Chart 1. Unemployment rate, seasonally adjusted,
September 1998 - August 2001

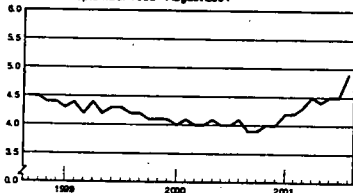
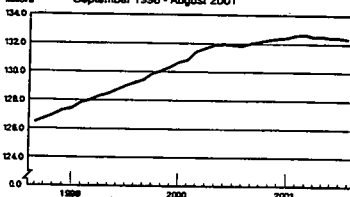


Chart 2. Nonfarm payroll employment, seasonally adjusted,
September 1998 - August 2001



Unemployment (Household Survey Data)

The number of unemployed persons increased by more than half a million to nearly 7 million in August. The unemployment rate rose by 0.4 percentage point to 4.9 percent, seasonally adjusted, the highest level since September 1997. The jobless rate had been about 4.5 percent since April; its most recent low was 3.9 percent in October 2000. The rates for most major worker groups were up over the month. (See tables A-1 and A-2.)

The number of persons unemployed less than 5 weeks and the number unemployed 15 weeks or more both increased over the month. (See table A-6.)

Total Employment and the Labor Force (Household Survey Data)

Total employment dropped by about 1 million in August to 134.4 million, seasonally adjusted. This decline followed an increase of about 450,000 in July. Young workers—those ages 16 to 24—accounted for two-thirds of the over-the-month decline in employment. The employment-population ratio fell by

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | July- Aug. change |
|---|--------------------|---------|--------------|----------|----------|-------------------------|
| | 2001 | | 2001 | | | |
| | I | II | June | July | Aug. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 141,858 | 141,461 | 141,354 | 141,774 | 141,350 | -424 |
| Employment..... | 135,864 | 135,130 | 134,932 | 135,379 | 134,393 | -986 |
| Unemployment..... | 5,994 | 6,331 | 6,422 | 6,395 | 6,957 | 562 |
| Not in labor force..... | 69,171 | 70,072 | 70,370 | 70,147 | 70,785 | 638 |
| Unemployment rates | | | | | | |
| All workers..... | 4.2 | 4.5 | 4.5 | 4.5 | 4.9 | 0.4 |
| Adult men..... | 3.7 | 4.0 | 4.0 | 3.9 | 4.4 | .5 |
| Adult women..... | 3.6 | 3.8 | 3.8 | 3.9 | 4.2 | .3 |
| Teenagers..... | 13.7 | 14.0 | 14.3 | 14.8 | 16.1 | 1.3 |
| White..... | 3.7 | 3.9 | 4.0 | 4.0 | 4.3 | .3 |
| Black..... | 8.1 | 8.2 | 8.4 | 7.9 | 9.1 | 1.2 |
| Hispanic origin..... | 6.2 | 6.5 | 6.6 | 6.0 | 6.3 | .3 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 132,559 | 132,483 | 132,431 | p132,444 | p132,331 | p-113 |
| Goods-producing ¹ | 25,621 | 25,310 | 25,186 | p25,125 | p24,989 | p-136 |
| Construction..... | 6,878 | 6,866 | 6,864 | p6,873 | p6,878 | p5 |
| Manufacturing..... | 18,188 | 17,882 | 17,757 | p17,686 | p17,545 | p-141 |
| Service-producing ¹ | 106,938 | 107,173 | 107,245 | p107,319 | p107,342 | p23 |
| Retail trade..... | 23,448 | 23,546 | 23,561 | p23,596 | p23,570 | p-26 |
| Services..... | 41,026 | 41,052 | 41,085 | p41,051 | p41,123 | p72 |
| Government..... | 20,673 | 20,782 | 20,828 | p20,923 | p20,920 | p-3 |
| Hours of work ² | | | | | | |
| Total private..... | 34.3 | 34.2 | 34.2 | p34.1 | p34.1 | p.0 |
| Manufacturing..... | 41.0 | 40.8 | 40.7 | p40.9 | p40.7 | p-0.2 |
| Overtime..... | 4.1 | 3.9 | 3.9 | p4.0 | p4.2 | p.2 |
| Indexes of aggregate weekly hours (1982=100) ² | | | | | | |
| Total private..... | 152.0 | 151.4 | 151.2 | p150.7 | p150.1 | p-0.6 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$14.10 | \$14.25 | \$14.31 | p\$14.34 | p\$14.38 | p\$0.04 |
| Average weekly earnings, total private..... | 484.21 | 487.46 | 489.40 | p488.99 | p490.36 | p1.37 |

¹ Includes other industries, not shown separately.

² Data relate to private production or nonsupervisory workers.

p=preliminary.

one-half percentage point in August to 63.4 percent. This series had hit an all-time high of 64.8 percent in April 2000. (See table A-1.)

The civilian labor force fell by about 400,000 in August to 141.4 million, seasonally adjusted. The labor force participation rate—the proportion of the population 16 years of age and older who are either working or looking for work—declined to 66.6 percent.

Persons Not in the Labor Force (Household Survey Data)

In August, the number of persons not in the labor force who reported that they currently want a job rose to 4.9 million, seasonally adjusted, up from 4.3 million a year earlier. These individuals are not counted as unemployed because they had not searched for work in the 4-week period preceding the survey. Indeed, most had not searched for over a year. (See table A-1.)

About 1.4 million persons (not seasonally adjusted) were marginally attached to the labor force in August, up from 1.1 million a year earlier. These were people who wanted and were available for work and had looked for a job sometime in the prior 12 months but were not counted as unemployed because they had not searched for work in the 4 weeks preceding the survey. In August, the number of discouraged workers was 335,000, up from 205,000 a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment fell by 113,000 in August to 132.3 million, seasonally adjusted. This was the third loss in the past 5 months, resulting in a net decline of 323,000 jobs over the period. (See table B-1.)

In the goods-producing sector, manufacturing employment continued to fall, and August's decline of 141,000 was the largest this year. Since July 2000, employment in the industry has fallen by 1 million. In August, virtually every major manufacturing industry lost jobs. In durable goods manufacturing, industrial machinery and electrical equipment continued to post the largest employment declines, 25,000 and 19,000, respectively. Furniture experienced its largest employment decline this year, shedding 10,000 jobs. Since July of last year, the industry has lost 46,000 jobs. In nondurable goods manufacturing, August declines in apparel, chemicals, and rubber and miscellaneous plastics followed gains in July.

Construction employment was little changed in August. Employment in the industry has shown no net growth in recent months, following a strong first quarter. Employment in mining was unchanged over the month. Within mining, oil and gas extraction has added 22,000 workers thus far in 2001. Coal mining has added 5,000 workers over the past 4 months, the first sustained gains in this industry in over a decade.

In the service-producing sector, employment in the services industry rose by 72,000. Employment in health services continued on its upward trend, adding 32,000 jobs over the month; hospitals accounted for about half of this increase. Employment in social services rose by 33,000 in August after being little changed in July; the average growth over the 2 months was in line with the average monthly gains in the industry over the last year. Employment in help supply services—which provides workers to employers in a wide array of industries—was about unchanged over the month. The industry has been on a downward trend since last September with job losses totaling 419,000. Employment in engineering and

management services, an industry where job growth has slowed this year, was little changed in August. The recent downward trend in hotel employment continued in August; job losses have totaled 42,000 since March. Following slower job growth in recent months, computer services experienced its first employment decline since the late 1980s, losing 5,000 jobs.

Employment in transportation and public utilities fell by 24,000 over the month. The decline in August was the fourth in the past 5 months, and the largest during that period. Trucking lost 8,000 jobs in August, and has lost 16,000 since March. Over the month, employment also fell in other transportation industries. Communications lost 8,000 jobs, concentrated in telephone communications.

Retail trade employment was down in August, as eating and drinking places lost 30,000 jobs following a large increase in July. Employment in wholesale trade and in finance, insurance, and real estate was little changed over the month.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls was unchanged in August at 34.1 hours, seasonally adjusted. The manufacturing workweek decreased by 0.2 hour to 40.7 hours. Manufacturing overtime was up by 0.2 hour to 4.2 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls fell by 0.4 percent in August to 150.1 (1982=100), seasonally adjusted, and is down by 1.4 percent since January. The manufacturing index fell by 1.3 percent to 96.8 in August and has fallen by 8.2 percent over the past 12 months. The current level is the lowest since February 1983. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls increased by 4 cents in August to \$14.38, seasonally adjusted. Over the month, average weekly earnings rose by 0.3 percent to \$490.36. Over the year, average hourly earnings increased by 4.2 percent and average weekly earnings grew by 3.6 percent. (See table B-3.)

The Employment Situation for September 2001 is scheduled to be released on Friday, October 5, at 8:30 A.M. (EDT).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. In June 2001, the sample included about 350,000 establishments employing about 39 million people.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are *not in the labor force*. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as Federal, State, and local government entities. *Employees on*

nonfarm payrolls are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-producing sector.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.
- The household survey includes people on unpaid leave among the employed. The establishment survey does not.
- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.
- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from BLS upon request.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

In both the household and establishment surveys, most seasonally adjusted series are independently adjusted. However, the adjusted series for many major estimates, such as total payroll employment, employment in most major industry divisions, total employment, and

unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

The numerical factors used to make the seasonal adjustments are recalculated twice a year. For the household survey, the factors are calculated for the January-June period and again for the July-December period. For the establishment survey, updated factors for seasonal adjustment are calculated for the May-October period and introduced along with new benchmarks, and again for the November-April period. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 292,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -192,000 to 392,000 (100,000 +/- 292,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. The 90-percent confidence interval for the monthly change in unemployment is +/- 273,000, and for the monthly change in the unemployment rate it is +/- .19 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on substantially incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth (and other sources of error), a process known as bias adjustment is included in the survey's estimating procedures, whereby a specified number of jobs is added to the monthly sample-based change. The size of the monthly bias adjustment is based largely on past relationships between the sample-based estimates of employment and the total counts of employment described below.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.3 percent, ranging from zero to 0.7 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$26.00 per issue or \$50.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household survey data published in this release. For unemployment and other labor force categories, these measures appear in tables I-B through I-D of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables 2-B through 2-H of that publication.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age
(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| TOTAL | | | | | | | | | |
| Civilian noninstitutional population | 208,835 | 211,821 | 212,135 | 209,805 | 211,348 | 211,525 | 211,725 | 211,821 | 212,135 |
| Civilian labor force | 141,425 | 143,181 | 141,862 | 140,724 | 141,757 | 141,272 | 141,354 | 141,774 | 141,350 |
| Participation rate | 67.8 | 67.6 | 66.8 | 67.0 | 67.1 | 66.8 | 66.8 | 67.1 | 66.8 |
| Employed | 135,801 | 136,383 | 134,805 | 134,809 | 135,864 | 135,103 | 134,932 | 135,379 | 134,863 |
| Employment-population ratio | 64.8 | 64.4 | 63.6 | 64.3 | 64.0 | 63.7 | 63.7 | 63.8 | 63.4 |
| Agriculture | 3,658 | 3,449 | 3,419 | 3,317 | 3,182 | 3,182 | 2,895 | 3,045 | 3,117 |
| Nonagricultural industries | 131,945 | 132,938 | 131,487 | 131,622 | 132,182 | 131,910 | 131,837 | 132,334 | 131,746 |
| Unemployed | 5,524 | 4,797 | 4,956 | 4,922 | 4,462 | 4,189 | 4,422 | 4,386 | 4,967 |
| Unemployment rate | 4.1 | 4.7 | 4.8 | 4.1 | 4.5 | 4.4 | 4.5 | 4.5 | 4.8 |
| Not in labor force | 68,510 | 68,738 | 70,274 | 69,211 | 69,592 | 70,254 | 70,370 | 70,147 | 70,785 |
| Persons who currently want a job | 4,441 | 4,488 | 5,082 | 4,258 | 4,388 | 4,535 | 4,600 | 4,529 | 4,858 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 100,847 | 101,885 | 101,885 | 100,847 | 101,593 | 101,684 | 101,788 | 101,885 | 101,885 |
| Civilian labor force | 76,086 | 76,836 | 76,102 | 75,388 | 75,741 | 75,344 | 75,482 | 75,719 | 75,518 |
| Participation rate | 75.4 | 75.5 | 74.8 | 74.8 | 74.8 | 74.1 | 74.1 | 74.3 | 74.0 |
| Employed | 73,239 | 73,441 | 72,554 | 72,379 | 72,245 | 71,979 | 71,828 | 72,279 | 71,890 |
| Employment-population ratio | 72.7 | 72.1 | 71.1 | 71.8 | 71.1 | 70.8 | 70.7 | 70.9 | 70.3 |
| Unemployed | 2,787 | 3,494 | 3,548 | 3,008 | 3,496 | 3,365 | 3,658 | 3,439 | 3,628 |
| Unemployment rate | 3.7 | 4.5 | 4.7 | 4.0 | 4.8 | 4.5 | 4.7 | 4.5 | 5.1 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 82,754 | 83,708 | 83,810 | 82,754 | 83,410 | 83,541 | 83,616 | 83,708 | 83,810 |
| Civilian labor force | 71,204 | 71,818 | 71,713 | 71,029 | 71,575 | 71,351 | 71,348 | 71,555 | 71,514 |
| Participation rate | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 | 86.0 |
| Employed | 68,176 | 68,881 | 68,628 | 68,710 | 68,706 | 68,595 | 68,498 | 68,745 | 68,492 |
| Employment-population ratio | 74.8 | 73.7 | 73.4 | 74.1 | 73.5 | 73.3 | 73.1 | 73.4 | 72.9 |
| Agriculture | 2,441 | 2,231 | 2,301 | 2,276 | 2,117 | 2,189 | 2,035 | 2,028 | 2,140 |
| Nonagricultural industries | 66,735 | 66,650 | 66,327 | 66,434 | 66,589 | 66,402 | 66,463 | 66,717 | 66,352 |
| Unemployed | 2,148 | 2,787 | 2,886 | 2,319 | 2,869 | 2,796 | 2,860 | 2,810 | 3,112 |
| Unemployment rate | 3.0 | 3.8 | 4.0 | 3.3 | 4.0 | 3.9 | 4.0 | 3.9 | 4.4 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 108,088 | 110,035 | 110,140 | 108,088 | 109,758 | 109,842 | 109,939 | 110,035 | 110,140 |
| Civilian labor force | 65,339 | 66,346 | 65,759 | 65,339 | 66,016 | 65,929 | 65,863 | 66,055 | 65,829 |
| Participation rate | 60.4 | 60.2 | 59.7 | 60.1 | 60.1 | 60.0 | 59.9 | 60.0 | 59.8 |
| Employed | 62,302 | 62,843 | 62,352 | 62,560 | 63,109 | 63,125 | 63,008 | 63,100 | 62,703 |
| Employment-population ratio | 57.1 | 57.2 | 56.8 | 57.3 | 57.5 | 57.5 | 57.3 | 57.3 | 56.9 |
| Unemployed | 3,037 | 3,503 | 3,408 | 2,779 | 2,907 | 2,803 | 2,857 | 2,956 | 3,126 |
| Unemployment rate | 4.6 | 5.0 | 5.2 | 4.2 | 4.4 | 4.3 | 4.4 | 4.5 | 4.8 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 101,209 | 102,057 | 102,185 | 101,209 | 101,870 | 101,938 | 102,023 | 102,057 | 102,185 |
| Civilian labor force | 60,369 | 61,575 | 61,743 | 61,295 | 62,132 | 62,119 | 61,890 | 62,145 | 62,172 |
| Participation rate | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Employed | 58,308 | 58,940 | 58,851 | 58,882 | 59,741 | 59,788 | 59,510 | 59,702 | 59,582 |
| Employment-population ratio | 57.7 | 57.7 | 57.8 | 58.3 | 58.8 | 58.8 | 58.3 | 58.8 | 58.9 |
| Agriculture | 883 | 846 | 820 | 808 | 847 | 822 | 752 | 772 | 788 |
| Nonagricultural industries | 57,425 | 58,094 | 58,032 | 58,074 | 58,895 | 58,943 | 58,758 | 58,930 | 58,794 |
| Unemployed | 2,061 | 2,635 | 2,892 | 2,417 | 2,391 | 2,353 | 2,380 | 2,443 | 2,610 |
| Unemployment rate | 4.2 | 4.3 | 4.7 | 3.7 | 3.8 | 3.8 | 3.8 | 3.9 | 4.3 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 15,872 | 16,145 | 16,181 | 15,872 | 16,028 | 16,048 | 16,028 | 16,145 | 16,181 |
| Civilian labor force | 9,182 | 9,788 | 9,608 | 9,420 | 9,620 | 9,628 | 9,618 | 9,674 | 9,684 |
| Participation rate | 57.8 | 60.8 | 59.0 | 59.5 | 60.1 | 59.8 | 59.8 | 59.8 | 59.8 |
| Employed | 8,028 | 8,384 | 8,228 | 8,227 | 8,607 | 8,742 | 8,658 | 8,683 | 8,628 |
| Employment-population ratio | 50.6 | 51.8 | 44.7 | 45.3 | 45.0 | 42.0 | 43.2 | 42.8 | 42.8 |
| Agriculture | 301 | 373 | 298 | 228 | 228 | 301 | 308 | 344 | 211 |
| Nonagricultural industries | 7,724 | 7,981 | 6,928 | 7,004 | 6,678 | 6,541 | 6,748 | 6,538 | 6,218 |
| Unemployed | 1,154 | 1,404 | 1,380 | 1,193 | 1,143 | 1,080 | 1,182 | 1,191 | 1,238 |
| Unemployment rate | 12.4 | 14.5 | 14.0 | 14.2 | 14.8 | 13.8 | 14.3 | 14.8 | 16.1 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| | WHITE | | | | | | | | |
| Civilian noninstitutional population | 174,587 | 175,924 | 176,069 | 174,587 | 175,533 | 175,653 | 175,789 | 175,924 | 176,069 |
| Civilian labor force | 118,018 | 119,119 | 118,065 | 117,554 | 118,145 | 117,688 | 117,733 | 117,982 | 117,726 |
| Participation rate | 67.8 | 67.7 | 67.1 | 67.3 | 67.3 | 67.0 | 67.0 | 67.1 | 66.9 |
| Employed | 113,845 | 114,222 | 113,094 | 113,378 | 113,404 | 113,185 | 113,037 | 113,227 | 112,703 |
| Employment-population ratio | 65.2 | 64.9 | 64.2 | 64.8 | 64.6 | 64.4 | 64.3 | 64.4 | 64.0 |
| Unemployed | 4,173 | 4,897 | 4,981 | 4,176 | 4,711 | 4,503 | 4,698 | 4,745 | 5,024 |
| Unemployment rate | 3.5 | 4.1 | 4.2 | 3.6 | 4.0 | 3.8 | 4.0 | 4.0 | 4.3 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 60,512 | 60,714 | 60,648 | 60,383 | 60,898 | 60,512 | 60,389 | 60,432 | 60,575 |
| Participation rate | 77.3 | 77.0 | 76.8 | 77.2 | 76.8 | 76.8 | 76.8 | 76.8 | 76.7 |
| Employed | 58,894 | 58,771 | 58,589 | 58,681 | 58,488 | 58,493 | 58,244 | 58,282 | 58,297 |
| Employment-population ratio | 75.4 | 74.5 | 74.3 | 75.0 | 74.3 | 74.3 | 73.9 | 74.0 | 73.8 |
| Unemployed | 1,518 | 1,943 | 2,059 | 1,692 | 2,110 | 2,019 | 2,145 | 2,059 | 2,278 |
| Unemployment rate | 2.5 | 3.2 | 3.4 | 2.8 | 3.5 | 3.3 | 3.6 | 3.4 | 3.8 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 49,727 | 50,161 | 50,268 | 50,063 | 50,887 | 50,811 | 50,431 | 50,684 | 50,685 |
| Participation rate | 59.4 | 59.8 | 59.8 | 59.9 | 60.3 | 60.2 | 59.8 | 60.3 | 60.1 |
| Employed | 47,855 | 48,240 | 48,204 | 48,442 | 48,807 | 48,802 | 48,749 | 48,825 | 48,839 |
| Employment-population ratio | 57.2 | 57.3 | 57.2 | 57.9 | 58.2 | 58.1 | 57.9 | 58.1 | 57.9 |
| Unemployed | 1,872 | 1,921 | 2,065 | 1,641 | 1,790 | 1,708 | 1,682 | 1,739 | 1,817 |
| Unemployment rate | 3.8 | 3.8 | 4.1 | 3.3 | 3.5 | 3.4 | 3.3 | 3.5 | 3.6 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 7,779 | 8,244 | 7,149 | 7,108 | 6,850 | 6,588 | 6,913 | 6,988 | 6,495 |
| Participation rate | 61.3 | 64.4 | 55.8 | 56.0 | 53.7 | 51.4 | 54.0 | 53.8 | 50.7 |
| Employed | 6,888 | 7,211 | 6,282 | 6,255 | 6,039 | 5,790 | 6,044 | 6,200 | 5,887 |
| Employment-population ratio | 55.1 | 58.8 | 49.1 | 49.3 | 47.3 | 45.3 | 47.2 | 48.5 | 45.4 |
| Unemployed | 793 | 1,033 | 857 | 853 | 812 | 778 | 869 | 918 | 928 |
| Unemployment rate | 10.1 | 12.5 | 12.0 | 12.0 | 11.8 | 11.8 | 12.5 | 13.3 | 14.3 |
| Men | 10.8 | 12.7 | 12.8 | 13.1 | 12.8 | 12.1 | 14.5 | 13.7 | 15.8 |
| Women | 9.4 | 12.4 | 11.0 | 10.8 | 10.6 | 10.6 | 10.6 | 13.0 | 12.7 |
| BLACK | | | | | | | | | |
| Civilian noninstitutional population | 25,258 | 25,565 | 25,804 | 25,258 | 25,472 | 25,501 | 25,533 | 25,665 | 25,804 |
| Civilian labor force | 18,630 | 18,960 | 18,788 | 18,540 | 18,698 | 18,438 | 18,758 | 18,893 | 18,732 |
| Participation rate | 65.8 | 65.5 | 65.8 | 65.5 | 65.4 | 65.2 | 65.6 | 65.3 | 65.3 |
| Employed | 15,839 | 15,491 | 15,215 | 15,239 | 15,299 | 15,311 | 15,343 | 15,374 | 15,195 |
| Employment-population ratio | 60.5 | 60.6 | 59.4 | 60.3 | 60.1 | 60.0 | 60.1 | 60.1 | 59.3 |
| Unemployed | 1,381 | 1,509 | 1,572 | 1,301 | 1,367 | 1,328 | 1,413 | 1,320 | 1,517 |
| Unemployment rate | 8.2 | 8.9 | 9.4 | 7.9 | 8.2 | 8.0 | 8.4 | 7.9 | 9.1 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,337 | 7,439 | 7,418 | 7,331 | 7,369 | 7,273 | 7,317 | 7,395 | 7,434 |
| Participation rate | 72.4 | 72.3 | 72.3 | 72.4 | 72.2 | 71.2 | 71.5 | 72.1 | 72.3 |
| Employed | 6,828 | 6,815 | 6,772 | 6,822 | 6,781 | 6,723 | 6,744 | 6,808 | 6,782 |
| Employment-population ratio | 67.4 | 66.5 | 66.0 | 67.2 | 66.2 | 65.8 | 65.9 | 66.4 | 65.8 |
| Unemployed | 513 | 624 | 646 | 529 | 608 | 552 | 573 | 588 | 672 |
| Unemployment rate | 7.0 | 8.4 | 8.7 | 7.2 | 8.2 | 7.8 | 7.8 | 7.9 | 9.0 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 8,215 | 8,371 | 8,387 | 8,249 | 8,323 | 8,421 | 8,491 | 8,409 | 8,424 |
| Participation rate | 64.8 | 65.2 | 65.3 | 65.1 | 65.8 | 65.8 | 66.3 | 65.8 | 65.6 |
| Employed | 7,658 | 7,808 | 7,758 | 7,734 | 7,822 | 7,882 | 7,917 | 7,933 | 7,842 |
| Employment-population ratio | 60.4 | 60.8 | 60.4 | 61.1 | 61.7 | 61.6 | 61.8 | 61.8 | 61.0 |
| Unemployed | 529 | 594 | 631 | 515 | 450 | 539 | 573 | 506 | 582 |
| Unemployment rate | 6.8 | 6.7 | 7.5 | 6.2 | 5.5 | 6.4 | 6.8 | 6.0 | 6.9 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 1,078 | 1,179 | 962 | 960 | 844 | 842 | 948 | 920 | 854 |
| Participation rate | 43.8 | 47.5 | 39.8 | 39.0 | 38.2 | 38.0 | 38.2 | 38.8 | 34.8 |
| Employed | 786 | 858 | 687 | 703 | 646 | 706 | 681 | 693 | 601 |
| Employment-population ratio | 32.0 | 34.6 | 27.7 | 28.5 | 28.1 | 28.6 | 27.8 | 28.7 | 24.2 |
| Unemployed | 289 | 321 | 286 | 257 | 259 | 236 | 267 | 227 | 253 |
| Unemployment rate | 28.8 | 27.3 | 30.0 | 26.8 | 31.8 | 28.1 | 28.8 | 25.6 | 30.4 |
| Men | 31.8 | 29.7 | 32.7 | 31.7 | 34.8 | 30.0 | 30.7 | 28.9 | 32.5 |
| Women | 22.4 | 24.9 | 27.2 | 22.3 | 28.6 | 20.3 | 28.0 | 24.8 | 28.1 |

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin — Continued

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| HISPANIC ORIGIN | | | | | | | | | |
| Civilian noninstitutional population | 22,488 | 23,157 | 23,222 | 22,488 | 22,957 | 23,021 | 23,090 | 23,157 | 23,222 |
| Civilian labor force | 15,367 | 15,782 | 15,798 | 15,312 | 15,775 | 15,608 | 15,570 | 15,788 | 15,772 |
| Participation rate | 68.3 | 68.2 | 68.0 | 68.1 | 68.7 | 67.8 | 67.4 | 68.2 | 67.9 |
| Employed | 14,458 | 14,814 | 14,778 | 14,439 | 14,747 | 14,634 | 14,538 | 14,843 | 14,778 |
| Employment-population ratio | 64.3 | 64.0 | 63.6 | 64.2 | 64.2 | 63.6 | 63.0 | 64.1 | 63.8 |
| Unemployed | 899 | 979 | 1,020 | 873 | 1,028 | 975 | 1,032 | 945 | 994 |
| Unemployment rate | 5.9 | 6.2 | 6.5 | 5.7 | 6.5 | 6.2 | 6.6 | 6.0 | 6.3 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.
NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals

because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

Table A-3. Employment status of the civilian population 25 years and over by educational attainment

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| Less than a high school diploma | | | | | | | | | |
| Civilian noninstitutional population | 28,306 | 27,879 | 27,468 | 28,306 | 28,326 | 28,330 | 28,304 | 27,879 | 27,468 |
| Civilian labor force | 12,458 | 11,986 | 12,004 | 12,284 | 12,371 | 12,319 | 12,170 | 12,188 | 11,789 |
| Percent of population | 44.0 | 43.3 | 43.8 | 43.3 | 43.7 | 43.5 | 42.7 | 44.0 | 43.0 |
| Employed | 11,747 | 11,221 | 11,239 | 11,491 | 11,558 | 11,523 | 11,338 | 11,380 | 10,949 |
| Employment-population ratio | 41.5 | 40.5 | 40.8 | 40.6 | 40.8 | 40.6 | 39.8 | 41.1 | 39.8 |
| Unemployed | 709 | 765 | 765 | 773 | 813 | 797 | 831 | 808 | 838 |
| Unemployment rate | 5.7 | 6.4 | 6.6 | 6.3 | 6.6 | 6.5 | 6.8 | 6.6 | 7.3 |
| High school graduates, no college² | | | | | | | | | |
| Civilian noninstitutional population | 56,882 | 56,947 | 57,513 | 56,882 | 57,456 | 57,456 | 57,059 | 56,947 | 57,513 |
| Civilian labor force | 36,395 | 36,296 | 36,574 | 36,743 | 37,023 | 36,952 | 36,851 | 36,870 | 37,098 |
| Percent of population | 64.0 | 63.7 | 63.8 | 64.6 | 64.5 | 64.3 | 64.5 | 64.8 | 64.5 |
| Employed | 35,097 | 34,795 | 35,105 | 35,397 | 35,650 | 35,507 | 35,391 | 35,468 | 35,490 |
| Employment-population ratio | 61.7 | 61.1 | 61.0 | 62.2 | 62.0 | 61.8 | 62.0 | 62.3 | 61.7 |
| Unemployed | 1,298 | 1,491 | 1,569 | 1,346 | 1,403 | 1,446 | 1,451 | 1,522 | 1,598 |
| Unemployment rate | 3.8 | 4.1 | 4.3 | 3.7 | 3.8 | 3.9 | 3.9 | 4.1 | 4.4 |
| Less than a bachelor's degree³ | | | | | | | | | |
| Civilian noninstitutional population | 44,816 | 45,444 | 45,339 | 44,816 | 44,853 | 44,578 | 44,812 | 45,444 | 45,339 |
| Civilian labor force | 32,980 | 33,452 | 33,440 | 33,039 | 33,044 | 33,152 | 33,314 | 33,598 | 33,681 |
| Percent of population | 73.9 | 73.6 | 73.8 | 74.1 | 74.0 | 74.3 | 74.3 | 73.8 | 73.8 |
| Employed | 32,036 | 32,386 | 32,310 | 32,137 | 32,065 | 32,188 | 32,283 | 32,301 | 32,407 |
| Employment-population ratio | 71.8 | 71.2 | 71.5 | 72.0 | 71.8 | 72.2 | 72.0 | 71.1 | 71.5 |
| Unemployed | 944 | 1,066 | 1,130 | 902 | 978 | 1,004 | 1,051 | 994 | 1,075 |
| Unemployment rate | 2.9 | 3.2 | 3.4 | 2.7 | 3.0 | 3.0 | 3.2 | 3.0 | 3.2 |
| College graduates | | | | | | | | | |
| Civilian noninstitutional population | 45,719 | 46,794 | 46,724 | 45,718 | 46,845 | 46,271 | 46,348 | 46,794 | 46,724 |
| Civilian labor force | 35,827 | 36,635 | 36,528 | 35,953 | 36,646 | 36,657 | 36,592 | 36,634 | 36,649 |
| Percent of population | 78.4 | 78.3 | 78.2 | 78.8 | 78.8 | 78.7 | 78.9 | 78.3 | 78.4 |
| Employed | 35,038 | 35,752 | 35,547 | 35,324 | 35,802 | 35,915 | 35,796 | 35,859 | 35,870 |
| Employment-population ratio | 76.8 | 76.4 | 76.1 | 77.3 | 77.8 | 77.5 | 77.2 | 76.8 | 76.8 |
| Unemployed | 789 | 883 | 980 | 629 | 845 | 771 | 796 | 775 | 779 |
| Unemployment rate | 2.2 | 2.4 | 2.7 | 1.7 | 2.3 | 2.1 | 2.2 | 2.1 | 2.1 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Includes high school diploma or equivalent.

³ Includes the categories, some college, no degree; and associate degree.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-4. Selected employment indicators

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| CHARACTERISTIC | | | | | | | | | |
| Total employed, 16 years and over | 135,601 | 136,985 | 134,805 | 134,839 | 135,354 | 135,103 | 134,832 | 135,379 | 134,903 |
| Married men, spouse present | 43,416 | 43,251 | 43,215 | 43,275 | 43,216 | 43,733 | 43,428 | 43,394 | 43,172 |
| Married women, spouse present | 32,912 | 32,851 | 33,120 | 33,507 | 33,662 | 33,686 | 33,980 | 33,603 | 33,825 |
| Women who maintain families | 6,536 | 6,507 | 6,369 | 6,492 | 6,180 | 6,319 | 6,529 | 6,567 | 6,323 |
| OCCUPATION | | | | | | | | | |
| Managerial and professional specialty | 40,883 | 41,629 | 41,465 | 40,917 | 41,841 | 41,698 | 41,987 | 41,917 | 41,750 |
| Technical, sales, and administrative support | 39,104 | 39,145 | 38,825 | 39,100 | 39,014 | 38,743 | 38,998 | 39,057 | 38,884 |
| Service occupations | 17,976 | 18,686 | 18,297 | 17,749 | 18,258 | 18,224 | 18,576 | 18,642 | 18,032 |
| Precision production, craft, and repair | 15,324 | 15,222 | 15,200 | 15,189 | 14,834 | 14,862 | 14,794 | 14,897 | 15,020 |
| Operators, fabricators, and laborers | 18,722 | 17,762 | 17,730 | 18,261 | 18,127 | 17,504 | 17,564 | 17,571 | 17,855 |
| Farming, forestry, and fishing | 3,612 | 3,651 | 3,548 | 3,260 | 3,226 | 3,251 | 3,138 | 3,166 | 3,154 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture: | | | | | | | | | |
| Wage and salary workers | 2,253 | 2,028 | 2,032 | 2,048 | 1,900 | 1,858 | 1,775 | 1,788 | 1,830 |
| Self-employed workers | 1,265 | 1,262 | 1,249 | 1,241 | 1,223 | 1,201 | 1,198 | 1,226 | 1,239 |
| Unpaid family workers | 46 | 29 | 36 | 36 | 47 | 38 | 35 | 22 | 29 |
| Nonagricultural industries: | | | | | | | | | |
| Wage and salary workers | 123,161 | 124,182 | 122,868 | 122,931 | 123,395 | 123,416 | 123,009 | 123,432 | 122,880 |
| Government | 18,015 | 18,271 | 18,526 | 18,444 | 18,854 | 19,057 | 18,812 | 18,919 | 19,219 |
| Private industries | 105,186 | 105,792 | 104,301 | 104,297 | 104,541 | 104,349 | 104,197 | 104,513 | 103,467 |
| Private households | 733 | 811 | 792 | 781 | 812 | 789 | 744 | 790 | 827 |
| Other industries | 104,413 | 104,981 | 103,269 | 103,236 | 103,729 | 103,559 | 103,453 | 103,723 | 102,640 |
| Self-employed workers | 8,858 | 8,884 | 8,515 | 8,618 | 8,628 | 8,530 | 8,741 | 8,574 | 8,481 |
| Unpaid family workers | 105 | 79 | 106 | 114 | 93 | 103 | 94 | 88 | 113 |
| PERSONS AT WORK PART TIME | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 3,120 | 3,681 | 3,298 | 3,170 | 3,201 | 3,371 | 3,637 | 3,489 | 3,328 |
| Slack work or business conditions | 1,844 | 2,167 | 1,946 | 1,980 | 2,097 | 2,215 | 2,239 | 2,120 | 2,036 |
| Could only find part-time work | 863 | 1,113 | 918 | 860 | 879 | 800 | 1,025 | 869 | 935 |
| Part time for noneconomic reasons | 16,052 | 16,452 | 16,434 | 16,704 | 16,713 | 16,681 | 16,472 | 16,846 | 16,153 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 3,005 | 3,559 | 3,177 | 3,038 | 3,061 | 3,197 | 3,532 | 3,358 | 3,196 |
| Slack work or business conditions | 1,774 | 2,094 | 1,874 | 1,801 | 1,895 | 2,089 | 2,254 | 2,039 | 2,004 |
| Could only find part-time work | 949 | 1,038 | 888 | 861 | 864 | 876 | 1,024 | 885 | 911 |
| Part time for noneconomic reasons | 15,890 | 15,829 | 15,886 | 16,142 | 16,176 | 16,061 | 16,029 | 16,308 | 16,580 |

NOTE: Persons at work exclude employed persons who were absent from their jobs during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time

but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and bad weather.

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Table A-5. Selected unemployment indicators, seasonally adjusted

| Category | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---|---|-----------|-----------|---------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| CHARACTERISTIC | | | | | | | | | |
| Total, 16 years and over | 5,785 | 6,395 | 6,957 | 4.1 | 4.5 | 4.4 | 4.5 | 4.5 | 4.9 |
| Men, 20 years and over | 2,319 | 2,810 | 3,112 | 3.3 | 4.0 | 3.9 | 4.0 | 3.9 | 4.4 |
| Women, 20 years and over | 2,273 | 2,394 | 2,610 | 3.7 | 3.8 | 3.8 | 3.8 | 3.9 | 4.2 |
| Both sexes, 16 to 19 years | 1,193 | 1,191 | 1,236 | 14.2 | 14.2 | 13.6 | 14.3 | 14.8 | 16.1 |
| Married men, spouse present | 894 | 1,170 | 1,220 | 2.0 | 2.5 | 2.6 | 2.6 | 2.8 | 2.7 |
| Married women, spouse present | 964 | 981 | 1,034 | 2.8 | 2.9 | 2.9 | 3.0 | 2.8 | 3.0 |
| Women who maintain families | 542 | 569 | 600 | 6.0 | 6.3 | 6.2 | 6.3 | 6.2 | 6.7 |
| Full-time workers | 4,601 | 5,173 | 5,583 | 3.9 | 4.3 | 4.3 | 4.4 | 4.4 | 4.8 |
| Part-time workers | 1,194 | 1,242 | 1,370 | 5.0 | 5.5 | 4.6 | 5.3 | 5.1 | 5.6 |
| OCCUPATION² | | | | | | | | | |
| Managerial and professional specialty | 770 | 955 | 1,071 | 1.8 | 2.1 | 1.9 | 2.0 | 2.2 | 2.5 |
| Technical, sales, and administrative support | 1,616 | 1,608 | 1,732 | 4.0 | 4.1 | 3.7 | 4.0 | 4.0 | 4.3 |
| Precision production, craft, and repair | 512 | 663 | 753 | 3.3 | 4.5 | 4.5 | 4.5 | 4.2 | 4.8 |
| Operators, laborers, and laborers | 1,253 | 1,369 | 1,478 | 6.3 | 6.8 | 7.3 | 7.9 | 7.2 | 7.7 |
| Farming, forestry, and fishing | 230 | 258 | 289 | 6.4 | 7.5 | 7.1 | 6.2 | 7.5 | 8.7 |
| INDUSTRY | | | | | | | | | |
| Nonagricultural private wage and salary workers | 4,469 | 5,158 | 5,617 | 4.1 | 4.6 | 4.5 | 4.8 | 4.7 | 5.1 |
| Goods-producing industries | 1,249 | 1,584 | 1,744 | 4.3 | 5.3 | 5.3 | 5.5 | 5.6 | 6.2 |
| Mining | 21 | 21 | 25 | 4.3 | 5.1 | 5.5 | 6.8 | 3.7 | 4.3 |
| Construction | 520 | 570 | 628 | 6.4 | 7.1 | 6.6 | 6.7 | 6.8 | 7.5 |
| Manufacturing | 708 | 894 | 1,092 | 3.5 | 4.6 | 4.8 | 5.0 | 5.1 | 5.7 |
| Durable goods | 380 | 567 | 688 | 3.1 | 4.3 | 4.9 | 5.0 | 4.7 | 5.8 |
| Non-durable goods | 328 | 427 | 403 | 4.1 | 5.1 | 4.7 | 4.8 | 5.7 | 5.5 |
| Service-producing industries | 3,220 | 3,574 | 3,873 | 4.0 | 4.4 | 4.2 | 4.5 | 4.4 | 4.8 |
| Transportation and public utilities | 250 | 265 | 285 | 3.1 | 4.1 | 3.8 | 4.4 | 3.3 | 3.5 |
| Wholesale and retail trade | 1,411 | 1,447 | 1,537 | 5.1 | 5.3 | 5.3 | 5.3 | 5.2 | 5.6 |
| Finance, insurance, and real estate | 189 | 259 | 222 | 2.4 | 2.7 | 2.3 | 2.6 | 3.2 | 2.7 |
| Services | 1,370 | 1,603 | 1,828 | 3.8 | 4.1 | 3.9 | 4.4 | 4.3 | 4.9 |
| Government workers | 437 | 492 | 410 | 2.3 | 2.3 | 2.0 | 2.0 | 2.1 | 2.1 |
| Agricultural wage and salary workers | 179 | 219 | 210 | 8.0 | 9.2 | 6.2 | 9.6 | 10.8 | 10.2 |

¹ Unemployment as a percent of the civilian labor force.² Seasonally adjusted unemployment data for service occupations are not available

because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

Table A-6. Duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|-----------------------------------|-------------------------|-----------|-----------|---------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,513 | 2,873 | 2,826 | 2,567 | 2,958 | 2,679 | 2,809 | 2,912 | 3,004 |
| 5 to 14 weeks | 2,031 | 2,347 | 2,333 | 1,832 | 1,977 | 2,029 | 2,084 | 2,150 | 2,100 |
| 15 weeks and over | 1,280 | 1,578 | 1,697 | 1,373 | 1,490 | 1,484 | 1,540 | 1,587 | 1,817 |
| 15 to 26 weeks | 567 | 676 | 843 | 678 | 739 | 822 | 804 | 935 | 982 |
| 27 weeks and over | 713 | 700 | 854 | 700 | 740 | 632 | 737 | 652 | 836 |
| Average (mean) duration, in weeks | 12.9 | 12.3 | 13.2 | 13.0 | 12.6 | 12.2 | 13.0 | 12.5 | 13.3 |
| Median duration, in weeks | 6.5 | 6.2 | 6.9 | 6.1 | 5.8 | 6.5 | 6.2 | 6.7 | 6.5 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 43.2 | 42.3 | 42.1 | 44.5 | 46.0 | 43.3 | 43.7 | 41.1 | 43.4 |
| 5 to 14 weeks | 34.9 | 34.8 | 33.6 | 31.7 | 30.7 | 32.8 | 32.4 | 33.8 | 30.8 |
| 15 weeks and over | 22.0 | 23.2 | 24.4 | 23.8 | 23.3 | 24.0 | 23.9 | 25.0 | 25.8 |
| 15 to 26 weeks | 9.7 | 12.9 | 12.1 | 11.7 | 11.8 | 13.8 | 12.5 | 14.7 | 14.2 |
| 27 weeks and over | 12.2 | 10.3 | 12.3 | 12.1 | 11.5 | 10.2 | 11.4 | 10.3 | 12.1 |

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Table A-7. Reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2,544 | 3,327 | 3,334 | 2,585 | 3,189 | 3,159 | 3,291 | 3,282 | 3,409 |
| On temporary layoff | 943 | 1,030 | 1,000 | 907 | 1,053 | 1,084 | 940 | 1,003 | 1,079 |
| Not on temporary layoff | 1,701 | 2,297 | 2,334 | 1,678 | 2,136 | 2,075 | 2,351 | 2,279 | 2,330 |
| Permanent job losers | 1,154 | 1,721 | 1,704 | (1) | (1) | (1) | (1) | (1) | (1) |
| Persons who completed temporary jobs | 546 | 573 | 630 | (1) | (1) | (1) | (1) | (1) | (1) |
| Job leavers | 856 | 825 | 877 | 780 | 749 | 820 | 810 | 774 | 894 |
| Reentrants | 1,902 | 2,000 | 2,120 | 1,930 | 2,005 | 1,801 | 1,906 | 1,912 | 2,168 |
| New entrants | 522 | 644 | 516 | 503 | 462 | 482 | 477 | 436 | 495 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers and persons who completed temporary jobs | 43.7 | 48.0 | 47.8 | 44.6 | 49.9 | 50.4 | 50.8 | 51.0 | 49.0 |
| On temporary layoff | 14.5 | 15.2 | 14.4 | 15.8 | 16.4 | 17.3 | 14.5 | 15.7 | 15.5 |
| Not on temporary layoff | 29.2 | 32.8 | 33.5 | 28.9 | 33.5 | 33.1 | 36.3 | 35.3 | 33.5 |
| Job leavers | 14.7 | 12.1 | 14.0 | 13.5 | 11.7 | 13.1 | 12.5 | 12.1 | 12.8 |
| Reentrants | 32.7 | 28.4 | 30.8 | 33.3 | 31.3 | 28.8 | 28.4 | 30.0 | 31.1 |
| New entrants | 9.0 | 9.5 | 7.4 | 8.7 | 7.2 | 7.7 | 7.4 | 6.8 | 7.1 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 1.8 | 2.3 | 2.4 | 1.8 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 |
| Job leavers | .6 | .6 | .7 | .6 | .5 | .6 | .6 | .5 | .6 |
| Reentrants | 1.2 | 1.4 | 1.5 | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 | 1.5 |
| New entrants | .4 | .4 | .4 | .4 | .3 | .3 | .3 | .3 | .4 |

¹ Not available.

Table A-8. Range of alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 3 | 1.1 | 1.2 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.3 |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 1.8 | 2.3 | 2.4 | 1.8 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 4.1 | 4.7 | 4.9 | 4.1 | 4.5 | 4.4 | 4.5 | 4.5 | 4.8 |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 4.3 | 5.0 | 5.1 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 4.8 | 5.8 | 5.8 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 7.0 | 8.1 | 8.1 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |

¹ Not available.

NOTE: This range of alternative measures of labor underutilization replaces the U1-U7 range published in table A-7 of this release prior to 1994. Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers,

a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. For further information, see "U.S. introduces new range of alternative unemployment measures," in the October 1995 issue of the Monthly Labor Review.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-9. Unemployed persons by sex and age, seasonally adjusted

| Age and sex | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---------------------------------------|---|-----------|-----------|---------------------------------|-----------|----------|-----------|-----------|-----------|
| | Aug. 2000 | July 2001 | Aug. 2001 | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001 | Aug. 2001 |
| Total, 16 years and over | 5,785 | 6,305 | 6,957 | 4.1 | 4.5 | 4.4 | 4.5 | 4.5 | 4.9 |
| 16 to 24 years | 2,143 | 2,281 | 2,544 | 9.4 | 10.4 | 9.9 | 10.4 | 10.1 | 11.5 |
| 16 to 19 years | 1,193 | 1,191 | 1,236 | 14.2 | 14.2 | 13.6 | 14.3 | 14.6 | 16.1 |
| 16 to 17 years | 560 | 609 | 559 | 16.9 | 16.7 | 15.5 | 16.0 | 19.3 | 19.1 |
| 18 to 19 years | 646 | 582 | 701 | 12.5 | 12.6 | 12.2 | 13.1 | 11.8 | 14.7 |
| 20 to 24 years | 950 | 1,050 | 1,308 | 6.6 | 8.3 | 7.9 | 8.2 | 7.5 | 9.0 |
| 25 years and over | 3,589 | 4,104 | 4,423 | 3.1 | 3.4 | 3.3 | 3.5 | 3.4 | 3.7 |
| 25 to 54 years | 3,198 | 3,604 | 3,894 | 3.2 | 3.5 | 3.5 | 3.6 | 3.6 | 3.9 |
| 55 years and over | 486 | 521 | 573 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 3.0 |
| Men, 16 years and over | 3,009 | 3,439 | 3,828 | 4.0 | 4.6 | 4.5 | 4.7 | 4.5 | 5.1 |
| 16 to 24 years | 1,213 | 1,228 | 1,435 | 10.2 | 10.9 | 11.0 | 11.8 | 10.8 | 12.4 |
| 16 to 19 years | 690 | 629 | 716 | 15.6 | 15.1 | 15.3 | 15.9 | 15.1 | 17.9 |
| 16 to 17 years | 285 | 304 | 335 | 17.1 | 18.7 | 17.4 | 18.0 | 19.0 | 22.7 |
| 18 to 19 years | 407 | 331 | 391 | 15.2 | 12.8 | 13.9 | 14.5 | 13.0 | 15.4 |
| 20 to 24 years | 523 | 569 | 720 | 6.9 | 8.7 | 8.7 | 9.5 | 7.9 | 9.5 |
| 25 years and over | 1,798 | 2,220 | 2,394 | 2.6 | 3.5 | 3.3 | 3.4 | 3.5 | 3.7 |
| 25 to 54 years | 1,553 | 1,910 | 2,066 | 2.9 | 3.5 | 3.5 | 3.5 | 3.6 | 3.9 |
| 55 years and over | 278 | 307 | 345 | 2.7 | 2.9 | 2.9 | 3.0 | 3.0 | 3.3 |
| Women, 16 years and over | 2,776 | 2,866 | 3,130 | 4.2 | 4.4 | 4.3 | 4.4 | 4.5 | 4.8 |
| 16 to 24 years | 930 | 1,053 | 1,108 | 8.6 | 9.8 | 8.8 | 8.9 | 9.7 | 10.4 |
| 16 to 19 years | 503 | 562 | 520 | 12.4 | 13.3 | 11.8 | 12.7 | 14.4 | 14.2 |
| 16 to 17 years | 275 | 305 | 224 | 16.8 | 14.5 | 13.6 | 14.0 | 19.6 | 15.6 |
| 18 to 19 years | 239 | 251 | 310 | 9.8 | 12.4 | 10.4 | 11.8 | 10.8 | 13.9 |
| 20 to 24 years | 427 | 491 | 588 | 5.3 | 7.8 | 7.1 | 6.7 | 7.1 | 8.4 |
| 25 years and over | 1,671 | 1,694 | 2,039 | 3.4 | 3.3 | 3.4 | 3.5 | 3.4 | 3.7 |
| 25 to 54 years | 1,645 | 1,694 | 1,798 | 3.5 | 3.4 | 3.6 | 3.8 | 3.8 | 3.8 |
| 55 years and over | 210 | 214 | 229 | 2.6 | 2.6 | 2.2 | 2.5 | 2.5 | 2.7 |

¹ Unemployment as a percent of the civilian labor force.

Table A-10. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Aug. 2000 | Aug. 2001 | Aug. 2000 | Aug. 2001 | Aug. 2000 | Aug. 2001 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 66,510 | 70,274 | 34,762 | 25,890 | 43,748 | 44,880 |
| Persons who currently want a job | 4,441 | 5,062 | 1,759 | 2,091 | 2,682 | 2,880 |
| Searched for work and available to work now ¹ | 1,096 | 1,357 | 511 | 711 | 584 | 646 |
| Reason not currently looking: | | | | | | |
| Discouragement over job prospects ² | 206 | 335 | 122 | 176 | 83 | 159 |
| Reasons other than discouragement ³ | 890 | 1,022 | 398 | 535 | 502 | 487 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 7,064 | 6,863 | 3,845 | 3,660 | 3,238 | 3,279 |
| Percent of total employed | 5.2 | 5.2 | 5.2 | 5.1 | 5.2 | 5.2 |
| Primary job full time, secondary job part time | 3,991 | 3,787 | 2,389 | 2,213 | 1,606 | 1,574 |
| Primary and secondary jobs both full time | 1,398 | 1,425 | 423 | 504 | 975 | 901 |
| Primary and secondary jobs both full time | 315 | 292 | 227 | 190 | 88 | 102 |
| Hours vary on primary or secondary job | 1,336 | 1,442 | 791 | 767 | 546 | 675 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.² Includes those who are not available, could not find work, lack schooling or training, employer thinks too young or old, and other types of discrimination.³ Includes those who did not actively look for work in the prior 4 weeks for such

reasons as child-care and transportation problems, as well as a small number for which reason for nonparticipation was not determined.

⁴ Includes persons who work part time on their primary job and full time on their secondary job(s), not shown separately.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry
(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|----------|-----------|------------|------------|
| | Aug. 2000 | June 2001 | July 2001P | Aug. 2001P | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001P | Aug. 2001P |
| | Total | 131,637 | 133,618 | 132,291 | 132,168 | 131,837 | 132,489 | 132,530 | 132,431 | 132,444 |
| Total private | 112,234 | 112,727 | 112,495 | 112,454 | 111,237 | 111,742 | 111,760 | 111,603 | 111,521 | 111,411 |
| Goods-producing | 26,164 | 25,544 | 25,466 | 25,450 | 25,727 | 25,421 | 25,324 | 25,186 | 25,125 | 24,989 |
| Mining | 533 | 573 | 574 | 576 | 543 | 560 | 564 | 565 | 566 | 566 |
| Metal mining | 41.0 | 35.6 | 34.4 | 33.8 | 40 | 37 | 37 | 35 | 34 | 33 |
| Coal mining | 76.0 | 77.6 | 78.8 | 79.3 | 76 | 75 | 76 | 78 | 79 | 80 |
| Oil and gas extraction | 317.2 | 343.3 | 343.8 | 346.5 | 313 | 335 | 339 | 340 | 340 | 342 |
| Nonmetallic minerals, except fuels | 118.4 | 116.0 | 117.1 | 116.1 | 114 | 113 | 112 | 112 | 113 | 111 |
| Construction | 7,037 | 7,120 | 7,218 | 7,216 | 6,699 | 6,852 | 6,881 | 6,864 | 6,873 | 6,878 |
| General building contractors | 1,590.7 | 1,597.1 | 1,623.6 | 1,623.1 | 1,325 | 1,348 | 1,356 | 1,351 | 1,357 | 1,357 |
| Heavy construction, except building | 975.8 | 987.9 | 1,007.8 | 1,010.9 | 900 | 915 | 923 | 925 | 926 | 926 |
| Special trade contractors | 4,470.8 | 4,534.5 | 4,586.9 | 4,581.8 | 4,274 | 4,389 | 4,402 | 4,388 | 4,380 | 4,386 |
| Manufacturing | 18,574 | 17,851 | 17,874 | 17,658 | 18,485 | 18,009 | 17,879 | 17,757 | 17,686 | 17,545 |
| Production workers | 12,687 | 12,025 | 11,866 | 11,876 | 12,631 | 12,166 | 12,066 | 11,956 | 11,897 | 11,790 |
| Durable goods | 11,194 | 10,754 | 10,596 | 10,570 | 11,172 | 10,870 | 10,778 | 10,692 | 10,620 | 10,532 |
| Production workers | 7,609 | 7,207 | 7,063 | 7,048 | 7,608 | 7,308 | 7,235 | 7,157 | 7,096 | 7,028 |
| Lumber and wood products | 848.2 | 807.6 | 808.3 | 810.3 | 831 | 800 | 797 | 798 | 797 | 794 |
| Furniture and fixtures | 562.1 | 533.0 | 521.8 | 520.2 | 559 | 543 | 540 | 532 | 529 | 519 |
| Stone, clay, and glass products | 389.4 | 390.8 | 381.4 | 379.4 | 380 | 377 | 374 | 372 | 371 | 369 |
| Primary metal industries | 698.8 | 655.5 | 645.2 | 646.5 | 700 | 667 | 660 | 654 | 648 | 645 |
| Blast furnaces and basic steel products | 225.7 | 211.3 | 208.6 | 208.0 | (1) | (1) | (1) | (1) | (1) | (1) |
| Fabricated metal products | 1,542.3 | 1,486.2 | 1,463.1 | 1,471.0 | 1,541 | 1,503 | 1,488 | 1,478 | 1,475 | 1,467 |
| Industrial machinery and equipment | 2,126.7 | 2,039.9 | 2,003.5 | 1,979.1 | 2,133 | 2,072 | 2,064 | 2,031 | 2,006 | 1,981 |
| Computer and office equipment | 352.1 | 359.6 | 355.2 | 351.3 | 365 | 397 | 366 | 357 | 351 | 349 |
| Electronic and other electrical equipment | 1,739.1 | 1,628.6 | 1,590.2 | 1,574.1 | 1,740 | 1,684 | 1,656 | 1,624 | 1,591 | 1,572 |
| Electronic components and accessories | 695.9 | 652.6 | 636.5 | 624.0 | 695 | 686 | 670 | 650 | 634 | 622 |
| Transportation equipment | 1,833.6 | 1,764.7 | 1,732.3 | 1,744.6 | 1,836 | 1,768 | 1,757 | 1,749 | 1,750 | 1,747 |
| Motor vehicles and equipment | 1,003.9 | 942.8 | 915.0 | 928.2 | 1,005 | 959 | 939 | 931 | 934 | 929 |
| Aircraft and parts | 462.2 | 466.0 | 465.5 | 464.9 | 464 | 464 | 465 | 465 | 466 | 465 |
| Instruments and related products | 858.6 | 867.3 | 866.8 | 862.3 | 858 | 866 | 865 | 865 | 865 | 859 |
| Miscellaneous manufacturing | 396.8 | 390.0 | 383.8 | 382.5 | 398 | 390 | 387 | 389 | 388 | 379 |
| Nondurable goods | 7,380 | 7,097 | 7,078 | 7,088 | 7,313 | 7,139 | 7,101 | 7,065 | 7,066 | 7,013 |
| Production workers | 5,078 | 4,818 | 4,803 | 4,827 | 5,023 | 4,858 | 4,831 | 4,789 | 4,801 | 4,784 |
| Food and kindred products | 1,727.7 | 1,683.4 | 1,704.4 | 1,732.5 | 1,679 | 1,687 | 1,684 | 1,685 | 1,680 | 1,675 |
| Tobacco products | 33.0 | 31.1 | 31.1 | 32.6 | 33 | 32 | 33 | 33 | 33 | 34 |
| Textile mill products | 530.5 | 475.0 | 468.8 | 468.7 | 528 | 489 | 490 | 472 | 471 | 465 |
| Apparel and other textile products | 630.4 | 575.5 | 562.7 | 552.7 | 625 | 581 | 579 | 567 | 571 | 561 |
| Paper and allied products | 656.6 | 638.9 | 634.3 | 630.8 | 655 | 641 | 639 | 635 | 632 | 627 |
| Printing and publishing | 1,548.0 | 1,497.8 | 1,491.3 | 1,484.5 | 1,549 | 1,512 | 1,502 | 1,495 | 1,490 | 1,484 |
| Chemicals and allied products | 1,038.9 | 1,038.1 | 1,039.4 | 1,036.4 | 1,038 | 1,036 | 1,033 | 1,033 | 1,033 | 1,034 |
| Petroleum and coal products | 130.5 | 130.1 | 131.1 | 130.5 | 128 | 128 | 127 | 128 | 128 | 127 |
| Rubber and misc. plastics products | 1,011.2 | 980.5 | 951.9 | 955.7 | 1,009 | 967 | 959 | 953 | 959 | 953 |
| Leather and leather products | 72.2 | 65.5 | 61.8 | 63.4 | 71 | 66 | 65 | 64 | 64 | 63 |
| Service-producing | 105,473 | 108,074 | 106,825 | 106,718 | 106,110 | 107,068 | 107,206 | 107,245 | 107,319 | 107,342 |
| Transportation and public utilities | 6,946 | 7,151 | 7,099 | 7,096 | 6,963 | 7,119 | 7,130 | 7,118 | 7,113 | 7,099 |
| Transportation | 4,327 | 4,591 | 4,541 | 4,535 | 4,546 | 4,576 | 4,584 | 4,571 | 4,564 | 4,547 |
| Railroad transportation | 238.5 | 228.7 | 228.9 | 228.7 | 236 | 230 | 230 | 227 | 228 | 227 |
| Local and interurban passenger transit | 416.0 | 480.9 | 420.5 | 420.1 | 478 | 477 | 483 | 483 | 483 | 482 |
| Trucking and warehousing | 1,891.8 | 1,882.2 | 1,887.3 | 1,888.4 | 1,860 | 1,864 | 1,867 | 1,867 | 1,864 | 1,858 |
| Water transportation | 207.9 | 208.0 | 214.6 | 212.6 | 198 | 202 | 203 | 201 | 203 | 201 |
| Transportation by air | 1,283.8 | 1,307.4 | 1,304.8 | 1,302.8 | 1,286 | 1,313 | 1,315 | 1,310 | 1,305 | 1,302 |
| Pipelines, except natural gas | 13.8 | 14.1 | 14.2 | 14.3 | 14 | 14 | 14 | 14 | 14 | 14 |
| Transportation services | 477.4 | 470.1 | 470.4 | 468.5 | 474 | 476 | 472 | 469 | 467 | 465 |
| Communications and public utilities | 2,421 | 2,560 | 2,558 | 2,551 | 2,415 | 2,543 | 2,546 | 2,547 | 2,549 | 2,542 |
| Communications | 1,568.2 | 1,707.0 | 1,702.6 | 1,697.5 | 1,565 | 1,696 | 1,699 | 1,700 | 1,701 | 1,693 |
| Electric, gas, and sanitary services | 852.0 | 853.2 | 855.9 | 853.5 | 850 | 847 | 847 | 847 | 848 | 849 |
| Wholesale trade | 7,067 | 7,069 | 7,054 | 7,040 | 7,037 | 7,053 | 7,038 | 7,022 | 7,019 | 7,017 |
| Durable goods | 4,218 | 4,185 | 4,171 | 4,162 | 4,201 | 4,187 | 4,174 | 4,166 | 4,151 | 4,142 |
| Nondurable goods | 2,849 | 2,884 | 2,883 | 2,878 | 2,836 | 2,866 | 2,864 | 2,856 | 2,868 | 2,875 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|----------|-----------|------------|------------|
| | Aug. 2001 | June 2001 | July 2001P | Aug. 2001P | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001P | Aug. 2001P |
| Total private | 34.7 | 34.4 | 34.6 | 34.4 | 34.3 | 34.2 | 34.2 | 34.2 | 34.1 | 34.1 |
| Goods-producing | 41.1 | 40.6 | 40.5 | 40.7 | 40.8 | 40.6 | 40.5 | 40.4 | 40.5 | 40.3 |
| Mining | 43.6 | 43.7 | 43.7 | 43.6 | 43.1 | 44.0 | 43.9 | 43.3 | 43.3 | 43.4 |
| Construction | 40.2 | 40.0 | 40.4 | 40.1 | 39.2 | 39.3 | 39.7 | 39.4 | 39.4 | 39.2 |
| Manufacturing | 41.4 | 40.8 | 40.4 | 40.8 | 41.4 | 41.0 | 40.7 | 40.7 | 40.9 | 40.7 |
| Overtime hours | 4.7 | 4.0 | 3.9 | 4.3 | 4.5 | 3.9 | 3.9 | 3.9 | 4.0 | 4.2 |
| Durable goods | 41.9 | 41.1 | 40.6 | 41.1 | 41.9 | 41.3 | 41.0 | 40.9 | 41.2 | 41.1 |
| Overtime hours | 4.7 | 4.0 | 3.8 | 4.3 | 4.6 | 3.9 | 3.9 | 3.9 | 4.0 | 4.1 |
| Lumber and wood products | 41.1 | 40.9 | 40.8 | 40.9 | 40.7 | 40.1 | 40.6 | 40.4 | 41.1 | 40.6 |
| Furniture and fixtures | 40.0 | 38.6 | 39.3 | 40.0 | 39.6 | 39.3 | 38.6 | 38.4 | 39.7 | 39.7 |
| Stone, clay, and glass products | 43.8 | 44.3 | 44.3 | 44.3 | 43.0 | 43.2 | 43.9 | 44.0 | 44.0 | 43.6 |
| Primary metal industries | 44.5 | 43.9 | 43.2 | 43.6 | 44.7 | 44.3 | 43.5 | 43.9 | 43.9 | 43.7 |
| Basic furnaces and basic steel products | 45.9 | 45.1 | 44.6 | 44.8 | 45.9 | 45.4 | 44.6 | 45.1 | 44.4 | 44.8 |
| Fabricated metal products | 42.3 | 41.4 | 40.7 | 41.6 | 42.3 | 42.0 | 41.4 | 41.2 | 41.5 | 41.6 |
| Industrial machinery and equipment | 41.8 | 40.5 | 40.3 | 40.0 | 42.1 | 41.3 | 40.7 | 40.4 | 40.8 | 40.1 |
| Electronic and other electrical equipment | 40.6 | 39.3 | 38.4 | 38.9 | 40.5 | 39.8 | 39.1 | 39.3 | 39.0 | 38.8 |
| Transportation equipment | 43.0 | 42.3 | 40.9 | 43.0 | 43.2 | 42.4 | 42.4 | 41.9 | 42.4 | 43.1 |
| Motor vehicles and equipment | 44.1 | 43.6 | 41.4 | 44.9 | 44.3 | 43.3 | 43.6 | 43.0 | 43.4 | 45.2 |
| Instruments and related products | 40.7 | 40.7 | 40.4 | 40.2 | 40.9 | 41.0 | 41.0 | 40.8 | 40.8 | 40.2 |
| Miscellaneous manufacturing | 38.8 | 38.4 | 37.9 | 38.5 | 38.7 | 38.2 | 37.9 | 38.4 | 38.5 | 38.4 |
| Nondurable goods | 40.7 | 40.3 | 40.1 | 40.4 | 40.7 | 40.5 | 40.3 | 40.4 | 40.4 | 40.2 |
| Overtime hours | 4.5 | 3.9 | 4.1 | 4.5 | 4.4 | 3.9 | 4.0 | 3.9 | 4.0 | 4.2 |
| Food and kindred products | 42.1 | 41.1 | 40.9 | 41.5 | 41.8 | 41.3 | 41.1 | 41.2 | 40.9 | 41.0 |
| Tobacco products | 41.7 | 41.3 | 40.3 | 41.2 | 41.0 | 41.1 | 39.1 | 40.4 | 40.5 | 41.0 |
| Textile mill products | 40.9 | 40.5 | 39.3 | 40.4 | 40.8 | 40.3 | 40.3 | 40.4 | 39.9 | 40.1 |
| Apparel and other textile products | 37.8 | 37.8 | 37.3 | 37.5 | 37.7 | 38.0 | 37.8 | 37.5 | 37.8 | 37.3 |
| Paper and allied products | 42.3 | 41.5 | 41.5 | 41.2 | 42.5 | 42.0 | 41.6 | 41.7 | 41.7 | 41.2 |
| Printing and publishing | 38.2 | 37.8 | 38.2 | 38.3 | 38.1 | 38.2 | 38.0 | 38.0 | 38.4 | 38.1 |
| Chemicals and allied products | 42.1 | 42.2 | 42.3 | 42.1 | 42.3 | 42.6 | 42.4 | 42.2 | 42.7 | 42.2 |
| Petroleum and coal products | 40.7 | 42.9 | 43.2 | 42.3 | (2) | (2) | (2) | (2) | (2) | (2) |
| Rubber and misc. plastics products | 41.1 | 40.9 | 40.1 | 40.5 | 41.3 | 40.8 | 40.6 | 40.7 | 40.7 | 40.5 |
| Leather and leather products | 38.0 | 36.7 | 35.0 | 36.1 | 37.4 | 36.6 | 35.9 | 36.2 | 35.5 | 35.8 |
| Service-producing | 33.1 | 32.9 | 33.2 | 32.9 | 32.7 | 32.7 | 32.7 | 32.8 | 32.6 | 32.8 |
| Transportation and public utilities | 38.7 | 38.2 | 38.7 | 38.4 | 38.4 | 38.1 | 38.1 | 38.1 | 38.0 | 38.1 |
| Wholesale trade | 36.3 | 36.3 | 36.6 | 36.3 | 36.3 | 36.2 | 36.2 | 36.3 | 36.3 | 36.3 |
| Retail trade | 29.5 | 29.0 | 28.5 | 29.3 | 28.9 | 28.8 | 28.8 | 28.7 | 28.6 | 28.6 |
| Finance, insurance, and real estate | 36.0 | 36.2 | 36.7 | 36.1 | 36.2 | 36.3 | 36.2 | 36.5 | 36.2 | 36.2 |
| Services | 32.9 | 32.8 | 33.0 | 32.8 | 32.6 | 32.6 | 32.7 | 32.8 | 32.6 | 32.5 |

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employees on private nonfarm

payrolls.

² This series is not published seasonally adjusted because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------|------------|-------------------------|-----------|------------|------------|
| | Aug. 2000 | June 2001 | July 2001P | Aug. 2001P | Aug. 2000 | June 2001 | July 2001P | Aug. 2001P |
| Total private | \$13.68 | \$14.22 | \$14.27 | \$14.26 | \$474.70 | \$489.17 | \$493.74 | \$490.54 |
| Seasonally adjusted | 13.80 | 14.31 | 14.34 | 14.38 | 473.34 | 489.40 | 488.99 | 490.36 |
| Goods-producing | 15.49 | 15.90 | 16.01 | 16.06 | 636.64 | 645.54 | 648.41 | 653.64 |
| Mining | 17.13 | 17.59 | 17.69 | 17.51 | 746.87 | 768.68 | 773.05 | 763.44 |
| Construction | 18.05 | 18.21 | 18.31 | 18.44 | 725.61 | 728.40 | 739.72 | 739.44 |
| Manufacturing | 14.36 | 14.79 | 14.85 | 14.90 | 594.50 | 603.43 | 599.94 | 607.92 |
| Durable goods | 14.81 | 15.24 | 15.27 | 15.39 | 620.54 | 626.36 | 619.96 | 632.53 |
| Lumber and wood products | 12.02 | 12.19 | 12.32 | 12.39 | 494.02 | 498.57 | 502.56 | 506.75 |
| Furniture and fixtures | 11.83 | 12.15 | 12.27 | 12.45 | 473.20 | 469.89 | 482.21 | 498.00 |
| Stone, clay, and glass products | 14.65 | 15.13 | 15.14 | 15.26 | 641.67 | 670.26 | 670.70 | 678.02 |
| Primary metal industries | 16.49 | 16.96 | 17.13 | 17.04 | 733.81 | 744.54 | 740.02 | 742.94 |
| Iron and steel mills | 19.57 | 20.39 | 20.60 | 20.51 | 916.62 | 919.59 | 918.76 | 918.85 |
| Aluminum rolling | 13.85 | 14.25 | 14.24 | 14.36 | 585.86 | 589.95 | 579.57 | 597.38 |
| Fabricated metal products | 13.85 | 14.25 | 14.24 | 14.36 | 585.86 | 589.95 | 579.57 | 597.38 |
| Industrial machinery and equipment | 15.61 | 15.82 | 15.91 | 15.95 | 652.50 | 640.71 | 641.17 | 638.00 |
| Electronic and other electrical equipment | 13.76 | 14.51 | 14.61 | 14.72 | 558.66 | 579.24 | 561.02 | 572.61 |
| Transportation equipment | 18.37 | 18.90 | 18.83 | 19.09 | 789.91 | 799.47 | 770.15 | 820.67 |
| Motor vehicles and equipment | 18.68 | 19.25 | 19.09 | 19.39 | 823.79 | 839.30 | 790.33 | 870.61 |
| Instruments and related products | 14.44 | 14.81 | 14.99 | 14.95 | 597.71 | 602.77 | 605.60 | 600.99 |
| Miscellaneous manufacturing | 11.56 | 12.07 | 12.12 | 12.19 | 446.53 | 463.49 | 459.35 | 466.32 |
| Nondurable goods | 13.66 | 14.11 | 14.22 | 14.17 | 556.78 | 568.63 | 570.22 | 572.47 |
| Food and kindred products | 12.49 | 12.86 | 12.95 | 12.89 | 525.83 | 528.55 | 529.66 | 534.94 |
| Tobacco products | 22.60 | 23.17 | 23.63 | 22.56 | 942.42 | 958.92 | 952.29 | 929.47 |
| Textile mill products | 11.21 | 11.32 | 11.38 | 11.39 | 458.49 | 458.46 | 447.23 | 480.16 |
| Apparel and other textile products | 9.29 | 9.45 | 9.42 | 9.47 | 351.16 | 357.21 | 351.37 | 356.13 |
| Paper and allied products | 16.27 | 16.90 | 16.95 | 16.86 | 698.22 | 701.35 | 703.43 | 694.63 |
| Printing and publishing | 14.39 | 14.74 | 14.82 | 14.81 | 549.70 | 557.17 | 568.12 | 567.22 |
| Chemicals and allied products | 18.21 | 18.55 | 18.70 | 18.55 | 768.64 | 782.61 | 791.01 | 780.96 |
| Petroleum and coal products | 21.78 | 21.78 | 21.95 | 22.06 | 886.45 | 934.36 | 948.24 | 933.14 |
| Rubber and misc. plastics products | 12.67 | 13.30 | 13.40 | 13.48 | 528.96 | 543.97 | 537.34 | 545.94 |
| Leather and leather products | 10.24 | 10.30 | 10.23 | 10.45 | 389.12 | 378.01 | 358.05 | 377.25 |
| Service-producing | 13.11 | 13.71 | 13.76 | 13.72 | 433.94 | 451.06 | 456.63 | 451.39 |
| Transportation and public utilities | 16.22 | 16.83 | 16.88 | 16.80 | 627.71 | 642.91 | 653.26 | 648.96 |
| Wholesale trade | 15.19 | 15.77 | 15.86 | 15.69 | 581.78 | 603.99 | 612.20 | 600.93 |
| Retail trade | 9.41 | 9.77 | 9.77 | 9.77 | 277.60 | 283.33 | 288.22 | 288.26 |
| Finance, insurance, and real estate | 14.99 | 15.75 | 15.85 | 15.81 | 536.64 | 570.15 | 581.70 | 570.74 |
| Services | 13.74 | 14.39 | 14.45 | 14.43 | 452.05 | 471.99 | 478.85 | 473.30 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry, seasonally adjusted

| Industry | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001P | Aug. 2001P | Percent change from: July 2001-Aug. 2001 |
|--|-----------|-----------|----------|-----------|------------|------------|--|
| Total private: | | | | | | | |
| Current dollars | \$13.80 | \$14.21 | \$14.24 | \$14.31 | \$14.34 | \$14.38 | 0.3 |
| Constant (1982) dollars ² | 7.90 | 7.94 | 7.93 | 7.95 | 8.00 | N.A. | (3) |
| Goods-producing | 15.45 | 15.78 | 15.86 | 15.90 | 15.94 | 16.02 | .5 |
| Mining | 17.25 | 17.53 | 17.54 | 17.73 | 17.76 | 17.67 | -.5 |
| Construction | 17.93 | 18.15 | 18.22 | 18.28 | 18.25 | 18.36 | .5 |
| Manufacturing | 14.43 | 14.72 | 14.78 | 14.81 | 14.87 | 14.94 | .5 |
| Excluding overtime ⁴ | 13.68 | 14.04 | 14.09 | 14.13 | 14.18 | 14.23 | .4 |
| Service-producing | 13.29 | 13.73 | 13.76 | 13.84 | 13.88 | 13.90 | .3 |
| Transportation and public utilities | 16.27 | 16.74 | 16.76 | 16.91 | 16.87 | 16.88 | -.1 |
| Wholesale trade | 15.25 | 15.74 | 15.70 | 15.86 | 15.82 | 15.75 | -.4 |
| Retail trade | 9.50 | 9.74 | 9.79 | 9.83 | 9.84 | 9.85 | .1 |
| Finance, insurance, and real estate | 15.13 | 15.64 | 15.74 | 15.86 | 15.91 | 15.96 | .3 |
| Services | 13.97 | 14.48 | 14.49 | 14.54 | 14.60 | 14.68 | .5 |

¹ See footnote 1, table B-2.

² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.

³ Change was .6 percent from June 2001 to July 2001.

the latest month available.

⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry (1982=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|----------|-----------|------------|------------|
| | Aug. 2000 | June 2001 | July 2001P | Aug. 2001P | Aug. 2000 | Apr. 2001 | May 2001 | June 2001 | July 2001P | Aug. 2001P |
| Total private | 154.4 | 153.5 | 154.2 | 153.4 | 151.3 | 151.5 | 151.5 | 151.2 | 150.7 | 150.1 |
| Goods-producing | 119.3 | 114.2 | 113.3 | 113.9 | 116.0 | 113.5 | 112.8 | 111.5 | 111.6 | 110.3 |
| Mining | 52.8 | 56.1 | 56.4 | 56.4 | 51.1 | 55.0 | 55.4 | 55.0 | 55.0 | 55.1 |
| Construction | 200.8 | 201.7 | 206.7 | 204.7 | 184.3 | 190.0 | 192.5 | 190.1 | 190.5 | 188.8 |
| Manufacturing | 106.0 | 98.9 | 96.6 | 97.8 | 105.5 | 100.7 | 99.1 | 98.1 | 98.1 | 96.8 |
| Durable goods | 111.2 | 103.3 | 100.0 | 101.1 | 111.1 | 105.4 | 103.6 | 102.2 | 102.0 | 100.7 |
| Lumber and wood products | 150.3 | 141.3 | 140.8 | 142.0 | 145.7 | 137.2 | 138.2 | 137.6 | 139.5 | 137.6 |
| Furniture and fixtures | 141.2 | 127.7 | 126.7 | 129.4 | 139.1 | 133.1 | 129.5 | 127.1 | 129.8 | 127.9 |
| Stone, clay, and glass products | 123.2 | 122.2 | 122.5 | 121.3 | 118.8 | 118.3 | 119.4 | 118.9 | 119.2 | 116.8 |
| Primary metal industries | 92.2 | 84.3 | 81.4 | 82.3 | 82.9 | 87.0 | 84.4 | 84.4 | 83.2 | 82.5 |
| Blast furnaces and basic steel products | 72.5 | 66.2 | 64.4 | 64.5 | 72.1 | 67.6 | 65.6 | 65.6 | 63.8 | 63.9 |
| Fabricated metal products | 122.0 | 113.7 | 109.6 | 112.7 | 121.9 | 116.9 | 114.0 | 112.5 | 113.2 | 112.5 |
| Industrial machinery and equipment | 101.9 | 92.9 | 90.1 | 88.1 | 103.4 | 96.3 | 94.0 | 92.0 | 91.4 | 88.7 |
| Electronic and other electrical equipment | 108.2 | 95.8 | 90.9 | 90.8 | 108.4 | 100.9 | 97.4 | 95.9 | 92.8 | 90.6 |
| Transportation equipment | 119.5 | 112.7 | 105.8 | 111.9 | 120.6 | 113.8 | 112.8 | 110.0 | 111.4 | 112.9 |
| Motor vehicles and equipment | 159.9 | 147.8 | 134.8 | 148.7 | 161.9 | 149.0 | 147.7 | 143.2 | 145.8 | 150.5 |
| Instruments and related products | 74.6 | 73.9 | 73.0 | 72.0 | 75.0 | 74.7 | 74.2 | 73.6 | 73.6 | 72.0 |
| Miscellaneous manufacturing | 99.7 | 94.9 | 91.7 | 92.7 | 99.1 | 95.3 | 93.8 | 95.0 | 94.2 | 91.4 |
| Non-durable goods | 98.8 | 92.9 | 92.0 | 93.2 | 87.7 | 94.1 | 93.0 | 92.5 | 92.8 | 91.5 |
| Food and kindred products | 122.3 | 114.4 | 116.0 | 120.2 | 117.2 | 116.0 | 114.8 | 115.3 | 114.1 | 114.2 |
| Tobacco products | 49.8 | 45.2 | 44.1 | 43.2 | 50.8 | 46.8 | 46.5 | 46.0 | 46.1 | 50.8 |
| Textile mill products | 75.5 | 66.9 | 64.4 | 66.1 | 75.1 | 68.5 | 67.1 | 66.3 | 65.8 | 65.3 |
| Apparel and other textile products | 54.8 | 49.3 | 47.3 | 46.7 | 54.2 | 50.1 | 49.5 | 49.0 | 48.7 | 46.2 |
| Paper and allied products | 102.7 | 98.2 | 97.3 | 96.2 | 103.0 | 99.7 | 98.4 | 97.8 | 97.4 | 95.6 |
| Printing and publishing | 120.6 | 114.0 | 114.8 | 115.2 | 120.3 | 118.5 | 115.4 | 114.6 | 115.3 | 114.3 |
| Chemicals and allied products | 98.8 | 97.8 | 97.8 | 97.0 | 99.2 | 98.7 | 98.1 | 97.4 | 98.9 | 97.3 |
| Petroleum and coal products | 70.1 | 73.0 | 74.4 | 73.4 | 70.1 | 72.9 | 70.1 | 71.6 | 71.6 | 72.1 |
| Rubber and mac. plastics products | 147.2 | 138.1 | 133.6 | 136.9 | 147.8 | 138.4 | 137.0 | 136.4 | 137.3 | 135.2 |
| Leather and leather products | 31.8 | 27.8 | 24.2 | 26.5 | 31.0 | 28.1 | 27.0 | 26.7 | 25.6 | 25.9 |
| Service-producing | 170.2 | 171.2 | 172.6 | 171.1 | 167.2 | 168.5 | 168.9 | 169.0 | 168.2 | 168.0 |
| Transportation and public utilities | 138.9 | 140.3 | 141.1 | 139.8 | 136.1 | 139.4 | 139.4 | 139.2 | 139.1 | 138.8 |
| Wholesale trade | 132.6 | 132.0 | 132.8 | 131.6 | 131.7 | 131.4 | 131.0 | 131.2 | 131.0 | 130.9 |
| Retail trade | 150.4 | 149.2 | 151.1 | 150.1 | 146.1 | 146.7 | 146.5 | 146.0 | 145.6 | 145.4 |
| Finance, insurance, and real estate | 139.3 | 141.6 | 143.6 | 140.8 | 138.1 | 140.2 | 140.2 | 140.9 | 139.5 | 139.3 |
| Services | 213.8 | 215.9 | 217.3 | 215.5 | 210.2 | 211.8 | 212.9 | 213.4 | 212.2 | 211.9 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-6. Diffusion indexes of employment change, seasonally adjusted

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|-------|-------|------|-------|-------|-------|-------|-------|-------|------|------|------|
| Private nonfarm payrolls, 353 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1997 | 57.2 | 56.6 | 62.5 | 63.2 | 59.8 | 57.2 | 59.8 | 59.2 | 62.7 | 65.2 | 61.6 | 62.2 |
| 1998 | 63.2 | 56.2 | 59.3 | 60.2 | 58.9 | 57.1 | 55.4 | 58.4 | 54.8 | 55.0 | 58.2 | 56.4 |
| 1999 | 55.1 | 59.6 | 52.8 | 57.2 | 58.2 | 54.2 | 57.1 | 54.4 | 55.2 | 57.9 | 59.9 | 56.8 |
| 2000 | 55.7 | 59.3 | 61.0 | 54.2 | 47.7 | 60.5 | 57.8 | 55.1 | 52.0 | 54.8 | 55.1 | 54.2 |
| 2001 | 53.7 | 50.4 | 55.8 | 45.0 | 46.6 | 44.3 | P45.3 | P43.8 | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1997 | 63.5 | 64.0 | 66.0 | 67.0 | 63.2 | 63.3 | 59.8 | 65.6 | 67.3 | 71.1 | 70.0 | 69.5 |
| 1998 | 65.3 | 66.1 | 64.6 | 65.7 | 62.2 | 57.9 | 57.5 | 58.4 | 59.1 | 59.2 | 59.3 | 59.2 |
| 1999 | 60.8 | 57.6 | 58.5 | 55.8 | 58.1 | 57.9 | 57.2 | 59.2 | 59.8 | 59.1 | 61.0 | 60.6 |
| 2000 | 61.6 | 63.3 | 61.9 | 56.2 | 55.1 | 57.9 | 61.5 | 56.4 | 54.1 | 53.3 | 55.7 | 53.3 |
| 2001 | 51.7 | 54.1 | 48.6 | 49.2 | 42.5 | P42.2 | P39.7 | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1997 | 66.7 | 68.6 | 66.1 | 66.0 | 65.3 | 65.9 | 66.0 | 69.1 | 69.4 | 70.3 | 71.1 | 70.7 |
| 1998 | 70.4 | 67.4 | 65.0 | 62.5 | 63.8 | 60.5 | 59.2 | 58.6 | 57.9 | 59.6 | 60.6 | 59.9 |
| 1999 | 59.8 | 59.8 | 58.2 | 60.3 | 56.7 | 59.2 | 61.8 | 60.8 | 62.2 | 61.2 | 62.3 | 64.9 |
| 2000 | 63.5 | 60.6 | 62.6 | 63.7 | 61.5 | 55.5 | 56.1 | 58.6 | 54.2 | 54.8 | 51.8 | 54.2 |
| 2001 | 52.0 | 50.6 | 48.6 | P45.2 | P43.2 | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1997 | 69.3 | 67.4 | 68.4 | 70.0 | 69.7 | 70.3 | 70.1 | 70.8 | 71.0 | 70.5 | 69.7 | 70.7 |
| 1998 | 69.7 | 67.6 | 67.4 | 66.0 | 64.0 | 62.7 | 61.9 | 62.0 | 60.9 | 59.3 | 60.8 | 58.8 |
| 1999 | 61.2 | 60.2 | 58.2 | 60.8 | 60.8 | 61.8 | 62.2 | 61.3 | 63.9 | 63.0 | 61.3 | 60.9 |
| 2000 | 62.5 | 63.0 | 61.8 | 59.5 | 58.4 | 56.8 | 55.7 | 56.5 | 54.2 | 53.4 | 53.0 | 51.7 |
| 2001 | P49.9 | P47.5 | | | | | | | | | | |
| Manufacturing payrolls, 136 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1997 | 48.2 | 52.6 | 55.5 | 54.8 | 52.9 | 53.7 | 49.3 | 51.1 | 57.7 | 61.8 | 61.4 | 54.8 |
| 1998 | 57.4 | 51.5 | 53.7 | 53.3 | 43.8 | 48.2 | 38.2 | 51.5 | 41.9 | 41.5 | 41.2 | 43.4 |
| 1999 | 46.0 | 44.5 | 43.0 | 42.3 | 50.4 | 39.3 | 51.5 | 39.3 | 45.2 | 46.3 | 53.3 | 46.7 |
| 2000 | 44.9 | 56.6 | 55.5 | 46.7 | 41.2 | 54.8 | 53.7 | 38.6 | 34.6 | 41.5 | 43.8 | 44.1 |
| 2001 | 37.9 | 32.4 | 41.5 | 31.3 | 29.4 | 33.1 | P38.6 | P27.2 | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1997 | 50.0 | 51.5 | 55.9 | 55.5 | 52.9 | 52.9 | 50.4 | 54.8 | 59.6 | 70.8 | 66.5 | 64.3 |
| 1998 | 59.6 | 59.6 | 55.9 | 50.4 | 46.7 | 37.9 | 41.5 | 41.5 | 41.9 | 39.2 | 36.8 | 40.8 |
| 1999 | 41.2 | 39.0 | 38.2 | 41.5 | 40.8 | 45.2 | 39.0 | 45.2 | 40.8 | 44.9 | 46.3 | 46.0 |
| 2000 | 52.0 | 54.0 | 52.9 | 42.3 | 43.0 | 48.5 | 48.2 | 33.8 | 28.7 | 30.5 | 39.0 | 35.7 |
| 2001 | 28.3 | 29.4 | 24.6 | 26.5 | 22.4 | P25.7 | P19.1 | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1997 | 53.7 | 53.7 | 51.1 | 52.9 | 50.7 | 50.7 | 54.8 | 62.1 | 61.8 | 64.3 | 67.3 | 65.8 |
| 1998 | 63.2 | 54.4 | 50.4 | 40.4 | 44.5 | 40.1 | 37.5 | 36.4 | 34.9 | 40.1 | 37.1 | 34.2 |
| 1999 | 38.0 | 38.2 | 37.5 | 41.2 | 38.8 | 39.7 | 43.0 | 41.5 | 46.0 | 40.4 | 46.3 | 51.5 |
| 2000 | 51.5 | 44.5 | 48.5 | 55.1 | 43.6 | 34.9 | 33.5 | 34.6 | 30.1 | 29.4 | 25.0 | 27.9 |
| 2001 | 26.8 | 25.4 | 19.9 | P21.0 | P19.9 | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1997 | 55.1 | 52.6 | 54.0 | 54.4 | 55.5 | 57.0 | 57.0 | 58.8 | 59.2 | 57.7 | 57.4 | 57.7 |
| 1998 | 54.8 | 52.2 | 51.8 | 46.7 | 40.4 | 40.1 | 38.2 | 37.5 | 36.4 | 34.8 | 35.7 | 34.2 |
| 1999 | 38.6 | 34.6 | 32.4 | 36.0 | 37.9 | 39.0 | 40.1 | 40.4 | 44.5 | 48.0 | 44.9 | 44.5 |
| 2000 | 48.3 | 45.2 | 41.2 | 37.9 | 33.8 | 31.3 | 31.3 | 31.3 | 27.6 | 25.4 | 24.3 | 21.0 |
| 2001 | P20.2 | P17.3 | | | | | | | | | | |

¹ Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span. Data are centered within the span.

P = preliminary.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

SFD 27 2001

The Honorable Jennifer B. Dunn
House of Representatives
Washington, D.C. 20515

Dear Congresswoman Dunn:

At the Joint Economic Committee hearing on September 7, you asked about the employment situation in Washington. I have enclosed a package of charts and tables that provide the information we have available.

I hope this material is helpful to you. Philip Rones, Assistant Commissioner for Current Employment Analysis, can be reached at 202--691-6378 and would be happy to answer any follow-up questions that you or your staff may have regarding these data.

Please let me know if I can be of any further assistance.

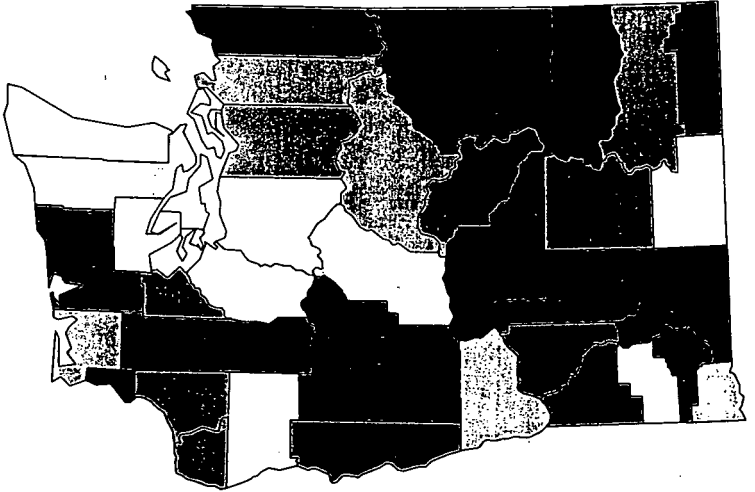
Sincerely yours,

KATHARINE G. ABRAHAM
Commissioner

Enclosure

State of Washington

Employment and Unemployment



U.S. Department of Labor
Bureau of Labor Statistics
September 2001

Washington State Labor Market Overview

While Washington's labor market performance was strong in the late 1990s, the State still recorded an annual unemployment rate higher than the U.S. average (with the exception of 1997, when it was 0.1 percentage point lower), as it has for most of the last two decades. Unemployment increased in Washington early last year, before it rose for the U.S. as a whole.

Two aspects of the State's labor market are noteworthy in explaining its relatively high unemployment. First, Washington has experienced much higher-than-average population growth over the last decade, ranking eighth in the nation in net domestic in-migration. While many Western states also have experienced high population growth, Washington's growth has exceeded its ability to create enough new jobs to push the jobless rate below that of the U.S. Second, Washington has a bifurcated economy, with a clear distinction between the Eastern and Western portions. The resource-dependent Eastern half of the State, where agriculture and forestry are dominant, has had chronically high unemployment and been subject to both seasonal and cyclical swings. The Western portion historically has been dependent on aerospace, while recently becoming more diverse as service and "high-tech" industries have played an increasing role. Thus, the somewhat static Eastern portion of the State provides a high base of unemployment from which moderate employment declines in manufacturing and other industries in the more populated Western portion, along with large in-migration flows, contribute to a higher-than-average unemployment rate.

Although Washington's manufacturing employment decreased last year, the reduction has not been drastic, and is not the sole cause of Washington's increasing unemployment. To the contrary, the State has a smaller share of its employment concentrated in manufacturing than the U.S. as a whole and also has experienced relatively smaller reductions in this industry over the past year.

Sources in the State have identified several reasons for the weakening performance of Washington's labor market. Seattle was one of the leading areas in web-based technology and business--activities that have suffered sharp reversals of late. (The unemployment rate in California's Silicon Valley has more than doubled over the past year.) Rapidly escalating electricity prices have caused contractions in aluminum smelting. Poor weather conditions, along with increased competition from China for the large Japanese market, have hurt Washington's apple growers. Consolidation in the food processing industry has also had a negative impact on the State's employment, as have tariffs on softwood imports from Canada.

State Unemployment (Seasonally Adjusted)

- The July 2001 unemployment rate for Washington, 5.7 percent, was 1.3 percentage points above the State's historical low, recorded in November 1997, but remained low in the context of the State's 24-year series.
- Washington's unemployment rate has risen by 0.7 percentage point, albeit inconsistently, since the beginning of 2001.
 - Steep over-the-month increases of 0.6 and 0.5 percentage point were recorded in February and June, respectively.
 - These were tempered somewhat by over-the-month declines of 0.3 percentage point in May and July.
- Over the year ending in July 2001, the unemployment rate in Washington was up by 0.4 percentage point. The Pacific division reported no increase, while the U.S. experienced a slightly larger rise of 0.5 point during the same period.
- The Washington unemployment rate was 1.2 percentage points higher than the U.S. rate in July 2001.
 - Since the earliest monthly data in January 1978, Washington's unemployment rate has averaged 0.8 percentage point above that of the U.S.
 - The State has had a higher jobless rate than the Nation continuously since April 1998.
- The gap between unemployment rates in Washington and the Pacific division, which is dominated by California, is, on average, much smaller than the gap between the state and national rates.
 - Washington's rate has averaged 0.1 percentage point above the Pacific division rate since January 1980, when monthly data for the latter became available.
 - The State experienced a lower unemployment rate than the division for most of the 1990s. However, Washington has reported an above-division-average rate since February 2000.

Labor force data for the U.S., Pacific division, and Washington, July 2001, seasonally adjusted

(Levels in thousands)

| Area | Month-year | Labor force | Employment | Unemployment | | | |
|------------------|------------|-------------|------------|--------------|------|----------------|---------------|
| | | | | Level | Rate | Rate change | |
| | | | | | | Over-the-month | Over-the-year |
| United States | Jul-01 | 141,774.0 | 135,379.0 | 6,395.0 | 4.5 | 0.0 | 0.5 |
| | Jun-01 | 141,354.0 | 134,932.0 | 6,422.0 | 4.5 | | |
| | Jul-00 | 140,546.0 | 134,898.0 | 5,648.0 | 4.0 | | |
| Pacific division | Jul-01 | 23,131.3 | 21,947.9 | 1,183.4 | 5.1 | -0.2 | 0.0 |
| | Jun-01 | 23,148.5 | 21,928.6 | 1,219.9 | 5.3 | | |
| | Jul-00 | 22,885.9 | 21,728.3 | 1,157.6 | 5.1 | | |
| Washington | Jul-01 | 3,041.6 | 2,867.5 | 174.1 | 5.7 | -0.3 | 0.4 |
| | Jun-01 | 3,034.0 | 2,851.8 | 182.2 | 6.0 | | |
| | Jul-00 | 3,033.3 | 2,871.8 | 161.5 | 5.3 | | |

Metropolitan Area Unemployment (Not Seasonally Adjusted)

- Twelve of the thirty-nine counties comprising the State of Washington are components of metropolitan areas.
 - There are eight metropolitan areas contained entirely within Washington. In addition, Clark County in the southwest corner of the State is a component of the Portland-Vancouver, OR-WA interstate metropolitan area.
 - Four of Washington's metropolitan areas--Bremerton, Olympia, Seattle-Bellevue-Everett, and Tacoma--comprise the consolidated Seattle-Tacoma-Bremerton metropolitan area.
- None of Washington's areas recorded an unemployment rate below the U.S. average metropolitan area unemployment rate of 4.5 percent in July of 2001. Rates for two areas were below that of the State, 5.6 percent, while the lowest metropolitan area rate, 4.7 percent, was equal to the U.S. rate.
- The largest metropolitan area in Washington--Seattle-Bellevue-Bremerton--is home to nearly half of the State's labor force. This area registered the lowest unemployment rate among Washington's metropolitan areas in July 2001, as well as the only unemployment rate below 5.0 percent.
- The highest unemployment rate was recorded in Yakima, 8.5 percent. This area usually has the highest unemployment rate among metropolitan areas in the State, and often one of the highest in the U.S.
- Three additional Washington areas experienced unemployment rates greater than 6.0 percent.
- Over the year ending in July 2001, three Washington areas registered unemployment rate declines. Rates in Richland-Kennewick-Pasco and Yakima declined by 0.6 percentage point each.
- Five areas had increases in the incidence of joblessness over the year.
 - The largest of these increases, 1.7 percentage points, occurred in the Washington portion of the Portland-Vancouver, OR-WA area, following the entire metropolitan area's increase.
 - Increases of more than 0.5 percentage point were reported for three additional areas.

Labor force data for the U.S., Washington, and its metropolitan areas,
July 2001, not seasonally adjusted

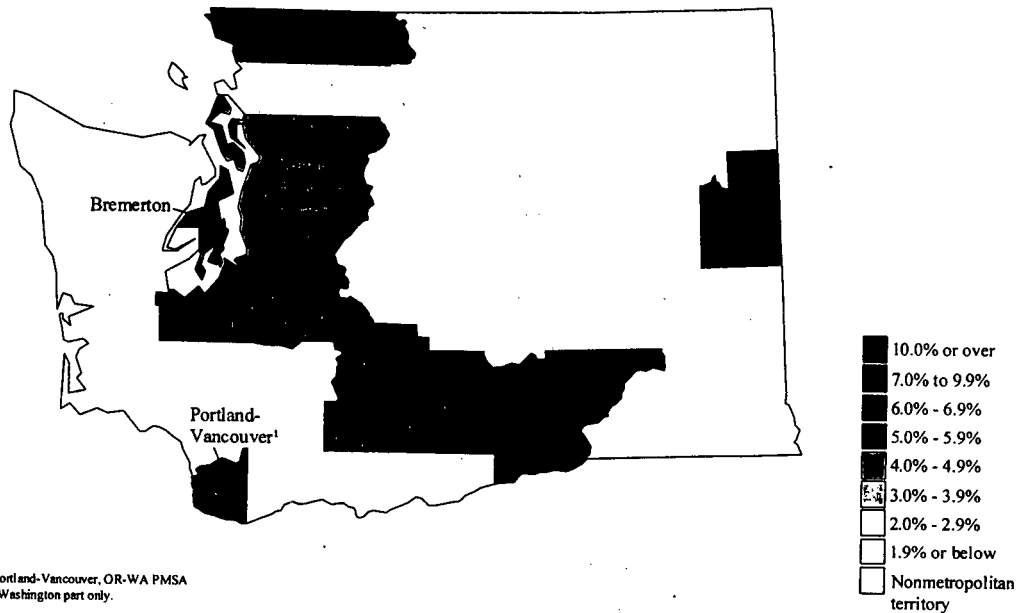
(Levels in thousands)

| Area | Labor Force | Employed | Unemployed | | |
|---|-------------|-----------|------------|------|---------------------------|
| | | | Level | Rate | Over-the-year rate change |
| United States | 143,181.0 | 136,385.0 | 6,797.0 | 4.7 | 0.5 |
| Washington | 3,094.9 | 2,921.0 | 173.8 | 5.6 | 0.4 |
| Bellingham MSA | 81.1 | 76.0 | 5.1 | 6.2 | 0.7 |
| Bremerton PMSA | 91.5 | 86.3 | 5.2 | 5.7 | -0.2 |
| Olympia PMSA | 99.8 | 94.6 | 5.2 | 5.2 | 0.0 |
| Portland-Vancouver, OR-WA PMSA ¹ | 182.5 | 170.9 | 11.6 | 6.4 | 1.7 |
| Richland-Kennewick-Pasco MSA | 98.8 | 92.6 | 6.2 | 6.3 | -0.6 |
| Seattle-Bellevue-Everett PMSA | 1,422.1 | 1,355.3 | 66.9 | 4.7 | 0.7 |
| Spokane MSA | 205.9 | 193.7 | 12.2 | 5.9 | 0.6 |
| Tacoma PMSA | 328.6 | 309.2 | 19.4 | 5.9 | 0.1 |
| Yakima MSA | 117.4 | 107.5 | 9.9 | 8.5 | -0.6 |

¹ Data pertain to Washington part only.

Unemployment rates by metropolitan area in Washington, July 2001, not seasonally adjusted

(Washington rate = 5.6 percent; U.S. rate = 4.7 percent; all metropolitan area rate = 4.5 percent)



¹ Data for Portland-Vancouver, OR-WA PMSA pertain to Washington part only.

State Nonfarm Payroll Employment (Seasonally Adjusted)

- Washington added 23,800 payroll jobs over the year ending in July 2001. The Pacific division and the U.S. saw employment gains of 243,500 and 545,000, respectively, over the same period.
 - In percentage terms, nonfarm payroll employment in the State grew at more than twice the national pace, 0.9 percent compared to 0.4 percent. Above-average employment gains in Washington are partly attributable to the State's relatively high population growth.
 - Employment in the Pacific division grew more quickly, at a rate of 1.2 percent, than in Washington.
- Since April 2000, Washington has been generating jobs at an annual rate above the national average. Job creation in Washington has lagged behind that of the Pacific division, however, since January 1999.
- Among major industry divisions, services and government led in the creation of new jobs, +17,600 and +9,600, respectively, during the year ending in July 2001. Only manufacturing shed jobs in Washington over the year, -13,300.
 - At the 2-digit SIC level, local government employment, eating and drinking places within trade, and health services within services posted the largest employment gains (+8,100, +5,700, and +5,100, respectively).
 - Job losses have been sizeable in both durable and nondurable manufacturing industries (-8,800 and -4,500, respectively). Food and kindred products, within nondurable manufacturing, and lumber and wood products, within durable manufacturing, recorded the largest losses over the year at the 2-digit SIC level (-2,700 and -2,200, respectively).
- Five of the eight major industries in Washington experienced employment growth rates of at least 2.0 percent.
 - Mining, which accounts for a small percentage of employment in both Washington and the U.S., grew most robustly at both the state and national levels (2.8 and 4.4 percent, respectively).
 - The pace of growth in services at the state level, 2.2 percent, was substantially above the national figure, 1.4 percent.
- Manufacturing contracted at a slower rate in the State of Washington than the U.S., -3.8 percent compared to -4.7 percent.
- The three fastest growing 2-digit SIC industries were all in services—amusement and recreation services (5.9 percent), engineering and management services (5.4 percent), and social services (3.4 percent).
- Among Washington's 2-digit SIC industries, those in manufacturing, and particularly durable goods manufacturing, were hardest hit by employment declines. The following industries experienced contractions in excess of 5.0 percent:
 - Primary metal industries (-14.7 percent)
 - Electronic and other electrical equipment (-9.0 percent)
 - Food and kindred products (-6.6 percent)
 - Lumber and wood products (-6.6 percent)
 - Furniture and fixtures (-6.0 percent)
 - Instruments and related products (-5.4 percent).

With the exception of food and kindred products, all of these are in durable manufacturing. Except for instruments and related products, these industries also posted over-the-year declines at the national level. However, all of these but furniture and fixtures declined more sharply in the State than the Nation.

**Employees on nonfarm payrolls by selected industry division in Washington,
July 2001, seasonally adjusted**

(Levels in thousands)

| Industry | Employment | | | |
|---|------------|------------------------------|----------------------|---------|
| | Level | Industry distribution (%) | Over-the-year change | |
| | | | Level | Percent |
| Total nonfarm | 2,744.6 | 100.0 | 23.8 | 0.9 |
| Mining | 3.7 | 0.1 | 0.1 | 2.8 |
| Construction | 164.2 | 6.0 | 3.3 | 2.1 |
| General building contractors | 45.3 | 1.7 | 0.9 | 2.0 |
| Heavy construction, except building | 18.6 | 0.7 | 0.4 | 2.2 |
| Special trade contractors | 100.3 | 3.7 | 2.0 | 2.0 |
| Manufacturing | 338.1 | 12.3 | -13.3 | -3.8 |
| Durable goods | 234.9 | 8.6 | -8.8 | -3.6 |
| Lumber and wood products | 31.3 | 1.1 | -2.2 | -6.6 |
| Furniture and fixtures | 4.6 | 0.2 | -0.3 | -6.1 |
| Stone, clay, and glass products | 8.8 | 0.3 | -0.4 | -4.3 |
| Primary metal industries | 9.3 | 0.3 | -1.6 | -14.7 |
| Fabricated metal products | 15.0 | 0.5 | 0.1 | 0.7 |
| Industrial machinery and equipment | 24.8 | 0.9 | -0.9 | -3.5 |
| Electronic and other electrical equipment | 18.2 | 0.7 | -1.8 | -9.0 |
| Transportation equipment | 100.7 | 3.7 | -0.7 | -0.7 |
| Instruments and related products | 13.9 | 0.5 | -0.8 | -5.4 |
| Miscellaneous manufacturing industries | 8.3 | 0.3 | -0.2 | -2.4 |
| Nondurable goods | 103.2 | 3.8 | -4.5 | -4.2 |
| Food and kindred products | 38.5 | 1.4 | -2.7 | -6.6 |
| Paper and allied products | 14.8 | 0.5 | -0.7 | -4.5 |
| Printing and publishing | 23.7 | 0.9 | -0.6 | -2.5 |
| Chemicals and allied products | 6.3 | 0.2 | 0.1 | 1.6 |
| Transportation and public utilities | 148.0 | 5.4 | 1.1 | 0.7 |
| Trucking and warehousing | 34.7 | 1.3 | 0.5 | 1.5 |
| Water transportation | 8.9 | 0.3 | -0.1 | -1.1 |
| Transportation by air | 27.0 | 1.0 | 0.2 | 0.7 |
| Communications | 35.8 | 1.3 | -0.4 | -1.1 |
| Electric, gas, and sanitary services | 16.3 | 0.6 | 0.0 | 0.0 |
| Trade | 656.6 | 23.9 | 2.6 | 0.4 |
| Wholesale trade | 155.2 | 5.7 | -1.2 | -0.8 |
| Wholesale trade-durable goods | 89.2 | 3.3 | -0.8 | -0.9 |
| Wholesale trade-nondurable goods | 66.0 | 2.4 | -0.4 | -0.6 |
| Retail trade | 501.4 | 18.3 | 3.8 | 0.8 |
| Building materials and garden supplies | 21.4 | 0.8 | -1.1 | -4.9 |
| General merchandise stores | 50.6 | 1.8 | -0.8 | -1.6 |
| Food stores | 70.3 | 2.6 | -0.4 | -0.6 |
| Automotive dealers and service stations | 50.9 | 1.9 | 0.3 | 0.6 |
| Apparel and accessory stores | 25.3 | 0.9 | -0.7 | -2.7 |
| Eating and drinking places | 190.1 | 6.9 | 5.7 | 3.1 |
| Finance, insurance, and real estate | 139.6 | 5.1 | 2.8 | 2.0 |
| Real estate | 36.1 | 1.3 | 0.7 | 2.0 |
| Services | 802.5 | 29.2 | 17.6 | 2.2 |
| Hotels and other lodging places | 29.9 | 1.1 | 0.2 | 0.7 |
| Personal services | 23.4 | 0.9 | 0.1 | 0.4 |
| Business services | 189.0 | 6.9 | -0.7 | -0.4 |
| Amusement and recreation services | 48.2 | 1.8 | 2.7 | 5.9 |
| Health services | 195.4 | 7.1 | 5.1 | 2.7 |
| Legal services | 20.6 | 0.8 | 0.5 | 2.5 |
| Educational services | 39.1 | 1.4 | 0.9 | 2.4 |
| Social services | 66.1 | 2.4 | 2.2 | 3.4 |
| Engineering and management services | 75.8 | 2.8 | 3.9 | 5.4 |
| Government | 491.9 | 17.9 | 9.6 | 2.0 |
| Federal | 68.0 | 2.5 | -1.5 | -2.2 |
| State | 143.5 | 5.2 | 3.0 | 2.1 |
| Local | 280.4 | 10.2 | 8.1 | 3.0 |

**Employees on nonfarm payrolls by selected industry division in the U.S.,
July 2001, seasonally adjusted**

(Levels in thousands)

| Industry | Employment | | | |
|---|------------|------------------------------|----------------------|---------|
| | Level | Industry distribution (%) | Over-the-year change | |
| | | | Level | Percent |
| Total nonfarm | 132,444 | 100.0 | 545 | 0.4 |
| Mining | 566 | 0.4 | 24 | 4.4 |
| Construction | 6,873 | 5.2 | 195 | 2.9 |
| General building contractors | 1,557 | 1.2 | 32 | 2.1 |
| Heavy construction, except building | 936 | 0.7 | 39 | 4.3 |
| Special trade contractors | 4,380 | 3.3 | 124 | 2.9 |
| Manufacturing | 17,686 | 13.4 | -864 | -4.7 |
| Durable goods | 10,620 | 8.0 | -587 | -5.2 |
| Lumber and wood products | 797 | 0.6 | -39 | -4.7 |
| Furniture and fixtures | 529 | 0.4 | -36 | -6.4 |
| Stone, clay, and glass products | 571 | 0.4 | -10 | -1.7 |
| Primary metal industries | 648 | 0.5 | -52 | -7.4 |
| Fabricated metal products | 1,475 | 1.1 | -71 | -4.6 |
| Industrial machinery and equipment | 2,006 | 1.5 | -131 | -6.1 |
| Electronic and other electrical equipment | 1,591 | 1.2 | -144 | -8.3 |
| Transportation equipment | 1,750 | 1.3 | -105 | -5.7 |
| Instruments and related products | 865 | 0.7 | 9 | 1.1 |
| Miscellaneous manufacturing industries | 388 | 0.3 | -8 | -2.0 |
| Non-durable goods | 7,066 | 5.3 | -281 | -3.8 |
| Food and kindred products | 1,680 | 1.3 | -6 | -0.4 |
| Paper and allied products | 632 | 0.5 | -24 | -3.7 |
| Printing and publishing | 1,490 | 1.1 | -63 | -4.1 |
| Chemicals and allied products | 1,038 | 0.8 | 2 | 0.2 |
| Transportation and public utilities | 7,113 | 5.4 | 79 | 1.1 |
| Trucking and warehousing | 1,864 | 1.4 | 4 | 0.2 |
| Water transportation | 203 | 0.2 | 8 | 4.1 |
| Transportation by air | 1,305 | 1.0 | 23 | 1.8 |
| Communications | 1,701 | 1.3 | 54 | 3.3 |
| Electric, gas, and sanitary services | 848 | 0.6 | -3 | -0.4 |
| Trade | 30,615 | 23.1 | 274 | 0.9 |
| Wholesale trade | 7,019 | 5.3 | -11 | -0.2 |
| Wholesale trade-durable goods | 4,151 | 3.1 | -50 | -1.2 |
| Wholesale trade-non-durable goods | 2,868 | 2.2 | 39 | 1.4 |
| Retail trade | 23,596 | 17.8 | 285 | 1.2 |
| Building materials and garden supplies | 1,008 | 0.8 | -6 | -0.6 |
| General merchandise stores | 2,812 | 2.1 | -8 | -0.3 |
| Food stores | 3,537 | 2.7 | 14 | 0.4 |
| Automotive dealers and service stations | 2,435 | 1.8 | 23 | 1.0 |
| Apparel and accessory stores | 1,218 | 0.9 | 22 | 1.8 |
| Eating and drinking places | 8,297 | 6.3 | 174 | 2.1 |
| Finance, insurance, and real estate | 7,617 | 5.8 | 81 | 1.1 |
| Real estate | 1,506 | 1.1 | 11 | 0.7 |
| Services | 41,051 | 31.0 | 556 | 1.4 |
| Hotels and other lodging places | 1,923 | 1.5 | 0 | 0.0 |
| Personal services | 1,281 | 1.0 | 31 | 2.5 |
| Business services | 9,599 | 7.2 | -285 | -2.9 |
| Amusement and recreation services | 1,776 | 1.3 | 41 | 2.4 |
| Health services | 10,352 | 7.8 | 255 | 2.5 |
| Legal services | 1,026 | 0.8 | 16 | 1.6 |
| Educational services | 2,429 | 1.8 | 92 | 3.9 |
| Social services | 3,055 | 2.3 | 172 | 6.0 |
| Engineering and management services | 3,538 | 2.7 | 115 | 3.4 |
| Government | 20,923 | 15.8 | 204 | 1.0 |
| Federal | 2,626 | 2.0 | -194 | -6.9 |
| State | 4,906 | 3.7 | 124 | 2.6 |
| Local | 13,391 | 10.1 | 274 | 2.1 |

Metropolitan Area Nonfarm Payroll Employment (Not Seasonally Adjusted)¹

- Washington added 23,900 nonfarm payroll jobs over the year ending in July 2001. The statewide growth rate of 0.9 percent was more than twice the U.S. rate, 0.4 percent, over the same period.
- More than half of all Washington jobs are located in the Seattle-Bellevue-Everett metropolitan area. Over 80 percent of statewide employment growth from July 2000 results from the 19,600 new jobs that were created in this one area alone.
- The Spokane area saw no net job growth from July 2000, while 1,800 jobs were shed in the Tacoma area.
- The Portland-Vancouver area reported an employment decrease of 8,800 over the year. (Note that the Washington portion of this area consists of only Clark County, while the bulk of its jobs are located within the Oregon portion.)
- At 1.4 percent, the pace of job growth in Seattle-Bellevue-Everett was more than three times the national average and well above the State growth rate. The Tacoma and Portland-Vancouver areas, meanwhile, experienced contractions of 0.7 and 0.9 percent over the year.

**Employees on nonfarm payrolls in the U.S., Washington, and its metropolitan areas,
July 2001, not seasonally adjusted**

(Levels in thousands)

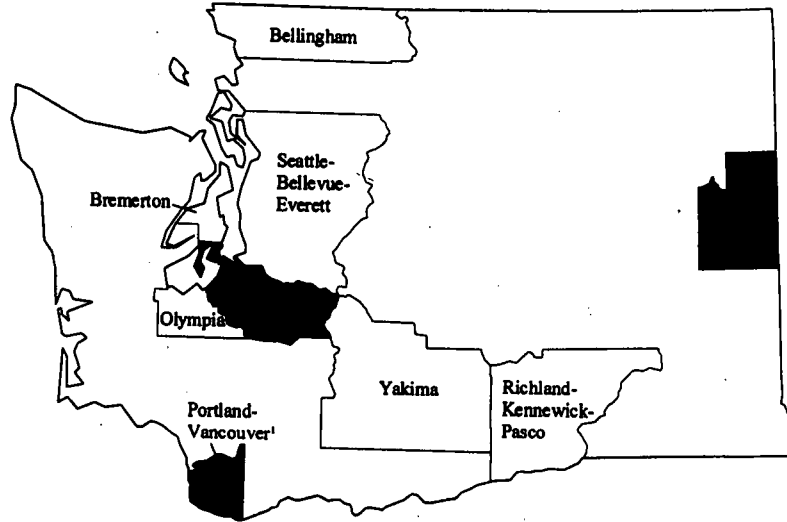
| Area | Employment | | |
|---|------------|----------------------|---------|
| | Level | Over-the-year change | |
| | | Level | Percent |
| United States | 132,291.0 | 552.0 | 0.4 |
| Washington | 2,746.2 | 23.9 | 0.9 |
| Portland-Vancouver, OR-WA PMSA ² | 958.2 | -8.8 | -0.9 |
| Seattle-Bellevue-Everett PMSA | 1,447.4 | 19.6 | 1.4 |
| Spokane MSA | 194.6 | 0.0 | 0.0 |
| Tacoma PMSA | 241.4 | -1.8 | -0.7 |

¹ Due to sample size, data are not available for all Washington areas.

² Data pertain to entire area.

**Percentage change in nonfarm employment by metropolitan area in Washington,
July 2000 - July 2001, not seasonally adjusted**

(Washington growth = 0.9 percent; U.S. growth = 0.4 percent)



¹ Data for Portland-Vancouver, OR-WA PMSA pertain to entire area, including the larger Oregon part.

- 1.0% to 1.9%
- 0.0% to 0.9%
- -0.9% to -0.1%
- No data available
- Nonmetropolitan territory

Distribution of Employment by Industry (Seasonally Adjusted)

- Among major industry divisions, the State of Washington exhibited a distribution pattern largely similar to that of the U.S. in July 2001.
 - The percentage of employment accounted for by government was greater at the state level, 17.9 percent compared to 15.8 percent.
 - Services and manufacturing were less concentrated in Washington than in the Nation by 1.8 and 1.1 percentage points, respectively.
 - Differences in the distribution of employment between the State and the U.S. were no greater than 0.8 percentage point for all other major industries.
- Nondurable manufacturing industries were less heavily concentrated in Washington compared to the U.S. (3.8 vs. 5.3 percent), while durable manufacturing industries were more heavily concentrated (8.6 vs. 8.0 percent).
- A positive employment distribution differential of more than 0.5 percentage point between Washington and the U.S. was recorded for three 2-digit SIC industries:
 - Transportation equipment, within durable manufacturing, accounted for 3.7 and 1.3 percent of employment at the state and national levels, respectively, in July 2001. Over the year, this industry contracted by 0.7 percent at the state level, far less sharply than the 5.7 percent decline nationally.
 - State government accounted for 5.2 and 3.7 percent of jobs in Washington and the U.S., respectively. This industry expanded at the relatively similar paces of 2.1 and 2.6 percent in the two areas over the year.
 - Eating and drinking places, within retail trade, accounted for 6.9 and 6.3 percent of employment in the State and Nation, respectively. This industry grew by 3.1 in Washington over the year ending in July 2001, somewhat greater than the 2.1 percent advance nationally.
- At the 2-digit SIC level, the following industries were less concentrated in the State than the U.S. by more than 0.5 percentage point:
 - Health services (7.1 vs. 7.8 percent)
 - Chemicals and allied products in nondurable manufacturing (0.2 vs. 0.8 percent)
 - Fabricated metal products in durable manufacturing (0.5 vs. 1.1 percent)
 - Industrial machinery and equipment in durable manufacturing (0.9 vs. 1.5 percent).

Distribution of nonfarm payroll employment in the U.S. and Washington by selected industry,
July 2001, seasonally adjusted

| Industry | Industry distribution | | Difference |
|---|-----------------------|------------|------------|
| | U.S. | Washington | |
| Total nonfarm | 100.0 | 100.0 | 0.0 |
| Mining | 0.4 | 0.1 | -0.3 |
| Construction | 5.2 | 6.0 | 0.8 |
| General building contractors | 1.2 | 1.7 | 0.5 |
| Heavy construction, except building | 0.7 | 0.7 | 0.0 |
| Special trade contractors | 3.3 | 3.7 | 0.4 |
| Manufacturing | 13.4 | 12.3 | -1.1 |
| Durable goods | 8.0 | 8.6 | 0.6 |
| Lumber and wood products | 0.6 | 1.1 | 0.5 |
| Furniture and fixtures | 0.4 | 0.2 | -0.2 |
| Stone, clay, and glass products | 0.4 | 0.3 | -0.1 |
| Primary metal industries | 0.5 | 0.3 | -0.2 |
| Fabricated metal products | 1.1 | 0.5 | -0.6 |
| Industrial machinery and equipment | 1.5 | 0.9 | -0.6 |
| Electronic and other electrical equipment | 1.2 | 0.7 | -0.5 |
| Transportation equipment | 1.3 | 3.7 | 2.4 |
| Instruments and related products | 0.7 | 0.5 | -0.2 |
| Miscellaneous manufacturing industries | 0.3 | 0.3 | 0.0 |
| Nondurable goods | 5.3 | 3.8 | -1.5 |
| Food and kindred products | 1.3 | 1.4 | 0.1 |
| Paper and allied products | 0.5 | 0.5 | 0.0 |
| Printing and publishing | 1.1 | 0.9 | -0.2 |
| Chemicals and allied products | 0.8 | 0.2 | -0.6 |
| Transportation and public utilities | 5.4 | 5.4 | 0.0 |
| Trucking and warehousing | 1.4 | 1.3 | -0.1 |
| Water transportation | 0.2 | 0.3 | 0.1 |
| Transportation by air | 1.0 | 1.0 | 0.0 |
| Communications | 1.3 | 1.3 | 0.0 |
| Electric, gas, and sanitary services | 0.6 | 0.6 | 0.0 |
| Trade | 23.1 | 23.9 | 0.8 |
| Wholesale trade | 5.3 | 5.7 | 0.4 |
| Wholesale trade-durable goods | 3.1 | 3.3 | 0.2 |
| Wholesale trade-nondurable goods | 2.2 | 2.4 | 0.2 |
| Retail trade | 17.8 | 18.3 | 0.5 |
| Building materials and garden supplies | 0.8 | 0.8 | 0.0 |
| General merchandise stores | 2.1 | 1.8 | -0.3 |
| Food stores | 2.7 | 2.6 | -0.1 |
| Automotive dealers and service stations | 1.8 | 1.9 | 0.1 |
| Apparel and accessory stores | 0.9 | 0.9 | 0.0 |
| Eating and drinking places | 6.3 | 6.9 | 0.6 |
| Finance, insurance, and real estate | 5.8 | 5.1 | -0.7 |
| Real estate | 1.1 | 1.3 | 0.2 |
| Services | 31.0 | 29.2 | -1.8 |
| Hotels and other lodging places | 1.5 | 1.1 | -0.4 |
| Personal services | 1.0 | 0.9 | -0.1 |
| Business services | 7.2 | 6.9 | -0.3 |
| Amusement and recreation services | 1.3 | 1.8 | 0.5 |
| Health services | 7.8 | 7.1 | -0.7 |
| Legal services | 0.8 | 0.8 | 0.0 |
| Educational services | 1.8 | 1.4 | -0.4 |
| Social services | 2.3 | 2.4 | 0.1 |
| Engineering and management services | 2.7 | 2.8 | 0.1 |
| Government | 15.8 | 17.9 | 2.1 |
| Federal | 2.0 | 2.5 | 0.5 |
| State | 3.7 | 5.2 | 1.5 |
| Local | 10.1 | 10.2 | 0.1 |

**THE EMPLOYMENT SITUATION:
FEBRUARY 2000**

HEARING

before the

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

—————
March 3, 2000
—————

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THE EMPLOYMENT SITUATION:

FEBRUARY 2000

Friday, March 3, 2000

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 9:30 a.m., in Room 1334, Longworth House Office Building, the Honorable Jim Saxton, Vice Chairman of the Committee, presiding.

Present: Representative Saxton.

Staff Present: Chris Frenze, Robert Keleher, Darryl Evans, Colleen J. Healy, Howard Rosen, Daphne Clones, and Michael Kapsa.

OPENING STATEMENT OF

REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

Representative Saxton. Today's Bureau of Labor Statistics (BLS) report reflects the strong condition of the United States economy. Although employment growth was modest, the percentage of the population employed, the employment-population ratio, remains at a record level. The civilian unemployment rate is fluctuating around its lowest levels since the early 1970s. Although employment gains were soft in February, in the context of the performance of recent months' labor market conditions overall, they appear to remain very strong.

The employment data released today are consistent with other data reflecting strong growth in the economy. Moreover, the expansion of the economy has been accompanied without an increase in inflation. This is good news. Both unemployment and inflation have declined together during this expansion. Let me repeat that sentence. Both unemployment and inflation have declined together during this expansion. This, again, disproves one of the most mistaken assumptions in the postwar economic policy – the notion of a trade-off between inflation and unemployment. In other words, a good economy does not mean there will be inflation.

In several previous hearings of the Committee, I have explored this issue in great detail with Federal Reserve Chairman Greenspan. We have agreed that the Fed's policy of minimizing inflation through informal inflation targeting has brought significant economic benefits. The Fed's policy by bringing down inflation and interest rates has boosted the

economy and reduced unemployment as well. Those who argued that this disinflation policy would raise unemployment were proven wrong.

As I have said many times, the thrust of the Fed's monetary policy has been extremely successful. Although Chairman Greenspan deserves enormous credit for successfully implementing this policy, the substance of the policy based on informal inflation targeting also is responsible for its very positive effects. More focus on the substance of Fed policy would provide a greater understanding of why this policy has worked so well and permit some demystification of monetary policy in general.

However, in recent explanations of changes in monetary policy, the Fed has moved in recent months to a rationalization drawing from concerns about economic growth, healthy labor markets, and the stock market. On the other hand, our research suggests that a focus on intermediate market price indicators, such as commodity prices, bond yields, and the value of the dollar together, are better signals of potential future inflation than other things. I am concerned that the Fed statements have led the markets to expect larger adjustments in monetary policy than are justified by the leading price indicators. I would like to get into that a little more during the question and answer session. In other words, a policy of sustained Fed interest rate hikes would not be supported by the data that is available at this time.

Commissioner, welcome again. We look forward to your statement, and thank you again for being here.

[The prepared statement of Representative Saxton appears in the Submissions for the Record.]

**OPENING STATEMENT OF KATHARINE G. ABRAHAM,
COMMISSIONER, BUREAU OF LABOR STATISTICS:
ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE
COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS;
AND PHILIP L. RONES, ASSISTANT COMMISSIONER OF
CURRENT EMPLOYMENT ANALYSIS**

Ms. Abraham. Thank you, Mr. Chairman. Let me just take a couple of minutes to make a few comments about the labor market situation and the information which we had released this morning. I would be interested in addressing any questions you might have for us.

The unemployment rate, which was at 4.1 percent in February, was little changed and has been below 4.2 percent since last October. A nominal increase of 43,000 in payroll employment in February followed

a large weather-related gain of 384,000 in January. The average monthly gain for the two months, January and February, of 214,000 per month is about in line with the monthly average for 1999, which was 226,000.

In the goods-producing sector of the economy, construction employment fell by 26,000 in January. That decline followed an exceptionally large increase of 116,000 in January after seasonal adjustment, which reflected the unusually mild weather during the January survey reference period.

Manufacturing employment edged up by 5,000 in February. The Nation's factories have added 31,000 jobs over the past four months after having shed in excess of 500,000 jobs from March of 1998 through October of last year. Recent gains have been concentrated in durable goods manufacturing. While there has been no net gain in employment among nondurable goods manufacturers in recent months, the downward trend in employment in nondurable goods manufacturing has abated somewhat since last August or so. The factory work week and overtime hours each rose by two-tenths of an hour in February to 41.9 and 4.8 hours respectively.

In mining, employment in oil and gas extraction continued to inch up in February. That industry has added 9,000 jobs since August of last year, undoubtedly reflecting the rise in oil prices that began early in 1999.

Job growth was sluggish throughout most of the service-producing sector in February. Employment in transportation and public utilities changed little over the month, and there were small job losses within transportation in both trucking and air transportation. Employment in public utilities continues to drift downwards.

Services employment showed essentially no growth in February after seasonal adjustment. This follows a gain in January which was a bit above the monthly average for the prior year. Some of the February weakness reflected declines in industries that had posted large weather-related increases in January. I am thinking in particular of agricultural services and amusement and recreation services, but other services industries that are less prone to unusual seasonal fluctuations also were weak in February. Employment in business services was essentially unchanged over the month. Its average growth per calendar year 1999 had been just under 50,000 jobs a month. Health services added only 6,000 jobs in February, about half its monthly average gain for the prior year or so. One notable exception to the general pattern of weak growth in the services industries was engineering and management

services, which continued a strong growth trend in February, adding 15,000 jobs.

Employment in wholesale trade edged up in February at about half the pace it had been rising in 1999. At the retail trade level, employment was up by 33,000 in February, just under its average monthly gain for the calendar year 1999.

Finance, insurance, and real estate added about 10,000 jobs reversing a loss of 6,000 jobs in January.

Lastly with respect to the employment gains, Federal Government employment rose by 20,000 in February. All of that gain was due to the hiring of temporary workers getting ready to take the census.

Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls edged down by a tenth of an hour over the month. Average hourly earnings for that same group of workers rose by four cents. Over the year average hourly earnings were up by 3.6 percent.

Turning to the data of our survey of households, as I already mentioned the unemployment rate was essentially unchanged in February at 4.1 percent and has been under 4.2 percent since last October. The jobless rates for most of the major demographic groups that we look at showed little change in February. The rate for teenagers did edge up to 14.1 percent, returning near to the level it had been at in December. The labor force participation rate ticked up a percentage point over the month, reaching a record high level of 67.6 percent, and as you commented in your opening remarks, the employment-to-population ratio held at its record high level of 64.8 percent.

In summary, then, the unemployment rate was little changed at 4.1 percent in February. And payroll employment rose marginally following a large weather-related gain in January.

As always, we would be happy to address questions you might have about the data.

[The prepared statement of Commissioner Abraham and the accompanying press release appear in the Submissions for the Record.]

Representative Saxton. Commissioner, thank you very much. I appreciate your thoughtful and concise statement, and for being here with us today to bring us continuing good news. It is certainly encouraging that the indications that we see by – I don't mean this in a funny way – but by looking in the rear view mirror show that we have continued over the past month to do quite well. If it were as easy to look ahead as it is

to look at what we have accomplished, the policies of economic theory would be a whole lot easier to deal with. Unfortunately, we don't have that luxury, and so we try to look ahead as best we can, based on what we know about history and what we know about our expectations.

But let me just begin by saying that many of these things that we try to look ahead are difficult to do. But based on last quarter's unbelievable 6.9 percent increase in GDP (gross domestic product), and these historic unemployment numbers, which are as low as they have been in many decades, one might expect that we can continue to see some fairly significant economic growth just based on those several sets of facts. Wouldn't you agree?

Ms. Abraham. I am always reluctant for the reasons that you indicated to try to project into the future. I am a lot more comfortable talking about what we have seen.

Representative Saxton. You like your rear-view mirror like I do.

Ms. Abraham. That is, after all, the business we are in.

Representative Saxton. I understand. Let me just say we are really in an historic period of our economy. At the end of March, we should celebrate. We will have been through nine years, 108 continuous months, of positive economic growth. That is pretty neat. But if you look at it in terms of the last two decades, it becomes even better news because we experienced 92 months of positive economic growth during the 1980s, and then we had a very mild downturn around the beginning of the new decade, about nine months, and then we started this period of 108 months of economic growth. So this is quite historic.

Can you just say to this – and this is a rear-view mirror question, but I think it is very important – what happened to the rates of inflation generally during the last 108 months of economic growth?

Ms. Abraham. 108 months takes us back to—

Representative Saxton. Takes us back to the end of the first quarter of 1991.

Ms. Abraham. If we look at the data that I have readily at hand, in 1999, the rate of growth in consumer prices taking all items together was 2.7 percent. In 1991, it had been 3.1 percent. So taking the long view, we are roughly in line with where we had been 8 years earlier. The rate of growth of prices was slightly lower in 1997 and 1998 than it was in 1999. That reflects declines in energy prices during 1997 and 1998 that

subsequently have been reversed. That is the most global measure that the Bureau of Labor Statistics produces.

Representative Saxton. Certainly we can say that during this period of economic growth, there has been no demonstrated increase in rates of inflation.

Ms. Abraham. I think that is a fair statement. There has been no apparent acceleration in the rate of growth of prices over that long period of time looking at the consumer level.

Representative Saxton. If you note on that chart up to your left and my right, we note that inflation and unemployment rates have actually, as you correctly pointed out, fallen together during this period of time; is that correct?

[The chart entitled, "Inflation and the Unemployment Rate Fall Together Since 1992," appears in the Submissions for the Record.]

Ms. Abraham. Unemployment has gone down, and the rate of growth of consumer prices has gone down. We are looking at this sort of long period of time. It might be that rather than looking at the CPI-U (core Consumer Price Index), which is what I was referring to and what is graphed here, that you might instead want to take a look at the new CPI (Consumer Price Index) research series that we have started producing.

What the CPI research series attempts to do as best we can is to answer the question of how the CPI would have behaved had we been using current methods to produce it back in the past. Our analysis of that suggests that changes in methods that we have introduced have had a slight depressing effect on the rate of growth of the Consumer Price Index, maybe over that period as much as half a percentage point. It is not going to change the broad outlines of the picture.

Representative Saxton. So the chart does accurately reflect two—

Ms. Abraham. It accurately reflects what has happened to the Consumer Price Index.

Representative Saxton. Namely that it has come down.

Ms. Abraham. Namely that it has come down. If you were to use instead the CPI research series, which is more consistent over time, the decline wouldn't have been quite as great.

Representative Saxton. But the concept is still the same.

Ms. Abraham. It would not change your qualitative assessment of what had happened.

Representative Saxton. It also shows on that chart that unemployment has fallen along with inflation; is that correct?

Ms. Abraham. Over that period unemployment has come down as well.

Representative Saxton. During that time, to look at it another way, the 1999 monthly average increase in job growth was about 234,000 jobs, so we have been putting more people to work all of this time.

Ms. Abraham. I haven't performed exactly that calculation, but that is in line with the number I have in my head.

Representative Saxton. Something called the participation rate, which is quite important, is currently at 67.5 percent, which is an all-time high; is that right? The participation rate for anyone who may be listening or may be here who isn't familiar with the term is the percentage of U.S. citizens who are gainfully employed; is that correct?

Ms. Abraham. The participation rate is the share of the working-age population who are either working or looking for work. That is at an all-time high. The share that are employed is also at an all-time high. So both of those are at all-time highs.

Representative Saxton. All-time high meaning great news.

Ms. Abraham. All-time high means a lot of people are working.

Representative Saxton. In terms of our economy, we know that we have seen some increases – some monetary policy that we refer to as tightening, which has resulted in increases in interest rates, and we have had four increases of 25 basis points for some reasons, which I am sure are clear to some and maybe not so clear to others. But as we look at these increases in interest rates, and as I pointed out earlier, it is the informal aim of Fed policy to target inflation, and the Fed has successfully done so. But one of the worries that the Fed has talked about as a basis upon which to justify these four increases; that is – pressure to increase wages or cost of employment because of potential labor shortages, since we seem to be down so low in terms of our rates of unemployment and, conversely, by the high rate of participation.

And I wonder if you would be able to talk about, for example, hourly wages. Have hourly wages increased or decreased – the percentage of increase or decrease, has it gone up, or is it falling in, say, the last two or three years?

Ms. Abraham. The statistic that we have that looks at that relates to the hourly earnings of production or nonsupervisory workers derived

from our payroll survey. That group accounts for about 80 percent of the total payroll employment, so it doesn't cover quite everyone. As of February, the year-over-year increase in hourly earnings was running at about 3.6 percent. A year earlier, that is, the change from February 1998 to February 1999, the year-over-year change had been 3.7 percent; the year earlier, 4.2; the year before that, 3.9. So the year-over-year change in that average hourly earnings measure is actually just a bit below where it had been two to three years earlier.

Representative Saxton. When I heard this conversation – and, of course, I am not an economist so I have to interpret it from my business background and so on – when I heard the discussions about increased wage pressures, I came to the conclusion in my mind that the rate of change was probably an increase, but you are telling me the percentage of change over the last several years has actually been a decrease, is that right, in wages?

Ms. Abraham. At this point the year-over-year rate of growth in average hourly earnings is actually a bit below where it had been two to three years ago.

Representative Saxton. So the trend is down?

Ms. Abraham. It is lower now than it had been two or three years ago. There had been a long period of time beginning in 1992/1993 where you were seeing an upward trend in the rate of growth of average hourly earnings, but along about 1998, that stopped, and since then the rate of growth has actually backed off a bit from where it had been.

Representative Saxton. I would say it has been a bit. It has been, as a matter of fact, six-tenths of a percentage point over those three years. Six-tenths of a percent is quite significant, I think, particularly in light the trend still seems to be headed lower. Of course, we don't know that. We don't have a front-view mirror, so we can't say that.

Ms. Abraham. Right. The year-over-year rate of growth is, as you say, down about six-tenths of a percentage point from where it had been a couple years ago. That is up from the very, very, very low levels of 1992 and 1993, when it had been 2.7, 2.5 percent year-over-year change, but down from a couple years ago.

Representative Saxton. I just want to say the assumption that I made that these percentages were increasing was an incorrect assumption that I made when, in fact, over the last three years the trend in terms of wage pressure has been decreasing, not increasing as I thought.

Ms. Abraham. As captured by this measure.

Representative Saxton. Let me turn to another measure which you have calculated – you do calculate unit labor costs in the economy; do you not?

Ms. Abraham. We do indeed.

Representative Saxton. Can you describe what unit – what the term "unit labor costs" means?

Ms. Abraham. The unit labor cost measure is derived by basically taking a look at what is happening to a different and more comprehensive measure of average hourly compensation, which tells you about the trend in the costs of labor that employers are hiring, and comparing that to what is happening to output per hour, the labor productivity in the economy, which is equivalent to what is happening to the labor costs per unit of output that is being produced.

Representative Saxton. In other words, the unit labor cost is a measure of increases or decreases in cost per unit.

Ms. Abraham. The unit labor cost measure is a measure of the labor costs associated with producing a unit of output.

Representative Saxton. Thank you. You said that a lot more clearly than I did.

Now, over the same period that we discussed previously relative to hourly wages, unit labor costs, according to your research, the percentage has been a percentage of decrease; is it not?

Ms. Abraham. Right. It might help to go through the pieces. Average hourly compensation, according to this broader measure, is actually rising at a more rapid pace as of 1999 than it had been a couple years earlier, but productivity is also rising more rapidly than it had a couple of years earlier. I am looking at the numbers for the nonfarm business sector. And the consequence of those two things netted together is that unit labor costs are rising. They rose at 1.1 percent in 1999 as compared to 2.1 percent in 1998, 2 percent in 1997, .7 percent in 1996.

Representative Saxton. Now I am confused. The figures that I have here for 1998 appear to be that labor costs were rising by 3 percent or a little bit more than 3 percent.

Ms. Abraham. I am not sure. We produced numbers for the nonfarm business sector and for the business sector, and it may be that we are looking at different ones.

Representative Saxton. Nonfarm – yes, I am looking at the nonfarm business sector unit labor costs.

Ms. Abraham. The nonfarm business sector unit labor cost figures I have are 1.1 percent. This figure is the percent change between the fourth quarter of 1998 and the fourth quarter of 1999. I am sure that there is just something different in the many numbers that come out of this that you are looking at than I am looking at.

Representative Saxton. I have a little graph here based on nonfarm business sector unit labor costs that you produced that shows that in the middle of 1998 the unit labor cost was roughly 3.25 percent or thereabouts, and that at the beginning of the last quarter of 1999, the nonfarm business sector unit labor costs appear to be, as you correctly pointed out, about 1 percent. These are year-over-year measures I am told.

Ms. Abraham. The fourth-quarter-to-fourth-quarter or year-over-year. One figure for the change between the third quarter of 1997 and the third quarter of 1998 is 3.3 percent, which appears to be similar to what you have.

Representative Saxton. It is year-over-year.

Ms. Abraham. Your number for 1999 is?

Representative Saxton. Looks like the beginning of the last quarter through the third quarter of 1999 about 1 percent.

Ms. Abraham. The year-over-year change for 1999 that I have as opposed to the fourth-quarter-to-fourth-quarter change is 1.8 percent, and then for 1998 it was 2.4 percent.

Representative Saxton. All right. Our numbers are a little different, but it would be fair to say that over that two-year period, the trend in terms of nonfarm business sector unit labor costs, the trend has been down; is that correct?

Ms. Abraham. It would certainly be fair to say that over the last few years, that number is a bit lower in the most recent year than it had been in the prior two years, and roughly in line, given the variability in these series, with what it had been the year before.

Representative Saxton. So that would certainly not support the notion that unit labor costs are on the increase. Quite conversely, they appear to be on the decrease.

Ms. Abraham. Helped by more rapid growth in productivity in recent years, the rate of growth in unit labor costs has been quite modest.

Representative Saxton. You have mentioned productivity. I think that is important. I have some numbers here that you developed referred to as nonfarm business sector output per hour. You just indicated that the trend in terms of output or productivity is up; is that correct?

Ms. Abraham. Correct.

Representative Saxton. That means we are individually more productive and more productive as a society probably because of changes in technology?

Ms. Abraham. That likely has been a contributing factor.

Representative Saxton. And, in fact, we look at the decade of the 1990s, the trend in productivity has been up during the entire decade, hasn't it?

Ms. Abraham. Starting from 1993 and going forward, it has been generally trending up since then.

Representative Saxton. So I guess one could say because we have become more productive because of technology and other factors, that it has helped our people be more productive, and therefore the unit cost has come down.

Ms. Abraham. The more rapid the rate of growth in productivity holding whatever increases there are in what people are being paid, the less unit labor costs are going to go up.

Representative Saxton. This certainly mitigates against worries about inflation, doesn't it?

Ms. Abraham. Increases in productivity, I think, are unambiguously good news.

Representative Saxton. And unambiguously good news and in the unambiguous notions that you include would be that which we call inflation, right?

Ms. Abraham. It crosses over into things I am not wholly comfortable discussing.

Representative Saxton. I understand, but for purposes of my discussion and my understanding of the economy, what I guess I have been trying to say here is that wage pressures are not evident. Increases in wages, pressures and worries, therefore, about inflation do not appear to be evident. Unit costs, the rate of growth in unit costs, has come down, and productivity has gone up, all leading one to conclude that because we are productive and because costs appear to be trending down,

that there is no need, therefore, to worry about inflation based on labor shortages.

Do you want to respond?

Ms. Abraham. I was treating that as a statement.

Representative Saxton. Thank you.

As you have heard me say before, Commissioner, we on the Joint Economic Committee (JEC) – and, I believe it is fair to say, many others who watch the economy closely and try to look in our rear-view mirror to learn lessons from history, and to look out the windshield to try to figure out where we are going – we have looked at some long-term market price indicators to try to look ahead. We have looked at commodity prices because we believe that what is happening relative to commodity prices today probably has something to do with the statistics that you will collect and evaluate tomorrow. We have looked at long-term bond yields as well as commodity prices because certainly trying to figure out what is going to happen down the road when institutions and people invest, they try to invest at rates that will be productive in years ahead, and we also look at the value of the dollar, those three things: the value of the dollar; Treasury bond yields, long-term bond yields; and commodity prices.

Now, I would like to talk about each of these just for a moment. Commodity prices over the last five or six years have trended down, and in 1999, they did bump up slightly, but they have leveled off again. We see fairly steep declines in commodity prices up until 1999, and then there was an increase, but they are still far below, that is, commodity prices, what they were five years ago, which is certainly encouraging from trying to figure out what is going on with inflation. The 10-year Treasury bond price has also had a little tick upward. In fact, it was quite significant, and now it has trended down, but in spite of the fact it has ticked upward, it is still far below what it was a decade ago. And the value of the dollar weighed against other currencies is also in good shape. So as we look at what may happen in terms of inflation down the road, we see very little evidence that there is a lot to worry about here.

Do you have any statistics at all that you can reflect on that would either confirm or disagree with the general statements that I just made relative to these issues?

Ms. Abraham. I think the statistics that we have in terms of what the recent history has looked like that are most relevant are statistics from

our Producer Price Index (PPI) program on what has happened to crude nonfood materials. Maybe you could just comment briefly on what those have shown.

Mr. Dalton. As Katharine said, this is the crude materials component of the Producer Price Index, and it is probably not the same measure that you are referring to as an index of commodities. I am not sure which measure you are using. But in general it is true that if you exclude energy, looking over the past several years, commodity prices have declined, and in 1999 they did go up. So we can confirm roughly what you said about the commodity prices.

Representative Saxton. May I ask you, the figures that I have show the commodity prices excluding energy did go up during the first half of 1999, but then they leveled out. Is that what you show?

Mr. Dalton. No. For all of 1999, we show this component, which is crude nonfood materials less energy, going up 13.6 percent.

Ms. Abraham. But you don't have month-by-month data at hand?

Mr. Dalton. I don't, but I do have the year-over-year for January, and that is 16.9 percent. I am not sure that you can say that it is trailing off.

Ms. Abraham. I think we need to get the month-by-month numbers and provide them for the record.

[Response of Commissioner Abraham to Representative Saxton regarding commodity prices; chart entitled, "PPI Crude nonfood material less energy" appears in the Submissions for the Record.]

Representative Saxton. You mentioned energy. May I just pursue this for a moment? When we talk about the broadest measure of inflation related to CPI, we include both food and energy prices in the broadest measure; is that correct?

Ms. Abraham. Right.

Representative Saxton. So when we consider inflation that may be in the economy today and include energy, it shows that energy has pushed prices upward significantly. Would that be true?

Ms. Abraham. That is correct. Over the past year as a whole energy prices have risen quite rapidly, and they have pushed our topside measures that include energy up.

Representative Saxton. My constituents can verify that, particularly those who heat with oil.

Ms. Abraham. Right.

Representative Saxton. The price of oil climbed from probably under 80 cents to two dollars this winter, primarily, I suppose, because of supply and demand. Is that a fair statement?

Ms. Abraham. It seems likely to be what was going on.

Representative Saxton. If one were to worry then about the cost of production going up because energy prices have increased significantly, one would have a valid concern.

Ms. Abraham. Right.

Representative Saxton. On the other hand, once again you and I are looking in the rear-view mirror at what happened in the past, and we have to therefore to try to project what is going to happen in the economy, we can't just do that. We have to look ahead at what may happen in the future, and if the cost of energy increased because of supply and demand, then it might be useful to try to figure out what is going to happen to supply and demand in the future relative to what our economic policies might be as a reaction to that. True?

Ms. Abraham. Mm-hmm.

Representative Saxton. I noticed in the newspaper this morning on that subject there is an article that says, three oil ministers agree to boost output. Oil ministers from Saudi Arabia, Venezuela and Mexico said yesterday that they plan to boost world oil supplies after a scheduled cut in production expires later this month. I am not certainly an expert in knowing what that means except that my understanding of the law of supply and demand says when the supply increases, the price does not increase, conversely it decreases, and therefore one might expect that the spike that we have seen in energy prices may be coming to an end. Can you react to that?

Ms. Abraham. I can't forecast what is likely to happen to energy prices. I can say that if you look over the last year, the most inclusive measure that we have of consumer prices, the Consumer Price Index, inclusive of food and energy, went up 2.7 percent. Excluding food and energy from the calculation, and therefore removing the effects of the big increase in energy prices, the increase in that measure was just 1.9 percent.

Representative Saxton. I am sorry, I didn't quite get that.

Ms. Abraham. The overall CPI went up 2.7 percent over the last year. The CPI, excluding food and energy, went up by 1.9 percent, so it

is repeating what we talked about earlier, clearly the case that the run-up in energy prices has been a significant factor in the overall rate of growth.

Representative Saxton. Sure. We all agree that one of the causes is that the oil-producing states decided to limit production, therefore decreasing supply, and the price shot up. Now what I am saying is that if this newspaper article which is – I will have to call the Secretary of Energy Bill Richardson because he is quoted here, but it looks like he is doing a good job. I know he has been on the circuit. We now read here in the opening paragraph, ministers from Saudi Arabia, Venezuela and Mexico said they are going to increase the supply. That is good news, good news for the economy, and we can expect that perhaps the other element in our economy which has been worrisome over the last several months, energy prices, may be expected to stop the increase.

Now, I just have one other question, and I know that this is a futuristic question as opposed to evaluation of what has happened in the economy. We know that the Fed has indicated a bias toward future interest rate increases apparently because of their worries about inflation. Now, you and I have talked, or I have talked and you have helped me a great deal to understand these issues, but while we were talking about labor costs, I think we both agree that over the last couple of years in terms of unit labor costs as well as increases in wage – rates of increase or decrease in wages, that those pressures seem to be either dissipated or in the process of – we can anticipate that they will be dissipated, and I am just curious if you have any thoughts as to why the Fed continues to have a bias toward more interest rate increases.

Ms. Abraham. No, I don't.

Representative Saxton. I thought that might be your answer.

Well, it is a question that I have. I am not sure that I am worried significantly about increases in rates of costs of living. I know that the Fed apparently has anticipated, I guess it is fair to say, several more increases, but based on our studies at the Joint Economic Committee, we come to a slightly different conclusion. And again, I want to go back and just say I have complimented over and over again in this forum and in other places the performance of the Fed under Chairman Greenspan's leadership. I am just trying to understand what it is that they see that are not evident in your statistics and not evident in the indicators of future inflation that we look at.

So, Commissioner, I don't think I have any further questions at this point. I want to thank you for being with us today. I am sure that had

Congress been in session for the last two days, we would have had several other Members here to ask questions as well. Thank you for being with us, and we will look forward to seeing you again in the future.

Ms. Abraham. Thank you, Mr. Chairman.

[Whereupon, at 10:17 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

I am pleased to welcome Commissioner Abraham and her colleagues to this hearing on the monthly employment situation.

Today's report reflects the strong condition of the U.S. economy. Although employment growth was modest, the percentage of the population employed - the employment- population ratio - remains at a record level. The civilian unemployment rate is fluctuating around its lowest levels since the Nixon Administration. Although employment gains were soft in February, in the context of the performance of recent months labor market conditions overall appear to remain quite strong.

The employment data released today are consistent with other data reflecting strong growth in the economy. Moreover, the expansion of the economy has been accompanied without an increase in inflation. Both unemployment and inflation have declined together during this expansion. This again disproves one of the most mistaken assumptions in postwar economic policy, the notion of a tradeoff between inflation and unemployment.

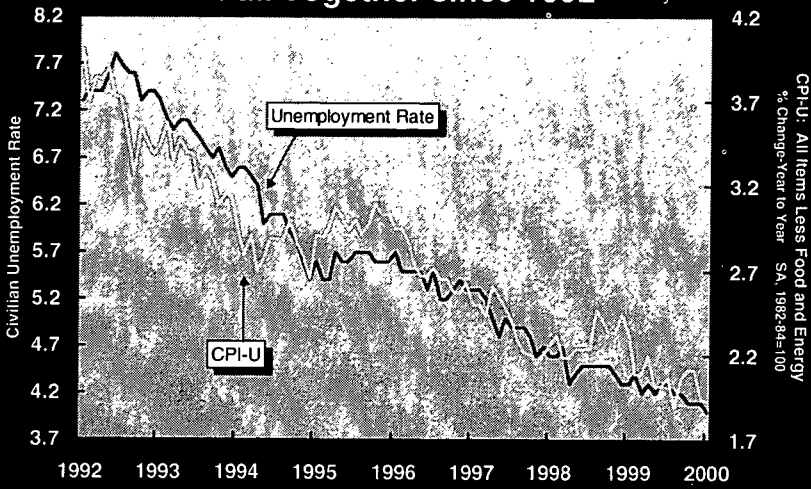
In several previous hearings of the Committee, I have explored this issue in some detail with Federal Reserve Chairman Greenspan. We have agreed that the Fed's policy of minimizing inflation through informal inflation targeting has brought significant economic benefits. The Fed's policy, by bringing down inflation and interest rates, has boosted the economy and reduced unemployment as well. Those who argued that this disinflation policy would raise unemployment were proven wrong.

As I have said many times, the thrust of the Fed's monetary policy has been extremely successful. Although Chairman Greenspan deserves enormous credit for successfully implementing this policy, the substance of this policy based in informal inflation targeting also is responsible for its very positive effects. More focus on the substance of Fed policy would provide a greater understanding of why this policy has worked so well and permit some demystification of monetary policy in general.

However, in recent explanations of changes in monetary policy, the Fed has moved in recent months to a rationalization drawing from concerns about economic growth, healthy labor markets, and the stock market. On the other hand, our research suggests that a focus on

intermediate market price indicators such as commodity prices, bond yields, and the value of the dollar together are better signals of potential future inflation. I am concerned that Fed statements have led the markets to expect larger adjustments in monetary policy than are justified by the leading price indicators. In other words, a policy of sustained Fed interest rate hikes would not be supported by the price data available at this time.

Inflation and the Unemployment Rate Fall Together since 1992



Source: St. Louis Federal Reserve Board; Haver Analytics and JEC Staff calculations.

FOR DELIVERY: 9:30 A.M., E.S.T.
FRIDAY, MARCH 3, 2000

Advance copies of this statement are made available to the press under lock-up conditions with the explicit understanding that the data are embargoed until 8:30 a.m. Eastern Standard Time.

Statement of

Katharine G. Abraham
Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, March 3, 2000

Mr. Chairman and Members of the Committee:

I would like to thank you for the opportunity to comment on the labor market data released this morning.

The unemployment rate, at 4.1 percent in February, changed little over the month and has been below 4.2 percent since last October. A nominal increase of 43,000 in payroll employment in February followed a large weather-related gain of 384,000 in January. The average monthly gain for the 2 months (214,000) is about in line with the monthly average for 1999 (226,000).

In the goods-producing sector of the economy, construction employment decreased by 26,000 in February.

This decline followed an exceptionally large increase of 116,000 in January (after seasonal adjustment), which reflected unusually mild weather during the survey reference period for that month. In 1999, the industry added 220,000 jobs, or an average of 18,000 jobs per month.

Manufacturing employment edged up by 5,000 in February. The nation's factories have added 31,000 jobs over the past 4 months, after shedding 527,000 jobs from March 1998 through October 1999. Recent gains have been concentrated among durable goods manufacturers, notably in the electrical equipment, auto, industrial machinery, and fabricated metals industries. While there has been no net job gain among the producers of nondurable goods in recent months, the downward trend in employment in nondurable goods manufacturing has abated somewhat since last August. The factory workweek and overtime hours each rose by 0.2 hour in February, to 41.9 and 4.8 hours, respectively.

In mining, employment in oil and gas extraction continued to inch up in February. The industry has added 9,000 jobs since August 1999. These gains undoubtedly reflect the rise in oil prices that began early in 1999.

Job growth was sluggish throughout most of the service-producing sector in February. Employment in transportation and public utilities changed little for the second month in a row. In transportation, there were small job losses in both trucking and air transportation in February, and employment in public utilities continued to drift downward.

Services employment showed essentially no growth in February, after seasonal adjustment. This follows a gain of 142,000 jobs in January, which was slightly above the average monthly growth for the industry in 1999 (121,000). Some of the February weakness reflected declines in industries that had posted large weather-related increases in January, such as agricultural services and amusement and recreation services, but other services industries less prone to unusual seasonal fluctuations also were weak in February. Employment in business services was essentially unchanged over the month, compared with its average growth in 1999 of just under 50,000 jobs per month, and health services added only 6,000 jobs, about half of its average monthly gain. Several other services industries, including social services and legal services, also exhibited weakness over the month. One notable exception was engineering and management services, which continued a strong growth trend, adding 15,000 jobs.

Employment in wholesale trade edged up by 8,000 in February, about half of its growth trend in 1999. At the retail trade level, employment was up by 33,000 over the month, slightly under its average monthly gain for 1999. February job increases among department stores (after seasonal adjustment) and furniture stores more than offset a small decline in eating and drinking places.

Finance, insurance, and real estate added 10,000 jobs, reversing a loss of 6,000 in January. Within finance, an

employment increase in security brokerages was largely offset by small losses in a variety of other finance industries. Federal government employment rose by 20,000 in February, with all of the gain due to the hiring of temporary workers for the upcoming Census.

Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls edged down by 0.1 hour over the month to 34.5 hours. Average hourly earnings of private production or nonsupervisory workers rose by 4 cents to \$13.53. Over the year, average hourly earnings rose by 3.6 percent.

Moving on to the data from our survey of households, as I mentioned earlier, the unemployment rate was essentially unchanged in February at 4.1 percent, and it has remained under 4.2 percent since October 1999. The jobless rates for adult men, adult women, whites, blacks, and Hispanics showed little change in February. The rate for teenagers edged up to 14.1 percent, returning to near its December 1999 level.

The labor force participation rate ticked up a tenth of a percentage point over the month to a record high level of 67.6 percent, and the employment-population ratio held at a record high 64.8 percent. The number of persons who held more than one job totaled 7.7 million (not seasonally adjusted) in February. These multiple jobholders made up 5.8 percent of the total employed, down slightly from 6.1 percent a year earlier.

Among persons not in the labor force, there were about 1.3 million individuals (not seasonally adjusted) who were classified as "marginally attached" to the labor market in February, about the same as a year ago. These are persons who want and are available to work and looked for employment at some point in the past year, but are not currently searching for a job. The number of discouraged workers, a subset of this group who have stopped looking for work because they believe their search would be pointless, was 262,000 in February (not seasonally adjusted), also about the same as the year-ago level.

In summary, the unemployment rate was little changed at 4.1 percent in February, and payroll employment rose marginally, following a large weather-related gain in January.

My colleagues and I now would be glad to answer your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Internet address: <http://stats.bls.gov/newsrels.htm>

Technical information:

USDL 00-63

Household data: (202) 691-6378

Establishment data:

691-6555

Media contact:

691-5902

Transmission of material in this release is
embargoed until 8:30 A.M. (EST),
Friday, March 3, 2000.

THE EMPLOYMENT SITUATION: FEBRUARY 2000

The unemployment rate was little changed in February at 4.1 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Payroll employment edged up by 43,000 following a large increase in January (384,000). Average hourly earnings increased by 4 cents over the month and by 3.6 percent over the year.

Chart 1. Unemployment rate, seasonally adjusted,
March 1997 - February 2000

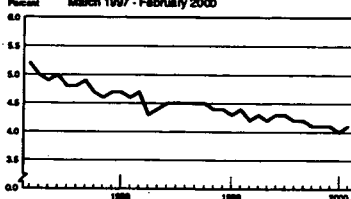
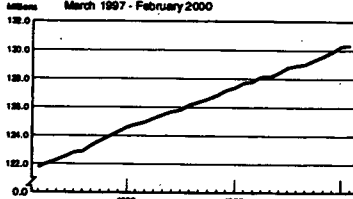


Chart 2. Nonfarm payroll employment, seasonally adjusted,
March 1997 - February 2000



Unemployment (Household Survey Data)

Both the number of unemployed persons (5.8 million) and the unemployment rate (4.1 percent) were about unchanged in February. The jobless rate has been below 4.2 percent for 5 consecutive months. Among the major worker groups, the unemployment rate for teenagers increased to 14.1 percent in February, about the same level as in December. Unemployment rates for adult men (3.4 percent), adult women (3.5 percent), whites (3.6 percent), blacks (7.8 percent), and Hispanics (5.7 percent) were little changed over the month. (See tables A-1 and A-2.)

Total Employment and the Labor Force (Household Survey Data)

The number of persons in the civilian labor force was about unchanged at 141.2 million in February, following a substantial rise in January. The labor force participation rate was 67.6 percent, a record high. Total employment was about unchanged in February, at 135.4 million (seasonally adjusted). The employment-population ratio—the proportion of the population age 16 and older with jobs—remained at a record high 64.8 percent. (See table A-1.)

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | Jan.- Feb. change | |
|---|--------------------|---------|--------------|-------------------|-------------------------|---------|
| | 1999 | | 1999 | 2000 ¹ | | |
| | III | IV | Dec. | Jan. | Feb. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 139,394 | 139,880 | 140,108 | 140,910 | 141,165 | 255 |
| Employment..... | 133,526 | 134,153 | 134,420 | 135,221 | 135,362 | 141 |
| Unemployment..... | 5,868 | 5,727 | 5,688 | 5,689 | 5,804 | 115 |
| Not in labor force..... | 68,650 | 68,780 | 68,724 | 67,872 | 67,742 | -130 |
| Unemployment rates | | | | | | |
| All workers..... | 4.2 | 4.1 | 4.1 | 4.0 | 4.1 | 0.1 |
| Adult men..... | 3.5 | 3.4 | 3.3 | 3.3 | 3.4 | .1 |
| Adult women..... | 3.8 | 3.6 | 3.6 | 3.7 | 3.5 | -2 |
| Teenagers..... | 13.8 | 13.8 | 13.8 | 12.6 | 14.1 | 1.5 |
| White..... | 3.7 | 3.5 | 3.5 | 3.4 | 3.6 | .2 |
| Black..... | 8.2 | 8.1 | 7.9 | 8.2 | 7.8 | -.4 |
| Hispanic origin..... | 6.4 | 6.1 | 5.9 | 5.6 | 5.7 | .1 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 128,936 | 129,606 | 129,898 | p130,282 | p130,325 | p43 |
| Goods-producing ² | 25,194 | 25,246 | 25,283 | p25,419 | p25,400 | p-19 |
| Construction..... | 6,270 | 6,359 | 6,393 | p6,509 | p6,483 | p-26 |
| Manufacturing..... | 18,398 | 18,359 | 18,361 | p18,382 | p18,387 | p5 |
| Service-producing ² | 103,743 | 104,360 | 104,615 | p104,863 | p104,925 | p62 |
| Retail trade..... | 22,884 | 22,922 | 22,973 | p23,008 | p23,041 | p33 |
| Services..... | 39,172 | 39,548 | 39,657 | p39,799 | p39,805 | p6 |
| Government..... | 20,194 | 20,274 | 20,315 | p20,368 | p20,381 | p13 |
| Hours of work ³ | | | | | | |
| Total private..... | 34.5 | 34.5 | 34.5 | p34.6 | p34.5 | p-0.1 |
| Manufacturing..... | 41.8 | 41.7 | 41.6 | p41.7 | p41.9 | p.2 |
| Overtime..... | 4.7 | 4.6 | 4.6 | p4.6 | p4.8 | p.2 |
| Indexes of aggregate weekly hours (1982=100) ³ | | | | | | |
| Total private..... | 148.3 | 149.1 | 149.4 | p150.5 | p149.9 | p-0.6 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$13.31 | \$13.41 | \$13.44 | p\$13.49 | p\$13.53 | p\$0.04 |
| Average weekly earnings, total private..... | 458.64 | 462.65 | 463.68 | p466.75 | p466.79 | p.04 |

¹ Beginning in January 2000, household data reflect revised population controls used in the Current Population Survey.

² Includes other industries, not shown separately.

³ Data relate to private production or nonsupervisory workers.

p=preliminary.

About 7.7 million persons (not seasonally adjusted) held more than one job in February. These multiple jobholders represented 5.8 percent of the total employed, down from 6.1 percent in February 1999. (See table A-10.)

Persons Not in the Labor Force (Household Survey Data)

The number of persons who were marginally attached to the labor force in February totaled 1.3 million (not seasonally adjusted). These people wanted and were available to work and had looked for a job sometime in the prior 12 months. They are not counted as unemployed because they had not actively searched for work in the 4 weeks preceding the survey. The number of discouraged workers was 262,000 in February, about the same as a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment, 130.3 million, was up slightly in February, after seasonal adjustment. This followed a large increase in January that was due in part to unseasonably mild winter weather across most of the country during the survey reference period. The average job gain for the first 2 months of this year was 214,000, about in line with the average monthly increase for 1999. (See table B-1.)

In the goods-producing sector, construction employment was down by 26,000 in February following a substantial gain (116,000) in January. It is likely that unusually warm weather in the January survey reference period allowed employers to delay some winter layoffs. The largest employment declines in February occurred in the same weather-sensitive industries that had registered large increases in January—heavy construction and the concrete, masonry, and roofing trades.

Manufacturing employment was up by 5,000 in February and has increased by 31,000 since October. Factory employment had declined by 527,000 from March 1998 through October 1999. In February, the largest manufacturing employment gains were in electrical equipment (8,000), motor vehicles (6,000), and industrial machinery (6,000). In contrast, food products lost 10,000 jobs.

In mining, employment continued to edge up in oil and gas extraction. Since August, the oil and gas industry has added 9,000 jobs.

In the service-producing sector, employment in the services industry was uncharacteristically flat in February, following a rise of 142,000 in January. In 1999, monthly job gains in services averaged 121,000. Employment in business services was essentially unchanged over the month; the average monthly job gain in the industry in 1999 was 47,000. Health services added 6,000 jobs in February, only about half its average growth. Employment declined in agricultural services and amusement and recreation services—weather-sensitive industries that had large seasonally adjusted job gains in January. In contrast, strong job growth continued in engineering and management services.

Over the month, job growth in retail trade (33,000) was about in line with its average for the prior 12 months. The largest employment gains in the industry were in department stores, where seasonal layoffs in February were smaller than usual, and in furniture stores. Wholesale trade employment edged up by 8,000 over the month, about half its average monthly gain.

Finance, insurance, and real estate added 10,000 jobs in February, reversing a loss of 6,000 jobs in January. Within finance, the only industry to add jobs in February was security and commodity brokerages (up 7,000), continuing its strong growth trend.

Employment in transportation and public utilities changed little for the second consecutive month. In transportation, job losses occurred in trucking and air transportation. Employment in public utilities declined, but communications continued to add jobs.

Within the federal government, an additional 20,000 temporary workers were hired in February for the decennial census.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged down by 0.1 hour in February to 34.5 hours, seasonally adjusted. In manufacturing, both the average workweek and overtime hours rose by 0.2 hour to 41.9 hours and 4.8 hours, respectively. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls decreased by 0.4 percent to 149.9 (1982=100), seasonally adjusted. The manufacturing index increased 0.4 percent to 106.7. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls rose by 4 cents in February to \$13.53, seasonally adjusted. This followed a gain of 5 cents (as revised) in January. Over the month, average weekly earnings were essentially unchanged at \$466.79, seasonally adjusted. Over the year, average hourly earnings rose by 3.6 percent, and average weekly earnings increased by 3.3 percent. (See table B-3.)

The Employment Situation for March 2000 is scheduled to be released on Friday, April 7, at 8:30 A.M. (EDT).

March 1999 National Benchmarks

In accordance with standard practice, BLS will release nonfarm payroll employment benchmark revisions with the May data on June 2, 2000. The March 1999 benchmark level has been finalized and will result in an upward revision of 258,000 to total nonfarm employment for the March 1999 reference month, an adjustment of 0.2 percent.

Also concurrent with the release of March 1999 benchmark revisions on June 2, BLS will begin implementation of a new probability-based sample design for the payroll survey. Estimates for the wholesale trade major industry division only will incorporate the new sample design with this release. Further information is available on the Internet (<http://stats.bls.gov/ceshome.htm>) or by calling (202) 691-6555.

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 50,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. In June 1999, the sample included about 390,000 establishments employing about 48 million people.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are *not in the labor force*. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as Federal, State, and local government entities. *Employees on*

nonfarm payrolls are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-producing sector.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.

- The household survey includes people on unpaid leave among the employed. The establishment survey does not.

- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.

- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Other differences between the two surveys are described in "Comparing Employment Estimates from Household and Payroll Surveys," which may be obtained from BLS upon request.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

In both the household and establishment surveys, most seasonally adjusted series are independently adjusted. However, the adjusted series for many major estimates, such as total payroll employment, employment in most major industry divisions, total employment, and

unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

The numerical factors used to make the seasonal adjustments are recalculated twice a year. For the household survey, the factors are calculated for the January-June period and again for the July-December period. For the establishment survey, updated factors for seasonal adjustment are calculated for the May-October period and introduced along with new benchmarks, and again for the November-April period. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 376,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -276,000 to 476,000 (100,000 +/- 376,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. The 90-percent confidence interval for the monthly change in unemployment is +/- 258,000, and for the monthly change in the unemployment rate it is +/- .21 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on substantially incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth (and other sources of error), a process known as bias adjustment is included in the survey's estimating procedures, whereby a specified number of jobs is added to the monthly sample-based change. The size of the monthly bias adjustment is based largely on past relationships between the sample-based estimates of employment and the total counts of employment described below.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.3 percent, ranging from zero to 0.7 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$16.00 per issue or \$40.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household and other labor force categories, these measures appear in tables I-B through I-H of its "Explanatory Notes." Measures of the reliability of the data drawn from the establishment survey and the actual amounts of revision due to benchmark adjustments are provided in tables 2-B through 2-G of that publication.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| | TOTAL | | | | | | | | |
| Civilian noninstitutional population | 208,873 | 208,782 | 208,957 | 208,873 | 208,453 | 208,886 | 208,822 | 208,782 | 208,957 |
| Civilian labor force | 138,232 | 139,021 | 140,185 | 139,137 | 139,897 | 139,324 | 140,128 | 140,910 | 141,165 |
| Participation rate | 66.8 | 66.8 | 67.1 | 67.3 | 67.0 | 67.0 | 67.1 | 67.5 | 67.9 |
| Employed | 131,829 | 133,357 | 133,854 | 133,029 | 133,940 | 134,089 | 134,420 | 135,321 | 135,362 |
| Employment-population ratio | 63.8 | 63.9 | 64.1 | 64.3 | 64.2 | 64.3 | 64.4 | 64.8 | 64.8 |
| Agriculture | 2,894 | 2,889 | 2,873 | 3,329 | 3,238 | 3,210 | 3,279 | 3,271 | 3,409 |
| Nonagricultural industries | 128,744 | 130,388 | 130,981 | 129,701 | 130,702 | 130,789 | 131,141 | 131,850 | 131,854 |
| Unemployed | 6,843 | 6,294 | 6,221 | 6,108 | 5,757 | 5,736 | 5,889 | 5,889 | 5,804 |
| Unemployment rate | 4.7 | 4.5 | 4.4 | 4.4 | 4.1 | 4.1 | 4.1 | 4.0 | 4.1 |
| Not in labor force | 68,671 | 69,181 | 68,723 | 67,738 | 68,798 | 68,832 | 68,724 | 67,872 | 67,742 |
| Persons who usually work a job | 4,703 | 4,354 | 4,431 | 4,630 | 4,331 | 4,429 | 4,467 | 4,532 | 4,574 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 98,279 | 100,288 | 100,330 | 98,279 | 100,088 | 100,179 | 100,264 | 100,288 | 100,330 |
| Civilian labor force | 73,718 | 74,414 | 74,828 | 74,482 | 74,680 | 74,726 | 74,803 | 75,324 | 75,594 |
| Participation rate | 74.3 | 74.2 | 74.8 | 74.8 | 74.6 | 74.6 | 74.7 | 75.1 | 75.3 |
| Employed | 70,084 | 70,881 | 71,311 | 71,230 | 71,623 | 71,732 | 71,827 | 72,358 | 72,475 |
| Employment-population ratio | 70.6 | 70.9 | 71.1 | 71.7 | 71.8 | 71.8 | 71.8 | 72.2 | 72.2 |
| Unemployed | 3,634 | 3,433 | 3,497 | 3,252 | 3,057 | 2,994 | 3,003 | 2,966 | 3,121 |
| Unemployment rate | 4.9 | 4.6 | 4.7 | 4.3 | 4.1 | 4.0 | 4.0 | 3.9 | 4.1 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 91,189 | 92,057 | 92,052 | 91,189 | 91,886 | 91,886 | 92,052 | 92,057 | 92,052 |
| Civilian labor force | 68,746 | 70,388 | 70,704 | 70,704 | 70,326 | 70,326 | 70,528 | 70,917 | 71,420 |
| Participation rate | 75.5 | 76.5 | 76.8 | 76.9 | 76.5 | 76.5 | 76.6 | 77.0 | 77.2 |
| Employed | 66,730 | 67,807 | 67,888 | 67,527 | 67,888 | 68,037 | 68,187 | 68,585 | 68,891 |
| Employment-population ratio | 73.2 | 73.4 | 73.7 | 74.1 | 73.9 | 74.0 | 74.1 | 74.5 | 74.8 |
| Agriculture | 1,953 | 2,058 | 2,018 | 2,308 | 2,202 | 2,202 | 2,207 | 2,303 | 2,308 |
| Nonagricultural industries | 64,777 | 65,583 | 65,551 | 65,298 | 65,682 | 65,775 | 65,970 | 66,282 | 66,583 |
| Unemployed | 3,016 | 2,787 | 2,835 | 2,876 | 2,441 | 2,351 | 2,332 | 2,332 | 2,429 |
| Unemployment rate | 4.3 | 4.0 | 4.0 | 3.7 | 3.5 | 3.3 | 3.3 | 3.3 | 3.4 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 107,583 | 108,518 | 108,577 | 107,583 | 108,285 | 108,487 | 108,589 | 108,518 | 108,577 |
| Civilian labor force | 64,484 | 65,828 | 65,377 | 64,675 | 65,017 | 65,108 | 65,178 | 65,606 | 65,672 |
| Participation rate | 59.9 | 60.1 | 60.2 | 60.1 | 60.7 | 60.7 | 60.7 | 60.5 | 60.4 |
| Employed | 61,555 | 62,378 | 62,542 | 61,789 | 62,317 | 62,366 | 62,483 | 62,803 | 62,899 |
| Employment-population ratio | 57.2 | 57.5 | 57.7 | 57.4 | 57.5 | 57.5 | 57.6 | 57.9 | 57.9 |
| Unemployed | 2,829 | 2,632 | 2,734 | 2,876 | 2,700 | 2,742 | 2,695 | 2,743 | 2,683 |
| Unemployment rate | 4.5 | 4.3 | 4.3 | 4.4 | 4.2 | 4.2 | 4.1 | 4.2 | 4.1 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 98,748 | 100,579 | 100,688 | 98,748 | 100,458 | 100,573 | 100,688 | 100,579 | 100,688 |
| Civilian labor force | 60,828 | 61,455 | 61,378 | 60,881 | 60,955 | 61,052 | 61,154 | 61,378 | 61,375 |
| Participation rate | 61.6 | 61.1 | 61.2 | 61.7 | 61.7 | 61.7 | 61.7 | 61.2 | 61.2 |
| Employed | 58,210 | 59,020 | 59,321 | 58,951 | 59,300 | 59,336 | 59,506 | 59,590 | 59,598 |
| Employment-population ratio | 58.4 | 58.7 | 58.9 | 58.4 | 58.5 | 58.5 | 58.6 | 58.9 | 58.9 |
| Agriculture | 787 | 782 | 804 | 822 | 800 | 798 | 791 | 828 | 871 |
| Nonagricultural industries | 57,423 | 58,278 | 58,528 | 57,428 | 58,020 | 58,070 | 58,187 | 58,484 | 58,528 |
| Unemployed | 2,398 | 2,425 | 2,495 | 2,523 | 2,155 | 2,114 | 2,198 | 2,257 | 2,176 |
| Unemployment rate | 4.0 | 3.9 | 3.8 | 3.8 | 3.5 | 3.6 | 3.6 | 3.7 | 3.5 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 15,839 | 16,147 | 16,148 | 15,839 | 16,129 | 16,107 | 16,114 | 16,147 | 16,148 |
| Civilian labor force | 7,049 | 7,775 | 7,828 | 7,028 | 7,402 | 7,394 | 7,425 | 8,116 | 8,070 |
| Participation rate | 44.5 | 48.1 | 48.5 | 44.4 | 45.9 | 45.9 | 46.1 | 50.3 | 50.0 |
| Employed | 6,889 | 6,730 | 6,794 | 6,741 | 7,242 | 7,223 | 7,288 | 7,388 | 7,273 |
| Employment-population ratio | 43.5 | 41.6 | 42.0 | 42.6 | 44.9 | 44.8 | 45.2 | 45.8 | 45.0 |
| Agriculture | 134 | 123 | 151 | 276 | 232 | 281 | 281 | 242 | 228 |
| Nonagricultural industries | 6,515 | 6,588 | 6,604 | 6,588 | 7,010 | 6,942 | 7,004 | 7,114 | 7,045 |
| Unemployed | 1,150 | 1,042 | 1,151 | 1,194 | 1,161 | 1,171 | 1,180 | 1,080 | 1,197 |
| Unemployment rate | 14.6 | 13.5 | 14.8 | 14.2 | 13.8 | 14.0 | 13.8 | 12.8 | 14.1 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

NOTE: Beginning in January 2000, data reflect revised population controls used in the household survey.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 172,491 | 173,812 | 173,886 | 172,491 | 173,585 | 173,709 | 173,821 | 173,812 | 173,886 |
| Civilian labor force | 115,821 | 116,756 | 117,154 | 116,455 | 116,854 | 118,703 | 117,009 | 117,716 | 117,821 |
| Participation rate | 67.1 | 67.2 | 67.4 | 67.5 | 67.2 | 67.9 | 67.3 | 67.9 | 67.8 |
| Employed | 110,949 | 112,180 | 112,578 | 112,017 | 112,548 | 112,811 | 112,851 | 113,704 | 113,634 |
| Employment-population ratio | 64.3 | 64.5 | 64.7 | 64.9 | 64.8 | 64.8 | 65.0 | 65.4 | 65.3 |
| Unemployed | 4,873 | 4,568 | 4,576 | 4,438 | 4,106 | 4,092 | 4,057 | 4,011 | 4,187 |
| Unemployment rate | 4.2 | 3.9 | 3.9 | 3.8 | 3.5 | 3.5 | 3.5 | 3.4 | 3.6 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 59,443 | 59,795 | 60,043 | 59,731 | 59,777 | 59,781 | 59,889 | 60,179 | 60,387 |
| Participation rate | 77.0 | 76.8 | 77.1 | 77.4 | 77.0 | 76.9 | 77.0 | 77.3 | 77.6 |
| Employed | 57,078 | 57,728 | 57,927 | 57,799 | 58,043 | 58,057 | 58,221 | 58,487 | 58,831 |
| Employment-population ratio | 74.0 | 74.2 | 74.4 | 74.9 | 74.7 | 74.7 | 74.8 | 75.2 | 75.3 |
| Unemployed | 2,365 | 2,069 | 2,116 | 1,932 | 1,734 | 1,694 | 1,668 | 1,693 | 1,556 |
| Unemployment rate | 4.0 | 3.5 | 3.5 | 3.3 | 2.9 | 2.8 | 2.8 | 2.8 | 2.9 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 49,721 | 50,327 | 50,418 | 49,655 | 49,733 | 49,814 | 50,011 | 50,404 | 50,335 |
| Participation rate | 60.1 | 60.4 | 60.3 | 60.0 | 59.9 | 59.9 | 60.1 | 60.5 | 60.4 |
| Employed | 48,081 | 48,613 | 48,840 | 48,030 | 48,203 | 48,273 | 48,486 | 48,857 | 48,792 |
| Employment-population ratio | 58.1 | 58.4 | 58.6 | 58.1 | 58.0 | 58.0 | 58.2 | 58.7 | 58.6 |
| Unemployed | 1,640 | 1,714 | 1,578 | 1,625 | 1,530 | 1,541 | 1,525 | 1,547 | 1,544 |
| Unemployment rate | 3.3 | 3.4 | 3.1 | 3.3 | 3.1 | 3.1 | 3.0 | 3.1 | 3.1 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 6,657 | 6,634 | 6,693 | 7,050 | 7,144 | 7,128 | 7,108 | 7,132 | 7,099 |
| Participation rate | 52.7 | 52.1 | 52.8 | 55.9 | 56.1 | 56.0 | 55.8 | 56.0 | 55.8 |
| Employed | 5,809 | 5,820 | 5,808 | 6,218 | 6,302 | 6,271 | 6,244 | 6,300 | 6,211 |
| Employment-population ratio | 86.0 | 85.7 | 85.6 | 89.2 | 89.5 | 89.2 | 89.0 | 89.0 | 88.8 |
| Unemployed | 848 | 814 | 885 | 831 | 842 | 857 | 864 | 832 | 888 |
| Unemployment rate | 12.7 | 12.3 | 13.2 | 12.0 | 11.9 | 12.0 | 12.2 | 10.9 | 12.5 |
| Men | 13.6 | 14.7 | 15.5 | 12.6 | 11.9 | 12.8 | 13.3 | 12.4 | 14.4 |
| Women | 11.8 | 9.7 | 10.7 | 11.4 | 11.7 | 11.2 | 10.9 | 9.1 | 10.4 |
| BLACK | | | | | | | | | |
| Civilian noninstitutional population | 24,697 | 25,047 | 25,078 | 24,697 | 24,985 | 25,019 | 25,051 | 25,047 | 25,078 |
| Civilian labor force | 16,004 | 16,382 | 16,542 | 16,250 | 16,489 | 16,508 | 16,513 | 16,622 | 16,785 |
| Participation rate | 64.8 | 65.4 | 66.0 | 65.8 | 66.0 | 66.0 | 66.0 | 66.4 | 66.9 |
| Employed | 14,822 | 15,030 | 15,194 | 14,924 | 15,124 | 15,187 | 15,204 | 15,254 | 15,471 |
| Employment-population ratio | 59.2 | 60.0 | 60.5 | 60.4 | 60.5 | 60.7 | 60.7 | 60.9 | 61.7 |
| Unemployed | 1,181 | 1,359 | 1,378 | 1,326 | 1,365 | 1,321 | 1,309 | 1,368 | 1,314 |
| Unemployment rate | 8.8 | 8.3 | 8.3 | 8.2 | 8.3 | 8.0 | 7.9 | 8.2 | 7.8 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,050 | 7,285 | 7,355 | 7,137 | 7,281 | 7,277 | 7,273 | 7,386 | 7,441 |
| Participation rate | 71.5 | 72.7 | 73.5 | 72.4 | 72.9 | 72.8 | 72.8 | 74.2 | 74.2 |
| Employed | 6,529 | 6,688 | 6,771 | 6,862 | 6,717 | 6,787 | 6,788 | 6,839 | 6,910 |
| Employment-population ratio | 86.3 | 86.7 | 87.5 | 87.8 | 87.3 | 87.7 | 87.5 | 88.2 | 88.9 |
| Unemployed | 521 | 597 | 584 | 475 | 564 | 510 | 507 | 547 | 532 |
| Unemployment rate | 7.4 | 8.2 | 7.9 | 6.7 | 7.7 | 7.0 | 7.0 | 7.4 | 7.1 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 8,957 | 8,298 | 8,289 | 8,112 | 8,252 | 8,305 | 8,260 | 8,315 | 8,344 |
| Participation rate | 69.1 | 68.0 | 68.0 | 65.6 | 65.9 | 66.3 | 66.3 | 66.3 | 66.4 |
| Employed | 7,457 | 7,707 | 7,719 | 7,542 | 7,745 | 7,757 | 7,708 | 7,715 | 7,805 |
| Employment-population ratio | 80.3 | 81.4 | 81.4 | 81.0 | 81.9 | 81.9 | 81.4 | 81.5 | 82.1 |
| Unemployed | 800 | 578 | 570 | 570 | 507 | 548 | 554 | 600 | 539 |
| Unemployment rate | 7.4 | 7.0 | 6.9 | 7.0 | 6.1 | 6.6 | 6.7 | 7.2 | 6.5 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 897 | 822 | 888 | 1,001 | 956 | 926 | 950 | 921 | 899 |
| Participation rate | 36.3 | 33.2 | 36.3 | 40.5 | 39.5 | 37.3 | 39.5 | 37.2 | 40.4 |
| Employed | 637 | 638 | 673 | 720 | 682 | 683 | 732 | 701 | 756 |
| Employment-population ratio | 25.8 | 25.7 | 27.2 | 29.1 | 28.7 | 28.7 | 29.5 | 28.3 | 30.8 |
| Unemployed | 261 | 184 | 225 | 281 | 274 | 263 | 248 | 220 | 243 |
| Unemployment rate | 29.0 | 22.4 | 25.0 | 28.1 | 30.8 | 28.4 | 25.3 | 23.9 | 24.3 |
| Men | 31.8 | 25.5 | 21.9 | 31.2 | 35.3 | 31.0 | 27.5 | 24.0 | 22.3 |
| Women | 26.5 | 19.3 | 28.3 | 25.0 | 28.1 | 25.9 | 23.0 | 23.8 | 28.6 |

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, age, and Hispanic origin — Continued

(Numbers in thousands)

| Employment status, race, sex, age, and Hispanic origin | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| HISPANIC ORIGIN | | | | | | | | | |
| Civilian noninstitutional population | 21,855 | 22,047 | 22,108 | 21,855 | 21,891 | 21,947 | 22,008 | 22,047 | 22,108 |
| Civilian labor force | 14,498 | 15,142 | 15,187 | 14,520 | 14,809 | 14,887 | 14,984 | 15,251 | 15,249 |
| Participation rate | 67.7 | 68.7 | 68.7 | 66.0 | 67.7 | 67.8 | 68.1 | 69.2 | 69.0 |
| Employed | 13,420 | 14,208 | 14,287 | 13,238 | 13,879 | 13,979 | 14,095 | 14,395 | 14,382 |
| Employment-population ratio | 62.3 | 64.4 | 64.6 | 60.4 | 63.4 | 63.7 | 64.0 | 65.3 | 65.1 |
| Unemployed | 1,048 | 634 | 621 | 684 | 630 | 608 | 609 | 656 | 669 |
| Unemployment rate | 7.2 | 6.2 | 6.1 | 6.8 | 6.3 | 6.1 | 5.9 | 5.6 | 5.7 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals

because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups. Beginning in January 2000, data reflect revised population controls used in the household survey.

Table A-3. Employment status of the civilian population 25 years and over by educational attainment, seasonally adjusted

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| Less than a high school diploma | | | | | | | | | |
| Civilian noninstitutional population | 28,112 | 27,885 | 27,378 | 28,112 | 28,248 | 28,228 | 28,144 | 27,995 | 27,378 |
| Civilian labor force | 11,817 | 12,013 | 11,838 | 12,218 | 12,201 | 12,132 | 11,858 | 11,885 | 11,871 |
| Percent of population | 42.4 | 42.9 | 42.5 | 43.5 | 43.2 | 43.0 | 42.5 | 42.5 | 43.7 |
| Employed | 10,897 | 11,061 | 10,829 | 11,317 | 11,401 | 11,347 | 11,243 | 11,108 | 11,257 |
| Employment-population ratio | 38.8 | 39.5 | 39.6 | 40.3 | 40.4 | 40.2 | 39.9 | 39.7 | 41.1 |
| Unemployed | 1,020 | 951 | 909 | 901 | 800 | 785 | 713 | 789 | 714 |
| Unemployment rate | 8.6 | 7.9 | 7.0 | 7.4 | 6.8 | 6.5 | 6.0 | 6.6 | 6.0 |
| High school graduates, no college² | | | | | | | | | |
| Civilian noninstitutional population | 57,082 | 57,788 | 57,471 | 57,082 | 57,275 | 57,789 | 57,590 | 57,768 | 57,471 |
| Civilian labor force | 37,063 | 37,878 | 37,403 | 37,274 | 37,080 | 37,671 | 37,352 | 37,617 | 37,603 |
| Percent of population | 65.0 | 65.2 | 65.1 | 65.3 | 64.7 | 65.2 | 64.9 | 65.1 | 65.4 |
| Employed | 35,583 | 36,180 | 35,832 | 35,982 | 35,874 | 36,445 | 36,071 | 36,205 | 36,294 |
| Employment-population ratio | 62.4 | 62.6 | 62.5 | 63.0 | 62.8 | 63.1 | 62.8 | 62.8 | 63.2 |
| Unemployed | 1,479 | 1,518 | 1,471 | 1,312 | 1,208 | 1,226 | 1,291 | 1,311 | 1,309 |
| Unemployment rate | 4.0 | 4.0 | 3.9 | 3.5 | 3.3 | 3.3 | 3.5 | 3.5 | 3.5 |
| Less than a bachelor's degree³ | | | | | | | | | |
| Civilian noninstitutional population | 43,911 | 43,889 | 44,488 | 43,911 | 43,787 | 44,070 | 44,089 | 43,889 | 44,488 |
| Civilian labor force | 32,801 | 32,198 | 32,948 | 32,227 | 32,203 | 32,312 | 32,454 | 32,397 | 32,544 |
| Percent of population | 74.2 | 73.5 | 74.1 | 73.4 | 73.5 | 73.3 | 73.5 | 74.2 | 73.2 |
| Employed | 31,525 | 31,185 | 31,911 | 31,238 | 31,200 | 31,444 | 31,598 | 31,584 | 31,585 |
| Employment-population ratio | 71.8 | 71.4 | 71.7 | 71.1 | 71.6 | 71.3 | 71.7 | 72.2 | 71.0 |
| Unemployed | 1,077 | 921 | 1,038 | 989 | 873 | 868 | 816 | 833 | 949 |
| Unemployment rate | 3.3 | 2.9 | 3.1 | 3.1 | 2.7 | 2.7 | 2.5 | 2.6 | 2.9 |
| College graduates | | | | | | | | | |
| Civilian noninstitutional population | 43,948 | 43,028 | 43,247 | 43,948 | 44,888 | 44,265 | 44,821 | 45,058 | 45,947 |
| Civilian labor force | 35,148 | 36,087 | 36,242 | 36,132 | 36,721 | 36,294 | 36,204 | 36,205 | 36,288 |
| Percent of population | 80.0 | 80.1 | 80.1 | 79.9 | 79.4 | 79.5 | 79.9 | 80.4 | 80.1 |
| Employed | 34,471 | 35,268 | 35,643 | 34,488 | 35,108 | 34,855 | 35,185 | 35,640 | 35,878 |
| Employment-population ratio | 78.4 | 78.6 | 78.9 | 78.4 | 78.0 | 78.1 | 78.5 | 78.9 | 78.9 |
| Unemployed | 678 | 689 | 689 | 689 | 615 | 609 | 636 | 665 | 547 |
| Unemployment rate | 1.9 | 1.9 | 1.7 | 1.9 | 1.7 | 1.7 | 1.8 | 1.8 | 1.6 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Includes high school diploma or equivalent.

³ Includes the categories, some college, no degree; and associate degree.

NOTE: Beginning in January 2000, data reflect revised population controls used in the household survey.

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Table A-4. Selected employment indicators

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| CHARACTERISTIC | | | | | | | | | |
| Total employed, 16 years and over | 131,839 | 133,357 | 133,954 | 133,029 | 133,940 | 134,088 | 134,420 | 135,221 | 135,362 |
| Married men, spouse present | 42,757 | 43,644 | 43,187 | 43,077 | 43,208 | 43,273 | 43,283 | 43,951 | 43,535 |
| Married women, spouse present | 33,082 | 34,054 | 33,948 | 33,130 | 33,521 | 33,535 | 33,762 | 34,188 | 33,822 |
| Women who maintain fertility | 8,105 | 8,211 | 8,228 | 8,103 | 8,398 | 8,528 | 8,375 | 8,362 | 8,220 |
| OCCUPATION | | | | | | | | | |
| Managerial and professional specialty | 39,807 | 40,780 | 40,745 | 39,850 | 40,718 | 40,353 | 40,820 | 40,824 | 40,808 |
| Technical, sales, and administrative support | 38,579 | 39,257 | 39,544 | 39,152 | 39,023 | 39,293 | 39,311 | 39,814 | 39,703 |
| Service occupations | 18,000 | 17,829 | 18,271 | 18,000 | 17,894 | 17,833 | 17,708 | 18,155 | 18,344 |
| Precision production, craft, and repair | 14,477 | 14,435 | 14,505 | 14,082 | 14,838 | 14,903 | 14,940 | 14,610 | 14,881 |
| Operators, fabricators, and laborers | 17,848 | 18,057 | 17,828 | 18,087 | 18,340 | 18,476 | 18,289 | 18,385 | 18,279 |
| Farming, forestry, and fishing | 2,828 | 2,969 | 3,080 | 3,489 | 3,385 | 3,407 | 3,367 | 3,574 | 3,530 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture: | | | | | | | | | |
| Wage and salary workers | 1,848 | 1,755 | 1,748 | 1,900 | 1,938 | 2,049 | 2,018 | 2,024 | 2,025 |
| Self-employed workers | 1,220 | 1,172 | 1,180 | 1,376 | 1,287 | 1,216 | 1,211 | 1,320 | 1,344 |
| Unpaid family workers | 28 | 32 | 33 | 43 | 42 | 41 | 38 | 38 | 51 |
| Nonagricultural industries: | | | | | | | | | |
| Wage and salary workers | 120,119 | 121,852 | 122,346 | 120,867 | 121,854 | 121,985 | 122,428 | 122,823 | 123,186 |
| Government | 19,027 | 19,317 | 19,886 | 18,783 | 18,817 | 18,902 | 18,859 | 19,013 | 19,394 |
| Private industries | 101,093 | 102,335 | 102,880 | 102,184 | 102,837 | 103,083 | 103,467 | 103,810 | 103,772 |
| Private households | 832 | 905 | 983 | 861 | 939 | 944 | 948 | 952 | 1,018 |
| Other industries | 100,261 | 101,430 | 101,898 | 101,323 | 101,898 | 102,119 | 102,519 | 102,858 | 102,756 |
| Self-employed workers | 8,511 | 8,643 | 8,555 | 8,733 | 8,833 | 8,696 | 8,852 | 8,802 | 8,793 |
| Unpaid family workers | 114 | 102 | 79 | 108 | 101 | 108 | 99 | 92 | 74 |
| PERSONS AT WORK PART TIME | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 3,594 | 3,535 | 3,298 | 3,425 | 3,179 | 3,274 | 3,320 | 3,219 | 3,139 |
| Slack work or business conditions | 2,174 | 2,250 | 1,979 | 1,985 | 1,828 | 1,930 | 1,951 | 1,899 | 1,807 |
| Could only find part-time work | 1,132 | 953 | 1,027 | 1,131 | 983 | 1,032 | 1,025 | 1,012 | 1,023 |
| Part time for noneconomic reasons | 19,481 | 19,153 | 19,949 | 19,977 | 19,799 | 19,651 | 19,818 | 19,959 | 19,931 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 3,443 | 3,355 | 3,139 | 3,282 | 2,983 | 3,105 | 3,157 | 3,088 | 2,983 |
| Slack work or business conditions | 2,085 | 2,140 | 1,874 | 1,900 | 1,807 | 1,815 | 1,843 | 1,801 | 1,705 |
| Could only find part-time work | 1,100 | 935 | 1,015 | 1,101 | 984 | 1,013 | 1,018 | 986 | 1,005 |
| Part time for noneconomic reasons | 18,964 | 18,877 | 19,290 | 18,094 | 18,249 | 18,083 | 18,081 | 18,347 | 18,406 |

NOTE: Persons at work excludes employed persons who were absent from their jobs during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time

but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and bad weather. Beginning in January 2000, data reflect revised population controls used in the household survey.

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Table A-5. Selected unemployment indicators, seasonally adjusted

| Category | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---|---|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| CHARACTERISTIC | | | | | | | | | |
| Total, 16 years and over | 6,108 | 5,689 | 5,804 | 4.4 | 4.1 | 4.1 | 4.1 | 4.0 | 4.1 |
| Men, 20 years and over | 2,594 | 2,332 | 2,429 | 3.7 | 3.5 | 3.3 | 3.3 | 3.3 | 3.4 |
| Women, 20 years and over | 2,330 | 2,297 | 2,178 | 3.8 | 3.5 | 3.6 | 3.6 | 3.7 | 3.5 |
| Both sexes, 16 to 19 years | 1,194 | 1,060 | 1,197 | 14.2 | 13.8 | 14.0 | 13.8 | 12.6 | 14.1 |
| Married men, spouse present | 1,043 | 891 | 928 | 2.4 | 2.2 | 2.1 | 2.2 | 2.0 | 2.1 |
| Married women, spouse present | 959 | 925 | 897 | 2.8 | 2.5 | 2.5 | 2.5 | 2.6 | 2.6 |
| Women who maintain families | 562 | 554 | 539 | 6.5 | 6.0 | 6.0 | 6.2 | 6.2 | 6.1 |
| Full-time workers | 4,893 | 4,554 | 4,595 | 4.3 | 4.0 | 3.9 | 3.9 | 3.9 | 3.9 |
| Part-time workers | 1,202 | 1,112 | 1,191 | 4.9 | 4.7 | 4.9 | 4.9 | 4.6 | 4.9 |
| OCCUPATION² | | | | | | | | | |
| Managerial and professional specialty | 786 | 767 | 680 | 1.9 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 |
| Technical, sales, and administrative support | 1,587 | 1,382 | 1,526 | 3.9 | 3.5 | 3.6 | 3.6 | 3.4 | 3.7 |
| Precision production, craft, and repair | 691 | 595 | 644 | 4.3 | 4.0 | 3.7 | 4.0 | 3.7 | 4.2 |
| Operators, fabricators, and laborers | 1,171 | 1,126 | 1,185 | 6.1 | 6.3 | 6.2 | 6.1 | 6.1 | 6.1 |
| Farming, forestry, and fishing | 284 | 178 | 218 | 7.6 | 5.8 | 6.7 | 5.8 | 4.7 | 5.7 |
| INDUSTRY | | | | | | | | | |
| Nonagricultural private wage and salary workers | 4,654 | 4,575 | 4,530 | 4.4 | 4.2 | 4.2 | 4.1 | 4.2 | 4.2 |
| Goods-producing industries | 1,334 | 1,182 | 1,265 | 4.7 | 4.5 | 4.2 | 4.4 | 4.1 | 4.4 |
| Mining | 40 | 14 | 20 | 7.1 | 5.0 | 4.6 | 4.1 | 2.6 | 4.0 |
| Construction | 534 | 494 | 562 | 7.4 | 6.7 | 5.7 | 6.6 | 6.4 | 7.5 |
| Manufacturing | 790 | 654 | 692 | 3.7 | 3.7 | 3.7 | 3.6 | 3.2 | 3.3 |
| Durable goods | 420 | 344 | 368 | 3.3 | 3.5 | 3.7 | 3.6 | 2.8 | 3.0 |
| Nondurable goods | 340 | 311 | 315 | 4.3 | 4.0 | 3.7 | 3.5 | 3.9 | 3.8 |
| Service-producing industries | 3,320 | 3,413 | 3,274 | 4.2 | 4.1 | 4.1 | 4.0 | 4.3 | 4.1 |
| Transportation and public utilities | 342 | 254 | 249 | 3.1 | 3.1 | 3.3 | 3.0 | 3.7 | 3.2 |
| Wholesale and retail trade | 1,445 | 1,427 | 1,467 | 5.2 | 4.9 | 5.3 | 5.2 | 5.1 | 5.3 |
| Finance, insurance, and real estate | 195 | 201 | 230 | 2.4 | 2.3 | 2.3 | 2.1 | 2.5 | 2.9 |
| Services | 1,438 | 1,501 | 1,328 | 4.1 | 4.0 | 3.9 | 3.8 | 4.2 | 3.7 |
| Government workers | 436 | 402 | 426 | 2.8 | 2.1 | 2.0 | 2.1 | 2.1 | 2.2 |
| Agricultural wage and salary workers | 229 | 106 | 140 | 10.8 | 7.7 | 8.3 | 7.1 | 5.9 | 6.5 |

¹ Employment as a percent of the civilian labor force.² Seasonally adjusted unemployment data for service occupations are not available because the seasonal component, which is small relative to the trend-cycle and irregular

components, cannot be separated with sufficient precision.

NOTE: Beginning in January 2000, data reflect revised population controls used in the household survey.

Table A-6. Duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,497 | 2,985 | 2,517 | 2,585 | 2,545 | 2,601 | 2,620 | 2,447 | 2,833 |
| 5 to 14 weeks | 2,396 | 1,865 | 2,313 | 1,925 | 1,811 | 1,780 | 1,694 | 1,754 | 1,884 |
| 15 weeks and over | 1,881 | 1,414 | 1,401 | 1,339 | 1,494 | 1,401 | 1,386 | 1,372 | 1,277 |
| 15 to 26 weeks | 664 | 656 | 772 | 754 | 719 | 725 | 693 | 667 | 673 |
| 27 weeks and over | 816 | 758 | 629 | 785 | 715 | 676 | 696 | 705 | 604 |
| Average (mean) duration, in weeks | 13.8 | 12.5 | 12.5 | 13.8 | 13.2 | 13.0 | 12.8 | 13.2 | 12.5 |
| Median duration, in weeks | 7.4 | 5.4 | 6.6 | 6.9 | 6.3 | 6.2 | 5.9 | 5.7 | 6.1 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 36.0 | 47.7 | 40.4 | 42.7 | 44.0 | 45.1 | 45.9 | 43.8 | 45.3 |
| 5 to 14 weeks | 36.3 | 29.8 | 37.1 | 31.8 | 31.3 | 30.5 | 29.7 | 31.5 | 32.5 |
| 15 weeks and over | 25.6 | 22.6 | 22.5 | 25.4 | 24.8 | 24.3 | 24.3 | 24.6 | 22.2 |
| 15 to 26 weeks | 13.2 | 10.5 | 12.4 | 12.5 | 12.4 | 12.6 | 12.2 | 12.0 | 11.7 |
| 27 weeks and over | 12.4 | 12.1 | 10.1 | 13.0 | 12.3 | 11.7 | 12.2 | 12.7 | 10.5 |

NOTE: Beginning in January 2000, data reflect revised population controls used in the household survey.

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Table A-7. Reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 3,151 | 3,102 | 3,029 | 2,721 | 2,518 | 2,490 | 2,401 | 2,477 | 2,816 |
| On temporary layoff | 1,159 | 1,169 | 1,134 | 854 | 802 | 851 | 795 | 739 | 838 |
| Not on temporary layoff | 1,993 | 1,933 | 1,895 | 1,867 | 1,716 | 1,642 | 1,606 | 1,739 | 1,778 |
| Permanent job losers | 1,308 | 1,228 | 1,281 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Persons who completed temporary jobs | 685 | 711 | 614 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Job leavers | 765 | 760 | 777 | 750 | 778 | 821 | 825 | 775 | 759 |
| Reentrants | 2,182 | 2,092 | 2,067 | 2,080 | 1,868 | 1,835 | 2,036 | 2,043 | 1,975 |
| New entrants | 468 | 336 | 357 | 486 | 511 | 485 | 453 | 383 | 387 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 48.0 | 49.5 | 48.6 | 44.9 | 43.7 | 43.5 | 42.0 | 43.5 | 45.8 |
| On temporary layoff | 17.7 | 18.6 | 18.2 | 14.1 | 13.9 | 14.8 | 13.9 | 13.0 | 14.6 |
| Not on temporary layoff | 30.4 | 30.8 | 30.4 | 30.8 | 29.8 | 28.6 | 28.1 | 30.6 | 31.0 |
| Job leavers | 11.6 | 12.2 | 12.5 | 12.4 | 13.5 | 14.3 | 14.4 | 13.6 | 13.2 |
| Reentrants | 33.2 | 32.9 | 33.2 | 34.5 | 34.0 | 33.7 | 35.6 | 35.9 | 34.4 |
| New entrants | 7.1 | 5.4 | 5.7 | 8.2 | 8.9 | 8.5 | 7.9 | 6.9 | 6.7 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2.3 | 2.2 | 2.2 | 2.0 | 1.8 | 1.8 | 1.7 | 1.8 | 1.9 |
| Job leavers | .8 | .9 | .8 | .5 | .6 | .6 | .6 | .6 | .5 |
| Reentrants | 1.6 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.5 | 1.4 | 1.4 |
| New entrants | .3 | .2 | .3 | .4 | .4 | .3 | .3 | .3 | .3 |

¹ Not available.

NOTE: Beginning in January 2000, data reflect revised population controls used in the

household survey.

Table A-8. Range of alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 1.2 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | .9 |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.3 | 2.2 | 2.2 | 2.0 | 1.8 | 1.8 | 1.7 | 1.8 | 1.8 |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 4.7 | 4.5 | 4.4 | 4.4 | 4.1 | 4.1 | 4.1 | 4.0 | 4.1 |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 4.9 | 4.8 | 4.8 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 5.8 | 5.3 | 5.3 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 8.2 | 7.8 | 7.8 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |

¹ Not available.

NOTE: This range of alternative measures of labor underutilization replaces the U1-U7 range published in table A-7 of this release prior to 1994. Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently

looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures," in the October 1999 issue of the *Monthly Labor Review*. Beginning in January 2000, data reflect revised population controls used in the household survey.

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Table A-9. Unemployed persons by sex and age, seasonally adjusted

| Age and sex | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|---------------------------------------|---|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Jan. 2000 | Feb. 2000 | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 | Feb. 2000 |
| Total, 16 years and over | 8,108 | 5,689 | 5,904 | 4.4 | 4.1 | 4.1 | 4.1 | 4.0 | 4.1 |
| 16 to 24 years | 2,262 | 2,119 | 2,287 | 10.2 | 10.0 | 10.0 | 9.8 | 9.3 | 10.0 |
| 16 to 19 years | 1,194 | 1,000 | 1,197 | 14.2 | 13.8 | 14.0 | 13.8 | 12.6 | 14.1 |
| 16 to 17 years | 526 | 465 | 529 | 15.8 | 15.9 | 16.5 | 16.5 | 14.0 | 15.9 |
| 18 to 19 years | 654 | 577 | 653 | 13.0 | 12.4 | 12.3 | 12.1 | 11.4 | 12.8 |
| 20 to 24 years | 1,058 | 1,059 | 1,071 | 7.7 | 7.7 | 7.7 | 7.4 | 7.4 | 7.5 |
| 25 years and over | 3,630 | 3,578 | 3,520 | 3.3 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 25 to 54 years | 3,338 | 3,089 | 2,997 | 3.4 | 3.1 | 3.1 | 3.0 | 3.1 | 3.0 |
| 55 years and over | 503 | 494 | 548 | 2.9 | 2.7 | 2.8 | 2.7 | 2.8 | 3.0 |
| Men, 16 years and over | 3,232 | 2,946 | 3,121 | 4.3 | 4.1 | 4.0 | 4.0 | 3.9 | 4.1 |
| 16 to 24 years | 1,197 | 1,150 | 1,236 | 10.3 | 10.4 | 10.2 | 10.6 | 9.7 | 10.3 |
| 16 to 19 years | 648 | 613 | 691 | 14.9 | 14.2 | 14.9 | 15.2 | 14.0 | 15.5 |
| 16 to 17 years | 274 | 246 | 312 | 16.0 | 15.5 | 16.9 | 17.7 | 14.3 | 17.3 |
| 18 to 19 years | 361 | 364 | 367 | 13.9 | 13.2 | 13.6 | 13.5 | 13.7 | 13.9 |
| 20 to 24 years | 549 | 537 | 544 | 7.6 | 8.2 | 7.5 | 7.8 | 7.2 | 7.3 |
| 25 years and over | 2,010 | 1,800 | 1,851 | 3.2 | 2.9 | 2.8 | 2.8 | 2.8 | 2.9 |
| 25 to 54 years | 1,714 | 1,552 | 1,574 | 3.2 | 3.0 | 2.9 | 2.8 | 2.9 | 2.9 |
| 55 years and over | 286 | 248 | 281 | 2.9 | 2.8 | 2.6 | 2.5 | 2.5 | 2.8 |
| Women, 16 years and over | 2,876 | 2,743 | 2,683 | 4.4 | 4.2 | 4.2 | 4.1 | 4.2 | 4.1 |
| 16 to 24 years | 1,055 | 989 | 1,032 | 10.0 | 9.6 | 9.8 | 8.9 | 8.9 | 9.6 |
| 16 to 19 years | 548 | 447 | 505 | 13.4 | 13.4 | 13.0 | 12.2 | 11.1 | 12.6 |
| 16 to 17 years | 252 | 219 | 217 | 15.5 | 16.3 | 16.1 | 15.1 | 13.7 | 14.3 |
| 18 to 19 years | 293 | 213 | 286 | 12.0 | 11.4 | 10.8 | 10.5 | 8.9 | 11.6 |
| 20 to 24 years | 519 | 522 | 526 | 7.9 | 7.2 | 7.9 | 7.0 | 7.6 | 7.8 |
| 25 years and over | 1,620 | 1,778 | 1,659 | 3.4 | 3.1 | 3.1 | 3.2 | 3.2 | 3.0 |
| 25 to 54 years | 1,622 | 1,537 | 1,424 | 3.5 | 3.2 | 3.3 | 3.2 | 3.3 | 3.0 |
| 55 years and over | 217 | 245 | 286 | 2.8 | 2.5 | 2.6 | 2.8 | 3.1 | 3.3 |

¹ Unemployment as a percent of the civilian labor force.

NOTE: Beginning in January 2000, data reflect revised population controls used in the

household survey.

Table A-10. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Feb. 1999 | Feb. 2000 | Feb. 1999 | Feb. 2000 | Feb. 1999 | Feb. 2000 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 68,871 | 68,723 | 25,562 | 25,522 | 43,109 | 43,200 |
| Persons who currently want a job | 4,703 | 4,431 | 1,878 | 1,743 | 2,825 | 2,688 |
| Searched for work and available to work now ¹ | 1,279 | 1,273 | 592 | 577 | 686 | 697 |
| Reason not currently looking: | | | | | | |
| Discouragement over job prospects ² | 271 | 282 | 170 | 159 | 100 | 103 |
| Reasons other than discouragement ³ | 1,008 | 1,011 | 422 | 418 | 586 | 584 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 8,044 | 7,735 | 4,264 | 4,037 | 3,780 | 3,698 |
| Percent of total employed | 6.1 | 5.8 | 6.1 | 5.7 | 6.1 | 5.9 |
| Primary job full time, secondary job part time | 4,386 | 4,267 | 2,551 | 2,465 | 1,845 | 1,802 |
| Primary and secondary jobs both part time | 1,763 | 1,802 | 975 | 970 | 1,187 | 1,131 |
| Primary and secondary jobs both full time | 278 | 290 | 174 | 181 | 102 | 109 |
| Hours vary on primary or secondary job | 1,563 | 1,547 | 832 | 809 | 631 | 638 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.² Includes those who do not actively look for work in the prior 4 weeks for such reasons as child-care and transportation problems, as well as a small number for

which reason for nonparticipation was not determined.

³ Includes persons who work part time on their primary job and full time on their

secondary job(s), not shown separately.

NOTE: Beginning in January 2000, data reflect revised population controls used in the household survey.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|-----------|-----------|------------|------------|
| | Feb. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P |
| Total | 126,229 | 130,718 | 126,125 | 128,782 | 127,730 | 129,332 | 129,589 | 129,898 | 130,282 | 130,325 |
| Total private | 105,672 | 110,046 | 107,843 | 108,086 | 107,676 | 108,095 | 108,320 | 109,583 | 109,814 | 109,844 |
| Goods-producing | 24,726 | 25,195 | 24,821 | 24,787 | 25,329 | 25,198 | 25,257 | 25,283 | 25,419 | 25,400 |
| Mining | 540 | 529 | 519 | 520 | 553 | 528 | 527 | 529 | 528 | 530 |
| Metal mining | 49.2 | 48.2 | 48.0 | 47.6 | 50 | 48 | 48 | 48 | 48 | 48 |
| Coal mining | 87.8 | 82.7 | 80.1 | 79.2 | 88 | 82 | 82 | 82 | 80 | 79 |
| Oil and gas extraction | 301.2 | 292.6 | 291.1 | 291.9 | 308 | 289 | 288 | 291 | 292 | 294 |
| Nonmetallic minerals, except fuels | 101.3 | 105.3 | 98.9 | 101.2 | 108 | 109 | 108 | 108 | 108 | 108 |
| Construction | 5,747 | 6,291 | 6,022 | 5,975 | 6,238 | 6,314 | 6,309 | 6,303 | 6,508 | 6,483 |
| General building contractors | 1,348.8 | 1,443.1 | 1,410.8 | 1,398.2 | 1,428 | 1,445 | 1,450 | 1,454 | 1,475 | 1,475 |
| Heavy construction, except building | 740.0 | 832.2 | 781.8 | 755.4 | 859 | 851 | 870 | 878 | 932 | 934 |
| Special trade contractors | 3,657.0 | 4,015.9 | 3,850.2 | 3,823.2 | 3,943 | 4,008 | 4,049 | 4,081 | 4,132 | 4,124 |
| Manufacturing | 18,439 | 18,375 | 18,280 | 18,292 | 18,538 | 18,356 | 18,361 | 18,361 | 18,382 | 18,387 |
| Production workers | 12,661 | 12,630 | 12,545 | 12,569 | 12,730 | 12,608 | 12,613 | 12,613 | 12,633 | 12,637 |
| Durable goods | 10,986 | 10,980 | 10,935 | 10,951 | 11,027 | 10,932 | 10,954 | 10,980 | 10,974 | 10,994 |
| Production workers | 7,504 | 7,512 | 7,471 | 7,494 | 7,529 | 7,489 | 7,487 | 7,485 | 7,506 | 7,522 |
| Lumber and wood products | 812.2 | 827.2 | 818.4 | 817.9 | 827 | 828 | 829 | 829 | 829 | 831 |
| Furniture and fixtures | 536.3 | 545.1 | 543.5 | 544.4 | 535 | 548 | 544 | 543 | 543 | 544 |
| Stone, clay, and glass products | 552.5 | 588.2 | 555.7 | 553.6 | 571 | 568 | 571 | 574 | 575 | 572 |
| Primary metal industries | 684.6 | 690.0 | 687.1 | 688.3 | 685 | 685 | 686 | 687 | 686 | 689 |
| Best nonferrous and basic steel products | 223.0 | 222.2 | 221.8 | 221.4 | (1) | (1) | (1) | (1) | (1) | (1) |
| Fabricated metal products | 1,480.3 | 1,494.5 | 1,491.8 | 1,482.3 | 1,491 | 1,487 | 1,489 | 1,489 | 1,490 | 1,492 |
| Industrial machinery and equipment | 2,148.9 | 2,133.3 | 2,116.5 | 2,123.7 | 2,148 | 2,116 | 2,118 | 2,120 | 2,118 | 2,122 |
| Computer and office equipment | 380.4 | 357.8 | 355.5 | 353.9 | 382 | 359 | 358 | 359 | 357 | 357 |
| Electronic and other electrical equipment | 1,856.7 | 1,871.8 | 1,888.6 | 1,874.2 | 1,859 | 1,885 | 1,881 | 1,884 | 1,870 | 1,878 |
| Electronic components and accessories | 635.4 | 645.7 | 645.9 | 648.8 | 638 | 643 | 643 | 645 | 646 | 651 |
| Transportation equipment | 1,886.7 | 1,841.2 | 1,836.0 | 1,838.1 | 1,871 | 1,838 | 1,834 | 1,831 | 1,841 | 1,843 |
| Motor vehicles and equipment | 986.2 | 1,009.8 | 1,005.3 | 1,010.4 | 989 | 1,001 | 1,000 | 1,001 | 1,010 | 1,015 |
| Aircraft and parts | 509.9 | 496.5 | 484.9 | 481.7 | 510 | 471 | 467 | 464 | 463 | 462 |
| Instruments and related products | 846.8 | 831.9 | 830.0 | 830.9 | 847 | 830 | 833 | 833 | 832 | 832 |
| Miscellaneous manufacturing | 382.3 | 388.3 | 386.4 | 388.8 | 385 | 388 | 389 | 391 | 382 | 391 |
| Nondurable goods | 7,453 | 7,395 | 7,345 | 7,341 | 7,511 | 7,404 | 7,407 | 7,401 | 7,408 | 7,383 |
| Production workers | 5,157 | 5,118 | 5,074 | 5,075 | 5,201 | 5,119 | 5,128 | 5,128 | 5,127 | 5,115 |
| Food and kindred products | 1,658.8 | 1,673.8 | 1,654.2 | 1,648.9 | 1,696 | 1,686 | 1,686 | 1,686 | 1,682 | 1,682 |
| Tobacco products | 41.1 | 41.7 | 44.2 | 43.2 | 40 | 38 | 38 | 38 | 42 | 42 |
| Textile mill products | 572.1 | 551.2 | 546.7 | 546.4 | 575 | 551 | 553 | 551 | 549 | 549 |
| Apparel and other textile products | 701.9 | 658.9 | 650.0 | 652.9 | 707 | 686 | 683 | 682 | 658 | 658 |
| Paper and allied products | 661.9 | 655.1 | 652.6 | 651.2 | 684 | 655 | 655 | 655 | 654 | 653 |
| Printing and publishing | 1,555.0 | 1,555.1 | 1,548.2 | 1,544.7 | 1,559 | 1,552 | 1,549 | 1,547 | 1,548 | 1,548 |
| Chemicals and allied products | 1,037.2 | 1,030.4 | 1,027.8 | 1,028.8 | 1,041 | 1,033 | 1,033 | 1,030 | 1,032 | 1,032 |
| Petroleum and coal products | 134.9 | 133.9 | 131.3 | 131.3 | 138 | 136 | 136 | 135 | 136 | 135 |
| Rubber and misc. plastics products | 1,014.4 | 1,023.5 | 1,021.6 | 1,024.2 | 1,015 | 1,021 | 1,022 | 1,022 | 1,025 | 1,024 |
| Leather and leather products | 73.9 | 71.3 | 70.7 | 69.5 | 76 | 72 | 71 | 71 | 71 | 70 |
| Service-producing | 101,503 | 105,523 | 103,304 | 103,995 | 102,401 | 104,134 | 104,332 | 104,615 | 104,883 | 104,825 |
| Transportation and public utilities | 6,691 | 6,949 | 6,828 | 6,833 | 6,723 | 6,841 | 6,882 | 6,887 | 6,882 | 6,884 |
| Transportation | 4,316 | 4,557 | 4,457 | 4,445 | 4,367 | 4,468 | 4,474 | 4,501 | 4,504 | 4,487 |
| Railroad transportation | 229.6 | 226.5 | 228.5 | 228.7 | 233 | 227 | 226 | 227 | 230 | 230 |
| Local and interurban passenger transit | 487.5 | 503.2 | 498.2 | 500.8 | 478 | 486 | 487 | 487 | 480 | 488 |
| Trucking and warehousing | 1,749.7 | 1,842.4 | 1,805.7 | 1,804.8 | 1,789 | 1,828 | 1,839 | 1,845 | 1,848 | 1,845 |
| Water transportation | 173.0 | 176.4 | 172.5 | 172.5 | 181 | 182 | 180 | 182 | 180 | 181 |
| Transportation by air | 1,292.1 | 1,322.6 | 1,293.5 | 1,298.0 | 1,215 | 1,251 | 1,257 | 1,273 | 1,272 | 1,289 |
| Pipelines, except natural gas | 13.9 | 13.1 | 13.0 | 12.9 | 14 | 13 | 13 | 13 | 13 | 13 |
| Transportation services | 480.4 | 472.8 | 467.5 | 466.8 | 462 | 471 | 472 | 474 | 470 | 471 |
| Communications and public utilities | 2,345 | 2,382 | 2,391 | 2,396 | 2,356 | 2,383 | 2,386 | 2,386 | 2,398 | 2,397 |
| Communications | 1,501.1 | 1,580.9 | 1,563.8 | 1,563.8 | 1,507 | 1,541 | 1,546 | 1,553 | 1,556 | 1,559 |
| Electric, gas, and sanitary services | 844.3 | 801.1 | 827.1 | 832.7 | 849 | 842 | 842 | 843 | 842 | 838 |
| Wholesale trade | 6,882 | 7,082 | 7,048 | 7,058 | 6,837 | 7,084 | 7,070 | 7,086 | 7,107 | 7,115 |
| Durable goods | 4,080 | 4,201 | 4,188 | 4,188 | 4,188 | 4,188 | 4,204 | 4,213 | 4,217 | 4,217 |
| Nondurable goods | 2,802 | 2,881 | 2,859 | 2,869 | 2,837 | 2,876 | 2,876 | 2,884 | 2,894 | 2,898 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nontfarm payrolls by industry

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|------------|---------------------|-----------|-----------|-----------|------------|------------|
| | Feb. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P |
| Total private | 34.3 | 34.6 | 34.4 | 34.2 | 34.6 | 34.5 | 34.5 | 34.5 | 34.6 | 34.5 |
| Goods-producing | 40.5 | 41.5 | 40.8 | 40.9 | 41.0 | 41.1 | 41.3 | 40.9 | 41.2 | 41.4 |
| Mining | 42.7 | 44.4 | 44.4 | 44.3 | 43.0 | 44.1 | 44.2 | 44.2 | 45.0 | 44.8 |
| Construction | 38.0 | 38.7 | 38.3 | 38.6 | 39.2 | 39.1 | 40.0 | 38.9 | 38.4 | 39.9 |
| Manufacturing | 41.3 | 42.5 | 41.6 | 41.6 | 41.6 | 41.8 | 41.7 | 41.6 | 41.7 | 41.9 |
| Overtime hours | 4.2 | 5.1 | 4.5 | 4.5 | 4.5 | 4.7 | 4.6 | 4.6 | 4.6 | 4.8 |
| Durable goods | 41.9 | 43.1 | 42.2 | 42.2 | 42.2 | 42.3 | 42.2 | 42.1 | 42.3 | 42.4 |
| Overtime hours | 4.4 | 5.3 | 4.6 | 4.7 | 4.6 | 4.8 | 4.7 | 4.8 | 4.7 | 4.9 |
| Lumber and wood products | 40.3 | 41.3 | 40.7 | 40.5 | 41.1 | 41.1 | 41.1 | 40.9 | 41.1 | 41.1 |
| Furniture and fixtures | 39.8 | 41.1 | 40.1 | 39.7 | 40.3 | 40.2 | 39.9 | 40.0 | 40.2 | 40.3 |
| Stone, clay, and glass products | 42.3 | 43.3 | 42.5 | 42.4 | 43.4 | 43.4 | 43.9 | 43.3 | 43.7 | 43.5 |
| Primary metal industries | 43.7 | 45.3 | 44.7 | 44.5 | 43.8 | 44.3 | 44.3 | 44.4 | 44.6 | 44.6 |
| Blast furnaces and basic steel products | 43.7 | 46.0 | 45.4 | 45.5 | 43.8 | 45.0 | 45.3 | 45.5 | 45.2 | 45.7 |
| Fabricated metal products | 41.8 | 43.2 | 42.2 | 42.2 | 42.1 | 42.1 | 42.1 | 41.9 | 42.2 | 42.5 |
| Industrial machinery and equipment | 42.1 | 43.2 | 42.5 | 42.4 | 42.1 | 42.4 | 42.2 | 42.2 | 42.5 | 42.4 |
| Electronic and other electrical equipment | 41.1 | 42.4 | 41.5 | 41.7 | 41.2 | 41.6 | 41.4 | 41.2 | 41.3 | 41.9 |
| Transportation equipment | 43.9 | 44.9 | 43.8 | 44.0 | 44.0 | 43.9 | 43.5 | 43.3 | 43.8 | 44.1 |
| Motor vehicles and equipment | 45.0 | 46.2 | 45.0 | 45.0 | 45.0 | 45.3 | 44.7 | 44.4 | 45.2 | 45.1 |
| Instruments and related products | 41.5 | 42.5 | 41.4 | 41.3 | 41.3 | 41.5 | 41.5 | 41.6 | 41.2 | 41.2 |
| Miscellaneous manufacturing | 39.6 | 40.4 | 39.1 | 39.3 | 39.7 | 39.8 | 39.6 | 39.9 | 38.4 | 39.5 |
| Nondurable goods | 40.5 | 41.6 | 40.7 | 40.6 | 40.8 | 41.0 | 41.0 | 40.9 | 40.9 | 41.0 |
| Overtime hours | 4.0 | 4.7 | 4.2 | 4.2 | 4.3 | 4.5 | 4.4 | 4.5 | 4.4 | 4.6 |
| Food and kindred products | 41.1 | 42.4 | 41.3 | 41.1 | 41.7 | 42.0 | 41.9 | 41.6 | 41.6 | 41.7 |
| Tobacco products | 37.2 | 44.2 | 41.6 | 41.8 | 38.5 | 41.0 | 42.8 | 43.5 | 43.0 | 43.3 |
| Textile mill products | 40.2 | 41.8 | 40.9 | 41.1 | 40.6 | 41.3 | 41.2 | 41.2 | 40.9 | 41.6 |
| Apparel and other textile products | 37.3 | 38.0 | 37.2 | 37.6 | 37.5 | 37.5 | 37.3 | 37.4 | 37.6 | 37.8 |
| Paper and allied products | 43.0 | 44.2 | 43.3 | 43.0 | 43.5 | 43.5 | 43.5 | 43.2 | 43.2 | 43.5 |
| Printing and publishing | 37.7 | 38.9 | 37.9 | 37.9 | 38.1 | 38.4 | 38.3 | 38.2 | 38.3 | 38.2 |
| Chemicals and allied products | 42.7 | 43.8 | 42.9 | 43.0 | 42.8 | 43.1 | 43.1 | 43.1 | 43.0 | 43.2 |
| Petroleum and coal products | 43.3 | 43.1 | 43.0 | 43.2 | (2) | (2) | (2) | (2) | (2) | (2) |
| Rubber and misc. plastics products | 41.4 | 42.3 | 41.5 | 41.3 | 41.7 | 41.5 | 41.5 | 41.3 | 41.8 | 41.5 |
| Leather and leather products | 37.2 | 37.4 | 36.9 | 37.4 | 37.7 | 37.5 | 37.6 | 36.8 | 37.5 | 38.0 |
| Service-producing | 32.7 | 32.8 | 32.8 | 32.6 | 33.0 | 32.8 | 32.8 | 32.9 | 33.0 | 32.8 |
| Transportation and public utilities | 39.0 | 38.4 | 38.3 | 38.1 | 39.2 | 38.5 | 38.2 | 38.5 | 38.5 | 38.3 |
| Wholesale trade | 38.3 | 38.5 | 38.5 | 38.1 | 38.5 | 38.6 | 38.4 | 38.5 | 38.6 | 38.3 |
| Retail trade | 28.6 | 29.3 | 28.5 | 28.6 | 29.2 | 28.9 | 28.9 | 29.1 | 29.2 | 29.1 |
| Finance, insurance, and real estate | 36.3 | 36.2 | 36.8 | 36.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Services | 32.5 | 32.6 | 32.6 | 32.5 | 32.7 | 32.7 | 32.8 | 32.7 | 32.8 | 32.6 |

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employees on private nontfarm

payrolls.

² These series are not published seasonally adjusted because the seasonal component, which is small relative to the trend-cycle and irregular components, cannot be separated with sufficient precision.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------|------------|-------------------------|-----------|------------|------------|
| | Feb. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P | Feb. 1999 | Dec. 1999 | Jan. 2000P | Feb. 2000P |
| Total private | \$13.10 | \$13.47 | \$13.58 | \$13.56 | \$448.33 | \$466.06 | \$467.15 | \$463.75 |
| Seasonally adjusted | 13.05 | 13.44 | 13.49 | 13.53 | 451.68 | 463.66 | 466.75 | 466.79 |
| Goods-producing | 14.45 | 15.09 | 15.04 | 15.04 | 585.23 | 628.24 | 613.63 | 615.14 |
| Mining | 17.08 | 17.13 | 17.25 | 17.18 | 729.32 | 760.57 | 765.90 | 761.07 |
| Construction | 16.66 | 17.42 | 17.33 | 17.37 | 633.08 | 674.15 | 663.74 | 670.48 |
| Manufacturing | 13.66 | 14.21 | 14.19 | 14.18 | 564.16 | 603.63 | 590.30 | 589.89 |
| Durable goods | 14.12 | 14.73 | 14.71 | 14.70 | 591.63 | 634.86 | 620.76 | 620.34 |
| Lumber and wood products | 11.26 | 11.63 | 11.68 | 11.64 | 453.78 | 480.32 | 475.36 | 471.42 |
| Furniture and fixtures | 11.06 | 11.46 | 11.44 | 11.44 | 440.19 | 471.01 | 458.74 | 454.17 |
| Stone, clay, and glass products | 13.84 | 14.00 | 13.97 | 13.86 | 576.97 | 606.20 | 593.73 | 591.90 |
| Primary metal industries | 15.41 | 16.19 | 16.20 | 16.19 | 673.42 | 733.41 | 724.14 | 720.46 |
| Ist and basic steel products | 18.50 | 19.16 | 19.20 | 19.17 | 806.45 | 861.36 | 871.68 | 872.24 |
| Fabricated metal products | 13.29 | 13.70 | 13.69 | 13.63 | 555.52 | 591.84 | 577.30 | 575.19 |
| Industrial machinery and equipment | 14.72 | 15.36 | 15.35 | 15.35 | 619.71 | 663.55 | 652.36 | 650.84 |
| Electronic and other electrical equipment | 13.25 | 13.70 | 13.73 | 13.72 | 544.58 | 580.88 | 569.80 | 572.12 |
| Transportation equipment | 17.50 | 18.76 | 18.64 | 18.62 | 768.25 | 843.22 | 816.43 | 819.26 |
| Motor vehicles and equipment | 17.71 | 19.29 | 19.07 | 19.07 | 796.95 | 891.20 | 868.15 | 866.15 |
| Instruments and related products | 13.94 | 14.40 | 14.37 | 14.43 | 578.51 | 612.00 | 594.92 | 595.96 |
| Miscellaneous manufacturing | 11.17 | 11.57 | 11.56 | 11.58 | 442.33 | 467.43 | 452.00 | 455.06 |
| Nondurable goods | 12.97 | 13.41 | 13.40 | 13.38 | 525.29 | 557.86 | 545.36 | 543.23 |
| Food and kindred products | 11.91 | 12.29 | 12.24 | 12.21 | 489.50 | 521.10 | 505.51 | 501.83 |
| Tobacco products | 17.80 | 17.97 | 18.16 | 18.14 | 682.18 | 704.27 | 705.46 | 706.25 |
| Textile mill products | 10.80 | 10.84 | 10.83 | 10.83 | 426.12 | 433.11 | 442.95 | 445.11 |
| Apparel and other textile products | 8.85 | 9.03 | 9.02 | 8.98 | 322.65 | 343.14 | 335.54 | 337.65 |
| Paper and allied products | 15.70 | 16.15 | 16.08 | 16.01 | 675.10 | 713.83 | 698.26 | 698.43 |
| Printing and publishing | 13.67 | 14.11 | 14.11 | 14.15 | 515.36 | 548.88 | 534.77 | 538.29 |
| Chemicals and allied products | 17.20 | 17.79 | 17.82 | 17.84 | 734.44 | 779.20 | 764.46 | 767.12 |
| Petroleum and coal products | 21.43 | 21.83 | 21.85 | 22.14 | 927.92 | 940.87 | 930.85 | 936.45 |
| Rubber and misc. plastics products | 12.16 | 12.51 | 12.56 | 12.53 | 503.42 | 529.17 | 521.24 | 517.49 |
| Leather and leather products | 9.56 | 9.92 | 9.98 | 9.93 | 365.63 | 371.01 | 368.26 | 367.84 |
| Service-producing | 12.68 | 12.96 | 13.12 | 13.11 | 414.64 | 425.09 | 430.34 | 427.39 |
| Transportation and public utilities | 15.56 | 15.94 | 15.94 | 15.99 | 606.84 | 612.10 | 610.59 | 609.22 |
| Wholesale trade | 14.38 | 14.91 | 15.05 | 14.93 | 550.75 | 574.04 | 579.43 | 568.63 |
| Retail trade | 8.98 | 9.25 | 9.31 | 9.32 | 256.83 | 271.03 | 265.34 | 266.56 |
| Finance, insurance, and real estate | 14.55 | 14.75 | 14.98 | 14.92 | 526.17 | 533.95 | 551.26 | 536.61 |
| Services | 13.32 | 13.69 | 13.81 | 13.79 | 432.90 | 446.29 | 452.97 | 448.16 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry, seasonally adjusted

| Industry | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 ^P | Feb. 2000 ^P | Percent change from: Jan. 2000-Feb. 2000 |
|--|-----------|-----------|-----------|-----------|------------------------|------------------------|--|
| Total private: | | | | | | | |
| Current dollars | \$13.06 | \$13.39 | \$13.40 | \$13.44 | \$13.49 | \$13.53 | 0.3 |
| Constant (1982) dollars ² | 7.84 | 7.87 | 7.86 | 7.87 | 7.88 | N.A. | (3) |
| Goods-producing | 14.56 | 14.87 | 14.89 | 15.03 | 15.10 | 15.16 | .4 |
| Mining | 16.97 | 17.09 | 16.93 | 17.01 | 17.02 | 17.09 | .4 |
| Construction | 16.83 | 17.27 | 17.31 | 17.42 | 17.43 | 17.55 | .7 |
| Manufacturing | 13.67 | 14.07 | 14.06 | 14.09 | 14.15 | 14.20 | .4 |
| Excluding overtime ⁴ | 12.97 | 13.33 | 13.32 | 13.35 | 13.42 | 13.44 | .1 |
| Service-producing | 12.58 | 12.89 | 12.90 | 12.95 | 12.98 | 13.01 | .2 |
| Transportation and public utilities | 15.51 | 15.76 | 15.81 | 15.94 | 15.86 | 15.95 | .6 |
| Wholesale trade | 14.36 | 14.80 | 14.81 | 14.86 | 14.98 | 14.92 | -.4 |
| Retail trade | 8.95 | 9.18 | 9.20 | 9.26 | 9.24 | 9.29 | .5 |
| Finance, insurance, and real estate | 14.49 | 14.72 | 14.73 | 14.75 | 14.89 | 14.85 | -.3 |
| Services | 13.22 | 13.55 | 13.55 | 13.60 | 13.64 | 13.68 | .3 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was .1 percent from December 1999 to

January 2000, the latest month available.

⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry (1982=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|------------------------|
| | Feb. 1999 | Dec. 1999 | Jan. 2000 ^P | Feb. 2000 ^P | Feb. 1999 | Oct. 1999 | Nov. 1999 | Dec. 1999 | Jan. 2000 ^P | Feb. 2000 ^P |
| Total private | 143.2 | 150.6 | 148.2 | 146.0 | 147.3 | 148.8 | 149.2 | 149.4 | 150.5 | 149.9 |
| Goods-producing | 110.2 | 115.6 | 111.5 | 111.5 | 115.0 | 114.7 | 115.5 | 114.5 | 116.3 | 116.4 |
| Mining | 49.1 | 50.9 | 49.7 | 49.1 | 51.0 | 50.6 | 50.4 | 50.8 | 51.5 | 51.0 |
| Construction | 150.6 | 170.5 | 159.4 | 158.9 | 171.9 | 173.2 | 179.0 | 174.5 | 181.6 | 180.8 |
| Manufacturing | 105.5 | 108.2 | 105.2 | 105.4 | 106.8 | 106.2 | 106.0 | 105.7 | 106.3 | 106.7 |
| Durable goods | 109.8 | 112.9 | 110.0 | 110.3 | 110.8 | 110.5 | 110.2 | 109.8 | 110.7 | 111.4 |
| Lumber and wood products | 142.0 | 148.0 | 144.2 | 143.3 | 147.8 | 147.6 | 147.6 | 146.6 | 147.8 | 148.0 |
| Furniture and fixtures | 133.7 | 140.5 | 136.4 | 135.5 | 134.9 | 137.4 | 136.1 | 135.8 | 136.5 | 137.1 |
| Stone, clay, and glass products | 109.8 | 115.9 | 110.7 | 110.2 | 117.0 | 116.2 | 118.1 | 117.0 | 118.9 | 117.3 |
| Primary metal industries | 89.9 | 92.6 | 91.1 | 90.8 | 90.0 | 89.8 | 90.0 | 90.4 | 90.6 | 91.0 |
| Blast furnaces and basic steel products | 67.7 | 71.3 | 70.3 | 70.4 | 68.0 | 69.9 | 69.9 | 70.2 | 70.2 | 71.0 |
| Fabricated metal products | 116.2 | 120.6 | 117.7 | 117.8 | 117.2 | 118.8 | 118.9 | 118.5 | 117.5 | 118.6 |
| Industrial machinery and equipment | 105.8 | 105.5 | 105.0 | 105.6 | 105.2 | 104.1 | 103.7 | 103.8 | 104.7 | 105.2 |
| Electronic and other electrical equipment | 105.1 | 109.0 | 106.3 | 107.4 | 105.2 | 106.7 | 106.8 | 105.0 | 105.6 | 107.8 |
| Transportation equipment | 125.4 | 127.5 | 123.9 | 124.8 | 125.9 | 124.2 | 122.7 | 122.2 | 124.6 | 125.3 |
| Motor vehicles and equipment | 162.2 | 172.9 | 167.3 | 168.4 | 162.7 | 167.3 | 165.0 | 164.1 | 169.7 | 169.4 |
| Instruments and related products | 75.7 | 76.3 | 73.9 | 73.9 | 75.2 | 75.1 | 75.1 | 74.5 | 73.6 | 73.6 |
| Miscellaneous manufacturing | 96.5 | 102.2 | 98.0 | 98.6 | 99.6 | 100.8 | 100.3 | 101.8 | 100.9 | 100.4 |
| Nondurable goods | 99.7 | 101.8 | 98.6 | 98.6 | 101.5 | 100.4 | 100.4 | 100.1 | 100.3 | 100.3 |
| Food and kindred products | 114.3 | 119.3 | 114.3 | 113.3 | 115.9 | 113.7 | 119.0 | 116.3 | 118.4 | 117.6 |
| Tobacco products | 58.1 | 65.6 | 65.0 | 63.5 | 57.2 | 54.6 | 57.3 | 55.2 | 61.6 | 62.2 |
| Textile mill products | 80.6 | 80.9 | 78.4 | 78.8 | 82.0 | 80.0 | 80.1 | 79.8 | 78.7 | 80.0 |
| Apparel and other textile products | 61.3 | 58.3 | 56.3 | 57.4 | 62.1 | 58.1 | 57.7 | 57.7 | 57.9 | 58.0 |
| Paper and allied products | 105.0 | 107.5 | 104.9 | 104.0 | 106.7 | 105.2 | 105.4 | 105.1 | 104.9 | 105.6 |
| Printing and publishing | 121.2 | 124.8 | 120.4 | 120.5 | 122.8 | 122.6 | 122.0 | 121.4 | 121.6 | 121.8 |
| Chemicals and allied products | 101.6 | 105.1 | 102.9 | 103.6 | 102.0 | 102.8 | 103.2 | 103.4 | 103.5 | 104.1 |
| Petroleum and coal products | 72.7 | 69.5 | 66.0 | 64.7 | 77.4 | 73.2 | 72.4 | 72.0 | 69.5 | 69.7 |
| Rubber and misc. plastics products | 147.8 | 152.9 | 149.8 | 149.7 | 148.5 | 149.2 | 149.4 | 149.5 | 151.3 | 150.4 |
| Leather and leather products | 32.3 | 29.9 | 28.4 | 28.9 | 33.0 | 30.5 | 30.0 | 29.4 | 30.0 | 29.8 |
| Service-producing | 158.0 | 166.2 | 161.8 | 161.4 | 161.8 | 164.1 | 164.4 | 165.0 | 165.8 | 165.0 |
| Transportation and public utilities | 132.0 | 135.3 | 132.2 | 131.6 | 134.1 | 133.3 | 132.7 | 134.0 | 134.7 | 133.6 |
| Wholesale trade | 129.5 | 133.8 | 132.6 | 131.6 | 131.3 | 133.6 | 133.2 | 134.0 | 134.6 | 133.6 |
| Retail trade | 136.4 | 150.3 | 139.8 | 138.8 | 142.9 | 143.1 | 143.3 | 144.7 | 145.4 | 145.0 |
| Finance, insurance, and real estate | 136.2 | 139.7 | 141.1 | 138.3 | 139.6 | 140.6 | 139.7 | 140.6 | 140.9 | 139.8 |
| Services | 195.4 | 203.6 | 201.1 | 201.9 | 198.9 | 204.0 | 205.0 | 204.8 | 206.0 | 204.9 |

¹ See footnote 1, table B-2.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Diffusion indexes of employment change, seasonally adjusted

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Private nonfarm payrolls, 356 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1996 | 49.6 | 64.9 | 50.4 | 55.1 | 61.9 | 60.8 | 57.0 | 62.5 | 57.3 | 63.5 | 59.7 | 61.2 |
| 1997 | 55.2 | 61.0 | 61.9 | 62.8 | 58.8 | 56.3 | 60.7 | 61.0 | 59.4 | 65.4 | 63.6 | 62.1 |
| 1998 | 63.6 | 57.9 | 58.8 | 60.5 | 55.9 | 57.9 | 58.0 | 55.8 | 54.8 | 52.9 | 59.1 | 58.6 |
| 1999 | 54.4 | 58.3 | 52.1 | 58.8 | 51.5 | 57.0 | 57.6 | 50.0 | 55.1 | 57.2 | 57.9 | 57.7 |
| 2000 | P57.9 | P52.6 | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1996 | 62.6 | 62.5 | 63.3 | 63.1 | 63.1 | 64.3 | 64.3 | 62.2 | 64.8 | 64.2 | 66.2 | 63.2 |
| 1997 | 63.8 | 63.6 | 67.7 | 67.3 | 62.6 | 61.7 | 61.4 | 66.2 | 67.3 | 69.9 | 70.8 | 71.2 |
| 1998 | 66.7 | 66.2 | 64.5 | 63.9 | 61.4 | 58.7 | 60.0 | 58.4 | 57.6 | 57.6 | 59.0 | 60.4 |
| 1999 | 60.7 | 55.9 | 59.6 | 54.6 | 56.3 | 56.2 | 56.2 | 59.0 | 57.4 | 59.6 | 60.6 | P61.0 |
| 2000 | P60.8 | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1996 | 62.6 | 65.2 | 64.5 | 65.2 | 64.7 | 64.6 | 67.0 | 65.4 | 65.9 | 66.7 | 68.9 | 66.7 |
| 1997 | 67.4 | 66.3 | 66.6 | 67.0 | 65.6 | 64.9 | 66.3 | 68.4 | 69.7 | 71.3 | 71.3 | 71.9 |
| 1998 | 70.6 | 66.9 | 65.9 | 62.4 | 62.6 | 61.1 | 58.0 | 59.8 | 60.0 | 60.8 | 60.8 | 58.0 |
| 1999 | 61.1 | 58.8 | 57.3 | 59.0 | 55.2 | 57.4 | 56.9 | 61.5 | 61.0 | P59.0 | P61.1 | 58.0 |
| 2000 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1996 | 64.5 | 66.7 | 64.5 | 65.6 | 68.5 | 67.3 | 67.7 | 66.4 | 68.0 | 69.9 | 68.7 | 66.9 |
| 1997 | 69.0 | 67.3 | 68.3 | 66.7 | 69.5 | 70.1 | 70.1 | 70.4 | 70.5 | 69.7 | 69.8 | 71.3 |
| 1998 | 70.4 | 66.3 | 67.1 | 64.0 | 62.1 | 61.7 | 61.8 | 63.8 | 58.8 | 59.0 | 59.3 | 58.6 |
| 1999 | 60.1 | 57.3 | 57.0 | 57.6 | 58.7 | 59.0 | P69.4 | P58.3 | | | | |
| 2000 | | | | | | | | | | | | |
| Manufacturing payrolls, 139 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 1996 | 42.4 | 55.4 | 48.8 | 41.0 | 55.8 | 51.4 | 47.1 | 56.5 | 48.9 | 55.0 | 50.7 | 54.0 |
| 1997 | 50.0 | 52.9 | 53.6 | 56.1 | 52.2 | 53.2 | 51.1 | 55.4 | 53.6 | 62.2 | 61.2 | 55.4 |
| 1998 | 58.6 | 51.8 | 50.4 | 50.4 | 40.6 | 46.8 | 40.3 | 45.3 | 42.1 | 36.3 | 39.9 | 45.0 |
| 1999 | 40.3 | 42.4 | 39.6 | 44.6 | 36.3 | 45.3 | 57.2 | 38.5 | 42.8 | 48.9 | 50.7 | 49.3 |
| 2000 | P52.2 | P50.4 | | | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 1996 | 46.8 | 46.0 | 43.5 | 46.0 | 48.2 | 51.1 | 51.8 | 49.6 | 53.2 | 52.5 | 55.0 | 50.7 |
| 1997 | 51.8 | 51.4 | 57.8 | 56.8 | 54.3 | 51.8 | 53.6 | 55.4 | 59.7 | 68.3 | 65.8 | 64.4 |
| 1998 | 59.4 | 57.9 | 51.8 | 44.2 | 41.7 | 34.9 | 37.4 | 37.1 | 38.1 | 34.2 | 35.6 | 35.3 |
| 1999 | 37.4 | 31.7 | 37.1 | 30.2 | 33.8 | 43.9 | 43.2 | 44.6 | 38.5 | 46.4 | 50.0 | P50.7 |
| 2000 | P50.4 | | | | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 1996 | 41.4 | 46.0 | 45.7 | 47.1 | 46.0 | 48.6 | 52.9 | 50.4 | 51.8 | 51.4 | 52.5 | 51.8 |
| 1997 | 54.7 | 54.0 | 51.4 | 54.3 | 52.5 | 52.2 | 55.4 | 61.2 | 61.5 | 64.7 | 66.2 | 65.1 |
| 1998 | 59.7 | 49.3 | 48.2 | 36.7 | 36.7 | 36.7 | 28.4 | 31.3 | 33.5 | 35.3 | 32.7 | 28.1 |
| 1999 | 33.1 | 29.1 | 28.1 | 36.0 | 30.9 | 34.5 | 36.3 | 44.6 | 45.7 | P40.6 | P47.1 | |
| 2000 | | | | | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 1996 | 43.5 | 47.5 | 45.3 | 45.3 | 50.4 | 49.6 | 50.4 | 48.6 | 51.1 | 55.0 | 54.3 | 50.7 |
| 1997 | 54.7 | 52.5 | 54.0 | 54.0 | 55.4 | 56.8 | 57.2 | 57.9 | 58.3 | 56.5 | 55.4 | 57.2 |
| 1998 | 54.0 | 49.3 | 46.0 | 40.6 | 36.6 | 33.8 | 30.9 | 32.0 | 28.6 | 26.6 | 25.5 | 28.3 |
| 1999 | 32.7 | 25.9 | 28.4 | 29.5 | 29.9 | 31.7 | P35.3 | P34.2 | | | | |
| 2000 | | | | | | | | | | | | |

¹ Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span. Data are centered within the span.

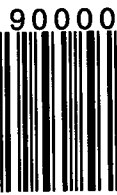
P = preliminary.

NOTE: Figures are the percent of industries with employment increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

| SOP DATE | materials less energy | | | -1 MO CHG- | | -3 MONTH CHANGES- | | | | -6 MONTH CHANGES- | | | | ANNUAL RATE OF CHG | QTR CHG |
|----------|-----------------------|-------------|----------|------------|------|-------------------|------|-------|-------|-------------------|-------|-------|-------|--------------------|---------|
| | INDEX NSA | SEAS FACTRS | INDEX SA | NSA | SA | NSA | SA | NSAAR | SAAR | NSA | SA | NSAAR | SAAR | | |
| 1998.01 | 150.5 | 99.6 | 151.1 | -1.3 | -1.6 | -2.9 | -3.0 | -11.1 | -11.3 | -3.3 | -2.7 | -6.4 | -5.3 | -3.9 | |
| 1998.02 | 150.7 | 100.1 | 150.7 | 0.1 | -0.3 | -2.3 | -3.0 | -9.0 | -11.6 | -4.3 | -4.0 | -7.4 | -7.7 | -5.2 | |
| 1998.03 | 149.2 | 100.3 | 148.7 | -1.0 | -1.3 | -2.2 | -3.2 | -8.4 | -12.2 | -4.4 | -4.6 | -8.5 | -8.9 | -6.5 | -11.6 |
| 1998.04 | 147.6 | 100.3 | 147.2 | -1.1 | -1.0 | -1.9 | -2.6 | -7.5 | -9.9 | -4.8 | -5.5 | -9.7 | -10.6 | -5.6 | |
| 1998.05 | 147.2 | 100.2 | 146.9 | -0.3 | -0.2 | -2.3 | -2.5 | -9.0 | -9.7 | -4.6 | -5.5 | -9.9 | -10.6 | -6.7 | |
| 1998.06 | 146.6 | 100.3 | 146.1 | -0.4 | -0.5 | -1.7 | -1.7 | -6.8 | -6.8 | -3.9 | -4.9 | -7.5 | -9.5 | -6.9 | -9.0 |
| 1998.07 | 143.8 | 100.3 | 143.4 | -1.9 | -1.8 | -2.6 | -2.6 | -9.9 | -9.9 | -4.5 | -5.1 | -3.7 | -9.9 | -7.6 | |
| 1998.08 | 139.8 | 100.3 | 139.4 | -2.8 | -2.8 | -5.0 | -5.1 | -18.6 | -18.9 | -7.2 | -7.5 | -13.9 | -14.4 | -11.2 | |
| 1998.09 | 137.9 | 100.2 | 137.6 | -1.4 | -1.3 | -5.9 | -5.8 | -21.7 | -21.3 | -7.6 | -7.5 | -14.6 | -14.4 | -11.6 | -16.8 |
| 1998.10 | 133.2 | 99.8 | 133.5 | -3.4 | -3.0 | -7.4 | -6.9 | -26.4 | -24.9 | -9.8 | -9.3 | -18.6 | -17.7 | -14.1 | |
| 1998.11 | 130.2 | 99.5 | 130.9 | -2.3 | -1.9 | -6.9 | -6.1 | -24.8 | -22.2 | -11.5 | -10.9 | -21.8 | -20.6 | -15.6 | |
| 1998.12 | 128.1 | 99.4 | 128.9 | -1.6 | -1.5 | -7.1 | -6.3 | -25.5 | -23.0 | -12.6 | -11.8 | -23.6 | -22.2 | -16.0 | -23.3 |
| 1999.01 | 128.8 | 99.5 | 129.4 | 0.5 | 0.4 | -3.3 | -3.1 | -12.6 | -11.7 | -10.4 | -9.8 | -19.8 | -18.6 | -14.4 | |
| 1999.02 | 130.9 | 100.0 | 130.9 | 1.6 | 1.2 | 0.5 | 0.0 | 2.2 | 0.0 | -6.4 | -6.1 | -12.3 | -11.8 | -13.1 | |
| 1999.03 | 129.9 | 100.2 | 129.6 | -0.8 | -1.0 | 1.4 | 0.5 | 5.7 | 2.2 | -5.8 | -5.8 | -11.3 | -11.3 | -12.9 | -3.3 |
| 1999.04 | 129.1 | 100.2 | 128.9 | -0.6 | -0.5 | 0.2 | -0.4 | 0.9 | -1.5 | -3.1 | -3.4 | -6.1 | -6.8 | -12.5 | |
| 1999.05 | 131.4 | 100.2 | 131.1 | 1.8 | 1.7 | 0.4 | 0.2 | 1.5 | 0.6 | 0.9 | 0.2 | 1.9 | 0.3 | -10.7 | |
| 1999.06 | 132.2 | 100.3 | 131.8 | 0.6 | 0.5 | 1.8 | 1.7 | 7.3 | 7.0 | 3.2 | 2.2 | 6.5 | 4.6 | -9.8 | 1.9 |
| 1999.07 | 134.2 | 100.3 | 133.7 | 1.5 | 1.4 | 4.0 | 3.7 | 16.8 | 15.7 | 4.2 | 3.3 | 8.6 | 6.8 | -6.7 | |
| 1999.08 | 136.8 | 100.4 | 136.2 | 1.9 | 1.9 | 4.1 | 3.9 | 17.5 | 16.5 | 4.5 | 4.0 | 9.2 | 8.3 | -2.1 | |
| 1999.09 | 139.1 | 100.3 | 138.7 | 1.7 | 1.8 | 5.2 | 5.2 | 22.6 | 22.6 | 7.1 | 7.0 | 14.7 | 14.5 | 0.9 | 18.3 |
| 1999.10 | 142.5 | 99.8 | 142.8 | 2.4 | 3.0 | 6.2 | 6.8 | 27.1 | 30.1 | 10.4 | 10.8 | 21.8 | 22.7 | 7.0 | |
| 1999.11 | 142.8 | 99.5 | 143.6 | 0.2 | 0.6 | 4.4 | 5.4 | 18.7 | 23.6 | 8.7 | 9.5 | 18.1 | 20.0 | 9.7 | |
| 1999.12 | 145.5 | 99.3 | 146.5 | 1.9 | 2.0 | 4.6 | 5.6 | 19.7 | 24.5 | 10.1 | 11.2 | 21.1 | 23.5 | 13.6 | 26.0 |
| 2000.01 | 150.6 | 99.6 | 151.2 | 3.5 | 3.2 | 5.7 | 5.9 | 24.7 | 25.7 | 12.2 | 13.1 | 25.9 | 27.9 | 16.9 | |

*SEASONALLY ADJUSTED INDEXES FOR THIS SERIES ARE DERIVED FROM SEASONALLY ADJUSTED COMPONENTS. SEASONAL FACTORS FOR THIS SERIES ARE IMPLICITLY DERIVED AND ARE NOT AVAILABLE IN ADVANCE SINCE THEY ARE PARTLY DETERMINED BY THE CURRENT UNADJUSTED VALUES OF COMPONENT SERIES. THE APPLICATION OF AN IMPLICIT FACTOR TO AN UNADJUSTED INDEX MAY NOT YIELD THE SEASONALLY ADJUSTED INDEX SHOWN ON THIS TABLE SINCE BOTH THE UNADJUSTED INDEX AND THE IMPLICIT FACTOR HAVE BEEN ROUNDED.

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**THE ECONOMIC OUTLOOK
AND MONETARY POLICY**

HEARING

before the

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED SIXTH CONGRESS

FIRST SESSION

June 17, 1999

Printed for the use of the Joint Economic Committee



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THE ECONOMIC OUTLOOK AND MONETARY POLICY

Thursday, June 17, 1999

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met pursuant to notice, at 10 a.m., in Room 311, Cannon House Office Building, the Honorable Jim Saxton, Vice Chairman of the Committee, presiding.

Present: Representatives Saxton, Sanford, Campbell, Ryan, Ewing, Stark, Maloney, and Hinchey; Senator Sarbanes.

Staff Present: Chris Frenze, Robert Keleher, Colleen J. Healy, Darryl Evans, Howard Rosen, and Daphne Clones.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

Representative Saxton. Good morning. I am pleased to welcome Federal Reserve Board Chairman Alan Greenspan before the Joint Economic Committee (JEC) once again. This hearing is one in a series of periodic hearings on monetary policy and the economic outlook.

The performance of the economy in recent years has been very strong, and monetary policy has played an important role in fostering and sustaining the current economic expansion. During this expansion, the Federal Reserve's policy of gradually moving to price stability has resulted in declines in inflation, interest rates and unemployment, all at the same time. This is a remarkable achievement and Chairman Greenspan deserves much of the credit for his leadership in monetary policy.

The healthy economic performance has also generated higher than expected revenues for the Federal Government that has replaced the deficit and pushed the budget into surplus. State and local governments have also enjoyed the fiscal bonus from the combination of positive economic changes.

The benefits of the U.S. economic growth also were seen outside our country. The health of the U.S. economy has helped to offset the effects of the financial and economic problems in emerging market economies around the world. The positive impact of the U.S. economic

expansion on the international economy was complemented by a series of well-timed reductions in interest rates by the Federal Reserve last fall to stem the deflation fears and stabilize the international financial markets.

All of this, including the role of Chairman Greenspan, is well-recognized by the American people. What is less known is the specific policy framework the Federal Reserve has used to achieve the positive results in the domestic economy, a policy framework known as inflation targeting.

As the Chairman and I have discussed at previous JEC hearings, the Federal Reserve has essentially adopted an informal policy of inflation targeting and used it to gradually reduce inflation and unemployment, both at the same time.

A serious discussion of this policy is useful to explain what the Fed has done and how it has fostered the extraordinary economic expansion we enjoy today. Personal judgment and wisdom have played an important role, but the framework for policymaking is also critically important.

The success of the Federal Reserve policy is a combination of several factors, but more understanding is needed about the basis for the policy framework itself.

Inflation targets are a narrow range of permissible increases in the broad index expressed as annual percentage increases. For example, an inflation target could be defined as an increase in a retail price index of between zero and, say, 2 percent. Explicit official inflation targeting can be established, as is the case in many countries, or implicit informal targeting can be used, as in other countries such as the United States. Inflation targeting as an approach to achieving price stability has proven particularly effective.

Price stability improves the operation of government of the economy and promotes economic efficiency and growth. Inflation targeting is an approach used to achieve price stability through gradual reductions in inflation that minimize economic disruptions in the short term. As noted previously, during this expansion inflation has been reduced, but unemployment has fallen as well. Only a few years ago many economists would have regarded this outcome as quite improbable and perhaps impossible. Nonetheless, the Fed's approach to inflation targeting shows that gradual reductions in inflation can be associated

with strong economic and employment growth leading to lower unemployment rates.

In addition to its successful monetary policy, recently the Federal Reserve has also made further strides towards increasing transparency. The Fed has improved transparency in recent years by announcing interest rate changes as they occur and also notifying the public about changes in the bias of the policy directive even when rate changes are not made.

The Fed is to be commended for these steps toward greater transparency in monetary policy. Greater transparency improves the quality of information available to market participants and thus limits the potential for unexpected surprises to unsettle financial markets. Explicit inflation targeting would be a further move toward transparency that would also foster increased accountability.

Chairman Greenspan, your testimony this morning is especially welcome at this critical juncture in monetary policy. We look forward to hearing it. However, before we get to your testimony, Mr. Chairman, I would like to recognize the ranking member on the minority side.

[The prepared statement of Representative Saxton appears in the Submissions for the Record.]

OPENING STATEMENT OF REPRESENTATIVE PETE STARK, RANKING MINORITY MEMBER

Representative Stark. Thank you, Mr. Chairman. I want to thank you for having this hearing and for resisting the attempt earlier this week to turn the Joint Economic Committee into the Republican equivalent of the Lincoln bedroom. I appreciate the seriousness of this hearing and your dedication to the task before this Committee. I also want to welcome Chairman Greenspan to the Committee.

I would like to yield to the distinguished Senator from Maryland for his opening statement.

[The prepared statement of Representative Stark appears in the Submissions for the Record.]

OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator Sarbanes. Thank you very much. I want to join with Congressman Stark in thanking Chairman Saxton for convening this hearing and also thanking him for the very serious and concentrated

focus he has brought over a sustained period of time to this issue of monetary policy. I appreciate it very much, Mr. Chairman.

I join with my colleagues in welcoming Chairman Greenspan before the Committee this morning. To put it mildly, there has been intense speculation that the Federal Reserve Open Market Committee (FOMC) will raise interest rates when it meets at the end of the month on the 29th and 30th of June. In part, I think this speculation was triggered by the announcement after the last meeting of the FOMC that, quote, "The committee was concerned about the potential for a build-up of inflationary imbalances that could undermine the favorable performance of the economy and, therefore, adopted a directive that is tilted toward the possibility of affirming the stance of monetary policy."

Even though this may contribute to the speculation, Mr. Chairman, I commend you and your colleagues for the increased transparency that flows from indicating such policy orientations or, you know, which way the Fed is leaning. Although, I must say, you know, this absolute fascination on the part of so many with the Fed, I heard on the radio this morning that, you know, they had people now who are counting the number of times you use the word "inflation" in the course of giving a speech as to be some kind of straw in the wind or signal that they could focus upon.

The announcement of the Committee went on to state, "The Open Market Committee, trend increases in cost, in core prices, have generally remained quite subdued but domestic financial markets have recovered, and foreign economic prospects have improved since the easing of monetary policy last fall." Against the background of an already tight domestic labor markets and ongoing strength in demand and excess of productivity gains, the committee, meaning the Open Market Committee recognizes the need to be alert to developments over the coming months that might indicate the financial conditions may no longer be consistent with containing inflation.

Now, although the announcement did not refer to it, in the view of many observers, a precipitating event for the FOMC's shift from a neutral position to a position inclined toward a rate increase was the unexpectedly sharp increase of seven-tenths of a percent in the Consumer Price Index (CPI) in April. That was the largest monthly increase in nearly nine years. The so-called core Consumer Price Index, which excludes volatile energy and food prices, rose four-tenths of a percent,

significantly above the one-tenth of a percent increase in each of the first three months of the year.

Although it was commonly understood that the monthly price data might be aberrational because of large jumps in prices for a few specific items such as gasoline, tobacco and clothing, the increase still triggered some concern that we had seen a turning point in the inflation performance of the U.S. economy. Well, of course, this led to everyone focusing on yesterday's Consumer Price Index for May figure which, of course, showed no increase in the CPI. Core prices rose only one-tenth of a percent.

It appears then that the increase in the CPI in April was not reflective of deeper inflationary pressures developing in the economy. I am very careful about this because there is a great danger in reading too much into monthly figures. I think it was done in April; I don't want to overread in May. On the other hand, the May figures are consistent with what happened over the first three months of the year. So if you look at the year thus far in 1999, the aberrational figure would seem to be the April figure.

In fact, core inflation has fallen over the past five years. In 1994, when unemployment was last at 6 percent, core CPI rose 2.6 percent. It rose only 2 percent over the last 12 months. For the first five months of this year, core CPI is up at a 1.8 percent annual rate, with unemployment now down in the low 4 percent figures.

Now, there is a chart here, I think, Mr. Chairman, that indicates these movements on the CPI, excluding food and energy, 12-month percent change, and of course, as we can see, this is a very nice performance; and I join with others in commending our policymakers who, I think, have contributed to it. But it is still moving down over there. I mean, I am trying to find what indicators you are looking at, what the FOMC is looking at, if they are going to start moving rates up again, which, as I will indicate in my conclusion, I don't think should be done.

The FOMC referred to the background of already tight domestic labor markets, but it is worth noting that low unemployment has not been creating noticeable labor cost pressures. As a most recent issue of *BusinessWeek* pointed out, any inflation fears based on wage pressures are more illusory than genuine. In the last year, growth rates for both wages and benefits have declined, even as productivity has accelerated.

The employment cost index has risen 3.3 percent in the last year, compared to the 3.7 percent increase registered the year before. Average hourly earnings give the same picture; they are up 3.6 percent in the last 12 months, significantly below the 4.3 percent increase in the previous 12 months. And let me just illustrate that again by a couple of charts.

Here is the employment cost index, private industry, 12-month percent change. The solid line are wages and salaries. The dotted line is benefits, but again, in the sense of concern about an inflation problem, we have had a very, very good performance, and the total compensation – employment cost index, total compensation – again shows a very good performance and is now noticeably moving downwards.

Rising productivity gains mean that cost pressure from the labor side has been easing even more than the wage data suggests. Productive in the nonfinancial corporate sector, a measure that the Chairman Greenspan often refers to, is up 3.7 percent in the last year, the highest in more than a decade, and I know, Mr. Chairman, you testified earlier in the week your concern about how long the productivity gains could continue, and I appreciate that focus.

Labor costs and productivity, taken together, give – unit labor costs have risen only six-tenths of a percent in the last year. Actually, they served as a downward pressure on inflation.

Another indicator of inflation has been capacity utilization. High rates of capacity utilization have been correlated with rising inflation, and lower utilization rates correlate with falling inflation. Now, this expansion we are experiencing has been marked by a strong increase in manufacturing capacity. For the last several years, manufacturing capacity has been rising faster than 5 percent per year for the first time since the 1960s.

With manufacturing output growing somewhat slower than 5 percent, capacity utilization has been declining for the last several years. The Fed reported yesterday that the manufacturing sector was using only 79.7 percent of its capacity in May. That is not only less than the average capacity utilization of 81.1 percent for the last 31 years, but today's level has been associated with falling inflation in the past; and let me just show one final chart on that point.

This is the capacity utilization and the change in the rate of inflation. The solid line is capacity utilization. The dotted line is change in the rate of inflation of consumer prices, less food and energy. So this

is getting at the core figure, and again, we see there tends to be a correlation, and we see the capacity utilization moving down over on the far right, which is of course the current – of the current year, and we see that generally the changes in the rate of inflation have – and the capacity utilization have sort of correlated, one with the other.

This expansion has been marked by a – let me just finally conclude with this observation. A few years ago some economists warned that inflation would rise if the Fed allowed the economy to grow fast enough for unemployment to go below 6 percent. There were figures within the Federal Reserve System who argued strenuously that if the unemployment rate went down below 6 percent the inflation rate would go up. Fortunately, the chairman and others didn't adopt that concept.

We now have had unemployment below 6 percent for five years. The most recent issue of *Business Week* points out that in the absence of strong evidence of inflation, a policy of raising rates preemptively can do enormous damage. If rates had been raised enough to keep unemployment at 6 percent, *Business Week* estimates that the U.S. would have lost about 1 trillion worth of gross domestic product, and two and one half million fewer people would not have jobs today, many of them the poorest members of society.

Unemployment has now been below 5 percent for almost two years, and for more than a year it has gone no higher than 4.5 percent. After two decades of slipping behind, those at the lower end of the economic ladder are finally finding jobs, getting promotions, receiving training and enjoying real wage increases. The Labor Department says that last month unemployment amongst African Americans fell to 7.5 percent, the lowest rate – the lowest rate since separate statistics were first collected in 1973. Teenage unemployment fell to 12 percent. The unemployment rate for adult women fell to 3.6 percent, both the lowest in 30 years.

Now, Mr. Chairman, I know you are sensitive to this aspect of the benefits of sustained economic growth, and I hope the FOMC will keep it in mind as it formulates monetary policy over the coming months. I agree that the FOMC needs to be alert to developments that might indicate that financial conditions may no longer be consistent with containing inflation, but I would suggest that as you look at these figures, a labor cost, the price indices, the capacity utilization, that all of these current conditions are consistent with containing inflation and, therefore, do not provide a basis for an interest rate increase at this time; and I very

much hope that the FOMC won't sort of adopt the so-called preemptive strategy which, without finding any basis or foundation in any of the economic trends, proceeds to kind of move interest rates up. I mean, I understand the problem and I keep searching out these factors.

That is why I have taken – the Chairman's been generous – more than a reasonable amount of time to try to develop these points on these various indices, all of which, it seems to me, do not provide any basis for taking the interest rates up at this time.

Thank you, Mr. Chairman.

Representative Saxton. Mr. Chairman, thank you for being with us this morning. We appreciate your spending this time with us very much.

I would just like to remind everyone of the importance of today's hearing. The world is literally waiting to hear your testimony, Mr. Chairman. Since 1987 you have been with us. You were part of the economic expansion that took part in the 1980s, a 92-month expansion, interrupted only by a mild nine-month recession, whereupon we entered into the current 98-month expansion. We appreciate very much the leadership that you have played as Chairman, and we look forward to hearing your remarks this morning as to where you think we are and where we may be headed.

**STATEMENT OF THE HONORABLE ALAN GREENSPAN,
CHAIRMAN, BOARD OF GOVERNORS
OF THE FEDERAL RESERVE SYSTEM**

Mr. Greenspan. Thank you very much, Mr. Chairman.

Mr. Chairman and Members of the Committee, as emphasized by the important hearings this Committee has held in the past few days, an impressive proliferation of new technologies is inducing major shifts in the underlying structure of the American economy. These fundamental changes appear to be far from complete. The way America does business, including the interaction among the various economic players in our economy, is in the midst of a significant transformation, though the pace of change is unclear.

As a consequence, many of the empirical regularities depicting the complex of economic relationships on which policymakers rely have been markedly altered. The Federal Reserve has thus been pressed to continuously update our understanding of how the newer forces are

developing in order for us to address appropriately our underlying monetary policy objective: maximum sustainable economic growth.

The failure of economic models based on history to anticipate the acceleration in productivity contributed to the recent persistent underprediction of economic growth and overprediction of inflation. Guiding policy by those models doubtless would have unduly inhibited what has been a remarkable run of economic prosperity.

And yet, while we have been adjusting the implicit models of the underlying economic forces on which we base our decisions, certain verities do remain.

Importantly, the evidence has become increasingly persuasive that relatively stable prices, neither persistently rising nor falling, are more predictable and hence result in a lower risk premium for investment. Because the nation's level of investment to a large extent determines our prosperity over time, stability in the general level of prices of goods and services is clearly a necessary condition for maximum sustainable growth.

However, product price stability does not guarantee either the maintenance of financial market stability or maximum sustainable growth.

As recent experience attests, a prolonged period to foster economic prosperity. But as we also observed over recent years as have others in times past, such a benign economic environment can induce investors to take on more risk and drive asset prices to unsustainable levels. This can occur when investors implicitly project rising prosperity further into the future than can reasonably be supported. By 1997, for example, measures of risk had fallen to historic lows as business people, having experienced years of continuous good times, assumed, not unreasonably, that the most likely forecast was more of the same.

The Asian crisis, and especially the Russian devaluation and debt moratorium of August 1998, brought the inevitable rude awakening. In the ensuing weeks, financial markets in the United States virtually seized up, risk premiums soared, and for a period sellers of even investment grade bonds had difficulty finding buyers. The Federal Reserve responded with a three-step reduction in the federal funds rate totaling 75 basis points.

Market strains receded, whether as a consequence of our actions or of other forces, and yield spreads have since fallen but not all the way back to their unduly thin levels of last summer.

The American economy has retained its momentum, and emerging economies in Asia and Latin America are clearly on firmer footing, though in some cases their turnarounds appear fragile. The recovery of financial markets, viewed in isolation, would have suggested that at least part of the emergency injection of liquidity and the associated 75 basis point decline in the funds rate ceased to be necessary, but with wage growth and price inflation declining by a number of measures earlier this year, and productivity evidently still accelerating, thereby keeping inflation in check, we chose to maintain the lower level of the funds rate.

While this stellar noninflationary economic expansion still appears remarkably stress free on the surface, there are developing imbalances that give us pause and raise the question: Do these imbalances place our economic expansion at risk?

For the period immediately ahead, inflationary pressures still seem well contained. To be sure, oil prices have nearly doubled and some other commodity prices have firmed, but large productivity gains have held unit cost increases to negligible levels. Pricing power is still generally reported to be virtually nonexistent. Moreover, the reemergence of rising profit margins after severe problems last fall, indicates cost pressures on prices remain small.

Nonetheless, the persistence of certain imbalances pose a risk to the longer-run outlook. Strong demand for labor has continued to reduce the pool of available workers. Data showing the percent of the relevant population who are not at work, but would like a job, are around the low for this series, which started in 1970.

Despite its extraordinary acceleration, labor productivity has not grown fast enough to accommodate the increased demand for labor induced by the exceptional strength in demand for goods and services.

Overall economic growth during the past three years has averaged four percent annually, of which roughly two percentage points reflected increased productivity and about one point, the growth in our working age population. The remainder was drawn from the ever decreasing pool of available job seekers without work.

This last development represents an unsustainable trend that has been produced by an inclination of households and firms to increase their

spending on goods and services beyond the gains in their income from production. That propensity to spend, in turn, has been spurred by the rise in equity and home prices, which our analysis suggests can account for at least one percentage point of gross domestic product growth over the past three years.

Even if this period of rapid expansion of capital gains comes to an end shortly, there remains a substantial amount in the pipeline to support outsized increases in consumption for many months into the future. Of course, a dramatic contraction in equity market prices would greatly reduce this backlog of extra spending.

To be sure, labor market tightness has not, as yet, put the current expansion at risk. Despite the ever shrinking pool of available labor, recent readings on year-over-year increases in labor compensation have held steady or, by some measures, even eased. This seems to have resulted, in part, from falling inflation, which has implied that relatively modest nominal wage gains have provided healthy increases in purchasing power. Also, a residual fear of job skill obsolescence, which has induced a preference for job security over wage gains, probably is still holding down wage levels.

But should labor markets continue to tighten, significant increases in wages in excess of productivity growth will inevitably emerge, absent the unlikely repeal of the law of supply and demand. Because monetary policy operates with a significant lag, we have to make judgments, not only about the current degree of balance in the economy, but about how the economy is likely to fare a year or more in the future under the current policy stance.

The return of financial markets to greater stability and our growing concerns about emerging imbalances led the Federal Open Market Committee to adopt a policy position at our May meeting that contemplated a possible need for an upward adjustment of the federal funds rate in the months ahead. The issue is what policy setting has the capacity to sustain our remarkable economic expansion, now in its ninth year. This is a question the Federal Open Market Committee will be addressing at its meeting at the end of this month.

One of the important issues for the FOMC as it has made such judgments in recent years has been the weight to place on asset prices. As I have already noted, history suggests that owing to the growing optimism that may develop with extended periods of economic

expansion, asset price values can climb to unsustainable levels even if product prices are relatively stable.

The 1990s have witnessed one of the great bull stock markets in American history. Whether that means an unstable bubble has developed in its wake is difficult to assess. A large number of analysts have judged the level of equity prices to be excessive, even taking into account the rise in so-called "fair value" resulting from the acceleration of productivity and the associated long-term corporate earnings outlook.

But bubbles generally are perceptible only after the fact. To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best.

While bubbles that burst are scarcely benign, the consequences need not be catastrophic for the economy.

The bursting of the Japanese bubble a decade ago did not lead immediately to sharp contractions in output or a significant rise in unemployment. Arguably, it was the subsequent failure to address the damage to the financial system in a timely manner that caused Japan's current economic problems. Likewise, while the stock market crash of 1929 was destabilizing, most analysts attribute the Great Depression to ensuing failures of policy. And certainly the crash of October 1987 left little lasting imprint on the American economy.

This all leads to the conclusion that monetary policy is best primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. Should volatile asset prices cause problems, policy is probably best positioned to address the consequences when the economy is working from a base of stable product prices.

For monetary policy to foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten economic stability. But this may not always be possible. The future at times can be too opaque to penetrate. When we can be preemptive we should be, because modest preemptive actions can obviate the need for more drastic actions at a later date and that could destabilize the economy.

The economic expansion has generated many benefits. It has been a major factor in rebalancing our federal budget, but more important, a broad majority of our people have moved to a higher standard of living,

and we have managed to bring into the productive work force those who have too long been at its periphery. This has enabled large segments of our society to gain skills on the job and the self-esteem associated with work. Our responsibility, at the Federal Reserve and in the Congress, is to create the conditions most likely to preserve and extend the expansion.

Should the economic expansion continue to grow into February of next year, it will have become the longest in America's economic annals. Someday, of course, the expansion will end; human nature has exhibited a tendency to excess through the generations with the inevitable economic hangover. There is nothing in our economic data series to suggest that this propensity has in any way changed. It is the job of economic policymakers to mitigate the fallout when it occurs and hopefully ease the transition to the next expansion.

Thank you very much, Mr. Chairman. I look forward to your questions.

[The prepared statement of Chairman Greenspan appears in the Submissions for the Record.]

Representative Saxton. Thank you, Mr. Chairman. Obviously, from what you have said, you have chosen to pursue policies that have a lot to do with price stability, and your contention is that in promoting policies to that end promotes economic growth and is apparently in some large part responsible for the great period of expansion that you just described.

The top of page six of your testimony states the conclusion that monetary policy is best when it is primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. I would like to pursue this as I think, as apparently you do as well, that this is a critical point.

As a matter of fact, Mr. Chairman, in several JEC hearings over the last several years we have discussed price stability and inflation targeting and monetary policy and, in fact, on several occasions when I asked you whether the Federal Reserve has implemented a policy consistent with what I guess we could refer to as informal inflation targeting during the last decade or so, you have agreed that this has, in fact, been the case.

However, it has been some time, perhaps almost a year, since we last discussed this issue. So let me just ask, has Federal Reserve policy continued to approximate an informal inflation targeting procedure?

Mr. Greenspan. It is certainly safe to say, Mr. Chairman, that – as I indicated in my prepared remarks – we are increasingly persuaded that price stability as a more general concept is and should be the primary focus. I emphasize long-term price stability because it is in the nature of monetary policy that there are a whole series of lags in various different types of markets depending on what it is we do; and so our focus has got to be over the longer run because ultimately our goal, as I stipulated earlier, is indeed maximum sustainable long-term growth.

All those words are relevant; that is, if it cannot be sustained, it implies a degree of instability which is clearly, so far as history is concerned, counter to continuing gains in standards of living and the policy has got to be longer term because the economy of the United States is so sophisticated that to try to in any way create policy which focuses only on the short run and doesn't take into context the broader ranges of the forces that govern us would be very clearly a suboptimal policy.

Representative Saxton. Mr. Chairman, the inflation targeting approach that has produced such positive results in the United States and elsewhere, is fairly straightforward, I believe. A narrow band of permissible increases in a broad price index measure would be chosen and disclosed by the central bank, as is already the case in a number of other countries. The definition of price stability, in terms of inflation targets, is a balanced approach that establishes a firm constraint on inflation, but permits a good deal of flexibility at the same time.

As you have noted in several previous appearances before this Committee, this approximates what the Federal Reserve is already doing and is consistent with recent Fed policy.

Generally speaking, what are the advantages of inflation targeting in your view?

Mr. Greenspan. Mr. Chairman, first of all, let me just say that a price stability goal is not exactly the same as inflation targeting, if there are numbers on those goals. The reason I say that is that even though there have been a number of countries who have embarked upon specific limits and indeed have managed to keep the inflation rate within those limits, there are also a substantial number of other countries who have not embarked on such inflation targeting, and their inflation pattern has been pretty much the same as those who have had specific targeting. So, as a technical matter, we have not yet really had a test as to whether

specific target ranges actually work in the way that a number of the programs which these countries have embarked upon are suggested to do.

I am not saying that in the end they will not appear to have worked in that regard. I am merely saying that we are going to need the type of change in the overall world economy in which there will be pressure to move some countries toward a higher inflation rate and others to a lower one; and if we then find out that the lower ones are predominantly those who embarked upon inflation targeting, that would be pretty conclusive evidence.

Nonetheless, to respond to your question more directly, at the moment and as far into the future as I can perceive, the central bank of this country is going to be focused on price stability, if for no other reason than the evidence is that it contributes to a strong economy, prosperity, low unemployment, stable economic growth, and growth in productivity. There is no doubt that price stability has very major, important, positive elements to it, and you listed a number of them in the preamble to your bill, and we have discussed them at great length. I would say I find very few negatives with endeavoring to sustain that.

My only question with respect to a specific statute is I am not yet convinced, nor are my colleagues, that specific numbers add very much. They may. We don't really know yet. We really can't advise you that it is our firm conviction that is the case. We would need some more evidence.

But there is no doubt that we truly support your goal of price stability and that so long as it is designated as longer-term price stability, meaning maintaining a long-term focus, we are fully supportive of that type of goal.

Representative Saxton. Mr. Chairman, in 1997 we had a hearing quite similar to this one. I asked you this question when you mentioned that we perhaps have not formally put on inflation targets, but certainly, informally. The thrust of the Fed over the last decade has been to do just that, perhaps in an informal way. I asked, you then if you agree with that, and you answered—

Mr. Greenspan. That is certainly the case: We don't have specific numbers, and one of the reasons, incidentally, is that you have to put the limits on a specific price index.

As I have testified many times in the past, I have serious questions about whether the Consumer Price Index is the ideal index by which to

target monetary policy. There is no question it has many flaws, and I have always argued that the personal consumption price deflator is a far superior measure of true underlying inflation from a technician's point of view. Because that index is periodically revised, it muddies the waters in a certain sense as to what we are looking at.

So I don't deny that we do have rough approximations of what the limits would be. It is just that I would be very hesitant to apply very specific limits to the Consumer Price Index, which itself sometimes distorts the outlook. I suspect, were we required to adhere to it even when it is giving off wrong signals, we would end up with a policy which would be less than we would like.

Representative Saxton. Thank you, Mr. Chairman. Let me just move on here.

Recently, we have witnessed the simultaneous occurrence of several interesting factors: one, the lowest unemployment rate in 28 years; two, an economic recovery into its ninth year; three, persistent real GDP growth; and four, trend core inflation rates that have generally remained subdued.

The simultaneous occurrence of lower unemployment, healthy economic growth and subdued inflation has puzzled some. Part of this phenomenon, however, can be explained by the Federal Reserve's lower inflation policy, which has worked to promote economic growth; and let me check off some of the results of that.

Lower inflation leads to lower interest rates, I think we can all agree on that. Lower inflation helps to reduce uncertainty in risk premiums, in interest rates and to stabilize financial markets. Lower inflation also enables the price system to work better, and therefore, the economy to operate more efficiently. In certain respects, lower inflation is analogous, as a matter of fact, to a tax cut. As a result of these factors, lower inflation is good for growth. Do you agree with the general thrust of that analysis?

Mr. Greenspan. I certainly do. Let me just add one additional element. Because productivity growth – in fact, productivity growth acceleration – has been so instrumental in the most recent pattern of economic expansion, it is important to recognize that price stability, by creating an environment of stability in the financial markets, has fostered the types of investment which have enabled the new technologies to be

embodied in our capital stock and effectively to increase labor productivity, which of course is the ultimate source of the rise in wealth.

Representative Saxton. Thank you. Let me just pursue two other questions at this time.

Isn't it true that many central banks in other countries have successfully adopted inflation targets, and in the past, we have, in fact, discussed the idea of institutionalizing the approach of inflation targeting through legislation which, as you know, I have introduced. In previous hearings, you have been supportive of this general approach and said that the direction of legislation pursuing this goal would be sensible from your point of view.

Understanding that there are technical issues and a need for flexibility, do you continue to see merit in the view that inflation targets should be formalized in some appropriate way?

Mr. Greenspan. I am still of the view that some form of directive to the central bank to focus on long-term price stability is crucial. If the Congress does not effectively instruct us to do that, then we are interpreting the Humphrey-Hawkins Act to effectively say that, and I think it does.

I have just two concerns that I would want to raise, and I can't say that they are crucial concerns. One is that if such legislation comes forward, it emphasizes long-term price stability and does not focus on the Federal Reserve endeavoring to keep the price level, however measured, in a very narrow range irrespective of whatever the consequences are to the economy as a whole; and secondly, that we have the degree of flexibility when the economy is somewhat slack to recognize that we would not be jeopardizing our long-term goal of price stability by taking actions which may not, in the immediate short run, be fully directed at creating stable prices.

So it is a flexibility issue which I think is crucial largely because the economy is becoming so complex. Something has changed in the last two or three years since we discussed this at length, and that is a general awareness of how crucial is what is unquestionably a major acceleration in technology and changes in the way the business and financial markets function, so that we need a degree of flexibility to address things in a manner which will enable us to do the best job we can.

So I merely request that we be certain in whatever language that you choose that we do have that form of flexibility if it is needed.

Representative Saxton. Thank you. I certainly agree with regard to the long-term issue that you raise, and certainly that is important. And I also agree and have tried to build into the proposed legislation the degree of flexibility that we thought from our point of view was necessary, and certainly we can talk about changes to that language because it is certainly our intent to provide that kind of flexibility and not tie anyone's hands in the future.

Well, I have taken more than my share of time, and let me turn now to Mr. Stark, the gentleman from California.

Representative Stark. Thank you, Mr. Chairman, and thank you, Chairman Greenspan. I would like to at least get some advice.

I hope you heard my colleague, Senator Sarbanes' plea not to raise interest rates. My guess is that rates will change pretty much regardless of what this Committee say or does.

Over the past several days, we all heard about how technology that is changing the way we live – the way we shop, the way we communicate, basically, the way we do everything. I wonder if, given these changes, we need to reevaluate the way in which we make our economic policies.

In addition, I am concerned about the prospects of those Americans – minority and teenage workers – who have only recently gotten the opportunity to join us at the table of prosperity. These workers typically experience higher unemployment rates, and tend to be the last ones to share in broader prosperity. My guess is that if interest rates increased a quarter of a housing prices might go up, but the real impact would hit those workers at the lowest rung of the ladder. They are typically the first to be laid off. Our seniors, who are also of modest income, receive some protection through inflation adjustments.

Is there anything that you can do – from rate controls and other measures from the old system, to new things on the horizon, short of returning to welfare, which all of us would like to avoid – in order to achieve? Is there anything you can suggest that we should do to shield this group from the consequences of an interest rate increase? If my assumption is correct, wouldn't the impact of a modest rate increase in interest rates fall most heavily on those low skilled workers? What can we do to ease that transition?

Mr. Greenspan. Congressman, I don't agree with that premise. Let me tell you why.

As I tried to emphasize in my prepared remarks, the focus of our monetary policy, to the extent that we can affect the economy, is to find the particular set of policies which has the highest probability of extending this extraordinary expansion. There is no doubt in my mind that the consequences of what has occurred in the last three to five years has done more for those, as I put it earlier, at the periphery of our work force than any other particular program we could reasonably contemplate

Representative Stark. I agree.

Mr. Greenspan. And it is, therefore, important for us to focus on what it is we can do to sustain this.

I would disagree that if it turns out – and obviously, I can't make a judgment because the Federal Open Market Committee is going to be meeting at the end of the month and we will make a decision – but if it were to turn out that in the judgment of the Committee it was desirable to raise rates, we would be doing so because we believe that that would increase the probability of sustaining the expansion, increase the probability that those who are being drawn into the work force will continue to benefit, and the notion that somehow a rate increase necessarily reduces economic activity or reduces jobs in either the short- or long-term context, I think is misleading of the way our economy works.

We have a very sophisticated economy, and I would tell you that if we did things which effectively implied that we were countenancing a significant change in long-term inflation, the impact would be negative, not positive.

The one thing I am reasonably certain of is that what is not on the table at the end of this month for us is a decline in interest rates. Because I suspect that were we to do that, we could create a degree of instability in the financial markets which would spill over into the economy, which would actually do far more harm to those at the periphery of our work force than most anything I can imagine.

So I want to emphasize that the goals that are implicit in your question, Congressman Stark, and our goals don't differ. The key question basically is, what is the most effective means to reach those goals.

Representative Stark. I would like to follow up on that. Mr. Chairman, my concern is that it took a long time until minority, teenage and low skill workers began to enjoy the economic prosperity which

others already been experiencing. Does it not follow that if the economy were to slow, that they would be the first to experience that decline?

Mr. Greenspan. Indeed, it would be.

Representative Stark. And I guess what I am trying to figure out is, can we narrow the amplitude of their swings?

Mr. Greenspan. Congressman, I have been controversial on this particular issue specifically with respect to the minimum wage, and I have a position which is idiosyncratic in a certain sense because my concern is that in raising the minimum wage we essentially reduce the probability that a marginally skilled teenager will be employed.

Representative Stark. You would support a subminimum wage as perhaps as a way to address that problem?

Mr. Greenspan. I would do that. I would go all of the way down that it was politically feasible to do. The reason is essentially the reason you name, namely, in this environment, the minimum wage has almost no impact that I can see on teenage unemployment. If it is going to have an impact, when it will show up is when the economy is easing, and therefore, that is when I would be concerned, and I would urge you in the deliberations which are now going on to keep that in mind because it runs counterintuitive to most people's views of what appropriate policy is.

Representative Stark. You are quite right, but it's not the answer I wanted. Thank you.

Representative Saxton. If I may make a suggestion to my colleagues, the Chairman is going to be required to leave here sometime around a quarter after 12:00, and we are going to have a series, I am told, of four or five votes sometime shortly before that. So if we can just go to a five minute period of time, then we will do as many rounds as we can under that procedure.

Mr. Sanford.

OPENING STATEMENT OF REPRESENTATIVE MARK SANFORD

Representative Sanford. Hello, Mr. Chairman. I have got four quick questions.

One, you made the comment, it is difficult to assess whether or not we are in an asset bubble, and I want to wholeheartedly concur because when my brothers see me these days, they look at me and they say here

comes Warren Buffett, because several times I have tried to bet against this market going up, and I have gotten slaughtered in this process.

So I guess my question would be almost the same question another South Carolinian asked in a different hearing and that was, he asked was this Peyton Place or Watergate, and I guess my question would be, are we going to live happily ever after or are we indeed on the edge of something? In other words, are we, in fact, on a new era or is this an asset bubble?

I mean, did tulips a couple of hundred years ago have more value, or some of these Internet stocks? I think you know what I am getting at.

Mr. Greenspan. Strangely, it is possible for both conditions to exist simultaneously. The one thing I am reasonably certain of is the synergies of technologies that have evolved basically out of the integrated circuits, microprocessors, then the combination of lasers and fiber optics – the whole telecommunications synergy structure. It is interesting that until fiber optics came along, lasers were not perceived to be a particularly crucial issue. They have turned out to be phenomenal.

There is no doubt that this information technology revolution has in a very major way altered the structure of the way the American economy works. It has increased underlying production. It has unquestionably raised the standard of living, and it unquestionably also, as I believe Lou Gerstner said at his hearing on Monday, still has a considerable way to go.

What we are missing in that evaluation is what the pace is. That it will continue to rise is no question, but will it be at a rapid pace or a slow pace? The implied growth in standards of living and, in a sense, something really fundamentally significant has happened is verifiable very easily. What is not clear is whether the market values that are being placed on particular assets which are involved in this new set of technologies are appropriately priced. That is another question altogether.

In the early stages of some of the Internet stock gyrations I raised the question that many people were investing as though they were in a lottery, and that is actually technically true: that is, the chance of a very large gain, even with a small probability that you will get it, has induced people through all time and all history to be willing to pay a premium for the very low probability of a very substantial gain, and that brings into

the markets, certain types of markets, a certain type of froth. Now that means you can have both values which are hard to maintain ultimately.

But that doesn't answer the question about the underlying improvements in productivity, profitability, standards of living and the general structure of the economy. Those both can be happening.

Representative Sanford. I will skip – I won't make it to four questions, but my second question would be, my oldest son, Marshall, is six. He asked the other day about Santa Claus existing. I had to break the word.

About half of my entire lifetime basically has been a bull market for all intents and purposes. Do recessions really exist? Do bear markets really exist? Because I have never really seen one in my working lifetime, and tied to this is what Larry Lindsey wrote, I guess it was about a year ago, he wrote an interesting column talking about revenue, the revenue stream to the Federal Government, and how if you broke it out, basically the whole reason the budget has been balanced is not due to constraint on spending, but due to the increase in revenue, and if you broke it out, it was tied to cap gain income and payroll income, and therefore, if the bull market died, if indeed there was a recession or a bear market, all of the sudden the sing talked about in basically out the window:

Would you agree with this finding?

Mr. Greenspan. We have endeavored to try to do exactly those calculations. One of the problems that you have in making the calculations is it is not altogether easy to strip out the direct effect and the indirect effect of capital gains on federal revenues so that there is a degree of fuzziness involved.

There is no question that a significant part of the surplus is directly and indirectly capital-gains related. It shows up in, obviously, capital gains taxes, but it also shows up in bonuses related to some activities which are related to capital gains on assets. It shows up in stock options and a variety of other things. It is ambiguous how much of the surplus is directly related to it but a significant part is. I am not sure how one reads various different patterns of prices of stocks as they are reflected in revenues in a clear way.

I would be hesitant to agree with my good friend Larry until we match numbers, but the general proposition he is raising obviously is the appropriate direction. It is only a question of degree.

Representative Saxton. Thank you very much.

Mrs. Maloney.

**OPENING STATEMENT OF
REPRESENTATIVE CAROLYN B. MALONEY**

Representative Maloney. Thank you, Mr. Chairman.

Mr. Greenspan, you testified we are in our ninth year of phenomenal economic expansion, yet you made it very clear that you do not expect this to continue indefinitely. Could you elaborate on what you mean by indefinitely?

Why is it that in the 1950s and 1960s productivity was able to grow between 2 and 3 percent a year, and yet there is doubt now that the current rates of around 2 percent a year can't continue for more than two or three years? And was there anything in particular about the 1950s and 1960s to suggest that we might not be able to return to that period of prolonged prosperity?

You also testified about the terrific impact of new technology on our productivity and economic growth, and isn't that a factor we didn't have working for us in the 1950s and 1960s? What specific economic factors were in place then that are not in the place now, which made that period different and which impacts on your belief that we cannot continue growth at the same rate as we did in the 1950s and 1960s?

Mr. Greenspan. First of all, I have never said that we can't continue the growth in productivity. What I have said is we cannot expect the acceleration in productivity, meaning the increase in economic growth, to continuously be rising because that is what has been happening. We were at approximately one percent annual rate in the early 1990s, and we are now up to 2.5 or, the figure for the first quarter of 1999, 3.5 percent annual rate. That is not the trend, but it is clearly moving up.

The only issue I was raising is that to project that acceleration indefinitely runs into certain physical laws which is not credible. But the more crucial answer to your question is there was something different in the 1950s and 1960s, and it is called the Great Depression and World War II. During those years, innumerable new technologies evolved which never developed into the types of things which affect the economy in a positive way.

Obviously, in the 1930s, the system had broken down and it was very difficult to get investment in any event. In World War II, we clearly didn't have the resources to do it as we were so fully committed to the military.

It is only as we came out of World War II that a huge backlog of unexploited technologies began to fall into place, and capabilities which, as they emerged through the 1950s and the 1960s, brought us a significant acceleration in productivity which carried really through, I guess 1973 when the oil shock apparently broke the back of that type of expansion.

But the form of the productivity evident today is quite different from that back there in the sense that we don't have a backlog. We are just basically doing it, applying it as the synergies of new, various different technologies bring us new products, new ideas, and I understand it is working.

Representative Maloney. You testified that the central bank will make price stability one of its prime focuses, and how difficult it is to predict it in the future. But how can we tell if we have achieved it? Are we at price level stability now? And how much inflation represents price stability?

Mr. Greenspan. I would say we are very close to price stability at this stage. I would define price stability in a very general way as it affects the economy; namely, it is that set of prices which creates no significant effect on the decisions that businessmen make with respect to their investments. In other words, they consider prices benign and they don't. Whatever number that is at the time is in a certain sense irrelevant, but with the level of prices as they now stand and our known upward biases in the way we calculate them, we are pretty close to, if not exactly on, the definition of price stability as I stipulated.

Representative Maloney. What could we expect to accomplish with a small increase in interest rates? Wouldn't you have to have a larger increase to have any type of major impact?

Mr. Greenspan. The specific structure of rates that we endeavor to create at each of our meetings is that particular rate at that particular time which we believe is the optimum toward achieving a longer-term goal. It is very tough to forecast what is going to evolve, and fortunately, because monetary policy can be changed within a minute's notice, we don't have to have a whole series of planned changes one way or the

other because we always have the capability of moving fairly quickly. There are times when one can suspect, as we did in 1994, that we would be requiring some fairly significant set of increases to stem what was very clearly a liquidity structure at the time which, unless it was stabilized, would derail economic growth.

So I wish I could say that we knew enough to be able to answer your question very explicitly. The truth of the matter is, we don't. What we try to do is make the best judgments we can at the particular time that we meet or, if it is relevant, between meetings, but in fact, I don't recall ever having a sense that we are going to do a series of increases or decreases. I don't think the system works that well, if I may put it that way.

Representative Saxton. The gentlelady's time has expired. We are very happy to have with us today a former member of the Joint Economic Committee coming back and joining with us.

Mr. Ewing.

OPENING STATEMENT OF REPRESENTATIVE THOMAS EWING

Representative Ewing. Thank you, Mr. Chairman, and thank you for allowing me to participate. I have always thought the meetings – the discussions we had with you, Chairman Greenspan, were some of the most enlightening things that this Committee did, and so it was a pleasure to come back, and I also want to thank you for the great leadership you give and stability you give to our country in its economy because people look up to you so very much.

We have things very good in America, it seems, right now, but there is one sector of the economy that isn't doing very well, and that is the agricultural sector, and I was wondering what your thoughts might be about the impact on the overall economy and where it might lead us and what we maybe should be doing about that.

Mr. Greenspan. Well, you certainly point to the area – virtually the only area of significance – that is not doing terribly well. There are several reasons for this, obviously. One is something which is not terribly well-known, namely, that productivity growth in agriculture is even faster than it is in the nonfarm sector. You are acutely aware of the major increases in crop yields that we have all seen. The technologies that we now take for granted, digital technologies in the nonfarm area, in many respects are being used even more intensively on the farm.

As a consequence of that, with unit costs falling, there is a downward pressure on the general agricultural price level wholly as a consequence of the dramatic acceleration in productivity. But the most recent problems to which you allude are really on the demand side, and these really reflect the extraordinary weakness that occurred in East Asia because a substantial amount of agricultural exports were directed toward East Asia, and because so large a part of farm prosperity rests on exports, the demand domestically doesn't change prices all that much.

The virtual collapse of some of the major markets that we had in a number of our grains and livestock, mainly grains, really fed back into our domestic structure and left us with surpluses which induced some significant weakness in prices. In the last three or four months, we have all seen prices for wheat and beans and corn which look like what I used to look at 30 years ago. So it is a problem which is not easily resolved. The major hope that is involved here is the fact that Asia does seem to be stabilizing. It is not likely that their demand will be as immediately strong as it was for a number of years prior to their running into the crisis, but I do think that the really significant weakness that has occurred is gradually changing.

Aside from that, it is not easy to recommend very many solutions because part of the problem is the extraordinary success that our farmers have had in creating unbelievable quantities of output. I would scarcely want to think of ways to retard that.

Representative Ewing. Thank you.

Thank you, Mr. Chairman

Representative Saxton. Thank you, Mr. Ewing.

We would like to now turn to the gentleman from Binghamton, New York, Mr. Hinchey.

OPENING STATEMENT OF

REPRESENTATIVE MAURICE D. HINCHEY

Representative Hinchey. Thank you very much, Mr. Chairman.

Good morning, Mr. Chairman. It is very lovely to see you. I want to, first of all, express my appreciation for the way that the Fed has behaved over the last several years under your leadership. I think it is directly attributable to your leadership, based upon some of the information that we have seen making its way out of the Federal Open Market Committee meetings.

There seems to have been some pressure in those meetings to raise interest rates, which you have resisted. You have been proven to be correct in your decision to hold interest rates steady and, in fact, reduce them three times over the course of the last year or so. Your prudence has allowed the economy to remain very, very strong indeed.

Over the last six years since I have been a Member of the House of Representatives, we have had a number of discussions about the efficacy of such things as the Phillips curve and the NAIRU, the nonaccelerating inflation rate of unemployment. We have argued whether these indicators are outmoded and if, in fact, they are artifacts of an older economy and not valuable in ascertaining the level or likelihood of inflation in this particular economy.

I was startled on Tuesday to find that I am in agreement with an editorial writer of the *Wall Street Journal*. So I am wondering to what extent you agree with me and the editorial page of the *Wall Street Journal* with regard to such things as the Phillips curve and NAIRU as indicators of nascent or incipient inflation in the economy.

Mr. Greenspan. I read that editorial and I certainly agree that inhibiting growth as a goal, which somehow is implicit in some of these particular structures, makes no sense to me at all. Growth that is coming from an increasing population and especially accelerating productivity is not something which I think we should look upon as anything other than a plus. There is no inherent instability that occurs as a consequence of growth that is strictly the combination of normal growth in the work force plus productivity.

There is a question, however, that you can at times create a situation in which you are running a rate of growth which exceeds an implicit underlying rate of growth in productivity, and as a consequence of that, you, of necessity, are bringing on additional people to work, which is all well and good if it is people who are normally entering the work force. But, on occasion, as we have been, we are reducing continuously the number of people who are, one, technically unemployed as defined by the Bureau of Labor Statistics in the unemployment statistics, plus those who are not in the labor force and say they would like a job. The combination of those two statistics, which represents about 10 million Americans, has been falling at a fairly significant rate. And, as I indicated in my prepared remarks, leaving aside the Phillips curve and aspects which I happen to agree have got some significant flaws in them, there is still a

limits question. It is not as though there are no limits whatever, and the issue which should be differentiated here is whether one should rely on a very questionable statistic about where the NAIRU is, if such a concept can exist for the national economy.

I think, frankly, it probably does exist for the metropolitan area where workers can move back and forth and there are relationships between wage rates and the degree of unemployment. I am not sure that that readily translates to an overall economy where people in Portland, Oregon, can move to Portland, Maine as readily as they can move across the streets.

We have to distinguish between the question as to whether the NAIRU or the Phillips curve which employs that concept is a functioning model for policy on the one hand or whether there are no limits, whatever, to what expansion can be without creating a destabilization. It is the latter, I think, that is the crucial issue. I certainly agree with you.

Representative Hinchey. It is quite clear that there are limits. There are always limits on everything, but it is interesting for me to hear that you, too, seem to believe that these old units of measurement are no longer as valid as I seem to recollect hearing in the past.

Then I wonder where we should look in this economy for indicators of inflation? I don't seem to find any. There was a spike in oil prices during the last couple of months, as a result of cutbacks by OPEC (Organization of Petroleum Exporting Countries), that drove up the Consumer Price Index very, very slightly. It is back down now. Commodity prices are very, very low. The price of gold is at near-term record lows. That is an indicator of deflation, not inflation, and so I am mystified when I hear coming the Chairman of the Federal Reserve say that interest rates cannot possibly go any lower and, in fact, they may have to go higher. It is hard to rationalize these facts with that line of reasoning.

Mr. Greenspan. Let me try to address precisely the issue that you raised, because that is the type of thing we are involved in all the time:

As I said in my prepared remarks, at this particular moment, the underlying core cost structure of the economy is behaving, in my judgment, quite benignly. There is no immediate evidence that I can see that what we are dealing with is an incipient acceleration of core inflation.

I might say parenthetically that the Consumer Price Index is an interesting statistic, but really what we focus on to get a judgment as to whether inflation is emerging is the underlying cost structure; and the reason why productivity and the acceleration of productivity has been so critical to our analysis is that it has kept the inflation rate down.

The concerns that one must have with respect to this type of environment, when you are looking at a continuous decline in the pool or reservoir of people who wish to work but don't as yet have a job, is whether or not that is infinitely extendable into the future, and obviously it is not. What it is that we have to make judgments on is at what interest rate setting do you create the degree of liquidity which has the highest probability of sustaining the expansion into the future.

The reason why I say that lower rates are not on the table at this particular point is that we evaluate the degree of liquidity that is being created under current conditions more than adequate or adequate to maintain long-term, sustainable growth. We do not perceive in any of our scenarios that it is inadequate, and it is from that evaluation that we conclude that lowering rates at this point would not contribute to the highest probability of maintaining long-term maximum sustainable growth.

It is an issue which relates to the level of rates, and that is the reason why, when we were confronted with the seizing up of the financial markets late last year, our immediate reaction, as indeed all central banks should react, was to increase the degree of liquidity very significantly, as we did. We did the same thing when the stock market crashed in October 1987, and you may recall that when the crisis was over, the need for that level of liquidity was no longer there, and the appropriate policy was to withdraw some of it, which is what we did.

What is on the table at this particular stage is whether, having injected a significant amount of liquidity as a consequence of the seizing up of markets, do we need all of it still in place?

It is not a judgment about is there at the moment any evidence of accelerating inflation? In my view, you would be hard pressed to find it. There are marginal issues. Some construction material costs are up. Some services are up, but overall, as I indicated in my prepared remarks, it is clearly an environment in which pricing power is generally perceived to be pretty limited.

Representative Hinchey. So there is no indication of inflation anywhere in the economy, what we are interested in now is maintaining the growth that we have seen over the last decade and maintaining it at a fairly even level such as we have been experiencing; is that correct?

Mr. Greenspan. That is what we are trying to do.

Representative Saxton. The gentleman's time has expired.

Representative Hinchey. Just one – 30 seconds more, Mr. Chairman.

I would just point out that it is not just the people on the periphery of the work force who have begun to benefit from this period of growth. It is, in fact, working America as a whole that is now, only within the last three years, experiencing the benefits of this growing economy

Mr. Greenspan. I agree with that.

Representative Hinchey. And to say that we have a situation now where more people are working, we have got to put a stop to that, or to say that – let me just finish, Mr. Chairman, because you will get more time than I will – or to say that now that we have a situation where the bulk of the work force is benefitting finally from this growth in the economy, that we have to put a stop to that. So I know you are shaking your head, and I know that is not what you want to do, but that will be the effect if you give in to this notion that interest rates need to be raised now.

I hope that you will continue to exercise the kind of strong and intelligent leadership within the FOMC that you have in recent years and, at the very least, hold those interest rates steady.

Mr. Greenspan. You leave me speechless.

Representative Saxton. The gentleman's time has expired.

Mr. Ryan.

OPENING STATEMENT OF REPRESENTATIVE PAUL RYAN

Representative Ryan. I hope you are not speechless for the rest of the hearing.

Representative Saxton. I have never seen that occur.

Representative Ryan. It is good to see you again, Mr. Chairman.

Earlier this year OPEC collaborated to increase oil prices by slowing the production. I wanted to just take you through the correlation between the rates and the prices.

Following this increase in prices, the CPI index made an unusual spike, upwards from one-tenth of a percentage to seven-tenths of a percent. Yesterday's CPI figure showed that inflation increasing again by only one-tenth of a percent.

This correlation between oil and rates has held true, I think, over recent history. In 1997, oil averaged \$20.60 per barrel, the Treasury yield coming close to 7 percent last year. Oil dropped 29 percent to a calendar average of 14.40. Right on cue, though, 30-year Treasury bond dropped roughly a third to less than 5 percent.

Today, with oil ranging close to \$18 per barrel, the 25 percent hike over 1998 long bond rates are approaching 6.25 percent, about the same magnitude as the price of oil.

Further, the 1998 experience, in my opinion, seems to be somewhat of a mirror image of the experience we had in the 1970s, when rising oil prices led to stagflation and high interest rates.

What I think would be interesting is to get your take on what you believe is more indicative of the rising prices – the rising rates, the price of oil or America's strong economic growth?

Mr. Greenspan. There is no question that the price of oil has been a crucial factor in the American economy, and it has been an element, obviously, in the general price level since it is such an important product and its price fluctuates so substantially. However, oil has become a decreasing part of the American economy as we have downsized our gross domestic product. As we have moved increasingly towards integrated circuit type of structures, the amount of crude oil required per unit of GDP has been going down quite measurably, and it shows up in our price indexes as well. As a consequence of that, it is no longer the extraordinary or the important issue that it was 20, 30 years ago.

It is still quite important, there is no doubt. The conclusion that you raise that the long-term interest rate is a function of the price of oil works in part largely because they are both related to a third force which is the economy generally and the world economy generally. So I think you will find that if you want to forecast long-term interest rates, you need more than merely a forecast of the price of oil, and I wouldn't suggest it as a particular means of an interest rate forecast model.

Representative Ryan. May I ask you this now? I am personally of the school of thought that prices are the best indicators of inflation, and currently today in the U.S. we have a strong dollar, we have falling precious metals, we have stable commodity prices. A general increase in all prices, not just the increase of oil or wages, is possible only when the money supplied by the Fed is greater than the market's and the economy demand.

The price of gold, the CRB (Commodity Research Bureau), the commodity index, the dollar index, these are the best measures of excess money, in my particular opinion, but right now these price rule signals suggest that money is scarce, not loose. And I would like – under those price rule rationales, how could the Federal Reserve justify an increase in the rates at this time?

Mr. Greenspan. Well, I think that you are raising the right type of questions, namely, that the degree of liquidity in the system is the crucial question because that is in fact what a central bank does.

Representative Ryan. Right.

Mr. Greenspan. I am impressed with the fact that the price of gold has fallen, and I am not impressed with the fact that it's solely the result of the fact that a number of central banks have been selling gold. There is more to it. And I do think that is a reflection of a global reduction in the long-term inflation outlook, which is a very positive force in the world economy.

When you look, however, at the issues of liquidity, you look at various measures of them when you have nothing else. But when you have the direct effects of liquidity, they are far better to look at to determine whether, in fact, you have more or less money than in effect you need.

Those areas of the economy which are exceptionally interest sensitive, which would be the ones you would expect to be impacted by inadequate liquidity – housing, motor vehicles, a number of different types of consumer items – are all booming; they show no evidence of liquidity deprivation. And while I certainly agree with you that a number of the indicators which you allude to and which we look at and have found in the past to be very useful – and we expect that they will be useful in the future – are not giving the right signals at this particular point.

Representative Ryan. With respect to your usage of these price rule signals in the past, how do these play a role in your decision-making in the future? My question is, do these price rule signals play a larger part in affecting your decision-making in the future or do they play a lesser role in influencing your decision-making in the future?

Mr. Greenspan. You mean the types of actions we are going to take in the future?

Representative Ryan. These price rule signals, the CRB commodity index, the price of gold.

Mr. Greenspan. Let me first say that there are a number of different members on the FOMC, and I don't want to speak for all of them because we all look at things somewhat differently. The only thing we know for sure is how each of us votes at a particular meeting. Sometimes it is not altogether clear all of the full reasons, in great detail, why individuals use things as they do; but most of them look at all of these indicators. What they do and I think it is the right thing to do, is they are giving differing weights at differing times depending on, the type of economy with which we are dealing. The individual commodity prices are crucial at certain times and not at others.

The one thing we do know, of course, is the fact that as you go to an increasingly technologically driven economy that the increasing proportion of products whose prices are generally going down begins to dominate the system. So it really is a very difficult task to ferret out what the true inflationary forces are and how to respond to them.

We work very hard to integrate that type of approach and evaluation with looking at prices of copper and aluminum and zinc and all the other elements which go into these various commodity indexes to get a sense of what is going on; and because of the huge amount of information we have, we bring all of this together and try to make a judgment as to what the final result is, and all I can tell you is, yes, we look at all of these things. Some of them view them differently from others—

Representative Ryan. They are not playing a diminishing role in your decision-making—

Representative Saxton. I am sorry, but the gentleman's time has expired. We are going to have to expedite because of the situation—

Mr. Greenspan. Just quickly, I look at them every day.

Representative Saxton. Mr. Campbell.

**OPENING STATEMENT OF
REPRESENTATIVE TOM CAMPBELL**

Representative Campbell. Mr. Chairman, out of respect for the Chairman of the Federal Reserve – in fact, I wasn't here for all of his testimony – and courtesy to the Committee, I will waive my questions and hope to see you on another occasion, Mr. Chairman.

Mr. Greenspan. Thank you very much.

Representative Saxton. Thank you very much. Mr. Chairman. Because of the situation, we have four or five votes lined up here, and we know of your time schedule, so we are going to stop at this point.

I would just like to say something again that I said before relative to your comments because of your remarks today. It seems clear that you believe that inflation targeting legislation should be focused on the long term and be flexible, and I just want you to know that we agree with these points, and we are certainly ready to work with you with regard to whatever assurances you need that any legislation that we consider or pass will certainly keep those points in mind and be so written.

Mr. Greenspan. We appreciate that very much, Mr. Chairman.

Representative Saxton. Thank you, and thank you very much for taking time to be with us today. We look forward to seeing you again in the near future, and we also look forward to being here next year, marveling at yet another year of growth. Thank you very much for being with us.

The hearing is adjourned.

[Whereupon, at 12 p.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

**PREPARED STATEMENT OF
REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN**

I am pleased to welcome Federal Reserve Board Chairman Alan Greenspan before the Joint Economic Committee (JEC) once again. This hearing is one in a series of periodic hearings on monetary policy and the economic outlook.

The performance of the economy in recent years has been very strong, and monetary policy has played an important role in fostering and sustaining this expansion. During the expansion, the Federal Reserve's policy of gradually moving to price stability has resulted in declines in inflation, interest rates, and unemployment all at the same time. This is a remarkable achievement, and Chairman Greenspan deserves much credit for his leadership in monetary policy.

The healthy economic performance also has generated higher-than-expected revenues to the Federal government that have erased the deficit and pushed the budget into surplus. State and local governments have also enjoyed a fiscal bonus from the combination of positive economic trends.

The benefits of U.S. economic growth also were seen outside our country. The health of the U.S. economy has helped offset the effects of the financial and economic problems in the emerging market economies. The positive impact of the U.S. economic expansion on the international economy was complemented by a series of debt reductions in interest rates by the Federal Reserve last fall to stem deflation fears and stabilize the international financial markets.

All of this, including the role of Chairman Greenspan, is more or less well recognized by most Americans. What is less well known is the specific policy framework the Federal Reserve has used to achieve the positive results in the domestic economy. Chairman Greenspan's exceptional leadership of the Federal Reserve is associated with a framework for policymaking known as inflation targeting. As the Chairman and I have discussed at previous JEC hearings, the Federal Reserve has essentially adopted an informal policy of inflation targeting and used it to gradually reduce inflation and unemployment at the same time.

A serious discussion of this policy is useful to explain what the Fed under Chairman Greenspan has done and how it has fostered the extraordinary economic expansion we enjoy today. Personal judgement and wisdom have played an important role, but the framework for policymaking is also critically important. The success of Federal Reserve policy is a combination of several factors, but more understanding is needed about the basis of the policy framework itself.

Inflation targets are a narrow range of permissible increases in a broad price index expressed as annual percentage increases. For example, an inflation target could be defined as an increase in a retail price index of between zero and, say, 2 percent per year. Explicit official inflation targeting can be established as is the case in many countries, or implicit informal inflation targeting can be used as in other countries such as the United States. Inflation targeting as an approach to achieving price stability has proven particularly effective.

Price stability improves the operation of the price system and promotes economic efficiency and growth. Inflation targeting is an approach to achieving price stability through gradual reductions in inflation that minimize economic disruptions in the short run. As noted previously, during this expansion, inflation has been reduced, but unemployment has fallen as well. Only a few years ago many economists would have regarded this outcome as improbable if not impossible. Nonetheless, the Fed's informal approach to inflation targeting shows that gradual reductions in inflation can be associated with strong economic and employment growth leading to lower unemployment rates.

In addition to its successful monetary policy, recently the Federal Reserve has also made further strides towards increased transparency. The Fed has improved transparency in recent years by announcing interest rate changes as they occur, and also notifying the public about changes in the bias of the policy directive even when rate changes are not made. The Fed is to be commended for these steps towards greater transparency in monetary policy. Greater transparency improves the quality of information available to market participants and thus limits the potential for unexpected surprises to unsettle financial markets. Explicit inflation targeting would be a further move toward transparency that would also foster increased accountability.

Chairman Greenspan, your testimony this morning is especially welcome at this critical juncture in monetary policy. We look forward to your testimony.

**PREPARED STATEMENT OF
REPRESENTATIVE PETE STARK, RANKING MINORITY MEMBER**

I want to thank Vice Chairman Saxton for calling the hearing this morning. I also want to welcome Chairman Greenspan before the Committee for the second time this week. I guess with the economy performing as well as it is, you have more time to spend with us. As always, I look forward to your comments this morning.

Over the past three days, this Committee has heard testimony from Mr. Greenspan, Education Secretary Riles, over two dozen CEO and executives of high tech companies, and numerous other experts. A lot of things were said, but there was unanimous agreement on one thing – there is something new and unique going on in the U.S. economy. It may be a little difficult to describe this revolution in words, but there is wide agreement that as a result of it, the costs of doing business are falling and productivity is rising. Chairman Greenspan seems to agree with this assessment, as he said on Monday that “something special has happened to the American Economy,” producing a “remarkable run of economic growth” and increasing productivity.

Indeed, the current economy looks great – most workers are enjoying rising wages for the first time in the last 20 years, productivity growth, once anemic, has been strong over the last 2 ½ years, and corporate profits have been growing. The recent CPI report for the month of May, suggests that the rise in April was probably due to several anomalies, and that low inflation seems to be back on track. With all this good news, it is hard to understand why someone might be worried.

Most of the factors keeping inflation in check, or even causing it to fall, do not seem to have lost any steam. Commodity prices, especially the price of oil, continue to be low and in some cases even falling. Likewise for health care costs. We heard over and over again during the past three days that a permanent change is taking place in the cost of doing business. In fact, several witnesses suggested that transactions costs may currently be as low as 2 to 3 percent of total business costs, and are expected to continue to fall with further advances in technology. Chairman Greenspan, I hope that you will provide empirical evidence to back up your worries over the possibility of renewed inflation in the economy.

It is not enough to say that something new is happening in the economy. It seems that all this evidence suggests that we need to revisit

some our traditional economic relationships. We must also be willing to re-evaluate some of our long held economic policy prescriptions in order to fully enjoy the benefits of this new reality. We speak about changes in the way businesses work and the need to change the way we educate our children. We must also be willing to look at how we make economic policies, and ask ourselves if that process remains valid in light of all of these recent changes.

Mr. Greenspan, I am particularly concerned about the impact of Federal Reserve policies on those in the economy who have just recently been asked to join us at the table of prosperity. It has taken years for minority and teenage unemployment rates to begin to fall. Currently, they are reaching historic low levels. We all know unemployment rates for these individuals take longer than for others to respond to good economic news. Unfortunately, minorities and teenagers will likely be the first to experience job losses and cuts in wages if the economy begins to slow. After so many years of missing out on the fruits of the economy, do we want to risk cutting them off now?

Mr. Greenspan, I look forward to your testimony and your answers to the questions outlined above. Thank you for agreeing to testify before us this morning.

PREPARED STATEMENT OF THE HONORABLE ALAN GREENSPAN

As emphasized by the important hearings this committee has held in the past few days, an impressive proliferation of new technologies is inducing major shifts in the underlying structure of the American economy. These fundamental changes appear to be far from complete. The way America does business, including the interaction among the various economic players in our economy, is in the midst of a significant transformation; though the pace of change is unclear.

As a consequence, many of the empirical regularities depicting the complex of economic relationships on which policymakers rely have been markedly altered. The Federal Reserve has thus been pressed to continuously update our understanding of how the newer forces are developing in order for us to address appropriately our underlying monetary policy objective: maximum sustainable economic growth. The failure of economic models based on history to anticipate the acceleration in productivity contributed to the recent persistent underproduction of economic growth and overproduction of inflation. Guiding policy by those models doubtless would have unduly inhibited what has been a remarkable run of economic prosperity.

And yet, while we have been adjusting the implicit models of the underlying economic forces on which we base our decisions, certain verities remain.

Importantly, the evidence has become increasingly persuasive that relatively stable prices--neither persistently rising nor falling--are more predictable hence result in a lower risk premium for investment. Because the nation's level of investment, to a large extent, determines our prosperity over time, stability in the general level of prices for goods and services is clearly a necessary condition for maximum sustainable growth.

However, product price stability does not guarantee either the maintenance of financial market stability or maximum sustainable growth.

As recent experience attests, a prolonged period of price stability does help to foster economic prosperity. But, as we have also observed over recent years, as have others in times past, such a benign economic environment can induce investors to take on more risk and drive asset prices to unsustainable levels. This can occur when investors implicitly project rising prosperity further into the future than can reasonably be

supported. By 1997, for example, measures of risk had fallen to historic lows as businesspeople, having experienced years of continuous good times, assumed, not unreasonably, that the most likely forecast was more of the same.

The Asian crisis, and especially the Russian devaluation and debt moratorium of August 1998, brought the inevitable rude awakening. In the ensuing weeks, financial markets in the United States virtually seized-up, risk premiums soared, and for a period sellers of even investment grade bonds had difficulty finding buyers. The Federal Reserve responded with a three step reduction in the federal funds rate totaling 75 basis points.

Market strains receded--whether as a consequence of our actions or of other forces--and yield spreads have since fallen but not all the way back to their unduly thin levels of last summer.

The American economy has retained its momentum and emerging economies in Asia and Latin America are clearly on firmer footing, though in some cases their turnarounds appear fragile. The recovery of financial markets, viewed in isolation, would have suggested that at least part of the emergency injection of liquidity, and the associated 75 basis point decline in the funds rate, ceased to be necessary. But, with wage growth and price inflation declining by a number of measures earlier this year, and productivity evidently still accelerating--thereby keeping inflation in check--we chose to maintain the lower level of the funds rate.

While this stellar noninflationary economic expansion still appears remarkably stress free on the surface, there are developing imbalances that give us pause and raise the question: Do these imbalances place our economic expansion at risk?

For the period immediately ahead, inflationary pressures still seem well contained. To be sure, oil prices have nearly doubled and some other commodity prices have firmed, but large productivity gains have held unit cost increases to negligible levels. Pricing power is still generally reported to be virtually nonexistent. Moreover, the re-emergence of rising profit margins, after severe problems last fall, indicates cost pressures on prices remain small.

Nonetheless, the persistence of certain imbalances pose a risk to the longer-run outlook. Strong demand for labor has continued to reduce the pool of available workers. Data showing the percent of the relevant

population who are not at work, but would like a job, are around the low for this series, which started in 1970.

Despite its extraordinary acceleration, labor productivity has not grown fast enough to accommodate the increased demand for labor induced by the exceptional strength in demand for goods and services. Overall economic growth during the past three years has averaged four percent annually, of which roughly two percentage points reflected increased productivity and about one point the growth in our working age population. The remainder was drawn from the ever decreasing pool of available job seekers without work.

That last development represents an unsustainable trend that has been produced by an inclination of households and firms to increase their spending on goods and services beyond the gains in their income from production. That propensity to spend, in turn, has been spurred by the rise in equity and home prices, which our analysis suggests can account for at least one percentage point of GDP growth over the past three years. Even if this period of rapid expansion of capital gains comes to an end shortly, there remains a substantial amount in the pipeline to support outsized increases in consumption for many months into the future. Of course, a dramatic contraction in equity market prices would greatly reduce this backlog of extra spending.

To be sure, labor market tightness has not, as yet, put the current expansion at risk. Despite the ever shrinking pool of available labor, recent readings on year-over-year increases in labor compensation have held steady or, by some measures, even eased. This seems to have resulted in part from falling inflation, which has implied that relatively modest nominal wage gains have provided healthy increases in purchasing power. Also, a residual fear of job skill obsolescence, which has induced a preference for job security over wage gains, probably is still holding down wage levels.

But should labor markets continue to tighten, significant increases in wages, in excess of productivity growth, will inevitably emerge, absent the unlikely repeal of the law of supply and demand. Because monetary policy operates with a significant lag, we have to make judgments, not only about the current degree of balance in the economy, but about how the economy is likely to fare a year or more in the future under the current policy stance.

The return of financial markets to greater stability and our growing concerns about emerging imbalances led the Federal Open Market Committee to adopt a policy position at our May meeting that contemplated a possible need for an upward adjustment of the federal funds rate in the months ahead. The issue is what policy setting has the capacity to sustain our remarkable economic expansion, now in its ninth year. This is the question the FOMC will be addressing at its meeting at the end of the month.

One of the important issues for the FOMC as it has made such judgments in recent years has been the weight to place on asset prices. As I have already noted, history suggests that owing to the growing optimism that may develop with extended periods of economic expansion, asset price values can climb to unsustainable levels even if product prices are relatively stable.

The 1990s have witnessed one of the great bull stock markets in American history. Whether that means an unstable bubble has developed in its wake is difficult to assess. A large number of analysts have judged the level of equity prices to be excessive, even taking into account the rise in "fair value" resulting from the acceleration of productivity and the associated long-term corporate earnings outlook.

But bubbles generally are perceptible only after the fact. To spot a bubble in advance requires a judgment that hundreds of thousands of informed investors have it all wrong. Betting against markets is usually precarious at best.

While bubbles that burst are scarcely benign, the consequences need not be catastrophic for the economy.

The bursting of the Japanese bubble a decade ago did not lead immediately to sharp contractions in output or a significant rise in unemployment. Arguably, it was the subsequent failure to address the damage to the financial system in a timely manner that caused Japan's current economic problems. Likewise, while the stock market crash of 1929 was destabilizing, most analysts attribute the Great Depression to ensuing failures of policy. And certainly the crash of October 1987 left little lasting imprint on the American economy.

This all leads to the conclusion that monetary policy is best primarily focused on stability of the general level of prices of goods and services as the most credible means to achieve sustainable economic growth. Should volatile asset prices cause problems, policy is probably

best positioned to address the consequences when the economy is working from a base of stable product prices.

For monetary policy to foster maximum sustainable economic growth, it is useful to preempt forces of imbalance before they threaten economic stability. But this may not always be possible--the future at times can be too opaque to penetrate. When we can be preemptive we should be, because modest preemptive actions can obviate the need of more drastic actions at a later date that could destabilize the economy.

The economic expansion has generated many benefits. It has been a major factor in rebalancing our federal budget. But more important, a broad majority of our people have moved to a higher standard of living, and we have managed to bring into the productive workforce those who have too long been at its periphery. This has enabled large segments of our society to gain skills on the job and the self-esteem associated with work. Our responsibility, at the Federal Reserve and in Congress, is to create the conditions most likely to preserve and extend the expansion.

Should the economic expansion continue into February of next year, it will have become the longest in America's economic annals. Someday, of course, the expansion will end; human nature has exhibited a tendency to excess through the generations with the inevitable economic hangover. There is nothing in our economic data series to suggest that this propensity has changed. It is the job of economic policymakers to mitigate the fallout when it occurs, and, hopefully, ease the transition to the next expansion.

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THE ECONOMIC OUTLOOK: APRIL 2005

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

APRIL 14, 2005

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THE ECONOMIC OUTLOOK: APRIL 2005

THURSDAY, APRIL 14, 2005

UNITED STATES CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to notice, at 9:33 a.m., in room 2212, Rayburn House Office Building, Hon. Jim Saxton (Chairman of the Committee) presiding.

Present: Representatives Saxton, Maloney, Hinchey, Sanchez of California, and Cummings; Senator Reed.

Staff Present: Chris Frenze, Robert Keleher, Brian Higginbotham, Colleen Healy, John Kachtik, Jeff Schlagenhauf, Natasha Moore Hickman, Suzanne Stewart, Chad Stone, Matthew Salomon, Daphne Clones-Federing, Nan Gibson, and Pamela Wilson.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. It is a pleasure to welcome Chairman Rosen of the President's Council of Economic Advisers before the Committee this morning. Chairman Rosen's testimony on the economic outlook continues the productive exchange between the Council and the JEC that has existed for many years.

A variety of standard economic data show that the U.S. economic expansion continues to be on track. According to recent figures, the U.S. economy grew at a rate of about 4 percent last year, after adjustment for inflation. The U.S. economy has been growing at a healthy pace since the second quarter of 2003, when the rebound in business investment started to broaden and bolster the expansion.

The tax incentives for investment adopted in the second quarter of 2003 played an important role in jump-starting investment growth. The previous weakness in business investment was replaced by double-digit increases in equipment and software investment in six of the last seven quarters.

The acceleration of economic growth is reflected in other economic statistics as well. For example, industrial production is trending upward. Over the past 22 months payroll employment has risen by 3.1 million jobs. The unemployment rate stands at 5.2 percent. Household net worth is at a record level. Homeownership has hit record highs. Interest rates remain fairly low by historical standards. Consumer spending continues to grow, and inflation appears to be under control, with a key core measure of price changes still below 2 percent on a year-over-year basis.

In summary, overall economic conditions remain very positive. Recently released minutes of the Federal Reserve suggest that the central bank expects this economic strength to continue. There is justifiable concern about the increase in oil prices, however it is important to note that this primarily seems to reflect strong demand from international economic growth and not a plunge in oil supplies.

Another challenge is the tax bias against savings and investment embedded in the tax system. Further reducing the multiple taxation of savings and investment would lessen the economic burden imposed by the Tax Code and increase economic growth over the long run. The Administration's proposals to protect more personal savings from multiple taxation, in my opinion, are right on target.

The consensus of blue chip forecasts projects that the economic expansion will continue through 2005 and 2006. This is very consistent with the Council's projections for economic growth over the next 2 years or so. The bottom line is that the U.S. economy remains strong, and that the overall economic outlook is positive.

At this point, I would like to yield to my friend, the Ranking Member.

[The prepared statement of Representative Jim Saxton appears in the Submissions for the Record on page 29.]

**OPENING STATEMENT OF HON. JACK REED, RANKING
MINORITY MEMBER, U.S. SENATOR FROM RHODE ISLAND**

Senator Reed. Thank you very much, Mr. Chairman. And let me say how much of a pleasure it is to once again work with you on this Committee in the 109th Congress. I certainly do look forward to working with you and all of my colleagues on the Committee.

It is fitting that this hearing is with the Council of Economic Advisers, which was created at the same time as the JEC in the Employment Act of 1946.

I also certainly want to welcome Chairman Rosen and Dr. Forbes. Thank you very much for your service and also for your presence here today. I know that your backgrounds are not necessarily in economic forecasting, but I am confident that you will be able to give us useful insights on current economic conditions and where you think the President's policies are taking us.

I have three major concerns about the economic outlook. First, I am concerned about what appears to be an extremely disappointing economic recovery for the typical American worker. I know that the Administration is proud of the fact that the economy has created jobs for 22 consecutive months, but the pace of job creation over that period works out to just 141,000 jobs per month. That is barely enough to keep up with normal growth in the labor force. Last month indeed we did not match that pace; only 110,000 jobs were created.

The slow pace of job creation is disappointing, but what is happening to the take-home pay of the average worker is even more disappointing. Since May 2003, when the economy finally began creating jobs, the average hourly earnings of production workers in nonfarm industries have fallen by .7 percent after accounting for inflation. In addition, we are finding that the distribution of earn-

ings is becoming more unequal, and American families are having to shoulder more risk in today's economy.

I think these issues are the other side of the President's plan for an ownership society, and I think they are concerns that need to be addressed.

My second major concern about the economic outlook is the effects we are seeing in the trade deficit and the foreign exchange market from the fiscal policy we have been pursuing over the past 4 years. This week we learned that the trade deficit is still widening with February's deficit of \$61 billion, a record for a single month. The broader current account deficit rose to a record 6.3 percent of GDP in the fourth quarter of 2004. The large drain on national savings from the Federal budget deficit has put us in the position where we must borrow \$650 billion to \$700 billion per year from the rest of the world to sustain our spending. That money will have to be paid back with interest, which will be a drain on our national income and our future standard of living.

Finally, I am concerned that the President wants to extend these policies, which are in many respects fiscally irresponsible policies, to Social Security. Analysis by the JEC Democratic staff and others shows that the President's private accounts would require a massive increase in the public debt that is not simply a short-run transition cost. Rather, the additional debt associated with private accounts would reach 35 percent of GDP by 2060. That would be on top of the debt we already have, which is estimated to be 37 percent of GDP. We would be at a figure of 70 percent for the debt-to-GDP ratio. I don't think we have seen figures like that since the end of World War II.

The President's plan for private accounts makes Social Security solvency worse by diverting payroll taxes from the trust fund. That drain on the trust fund moves up the date that Social Security can no longer pay full benefits and increases the present value of the 75-year financing gap from \$4 trillion to \$5.6 trillion.

Finally, the President's plan for private accounts does nothing to increase national saving and could lower it still further. The private saving that would be generated by the creation of private accounts would be completely offset by the reduction in private savings from the larger budget deficits, and people might reduce other private saving, such as their contributions to 401(k)s and IRAs.

Raising national saving is the key to economic growth and one of the ways to reduce the trade deficit. Moreover, as Federal Reserve Chairman Alan Greenspan recently testified, it is the best way to address the challenges posed by the retirement of the baby boom generation. Unfortunately, the President's proposals for large tax cuts for those who are already well off seem to be taking us in exactly the wrong direction.

Now, I look forward to your testimony about the economic outlook today. I must gracefully withdraw, because I have two hearings on the Senate side. But I am ably assisted by Carolyn Maloney and Elijah Cummings and Loretta Sanchez, who I am sure have interesting questions.

Thank you very much.

Representative Saxton. Thank you, Senator.

[The prepared statement of Senator Jack Reed appears in the Submissions for the Record on page 29.]

Representative Saxton. We have with us this morning the Chairman of the Council of Economic Advisers of the President, Harvey S. Rosen, as well as Kristen J. Forbes, who is a member of the Council. Thank you for being with us this morning.

Mr. Chairman, the floor is yours.

STATEMENT OF HARVEY S. ROSEN, CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS; ACCOMPANIED BY KRISTEN J. FORBES, MEMBER, COUNCIL OF ECONOMIC ADVISERS

Dr. Rosen. Thank you, Mr. Chairman. Chairman Saxton and Members of the Committee, thank you for this opportunity to testify at the Joint Economic Committee. We appreciate the long-standing relationship between the Committee and the Council of Economic Advisers.

The President's economic agenda is ambitious and addresses a number of issues that are important to maintain the strength and dynamism of the U.S. economy. I will first talk about the current State of the U.S. economy and the outlook moving forward. Then we will highlight two of the President's key agenda items, Social Security and tax reform. Our written testimony also discusses this year's Economic Report of the President.

Let me start with the U.S. economy. Economic growth in the United States is robust and expected to remain strong for this year and next. Real GDP, the gross domestic product adjusted for inflation, grew 3.9 percent at an annual rate during the first four quarters of 2004. Current data indicate this momentum carried into the first quarter of this year and will continue. Blue chip consensus forecasts are currently projecting real GDP growth of 3.9 percent in the first quarter and 3.6 percent in the second quarter.

The labor market continues to improve, and more Americans are working than ever before. During the past 12 months, the economy has added 2.14 million jobs. The unemployment rate has dropped to 5.2 percent and remains well below the averages for the 1970s, 1980s, and 1990s.

Core inflation, which excludes volatile food and energy prices, remains stable. As measured by the core Consumer Price Index, inflation was 2.4 percent during the past 3 months and also the past 12 months, well below the 40-year average of 4.6 percent.

Although the recent rise in crude oil prices is creating headwinds for the economy, we do not expect it to stand in the way of continued expansion.

Turning now to Social Security, last year's Economic Report of the President discussed the need to strengthen Social Security and approaches to reforming this vital program. In the intervening months a vigorous debate has begun. We welcome this debate. By now the numbers are familiar. In 1950, there were 16 workers for every 1 Social Security beneficiary. Today, there are just 3.3 workers for every beneficiary. When today's 20-year-olds retire, that number will have dropped to two. Combined with Social Security's benefit structure, these demographic realities mean that in around 2017, the program will begin paying out more in benefits than it receives in revenue. The program's unfunded liability is about \$11

trillion in present value terms. Action is needed to deal with this problem.

To think about the problems with the Social Security system, it is useful to begin by noting that contrary to what many workers believe, their contributions to the system in the form of taxes are not kept and used to fund their retirement. This would be known as a prefunded system. Instead their taxes are used to pay the benefits of current retirees. The viability of this type of pay-as-you-go system is vulnerable to the changes in demographics that we are experiencing today.

Compounding this situation is a change made in 1977 where each generation of retirees receives higher real benefits than the generation before it. This stems from the indexation of the initial level of benefits to wages, which over time grow faster than prices. A person with average wages retiring at age 65 this year gets an annual benefit of about \$14,000. But a similar person retiring in 2050 is scheduled to get over \$20,000 in today's dollars. In other words, even adjusting for inflation, today's 20-year-old worker is promised benefits that are 40 percent higher than what his or her grandparent receives today.

The combination of large benefit increases and a growing elderly population puts the Social Security system on an unsustainable path.

President Bush has outlined four key principles for strengthening Social Security. First, no changes should occur for current or near retirees. Second, there should be no increases in the payroll tax rate. Third, the program must be permanently fixed. Short-term funding fixes are not acceptable. Finally, the Social Security system should include voluntary personal retirement accounts. The Nation's retirement system should ensure that all workers have the opportunity to build their own nest-egg.

Reforms in addition to personal retirement accounts must take place in order to restore solvency to the Social Security system. In his State of the Union Address earlier this year, President Bush outlined a variety of options advocated by both Democrats and Republicans that would comply with his principles. The President is eager to work with Congress to arrive at a package of reforms that would permanently fix the system.

Turning now to taxes. This year's Economic Report of the President highlights the need and opportunities for reforming our Tax Code. It outlines the pros and cons of various reform prototypes. The report does not make recommendations, which will be the responsibility of the tax advisory panel later this year.

The problems of our current tax system are well known and well documented. The current system is overly complex and distorts incentives for work, saving and investment. The complexity imposes high costs in terms of time and money for taxpayers to file returns and comply with all the rules.

The distortionary effects of high tax rates on work, saving and investment lead to inefficient use of resources. Consequently, taxes reduce economic welfare by an amount that exceeds revenue collected. Economists call costs above and beyond the revenue collected the excess burden of the tax system.

One recent academic study estimated that for the tax system, the excess burden associated with increasing taxes by \$1 was \$0.27 before President Bush took office. In other words, the total cost of collecting \$1 in additional taxes was \$1.27, not counting compliance costs. How much better could we do if we reformed our tax system? The study estimated that adopting a reformed income tax system, or one of several alternative reforms, that would eliminate the tax bias against saving and investment could reduce this excess burden by 50 percent or more. Such reforms could also result in substantial simplification.

The tax relief over the last 4 years has reduced the excess burden of income tax by also enhancing progressivity, but there is more to be done. The President has appointed a bipartisan blue ribbon panel to study tax reform and report back to the Secretary of Treasury by July 31st of this year. The Administration looks forward to working with Congress to achieve the much-needed goal of tax reform.

In conclusion, the U.S. economy is fundamentally sound, and the outlook is very positive. Challenges remain, however, and the President has an ambitious agenda to address them, including proposals to address trade, enact legal reform, improve access to health care, use our energy resources efficiently, and rationalize the regulatory system.

Mr. Chairman, I ask that the written testimony be included in the Committee record. We welcome your questions.

My colleague Dr. Kristen Forbes handles international economic issues for the Council and will need to leave at around 10:45. We would appreciate any questions for her to be asked before that time. Thank you very much.

Representative Saxton. Thank you very much.

[The prepared statement of Harvey S. Rosen appears in the Submissions for the Record on page 30.]

Representative Saxton. Dr. Forbes, do you have a statement?

Dr. Forbes. No, actually.

Representative Saxton. OK.

We are going to operate the Committee under a 5-minute rule, so each of the Members will have 5 minutes to ask their questions, including the Chairman, I might add.

I have noticed that many economic forecasters project first quarter growth was about 4 percent. The Blue Chip consensus for 2005 quarterly growth rates are as the chart here indicates, 3.9, 3.6, 3.5, and 3.3, respectively.

Can you give us your take on those projections? Do your projections track along that general line? Would you comment on that for us?

Dr. Rosen. Yes, sir. Our forecasts for the year were made last December, based on November data, and at that time we were projecting GDP growth for the year more or less along these lines. Unlike the blue chip, we do not periodically update our forecasts, but what we have noticed is that the blue chip has not really changed theirs very much. And so it seems to me that, you know, the economy is on track, and the expansion is moving forward. And, you know, the blue chip story about the next year is also quite consistent with what we show moving forward.

Representative Saxton. And what do you show for 2006?

Dr. Rosen. OK. We have 3.5 for 2006; the blue chip is showing 3.4, I believe, for 2006. So, you know, I think the basic point is that the GDP forecasts that we are making are quite in line with the consensus among the private sector forecasts, and that consensus is for continued expansion that is sustainable and solid.

Representative Saxton. And I expect that, given those positive numbers, that we can expect expansion as well in terms of job growth?

Dr. Rosen. Sir, yes. We are predicting substantial job growth. The forecast that we put out back—that we made back in December, calls for job growth of about 175,000 a month. That is moving forward nicely. As you mentioned in your remarks, sir, the record for the last year has been very good on job growth. The job market is showing strength. The most recent data we have on that just came out this morning, which is that new unemployment insurance claims for the past month were at a level that is another independent piece of information that the job market is firming up. So yes, we see continued job growth.

Representative Saxton. Thank you.

Dr. Forbes, I have noted that the European Union is in the process of making changes, reforms if you will, to try to boost their job growth in particular. But I also noticed that in countries like Germany and Italy and other European Union countries, the unemployment rate seems to be significantly higher than ours. In Germany, I believe it may be in double digits. I am not sure exactly what the numbers are in Italy. But there seems to be a systemic set of issues in Europe, and Japan as well, that appears to be causing a high rate of unemployment.

Can you speak to what their problems are and perhaps explain why it is that we are doing so much better than they are?

Dr. Forbes. That is an excellent question, and actually very good timing in conjunction with the World Bank/IMF meetings that are taking place this weekend. There is a lot of discussion on this topic, and new growth forecasts were just released for the U.S. and Europe and the global economy. And the IMF new data released confirms what you just mentioned. Growth in Europe is expected to be very slow this year. The IMF projects that growth in the Euro zone will be 1.6 percentage points. Growth in the U.S. is projected to be 3.7 percent. Growth in Japan is projected to be less than 1 percent this year. So the U.S. this year is expected to grow more than twice as fast as Germany, Italy and Japan.

It is just a remarkable contrast. And at the same time, as you pointed out, unemployment is very high in Europe. Unemployment is in double digits in Germany, France and Italy as compared to 5.2 percent in the United States.

There is a sharp contrast in economic performance in the U.S. compared to the other developed countries in the world, and a major reason for this difference is structural rigidities in Europe; very inflexible labor markets; excessive regulation, especially in product markets. So it makes it very hard for companies to compete and do business and hire new workers.

A great example is how hard it is to start a new business. New businesses—entrepreneurship—has been a key driver of growth in

the U.S. In the U.S., it takes about 5 days to start a new business. In Germany it takes 45 days to start a new business. In Japan it takes over 30 days to start a new business. So it is regulation such as that that makes it hard to just start a new business in Europe and Japan, which are key factors causing their slower growth compared to in the U.S.

Representative Saxton. I am just going to take the liberty here to ask you to comment on the differences in tax systems among those several countries and our country.

Dr. Forbes. Different countries in Europe and Japan do have different tax systems. One major difference, though, is that the tax systems in Europe are more biased toward taxing consumption. The VAT is more prevalent in Europe than in the United States.

One big difference is that if you look at the tax rate on savings in the U.S. versus consumption in the U.S., we tend to tax savings relatively more; consumption relatively less. In Europe they tend to tax consumption relatively more and savings relatively less. That is one area where, according to some standard economics, there is room for improvement in the U.S. economy. And those differences in tax rates are one reasons why savings does tend to be lower in the U.S. and higher in Europe.

Representative Saxton. Thank you. We are going to move on. We have this 5-minute rule that we use to make sure that everybody has an equal chance to ask questions, so we will move at this point to Mrs. Maloney, and we will be back for more questions in a bit. Thank you.

Representative Maloney. Thank you, Mr. Chairman. And welcome, Chairman Rosen and Dr. Forbes.

Basically why are we not seeing stronger wage growth? This week the *L.A. Times* ran this story: Wages Lagging Behind Prices. Inflation has outpaced the rise of salaries for the first time in 14 years, and workers are paying a bigger share of the cost of their health care.

Then the next day, *The New York Times* ran this article: The Falling Fortunes of Wage Earners.

So my first question is why, when we have experienced very strong growth in labor productivity, why are we not seeing a stronger growth in wages? Dr. Rosen or anyone.

Dr. Rosen. I will give it a try. From an analytical perspective, it is a challenging problem to characterize what has been happening to wages. One has to know what growth of wages we are looking at, whether before tax or after tax, whether it includes benefits or not. Personally, I think that the single best measure for looking at whether, you know, how a typical person is doing is that person's disposable income, the amount of money they have left in their pocket, and in the latest year disposable income per person has gone up by about 2.3 percent. That is progress. I think the President believes more work needs to be done.

Representative Maloney. But has not, Chairman Rosen, most of the growth in labor productivity boosted the profits but not wages?

Dr. Rosen. We have witnessed astounding increases in productivity in the last several years.

Representative Maloney. But that has translated into profits but not wages? Is that—

Dr. Rosen. Ultimately that increase in productivity, both in terms of theory, common sense and historical evidence, will increase real wages as well.

The other thing, ma'am, I would just want to point out is that one should also take into account benefits when looking at compensation. And when we look at compensation per person, including the value of health benefits and so on, that has been increasing as well. Again, certainly more needs to be done.

Representative Maloney. But haven't wages been growing more slowly than prices recently? Haven't wages lagged behind the increases in prices? That is what these articles are saying.

Dr. Rosen. There are a variety of measures for looking at what has been happening to the return to labor, and I think the more comprehensive ones that include benefits and taxes show some increase, although I think that more work needs to be done in this area to assure that we have an economy where workers can realize their full potential and where the productivity gains will translate into—

Representative Maloney. And you mention that while you are looking at wages, that you have to also look at the benefits that they have. So when employers' costs go up because they have to pay more for health insurance, how does that affect our measure of wage growth?

Dr. Rosen. When employers' health costs go up, some of that will be translated into the total compensation package that workers receive. And another important issue is whether or not health costs are, you know, increasing at a greater rate than is reflective of what we are getting out of the increased health care dollars. And an important issue going forward, actually, I think, is trying to rein in excessive health care growth.

Representative Maloney. Because workers are subject to a squeeze basically in their take-home pay as employers have to pay more for health insurance, and if employers then are shifting more of the burden of rising health care costs onto their workers, does not that reduce the purchasing power and the take-home pay even more?

Dr. Rosen. I think that rising health care costs is a serious issue. There are several proposals on the table to try and deal with this problem. One of the most important, I think—it is not a proposal, it is enacted legislation—is health savings accounts, which would allow individuals—

Representative Maloney. And I am very concerned about the growing wage inequality that this chart shows. And basically why hasn't the Administration's tax cuts—they failed to boost the earnings of middle- and moderate-income families, according to this chart from the Department of Labor. I don't know if you are familiar with it. They publish the data on the usual weekly earnings of full-time workers. They show that since the end of 2000, median earnings have increased by just 0.2 percent per year. After inflation, earnings at the 90th percentile have risen by 0.9 percent per year, and earnings on the 10th percentile have fallen by 0.3 percent.

Is this satisfactory as to wage inequality at the same time that overall wage growth is stagnating so that wages in the lower part of this distribution are actually falling? Are you familiar with the chart?

Dr. Rosen. I am not familiar with the specific graph, ma'am; however, a couple of comments. Again, one needs to be looking at aftertax measures and all groups—all income groups experienced tax relief as a consequence of the President's tax proposals.

The other is that I think that one of the most gratifying things about the expansion that we have been experiencing the last year or so is how widespread the benefits have been across all groups and populations. Unemployment rates have fallen for college-educated people, high-school-educated people, people without high school degrees, for all ethnic groups in all regions, for all income classes. And I think it is a very important aspect of the expansion to note.

Representative Saxton. Thank you very much. The gentleman's time has expired, and we are going to go at this point to Mr. Cummings.

**STATEMENT OF HON. ELIJAH E. CUMMINGS,
A U.S. REPRESENTATIVE FROM MARYLAND**

Representative Cummings. Thank you very much, Mr. Chairman, and Chairman Rosen, Dr. Forbes.

Tell me, talk about how the economy is affecting jobs in manufacturing. We are seeing in my district a GM plant closing, a lot of jobs gone. We look at the South and look at a State like Ohio and see jobs disappearing. During the election that seemed to be a major theme. And I am just wondering exactly is that a fact that we are losing these jobs? And are we getting any of them back? And if we are getting them back, are we getting them back with wages as they were, say, before President Bush came into office?

Dr. Forbes. I would be glad to answer that question. Manufacturing has faced an extremely challenging few years. There is no doubt about that. And when you look at why manufacturing has faced such a challenging few years, and especially the cause for a lot of the job losses in manufacturing, it basically comes down to two major factors. One is short-term causes in the nature of the recession we just faced. The recession we just went through was largely caused by a sharp slowdown in investment and by slow growth of exports, largely due to slow growth abroad. And the manufacturing sector is most closely linked to investment in the export sector. So the two sectors of the economy which most influence manufacturing—investment and exports—were most severely hurt in the recent recession, and that is the reason for the falling manufacturing employment over the last few years.

A second major cause for the challenges manufacturing has faced are longer term, and it is actually a mixed blessing in a sense. Manufacturing in the U.S. has been very productive. Productivity growth in the manufacturing sector has been much higher than in the U.S. economy as a whole, and, as a result, manufacturing in the U.S. has been able to produce more output at a lower cost, which is good. It increases the competitiveness of U.S. manufacturers.

But the flip side of that is that manufacturers in the U.S. can produce more at a lower cost with fewer workers, and this is a longer-term trend that not only the U.S. but all developed economies and even developing economies like China are struggling with. Even China has lost 15 million manufacturing jobs since 1995.

So this longer-term issue, higher productivity growth in manufacturing, which often translates into lower employment, is a challenge that countries around the world are facing.

You put these two factors together, this longer-term high productivity growth in manufacturing combined with a shorter-term nature of our recession, focused on investment and exports, has meant a very difficult few years for manufacturing, as you have experienced. So that is the bad news.

The good news, though, is what has been happening the last year or so, and the evidence suggests that manufacturing is turning around in the U.S. as a whole. Manufacturing employment has increased by 33,000 jobs since February of last year. Many of the indicators which we track to follow the manufacturing sector are showing continued strong growth. For example, one that we follow closely is the ISM Manufacturing Index for Employment, and that has been above 50 for 20 months. When the index is above 50, that suggests continued expansion in manufacturing. So that is another very positive indicator.

Also we are seeing a turnaround in exports. Export growth has picked up after the recession as growth around the world has picked up. Also, we are seeing a sharp pick-up of investment. Investment growth last year, investment of business in equipment and software, was very, very strong, and early indicators for this year suggest that investment growth will continue to be strong.

We are seeing a turnaround in investment and exports, which are the two sectors most closely linked to manufacturing; this suggests we should see a continuation of this turnaround we have seen in manufacturing, and we do expect continued strength in that sector.

Representative Cummings. Thank you.

Chairman Rosen, you talked about disposable income.

Dr. Rosen. Yes, sir.

Representative Cummings. In your opening statement, you also talked about things like gas prices, gasoline prices being volatile. When you talk about disposable income, are you excluding the costs of gasoline?

Let me tell you why I say that, because it is really hitting my constituents, as I am sure all over the country, very, very hard. That is the number one complaint I am hearing right now. And I realize it is going to change, it goes up and down. But I am just wondering when you talk about disposable income in reference to an earlier question, is that included?

Dr. Rosen. Yes, sir. The answer is that disposable income is computed by taking into account changes in all prices, including gasoline. So that would be included.

I should go on to say that the increase in fuel prices is causing distress to families, to businesses, and creating headwinds for the

economy as well. And the President has a package of proposals on the table to try and address this problem.

Representative Cummings. Thank you, Mr. Chairman.

Representative Saxton. Mr. Cummings, thank you very much. Ms. Sanchez.

Representative Sanchez. Thank you, Mr. Chairman. And thank you both for being before us today.

The first question I have is one that I have been pondering for a while, and it really has to do, I guess, looking out into the future; future meaning, you know, you spoke about Social Security, so I guess future could be 40 years from now. But this is what I worry about. At a time when the load of workers versus the people who are retired is becoming smaller, as you said, and if you go around the country—I mean, it is incredibly evident in California, but I have been to almost every State, and I see this trend, and you look at fact that the children who are in our kindergarten-through-12th system are increasingly majority Hispanic. In California, in particular, we see it, and where California goes, so does the rest of the Nation.

And then when I look at the fact that the Hispanic dropout rate is about 25 or 29 percent out of high school, and, quite frankly, I think it is a lot closer to 50 percent, because if a kid drops out in the 11th grade to get a job at McDonald's, that is not considered a dropout. At least in California we do not count it that way.

So when I look at the fact that the workforce of tomorrow for the United States to a large extent is going to be who we have in our school systems right now, and I see them dropping out; and then I see the President's policies with respect to education, the elimination of GEAR UP, for example, a program that starts in the eighth grade, and mentors and works with kids, and makes them take the right classes, Hispanics in particular, so that they will go on to university; when I look at the universities today, and I see half of the kids at least in our graduate programs in math and science are foreigners, at least half of them—and by the way, most of those classes are being taught by foreigners—and when we look at the crunch that we have on H1-B visas and other issues with respect to bringing foreigners in for these types of work, I guess the question I have for you is have you thought about the fact that we are not investing in education to the extent we should be, and that the kids who are coming up through the system are increasingly kids that have a known trend of not even graduating high school? What do you think about the fact that the President is cutting these programs in education? How do you factor that into the future—have you factored it into the future in your calculations as to how productive we will be?

Dr. Rosen. I think that education is incredibly important for the growth of the economy, for the growth of the economy and for the welfare of the individuals in that economy. I know the President believes that as well. And that is one of the reasons why he endorsed the No Child Left Behind program, which goal is to increase accountability at schools and to get a better job for all of American kids.

Representative Sanchez. But, you know, he shorted it \$9 billion. I know you do not know education policy. I am just trying to

understand if in your calculations you guys are even looking at what the future really holds for Americans here. I am very worried that when I retire, there aren't going to be our people working jobs because we are not going to have the education base for it if we are losing all of these manufacturing jobs, and do not worry, we are going to have the high-value jobs.

Dr. Rosen. We are certainly concerned about the future productivity of the labor force, and a vibrant education sector is critical for that. I mentioned programs at the grade-school level. Opportunity to go to college, I think, is very important as well, and to community colleges. California, of course, has a wonderful community college system.

Representative Sanchez. And we would like to keep it that way.

Dr. Rosen. I think the Administration has been allocated funds to help the community colleges, beefed up Pell grants.

Representative Sanchez. I had my community colleges in yesterday, and I know this is not your area of expertise. Maybe you could go back to the President and tell him, maybe you should take a look at this and sit down with the Secretary of Education. Frankly, my community colleges came in, and they are beside themselves as to how this President could be cutting programs and Title III and things that I know are not your area of expertise. I do not mean to put you on the spot about that.

I am very concerned about the productivity of our workers, and I know that it depends on the type of education that we are providing, just as it was for me. And I don't think this President is doing a good job there. So maybe you could go back and kind of tell him, look, there are some people very concerned, we are all concerned, about the productivity of America.

I have a second question. This has to do with the textiles dumped by China. Have you figured that in? I think I read, and I don't know the numbers, but this past month was just—you know, the gap was very wide. The dumping is just coming in. Maybe you could talk to us a little bit about that and how you see that playing out.

And I tell you, I have a large manufacturer in my district and it is very rare to see: American-made clothes, for example. I know within a year or two, the CEOs at the top who are making lots of money are, you know, just scrambling to get their plants into China and wanting to dump 5,000 workers out on the streets. So I am very concerned about this textile dump happening, especially coming from China, but, of course, from all places.

Dr. Forbes. The increased imports of textiles from China is something that we have been paying very close attention to and a concern that has been on our plate for a while. When we negotiated China's extension into the WTO, we knew this would be a challenge. We also know that having China join the world trading system and become a member of the WTO would yield substantial benefits for the U.S. and the global economy. Right now China is our fifth largest export market, and we have seen exports to China increase by 115 percent since the year 2000.

Representative Sanchez. What about the imports from China coming in? The trade gap is getting wider.

Dr. Forbes. Right. It is important to realize we get tremendous benefits from trade with China, but as part of China coming into the WTO, one of the challenges for us was going to be increased imports from China and especially in textiles. And we knew that is where we would face large competitive pressure.

So when we negotiated China WTO extension, we actually put in place a number of mechanisms to try to help ease this adjustment. We knew it would not be easy, but we specifically put greater restrictions on China's imports of textiles. So we phased that in much more slowly than other imports of other goods to try to give U.S. companies the time to adjust.

Representative Sanchez. But that is over.

Dr. Forbes. Right. Now that is gone. And so we are facing that challenge. So what we are trying to do now is use some other mechanisms we included in the WTO negotiation. One was we negotiated a very specific mechanism, called a safeguard mechanism, which would let U.S. companies that have faced increased textiles from China file special cases and get protection where imports from China would be limited to only increase by a small percent a year. We have this special mechanism in place only for textiles because of the concerns which you raised, and we have already accepted three cases under the safeguard petition last year. We just accepted another set of cases to consider to enact these safeguards for.

So it is something we are looking at. We are using the mechanisms we specifically put in place, because we were worried about these surge of imports. But we realize that is not going to make up for the full adjustment. There will be increased imports of textiles from China, and so we also have expanded some of our adjustment programs in the U.S. to help workers who could lose their jobs because of the textile imports. In just since January 2002, we have actually expanded trade adjustment assistance, and we have given special trade adjustment assistance to 100,000 textile workers to try to help them get new training and get new skills and adjust to getting new jobs in new sectors.

We fully sympathize with the challenges you are facing. We know it is a big concern, and it is something that we have been working on for years to try to get the mechanisms in place to try to help ease this adjustment and ease this transition process.

Representative Saxton. Dr. Forbes, thank you very much.

Ms. Sanchez, thank you.

I am going to go to the gentleman from Binghamton, New York, Mr. Hinchey.

Representative Hinchey. I would like to have been from Binghamton, Mr. Chairman. It is a little bit further east of there.

Representative Saxton. OK.

Representative Hinchey. Good morning, Dr. Forbes and Chairman Rosen. It is very nice to see you and have an opportunity to listen to you about the Nation's economy. You seem, in your testimony to me, Chairman Rosen, to be very optimistic about the future of the economy as well as its present conditions, and I certainly hope you are correct. But when we look at the actual figures, I think that there is reason to suspect otherwise.

The principal economic strategy of the Administration seems to be focused almost exclusively on tax reductions that would benefit

primarily the wealthiest, most affluent people in the country, and the belief that that would somehow favorably affect others as well. But the consequences of that and other actions seem to have taken the economy in a very different direction.

If you look at the history of the budget deficits, for example, we went from a period of 3, 4 years of continuing budget surpluses to now a situation where we are facing continuing and rising budget deficits, record budget deficits as a matter of fact. The national debt in the last 4 years has almost doubled. The trade deficit has now reached record proportions.

So we have records in terms of the annual budget deficits, the national debt, and the annual trade deficits. In recent months we have seen records on a monthly basis in terms of the trade deficits as well.

And in addition to that, we do not seem to be experiencing a situation where any of the economic benefits are affecting the majority of people. In fact, the situation seems to be going in the opposite direction. The median annual income of the average working family has dropped by \$1,400, and the number of people working in our country as a percentage of the population has gotten down to the point where it was in 1988. So there are more jobs being created, but they are not being created at a pace that is sufficient to employ people in our economy.

So I am wondering how you respond to those situations. You made some statements, I think, earlier about the situation here in the United States, or maybe it was you, Dr. Forbes, with regard to circumstances here vis-a-vis those in Europe. But when you look at certain other factors, we have 2 million people in prison in this country. Europeans do not have anything like that. Those people are taken out of the picture. And there are an awful lot of people who simply have dropped out of the job market. And that number seems to be increasing as well.

So what do you make of all of those figures and the fact that there are observers out in the private sector who are increasingly becoming pessimistic, particularly in regard to all of that data, coupled with the fact that interest rates are now going up, and the main factor in our economy, which seems to have been sustaining whatever growth we have had, the housing sector, is going to be threatened, the continuation of that growth in the housing sector is going to be threatened by these rising interest rates?

Dr. Rosen. One of the issues you mentioned, sir, were the deficits. OK. I think to begin it is useful to put the deficits in context. In terms of nominal dollars, they are very high. When you look at them as a proportion of GDP, which is the way economists normally do, they are still high, but within the realm of recent experience.

That said, the deficits are higher than the President wants them to be, and, therefore, he is committed to halve the deficit between 2004 and 2009, and the budget that he submitted several months ago puts us on that path. The path is one that achieves its goal in terms of spending restraint.

In terms of the effect of the tax cuts on the fiscal status of the Government, of course a very critical question. According to the estimates that were done in the last mid-session review, which I think

was the last time we did computations of this kind, about 35 to 40 percent of the—of the change in the fiscal status of the government was associated with the tax cut. The rest was due to the slowdown in the economy and increased spending, much of it for the war on terrorism.

Representative Hinchey. Or the war in Iraq.

Dr. Rosen. Yes, sir. And as a consequence, one might ask, well, were running those deficits toward the beginning of the Administration sensible fiscal policy? I think that the President decided that it was more important to put people back to work, put them back to work sooner, get the economy back to its full employment path sooner by running those deficits. That is a sensible short-term strategy. Medium-term strategy, though, as I mentioned before, is to get that down again. And that is the path outlined in the budget that the President submitted to Congress.

With respect to the trade deficit, do you want—

Dr. Forbes. Sure. With respect to the trade deficit, you are correct, the trade deficit is very large in absolute value as well as a percent of GDP. There are some people who urge us to reduce the trade deficit, and I agree I would like to see the trade deficit fall at some point, but we also have to be careful about how to reduce the trade deficit. There are so many factors that cause a trade deficit, it is hard to sort out which are signs of strength and which are signs of weakness.

And again, making the comparison to Europe, which you raised, in the U.S. we do have a large trade deficit; the growth is very high. The UK also has a fairly large trade deficit; growth is fairly high. Australia and New Zealand have large trade deficits comparable to the U.S. Their growth is very strong. Germany, Japan, growth is very slow; growth has been contracting or stagnated. And they have large trade surpluses. So I don't think anyone would want to get Germany's trade surplus or Japan's trade surplus if it comes at the expense of much slower growth.

And there is this relationship where countries which grow faster do tend to buy more imports from the rest of the world. Countries which grow slower buy less imports. And therefore, that can contribute to larger trade deficits for fast-growing countries and smaller trade deficits for slower-growing countries.

So I do agree I would like to see the trade deficit fall, but we do need to be careful about how that is accomplished and realize that in some ways the trade deficit actually reflects the strong growth in the U.S. economy compared to strong growth in our trading partners.

Representative Hinchey. If I may for one second, I think a lot of it has to do with the propensity of the American Government and the American people to go into debt, and the personal debt of this country is at a record level as well as the Federal Government's debt being at a record level. One might come to the conclusion that it is not a function of the strength of the economy, it is the willingness of people to borrow enormous amounts of money and spend it without any clear indication that that borrowing is going to stop at any point in the future, or if it does, it will have cataclysmic results.

Dr. Forbes. You are right. As I said, there are many factors that cause the trade deficit, and the low level of savings in the U.S. is a major cause for a trade deficit. Basic economics is the trade deficit is equal to the shortfall of national savings relative to investment.

And you are right, if savings increase in the United States, that would decrease the trade deficit. But I do want to make the point I think people overstate the relationship between our budget deficit and our trade deficit. There definitely is a relationship. Holding everything else equal, a larger budget deficit means a larger trade deficit. But if you actually look at the numbers, it is a very weak relationship. Look at the late 1990's. Our budget deficit actually went from a deficit to a budget surplus, and our trade deficit—

Representative Hinchey. I am not suggesting any strong relationship. I am just suggesting that the two things are working out there, and they both have negative consequences.

Representative Saxton. Thank you, Mr. Hinchey. The gentleman's time has expired.

Mr. Hinchey brought up a good subject. As I look back at the last couple of decades in terms of economic growth, we saw the economy begin to grow strongly in the early 1980s, 1983, 1984, timeframe. And with the exception of a very short and shallow recession in 1990–1991, and another short and shallow recession just a couple of years ago, we have seen some fairly remarkable long-term economic growth during the decade of the 1980's and during the decade of the 1990s. And we see economic growth taking place again today.

We had some tax relief legislation that we passed in 2001, 2002, and 2003, which appears to have, as you may have mentioned, Mr. Chairman, some effect on economic growth. Over the last couple of decades, Dr. Forbes, what do you think has been the result of tax policy on the economy? This is a fairly remarkable period of economic activity that we have had over the last couple of decades. What has tax policy had to do with that, and, more specifically, the most recent tax relief programs that Congress has put into place?

Dr. Forbes. Actually I will give that to Harvey Rosen, who is a leading expert in tax policy.

Dr. Rosen. Mr. Chairman, I think taxes play a very important role in the growth of the economy; that in order to have a resilient economy, you have to have people working, saving, investing, and all of those decisions are in principle affected by the tax rates they face.

So we need a tax system to sustain growth that provides good incentives for working, saving, investing and other useful economic activity.

And I think that one of the reasons why we have done so well is that in this country, compared to many others, we have tax rates that are relatively low. I think that we can do better if we make rates lower yet, particularly on saving and investment.

In that context, I would like to focus particularly on business taxation and make a couple of points. First of all, as Kristen mentioned before, entrepreneurship is really important when you are talking about growth. And entrepreneurs are—especially S-corps and sole proprietors are taxed at individual tax rates. So when we

talk about tax relief, we are not only helping out American families, but we are providing the wherewithal for businesses to grow.

The second thing I want to point out in the context of taxation and its relationship to growth, we have to be mindful of the way the corporate sector is being treated. We have a very odd system in this country where we double-tax corporate income. First it is taxed at the corporate rate, and then when it is distributed to individuals as dividends, it is taxed again. This creates a bias against the organization in a corporate form, one of our most productive vehicles for economic growth. It biases firms in favor of debt rather than equity finance and creates a variety of distortions that keeps growth lower than it would have been otherwise.

And one of the, I think, most important aspects of the President's tax relief is the lowering of taxes on dividends and capital gains, which is in effect lowering the double taxation on corporate income.

So in sum I think that the tax environment is important for growth. It is common sense, it has been documented in economics literature. And, you know, when the President constituted the advisory tax panel on tax reform, part of his charge to them was to consider ways in which the tax system would be reconfigured so that it would even be more friendly to growth.

Representative Saxton. Would you talk about that for a moment? What do you think, or what does the Administration think, that tax policy should be going forward?

Dr. Rosen. The key thing at the moment is that the tax cuts be made permanent, that the tax relief be made permanent, that the estate tax be eliminated, and all of those programs be made for the long term.

With respect to tax reform, I think the President has laid out certain principles that he thinks should guide the reform. It should be—it should enhance growth. It should reduce the complexity of the tax system. He has called the tax system a complicated mess, and I think many Americans use less gentle language when they are talking about their tax returns. I guess tomorrow is Tax Day, so this is on everyone's mind at the moment.

He has emphasized that future movements of the tax system should try to enhance fairness, that people should all pay their fair share. He has emphasized that the system should be progressive. That is very important to him, that higher-income people pay a higher share of their incomes.

He has also emphasized that the tax system should take into account the special role of housing and charitable giving in the American system.

So, Mr. Chairman, the President has not made any decisions on a particular prototype, and, in fact, he is awaiting the recommendations of the tax panel. He has laid out some principles which show the direction he would like the tax system to move.

Representative Saxton. Uncertainty in the economy can play havoc. I have noticed in recent days uncertainty existing in the economy because of energy prices. Recently we have seen uncertainty exist in the minds of people who are working in the economy because of the global war on terror.

Likewise, does not the temporary nature of the tax cuts that we put in place create uncertainty and play havoc with the economy?

Dr. Rosen. Yes, sir. I think that uncertainty makes it very hard to make decisions. Many of the most important decisions we make in life, both as individuals and in our professional roles, are long-term. If you are starting a business and you want to know should I invest in this or invest in that, is this innovation worth following up, you need to know something about what the returns are going to be over time, and that depends in large part on the tax system. And if you do not know what the tax system is going to be, I believe it will tend to inhibit people from making those sorts of decisions.

So, yes, sir, I think that it would be a wonderful thing to have a more settled tax system so that people have some certainty with respect to the tax environment that they will be facing.

Representative Saxton. Thank you very much.

Mr. Cummings, would you like another round here?

Representative Cummings. Yes, please.

Dr. Rosen, going back to Social Security and private accounts, it is estimated that we are going to spend billions with regard to these private accounts. And the President has been not very clear on where this money is going to come from. Do you know? We have been trying to get an answer to this, and maybe you know, since you are the man for these issues.

Dr. Rosen. Sir, the personal accounts do involve transition financing, and here is the way I think about it. Social Security has promised some benefits to people in the future. Under the President's proposal, if you voluntarily choose to set up a personal account, then some of your—some of your payroll taxes are diverted into your personal account.

Now, this requires some transitional borrowing in order to help finance current benefits. But really what is going on, I think, is that we are just putting on the books obligations that the government already has; that is, we have promised these benefits in the future. What the transition borrowing does, the transition funding does, is puts those obligations on the books and in effect is prefunding those obligations.

Maybe let me put it another way. When we think about conventional debt finance, the debt is being used to buy more stuff, whatever the government is buying in terms of goods and services. Here we are not expanding the size of the public sector. All we are doing is putting on the books obligations that have already been made. In a way it is like prepaying a mortgage. So it is not changing the long-term fiscal stance of the government.

Now, with respect to magnitudes, there will be substantial amounts involved. The President's proposal would have the personal accounts phased in in a way so that—which is prudent, I think—so that financial markets will have a time to adjust and, you know, not have undue effects on financial markets.

Representative Cummings. Well, you know, the analysis by our staff and others—and this is what Senator Reed said earlier—shows that the President's private accounts plan would require a massive increase in the public debt that is not simply a short-run transition cost. Rather the additional debt would reach 35 percent of GDP by 2060 on top of a debt already equal to 37 percent of the GDP today. Is that accurate, do you think?

Dr. Rosen. The numbers do not resonate.

Representative Cummings. Is that because you disagree with them? What do you mean, they do not resonate?

Dr. Rosen. What it means is from the point of view of the long-term fiscal stance of the government, the personal accounts are approximately neutral, and the reason is because the transition funding that is needed is offset by—for the people who elect the personal accounts, is approximately offset by benefit reductions from traditional Social Security that they will have in the future. So it is a wash.

Basically we are saying, I am going to take some of my payroll taxes, put it into a personal account. That means that there is going to have to be some borrowing to make up for the fact that that money is not available to pay current beneficiaries, but in the future your traditional Social Security is going to be reduced by an amount that takes into account what the government—the government borrowing rate so that from the point of view of the long-term fiscal stance of the government, it is about neutral.

Representative Cummings. Well, what are the chances that that person, the person who participates in these savings accounts, what are the chances that they are going to get what they would have gotten had Social Security just stayed the way it is and we did some things like upping—going above the 90,000 and other things like that and kept it solvent, since personal accounts do nothing for solvency? I am just curious. That is the question that my constituents—they are trying to figure out what is this all about? Will it be a wash? Why are we going through these changes for a, quote, wash? And they worry about that, and because they do not know whether these figures are accurate. They have seen some inaccurate figures in the past; i.e., the costs of the prescription drug program. So they are not sitting there just thinking that everything is accurate.

Dr. Rosen. The promises associated with scheduled benefits can't be kept. We know that we are \$11.1 trillion in net liability to the system. The personal accounts allow individuals who voluntarily opt for them to make up for the fact that these scheduled benefits can't be kept. That is by investing in a prudent portfolio, diversified assets, that individuals will be able to make a return that will give them the chance to make up for the fact that the scheduled benefits simply can't be kept.

Now, in terms of trying to deal with the solvency problem by raising the cap, I think it is important to note that raising the cap by itself, it won't do the trick. That is in terms of filling the \$11.1 trillion shortfall, it just does not go very far.

Representative Saxton. Since Mr. Cummings has graciously brought up this subject, we know that Social Security has got long-term problems as it is currently configured. We know that it can't sustain—we know that we can't sustain the program without significant changes.

Could you just take a minute and discuss—you discussed what the President has suggested, his basic parameters. What are the options? We hear a lot about the personal voluntary investment accounts. What are the other options? Can you just discuss them for a few minutes?

Dr. Rosen. Yes, sir. The President has indicated that when it comes to reform of the system, he is willing to consider a wide variety of options; that he wants people to understand there is a problem, work together to solve that problem. And, in fact, he mentioned several of those options in his State of the Union Address that have been proposed over time from people from both sides of the aisle.

Representative Saxton. Dr. Rosen, excuse me.

Dr. Forbes, I know you have to leave. Feel free when you have to go.

Dr. Forbes. Thank you. I was going to wait until he finished and then apologize. Thank you very much.

Dr. Rosen. So, some of the options, you know, that came up—I feel lonely.

Representative Sanchez. Now we are really going to go after you.

Representative Saxton. We are still here.

Representative Hinchey. We are your friends. Don't worry.

Representative Sanchez. We are?

Dr. Rosen. Some of the options that came up, that the President listed in the State of the Union, were reexamining the indexing system by which benefits are calculated. Another one that came up was—

Representative Saxton. In plain language that means benefit cuts?

Dr. Rosen. The—plain language? The—if we were to move from a system of wage indexing to price indexing, benefits in real terms would actually increase. They would not be as high as the scheduled benefits, but the scheduled benefits are not sustainable. So what we are talking about is cuts relative to the unsustainable promises that have been made.

Another option that the President discussed was longevity—or mentioned was longevity indexing, which essentially relates to increasing the age at which benefits can be received. A third possibility, I believe, that was listed in the State of the Union was changing the benefit formula.

So there is a variety of ways in which reform could be achieved. And as I mentioned before, the President is interested in getting a dialog going to find a set that will achieve some kind of bipartisan acceptance.

Representative Saxton. One of the options which the President apparently believes is off the table is to remove the cap, which—and I say “believes it is off the table” because that is, in effect, a tax increase. But if Congress were to decide to remove the cap, what would that do to solve the problem?

Dr. Rosen. I do not have the specific numbers on what proportion of the gap—

Representative Saxton. Would it provide a permanent fix?

Dr. Rosen. Oh, no, sir, it would not provide a permanent fix. The Social Security actuaries have done some estimates. I just do not have the numbers.

Representative Saxton. Would lifting the cap have any effect on economic growth?

Dr. Rosen. In general, I think when tax rates go up, the effect is to reduce labor supply, which would have a negative impact on growth.

Representative Saxton. Any other options that are out there that we have not discussed?

Dr. Rosen. Nothing is coming to mind at the moment.

Representative Saxton. So we have a system that is unsustainable, and the options that have been talked about involve tax increases and potentially lower levels of benefits.

Dr. Rosen. Relative to the scheduled benefits. And, of course, the personal accounts, which I think when we are talking about reform of the system, it is something we should not just put off to the side, because the personal accounts will give people the opportunity to make up some of the loss from the scheduled benefits that are no longer possible. And, in addition, they have the further advantage, which is by taking the money, putting it into individuals' accounts with their names on it and over which they have ownership, it makes it much less likely that any Social Security revenues coming in will be spent on other items as opposed to actually being saved to fund retirement benefits in the future. So I see the personal accounts as an inherent part of the whole package, including reform.

Representative Saxton. Thank you.

If my colleagues will give me one of the prerogatives of the Chair here for one final question. What would happen in the life of a 30-year-old person who is currently in the Social Security system who opts to voluntarily set up a savings program for himself or herself? What would happen long term? Just kind of walk us through it.

Dr. Rosen. Sure, I would be happy to. You are shaking your head already?

Representative Sanchez. I just want to hear your response. I am—speak to it, because I have more important things to ask you about than to go through this silly Social Security thing, but let's hear it.

Representative Saxton. My constituents do not think Social Security is silly, Loretta.

Representative Sanchez. This is being discussed in every corridor. I would love to hear this answer.

Dr. Rosen. Here is what happens to the 30-year-old. What she does is she can take 4 percent of her payroll tax, put it into a personal account. In return, I mean just for fairness, the benefit that she gets from Social Security, traditional Social Security, in the future will be reduced by an appropriate amount.

Then, now she has her own personal retirement account, and she can invest it as—within certain guidelines. And the guidelines that the President has proposed are very similar to the Thrift Savings Plan that we all have as an option. There are certain broad-based accounts, broad-based securities, stock, mutual funds, that kind of thing. And then they can invest in a portfolio depending on their preferences. It has their name on it.

Now, when they turn 47, unless they specifically opt out, their assets would be reinvested in what is called a life cycle portfolio, and what that does, it gradually moves the composition of your portfolio from the relatively risky assets like stock into the rel-

atively safer assets such as bonds. So that we know that over the long term stocks are quite reliable, but as generating a good rate of return, but we also know in the short term they can fluctuate. So the purpose of the life cycle account is to protect you as you near retirement.

Then at retirement, what happens then? Again, the money is yours, and you can start taking it out, and with the condition that the money there be taken out in a way so that the combination of what you are taking out from your personal account and from traditional Social Security keeps you above the poverty line. So we are definitely keeping the safety net in mind.

I should also add that if our hypothetical 30-year-old unfortunately passes away before she reaches retirement age, she can bequeath what is in the personal account to her loved ones.

Representative Saxton. Thank you.

Ms. Sanchez.

Representative Sanchez. Thank you, Mr. Chairman. I have some questions. And just for the record, I don't think Social Security is silly. I just think the President's proposals are pretty ridiculous.

I want to talk to you. I recently spoke to—over an op-ed piece from one of my former professors, economic professors, out in Orange County who had written an op-ed, a discussion piece, in a very Republican newspaper in my area, and he is a pretty conservative guy, and he said that he thinks that in the near term we will have a recession, and in the long term we will have stagflation.

He based it on now that the Feds have a lot of different situations to deal with versus what we did in the recovery of 2002, which was based on the President's tax cuts, the rapid increase in our Government spending, and a very good stimulative monetary policy, and that carry trade allowed us to have low mortgage rates, run up housing prices, create a strong refinancing boom, and created strong consumer spending.

But now we have different conditions. Our productivity growth is slowing. Our employers, therefore, have to hire more workers to satisfy the demand that they have for their goods and services. That has an upward pressure in nominal wages at the same time when employers are gaining pricing power, which increases the price of goods and services, meaning higher inflation.

Also the higher energy costs that we see, the higher rates in construction, housing markets, ARMs kicking in, and no demand for refinancing, obviously, which all turns to a lower disposable income or a slowed down or basically a recession. That is what Esse Adibi is saying. And in the long run he is not very optimistic because of the budget trade deficit situation going on, the adjustment of our currency, which you would think would be helping us on that trade deficit, but the trade deficit continues to grow anyway.

Which points to probably, well, currently a lower standard of living—if you go to Europe, you are not going to buy what you used to buy a year ago or 2 years ago; a much larger currency adjustment than is probably needed; the accompanying inflation that we just talked about, that I just spoke about; the implication of a lower dollar, which would force the Feds to increase interest rates. So higher inflation, higher interest rates, stagflation.

What do you think of that? What do you think of his not very optimistic outlook with respect to what is going on right now versus, you know, your very glowing everything is all right, do not worry about it? And I did not add to that the entitlement programs which are—we just spoke about Social Security, but also Medicare, where this Republican Congress, you know, added a Part D that is not sustainable, in my opinion, and does not bring value to the actual consumer.

Dr. Rosen. We certainly monitor the economy very closely to see whether there are risk factors that might work toward lowering growth as we move forward. As we noted at the beginning of the testimony, our forecasts about what is happening moving forward are not idiosyncratic. So it is not like CEA has some rosy scenario, and the rest of the world disagrees. The consensus of the private sector forecasters is not for recession and stagflation; rather it is for sustainable growth moving forward.

One of the most important things that you raised is the condition of household balance sheets, which is always a matter of importance when you are trying to figure out where the economy is going to be.

Representative Sanchez. It has to be scaring you to death those ARMs out there.

Dr. Rosen. Well, here is what you see. If you look at the ratio of households' debt obligations to their disposable income, it has been quite steady. In other words, household balance sheets seem to be in pretty good shape.

Representative Sanchez. But these will kick in. They haven't kicked in yet.

Dr. Rosen. Well, the obligations that people face could go up or down, depending on the course of interest rates. We are predicting mild increases in interest rates. But I think the fact is that we are not observing problems with consumers with respect to their balance sheets at this time.

Representative Sanchez. What do you consider "mild interest rates," Mr. Chairman? I'm sorry, "mild interest rate increases"?

Dr. Rosen. What I am talking about is that we have been forecasting interest rates in the middle 4.5 percent range, whereas the long-term average is about 6.6. So interest rates are below historical averages. Mortgage rates are below historical averages, and we do not see threats to consumer balance sheets on this basis.

Representative Saxton. Mr. Chairman, we are going to move over to Mr. Hinchey, but on the way to doing that, these red bars on this chart indicate the consensus forecast for the economy. Can you comment on what consensus forecast means? Who is this that is saying that we are going to have 3.9 to 3.3 percent growth?

Dr. Rosen. Yes, sir. There is a group of business economists who represent either major consulting firms or major businesses, and they submit their forecast to a central group who then just reports them all. So you can literally get the page with what is it 30 or 40—50—there are 50 of them, and the consensus is the median or the average of them. So this is distilling the opinions of people who do this kind of thing for a living.

Representative Saxton. Thank you.

Mr. Hinchey.

Representative Hinchey. Thank you, Mr. Chairman.

We have had an interesting discussion on Social Security, which reflects, I think, the attention that you paid to that subject in your testimony. But it is interesting, in looking at your testimony, that there is no mention in your testimony of budget deficits, the looming Medicare crisis, which is much larger and much more imminent than any problem in Social Security. No mention of lack of health insurance, the wage disparities that we are confronting in our country, the increases in poverty rates or rising energy costs, all of which impact severely on our economy. I am not going to ask you to go into detail on those subjects, but at some point I would be very interested in hearing what you have to say about it.

I would like to just go back to Social Security, since so much time and attention has been paid to that today. You mention at some point an \$11 trillion deficit. Now, that projection, I assume, is somewhere out here—into infinity; is that right?

Dr. Rosen. Yes, sir.

Representative Hinchey. Is it customary for us in the Federal Government to project programs into infinity?

Dr. Rosen. I think different times it is—

Representative Hinchey. I don't think it is. I think it is unusual to project the needs of any program out to infinity. Normally what we do is project them out over 20 or 30 or 50-year basis.

And you mentioned a number of things in response to the chairman's question that could be done to deal with the Social Security problem, and those things have been done in the past. In 1983, for example, there were changes made which raised the retirement level and also brought more money into the system by raising the cap. And I think that your response saying that raising the cap would not solve the problem is not correct. If you eliminate the cap, it certainly would solve the problem. And it would solve the problem far into the next century; not just the 21st century, but on off into the 22nd century based on the demographics that we are familiar with.

There are other ways to deal with it, too. If you were, for example, or if we were, for example, to repeal the tax cuts, the President's tax cuts that go to the wealthiest 1 percent of Americans, that would essentially solve the problem for the rest of this century.

So there are some very simple things that we could do to deal with whatever problem is perceived in Social Security, but it is interesting that we are talking about a program whose solvency under the most pessimistic cites is secure until at least 2041, and the CBO says 2052. And interestingly enough, if we have a higher growth rate, it would go beyond that.

In your testimony and your statements here today, I believe that you are suggesting that we are going to continue to experience a growth rate of something in the neighborhood of 3.7 percent. Am I right about that?

Dr. Rosen. That is for this year, sir.

Representative Hinchey. For this year, 3.7 percent. What are you projecting for next year?

Dr. Rosen. Next year, 3.4, 3.5? What are we saying?

Representative Hinchey. Can I have a lapse of my time, here, Mr. Chairman?

Dr. Rosen. 3.5 for this year, and 3.4 for next year. So we are a little bit more modest than the consensus forecast.

Representative Hinchey. In your estimates with regard to the problems in Social Security, what are the estimates of economic growth used for the Social Security estimates into the future?

Dr. Rosen. The Social Security actuaries make those estimates. I don't know specifically what figures they have.

Representative Hinchey. I understand that the figures that they use are less than 2 percent. I believe the figures they use may be 1.7 percent. I am not absolutely positive about that, but I am sure it is less than 2 percent, and I think it is 1.7.

You are projecting economic growth at the rate of 3.4 and 3.5. But when you are looking at Social Security, the Social Security actuaries, your testimony and a lot of the actions that are being contemplated by the Administration and Members of Congress are based upon the numbers used by the actuaries at Social Security who predict that they system will run out of funds in 2041 you essentially cut in half the growth rate. You are not playing with a straight deck here. You are loading the dice. You are giving people false information.

So you are going to have to settle, I think, on one of those figures or the other. Either the economy is growing at the same rate for Social Security as it is for everything else, 1.7 or 3.4 or 3.5, or it is not. But it cannot be growing at two different rates.

Dr. Rosen. A couple of points, I guess. One is that in recent reports, the Social Security actuaries looked at long-term calculations as a function of different assumptions in the growth rate. And what they found, it does not move those long-term net liabilities around very much. And the reason is because if the economy is growing faster, and people have higher wages, then we know, according to the Social Security benefit formula, that just means people get higher benefits.

Representative Hinchey. Excuse me for interrupting. There is no argument with that, but that does not address the disparity in the statistics. If you are using two separate growth rates, you will have to come to a conclusion as to which number you are going to estimate that the economy is going to grow at. And in the case of Social Security also, if you have a growth rate of 3.4, 3.5 percent over the course of the next decade, then the extended life of Social Security is not going to be 2041. In other words, the money is not going to run out by 2041. It is not going to run out based upon the formula that the actuaries use, if they use 3.4 or 3.5 for a growth rate. That money will extend Social Security viability out into 2050 or 2055 easily and beyond.

And also if you have the growth rate in the economy which you are predicting now, not Social Security, but you are predicting now for the President in the economy, then the amount of money that people will be collecting—let's use the pessimistic numbers of the actuaries of Social Security—the fund stops growing and becomes stagnant, runs out of funds about 2041. Benefits paid after 2041, according to the actuaries, would be 73 percent of what they would be under 100 percent. But 73 percent of benefits in 2041, based

upon the index currently in effect, has a higher buying power than 100 percent of benefits in 2005.

Dr. Rosen. I think, sir, you raise a key point at the beginning, which is what time horizon should we look at when we are thinking about the Social Security system. I think that since this is driven to a large extent by demographics, we know which way the demographics are going. We know that if you fix it—we know what the lines look like after 1975 and 1976, and revenues are staying below the cost line.

Representative Hinchey. Those lines depend upon which numbers you use to create those lines. And if you are going to use different numbers to create the lines for the economic growth and for the strength of Social Security, you are going to come up with very different results.

So, the lines that you are talking about are projections. And no one knows for sure what those lines are going to be. Those projections are based upon numbers that you create now. And you are creating those numbers—you are creating one set of numbers, the actuaries are creating a different set of numbers, but you are using your set of numbers to predict how good the economy is now and how good it is going to be for the duration of this Administration. But when you talk about Social Security, you put your numbers aside, and you pick up the actuaries' numbers, which are much more pessimistic about economic growth, and therefore you can predict that Social Security is in trouble. But if you used your numbers in terms of growth of economy, you would have to predict that Social Security is much more strong than is being predicted now by the Administration.

Representative Saxton. Mr. Hinchey, your time has long since expired. Let's give the chairman a chance to answer this question.

Dr. Rosen. We always use the Social Security actuaries' numbers when we are analyzing Social Security. I think otherwise we would really have problems in terms of deciding which number to use for which kind of analysis.

Representative Hinchey. Very interesting.

Representative Saxton. Mr. Chairman, thank you very much for being with us today, and we look forward to working with you in the future. The hearing is adjourned.

[Whereupon, at 11:12 a.m., the hearing was adjourned.]

Submissions for the Record

PREPARED STATEMENT OF HON. JIM SAXTON, CHAIRMAN,
U.S. REPRESENTATIVE FROM NEW JERSEY

It is a pleasure to welcome Chairman Rosen of the President's Council of Economic Advisers (CEA) before the Committee this morning. Chairman Rosen's testimony on the economic outlook continues the productive exchange between the Council and the Joint Economic Committee that has existed for many years.

A variety of standard economic data show that the U.S. economic expansion is on track. According to recent figures, the U.S. economy grew at a rate of about 4 percent last year, after adjustment for inflation. The U.S. economy has been growing at a healthy pace since the second quarter of 2003, when the rebound in business investment started to broaden and bolster the expansion.

The tax incentives for investment adopted in the second quarter of 2003 played an important role in jumpstarting investment growth. The previous weakness in business investment was replaced by double-digit increases in equipment and software investment in six of the last seven quarters.

The acceleration of economic growth is reflected in other economic statistics as well. Industrial production is trending upward. Over the last 22 months, payroll employment has risen by 3.1 million jobs. The unemployment rate stands at 5.2 percent. Household net worth is at a record level. Homeownership has hit new record highs. Interest rates remain fairly low by historical standards. Consumer spending continues to grow. Inflation appears to be under control, with a key core measure of price changes still below 2 percent on a year-over-year basis.

In summary, overall economic conditions remain very positive. Recently released minutes from the Federal Reserve suggest that the central bank expects this economic strength to continue. There is justifiable concern about the increase in oil prices, but it is important to note that this primarily seems to reflect strong demand from international economic growth, not a plunge in oil supplies.

Another challenge is the tax bias against saving and investment embedded in the tax system. Further reducing the multiple taxation of saving and investment would lessen the economic burden imposed by the tax code, and increase economic growth over the long run. The Administration's proposals to protect more personal saving from multiple taxation are right on target.

The consensus of Blue Chip forecasters projects that the economic expansion will continue through 2005 and 2006. This is very consistent with the Council's projections for economic growth over the next two years or so. The bottom line is that the U.S. economy remains strong and that the overall economic outlook is positive.

PREPARED STATEMENT OF HON. JACK REED, RANKING MINORITY MEMBER,
U.S. SENATOR FROM RHODE ISLAND

Thank you, Chairman Saxton. It is a pleasure to be here at the first hearing of the Joint Economic Committee in the 109th Congress, and I look forward to working with you. It is fitting that this hearing is with the Council of Economic Advisers, which was created at the same time as the JEC in the Employment Act of 1946.

I want to welcome CEA Chairman Rosen and CEA member Forbes. I know that your backgrounds are not in economic forecasting, but I am confident that you will be able to give us useful insights on current economic conditions and where you think the President's policies are taking us.

I have three major concerns about the economic outlook. First, I am concerned about what continues to be an extremely disappointing economic recovery for the typical American worker. I know that the Administration is proud of the fact that the economy has created jobs for 22 consecutive months. But the pace of job creation over that period works out to just 141,000 jobs per month. That is barely enough to keep up with normal growth in the labor force. Last month, we did not even match that pace, as only 110,000 jobs were created.

The slow pace of job creation is disappointing, but what is happening to the take-home pay of the average worker is even more disappointing. Since May 2003, when the economy finally began creating jobs again, the average hourly earnings of production workers in nonfarm industries have fallen by 0.7 percent after accounting for inflation. In addition, we are finding that the distribution of earnings is becoming more unequal and American families are having to shoulder more risk in today's economy. I think these issues are the darker side of the President's plan for an ownership society, and I think they are concerns that need to be addressed.

My second major concern about the economic outlook is the effects we are seeing in the trade deficit and the foreign exchange market from the irresponsible fiscal policy we have been pursuing over the past four years. This week we learned that the trade deficit is still widening, with February's deficit of \$61.0 billion a record for a single month. The broader current account deficit rose to a record 6.3 percent of GDP in the fourth quarter of 2004. The large drain on national saving from the federal budget deficit has put us in a position where we must borrow \$650 to \$700 billion per year from the rest of the world to sustain our spending. That money will have to be paid back with interest, which will be a drain on our national income and future standard of living.

Finally, I am concerned that the President wants to extend this fiscal irresponsibility to Social Security. Analysis by the JEC Democratic staff and others shows that the President's private accounts plan would require a massive increase in the public debt that is not simply a shortrun transition cost. Rather, the additional debt associated with private accounts would reach 35 percent of GDP by 2060, on top of a debt already equal to 37 percent of GDP today.

The President's plan for private accounts makes Social Security solvency worse by diverting payroll taxes from the trust fund. That drain on the trust fund moves up the date that Social Security can no longer pay full benefits and increases the present value of the 75-year financing gap from \$4.0 trillion to \$5.6 trillion.

Finally, the President's plan for private accounts does nothing to increase national saving, and could lower it still further. The private saving that would be generated by the creation of private accounts would be completely offset by the reduction in public saving from the larger budget deficits, and people might reduce other private saving such as their contributions to 401(k)s and IRAs.

Raising national saving is the key to economic growth and one of the ways to reduce the trade deficit. Moreover, as Federal Reserve Chairman Alan Greenspan recently testified, it is the best way to meet the fiscal challenges posed by the retirement of the baby boom generation. Unfortunately, the President's policies of large tax cuts for those who are already well off and private accounts that add to the debt and worsen Social Security solvency seem to be taking us in exactly the wrong direction.

I look forward to your testimony about the economic outlook, and I will listen with interest to anything you can tell me that will allay my concerns about that outlook.

PREPARED STATEMENT OF HARVEY S. ROSEN, CHAIRMAN,
COUNCIL OF ECONOMIC ADVISERS; AND KRISTEN J. FORBES, MEMBER, COUNCIL OF
ECONOMIC ADVISERS

Chairman Saxton, Vice-Chairman Bennett, Ranking Member Reed, and members of the Committee, thank you for the opportunity to testify at the Joint Economic Committee. We appreciate the long-standing relationship between the Committee and the Council of Economic Advisers.

The President's economic agenda is ambitious and addresses a number of issues that are important to maintain the strength and dynamism of the U.S. economy. Today we would first like to take a few moments to discuss the current state of the U.S. economy and the outlook moving forward. Then we will highlight two of the President's key agenda items—Social Security and tax reform. We will conclude with a summary of the 2005 Economic Report of the President.

THE U.S. ECONOMY

Economic growth in the United States is robust and is expected to remain strong for this year and next. Real GDP, the gross domestic product adjusted for inflation, grew 3.9 percent at an annual rate during the four quarters of 2004. Current data indicates this momentum carried into the first quarter of this year and will continue. Blue chip consensus forecasts are currently predicting real GDP growth of 3.9 percent in the first quarter and 3.6 percent in the second quarter. Housing starts remain high. New orders for core capital goods suggest solid investment spending going forward.

The labor market continues to improve and more Americans are working than ever before. During the past 12 months, the economy has added 2.14 million jobs. The unemployment rate has dropped to 5.2 percent and remains well below the averages for the 1970s, 1980s and 1990s.

Core inflation, which excludes volatile food and energy prices, remains stable. As measured by the core consumer price index, inflation was 2.4 percent during the past 3 months and also the past 12 months—well below the 40-year average of 4.6 percent. Although the recent rise in crude oil prices is creating headwinds for the economy, we do not expect it to stand in the way of continued expansion.

The Administration forecast remains on track according to data received since the macroeconomic forecast was finalized in December of 2004. We predicted that real GDP would grow at a 3.5 percent annual rate during 2005. Now, four months later, the latest forecast from the Blue Chip consensus panel is 3.6 percent, in line with the earlier Administration projection. In December the Administration forecast that unemployment would fall to 5.2 percent by the end of 2005—a level reached in March.

This strong economic performance of the United States is particularly impressive when compared to the performance of other large, developed economies. The United States had the fastest annual rate of GDP growth of any member of the G-7 in both 2003 and 2004, and is expected to continue to have the strongest rate of economic growth in 2005. The United States is expected to grow over twice as fast as Germany, Italy, and Japan in 2005.

STRENGTHENING SOCIAL SECURITY

Last year's Economic Report of the President discussed the need to strengthen Social Security and approaches to reforming this vital program. In the intervening months a vigorous debate has begun. We welcome the debate.

By now the numbers are familiar. Population growth is declining but life expectancy continues to increase. In 1950 there were 16 workers for every one Social Security beneficiary. Today, there are just 3.3 workers for every beneficiary. When today's 20-year-olds retire, that number will have dropped to two.

Combined with Social Security's benefit structure, these demographic realities mean that in about year 2017 the program will begin paying out more in benefits than it receives in revenue. This means the Federal government will have to redeem the IOUs in the Social Security Trust Fund, forcing cuts in other programs, tax increases, or more borrowing.

These numbers have changed little in the past four years since President George W. Bush has been in office. For example, in the last Social Security Trustees Report under the Clinton Administration the program shortfall was projected to begin in 2016, compared to the current projection of 2017. In total, the program's unfunded liability is about \$11 trillion in present value terms. Action is needed to deal with this problem.

To think about the problems with the Social Security system, it is useful to begin by noting that, contrary to what many workers believe, their contributions to the system in the form of taxes are not kept and used to fund their retirement. This would be known as a pre-funded system. Instead, their taxes are immediately used to pay the benefits of current retirees. The viability of this type of pay-as-you-go system is vulnerable to the changes in demographics that we are experiencing today.

Compounding this situation is a change made in 1977 where each generation of retirees receives higher real benefits than the generation before it. This stems from the indexation of the initial level of benefits to wages, which over time grow faster than prices. A person with average wages retiring at age 65 this year gets an annual benefit of about \$14,000, but a similar person retiring in 2050 is scheduled to get over \$20,000 in today's dollars. In other words, even after adjusting for inflation,

today's 20-year-old worker is promised benefits that are 40 percent higher than what his or her grandparent receives today.

The combination of large benefit increases and a growing elderly population puts the current Social Security system on an unsustainable path.

President Bush has outlined four key principles for strengthening Social Security. First, no changes should occur for current or near retirees. Social Security is secure today. It is for future generations that changes must be made. Second, there should be no increases in the payroll tax rate. The tax has already been increased 20 times since the program's creation. Third, the program must be permanently fixed. Short-term funding fixes are not acceptable. Finally, Social Security should include voluntary personal retirement accounts. The Nation's retirement system should ensure that all workers have the opportunity to build their own nest egg.

Roughly half of Americans are now investors. For example, millions of Americans have become accustomed to IRAs, 401(k)s and other defined contribution pensions. They don't have to rely on their employer to pay their pension when they retire, they can take their account from job to job, and they manage it, own it and can pass it own to their children. President Bush believes every worker—not just a middle or upper income worker—deserves the opportunity to have his or her own nest egg.

Under the President's proposal for personal retirement accounts, any worker born after 1950 would have the option of putting up to four percentage points of their 12.4 percent payroll tax into the accounts. The accounts would be phased-in over time. Contributions would be initially capped at \$1,000 per year. The amount contributed to the accounts would be used to determine how much a worker's traditional Social Security benefit would be offset.

Investment options and management of the accounts would be similar to that of the Federal employee retirement program, known as the Thrift Savings Plan (TSP). Workers would be permitted to allocate their contributions among a small number of very broadly diversified index funds patterned after current TSP funds. A centralized administrative structure would be created to collect personal retirement account contributions, manage investments, maintain records, and facilitate withdrawals at retirement. The Social Security Administration's non-partisan actuaries estimate that the ongoing administrative costs for these TSP-styled accounts would be roughly 30 basis points. Private mutual funds cost roughly three times as much.

Personal retirement accounts in Social Security would not be accessible prior to retirement. Once retired, workers would not be allowed lump sum withdrawals that would result in their moving below the poverty line.

This proposal holds much promise. In addition to helping to pre-fund the system and allowing every worker the opportunity to own a nest egg, personal retirement accounts provide the possibility to earn a greater rate of return than what Social Security can actually fund for future retirees. The accounts can also help increase national savings as they reduce the likelihood that Social Security surpluses will be spent on other programs.

Other reforms to Social Security must take place in order to restore solvency to the Social Security system. In his State of the Union Address earlier this year, President Bush outlined a variety of options advocated by both Democrats and Republicans that would comply with his principles. The President is eager to work with Congress to arrive at a package of reforms that will permanently fix the system.

TAXES

This year's *Economic Report of the President* highlights the need and options for reforming our tax code. It outlines some pros and cons of various reform prototypes. The report does not make recommendations, which will be the responsibility of the tax reform advisory panel later this year.

The problems of our current tax system are well-known and well-documented. The current system is overly complex and distorts incentives for work, saving and investment. The complexity imposes high costs in terms of time and money for taxpayers to file returns and comply with all the rules.

The distortionary effects of high tax rates on work, saving and investment impose high costs of another kind: deadweight economic losses from distorted economic decisions and the resulting inefficient use of resources. These distortions cause reductions in economic welfare that exceed the amount of tax collected. These costs above and beyond the revenues collected are called the "excess burden" of the tax system.

One recent academic study estimated that for the tax system in effect before President Bush took office, the excess burden associated with increasing taxes by one dollar was about 27 cents. In other words, the total burden of collecting \$1.00 in additional in taxes was \$1.27, not counting compliance costs. How much better could we do if we reformed our tax system? The study estimated that adopting a reformed income tax system, or one of several alternative reforms that would eliminate the tax bias against saving and investment, could reduce this excess burden by 50 percent or more. Such reforms could also result in substantial simplification.

We should note, however, that significant progress has been made. In the last four years tax rates have been cut, the double tax on corporate income has been reduced, fairness has been improved for families, and this has been done while enhancing the overall progressivity of the tax system.

The 2001 and 2003 tax relief bills reduced marginal tax rates and created a low 10 percent rate. These lower rates improve economic incentives because taxpayers get to keep more of each additional dollar that they earn, save or invest.

The 2003 tax bill reduced the double tax on corporate income by reducing the individual income tax rates for both dividends and capital gains. Corporate income is taxed first under the corporate income tax and then a second time under the individual income tax as dividends or capital gains. Consequently, the total Federal tax rate on corporate income can be very high. For example, in 2000, the total Federal tax rate on a dollar of corporate income paid out as a dividend could be as high as 60.75 percent (calculated as the 35 percent corporate rate plus an individual tax rate of up to 39.6 percent on the 65 cents of after-tax corporate income available for dividends).

Economists are in broad agreement that this double taxation creates serious economic distortions. Indeed, historically the United States was almost alone among advanced countries in failing to provide some form of relief from double taxation of corporate income.

Proponents of the tax relief argued that it would lead to more dividends being paid by corporations. Was this prediction correct? One study found that the percentage of publicly traded firms paying dividends began to increase precisely when the new law became effective in 2003. This percentage had been declining for more than 20 years. The study found that nearly 150 firms started paying dividends after the tax cut, adding more than \$1.5 billion to total quarterly dividends. Many firms already paying dividends raised their regular dividend payments, and others made special one-time dividend payments to shareholders. Overall, the response has been substantial. Another study estimated that over time, dividends will increase by 31 percent, about \$111 billion in additional annual dividends at 2002 levels.

Looking more broadly, the U.S. Treasury Department has estimated that the tax relief passed in 2001 and 2003 increased real GDP by as much as 3 percent, and that without it, the unemployment rate would have been nearly one percentage point higher at the end of 2003. As many as 2 million fewer jobs would not have been available.

But there is more to be done in the tax area. As mentioned earlier, the President has appointed a bi-partisan blue ribbon panel to study tax reform and report back to the Secretary of the Treasury by July 31st of this year.

The 2005 *Economic Report of the President* discusses a number of other issues as part of the President's economic agenda. We will briefly summarize the issues below and encourage you to read the text for any issues that you find particularly interesting.

EXPANDING INDIVIDUAL CHOICE AND CONTROL

Property rights are the key ingredient to expanding individual choice and control. They provide the crucial link between people's effort and their reward. They are the instrument society uses to establish people's control over things. In practice, these go by many names, such as deeds, titles, permits, vouchers, allowances, or accounts. Patents and copyrights are also property rights, establishing control over inventions, books, songs, and other creative concepts. The essential idea is the same in each case: the owner of the property right controls how something valuable is used.

Using property rights to address policy problems is consistent with the principles of a free society because it assigns decision-making authority to individual decision-makers, rather than to central authorities. By giving firms, individuals, and families the authority to make decisions about the use of their own resources, property rights give control to those entities that have both the best information and the strongest incentives to use those resources efficiently.

Property rights solve the “tragedy of the commons” problem by encouraging owners to reduce the intensity of resource use. If an open access resource, such as fisheries or the air, is overused, assigning property rights to that resource will encourage its conservation. Ownership of a resource also encourages owners to invest in and improve the resource.

Property rights have important economic effects because they underpin market operation. Markets are socially beneficial because they allocate resources to their highest valued use and because they provide valuable price signals to both buyers and sellers. Without well-defined and enforced property rights, markets will work poorly or will not work at all.

Property rights analysis can illuminate similarities in policy solutions that may at first seem very different. There are numerous examples of the success of property rights in addressing policy problems, including air pollution, overfishing, and poorly performing public schools. Property rights have facilitated cleanup of the air at low cost, have allowed fish stocks to recover, and have improved the performance of schools in those areas where they have been used effectively. Property rights can be used to help address other policy issues.

The President’s agenda already uses property rights to expand individual choice and control through a variety of proposals, including the recently passed Health Savings Accounts and Millennium Challenge Accounts, and his proposal for personal retirement accounts in Social Security.

INNOVATION AND THE INFORMATION ECONOMY

The information technology sector has been a vibrant part of our economy and there is every indication that it will continue to be. The continued strength of this sector depends on fostering an environment in which innovation will flourish.

In a free market, innovators compete to lower the cost of goods, improve their quality and usefulness, and develop entirely new goods that promise quantum leaps in consumer welfare. People are motivated to invest in developing new ideas and the infrastructure to enter new markets by the prospect of earning returns on their investment. Government thus has an important role to play in defining property rights in intellectual and physical capital so that people will be spurred to invest and innovate, as well as ensuring the development of an environment in which public safety and national security are protected.

Government efforts to hasten the spread of innovative technologies should focus on lowering regulatory barriers that impede market provision. But government should avoid “picking winners” among emerging services. Doing so could entrench services that may become outdated as the marketplace evolves and hinder people from choosing the services they truly prefer. At this time, it is hard to predict the range of technologies that will emerge to deliver high-speed data services, or even what the scope of these services will be. As people vote with their dollars, the market winners that emerge will be those technologies and services that deliver customers the greatest value.

MODERN INTERNATIONAL TRADE

Open markets and free trade raise living standards both at home and abroad. The President’s policy of opening markets around the world is based on this solid foundation. As international trade has grown in both volume and scope, however, so too have concerns that traditional ideas about trade policies no longer apply to today’s trade environment.

Free trade allows countries to mutually benefit from specializing in producing goods at which they are adept and then exchanging those goods. This rationale remains the same, even with advances in technology and new types of trade.

The Administration’s pursuit of trade liberalization is based upon a long history of intellectual support for free trade. Modern trade theory begins with the nineteenth century’s David Ricardo. Ricardo’s central insight—his elegant model of comparative advantage—is the starting point from which to explain the gains from trade. Ricardo’s model of comparative advantage addressed the question of how a home country could compete with a foreign trading partner that is better at producing everything. Ricardo showed that even if a foreign country could produce each of two goods for less than the home country could (that is, the foreign country has an absolute advantage in the production of the goods), there could still be mutual gains from trading the two goods. The key to the argument is that it is relative costs of production (comparative advantage) that matter, not absolute advantage.

The best evidence indicates that the United States enjoys such a comparative advantage in services trade. The United States exports more services than it imports, and this surplus in services' trade has been growing in recent years. Moreover, U.S. services exports tend to involve relatively highly-skilled and highly-paid occupations, such as engineering, financial services, or architectural services. While services' trade may not have been envisioned in the time of Ricardo, the principle of comparative advantage still holds. Any move toward economic isolationism would thus threaten the competitive gains made by U.S. exporters while harming U.S. consumers and firms that benefit from imports.

IMMIGRATION

In recent decades the United States has experienced a surge in immigration not seen in over a century. Immigration has touched every facet of the U.S. economy and, as the President has said, America is a stronger and better Nation for it. Immigrants today come from countries around the world and work in diverse occupations ranging from construction workers and cooks to computer programmers and medical doctors.

Immigrants have settled in all parts of our Nation and have generally succeeded in finding jobs quickly, helped in large measure by the flexibility of the U.S. labor market. One indicator of this success is that foreign-born workers in the United States have a higher labor force participation rate and lower unemployment rate than foreign workers in most major immigrant-receiving countries.

While flexible institutions may speed the economic integration of the foreign-born, the distribution of the gains from immigration can be uneven. Less-skilled U.S. workers who compete most closely with low-skilled immigrants have experienced downward pressure on their earnings as a result of immigration, although most research suggests these effects are modest. Also, communities contending with a large influx of low-skilled immigrants may experience an increased tax burden as immigrant families utilize publicly provided goods such as education and health care.

U.S. immigration policy faces a complicated set of challenges, perhaps more so now than ever before. Policy should preserve America's traditional hospitality to lawful immigrants and promote their economic contributions. Yet these goals must be balanced with the Nation's many needs, including the imperative for orderly and secure borders. These challenges have only grown in a post-9/11 world. The persistence of undocumented immigration and problems with employment-based immigration suggest that the United States needs to better enforce immigration laws and do more to address the demand for immigrant workers and the need for national security. The President's proposed Temporary Worker Program and increased funding for internal enforcement recognize these problems and would implement necessary reforms.

THE GLOBAL HIV/AIDS EPIDEMIC

Societies worldwide face the challenge of curbing the acquired immunodeficiency syndrome (AIDS) epidemic. The disease has already killed over 25 million people, and currently over 40 million people are living with the human immunodeficiency virus (HIV), the virus that causes AIDS. The impact of HIV/AIDS varies across the world, both in terms of the scale of the epidemic and the ability to treat infected individuals.

Less-developed countries are particularly hard-hit on both accounts. Almost two-thirds of all people with HIV live in sub-Saharan Africa, a region that makes up only one-tenth of the world's population. At the same time, few infected individuals in the region receive adequate treatment for the disease. In addition to the devastation from the immense loss of life, the disease also has economic consequences that intensify the humanitarian crisis.

AIDS is a global problem with far-reaching consequences. While the disease's impacts on human health and mortality are widely recognized, the AIDS epidemic also has devastating economic consequences that exacerbate the humanitarian crisis.

A comprehensive and integrated approach of prevention, treatment, and care is essential to quelling the epidemic. In poor countries, treatment affordability and the lack of health care infrastructure are major concerns. Compassionate pricing policies and aid from developed nations can play an important role in expanding access to treatment.

To continue the development of better treatments and to work toward eradication of HIV/AIDS, drug companies need to maintain the highest possible quality of re-

search. Intellectual property laws are important in ensuring appropriate incentives for innovation to create the next generation of therapies and to develop a safe and effective vaccine.

Understanding the unique challenges presented by this epidemic is essential to designing policies to prevent the spread of the disease and to treat those who are already infected. President Bush has made fighting the worldwide AIDS epidemic a priority of U.S. foreign policy, and he has taken bold action against the crisis through his Emergency Plan for AIDS Relief.

CONCLUSION

In conclusion, the U.S. economy is fundamentally sound and the outlook is very positive. Challenges remain, however, and the President has an ambitious agenda to address them, including proposals to improve trade, enact legal reform, improve access to health care, use our energy resources efficiently, and rationalize the regulatory system.

Mr. Chairman, we appreciate this opportunity to testify and welcome any questions. Thank you.



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THE EMPLOYMENT SITUATION: APRIL 2005

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES ONE HUNDRED NINTH CONGRESS

FIRST SESSION

MAY 6, 2005

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THE EMPLOYMENT SITUATION: APRIL 2005

FRIDAY, MAY 6, 2005

UNITED STATES CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC

The Committee met, pursuant to call, at 9:30 a.m., in room 1334, Longworth House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Representatives Present: Representatives Saxton and Maloney.

Staff Present: Chris Frenze, Robert Keleher, Brian Higginbotham, Colleen Healy, John Kachtik, Chad Stone, Matt Salomon, Daphne Clones Federing, Pamela Wilson and Nan Gibson.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN, U.S REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning.

It is a pleasure to welcome Commissioner Utgoff and her colleagues before the Committee this morning to discuss the latest employment data.

The April employment data are good news for the American workers. According to the payroll survey, employment increased by 274,000 jobs in April. Over the last 23 months, 3.5 million jobs have been created.

According to the household survey, employment also advanced, while the unemployment rate was 5.2 percent. Over the last year, most of the net increase in employment has been in the occupations that pay in the middle range and higher.

The employment data are consistent with other data showing that the economy continues to grow. In 2004, real GDP increased about 4 percent, followed by a more sustainable 3.1 percent pace in the first quarter of 2005. Consumption and investment both continue to rise. The strength of investment over the last 2 years has been an important factor explaining the vitality of the economy.

The economy seems to have weathered the recent rise in oil prices quite well, although oil prices have probably had some negative impact on growth. Another factor that bears watching is the potential impact of the recent expiration of tax provisions permitting expensing, which may affect the robust performance of business investment. Traces of inflation have surfaced in recent months, but inflation appears to be contained over the long term, as the Fed has recently noted.

Looking ahead, the consensus of economic forecasters is that the U.S. economy will continue to grow at a rate in excess of 3 percent through the end of 2006. This is consistent with the long-term growth path of the U.S. economy over the last several decades.

At this time, I will turn to Mrs. Maloney for any statement she may have.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 13.]

OPENING STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY, U.S. REPRESENTATIVE FROM NEW YORK

Representative Maloney. Thank you, Commissioner; and thank you very much, Chairman Saxton.

The Joint Economic Committee has a long tradition of holding these hearings with the Commissioner to discuss the latest data on the employment situation, and I am glad that we are here today continuing that important tradition.

Now this morning's news that the economy created 274,000 jobs in April is absolutely great news for America and for America's workers. However, we haven't seen very many good months of good job growth in the last 4 years as the economy has gone through the most protracted job slump since the 1930s.

We continue to see evidence of this job slump. There are still fewer private sector payroll jobs in April than there were when President Bush took office in January 2001, and there are 2.8 million fewer manufacturing jobs. Even though we have had nearly 2 years of job growth, the pace of that job creation, about 150,000 jobs per month, is not what one would expect to see in a strong jobs recovery. It seems as though we are barely treading water. As the Commissioner has testified, we need to create 120 to 150,000 jobs just to keep pace with the people coming into the labor force.

Today's report also shows that the unemployment rate remained unchanged at 5.2 percent. While it is true that the unemployment rate has come down from its peak, it is still more than a percentage point higher than the 4 percentage rate that we were able to achieve by the end of the 1990s. Today's unemployment rate masks the fact that 5.1 million people who want to work remain out of the labor force, and another 4.3 million are working part time for economic reasons. The unemployment rate would be 9 percent if those people were included. Finally, I am concerned about workers' wages and earnings, especially over the past year or so. It seems that no matter what measure of workers take-home pay you look at lately, you see that it is not keeping up with inflation. For example, in the 12 months ending in March, both average hourly earnings and average weekly earnings of private-sector workers are down about one-half percentage after accounting for inflation. Measures of total compensation, which include benefits as well as wages and salaries, are keeping up with inflation, but just barely.

The problem is that rising costs of health insurance premiums are adding to employer's costs, and they are squeezing worker's take-home pay at the same time. Not only are earnings generally not keeping up with inflation, but the distribution of earnings is becoming more unequal. For example, from the end of 2000 to the end of 2004, the real earnings of full-time workers in the middle

of the earnings distribution grew by just .2 percent per year after inflation. However, those near the top of the distribution rose by almost 1 percent per year after inflation, while those near the bottom fell by .3 per year on average. More recently, those disparities have become larger, and only earnings at the very top have exceeded inflation. This growing gap between the haves and the have-nots is something that is very—I am deeply concerned about, as I believe every American is.

Mr. Chairman, I am especially pleased to have Commissioner Utgoff here today. I look forward to hearing her comments and testimony, and I appreciate you having this hearing. Thank you.

[The prepared statement of Representative Maloney appears in the Submissions for the Record on page 13.]

Representative Saxton. Commissioner, thank you for being here today. We appreciate it, and we are ready for your testimony.

STATEMENT OF KATHLEEN P. UTGOFF, COMMISSIONER, BUREAU OF LABOR STATISTICS; ACCOMPANIED BY JACK GALVIN, ASSOCIATE COMMISSIONER FOR EMPLOYMENT AND UNEMPLOYMENT STATISTICS; AND JOHN GREENLEES, ASSOCIATE COMMISSIONER FOR PRICES

Ms. Utgoff. Thank you.

Mr. Chairman and Congresswoman Maloney, I appreciate this opportunity to comment on the labor market data we released this morning.

Sitting with me at the table is Jack Galvin, our Associate Commissioner for Employment and Unemployment, and John Greenlees, our Associate Commissioner for Prices.

In April, nonfarm payroll employment rose by 274,000, and the unemployment rate held at 5.2 percent. The increase in payroll jobs followed revised gains of 300,000 in February and 146,000 in March. Over the month, employment growth was widespread. Notable gains continued in construction, mining, food services and health care.

Among the goods-producing industries, construction employment rose by 47,000, continuing the strong growth trend of the last 2 years. Most of April's increase occurred in specialty trade contracting, with gains in both its residential and nonresidential components. Mining added 8,000 jobs in April. Over the past 6 months, mining employment has risen by 31,000, largely reflecting increased hiring for support activities for oil and gas operations.

Manufacturing employment was essentially unchanged both in April and over the year. The manufacturing work week was up by one-tenth of an hour over the month, and factory overtime held at 4.5 hours.

In the service-providing sector, food services added 35,000 jobs over the month. Following a lull in hiring last summer, industry employment has risen by 183,000 since September. Health care employment increased by 25,000 in April. The job gain was concentrated in hospitals and doctors' offices.

Employment in the information industry increased by 12,000 over the month, with gains in motion pictures and telecommunications. Job growth continued in a number of other service-providing industries, including financial activities, professional and

technical services, and transportation. Average hourly earnings of private production or non-supervisory workers rose by 5 cents in April to \$16, following a 4-cent increase in March. Over the year, average hourly earnings grew 2.7 percent.

Looking at measures from our household survey, total employment rose in April by 598,000, to 141.1 million. The labor force participation rate and the employment-to-population ratio each edged up by 0.2 percentage points, to 66.0 and 62.6 percent, respectively. The number of discouraged workers declined by 99,000 over the year, to 393,000 in April.

Both the number of unemployed persons and the unemployment rate were unchanged in April. About one in five unemployed persons had been jobless for 27 weeks or longer. The long-term unemployed have accounted for over 20 percent of total unemployment for 31 consecutive months.

As a part of our mission of reporting on America's workers each month and in recognition of Mother's Day this Sunday I would like to mention a few facts about working mothers. In today's labor market, 7 out of 10 mothers are working moms, compared with 5 out of 10 in 1975. Working moms account for almost one-fifth of all employed individuals, and nearly three-fourths of employed mothers usually work full time.

Mothers who usually work full time also spend more than 2 hours each week day performing active child care, cleaning house and preparing meals. In addition, nearly 4 out of 10 mothers who work full-time perform volunteer work at some point during the year.

I would also like to note that an updated version of a report by BLS on women in the labor force, which includes data on working mothers, will be posted on our Web site next week. This report is a compilation of information on women workers by various characteristics, including age, education, occupation and earnings.

To summarize, April's labor market data, nonfarm payroll employment increased by 274,000. The unemployment rate was unchanged over the month, at 5.2 percent.

My colleagues and I now will be glad to address your questions.

[The prepared statement of Commissioner Utgoff together with Press Release No. 05-788 appears in the Submissions for the Record on page 14.]

Representative Saxton. Commissioner, thank you very much. We particularly appreciate your remark today about working moms. It is a subject that we continue to see changes, an important change in our society. I can remember several decades ago there were very few working moms, and today there are many, and so your remarks were most appropriate. Thank you for that.

Ms. Utgoff. Thank you.

Representative Saxton. Commissioner, how would you characterize the April data? Didn't both unemployment surveys show strong gains in employment?

Ms. Utgoff. Yes, the labor market showed a good deal of strength this month.

Representative Saxton. And how large were the upward revisions in payroll employment for the months of February and March?

Ms. Utgoff. 57,000 for February.

Representative Saxton. Bringing it to a total of what kind of growth?

Ms. Utgoff. 146,000.

Representative Saxton. 146,000 in February?

Ms. Utgoff. Yes. Oh, I am sorry, that was March. February is 300,000.

Representative Saxton. 300,000 in February. So we had a slight downturn on revised numbers in March, but certainly we are seeing a trend of good growth here over the past 3 months, certainly.

Ms. Utgoff. Both of them were revised upward, so we had stronger news for the previous 2 months.

Representative Saxton. Okay, thank you. So over the past 3 months, including this month, we have seen, overall, good growth.

Ms. Utgoff. Yes.

Representative Saxton. Is it typical for this stage of a cycle, or is it unusual?

Ms. Utgoff. I think when we talk about a cycle we have to realize that what we have seen since March, 2001, is very atypical. It doesn't look like other recessions. But this kind of growth is normal for when the labor market starts to recover.

Representative Saxton. Okay. Thank you.

What factors contributed to the revisions of February and March?

Ms. Utgoff. The revisions for February were in leisure and hospitality, largely eating and drinking. The revisions for March were spread widely throughout all of the industries.

Representative Saxton. Thank you.

Are there any signs in the April data that workers are choosing to enter the workforce? Are we seeing any movement of encouraged workers who may perceive that the labor market conditions continue to improve?

Ms. Utgoff. The household survey shows a very strong increase in participants in the labor force, and it also shows a strong growth in employment.

Representative Saxton. So individuals who are unemployed are becoming more encouraged to seek jobs, is that a fair statement?

Ms. Utgoff. Yes. Over the last year, the number of discouraged workers has declined.

Representative Saxton. In your statement, you note that the monthly gain in payroll employment was widespread. Isn't this reflected in the defusion index which rose to 61.3?

Ms. Utgoff. Yes.

Representative Saxton. What does that mean? 61.3 percent is a number which means what?

Ms. Utgoff. It reflects roughly the percentage of industries that have increased employment that month. It is actually the percent with an increase, half the percent of the industries that had no change to reflect, so that 50 is the mark for neither contraction or expansion.

Representative Saxton. So of all the firms in the index, 61.3 percent have growth in employment?

Ms. Utgoff. Yes.

Representative Saxton. In your statement you also note an increase in employment related to oil and gas operations. How do you interpret this increase?

Ms. Utgoff. I think this is related to the increase in fuel prices, which has led for more exploration and people providing the services for more exploration and drilling.

Representative Saxton. Now I have noted that, with regard to coal operations—speaking of energy—there have been some reports that coal mining operations have had trouble finding workers. Is this reflected in your data?

Ms. Utgoff. There has been an increase of employment in mining over the last 12 months, about 6,300. Now they may have wanted to hire 20,000, so that there is a shortage, but we do see an increase in employment over the year.

Representative Saxton. Also in your statement you mention that over the last 2 years construction employment has been strong. This strength seems to be quite consistent month after month over the recovery, hasn't it?

Ms. Utgoff. Yes.

Representative Saxton. Is that a reflection of something that has been happening generally in the housing market?

Ms. Utgoff. Yes. The low interest rates have sparked a fairly strong housing boom. We see that in construction, we see that in the financial services that deal with mortgages, we see that throughout the employment situation—that if it is related to the housing market—it is showing strength.

Representative Saxton. And slightly out of your domain, I guess, but let me ask this question anyway. We have noted that the Fed has had a continuing slow increase of short-term interest rates, but, at the same time, long-term interest rates have continued to at least be stable and in some cases fall. Has this contributed to the housing market, and do you have any thoughts about what is causing the long-term rate to remain stable while short-term rates are increasing?

Ms. Utgoff. Chairman Greenspan is far better than I on that—and that is totally out of my bailiwick.

Representative Saxton. Okay, thank you.

Let me just turn to the rate of unemployment for just a moment. We have a chart that our great helper is going to help us put up there.

The point that I want to make here is that Mrs. Maloney pointed out that the rate of unemployment remained at 5.2 percent this month. I just wanted to point out that, in spite of the fact that the rate of unemployment remained at 5.2 percent, we have already talked here in the last few minutes about the rate of unemployment; and one of the things that, of course, keep it from falling is that more and more people are attempting to enter the workforce, and that is good.

Now over the last three and a half decades, this chart shows the—through the red line—the trends in the rate of unemployment. And, of course, during the 1970s, we saw unemployment peak out at around 9 percent; during the 1980s, we saw unemployment peak out at just under 11 percent; during the 1990s, we saw unemploy-

ment peak out at just under 8 percent; and in this recession that we are now recovering from, we saw the rate of employment peak out at 6.2 percent. So the peak of 9 percent in the 1970s, the peak of almost 11 percent in the 1980s, the peak of almost 8 percent in the 1990s far surpassed the peak of unemployment that we saw of 6.2 percent in this cycle. And, further, the average rate of unemployment in the 1970s was 6.2 percent, in the 1980s was 7.3 percent, and in the 1990s was 5.8 percent.

So while we would like to see full employment, whatever that is, we certainly are in a period when we should be fairly pleased, I would think, with the way the job recovery and the rate of unemployment have shown great long-term progress here. And I just wondered if there is anything about this chart that you would like to remark about or comment on inasmuch as this is—at least over the last three and a half decades we are in a fairly historic position in terms of long-term low-unemployment rates.

Ms. Utgoff. Yes. We just checked the numbers, and what you have there is correct.

Representative Saxton. Okay. Thank you.

Mrs. Maloney.

Representative Maloney. It is always good to hear you are correct. First of all, I would like to thank you very much for including Mother's Day employment numbers. They show a tremendous shift, really, in the framework of our country. Seven out of ten mothers are now in the labor force.

I think this is such an important issue. One of the areas I work in is supporting policies in the private and public sector to support working mothers; and I would like to request a hearing just on working mothers or, at the very least, the opportunity, Commissioner, to speak with you in depth on the numbers that you see in this really dramatic change in the way our country is constructed.

But I do want to go back to the Chairman's chart, and I am glad that it is correct. Because one of the things that it shows is that the unemployment numbers are still higher than when President Bush took office. Although there is a larger participation, it is still not as large as I would like to see; and I would like to ask specifically, Commissioner, the unemployment rate remains at least a percentage point higher than it was before the start of the recession, is that correct? And what was the unemployment rate in April?

Ms. Utgoff. The unemployment rate in April was 5.2 percent. In March 2001, last business cycle peak, the jobless rate was 4.3.

Representative Maloney. 4.3, okay. So the labor force participation rate I think is tremendously important.

Wouldn't you expect in an economic recovery that people who had dropped out of the labor force would begin to come back and that the labor force participation rate would increase? What has been the recent level of the labor force participation rate, and how does that compare with what it was in 2000 and early 2001? And if I could add, when was the last time the labor force participation rate was this low?

Ms. Utgoff. In April, the labor force participation rate was 66.0 percent. The rate peaked at 67.3 in the first few months of 2000,

and it was at 67.2 percent in March 2001, at the business cycle peak.

You asked me when the last time we had these kinds of rates. The labor force participation rate has been at or near 66 percent since mid-2003. Prior to the 2001 recession, the rate was last in that general range in 1993.

Representative Maloney. So we would have to go back at least 10 years—

Ms. Utgoff. That is correct.

Representative Maloney [continuing]. For it to be in this range.

The employment-to-population ratio is very important, and I would like to understand this more. What fraction of the population was employed in April? And how does the employment-to-population ratio in recent months compare to what it was in 2000 or early 2001? And when was the last time the employment-to-population rate was as low as it has been recently?

Ms. Utgoff. The employment-to-population ratio now is 62.1—I am sorry, 62.6; and the annual average in 2000 was 64.4. In January 2001, the employment-to-population ratio was 64.4.

You asked about when the last time it was as low as it is now. The employment-to-population ratio has been about 62.5 percent since the middle of last year. The last time it had been at the level prior to this recession was in mid-1994.

Representative Maloney. The official unemployment rate does not, as I understand it, include people who want to work but do not satisfy all of the requirements to be officially classified as unemployed. When people who want a job that are not in the labor force and people who want to work full time but can only get a part time job are included, that measure of labor market slack is much higher than the official unemployment rate. So how many people are officially counted as unemployed now?

Ms. Utgoff. 7.7 million.

Representative Maloney. 7.7 million. How many people who are not in the labor force say they want a job now?

Ms. Utgoff. 1.5 million people say that they are not in the labor force, but they say they want a job, have searched for work in the prior 12 months, and are available to work now.

Representative Maloney. How many people are working part time for economic reasons and presumably would want to work full time if they could get a full-time job?

Ms. Utgoff. In April, 2005, that was 4.3 million.

Representative Maloney. What would the unemployment rate be if you included people who want a job now but are not in the labor force and people who are working part time not for economic reasons but because they cannot get a full time job?

Ms. Utgoff. That is one of the unemployment rates we published. It is called the U-6, and that number would be 9 percent.

Representative Maloney. Nine percent.

May I continue asking questions, Mr. Chairman?

Representative Saxton. Sure.

Representative Maloney. Thank you.

Something that really concerns me deeply and that I, quite frankly, do not understand, is why are we not seeing stronger wage

growth? We see some good employment numbers across the board, which is great news, but the wage growth does not appear to be growing.

A few weeks ago—in fact, the last time we had a hearing—the L.A. Times ran a story entitled, “Wages Lagging Behind Prices.” Inflation has outpaced the rise of salaries for the first time in 14 years, and workers are paying a bigger share of the cost of their health care.

Then the next day the New York Times ran a story headlined, “Falling Fortunes of the Wage Earners.” What has been happening to growth and wages and earnings recently compared with what has been happening to inflation? In other words, have workers’ paychecks been keeping up with inflation?

Ms. Utgoff. There are several measures of earnings. Let me talk about the ones that are in the report that I testified on today, and that is real earnings of production or nonsupervisory workers. That, in real terms, declined a half a percent from March 2004 to March 2005.

Representative Maloney. But haven’t we seen pretty strong productivity growth over the past 4 years, and wouldn’t we expect to see that translated into solid growth and real jobs? Productivity is growing up faster than real wages.

Ms. Utgoff. That is the theory; that productivity leads to higher wages. We just have not seen it in the last part of this cycle.

Representative Maloney. Most of this strong growth and labor productivity has, therefore, translated into profits, not wages, hasn’t it?

Ms. Utgoff. The Bureau of Labor Statistics has very limited information on profits. Our productivity analysis reports on profits in the nonfinancial corporations. In 2004, productivity in nonfinancial corporations increased by 3.9 percent, hourly compensation by 4.4 percent, and unit profits by 20 percent.

Representative Maloney. Employers’ costs—and I am hearing a lot of this from my constituents that are very concerned that their costs are not only wages and salaries but also benefits, and the cost of benefits are going up really dramatically. When employers costs go up because they have to pay more for health insurance, how does that affect our measure of employee compensation? Aren’t workers subject to a squeeze on their take-home pay as employers have to pay more for their health insurance? And if employers are shifting more of the burden of rising health care costs onto their workers, does that not reduce the purchasing power of that take-home pay still more?

Ms. Utgoff. You asked how is the compensation measured. We have an employment cost index which measures wages and salaries and benefits and then the total compensation package. Wages and salaries have not risen as quickly as the benefits increases, so I think it is fair to say that there has been pressure on wages and salaries because of increases in workers’ benefit costs, particularly pension and health benefits.

Representative Maloney. I believe that the BLS publishes data on the usual weekly earnings of full-time workers, including some information about the wage distribution, is that correct?

Ms. Utgoff. Yes.

Representative Maloney. Well, our staff has done some calculations that shows some disturbing trends in that wage distribution. First, they show that from the fourth quarter of 2000 to the fourth quarter of 2004, median earnings had increased by just .2 percent per year after inflation. Does that seem about right to you?

Ms. Utgoff. We have done the same calculation, and it is about right. We calculated a gain of about .15 percent.

Representative Maloney. Okay, thank you.

However, earnings near the very top of the earnings distribution, the 90th percentage, have risen by roughly .9 percent per year, while earnings near the bottom, the tenth percentile, have fallen by 3 percent per year. Does that seem about right to you as well?

Ms. Utgoff. Well, let me read the numbers for you.

During that 4-year period, you are talking about nominal earnings. If the ninth decile grew from 1,299 to 1,477, that was up 13.7 percent, while those at the first decile increased from \$284-308, that is up 8.5 percent. Now, inflation over this period rose by 9.6 percent. So, in real terms, those at the ninth decile have seen earnings growth around 1 percent per year, while those in the first decile have seen their earnings decline .3.

Representative Maloney. Thank you.

So in other words, things seem to have gotten worse in the past year, comparing the first quarter of this year with the comparable period a year ago. Only the very top of the distribution seems to have experienced real wage gains, while earnings at the bottom, the tenth percentile, were down 1.3. Do those numbers sound roughly right to you, or—

Ms. Utgoff. Yes. From the first quarter of 2004 to the first quarter of 2005, weekly earnings at the ninth decile are up in nominal terms, and earnings in the first decile are up about 1.6 percent.

Given that the CPI is up about 3 percent over this period, earnings among workers at the ninth decile have seen a small increase in real terms over this period, while those in the first decile have experienced a decline of about 1.4 percent.

Representative Maloney. Thank you.

Well, this job growth is really encouraging. 274,000 jobs in this month is just great news for America. But I would like to know, how long does it usually take from when the economy first begins to lose jobs in a recession until the job's deficit created by that recession is completely erased?

Ms. Utgoff. It varies. It took 28 months to recover from the—

Representative Maloney. It is roughly 2 years, would you say?

Ms. Utgoff. Yes.

Representative Maloney. And hasn't it taken us nearly 4 years in this business cycle just to get back to where we were when this recession started?

Ms. Utgoff. Yes.

Representative Maloney. And when you take out growth in government jobs, don't we still have fewer jobs on private payrolls than there were when President Bush took office in January 2001, or at the start of the recession in March 2001?

Ms. Utgoff. That is correct.

Representative Maloney. More than 4 years after the start of a recession, isn't our usual experience that there are two or three

million more payroll jobs than there were when the recession started, instead of a deficit?

Ms. Utgoff. Can we get back to you the average? The question is, 4 years after a—

Representative Maloney. Start of a recession.

Ms. Utgoff [continuing]. The start of a recession what is the average job growth?

Representative Maloney. Yes, payroll jobs.

Ms. Utgoff. Okay. We don't have those numbers here with us today.

Representative Maloney. If you could get back.

[The information referred to may be found on page 41.]

Representative Maloney. And aren't there significantly fewer manufacturing jobs than there were in 2001?

Ms. Utgoff. Yes.

Representative Maloney. Roughly 2.6 million less.

Ms. Utgoff. That is right.

Representative Maloney. And those persistent job deficits are different from anything we have seen in a business cycle for a very long time, aren't they?

Ms. Utgoff. Yes.

Representative Maloney. Thank you.

One of the reports that I—it was not in your statement but was really in the news broadcast this morning—is that Americans are working longer hours, that the number of hours Americans are working is longer. And I am just interested, given the fact that you show how long the women are working and then working at home, too, is it true that the numbers that Americans are working for their wages are growing longer? I heard that on a news report this morning.

Ms. Utgoff. The average hours worked are a function of not just how many people are working but where they are working. Manufacturing tends to have higher hours than the service industry. So that over the last several years, as you have seen a shift out of manufacturing, average hours have fairly gone down.

Representative Maloney. They have gone down.

Thank you very much. I have no further questions. 274,000 jobs sounds good to me, Mr. Chairman. I hope it continues.

Representative Saxton. Well, I just have one question, and I guess this is a rhetorical one. Inasmuch as Mrs. Maloney went to great pains to point out what she perceives as the various weaknesses in this cycle related to Mr. Bush, I wonder if she would give Mr. Bush credit over the past 3 months for having created an average of 240,000 jobs a month.

Representative Maloney. What I am very concerned about, Mr. Chairman, are the structural challenges that we face. This is probably not a question for the BLS, but I am concerned that we have raised the debt ceiling three times in this administration, that we have three records—

Representative Saxton. You are not answering my question. It is my time. I am going to reclaim my time. My question said, do you give the President credit for having created 240,000 jobs a month for the last 3 months? That is a very good rate of job creation.

In addition to that—let me amend my question. Do you criticize in any way the previous administration for the loss of manufacturing jobs which took place in 1998, 1999, and 2000? Wouldn't it be fair to blame that administration for that job loss in manufacturing?

Representative Maloney. Mr. Chairman, I am not blaming anyone. My questions were very factual and aimed at getting information. The fact that our country is losing manufacturing jobs is a challenge to both sides of the aisle to try to reverse that disturbing trend, no matter what administration it is in. We have seen today 4 records—record job growth, record deficits, record trade deficit, and record debt—and I am concerned about these structural challenges that this country faces with the growing and looming debt.

Mr. Chairman, you and I both owe the Federal government \$27,000 of what our personal debt price is. I happen to be concerned about that. And until we address the structural challenges, I don't feel that continued prosperity for our country long term is extremely positive.

We are a great country. I hope the stock market goes up. This is great employment. I hope some of those people that got those jobs live in my district, in the great State of New York. I am very happy about this job growth, and let's work together to come up with some policies to reverse the disturbing loss of manufacturing jobs and to try to structurally address the challenges that we confront.

I am concerned that there are some people that want to add another couple of trillion dollars of debt in a structure to go to private insurance. Now if you want to go to private insurance, don't add debt to the American people—

Representative Saxton. I am going to reclaim my time. I am sorry. The gentlelady is out of order.

Representative Maloney. I was answering your question.

Representative Saxton. I think you were filibustering.

I think the 240,000 average job growth during the last 3 months speaks for itself.

With regard to manufacturing jobs, I am pleased that the gentlelady has pointed out that—and has agreed that it is part and parcel of both administrations. It is a set of issues that we do need to address on a bipartisan basis. And certainly—I will conclude with this—the gentlelady's questions were aimed at pointing out the weaknesses which she inferred took place because of this administration.

Thank you very much. The hearing is adjourned.

[Whereupon, at 10:13 a.m., the hearing was adjourned.]

Submissions for the Record

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

It is a pleasure to welcome Commissioner Utgoff and her colleagues before the Committee this morning to discuss the latest employment data.

The April employment data are good news for American workers. According to the payroll survey, employment increased by 274,000 jobs in April. Over the last 23 months, 3.5 million jobs have been created.

According to the household survey, employment also advanced, while the unemployment rate was 5.2 percent. Over the last year, most of the net increase in employment has been in occupations that pay in the middle range and higher.

The employment data are consistent with other data showing that the economy continues to grow. In 2004, real GDP increased about 4 percent, followed by a more sustainable 3.1 percent pace in the first quarter of 2005. Consumption and investment both continue to rise. The strength of investment over the last 2 years has been an important factor explaining the vitality of the economy.

The economy seems to have weathered the recent rise in oil prices quite well, although oil prices have probably had some negative impact on growth. Another factor that bears watching is the potential impact of the recent expiration of tax provisions permitting expensing, which may affect the robust performance of business investment. Traces of inflation have surfaced in recent months, but inflation appears to be contained over the long term, as the Fed has recently noted.

Looking ahead, the consensus of economic forecasters is that the U.S. economy will continue to grow at a rate in excess of 3 percent through the end of 2006. This is consistent with the long-term growth path of the U.S. economy over the last several decades.

PREPARED STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY

Thank you, Chairman Saxton. The Joint Economic Committee has a long tradition of holding these hearings with the Commissioner of the Bureau of Labor Statistics to discuss the latest data on the employment situation, and I am glad we are able to continue that tradition today.

This morning's news that the economy created 274,000 jobs in April is certainly good news for American workers. However, we haven't seen very many months of good job growth in the last 4 years as the economy has gone through the most protracted jobs slump since the 1930's.

We continue to see evidence of that jobs slump. There were still fewer private sector payroll jobs in April than there were when President Bush took office in January 2001, and there are 2.8 million fewer manufacturing jobs. Even though we have had nearly 2 years of job growth, the pace of that job creation—about 150,000 jobs per month—is not what one would expect to see in a strong jobs recovery. It seems as though we are barely treading water in terms of keeping up with population growth and encouraging people to come back into the labor force after a long jobs drought.

Today's report also shows that the unemployment rate remained unchanged at 5.2 percent. While it is true that the unemployment rate has come down from its peak, it still is more than a percentage point higher than the 4 percent rate we were able to achieve by the end of the 1990's. Moreover, today's unemployment rate masks the fact that 5.1 million people who want to work remain out of the labor force and another 4.3 million are working part-time for economic reasons. The unemployment rate would be 9.0 percent if those people were included.

Finally, I am concerned about workers' wages and earnings, especially over the past year or so. It seems that no matter what measure of workers' take-home pay you look at lately you see that it is not keeping up with inflation. For example, in the 12 months ending in March, both average hourly earnings and average weekly

earnings of private sector workers are down about ½ percent after accounting for inflation. Measures of total compensation, which include benefits as well as wages and salaries, are keeping up with inflation—but just barely. The problem is that rising costs of health insurance premiums are adding to employers' costs but they are squeezing workers' take-home pay at the same time.

Not only are earnings generally not keeping up with inflation, but the distribution of earnings is becoming more unequal. For example, from the end of 2000 to the end of 2004, the real earnings of full-time workers in the middle of the earnings distribution grew by just 0.2 percent per year after inflation. However, those near the top of the distribution rose by almost 1 percent per year after inflation, while those near the bottom fell by 0.3 percent per year, on average. More recently, those disparities have become larger and only earnings at the very top have exceeded inflation.

Mr. Chairman, I am very pleased to have Commissioner Utgoff here today and I look forward to hearing her testimony and pursuing with her some of the concerns I have raised about the employment situation.

PREPARED STATEMENT OF KATHLEEN P. UTGOFF, COMMISSIONER,
BUREAU OF LABOR STATISTICS

Mr. Chairman and Members of the Committee: I appreciate this opportunity to comment on the labor market data we released this morning.

Nonfarm payroll employment rose by 274,000 in April, and the unemployment rate held at 5.2 percent. The increase in payroll jobs followed revised gains of 300,000 in February and 146,000 in March. Over the month, employment growth was widespread. Notable gains continued in construction, mining, food services, and health care.

Among the goods-producing industries, construction employment rose by 47,000, continuing the strong growth trend of the last 2 years. Most of April's increase occurred in specialty trade contracting (40,000), with gains in both its residential and nonresidential components. Mining added 8,000 jobs in April. Over the past 6 months, mining employment has risen by 31,000, largely reflecting increased hiring for support activities for oil and gas operations.

Manufacturing employment was essentially unchanged both in April and over the year. The manufacturing workweek was up by one-tenth of an hour over the month, and factory overtime held at 4.5 hours.

In the service-providing sector, food services added 35,000 jobs over the month. Following a lull in hiring last summer, industry employment has risen by 183,000 since September. Health care employment increased by 25,000 in April. The job gain was concentrated in hospitals and in doctors' offices.

Employment in the information industry increased by 12,000 over the month, with gains in motion pictures and telecommunications. Job growth continued in a number of other service-providing industries, including financial activities, professional and technical services, and transportation.

Average hourly earnings of private production or nonsupervisory workers rose by 5 cents in April to \$16.00, following a 4-cent increase in March. Over the year, average hourly earnings grew by 2.7 percent.

Looking at the measures from our household survey, total employment rose in April by 598,000 to 141.1 million. The labor force participation rate and the employment population ratio each edged up by 0.2 percentage point to 66.0 and 62.6 percent, respectively. The number of discouraged workers (persons outside the labor force who had stopped looking for work because they believed their job search efforts would be fruitless) declined by 99,000 over the year to 393,000 in April (not seasonally adjusted).

Both the number of unemployed persons and the unemployment rate were unchanged in April. About 1 in 5 unemployed persons had been jobless for 27 weeks or longer. The long-term unemployed have accounted for over 20 percent of total unemployment for 31 consecutive months.

As part of our mission of reporting on America's workers each month, and in recognition of Mother's Day this Sunday, I would like to mention a few facts about working mothers. In today's labor market, 7 out of 10 mothers are in the labor force, compared with 5 out of 10 in 1975. Working moms account for almost one-fifth of all employed individuals, and nearly three-fourths of employed mothers usually work full time. Mothers who usually work full time also spend more than 2 hours each weekday performing active childcare, cleaning house, and preparing meals. In addition, nearly 4 out of 10 mothers who work full time perform volunteer work at some point during the year.

I also would note that an updated version of a report by BLS on women in the labor force, which includes data on working mothers, will be posted on our Web site next week. This report is a compilation of information on women workers by various characteristics, including age, education, occupation, and earnings.

To summarize April's labor market data, nonfarm payroll employment increased by 274,000. The unemployment rate was unchanged over the month, at 5.2 percent.

My colleagues and I now would be glad to address your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information:

Household data: (202) 691-6378
<http://www.bls.gov/cps/>

USDL 05-788

Establishment data: 691-6555
<http://www.bls.gov/ces/>

Transmission of material in this release
is embargoed until 8:30 A.M. (EDT),
Friday, May 6, 2005.

Media contact: 691-5902

THE EMPLOYMENT SITUATION: APRIL 2005

Employment rose in April, and the unemployment rate was unchanged at 5.2 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment increased by 274,000 over the month. Job growth was widespread, with gains in construction, mining, and several service-providing industries.

Chart 1. Unemployment rate, seasonally adjusted,
Percent
May 2002 – April 2005

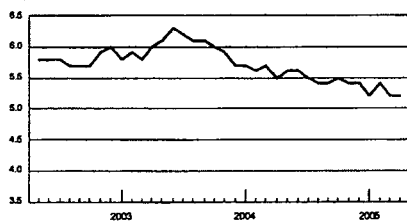
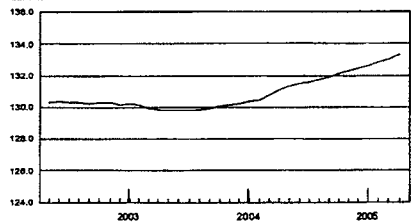


Chart 2. Nonfarm payroll employment, seasonally adjusted,
Millions
May 2002 – April 2005



Unemployment (Household Survey Data)

Both the number of unemployed persons, 7.7 million, and the unemployment rate, 5.2 percent, were unchanged in April. The jobless rate was down from 5.5 percent a year earlier. Over the month, the unemployment rates for adult men (4.4 percent), adult women (4.6 percent), teenagers (17.7 percent), whites (4.4 percent), and blacks (10.4 percent) showed little or no change. After declining in March, the unemployment rate for Hispanics or Latinos increased to 6.4 percent, the same as in February. The jobless rate for Asians was 3.9 percent, not seasonally adjusted. (See tables A-1, A-2, and A-3.)

The number of long-term unemployed—those unemployed 27 weeks and over—was about unchanged over the month. This group accounted for 21.2 percent of the unemployed. (See table A-9.)

Total Employment and the Labor Force (Household Survey Data)

Total employment grew by 598,000 in April to 141.1 million, and the employment-population ratio—the proportion of the population age 16 and over with jobs—edged up to 62.6 percent. The civilian labor force

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | Mar.- Apr. change |
|---|--------------------|----------|--------------|----------|----------|-------------------------|
| | 2004 | 2005 | 2005 | | | |
| | IV | I | Feb. | Mar. | Apr. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 148,136 | 148,089 | 148,132 | 148,157 | 148,762 | 605 |
| Employment..... | 140,092 | 140,296 | 140,144 | 140,501 | 141,099 | 598 |
| Unemployment..... | 8,044 | 7,794 | 7,988 | 7,656 | 7,663 | 7 |
| Not in labor force..... | 76,282 | 76,949 | 76,909 | 77,079 | 76,679 | -400 |
| Unemployment rates | | | | | | |
| All workers..... | 5.4 | 5.3 | 5.4 | 5.2 | 5.2 | 0.0 |
| Adult men..... | 4.9 | 4.7 | 4.9 | 4.6 | 4.4 | -2 |
| Adult women..... | 4.7 | 4.6 | 4.7 | 4.5 | 4.6 | .1 |
| Teenagers..... | 17.1 | 16.9 | 17.5 | 16.9 | 17.7 | .8 |
| White..... | 4.6 | 4.5 | 4.6 | 4.4 | 4.4 | .0 |
| Black or African American..... | 10.8 | 10.6 | 10.9 | 10.3 | 10.4 | .1 |
| Hispanic or Latino ethnicity..... | 6.7 | 6.1 | 6.4 | 5.7 | 6.4 | .7 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 132,302 | p132,822 | 132,873 | p133,019 | p133,293 | p274 |
| Goods-producing ¹ | 22,000 | p22,055 | 22,066 | p22,095 | p22,140 | p45 |
| Construction..... | 7,063 | p7,128 | 7,133 | p7,162 | p7,209 | p47 |
| Manufacturing..... | 14,338 | p14,314 | 14,321 | p14,314 | p14,308 | p-6 |
| Service-providing ¹ | 110,302 | p110,767 | 110,807 | p110,924 | p111,153 | p229 |
| Retail trade ² | 15,072 | p15,110 | 15,125 | p15,123 | p15,148 | p24 |
| Professional and business services..... | 16,633 | p16,759 | 16,775 | p16,807 | p16,843 | p36 |
| Education and health services..... | 17,110 | p17,191 | 17,186 | p17,209 | p17,244 | p35 |
| Leisure and hospitality..... | 12,569 | p12,645 | 12,650 | p12,674 | p12,732 | p58 |
| Government..... | 21,702 | p21,725 | 21,733 | p21,732 | p21,750 | p18 |
| Hours of work ³ | | | | | | |
| Total private..... | 33.7 | p33.7 | 33.7 | p33.7 | p33.9 | p0.2 |
| Manufacturing..... | 40.6 | p40.6 | 40.6 | p40.4 | p40.5 | p.1 |
| Overtime..... | 4.5 | p4.5 | 4.6 | p4.5 | p4.5 | p.0 |
| Indexes of aggregate weekly hours (2002=100) ³ | | | | | | |
| Total private..... | 101.2 | p101.7 | 101.8 | p101.9 | p102.8 | p0.9 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$15.83 | p\$15.92 | \$15.91 | p\$15.95 | p\$16.00 | p\$0.05 |
| Average weekly earnings, total private..... | \$33.89 | p\$36.51 | \$36.17 | p\$37.52 | p\$42.40 | p4.88 |

¹ Includes other industries, not shown separately.

² Quarterly averages and the over-the-month change are calculated using unrounded data.

³ Data relate to private production or nonsupervisory workers.

p=preliminary.

increased by 605,000 in April to 148.8 million; the labor force participation rate, at 66.0 percent, also was up over the month. (See table A-1.)

Persons Not in the Labor Force (Household Survey Data)

There were 1.5 million persons who were marginally attached to the labor force in April, about the same as a year earlier. (Data are not seasonally adjusted.) These individuals wanted and were available to work and had looked for a job sometime in the prior 12 months. They were not counted as unemployed, however, because they did not actively search for work in the 4 weeks preceding the survey. The number of discouraged workers, at 393,000 in April, declined over the year. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. The other 1.1 million marginally attached had not searched for work for reasons such as school attendance or family responsibilities. (See table A-13.)

Industry Payroll Employment (Establishment Survey Data)

Total nonfarm payroll employment rose by 274,000, seasonally adjusted, to 133.3 million in April. This followed gains of 300,000 in February and 146,000 in March (as revised). In April, notable increases occurred in several industries, including construction, mining, food services, and health care. (See table B-1.)

Within the goods-producing sector, construction employment rose by 47,000 in April, with specialty trade contractors accounting for the bulk of the growth (40,000). Heavy and civil engineering construction also added 8,000 jobs over the month. Since its most recent low in March 2003, construction industry employment has grown by 551,000.

In April, employment in mining increased by 8,000. The industry has added 31,000 jobs over the past 6 months; support activities for oil and gas operations has accounted for most of this increase.

Employment in manufacturing was little changed in April at 14.3 million, with small and offsetting movements among several of its components. Long-term employment declines continued in furniture and related products and in textile mills.

In the service-providing sector, leisure and hospitality gained 58,000 jobs in April, including 35,000 in food services and drinking places. Employment edged up in arts, entertainment, and recreation (16,000). Since its most recent low in June 2002, employment in leisure and hospitality has expanded by 823,000, with four-fifths of the gain occurring in food services.

Health care employment continued to increase in April, rising by 25,000. Over the past year, this industry has gained 240,000 jobs. In April, job growth was concentrated in offices of physicians (9,000) and hospitals (10,000).

The information industry added 12,000 jobs over the month. Within information, the motion picture and sound recording industries gained 9,000 jobs. Employment in telecommunications grew by 7,000 in April; it had shown little movement from November through March after trending down for nearly 4 years.

Employment in professional and technical services continued to trend upward in April, increasing by 18,000. Since its recent low in August 2003, this industry has gained 343,000 jobs. Financial activities employment also continued its upward trend, with a gain of 17,000 in April. Within transportation and warehousing, small employment gains in trucking, transit, and couriers were partially offset by a decline of 5,000 jobs in air transportation. Retail trade employment edged up over the month.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls increased by 0.2 hour to 33.9 hours in April, seasonally adjusted. The manufacturing workweek increased by 0.1 hour to 40.5 hours, while manufacturing overtime was unchanged at 4.5 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls increased by 0.9 percent in April to 102.8 (2002=100). The manufacturing index was up by 0.2 percent over the month to 93.7. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls rose by 5 cents in April to \$16.00, seasonally adjusted. Average weekly earnings increased by 0.9 percent over the month to \$542.40. Over the year, average hourly and weekly earnings grew by 2.7 and 3.3 percent, respectively. (See table B-3.)

The Employment Situation for May-2005 is scheduled to be released on Friday, June 3, at 8:30 A.M. (EDT).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with state agencies. The sample includes about 160,000 businesses and government agencies covering approximately 400,000 individual worksites. The active sample includes about one-third of all nonfarm payroll workers. The sample is drawn from a sampling frame of unemployment insurance tax accounts.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are not in the labor force. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as federal, state, and local government entities. *Employees on nonfarm payrolls* are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-providing sector. Industries are classified on the basis of their principal activity in accordance with the 2002 version of the North American Industry Classification System.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.
- The household survey includes people on unpaid leave among the employed. The establishment survey does not.
- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.
- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Most seasonally adjusted series are independently adjusted in both the household and establishment surveys. However, the ad-

justed series for many major estimates, such as total payroll employment, employment in most supersectors, total employment, and unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

For both the household and establishment surveys, a concurrent seasonal adjustment methodology is used in which new seasonal factors are calculated each month, using all relevant data, up to and including the data for the current month. In the household survey, new seasonal factors are used to adjust only the current month's data. In the establishment survey, however, new seasonal factors are used each month to adjust the three most recent monthly estimates. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 430,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -330,000 to 530,000 (100,000 +/- 430,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. At an unemployment rate of around 5.5 percent, the 90-percent confidence interval for the monthly change in unemployment is about +/- 280,000, and for the monthly change in the unemployment rate it is about +/- .19 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth, an estimation procedure with two components is used to account for business births. The first component uses business deaths to impute employment for business births. This is incorporated into the sample-based link relative estimate procedure by simply not reflecting sample units going out of business, but imputing to them the same trend as the other firms in the sample. The second component is an ARIMA time series model designed to estimate the residual net birth/death employment not accounted for by the imputation. The historical time series used to create and test the ARIMA model was derived from the unemployment insurance universe micro-level database, and reflects the actual residual net of births and deaths over the past five years.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.2 percent, ranging from less than 0.05 percent to 0.5 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$27.00 per issue or \$53.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household and establishment survey data published in this release. For unemployment and other labor force categories, these measures appear in tables 1-B through 1-D of its "Explanatory Notes." For the establishment survey data, the sampling error measures and the actual size of revisions due to benchmark adjustments appear in tables 2-B through 2-F of *Employment and Earnings*.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| TOTAL | | | | | | | | | |
| Civilian noninstitutional population | 222,757 | 225,238 | 225,441 | 222,757 | 224,840 | 224,837 | 225,041 | 225,238 | 225,441 |
| Civilian labor force | 148,280 | 147,745 | 148,274 | 148,788 | 148,203 | 147,879 | 148,132 | 148,157 | 148,752 |
| Participation rate | 66.7 | 65.6 | 65.8 | 66.9 | 66.0 | 65.8 | 65.8 | 65.8 | 66.0 |
| Employed | 138,423 | 139,759 | 140,839 | 138,545 | 140,156 | 140,261 | 140,144 | 140,501 | 141,099 |
| Employment-population ratio | 62.1 | 62.0 | 62.5 | 62.2 | 62.4 | 62.4 | 62.3 | 62.4 | 62.6 |
| Unemployed | 7,837 | 7,986 | 7,335 | 8,143 | 8,047 | 7,737 | 7,989 | 7,656 | 7,863 |
| Unemployment rate | 5.4 | 5.4 | 4.9 | 5.5 | 5.4 | 5.2 | 5.4 | 5.2 | 5.2 |
| Not in labor force | 76,487 | 77,492 | 77,167 | 73,969 | 76,437 | 78,858 | 76,909 | 77,079 | 76,879 |
| Persons who currently want a job | 4,598 | 4,858 | 5,022 | 4,720 | 5,021 | 4,982 | 4,905 | 5,001 | 5,134 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 107,392 | 108,703 | 108,812 | 107,392 | 108,392 | 108,489 | 108,598 | 108,703 | 108,812 |
| Civilian labor force | 78,147 | 79,242 | 79,448 | 78,555 | 79,412 | 79,148 | 79,373 | 79,588 | 79,839 |
| Participation rate | 72.8 | 72.9 | 73.0 | 73.1 | 73.3 | 73.0 | 73.1 | 73.2 | 73.4 |
| Employed | 73,774 | 74,612 | 75,458 | 74,104 | 74,938 | 74,804 | 74,894 | 75,375 | 75,735 |
| Employment-population ratio | 68.7 | 68.0 | 69.3 | 69.0 | 69.1 | 69.1 | 69.0 | 69.3 | 69.6 |
| Unemployed | 4,373 | 4,631 | 3,992 | 4,451 | 4,474 | 4,212 | 4,410 | 4,224 | 4,104 |
| Unemployment rate | 5.8 | 5.8 | 5.0 | 5.7 | 5.6 | 5.3 | 5.6 | 5.3 | 5.1 |
| Not in labor force | 29,244 | 29,460 | 29,363 | 28,836 | 28,981 | 29,242 | 29,224 | 29,104 | 28,973 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 99,170 | 100,419 | 100,520 | 99,170 | 100,128 | 100,219 | 100,321 | 100,419 | 100,520 |
| Civilian labor force | 74,805 | 75,852 | 76,058 | 74,808 | 75,754 | 75,564 | 75,818 | 75,921 | 76,174 |
| Participation rate | 75.4 | 75.5 | 75.7 | 75.5 | 75.7 | 75.4 | 75.6 | 75.6 | 75.8 |
| Employed | 71,080 | 71,893 | 72,770 | 71,158 | 72,020 | 72,029 | 72,131 | 72,429 | 72,817 |
| Employment-population ratio | 71.7 | 71.6 | 72.4 | 71.8 | 72.0 | 71.9 | 71.9 | 72.1 | 72.4 |
| Unemployed | 3,748 | 3,959 | 3,297 | 3,781 | 3,733 | 3,555 | 3,685 | 3,492 | 3,356 |
| Unemployment rate | 5.0 | 5.2 | 4.3 | 5.0 | 4.9 | 4.7 | 4.9 | 4.6 | 4.4 |
| Not in labor force | 24,364 | 24,516 | 24,452 | 24,261 | 24,372 | 24,625 | 24,505 | 24,488 | 24,347 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 115,365 | 116,534 | 116,629 | 115,365 | 116,247 | 116,248 | 116,443 | 116,534 | 116,629 |
| Civilian labor force | 68,112 | 68,503 | 68,828 | 68,233 | 68,791 | 68,832 | 68,759 | 68,569 | 68,823 |
| Participation rate | 59.0 | 59.8 | 59.0 | 59.1 | 59.2 | 59.2 | 59.0 | 58.8 | 59.1 |
| Employed | 64,649 | 65,147 | 65,483 | 64,941 | 65,218 | 65,207 | 65,180 | 65,127 | 65,264 |
| Employment-population ratio | 56.0 | 55.9 | 56.1 | 56.0 | 56.1 | 56.1 | 56.0 | 56.0 | 56.0 |
| Unemployed | 3,464 | 3,356 | 3,343 | 3,622 | 3,573 | 3,525 | 3,579 | 3,432 | 3,558 |
| Unemployment rate | 5.1 | 4.9 | 4.9 | 5.4 | 5.2 | 5.1 | 5.2 | 5.0 | 5.2 |
| Not in labor force | 47,253 | 48,031 | 47,801 | 47,133 | 47,456 | 47,518 | 47,684 | 47,975 | 47,708 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 107,389 | 108,488 | 108,573 | 107,389 | 108,221 | 108,316 | 108,403 | 108,488 | 108,573 |
| Civilian labor force | 64,853 | 65,225 | 65,513 | 64,778 | 65,280 | 65,318 | 65,270 | 65,051 | 65,429 |
| Participation rate | 60.4 | 60.1 | 60.3 | 60.3 | 60.3 | 60.3 | 60.2 | 60.0 | 60.3 |
| Employed | 61,841 | 62,252 | 62,644 | 61,591 | 62,208 | 62,205 | 62,202 | 62,009 | 62,384 |
| Employment-population ratio | 57.6 | 57.4 | 57.7 | 57.4 | 57.5 | 57.5 | 57.4 | 57.2 | 57.5 |
| Unemployed | 3,012 | 2,973 | 2,869 | 3,185 | 3,051 | 3,023 | 3,068 | 2,952 | 3,045 |
| Unemployment rate | 4.6 | 4.5 | 4.4 | 4.9 | 4.7 | 4.6 | 4.7 | 4.5 | 4.6 |
| Not in labor force | 42,536 | 43,261 | 43,060 | 42,611 | 42,961 | 42,998 | 43,133 | 43,433 | 43,150 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 16,198 | 16,332 | 16,347 | 16,198 | 16,290 | 16,302 | 16,317 | 16,332 | 16,347 |
| Civilian labor force | 6,600 | 6,719 | 6,683 | 7,104 | 7,189 | 7,090 | 7,046 | 7,185 | 7,168 |
| Participation rate | 40.7 | 41.1 | 40.9 | 43.9 | 44.1 | 43.3 | 43.2 | 44.0 | 43.9 |
| Employed | 5,322 | 5,570 | 5,524 | 5,897 | 5,827 | 5,917 | 5,811 | 5,979 | 5,897 |
| Employment-population ratio | 34.1 | 34.1 | 33.8 | 36.4 | 36.4 | 36.3 | 36.6 | 36.6 | 36.1 |
| Unemployed | 1,078 | 1,147 | 1,159 | 1,207 | 1,292 | 1,150 | 1,235 | 1,212 | 1,271 |
| Unemployment rate | 16.3 | 17.1 | 17.5 | 17.0 | 17.6 | 16.5 | 17.6 | 16.9 | 17.7 |
| Not in labor force | 9,597 | 9,614 | 9,654 | 9,094 | 9,104 | 9,225 | 9,271 | 9,147 | 9,179 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns. NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by race, sex, and age

(Numbers in thousands)

| Employment status, race, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|---------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 182,252 | 183,888 | 184,015 | 182,252 | 183,483 | 183,840 | 183,767 | 183,888 | 184,015 |
| Civilian labor force | 120,217 | 121,193 | 121,579 | 120,713 | 121,509 | 121,553 | 121,521 | 121,484 | 121,961 |
| Participation rate | 66.0 | 65.9 | 66.1 | 66.2 | 66.2 | 66.2 | 66.2 | 66.2 | 66.3 |
| Employed | 114,557 | 115,529 | 116,385 | 114,779 | 115,910 | 116,158 | 116,222 | 116,135 | 116,374 |
| Employment-population ratio | 62.9 | 62.8 | 63.3 | 63.0 | 63.2 | 63.3 | 63.1 | 63.2 | 63.4 |
| Unemployed | 5,760 | 5,664 | 5,194 | 5,934 | 5,600 | 5,395 | 5,598 | 5,349 | 5,387 |
| Unemployment rate | 4.8 | 4.7 | 4.3 | 4.9 | 4.8 | 4.4 | 4.8 | 4.4 | 4.4 |
| Not in labor force | 61,835 | 62,695 | 62,437 | 61,539 | 61,973 | 62,088 | 62,148 | 62,403 | 62,054 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 62,620 | 63,355 | 63,488 | 62,688 | 63,199 | 63,259 | 63,290 | 63,497 | 63,502 |
| Participation rate | 76.0 | 76.1 | 76.2 | 76.1 | 76.1 | 76.1 | 76.2 | 76.3 | 76.3 |
| Employed | 59,780 | 60,480 | 61,119 | 59,998 | 60,570 | 60,712 | 60,776 | 60,608 | 61,162 |
| Employment-population ratio | 72.8 | 72.8 | 73.3 | 72.7 | 72.9 | 73.0 | 73.0 | 73.2 | 73.4 |
| Unemployed | 2,833 | 2,894 | 2,369 | 2,819 | 2,629 | 2,547 | 2,614 | 2,532 | 2,399 |
| Unemployment rate | 4.5 | 4.6 | 3.7 | 4.5 | 4.2 | 4.0 | 4.1 | 4.0 | 3.8 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 52,097 | 52,287 | 52,528 | 52,044 | 52,385 | 52,414 | 52,311 | 52,055 | 52,463 |
| Participation rate | 59.7 | 59.4 | 59.7 | 59.6 | 59.7 | 59.7 | 59.5 | 59.2 | 59.6 |
| Employed | 50,020 | 50,333 | 50,946 | 49,855 | 50,344 | 50,254 | 50,251 | 50,268 | 50,286 |
| Employment-population ratio | 57.1 | 57.2 | 57.4 | 57.1 | 57.3 | 57.4 | 57.2 | 57.2 | 57.2 |
| Unemployed | 2,077 | 1,954 | 1,581 | 2,178 | 2,040 | 2,022 | 2,068 | 1,969 | 2,077 |
| Unemployment rate | 4.0 | 3.7 | 3.8 | 4.2 | 3.9 | 3.8 | 3.9 | 3.8 | 4.0 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 5,800 | 5,551 | 5,583 | 5,981 | 5,826 | 5,879 | 5,919 | 5,832 | 5,936 |
| Participation rate | 44.5 | 43.9 | 43.9 | 47.5 | 46.9 | 46.5 | 46.8 | 46.9 | 46.9 |
| Employed | 4,749 | 4,736 | 4,729 | 5,054 | 4,981 | 5,054 | 5,021 | 5,074 | 5,096 |
| Employment-population ratio | 37.1 | 37.4 | 37.4 | 40.1 | 39.5 | 40.0 | 39.5 | 40.1 | 39.7 |
| Unemployed | 851 | 815 | 854 | 926 | 831 | 825 | 918 | 858 | 910 |
| Unemployment rate | 15.2 | 14.7 | 15.0 | 15.7 | 14.0 | 14.0 | 15.5 | 14.5 | 15.3 |
| BLACK OR AFRICAN AMERICAN | | | | | | | | | |
| Civilian noninstitutional population | 25,067 | 26,377 | 26,413 | 25,067 | 25,273 | 26,306 | 26,342 | 26,377 | 26,413 |
| Civilian labor force | 16,374 | 16,873 | 16,783 | 16,505 | 16,713 | 16,721 | 16,708 | 16,741 | 16,940 |
| Participation rate | 65.1 | 63.2 | 63.5 | 65.5 | 63.6 | 63.4 | 63.4 | 63.5 | 64.1 |
| Employed | 14,859 | 14,917 | 15,150 | 14,893 | 14,907 | 14,946 | 14,890 | 15,025 | 15,184 |
| Employment-population ratio | 57.2 | 56.8 | 57.4 | 57.4 | 56.7 | 56.8 | 56.5 | 57.0 | 57.5 |
| Unemployed | 1,518 | 1,756 | 1,533 | 1,812 | 1,806 | 1,775 | 1,818 | 1,716 | 1,756 |
| Unemployment rate | 9.3 | 10.5 | 8.7 | 9.8 | 10.8 | 10.6 | 10.8 | 10.3 | 10.4 |
| Not in labor force | 9,593 | 9,704 | 9,831 | 9,462 | 9,559 | 9,585 | 9,634 | 9,636 | 9,473 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,256 | 7,368 | 7,468 | 7,315 | 7,473 | 7,280 | 7,438 | 7,403 | 7,555 |
| Participation rate | 69.7 | 69.7 | 70.5 | 70.2 | 70.8 | 69.8 | 70.3 | 69.8 | 71.2 |
| Employed | 6,802 | 6,890 | 6,829 | 6,833 | 6,877 | 6,812 | 6,830 | 6,719 | 6,849 |
| Employment-population ratio | 63.4 | 62.8 | 64.3 | 63.7 | 63.3 | 62.6 | 62.6 | 63.4 | 64.5 |
| Unemployed | 854 | 728 | 639 | 882 | 796 | 789 | 809 | 684 | 706 |
| Unemployment rate | 9.0 | 9.9 | 8.8 | 9.3 | 10.7 | 10.4 | 10.9 | 9.2 | 9.3 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 8,512 | 8,497 | 8,597 | 8,907 | 8,477 | 8,532 | 8,527 | 8,507 | 8,550 |
| Participation rate | 64.9 | 63.8 | 64.2 | 64.8 | 63.9 | 64.2 | 64.1 | 63.8 | 64.1 |
| Employed | 7,909 | 7,736 | 7,842 | 7,772 | 7,702 | 7,770 | 7,751 | 7,748 | 7,798 |
| Employment-population ratio | 59.4 | 58.1 | 58.8 | 59.2 | 58.0 | 58.5 | 58.3 | 58.2 | 58.5 |
| Unemployed | 703 | 761 | 715 | 736 | 775 | 763 | 776 | 761 | 754 |
| Unemployment rate | 8.3 | 9.0 | 8.4 | 8.6 | 9.1 | 8.9 | 9.1 | 8.8 | 8.8 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 806 | 786 | 738 | 883 | 783 | 808 | 742 | 831 | 833 |
| Participation rate | 28.1 | 32.0 | 29.8 | 28.3 | 31.2 | 33.0 | 30.2 | 33.8 | 33.8 |
| Employed | 445 | 521 | 479 | 489 | 528 | 564 | 509 | 560 | 537 |
| Employment-population ratio | 18.4 | 21.2 | 19.4 | 20.3 | 21.8 | 23.0 | 20.7 | 22.8 | 21.8 |
| Unemployed | 181 | 267 | 259 | 194 | 255 | 244 | 233 | 271 | 296 |
| Unemployment rate | 26.8 | 33.9 | 35.1 | 29.4 | 30.8 | 30.2 | 31.5 | 32.0 | 35.5 |
| ASIAN | | | | | | | | | |
| Civilian noninstitutional population | 9,444 | 9,732 | 9,763 | (2) | (2) | (2) | (2) | (2) | (2) |
| Civilian labor force | 6,230 | 6,423 | 6,411 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 66.0 | 66.0 | 65.7 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 5,998 | 6,175 | 6,180 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 63.1 | 63.4 | 63.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 274 | 248 | 231 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 4.4 | 3.9 | 3.9 | (2) | (2) | (2) | (2) | (2) | (2) |
| Not in labor force | 3,214 | 3,309 | 3,252 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Data not available.

NOTE: Estimates for the above race groups will not sum to totals shown in table A-1 because data are not presented for all races. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-3. Employment status of the Hispanic or Latino population by sex and age
(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|-----------|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| HISPANIC OR LATINO ETHNICITY | | | | | | | | | |
| Civilian noninstitutional population | 27,870 | 28,815 | 28,902 | 27,879 | 28,608 | 28,642 | 28,729 | 28,815 | 28,902 |
| Civilian labor force | 19,080 | 19,531 | 19,870 | 19,081 | 19,544 | 19,379 | 19,458 | 19,541 | 19,565 |
| Participation rate | 68.4 | 67.8 | 68.1 | 68.4 | 68.3 | 67.7 | 67.7 | 67.8 | 68.0 |
| Employed | 17,796 | 18,331 | 18,485 | 17,724 | 18,252 | 18,188 | 18,211 | 18,425 | 18,413 |
| Employment-population ratio | 63.8 | 63.6 | 64.0 | 63.8 | 63.8 | 63.5 | 63.4 | 63.9 | 63.7 |
| Unemployed | 1,283 | 1,200 | 1,188 | 1,358 | 1,292 | 1,181 | 1,248 | 1,117 | 1,252 |
| Unemployment rate | 6.7 | 6.1 | 6.0 | 7.1 | 6.6 | 6.1 | 6.4 | 5.7 | 6.4 |
| Not in labor force | 8,798 | 9,284 | 9,221 | 8,797 | 9,064 | 9,263 | 9,270 | 9,273 | 9,237 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 10,963 | 11,303 | 11,343 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 84.5 | 84.2 | 84.2 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 10,204 | 10,708 | 10,704 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 78.5 | 79.7 | 80.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 658 | 597 | 548 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 6.0 | 5.3 | 4.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,242 | 7,284 | 7,341 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 58.8 | 57.1 | 57.5 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 6,790 | 6,842 | 6,868 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 53.0 | 53.8 | 54.0 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 482 | 422 | 454 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 6.4 | 5.8 | 6.2 | (2) | (2) | (2) | (2) | (2) | (2) |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 876 | 864 | 886 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 33.8 | 36.2 | 37.0 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 714 | 763 | 802 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 27.5 | 29.4 | 30.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 182 | 181 | 183 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 18.5 | 18.8 | 18.8 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Data not available.

NOTE: Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-4. Employment status of the civilian population 25 years and over by educational attainment
(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| Less than a high school diploma | | | | | | | | | |
| Civilian labor force | 12,258 | 12,481 | 12,858 | 12,025 | 12,814 | 12,675 | 12,581 | 12,501 | 12,474 |
| Participation rate | 45.1 | 45.0 | 45.2 | 44.3 | 45.0 | 44.7 | 45.4 | 45.0 | 44.8 |
| Employed | 11,271 | 11,377 | 11,688 | 10,983 | 11,746 | 11,637 | 11,595 | 11,528 | 11,429 |
| Employment-population ratio | 41.5 | 41.0 | 41.7 | 40.4 | 41.3 | 41.4 | 41.9 | 41.5 | 40.8 |
| Unemployed | 987 | 1,104 | 991 | 1,042 | 1,068 | 938 | 986 | 973 | 1,045 |
| Unemployment rate | 8.1 | 8.8 | 7.8 | 8.7 | 8.3 | 7.5 | 7.8 | 7.8 | 8.4 |
| High school graduates, no college¹ | | | | | | | | | |
| Civilian labor force | 37,627 | 38,339 | 38,280 | 37,721 | 37,688 | 37,729 | 38,077 | 38,173 | 38,265 |
| Participation rate | 62.8 | 62.9 | 63.2 | 62.8 | 63.1 | 62.2 | 62.7 | 62.6 | 63.0 |
| Employed | 35,851 | 36,345 | 36,591 | 35,794 | 35,848 | 35,343 | 36,223 | 36,379 | 36,286 |
| Employment-population ratio | 59.3 | 59.8 | 60.4 | 59.5 | 60.0 | 58.2 | 59.7 | 59.7 | 60.3 |
| Unemployed | 1,978 | 1,994 | 1,679 | 1,927 | 1,849 | 1,786 | 1,854 | 1,795 | 1,679 |
| Unemployment rate | 5.3 | 5.2 | 4.4 | 5.2 | 4.9 | 4.7 | 4.9 | 4.7 | 4.4 |
| Some college or associate degree | | | | | | | | | |
| Civilian labor force | 34,446 | 34,879 | 34,783 | 34,519 | 34,483 | 34,524 | 34,842 | 34,863 | 34,880 |
| Participation rate | 72.8 | 72.9 | 73.0 | 72.9 | 73.0 | 72.9 | 72.4 | 72.9 | 73.2 |
| Employed | 33,051 | 33,659 | 33,459 | 33,100 | 33,095 | 33,117 | 33,387 | 33,484 | 33,489 |
| Employment-population ratio | 68.8 | 70.0 | 70.3 | 69.9 | 69.2 | 70.0 | 69.4 | 70.0 | 70.3 |
| Unemployed | 1,394 | 1,421 | 1,324 | 1,419 | 1,487 | 1,407 | 1,455 | 1,380 | 1,371 |
| Unemployment rate | 4.0 | 4.1 | 3.8 | 4.1 | 4.3 | 4.1 | 4.2 | 4.0 | 3.9 |
| Bachelor's degree and higher² | | | | | | | | | |
| Civilian labor force | 40,359 | 40,537 | 41,004 | 40,144 | 41,026 | 40,907 | 40,534 | 40,305 | 40,788 |
| Participation rate | 78.0 | 77.9 | 78.1 | 77.5 | 78.7 | 78.4 | 78.0 | 77.5 | 77.7 |
| Employed | 38,203 | 38,589 | 40,081 | 38,682 | 40,009 | 39,925 | 39,593 | 39,411 | 39,784 |
| Employment-population ratio | 76.8 | 76.0 | 76.3 | 75.3 | 76.7 | 76.5 | 76.2 | 75.7 | 75.8 |
| Unemployed | 1,094 | 948 | 944 | 1,162 | 1,018 | 982 | 972 | 955 | 1,004 |
| Unemployment rate | 2.7 | 2.3 | 2.3 | 2.9 | 2.5 | 2.4 | 2.4 | 2.4 | 2.5 |

¹ Includes persons with a high school diploma or equivalent.

² Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-5. Employed persons by class of worker and part-time status

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture and related industries | 2,220 | 2,025 | 2,223 | 2,261 | 2,179 | 2,120 | 2,145 | 2,187 | 2,252 |
| Wage and salary workers | 1,252 | 1,090 | 1,175 | 1,284 | 1,195 | 1,181 | 1,208 | 1,224 | 1,207 |
| Self-employed workers | 944 | 914 | 1,025 | 951 | 963 | 904 | 903 | 948 | 1,023 |
| Unpaid family workers | 24 | 21 | 23 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Nonagricultural industries | 136,203 | 137,734 | 136,716 | 136,427 | 137,673 | 138,112 | 138,005 | 138,293 | 138,869 |
| Wage and salary workers | 126,969 | 128,138 | 128,821 | 127,081 | 128,459 | 128,501 | 128,194 | 128,400 | 128,634 |
| Government | 20,117 | 20,483 | 20,690 | 19,920 | 20,703 | 20,296 | 20,108 | 20,249 | 20,438 |
| Private industries | 106,872 | 107,654 | 108,141 | 107,145 | 108,257 | 108,219 | 107,978 | 108,085 | 108,353 |
| Private households | 727 | 762 | 777 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Other industries | 106,145 | 106,892 | 107,365 | 106,377 | 107,432 | 107,414 | 107,152 | 107,286 | 107,534 |
| Self-employed workers | 9,139 | 9,498 | 9,808 | 9,251 | 9,473 | 9,514 | 9,709 | 9,767 | 9,895 |
| Unpaid family workers | 75 | 98 | 87 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| PERSONS AT WORK PART TIME ² | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 4,411 | 4,514 | 4,150 | 4,557 | 4,474 | 4,395 | 4,269 | 4,344 | 4,293 |
| Slack work or business conditions | 2,745 | 2,796 | 2,534 | 2,813 | 2,735 | 2,798 | 2,829 | 2,843 | 2,613 |
| Could only find part-time work | 1,429 | 1,435 | 1,281 | 1,431 | 1,440 | 1,350 | 1,298 | 1,419 | 1,363 |
| Part time for noneconomic reasons | 19,598 | 19,855 | 20,250 | 19,130 | 19,502 | 19,069 | 19,565 | 19,458 | 19,584 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 4,325 | 4,433 | 4,050 | 4,451 | 4,382 | 4,303 | 4,153 | 4,268 | 4,186 |
| Slack work or business conditions | 2,687 | 2,745 | 2,482 | 2,747 | 2,682 | 2,702 | 2,572 | 2,592 | 2,540 |
| Could only find part-time work | 1,419 | 1,439 | 1,342 | 1,425 | 1,397 | 1,309 | 1,268 | 1,411 | 1,351 |
| Part time for noneconomic reasons | 19,293 | 19,638 | 19,971 | 18,844 | 19,176 | 18,765 | 19,254 | 19,182 | 18,228 |

¹ Data not available.² Persons at work excludes employed persons who were absent from their jobs during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and

bad weather.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-6. Selected employment indicators

(In thousands)

| Characteristic | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--------------------------------|--------------------------|-----------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| | Total, 16 years and over | 138,423 | 130,759 | 140,939 | 138,645 | 140,158 | 140,241 | 140,144 | 140,501 |
| 16 to 17 years | 5,822 | 5,570 | 5,524 | 5,897 | 5,927 | 5,917 | 5,811 | 5,873 | 5,897 |
| 18 to 19 years | 2,032 | 2,101 | 2,040 | 2,230 | 2,261 | 2,267 | 2,298 | 2,339 | 2,335 |
| 20 to 24 years | 3,490 | 3,489 | 3,488 | 3,660 | 3,691 | 3,634 | 3,533 | 3,651 | 3,654 |
| 25 years and over | 132,901 | 134,188 | 136,414 | 132,748 | 134,229 | 134,325 | 134,333 | 134,528 | 135,201 |
| 20 to 24 years | 13,862 | 13,419 | 13,546 | 13,771 | 13,851 | 13,702 | 13,551 | 13,694 | 13,653 |
| 25 years and over | 119,239 | 120,769 | 122,868 | 119,023 | 120,421 | 120,623 | 120,782 | 120,834 | 121,550 |
| 25 to 34 years | 67,387 | 67,789 | 68,489 | 67,235 | 67,701 | 68,049 | 67,986 | 67,954 | 68,246 |
| 35 to 44 years | 30,378 | 30,228 | 30,570 | 30,351 | 30,504 | 30,683 | 30,581 | 30,400 | 30,518 |
| 45 to 54 years | 34,608 | 34,275 | 34,724 | 34,475 | 34,532 | 34,529 | 34,534 | 34,597 | 34,688 |
| 55 years and over | 32,408 | 32,686 | 33,178 | 32,408 | 32,566 | 32,776 | 32,881 | 32,958 | 33,139 |
| Men, 16 years and over | 73,774 | 74,612 | 75,458 | 74,104 | 74,838 | 74,834 | 74,984 | 75,275 | 75,738 |
| 16 to 17 years | 2,714 | 2,718 | 2,588 | 2,947 | 2,917 | 2,905 | 2,833 | 2,946 | 2,918 |
| 18 to 19 years | 825 | 897 | 1,007 | 1,033 | 1,048 | 1,068 | 1,057 | 1,130 | 1,123 |
| 20 to 24 years | 1,788 | 1,721 | 1,879 | 1,901 | 1,882 | 1,825 | 1,779 | 1,828 | 1,794 |
| 25 years and over | 71,060 | 71,893 | 72,770 | 71,158 | 72,920 | 72,929 | 72,151 | 72,428 | 72,817 |
| 25 to 34 years | 37,171 | 37,028 | 37,098 | 36,230 | 36,544 | 36,781 | 36,713 | 36,783 | 37,161 |
| 35 to 44 years | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 |
| 45 to 54 years | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 | 18,880 |
| 55 years and over | 11,801 | 12,283 | 12,564 | 11,581 | 12,141 | 12,081 | 12,175 | 12,267 | 12,498 |
| Women, 16 years and over | 64,649 | 56,147 | 65,481 | 64,541 | 65,320 | 65,307 | 65,160 | 65,127 | 65,352 |
| 16 to 17 years | 2,808 | 2,852 | 2,859 | 2,950 | 3,010 | 3,012 | 2,978 | 3,028 | 2,980 |
| 18 to 19 years | 1,106 | 1,104 | 1,033 | 1,197 | 1,212 | 1,198 | 1,223 | 1,209 | 1,118 |
| 20 to 24 years | 1,701 | 1,748 | 1,805 | 1,759 | 1,830 | 1,809 | 1,754 | 1,823 | 1,880 |
| 25 years and over | 61,841 | 52,295 | 62,644 | 61,591 | 62,208 | 62,295 | 62,202 | 62,099 | 62,384 |
| 25 to 34 years | 8,491 | 8,381 | 8,449 | 8,541 | 8,497 | 8,521 | 8,400 | 8,491 | 8,491 |
| 35 to 44 years | 55,350 | 55,904 | 58,198 | 55,100 | 56,718 | 55,769 | 55,748 | 55,575 | 55,801 |
| 45 to 54 years | 45,100 | 45,217 | 45,261 | 44,893 | 45,138 | 45,209 | 45,149 | 45,021 | 45,142 |
| 55 years and over | 13,682 | 13,947 | 13,885 | 13,632 | 13,889 | 13,782 | 13,678 | 13,694 | 13,633 |
| Men, 16 years and over | 15,829 | 15,804 | 15,953 | 15,804 | 15,812 | 15,820 | 15,800 | 15,789 | 15,823 |
| Women, 16 years and over | 10,250 | 10,887 | 10,834 | 10,208 | 10,578 | 10,560 | 10,567 | 10,554 | 10,759 |
| Married men, spouse present | 44,637 | 45,199 | 45,408 | 44,759 | 45,315 | 45,171 | 45,351 | 45,382 | 45,482 |
| Married women, spouse present | 34,488 | 34,431 | 34,822 | 34,375 | 34,878 | 34,739 | 34,801 | 34,807 | 34,539 |
| Women who maintain families | 8,765 | 8,909 | 8,919 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Full-time workers ² | 113,296 | 114,431 | 115,868 | 114,147 | 115,855 | 115,858 | 115,370 | 115,869 | 116,524 |
| Part-time workers ³ | 25,037 | 23,328 | 25,050 | 24,498 | 24,228 | 24,383 | 24,828 | 24,727 | 24,565 |

¹ Data not available.

² Employed full-time workers are persons who usually work 35 hours or more per week.

³ Employed part-time workers are persons who usually work less than 35 hours per week.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-7. Selected unemployment indicators, seasonally adjusted

| Characteristic | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|--|---|-----------|-----------|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| Total, 16 years and over | 8,143 | 7,656 | 7,683 | 5.5 | 5.4 | 5.2 | 5.4 | 5.2 | 5.2 |
| 16 to 19 years | 1,207 | 1,212 | 1,271 | 17.0 | 17.8 | 16.3 | 17.5 | 16.8 | 17.7 |
| 19 to 17 years | 575 | 564 | 557 | 20.5 | 20.8 | 19.3 | 20.6 | 19.4 | 19.9 |
| 18 to 19 years | 529 | 542 | 745 | 14.7 | 15.4 | 14.4 | 15.5 | 15.0 | 16.8 |
| 20 years and over | 6,336 | 6,444 | 6,392 | 5.0 | 4.8 | 4.7 | 4.8 | 4.6 | 4.5 |
| 20 to 24 years | 1,397 | 1,357 | 1,335 | 8.2 | 8.9 | 9.5 | 10.0 | 9.0 | 8.9 |
| 25 years and over | 5,556 | 5,089 | 5,055 | 4.5 | 4.3 | 4.1 | 4.2 | 4.0 | 4.0 |
| 25 to 34 years | 4,501 | 4,254 | 4,195 | 4.6 | 4.5 | 4.2 | 4.3 | 4.2 | 4.1 |
| 35 to 44 years | 1,753 | 1,718 | 1,662 | 5.5 | 5.8 | 5.0 | 5.2 | 5.3 | 5.3 |
| 45 to 54 years | 1,582 | 1,397 | 1,397 | 4.4 | 4.0 | 4.1 | 4.2 | 3.9 | 3.9 |
| 45 to 54 years | 1,316 | 1,159 | 1,106 | 3.9 | 3.9 | 3.6 | 3.6 | 3.4 | 3.2 |
| 55 years and over | 850 | 831 | 849 | 3.8 | 3.5 | 3.5 | 3.8 | 3.5 | 3.5 |
| Men, 16 years and over | 4,451 | 4,224 | 4,104 | 5.7 | 5.8 | 5.3 | 5.6 | 5.3 | 5.1 |
| 16 to 19 years | 700 | 732 | 748 | 19.2 | 20.3 | 18.2 | 20.4 | 19.9 | 20.4 |
| 19 to 17 years | 314 | 326 | 321 | 23.3 | 24.3 | 22.0 | 25.0 | 22.9 | 22.2 |
| 18 to 19 years | 378 | 388 | 448 | 18.5 | 17.8 | 16.1 | 17.7 | 17.5 | 19.9 |
| 20 years and over | 3,751 | 3,492 | 3,356 | 5.0 | 4.9 | 4.7 | 4.9 | 4.6 | 4.4 |
| 20 to 24 years | 806 | 770 | 754 | 10.9 | 10.0 | 10.2 | 11.3 | 9.7 | 9.8 |
| 25 years and over | 2,942 | 2,747 | 2,595 | 4.4 | 4.4 | 4.0 | 4.1 | 4.0 | 3.8 |
| 25 to 34 years | 2,470 | 2,290 | 2,136 | 4.5 | 4.6 | 4.1 | 4.2 | 4.1 | 3.9 |
| 35 to 44 years | 974 | 914 | 895 | 3.5 | 3.7 | 4.7 | 5.0 | 5.2 | 5.0 |
| 45 to 54 years | 817 | 754 | 691 | 4.2 | 4.1 | 3.9 | 4.1 | 3.9 | 3.6 |
| 45 to 54 years | 679 | 622 | 649 | 3.9 | 4.0 | 3.7 | 3.6 | 3.5 | 3.0 |
| 55 years and over | 472 | 458 | 460 | 3.9 | 3.5 | 3.9 | 3.7 | 3.6 | 3.5 |
| Women, 16 years and over | 3,692 | 3,432 | 3,559 | 5.4 | 5.2 | 5.1 | 5.2 | 5.0 | 5.2 |
| 16 to 19 years | 506 | 480 | 623 | 14.7 | 14.8 | 14.8 | 14.6 | 13.7 | 14.9 |
| 19 to 17 years | 280 | 228 | 236 | 17.9 | 17.2 | 16.8 | 16.5 | 15.6 | 17.5 |
| 18 to 19 years | 251 | 254 | 298 | 12.5 | 12.9 | 12.7 | 13.2 | 12.2 | 13.9 |
| 20 years and over | 3,183 | 2,952 | 3,038 | 4.9 | 4.7 | 4.6 | 4.7 | 4.5 | 4.6 |
| 20 to 24 years | 591 | 587 | 581 | 8.3 | 8.9 | 8.7 | 8.8 | 8.3 | 8.2 |
| 25 years and over | 2,614 | 2,341 | 2,460 | 4.5 | 4.2 | 4.1 | 4.2 | 4.0 | 4.2 |
| 25 to 34 years | 2,191 | 1,984 | 2,080 | 4.7 | 4.4 | 4.4 | 4.4 | 4.2 | 4.4 |
| 35 to 44 years | 780 | 804 | 797 | 5.4 | 5.3 | 5.8 | 5.4 | 5.5 | 5.5 |
| 45 to 54 years | 774 | 643 | 706 | 4.7 | 4.0 | 4.4 | 4.4 | 3.9 | 4.3 |
| 45 to 54 years | 537 | 547 | 557 | 4.9 | 3.8 | 3.4 | 3.5 | 3.4 | 3.4 |
| 55 years and over ² | 349 | 359 | 359 | 3.3 | 3.2 | 3.3 | 3.5 | 3.2 | 3.2 |
| Married men, spouse present | 1,448 | 1,380 | 1,247 | 3.1 | 3.1 | 3.1 | 3.0 | 3.0 | 2.7 |
| Married women, spouse present ³ | 1,210 | 1,084 | 1,180 | 3.7 | 3.4 | 3.2 | 3.2 | 3.0 | 3.3 |
| Woman who maintain families ² | 710 | 772 | 748 | 7.5 | 7.1 | 8.2 | 8.0 | 8.0 | 7.7 |
| Full-time workers ³ | 6,762 | 6,224 | 6,315 | 5.8 | 5.4 | 5.2 | 5.4 | 5.1 | 5.1 |
| Part-time workers ⁴ | 1,370 | 1,408 | 1,371 | 5.3 | 5.4 | 5.3 | 5.4 | 5.4 | 5.3 |

¹ Unemployment as a percent of the civilian labor force.² Not seasonally adjusted.³ Full-time workers are unemployed persons who have expressed a desire to work full time (35 hours or more per week) or are on layoff from full-time jobs.⁴ Part-time workers are unemployed persons who have expressed a desire to work

part time (less than 35 hours per week) or are on layoff from part-time jobs.

NOTE: Detail shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-8. Unemployed persons by reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job leavers and persons who completed temporary jobs | 4,253 | 4,067 | 3,559 | 4,322 | 4,108 | 4,048 | 3,880 | 3,784 | 3,675 |
| On temporary layoff | 943 | 1,181 | 781 | 950 | 965 | 966 | 905 | 901 | 838 |
| Not on temporary layoff | 3,311 | 2,885 | 2,779 | 3,329 | 3,144 | 3,082 | 3,015 | 2,823 | 2,837 |
| Permanent job leavers | 2,590 | 2,113 | 2,020 | (1) ¹ | (1) | (1) | (1) | (1) | (1) |
| Persons who completed temporary jobs | 750 | 772 | 758 | (1) | (1) | (1) | (1) | (1) | (1) |
| Job leavers | 796 | 872 | 864 | 835 | 898 | 819 | 905 | 855 | 837 |
| Reentrants | 2,196 | 2,427 | 2,232 | 2,310 | 2,361 | 2,224 | 2,405 | 2,364 | 2,356 |
| New entrants | 589 | 620 | 680 | 850 | 708 | 624 | 746 | 711 | 747 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job leavers and persons who completed temporary jobs | 54.3 | 50.9 | 48.5 | 53.2 | 50.9 | 51.9 | 48.2 | 49.1 | 47.9 |
| On temporary layoff | 12.0 | 14.8 | 10.8 | 12.2 | 11.9 | 12.4 | 11.9 | 12.5 | 10.9 |
| Not on temporary layoff | 42.2 | 36.1 | 37.9 | 41.0 | 38.9 | 39.4 | 37.2 | 36.6 | 37.0 |
| Job leavers | 10.2 | 10.9 | 11.8 | 10.9 | 11.1 | 10.5 | 11.9 | 11.1 | 11.7 |
| Reentrants | 28.1 | 30.4 | 30.4 | 28.5 | 29.2 | 29.7 | 29.7 | 30.8 | 30.7 |
| New entrants | 7.5 | 7.8 | 9.3 | 8.0 | 6.8 | 6.0 | 9.2 | 9.2 | 9.7 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job leavers and persons who completed temporary jobs | 2.9 | 2.8 | 2.4 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.5 |
| Job leavers | .5 | .8 | .8 | .5 | .8 | .8 | .7 | .8 | .8 |
| Reentrants | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| New entrants | .4 | .4 | .5 | .4 | .5 | .4 | .5 | .5 | .5 |

¹ Data not available.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-9. Unemployed persons by duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,439 | 2,274 | 2,365 | 2,772 | 2,865 | 2,599 | 2,755 | 2,531 | 2,666 |
| 5 to 14 weeks | 2,159 | 2,553 | 2,050 | 2,870 | 2,284 | 2,343 | 2,317 | 2,319 | 2,288 |
| 15 weeks and over | 3,029 | 3,180 | 2,820 | 2,856 | 2,881 | 2,824 | 2,888 | 2,817 | 2,868 |
| 15 to 26 weeks | 1,260 | 1,443 | 1,242 | 1,155 | 1,325 | 1,201 | 1,255 | 1,185 | 1,063 |
| 27 weeks and over | 1,878 | 1,717 | 1,677 | 1,701 | 1,636 | 1,623 | 1,633 | 1,632 | 1,615 |
| Average (mean) duration, in weeks | 21.0 | 20.4 | 21.1 | 19.7 | 19.3 | 19.3 | 19.1 | 19.3 | 19.6 |
| Median duration, in weeks | 11.0 | 10.7 | 10.4 | 9.4 | 9.5 | 9.4 | 9.3 | 9.3 | 9.9 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 31.1 | 28.6 | 32.2 | 34.2 | 35.4 | 33.5 | 34.9 | 33.0 | 34.9 |
| 5 to 14 weeks | 27.5 | 32.0 | 27.9 | 29.3 | 28.0 | 30.2 | 29.1 | 30.3 | 29.7 |
| 15 weeks and over | 41.3 | 39.6 | 39.8 | 36.5 | 36.8 | 36.4 | 36.3 | 36.7 | 35.4 |
| 15 to 26 weeks | 17.4 | 18.1 | 18.9 | 14.4 | 16.4 | 15.5 | 15.8 | 15.2 | 14.2 |
| 27 weeks and over | 23.9 | 21.5 | 22.9 | 22.1 | 20.2 | 20.8 | 20.5 | 21.5 | 21.2 |

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-10. Employed and unemployed persons by occupation, not seasonally adjusted

(Numbers in thousands)

| Occupation | Employed | | Unemployed | | Unemployment rates | |
|--|-----------|-----------|------------|-----------|--------------------|-----------|
| | Apr. 2004 | Apr. 2005 | Apr. 2004 | Apr. 2005 | Apr. 2004 | Apr. 2005 |
| Total, 16 years and over ¹ | 136,423 | 140,939 | 7,837 | 7,335 | 5.4 | 4.9 |
| Management, professional, and related occupations | 48,867 | 49,132 | 1,300 | 1,101 | 2.6 | 2.2 |
| Management, business, and financial operations occupations | 20,100 | 20,288 | 557 | 454 | 2.7 | 2.2 |
| Professional and related occupations | 28,567 | 28,844 | 743 | 647 | 2.5 | 2.2 |
| Service occupations | 22,482 | 22,609 | 1,518 | 1,524 | 6.3 | 6.3 |
| Sales and office occupations | 35,141 | 35,062 | 1,848 | 1,813 | 5.0 | 4.8 |
| Sales and related occupations | 15,809 | 16,723 | 800 | 885 | 4.8 | 5.0 |
| Office and administrative support occupations | 19,332 | 19,238 | 1,048 | 928 | 5.1 | 4.8 |
| Natural resources, construction, and maintenance occupations | 14,145 | 15,069 | 1,172 | 1,008 | 7.8 | 6.2 |
| Farming, fishing, and forestry occupations | 977 | 935 | 114 | 90 | 10.5 | 8.8 |
| Construction and extraction occupations | 8,170 | 8,927 | 844 | 882 | 9.4 | 7.1 |
| Installation, maintenance, and repair occupations | 4,988 | 5,238 | 214 | 234 | 4.1 | 4.3 |
| Production, transportation, and material moving occupations | 17,988 | 18,137 | 1,387 | 1,200 | 7.2 | 6.2 |
| Production occupations | 9,437 | 9,545 | 709 | 629 | 6.9 | 6.2 |
| Transportation and material moving occupations | 8,501 | 8,592 | 689 | 571 | 7.5 | 6.2 |

¹ Persons with no previous work experience and persons whose last job was in the Armed Forces are included in the unemployed total.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-11. Unemployed persons by industry, not seasonally adjusted

| Industry | Number of unemployed persons (in thousands) | | Unemployment rates | |
|---|---|-----------|--------------------|-----------|
| | Apr. 2004 | Apr. 2005 | Apr. 2004 | Apr. 2005 |
| Total, 16 years and over ¹ | 7,837 | 7,335 | 5.4 | 4.9 |
| Nonagricultural private wage and salary workers | 6,468 | 5,821 | 5.7 | 5.1 |
| Mining | 34 | 19 | 6.4 | 2.9 |
| Construction | 849 | 833 | 9.5 | 7.4 |
| Manufacturing | 1,004 | 793 | 5.8 | 4.8 |
| Durable goods | 598 | 450 | 5.6 | 4.3 |
| Nondurable goods | 406 | 343 | 8.2 | 5.6 |
| Wholesale and retail trade | 1,248 | 1,131 | 5.1 | 5.4 |
| Transportation and utilities | 238 | 257 | 4.5 | 4.7 |
| Information | 188 | 178 | 5.0 | 5.9 |
| Financial activities | 312 | 255 | 3.4 | 2.7 |
| Professional and business services | 752 | 714 | 6.0 | 5.7 |
| Education and health services | 589 | 591 | 3.3 | 3.3 |
| Leisure and hospitality | 925 | 882 | 7.9 | 7.7 |
| Other services | 347 | 308 | 5.8 | 4.9 |
| Agriculture and related private wage and salary workers | 107 | 84 | 8.3 | 6.9 |
| Government workers | 433 | 478 | 2.1 | 2.3 |
| Self-employed and unpaid family workers | 242 | 273 | 2.3 | 2.4 |

¹ Persons with no previous work experience are included in the unemployed total.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-12. Alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|-----------|---------------------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Mar. 2005 | Apr. 2005 | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 | Apr. 2005 |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.8 |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.9 | 2.8 | 2.4 | 2.9 | 2.8 | 2.7 | 2.7 | 2.6 | 2.5 |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 5.4 | 5.4 | 4.9 | 5.5 | 5.4 | 5.2 | 5.4 | 5.2 | 5.2 |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 5.7 | 5.7 | 5.2 | 5.9 | 5.7 | 5.6 | 5.7 | 5.5 | 5.4 |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 6.3 | 6.4 | 5.9 | 6.5 | 6.4 | 6.4 | 6.4 | 6.2 | 6.1 |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 9.2 | 9.4 | 8.7 | 9.6 | 9.3 | 9.3 | 9.3 | 9.1 | 9.0 |

NOTE: Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but

have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures," in the October 1995 issue of the Monthly Labor Review. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-13. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Apr. 2004 | Apr. 2005 | Apr. 2004 | Apr. 2005 | Apr. 2004 | Apr. 2005 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 76,487 | 77,187 | 29,244 | 29,363 | 47,253 | 47,823 |
| Persons who currently want a job | 4,508 | 5,022 | 2,121 | 2,220 | 2,486 | 2,797 |
| Searched for work and available to work now ¹ | 1,526 | 1,511 | 762 | 764 | 743 | 728 |
| Reason not currently looking: | | | | | | |
| Discouragement over job prospects ² | 482 | 393 | 313 | 270 | 179 | 122 |
| Reasons other than discouragement ³ | 1,034 | 1,119 | 469 | 613 | 585 | 606 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 7,229 | 7,437 | 3,875 | 3,759 | 3,594 | 3,680 |
| Percent of total employed | 5.2 | 5.3 | 5.0 | 5.0 | 5.5 | 5.6 |
| Primary job full time, secondary job part time | 3,869 | 3,849 | 2,142 | 2,119 | 1,727 | 1,731 |
| Primary and secondary jobs both part time | 1,633 | 1,708 | 651 | 678 | 1,082 | 1,130 |
| Primary and secondary jobs both full time | 275 | 301 | 188 | 176 | 87 | 125 |
| Hours vary on primary or secondary job | 1,417 | 1,651 | 780 | 872 | 637 | 679 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.

² Includes those who think no work available, could not find work, lack schooling or training, employer thinks too young or old, and other types of discrimination.

³ Includes those who did not actively look for work in the prior 4 weeks for such reasons as school or family responsibilities, ill health, and transportation problems, as well

as a small number for which reason for nonparticipation was not determined.

⁴ Includes persons who work part time on their primary job and full time on their secondary job(s), not shown separately.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Change from Mar. 2005-Apr. 2005 ^P |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|------------------------|--|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | |
| Total nonfarm | 131,150 | 131,337 | 132,195 | 133,374 | 131,123 | 132,449 | 132,573 | 132,873 | 133,019 | 133,293 | 274 |
| Total private | 109,143 | 109,295 | 110,056 | 111,223 | 109,516 | 110,749 | 110,863 | 111,140 | 111,287 | 111,543 | 256 |
| Goods-producing | 21,623 | 21,473 | 21,856 | 21,950 | 21,825 | 22,022 | 22,004 | 22,066 | 22,095 | 22,140 | 45 |
| Natural resources and mining | 578 | 596 | 604 | 614 | 589 | 602 | 607 | 612 | 619 | 623 | 4 |
| Logging | 63.9 | 65.7 | 64.9 | 66.6 | 69.8 | 67.9 | 68.0 | 67.3 | 69.2 | 67.7 | -1.5 |
| Mining | 513.8 | 530.5 | 539.0 | 547.4 | 519.2 | 534.4 | 539.7 | 545.0 | 550.1 | 556.2 | 6.1 |
| Oil and gas extraction | 122.0 | 121.6 | 122.3 | 123.7 | 122.5 | 124.1 | 123.4 | 122.5 | 123.5 | 124.0 | .6 |
| Mining, except oil and gas ¹ | 202.9 | 206.2 | 206.0 | 217.1 | 204.8 | 211.3 | 216.3 | 219.5 | 226.6 | 232.2 | 2.4 |
| Coal mining | 96.4 | 75.4 | 75.5 | 78.1 | 70.4 | 73.9 | 75.4 | 76.1 | 76.1 | 78.7 | .6 |
| Support activities for mining | 188.9 | 202.5 | 207.7 | 214.1 | 191.9 | 199.0 | 204.4 | 207.0 | 211.0 | 218.2 | 5.2 |
| Construction | 6,775 | 6,666 | 6,804 | 7,078 | 6,913 | 7,086 | 7,090 | 7,133 | 7,182 | 7,209 | 47 |
| Construction of buildings | 1,573.0 | 1,522.7 | 1,638.5 | 1,659.4 | 1,608.7 | 1,678.9 | 1,682.4 | 1,699.2 | 1,694.3 | 1,693.4 | -9 |
| Residential building | 859.6 | 894.3 | 906.5 | 917.5 | 875.9 | 927.4 | 929.1 | 931.4 | 936.1 | 934.2 | -1.9 |
| Nonresidential building | 718.2 | 728.4 | 732.0 | 741.9 | 732.8 | 751.5 | 753.3 | 757.8 | 758.2 | 759.2 | 1.0 |
| Heavy and civil engineering construction | 878.9 | 796.6 | 825.2 | 801.0 | 803.2 | 807.8 | 808.2 | 811.7 | 816.6 | 824.9 | 8.3 |
| Specialty trade contractors | 4,321.1 | 4,246.6 | 4,339.9 | 4,517.9 | 4,401.5 | 4,499.2 | 4,499.6 | 4,531.8 | 4,550.7 | 4,601.0 | 40.3 |
| Residential specialty trade contractors | 2,056.0 | 2,019.8 | 2,062.3 | 2,145.9 | 2,086.6 | 2,125.5 | 2,128.2 | 2,144.9 | 2,154.6 | 2,172.0 | 17.2 |
| Nonresidential specialty trade contractors | 2,266.1 | 2,226.7 | 2,277.5 | 2,372.0 | 2,314.9 | 2,373.7 | 2,371.4 | 2,386.9 | 2,395.9 | 2,419.0 | 23.1 |
| Manufacturing | 14,270 | 14,211 | 14,248 | 14,258 | 14,323 | 14,334 | 14,307 | 14,321 | 14,314 | 14,308 | -6 |
| Production workers | 10,024 | 9,998 | 10,025 | 10,035 | 10,064 | 10,097 | 10,082 | 10,085 | 10,085 | 10,076 | -9 |
| Durable goods | 8,893 | 8,911 | 8,929 | 8,952 | 8,902 | 8,957 | 8,942 | 8,962 | 8,957 | 8,959 | 2 |
| Production workers | 6,110 | 6,139 | 6,156 | 6,181 | 6,114 | 6,170 | 6,166 | 6,178 | 6,181 | 6,184 | 3 |
| Wood products | 540.1 | 543.9 | 546.8 | 547.2 | 544.9 | 556.2 | 557.6 | 553.6 | 555.3 | 552.7 | -2.6 |
| Nonmetallic mineral products | 492.2 | 483.1 | 488.6 | 503.4 | 501.6 | 506.5 | 504.5 | 504.0 | 502.5 | 505.8 | 3.3 |
| Primary metals | 463.9 | 465.8 | 466.4 | 466.9 | 464.8 | 465.2 | 465.5 | 466.9 | 467.1 | 467.7 | 0.6 |
| Fabricated metal products | 1,487.3 | 1,508.0 | 1,513.6 | 1,515.7 | 1,488.5 | 1,512.8 | 1,514.3 | 1,514.1 | 1,518.8 | 1,517.3 | .5 |
| Machinery | 1,139.9 | 1,146.7 | 1,152.2 | 1,154.3 | 1,130.0 | 1,146.0 | 1,146.9 | 1,147.0 | 1,151.2 | 1,153.2 | 2.0 |
| Computer and electronic products ¹ | 1,316.1 | 1,324.9 | 1,323.9 | 1,328.6 | 1,322.6 | 1,325.8 | 1,327.0 | 1,327.5 | 1,328.5 | 1,329.1 | 2.6 |
| Computer and peripheral equipment | 212.8 | 210.5 | 211.2 | 212.2 | 213.1 | 210.4 | 210.2 | 211.2 | 211.2 | 212.1 | .9 |
| Communications equipment | 148.2 | 155.0 | 153.1 | 153.5 | 148.5 | 153.7 | 155.1 | 154.5 | 153.7 | 153.8 | -1 |
| Semiconductors and electronic components | 450.1 | 445.5 | 445.9 | 445.8 | 451.2 | 448.0 | 447.4 | 447.1 | 447.1 | 448.9 | -2 |
| Electronic instruments | 427.6 | 435.6 | 435.6 | 438.2 | 429.1 | 433.7 | 436.4 | 436.4 | 436.4 | 437.6 | 1.2 |
| Electrical equipment and appliances | 447.1 | 443.7 | 444.1 | 448.3 | 445.8 | 445.8 | 445.1 | 445.3 | 446.4 | 446.1 | .8 |
| Transportation equipment ¹ | 1,765.5 | 1,777.6 | 1,777.6 | 1,780.4 | 1,765.1 | 1,771.9 | 1,760.1 | 1,761.8 | 1,776.1 | 1,778.7 | 2.8 |
| Motor vehicles and parts ² | 1,117.2 | 1,107.6 | 1,104.9 | 1,100.5 | 1,115.0 | 1,104.0 | 1,092.9 | 1,106.7 | 1,101.5 | 1,096.6 | -2.9 |
| Furniture and related products | 575.9 | 565.8 | 565.9 | 561.5 | 574.1 | 571.7 | 570.3 | 567.5 | 565.6 | 568.9 | -5.7 |
| Miscellaneous manufacturing | 656.6 | 651.3 | 649.3 | 649.7 | 656.6 | 659.4 | 654.3 | 653.5 | 650.9 | 648.9 | -2.0 |
| Nondurable goods | 5,377 | 5,300 | 5,319 | 5,306 | 5,421 | 5,377 | 5,365 | 5,359 | 5,357 | 5,349 | -8 |
| Production workers | 3,914 | 3,859 | 3,866 | 3,854 | 3,950 | 3,927 | 3,916 | 3,907 | 3,904 | 3,892 | -12 |
| Food manufacturing | 1,467.6 | 1,465.3 | 1,470.0 | 1,456.6 | 1,500.5 | 1,498.6 | 1,494.3 | 1,493.2 | 1,494.1 | 1,490.1 | -4.0 |
| Beverages and tobacco products | 190.3 | 187.3 | 186.3 | 186.5 | 194.3 | 193.0 | 192.2 | 192.5 | 191.4 | 190.9 | -0.5 |
| Textile mills | 241.1 | 228.1 | 229.1 | 228.1 | 239.7 | 233.2 | 231.5 | 230.1 | 228.7 | 227.0 | -1.7 |
| Textile product mills | 180.8 | 176.0 | 176.3 | 180.1 | 179.1 | 178.0 | 178.1 | 177.9 | 177.7 | 177.9 | .2 |
| Apparel | 291.5 | 294.7 | 293.6 | 291.6 | 291.8 | 271.9 | 269.3 | 267.2 | 265.4 | 261.6 | -1.8 |
| Leather and allied products | 43.2 | 42.8 | 43.6 | 43.9 | 42.6 | 43.1 | 43.1 | 43.2 | 43.2 | 43.2 | .0 |
| Paper and paper products | 496.4 | 497.9 | 499.2 | 494.6 | 499.0 | 497.9 | 499.9 | 500.2 | 501.7 | 499.3 | -3.4 |
| Printing and related support activities | 661.1 | 653.3 | 653.3 | 655.7 | 665.7 | 660.6 | 660.6 | 659.2 | 660.1 | 659.5 | .4 |
| Petroleum and coal products | 110.5 | 111.9 | 112.7 | 115.7 | 111.4 | 113.8 | 114.5 | 115.1 | 114.8 | 115.2 | 1.4 |
| Chemicals | 883.4 | 874.1 | 876.3 | 878.9 | 890.8 | 880.5 | 877.1 | 878.4 | 878.7 | 877.5 | .8 |
| Plastics and rubber products | 809.9 | 799.5 | 804.5 | 808.1 | 805.9 | 806.2 | 804.9 | 804.1 | 806.5 | 806.4 | -1.1 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | | Change from Mar. 2005- Apr. 2005 ^P |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|------------------------|------|---|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | | |
| Service-providing | 109,527 | 109,884 | 110,539 | 111,424 | 109,298 | 110,427 | 110,589 | 110,807 | 110,824 | 111,133 | 229 | |
| Private service-providing | 87,520 | 87,822 | 88,400 | 89,273 | 87,691 | 88,727 | 88,859 | 89,074 | 89,192 | 89,403 | 211 | |
| Trade, transportation, and utilities | 25,285 | 25,337 | 25,426 | 25,573 | 25,481 | 25,820 | 25,852 | 25,714 | 25,735 | 25,774 | 39 | |
| Wholesale trade | 5,841.0 | 5,843.7 | 5,876.1 | 5,701.6 | 5,648.2 | 5,693.8 | 5,679.9 | 5,688.7 | 5,702.9 | 5,707.7 | 4.8 | |
| Durable goods | 2,937.8 | 2,951.5 | 2,963.8 | 2,871.1 | 2,841.3 | 2,964.5 | 2,965.6 | 2,968.7 | 2,974.4 | 2,974.6 | 2 | |
| Non-durable goods | 2,006.5 | 1,982.8 | 1,969.1 | 2,012.2 | 2,009.1 | 2,009.9 | 2,006.4 | 2,006.9 | 2,013.0 | 2,014.2 | 1.2 | |
| Electronic markets and agents and brokers | 896.7 | 709.4 | 713.2 | 718.3 | 697.9 | 708.2 | 708.9 | 713.1 | 715.5 | 718.9 | 3.4 | |
| Retail trade | 14,852.3 | 14,838.8 | 14,873.0 | 14,973.1 | 15,038.0 | 15,077.0 | 15,081.2 | 15,125.4 | 15,123.3 | 15,147.7 | 24.4 | |
| Motor vehicle and parts dealers ¹ | 1,902.3 | 1,888.0 | 1,901.7 | 1,913.3 | 1,908.6 | 1,905.9 | 1,907.4 | 1,911.2 | 1,913.4 | 1,916.5 | 3.1 | |
| Automobile dealers | 1,257.8 | 1,241.8 | 1,248.8 | 1,252.2 | 1,260.3 | 1,249.1 | 1,247.9 | 1,248.8 | 1,251.2 | 1,254.2 | 3.0 | |
| Furniture and home furnishings stores | 551.8 | 557.9 | 557.3 | 558.8 | 558.1 | 563.7 | 562.1 | 562.8 | 562.3 | 565.2 | 2.9 | |
| Electronics and appliance stores | 512.8 | 513.9 | 516.9 | 513.1 | 514.9 | 516.5 | 516.1 | 515.1 | 516.5 | 514.8 | -1.7 | |
| Building material and garden supply stores | 1,248.0 | 1,204.5 | 1,238.7 | 1,288.7 | 1,224.7 | 1,243.5 | 1,248.0 | 1,284.8 | 1,283.2 | 1,283.8 | .6 | |
| Food and beverage stores | 2,796.7 | 2,801.2 | 2,793.8 | 2,797.0 | 2,830.8 | 2,819.8 | 2,826.0 | 2,826.8 | 2,826.5 | 2,828.8 | 2.3 | |
| Health and personal care stores | 934.2 | 946.2 | 941.9 | 947.8 | 941.6 | 946.6 | 944.8 | 949.7 | 947.9 | 954.1 | 6.2 | |
| Gasoline stations | 871.9 | 882.5 | 865.1 | 867.7 | 878.3 | 871.3 | 872.9 | 874.8 | 874.6 | 874.4 | -2 | |
| Clothing and clothing accessories stores | 1,314.2 | 1,338.2 | 1,343.6 | 1,348.3 | 1,352.1 | 1,381.3 | 1,379.5 | 1,380.5 | 1,381.8 | 1,384.4 | 2.6 | |
| Sporting goods, hobby, book, and music stores | 618.5 | 622.2 | 619.4 | 615.9 | 639.8 | 635.8 | 637.7 | 638.2 | 638.8 | 637.0 | 1.2 | |
| General merchandise stores ¹ | 2,780.2 | 2,778.2 | 2,784.2 | 2,803.2 | 2,847.7 | 2,852.9 | 2,853.5 | 2,854.1 | 2,852.5 | 2,857.2 | 4.7 | |
| Department stores | 1,561.5 | 1,571.3 | 1,568.8 | 1,578.3 | 1,613.6 | 1,619.3 | 1,619.1 | 1,625.7 | 1,623.8 | 1,625.9 | 2.1 | |
| Miscellaneous store retailers | 904.8 | 910.1 | 887.5 | 907.0 | 918.8 | 918.2 | 918.7 | 918.9 | 919.2 | 919.2 | 0 | |
| Nonstore retailers | 418.9 | 415.9 | 412.8 | 414.3 | 425.8 | 421.5 | 418.5 | 420.1 | 419.6 | 422.3 | 2.7 | |
| Transportation and warehousing | 4,203.3 | 4,236.4 | 4,302.9 | 4,377.8 | 4,222.5 | 4,288.0 | 4,318.0 | 4,324.1 | 4,334.1 | 4,345.8 | 11.7 | |
| Air transportation | 615.2 | 604.4 | 605.4 | 602.3 | 518.0 | 512.3 | 609.4 | 607.9 | 607.1 | 602.4 | -4.7 | |
| Rail transportation | 223.8 | 221.7 | 221.9 | 223.8 | 223.5 | 224.0 | 224.4 | 223.9 | 223.7 | 223.5 | -2 | |
| Water transportation | 56.5 | 57.3 | 59.1 | 59.9 | 57.2 | 58.6 | 59.8 | 60.0 | 60.7 | 60.4 | -3 | |
| Truck transportation | 1,328.4 | 1,345.8 | 1,356.1 | 1,376.5 | 1,343.8 | 1,366.5 | 1,372.8 | 1,378.0 | 1,382.9 | 1,390.6 | 7.7 | |
| Trains and ground passenger transportation | 391.7 | 402.3 | 404.0 | 406.8 | 377.4 | 391.0 | 391.7 | 391.0 | 388.5 | 392.7 | 4.2 | |
| Pipeline transportation | 38.4 | 39.1 | 39.2 | 39.5 | 38.8 | 38.7 | 39.3 | 39.4 | 39.5 | 39.7 | 2 | |
| Scientific and signposting transportation | 24.0 | 18.8 | 20.5 | 23.8 | 28.8 | 28.8 | 24.2 | 24.9 | 28.5 | 27.0 | .5 | |
| Support activities for transportation | 528.4 | 548.4 | 551.1 | 548.6 | 532.0 | 547.0 | 549.3 | 551.5 | 554.2 | 553.7 | -5 | |
| Couriers and messengers | 548.3 | 573.1 | 578.3 | 577.7 | 556.2 | 556.4 | 575.5 | 577.6 | 580.0 | 583.8 | 3.8 | |
| Warehousing and storage | 548.8 | 568.5 | 568.3 | 568.1 | 552.0 | 568.9 | 567.8 | 569.9 | 571.0 | 572.0 | 1.0 | |
| Utilities | 567.9 | 573.8 | 574.1 | 570.3 | 571.0 | 571.3 | 574.7 | 576.0 | 575.0 | 573.1 | -1.9 | |
| Information | 3,128 | 3,105 | 3,120 | 3,135 | 3,142 | 3,127 | 3,123 | 3,127 | 3,135 | 3,147 | 12 | |
| Publishing industries, except internet | 908.4 | 903.7 | 905.4 | 900.9 | 911.0 | 905.7 | 905.0 | 905.6 | 908.5 | 903.7 | -2.8 | |
| Motion picture and sound recording industries | 378.4 | 367.7 | 378.8 | 388.9 | 386.7 | 384.8 | 380.3 | 380.9 | 388.2 | 397.6 | 9.4 | |
| Broadcasting, except internet | 323.5 | 329.0 | 330.5 | 328.3 | 324.4 | 329.7 | 331.3 | 330.4 | 330.7 | 329.9 | -8 | |
| Internet publishing and broadcasting | 30.0 | 34.1 | 34.8 | 34.9 | 30.0 | 34.0 | 34.8 | 34.6 | 34.8 | 34.9 | 1 | |
| Telecommunications | 1,050.1 | 1,029.8 | 1,028.8 | 1,037.5 | 1,050.9 | 1,031.5 | 1,030.8 | 1,032.2 | 1,031.5 | 1,038.2 | 6.7 | |
| ISPs, search portals, and data processing | 388.3 | 380.6 | 383.4 | 383.1 | 387.2 | 380.4 | 389.9 | 392.6 | 392.8 | 392.0 | -8 | |
| Other information services | 51.5 | 50.4 | 50.6 | 50.2 | 51.3 | 50.7 | 51.0 | 50.9 | 50.7 | 50.3 | -4 | |
| Financial activities | 7,997 | 8,116 | 8,132 | 8,167 | 8,021 | 8,128 | 8,150 | 8,165 | 8,171 | 8,188 | 17 | |
| Finance and insurance | 5,942.2 | 6,027.9 | 6,034.0 | 6,042.7 | 5,948.4 | 6,014.5 | 6,030.9 | 6,037.6 | 6,038.7 | 6,048.2 | 8.5 | |
| Monetary authorities - central bank | 22.2 | 20.2 | 20.3 | 20.3 | 22.1 | 20.6 | 20.5 | 20.4 | 20.4 | 20.3 | -1 | |
| Credit intermediation and related activities ¹ | 2,819.7 | 2,885.3 | 2,893.5 | 2,899.4 | 2,823.3 | 2,871.9 | 2,882.7 | 2,891.0 | 2,896.9 | 2,901.1 | 4.2 | |
| Depository credit intermediation ¹ | 1,754.5 | 1,788.2 | 1,791.6 | 1,793.4 | 1,756.5 | 1,778.8 | 1,785.6 | 1,790.3 | 1,793.2 | 1,794.3 | 1.1 | |
| Commercial banking | 1,262.9 | 1,303.8 | 1,305.8 | 1,306.8 | 1,284.4 | 1,296.8 | 1,301.8 | 1,305.5 | 1,307.5 | 1,307.1 | -4 | |
| Securities, commodity contracts, investments | 756.3 | 783.9 | 794.5 | 787.0 | 759.2 | 779.7 | 782.5 | 794.8 | 798.9 | 790.4 | 3.5 | |
| Insurance carriers and related activities | 2,258.2 | 2,252.9 | 2,250.3 | 2,251.9 | 2,258.2 | 2,258.1 | 2,258.6 | 2,256.7 | 2,251.0 | 2,252.7 | 1.7 | |
| Funds, trusts, and other financial vehicles | 85.8 | 85.6 | 86.4 | 84.1 | 85.6 | 84.2 | 85.6 | 84.7 | 84.5 | 83.7 | -8 | |
| Real estate and rental and leasing | 2,054.3 | 2,087.8 | 2,098.0 | 2,124.3 | 2,072.2 | 2,113.8 | 2,118.0 | 2,127.2 | 2,131.2 | 2,140.0 | 8.8 | |
| Real estate | 1,386.1 | 1,420.0 | 1,428.7 | 1,440.3 | 1,406.2 | 1,437.8 | 1,438.7 | 1,443.8 | 1,446.2 | 1,450.1 | 3.9 | |
| Rental and leasing services | 633.2 | 647.9 | 649.9 | 655.4 | 640.6 | 650.9 | 654.1 | 656.3 | 660.0 | 664.1 | 4.1 | |
| Lessors of nonfinancial intangible assets | 25.0 | 24.9 | 24.4 | 25.6 | 25.4 | 24.9 | 25.2 | 25.1 | 25.0 | 25.8 | .8 | |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Change from Mar. 2005 ^P to Apr. 2005 ^P | |
|--|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|--|------------------------|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | | Apr. 2005 ^P |
| Professional and business services | 16,298 | 16,451 | 16,601 | 16,836 | 16,305 | 16,674 | 16,594 | 16,775 | 16,807 | 16,843 | 36 |
| Professional and technical services ¹ | 6,790.4 | 6,976.6 | 6,986.4 | 7,001.7 | 6,712.2 | 6,969.9 | 6,982.1 | 6,902.7 | 6,913.7 | 6,931.5 | 17.8 |
| Legal services | 1,151.6 | 1,152.0 | 1,152.9 | 1,154.8 | 1,156.6 | 1,164.4 | 1,160.5 | 1,161.2 | 1,161.9 | 1,162.9 | 1.0 |
| Accounting and bookkeeping services | 907.4 | 898.8 | 884.0 | 867.0 | 811.6 | 840.8 | 858.1 | 858.1 | 861.8 | 865.1 | 3.5 |
| Architectural and engineering services | 1,241.9 | 1,267.4 | 1,276.2 | 1,289.2 | 1,249.4 | 1,289.5 | 1,286.9 | 1,292.0 | 1,295.2 | 1,298.1 | 2.9 |
| Computer systems design and related services | 1,126.9 | 1,171.4 | 1,174.8 | 1,173.8 | 1,127.7 | 1,174.3 | 1,171.8 | 1,174.2 | 1,176.0 | 1,177.1 | 1.1 |
| Management and technical consulting services | 788.4 | 794.5 | 789.4 | 794.8 | 772.9 | 789.9 | 789.3 | 793.7 | 796.0 | 799.4 | 3.4 |
| Management of companies and enterprises | 1,708.4 | 1,713.0 | 1,718.5 | 1,728.3 | 1,717.8 | 1,725.6 | 1,730.7 | 1,731.3 | 1,732.4 | 1,735.6 | 3.2 |
| Administrative and waste services | 7,808.2 | 7,761.0 | 7,696.5 | 8,105.9 | 7,875.5 | 8,078.0 | 8,081.6 | 8,140.9 | 8,160.6 | 8,176.1 | 15.5 |
| Administrative and support services ¹ | 7,484.2 | 7,441.0 | 7,576.1 | 7,784.9 | 7,550.2 | 7,751.4 | 7,755.2 | 7,813.9 | 7,835.6 | 7,853.1 | 17.3 |
| Employment services ¹ | 3,357.1 | 3,432.8 | 3,808.6 | 3,590.1 | 3,422.4 | 3,584.5 | 3,598.9 | 3,633.8 | 3,647.9 | 3,660.2 | 12.3 |
| Temporary help services | 2,335.2 | 2,348.7 | 2,396.0 | 2,454.1 | 2,355.0 | 2,479.4 | 2,478.1 | 2,508.0 | 2,507.9 | 2,518.4 | 10.5 |
| Business support services | 755.0 | 755.4 | 758.4 | 755.0 | 755.5 | 757.0 | 752.8 | 755.7 | 754.5 | 755.3 | .8 |
| Services to buildings and dwellings | 1,682.5 | 1,554.5 | 1,599.8 | 1,721.5 | 1,688.5 | 1,706.1 | 1,711.0 | 1,711.2 | 1,712.9 | 1,716.9 | 4.0 |
| Waste management and remediation services | 324.0 | 320.0 | 318.4 | 321.0 | 325.3 | 326.6 | 326.4 | 327.1 | 328.8 | 323.0 | -1.8 |
| Education and health services | 17,058 | 17,291 | 17,359 | 17,430 | 16,871 | 17,142 | 17,178 | 17,186 | 17,209 | 17,244 | 35 |
| Educational services | 2,915.2 | 2,961.0 | 2,959.2 | 2,989.2 | 2,747.3 | 2,805.5 | 2,810.3 | 2,810.3 | 2,812.0 | 2,819.1 | 7.1 |
| Health care and social assistance | 14,142.7 | 14,339.8 | 14,389.8 | 14,440.7 | 14,123.8 | 14,336.1 | 14,363.2 | 14,376.4 | 14,396.6 | 14,424.6 | 28.0 |
| Health care ² | 11,996.8 | 12,159.8 | 12,197.4 | 12,234.3 | 12,004.5 | 12,188.4 | 12,183.8 | 12,202.8 | 12,219.8 | 12,244.8 | 25.0 |
| Ambulatory health care services ³ | 4,914.8 | 5,013.5 | 5,032.4 | 5,055.3 | 4,818.1 | 5,017.0 | 5,027.0 | 5,025.0 | 5,043.1 | 5,057.3 | 14.2 |
| Offices of physicians | 2,038.7 | 2,088.6 | 2,083.7 | 2,098.7 | 2,042.0 | 2,094.3 | 2,085.3 | 2,090.9 | 2,092.5 | 2,101.0 | 9.0 |
| Outpatient care centers | 444.2 | 450.4 | 452.5 | 453.4 | 443.5 | 450.3 | 451.5 | 451.1 | 452.1 | 453.0 | .9 |
| Home health care services | 788.1 | 787.7 | 796.4 | 800.0 | 785.3 | 790.7 | 796.6 | 796.8 | 799.8 | 799.2 | -0.6 |
| Hospitals | 4,274.2 | 4,329.1 | 4,341.0 | 4,351.1 | 4,278.7 | 4,323.5 | 4,328.6 | 4,337.8 | 4,346.3 | 4,356.0 | 9.7 |
| Nursing and residential care facilities ¹ | 2,807.0 | 2,817.2 | 2,824.0 | 2,827.9 | 2,800.7 | 2,827.9 | 2,827.0 | 2,830.0 | 2,830.4 | 2,831.5 | 1.1 |
| Nursing care facilities | 1,572.1 | 1,563.9 | 1,569.4 | 1,567.2 | 1,574.8 | 1,574.5 | 1,571.5 | 1,571.6 | 1,572.7 | 1,570.7 | -2.0 |
| Social assistance ⁴ | 2,148.9 | 2,180.0 | 2,192.4 | 2,206.4 | 2,119.1 | 2,167.7 | 2,169.6 | 2,172.6 | 2,176.8 | 2,179.8 | 3.0 |
| Child day care services | 778.4 | 792.5 | 798.2 | 803.7 | 760.3 | 780.4 | 780.5 | 782.5 | 784.6 | 785.9 | 1.3 |
| Leisure and hospitality | 12,351 | 12,110 | 12,322 | 12,658 | 12,443 | 12,589 | 12,811 | 12,650 | 12,674 | 12,732 | 58 |
| Arts, entertainment, and recreation | 1,784.3 | 1,611.0 | 1,654.1 | 1,791.4 | 1,833.4 | 1,811.0 | 1,806.4 | 1,808.4 | 1,811.3 | 1,827.1 | 15.8 |
| Performing arts and spectator sports | 370.1 | 333.1 | 341.3 | 369.3 | 365.1 | 357.9 | 355.6 | 357.0 | 358.1 | 362.7 | 4.6 |
| Museums, historical sites, zoos, and parks | 115.0 | 103.3 | 108.8 | 114.8 | 117.0 | 114.8 | 114.5 | 113.8 | 115.5 | 118.1 | 2.6 |
| Amusements, gambling, and recreation | 1,308.8 | 1,174.8 | 1,204.2 | 1,307.5 | 1,351.3 | 1,338.3 | 1,335.3 | 1,337.8 | 1,337.7 | 1,348.3 | 10.6 |
| Accommodations and food services | 10,558.6 | 10,498.4 | 10,687.5 | 10,866.2 | 10,609.4 | 10,778.4 | 10,805.1 | 10,841.1 | 10,863.1 | 10,905.2 | 42.1 |
| Accommodations | 1,750.0 | 1,750.2 | 1,769.7 | 1,795.2 | 1,791.6 | 1,824.6 | 1,825.9 | 1,830.3 | 1,831.2 | 1,838.0 | 6.8 |
| Food services and drinking places | 8,808.6 | 8,748.2 | 8,897.8 | 9,071.0 | 8,817.8 | 8,953.8 | 8,979.2 | 9,010.8 | 9,031.9 | 9,067.2 | 35.3 |
| Other services | 5,423 | 5,412 | 5,440 | 5,474 | 5,428 | 5,447 | 5,451 | 5,457 | 5,461 | 5,475 | 14 |
| Repair and maintenance | 1,232.4 | 1,227.1 | 1,234.2 | 1,242.3 | 1,229.6 | 1,229.9 | 1,228.4 | 1,233.7 | 1,234.4 | 1,237.7 | 3.3 |
| Personal and laundry services | 1,276.8 | 1,260.2 | 1,273.0 | 1,291.2 | 1,275.7 | 1,276.8 | 1,280.4 | 1,280.5 | 1,282.6 | 1,287.5 | 4.9 |
| Membership associations and organizations | 2,913.7 | 2,924.5 | 2,932.8 | 2,940.7 | 2,922.3 | 2,940.8 | 2,941.4 | 2,942.9 | 2,943.5 | 2,949.3 | 5.8 |
| Government | 22,007 | 22,042 | 22,139 | 22,151 | 21,807 | 21,700 | 21,710 | 21,733 | 21,732 | 21,750 | 18 |
| Federal | 2,742 | 2,704 | 2,705 | 2,714 | 2,745 | 2,708 | 2,719 | 2,720 | 2,719 | 2,715 | -4 |
| Federal, except U.S. Postal Service | 1,958.9 | 1,928.3 | 1,927.7 | 1,937.3 | 1,997.2 | 1,959.5 | 1,957.2 | 1,959.6 | 1,958.0 | 1,955.4 | -3.8 |
| U.S. Postal Service | 783.1 | 777.3 | 778.8 | 778.2 | 783.3 | 786.4 | 782.2 | 781.1 | 781.0 | 779.5 | -5 |
| State government | 5,119 | 5,138 | 5,172 | 5,177 | 4,975 | 5,020 | 5,025 | 5,027 | 5,029 | 5,034 | 5 |
| State government, education | 2,391.5 | 2,404.3 | 2,436.7 | 2,436.1 | 2,243.3 | 2,277.9 | 2,280.4 | 2,283.0 | 2,286.3 | 2,286.8 | 2.5 |
| State government, excluding education | 2,727.7 | 2,730.2 | 2,735.5 | 2,741.2 | 2,731.8 | 2,741.9 | 2,744.4 | 2,743.4 | 2,743.1 | 2,745.2 | 2.1 |
| Local government | 14,146 | 14,203 | 14,262 | 14,280 | 13,887 | 13,974 | 13,968 | 13,986 | 13,984 | 14,001 | 17 |
| Local government, education | 6,079.5 | 6,138.9 | 6,177.9 | 6,148.6 | 7,753.7 | 7,810.8 | 7,808.6 | 7,807.7 | 7,814.8 | 7,823.2 | 8.4 |
| Local government, excluding education | 8,066.9 | 8,065.6 | 8,084.5 | 8,110.5 | 6,136.4 | 6,163.1 | 6,158.2 | 6,165.1 | 6,169.2 | 6,177.5 | 8.3 |

¹ Includes other industries, not shown separately.² Includes motor vehicles, motor vehicle bodies, trailers, and motor vehicle parts.³ Includes ambulatory health care services, hospitals, and nursing and residential care facilities.^P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Change from Mar. 2005 ² to Apr. 2005 ² |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|------------------------|--|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | |
| Total private | 33.5 | 33.5 | 33.5 | 33.6 | 33.7 | 33.7 | 33.7 | 33.7 | 33.7 | 33.9 | 0.2 |
| Goods-producing | 39.7 | 39.4 | 39.6 | 39.9 | 40.0 | 40.0 | 39.8 | 39.9 | 39.8 | 40.2 | .4 |
| Natural resources and mining | 43.9 | 44.6 | 44.8 | 45.2 | 44.3 | 45.4 | 45.5 | 45.1 | 45.2 | 45.5 | .3 |
| Construction | 37.7 | 37.1 | 37.8 | 38.7 | 38.2 | 38.4 | 37.6 | 38.2 | 38.3 | 38.0 | .7 |
| Manufacturing | 40.6 | 40.4 | 40.4 | 40.3 | 40.8 | 40.5 | 40.7 | 40.8 | 40.4 | 40.5 | .1 |
| Overtime hours | 4.4 | 4.4 | 4.3 | 4.3 | 4.5 | 4.5 | 4.5 | 4.6 | 4.5 | 4.5 | .0 |
| Durable goods | 41.1 | 40.9 | 40.8 | 40.7 | 41.3 | 41.1 | 41.1 | 41.0 | 40.8 | 40.9 | .1 |
| Overtime hours | 4.5 | 4.5 | 4.4 | 4.4 | 4.7 | 4.6 | 4.6 | 4.7 | 4.5 | 4.6 | .1 |
| Wood products | 40.8 | 39.2 | 39.2 | 39.3 | 40.9 | 40.3 | 40.8 | 39.9 | 39.6 | 39.5 | -.1 |
| Nonmetallic mineral products | 42.3 | 41.2 | 41.1 | 41.9 | 42.3 | 42.3 | 41.9 | 42.1 | 41.7 | 41.8 | -.2 |
| Primary metals | 43.2 | 43.0 | 43.0 | 42.5 | 43.2 | 42.8 | 43.1 | 43.0 | 42.9 | 42.6 | -.3 |
| Fabricated metal products | 40.8 | 40.7 | 40.6 | 40.6 | 41.0 | 40.9 | 40.9 | 40.8 | 40.7 | 40.8 | .1 |
| Machinery | 41.6 | 42.1 | 42.1 | 41.9 | 41.9 | 42.0 | 42.0 | 42.0 | 42.0 | 42.2 | .2 |
| Computer and electronic products | 40.2 | 39.5 | 39.5 | 39.2 | 40.6 | 39.8 | 40.0 | 39.6 | 39.4 | 39.6 | .2 |
| Electrical equipment and appliances | 40.5 | 39.7 | 40.0 | 40.3 | 40.9 | 40.0 | 40.1 | 40.0 | 40.2 | 40.6 | .4 |
| Transportation equipment | 42.3 | 42.5 | 42.1 | 41.9 | 42.4 | 42.4 | 42.4 | 42.4 | 41.9 | 42.1 | -.2 |
| Motor vehicles and parts ² | 42.5 | 42.4 | 41.9 | 41.6 | 42.5 | 42.6 | 42.3 | 42.3 | 41.7 | 41.7 | .0 |
| Furniture and related products | 39.5 | 39.2 | 39.4 | 39.2 | 39.5 | 39.5 | 39.5 | 39.4 | 39.5 | 39.3 | -.2 |
| Miscellaneous manufacturing | 38.3 | 38.7 | 39.1 | 38.7 | 38.4 | 38.3 | 38.5 | 38.6 | 38.9 | 38.9 | .0 |
| Nonurable goods | 39.7 | 39.6 | 39.6 | 39.6 | 40.0 | 39.6 | 40.0 | 40.0 | 39.7 | 39.9 | .2 |
| Overtime hours | 4.1 | 4.2 | 4.2 | 4.1 | 4.3 | 4.3 | 4.4 | 4.5 | 4.4 | 4.3 | -.1 |
| Food manufacturing | 38.4 | 38.7 | 38.2 | 38.4 | 39.2 | 38.6 | 39.0 | 39.3 | 38.8 | 39.1 | .3 |
| Beverages and tobacco products | 39.8 | 39.6 | 40.0 | 40.9 | 39.8 | 39.6 | 40.5 | 40.2 | 40.3 | 40.5 | .2 |
| Textile mills | 39.6 | 39.6 | 40.0 | 40.0 | 39.7 | 39.8 | 40.2 | 39.7 | 40.1 | 40.1 | .0 |
| Textile product mills | 38.4 | 38.2 | 39.6 | 39.4 | 38.4 | 39.0 | 39.5 | 39.5 | 39.6 | 39.5 | -.1 |
| Apparel | 36.0 | 35.7 | 36.3 | 36.3 | 36.0 | 35.9 | 35.9 | 35.9 | 36.0 | 36.2 | .2 |
| Leather and allied products | 39.5 | 37.3 | 37.6 | 36.1 | 38.9 | 37.6 | 37.1 | 37.2 | 37.1 | 37.4 | .3 |
| Paper and paper products | 41.8 | 41.7 | 41.6 | 41.8 | 42.0 | 42.0 | 42.5 | 42.1 | 41.9 | 42.0 | .1 |
| Printing and related support activities | 38.2 | 38.3 | 39.4 | 38.1 | 38.4 | 38.5 | 38.6 | 38.5 | 38.3 | 38.4 | .1 |
| Petroleum and coal products | 43.4 | 44.5 | 44.6 | 45.5 | 44.5 | 44.6 | 44.5 | 44.7 | 45.1 | 46.4 | 1.3 |
| Chemicals | 42.8 | 42.3 | 42.2 | 42.2 | 43.0 | 42.6 | 42.8 | 42.3 | 42.2 | 42.4 | .2 |
| Plastics and rubber products | 40.6 | 40.0 | 39.8 | 39.7 | 40.8 | 39.8 | 40.0 | 40.1 | 39.8 | 39.7 | -.1 |
| Private service-providing | 32.1 | 32.2 | 32.2 | 32.3 | 32.4 | 32.4 | 32.4 | 32.4 | 32.4 | 32.5 | .1 |
| Trade, transportation, and utilities | 33.3 | 33.2 | 33.2 | 33.3 | 33.6 | 33.6 | 33.6 | 33.6 | 33.5 | 33.6 | .1 |
| Wholesale trade | 37.8 | 37.5 | 37.5 | 37.6 | 38.0 | 37.6 | 37.7 | 37.8 | 37.7 | 37.8 | .1 |
| Retail trade | 30.4 | 30.3 | 30.3 | 30.5 | 30.8 | 30.8 | 30.7 | 30.8 | 30.7 | 30.8 | .1 |
| Transportation and warehousing | 36.6 | 36.7 | 36.8 | 36.9 | 37.1 | 37.4 | 37.5 | 37.3 | 37.2 | 37.4 | .2 |
| Utilities | 41.0 | 40.5 | 40.1 | 41.0 | 41.2 | 40.7 | 41.0 | 40.5 | 40.3 | 41.1 | .8 |
| Information | 35.9 | 36.3 | 36.1 | 36.0 | 36.3 | 36.4 | 36.3 | 36.4 | 36.4 | 36.4 | .0 |
| Financial activities | 35.3 | 35.7 | 35.6 | 35.8 | 35.6 | 35.7 | 35.9 | 35.8 | 35.9 | 36.1 | .2 |
| Professional and business services | 34.1 | 33.9 | 33.9 | 34.1 | 34.2 | 34.2 | 34.1 | 34.0 | 34.0 | 34.2 | .2 |
| Education and health services | 32.2 | 32.5 | 32.4 | 32.5 | 32.4 | 32.5 | 32.6 | 32.6 | 32.6 | 32.7 | .1 |
| Leisure and hospitality | 25.4 | 25.5 | 25.4 | 25.5 | 25.7 | 25.7 | 25.6 | 25.7 | 25.7 | 25.7 | .0 |
| Other services | 30.8 | 30.8 | 30.8 | 30.9 | 31.1 | 30.8 | 30.9 | 30.9 | 31.0 | 31.1 | .1 |

¹ Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. These groups account for approximately four-fifths of the total employment on private nonfarm payrolls.

² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.
P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------------------|------------------------|-------------------------|-----------|------------------------|------------------------|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P |
| Total private | \$15.59 | \$15.96 | \$15.95 | \$16.00 | \$522.27 | \$534.68 | \$534.33 | \$537.60 |
| Seasonally adjusted | 15.58 | 15.91 | 15.95 | 16.00 | 525.05 | 538.17 | 537.52 | 542.40 |
| Goods-producing | 17.08 | 17.34 | 17.36 | 17.46 | 678.08 | 683.20 | 687.46 | 698.65 |
| Natural resources and mining | 18.07 | 18.45 | 18.38 | 18.64 | 793.27 | 822.67 | 822.53 | 842.53 |
| Construction | 19.15 | 19.20 | 19.25 | 19.33 | 721.96 | 712.32 | 727.65 | 748.07 |
| Manufacturing | 16.06 | 16.43 | 16.40 | 16.43 | 652.04 | 663.77 | 662.56 | 662.13 |
| Durable goods | 16.71 | 17.20 | 17.15 | 17.18 | 698.78 | 703.48 | 699.72 | 699.23 |
| Wood products | 13.00 | 13.04 | 13.10 | 13.14 | 530.40 | 511.17 | 513.52 | 516.40 |
| Nonmetallic mineral products | 16.17 | 16.20 | 16.30 | 16.73 | 683.96 | 667.44 | 669.93 | 700.99 |
| Primary metals | 18.51 | 18.78 | 18.73 | 18.74 | 799.63 | 807.54 | 805.39 | 796.45 |
| Fabricated metal products | 15.21 | 15.87 | 15.83 | 15.81 | 620.57 | 637.77 | 634.58 | 633.77 |
| Machinery | 16.54 | 17.02 | 17.06 | 17.07 | 698.06 | 716.54 | 718.23 | 715.23 |
| Computer and electronic products | 17.02 | 18.04 | 17.95 | 18.13 | 684.20 | 712.58 | 709.03 | 710.70 |
| Electrical equipment and appliances | 14.84 | 15.15 | 15.12 | 15.12 | 601.02 | 601.46 | 604.80 | 608.34 |
| Transportation equipment | 21.31 | 21.97 | 21.83 | 21.73 | 901.41 | 933.73 | 919.04 | 910.49 |
| Furniture and related products | 13.10 | 13.34 | 13.37 | 13.48 | 517.45 | 522.93 | 526.78 | 528.42 |
| Miscellaneous manufacturing | 13.71 | 14.04 | 14.02 | 13.97 | 525.09 | 543.35 | 548.18 | 540.94 |
| Nondurable goods | 15.00 | 15.17 | 15.18 | 15.19 | 595.50 | 600.73 | 601.13 | 601.52 |
| Food manufacturing | 12.99 | 13.07 | 13.01 | 12.99 | 498.43 | 505.81 | 496.98 | 498.62 |
| Beverages and tobacco products | 19.57 | 18.85 | 18.93 | 19.34 | 778.80 | 736.54 | 757.20 | 791.01 |
| Textile mills | 12.22 | 12.25 | 12.24 | 12.28 | 483.91 | 485.10 | 496.94 | 491.20 |
| Textile product mills | 11.30 | 11.48 | 11.56 | 11.52 | 433.92 | 450.02 | 457.78 | 453.89 |
| Apparel | 9.65 | 10.19 | 10.06 | 10.06 | 347.40 | 363.78 | 365.18 | 365.18 |
| Leather and allied products | 11.94 | 11.42 | 11.48 | 11.45 | 459.78 | 425.97 | 431.65 | 436.25 |
| Paper and paper products | 17.89 | 17.86 | 17.92 | 17.94 | 747.80 | 744.78 | 745.47 | 749.89 |
| Printing and related support activities | 15.55 | 15.79 | 15.70 | 15.58 | 594.01 | 604.76 | 602.68 | 593.60 |
| Petroleum and coal products | 24.45 | 24.74 | 24.81 | 24.11 | 1,091.13 | 1,100.93 | 1,106.53 | 1,097.01 |
| Chemicals | 16.96 | 19.32 | 19.47 | 19.58 | 811.49 | 817.24 | 821.63 | 826.28 |
| Plastics and rubber products | 14.58 | 14.85 | 14.69 | 14.75 | 594.86 | 596.00 | 584.66 | 585.58 |
| Private service-providing | 15.19 | 15.60 | 15.59 | 15.62 | 487.60 | 502.32 | 502.00 | 504.53 |
| Trade, transportation, and utilities | 14.57 | 14.86 | 14.87 | 14.92 | 485.18 | 493.35 | 493.68 | 496.84 |
| Wholesale trade | 17.59 | 17.98 | 17.92 | 18.05 | 664.90 | 674.25 | 672.00 | 678.68 |
| Retail trade | 12.07 | 12.35 | 12.35 | 12.40 | 368.93 | 374.21 | 374.21 | 378.20 |
| Transportation and warehousing | 16.47 | 16.57 | 16.62 | 16.62 | 602.80 | 608.12 | 611.62 | 613.28 |
| Utilities | 25.72 | 25.98 | 26.38 | 26.39 | 1,054.52 | 1,052.19 | 1,057.04 | 1,061.99 |
| Information | 21.23 | 21.67 | 21.71 | 22.04 | 782.16 | 786.62 | 783.73 | 793.44 |
| Financial activities | 17.46 | 17.73 | 17.75 | 17.87 | 616.34 | 632.96 | 631.80 | 639.75 |
| Professional and business services | 17.30 | 17.91 | 17.84 | 17.87 | 569.93 | 607.15 | 604.78 | 609.37 |
| Education and health services | 16.04 | 16.46 | 16.50 | 16.51 | 518.49 | 534.95 | 534.60 | 538.58 |
| Leisure and hospitality | 8.85 | 9.09 | 9.07 | 9.10 | 224.79 | 231.80 | 230.38 | 232.05 |
| Other services | 13.97 | 14.23 | 14.18 | 14.16 | 430.28 | 438.28 | 436.74 | 437.54 |

¹ See footnote 1, table B-2.

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail, seasonally adjusted

| Industry | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Percent change from: Mar. 2005-Apr. 2005 ^P |
|--|-----------|-----------|-----------|-----------|------------------------|------------------------|---|
| Total private: | | | | | | | |
| Current dollars | \$15.58 | \$15.85 | \$15.90 | \$15.91 | \$15.95 | \$16.00 | 0.3 |
| Constant (1982) dollars ² | 8.24 | 8.23 | 8.24 | 8.22 | 8.19 | N.A. | (3) |
| Goods-producing | 17.12 | 17.36 | 17.35 | 17.43 | 17.44 | 17.50 | .3 |
| Natural resources and mining | 18.01 | 18.37 | 18.43 | 18.40 | 18.27 | 18.53 | 1.4 |
| Construction | 19.20 | 19.29 | 19.24 | 19.31 | 19.35 | 19.38 | .2 |
| Manufacturing | 16.07 | 16.34 | 16.37 | 16.42 | 16.42 | 16.45 | .2 |
| Excluding overtime ⁴ | 15.23 | 15.48 | 15.51 | 15.54 | 15.55 | 15.58 | .2 |
| Durable goods | 16.74 | 17.06 | 17.10 | 17.18 | 17.16 | 17.21 | .3 |
| Nondurable goods | 14.99 | 15.16 | 15.18 | 15.19 | 15.21 | 15.21 | .0 |
| Private service-providing | 15.17 | 15.45 | 15.51 | 15.51 | 15.56 | 15.60 | .3 |
| Trade, transportation, and utilities | 14.52 | 14.72 | 14.82 | 14.79 | 14.84 | 14.87 | .2 |
| Wholesale trade | 17.59 | 17.67 | 17.91 | 17.85 | 17.89 | 18.04 | .3 |
| Retail trade | 12.01 | 12.21 | 12.32 | 12.29 | 12.31 | 12.34 | .2 |
| Transportation and warehousing | 16.46 | 16.54 | 16.56 | 16.52 | 16.63 | 16.63 | .0 |
| Utilities | 25.61 | 26.11 | 26.23 | 26.04 | 26.32 | 26.33 | .0 |
| Information | 21.31 | 21.70 | 21.80 | 21.67 | 21.62 | 22.09 | 1.2 |
| Financial activities | 17.45 | 17.71 | 17.71 | 17.74 | 17.80 | 17.86 | .3 |
| Professional and business services | 17.33 | 17.69 | 17.79 | 17.80 | 17.83 | 17.90 | .4 |
| Education and health services | 16.03 | 16.37 | 16.40 | 16.45 | 16.51 | 16.51 | .0 |
| Leisure and hospitality | 8.68 | 9.01 | 9.03 | 9.05 | 9.05 | 9.10 | .6 |
| Other services | 13.82 | 14.13 | 14.15 | 14.17 | 14.16 | 14.14 | -.1 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was -0.4 percent from Feb. 2005 to Mar. 2005, the latest month available.⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Percent change from: Mar. 2005-Apr. 2005 ^P | |
|---|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|---|------------------------|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | | Apr. 2005 ^P |
| Total private | 98.6 | 99.2 | 100.0 | 101.5 | 99.7 | 101.2 | 101.5 | 101.8 | 101.9 | 102.8 | 0.9 |
| Goods-producing | 94.5 | 93.1 | 94.5 | 96.9 | 96.4 | 97.5 | 96.9 | 97.8 | 97.4 | 98.7 | 1.3 |
| Natural resources and mining | 99.8 | 105.2 | 107.6 | 110.3 | 103.3 | 109.0 | 110.3 | 110.2 | 111.5 | 113.2 | 1.5 |
| Construction | 96.6 | 93.2 | 97.2 | 104.5 | 100.7 | 104.0 | 101.6 | 104.4 | 105.0 | 107.9 | 2.8 |
| Manufacturing | 93.4 | 92.7 | 93.0 | 92.8 | 94.2 | 93.9 | 94.2 | 94.0 | 93.5 | 93.7 | .2 |
| Durable goods | 94.4 | 94.3 | 94.4 | 94.5 | 94.9 | 95.3 | 95.2 | 95.2 | 94.8 | 95.0 | .2 |
| Wood products | 99.1 | 96.4 | 96.5 | 97.4 | 100.3 | 101.1 | 101.7 | 99.9 | 99.2 | 98.9 | -3 |
| Nonmetallic mineral products | 96.3 | 90.6 | 91.6 | 96.0 | 97.0 | 98.3 | 97.1 | 97.3 | 95.9 | 96.6 | .7 |
| Primary metals | 93.0 | 92.8 | 93.1 | 92.0 | 93.1 | 92.6 | 93.0 | 93.1 | 92.9 | 92.4 | -5 |
| Fabricated metal products | 96.5 | 97.6 | 97.9 | 98.2 | 97.0 | 98.4 | 98.6 | 98.2 | 96.4 | 98.8 | 4 |
| Machinery | 94.9 | 97.2 | 97.7 | 97.4 | 95.3 | 96.5 | 96.8 | 96.8 | 97.1 | 97.7 | .6 |
| Computer and electronic products | 97.9 | 92.4 | 91.3 | 91.0 | 83.3 | 83.7 | 91.1 | 90.8 | 91.1 | 92.3 | 1.3 |
| Electrical equipment and appliances | 88.0 | 86.6 | 86.9 | 87.9 | 88.8 | 87.5 | 87.5 | 87.4 | 87.6 | 88.5 | 1.0 |
| Transportation equipment | 96.3 | 97.0 | 96.1 | 95.8 | 96.4 | 96.4 | 95.8 | 96.8 | 95.5 | 96.0 | .5 |
| Motor vehicles and parts ² | 97.3 | 96.4 | 95.1 | 94.2 | 96.9 | 96.4 | 95.0 | 96.2 | 94.4 | 94.1 | -3 |
| Furniture and related products | 94.9 | 91.3 | 91.8 | 90.5 | 94.6 | 93.6 | 93.2 | 92.3 | 92.1 | 90.5 | -1.7 |
| Miscellaneous manufacturing | 91.5 | 90.8 | 91.0 | 90.1 | 91.4 | 90.9 | 91.0 | 91.1 | 90.9 | 90.6 | -3 |
| Nonurable goods | 91.5 | 90.0 | 90.2 | 89.9 | 93.1 | 92.0 | 92.3 | 92.0 | 91.3 | 91.5 | .2 |
| Food manufacturing | 92.8 | 93.9 | 92.9 | 92.5 | 97.3 | 96.7 | 96.8 | 97.4 | 96.2 | 96.8 | .5 |
| Beverages and tobacco products | 85.3 | 86.5 | 86.9 | 87.7 | 88.3 | 91.0 | 91.8 | 91.0 | 91.2 | 91.5 | .3 |
| Textile mills | 79.9 | 74.0 | 76.0 | 74.3 | 79.6 | 76.2 | 78.3 | 74.8 | 74.9 | 74.1 | -1.1 |
| Textile product mills | 92.8 | 91.4 | 94.4 | 95.4 | 91.9 | 92.1 | 93.7 | 93.7 | 94.0 | 93.9 | -.1 |
| Apparel | 77.1 | 68.5 | 69.3 | 68.3 | 78.9 | 70.9 | 69.9 | 69.5 | 68.6 | 67.9 | -1.0 |
| Leather and allied products | 89.8 | 82.2 | 84.6 | 89.0 | 86.2 | 85.0 | 83.4 | 83.2 | 83.0 | 83.1 | -.1 |
| Paper and paper products | 88.7 | 86.6 | 88.5 | 88.0 | 89.9 | 89.2 | 90.7 | 89.9 | 89.8 | 89.3 | -.6 |
| Printing and related support activities | 92.4 | 91.4 | 91.4 | 91.3 | 93.8 | 93.5 | 93.5 | 92.8 | 91.9 | 92.6 | .6 |
| Petroleum and coal products | 96.2 | 102.0 | 102.7 | 106.2 | 100.3 | 104.7 | 104.9 | 106.2 | 106.6 | 110.1 | 3.3 |
| Chemicals | 99.2 | 96.5 | 96.0 | 96.0 | 99.4 | 97.8 | 97.9 | 96.6 | 96.1 | 96.3 | .2 |
| Plastics and rubber products | 94.9 | 92.3 | 92.5 | 92.3 | 94.8 | 92.8 | 93.1 | 93.1 | 92.8 | 92.3 | -5 |
| Private service-providing | 99.6 | 100.8 | 101.5 | 102.9 | 100.9 | 102.5 | 102.8 | 103.0 | 103.2 | 103.8 | .6 |
| Trade, transportation, and utilities | 97.6 | 98.2 | 98.6 | 99.5 | 99.5 | 100.4 | 100.8 | 101.1 | 100.9 | 101.4 | .5 |
| Wholesale trade | 98.1 | 98.6 | 99.3 | 100.0 | 98.7 | 99.4 | 99.8 | 100.3 | 100.3 | 100.6 | .3 |
| Retail trade | 96.7 | 96.8 | 96.9 | 96.3 | 99.4 | 99.9 | 99.7 | 100.4 | 100.1 | 100.6 | .5 |
| Transportation and warehousing | 98.8 | 102.0 | 102.9 | 103.8 | 100.9 | 103.8 | 105.2 | 104.9 | 105.0 | 105.9 | .9 |
| Utilities | 95.5 | 94.5 | 93.7 | 95.3 | 96.4 | 94.7 | 96.0 | 94.8 | 94.2 | 95.9 | 1.8 |
| Information | 96.6 | 100.8 | 101.0 | 101.1 | 98.0 | 101.3 | 101.2 | 101.6 | 102.1 | 102.6 | .5 |
| Financial activities | 100.4 | 103.4 | 103.2 | 104.2 | 101.6 | 103.6 | 104.4 | 104.4 | 104.7 | 105.5 | .8 |
| Professional and business services | 100.6 | 101.6 | 102.7 | 104.9 | 101.1 | 103.9 | 103.9 | 104.1 | 104.5 | 105.4 | .9 |
| Education and health services | 103.1 | 105.6 | 105.7 | 106.4 | 102.7 | 104.7 | 105.3 | 105.3 | 105.5 | 106.0 | .5 |
| Leisure and hospitality | 100.7 | 99.2 | 100.6 | 104.0 | 102.8 | 104.2 | 104.1 | 104.9 | 105.0 | 105.6 | .6 |
| Other services | 95.5 | 96.2 | 96.7 | 97.6 | 96.7 | 96.6 | 97.1 | 97.3 | 97.8 | 98.3 | .5 |

¹ See footnote 1, table B-2.² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.

P = preliminary.

NOTE: The indexes of aggregate weekly hours are calculated by

dividing the current month's estimates of aggregate hours by the corresponding 2002 annual average levels. Aggregate hours estimates are the product of estimates of average weekly hours and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Indexes of aggregate weekly payrolls of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | | Percent change from: Mar. 2005-Apr. 2005 ² |
|--|-------------------------|-----------|------------------------|------------------------|---------------------|-----------|-----------|-----------|------------------------|------------------------|-----|---|
| | Apr. 2004 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | Apr. 2004 | Dec. 2004 | Jan. 2005 | Feb. 2005 | Mar. 2005 ^P | Apr. 2005 ^P | | |
| Total private | 102.9 | 106.0 | 106.7 | 106.6 | 104.0 | 107.4 | 107.9 | 108.3 | 108.8 | 110.1 | 1.2 | |
| Goods-producing | 98.8 | 99.8 | 100.4 | 103.6 | 101.0 | 103.7 | 103.0 | 104.2 | 104.1 | 105.8 | 1.6 | |
| Natural resources and mining | 104.9 | 112.9 | 114.9 | 119.5 | 108.3 | 116.5 | 118.2 | 118.0 | 118.4 | 121.9 | 3.0 | |
| Construction | 99.9 | 98.6 | 101.0 | 109.1 | 104.4 | 108.3 | 105.8 | 108.9 | 109.7 | 112.9 | 2.9 | |
| Manufacturing | 98.1 | 99.6 | 99.7 | 99.7 | 99.0 | 100.3 | 100.8 | 100.9 | 100.4 | 100.8 | .4 | |
| Durable goods | 98.4 | 101.3 | 101.1 | 101.4 | 99.2 | 101.5 | 101.7 | 102.1 | 101.5 | 102.1 | .8 | |
| Nondurable goods | 97.0 | 96.5 | 96.7 | 96.5 | 98.6 | 98.6 | 99.0 | 98.8 | 98.1 | 98.3 | .2 | |
| Private service-providing | 103.9 | 106.0 | 108.7 | 110.4 | 105.1 | 108.8 | 109.5 | 109.8 | 110.3 | 111.3 | .9 | |
| Trade, transportation, and utilities | 101.4 | 104.1 | 104.6 | 105.9 | 103.0 | 105.5 | 106.5 | 106.6 | 106.8 | 107.5 | .7 | |
| Wholesale trade | 101.6 | 104.4 | 104.8 | 106.3 | 102.3 | 104.7 | 105.2 | 106.1 | 106.3 | 106.9 | .6 | |
| Retail trade | 100.1 | 102.3 | 102.6 | 104.4 | 102.3 | 104.5 | 105.3 | 105.7 | 105.7 | 106.4 | .7 | |
| Transportation and warehousing | 103.2 | 107.2 | 108.5 | 109.5 | 105.4 | 108.9 | 110.7 | 110.0 | 110.7 | 111.7 | .9 | |
| Utilities | 102.6 | 102.4 | 103.1 | 105.0 | 103.1 | 103.2 | 105.1 | 103.0 | 103.5 | 105.4 | 1.8 | |
| Information | 101.5 | 106.1 | 108.6 | 110.3 | 103.4 | 108.8 | 109.2 | 109.0 | 110.2 | 112.2 | 1.8 | |
| Financial activities | 108.4 | 113.3 | 113.2 | 115.1 | 109.7 | 113.5 | 114.3 | 114.5 | 115.2 | 116.5 | 1.1 | |
| Professional and business services | 103.6 | 108.3 | 108.0 | 111.5 | 104.3 | 109.4 | 110.0 | 110.3 | 110.8 | 112.3 | 1.4 | |
| Education and health services | 108.7 | 114.3 | 114.7 | 115.5 | 108.3 | 112.6 | 113.5 | 113.9 | 114.5 | 115.1 | .5 | |
| Leisure and hospitality | 103.9 | 105.1 | 106.4 | 110.3 | 106.2 | 109.4 | 109.6 | 110.6 | 110.8 | 112.0 | 1.1 | |
| Other services | 97.2 | 99.7 | 99.9 | 100.7 | 98.0 | 99.5 | 100.1 | 100.5 | 100.9 | 101.3 | .4 | |

¹ See footnote 1, table B-2.

P = preliminary.

NOTE: The indexes of aggregate weekly payrolls are calculated by dividing the current month's estimates of aggregate payrolls by

the corresponding 2002 annual average levels. Aggregate payroll estimates are the product of estimates of average hourly earnings, average weekly hours, and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-7. Diffusion Indexes of employment change, seasonally adjusted

(Percent)

| Time Span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|------|------|--------|--------|------|------|------|------|-------|------|------|------|
| Private nonfarm payrolls, 278 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 49.5 | 47.7 | 48.8 | 32.7 | 42.4 | 40.8 | 36.7 | 39.0 | 37.6 | 33.6 | 36.8 | 37.1 |
| 2002 | 41.0 | 35.6 | 39.7 | 39.2 | 40.5 | 47.7 | 42.8 | 43.0 | 42.1 | 39.0 | 41.5 | 35.1 |
| 2003 | 44.4 | 38.7 | 35.3 | 41.4 | 39.4 | 39.9 | 42.1 | 38.4 | 50.4 | 48.9 | 50.0 | 50.5 |
| 2004 | 50.9 | 53.4 | 66.0 | 67.3 | 64.6 | 59.7 | 55.4 | 53.6 | 57.6 | 58.6 | 64.7 | 54.3 |
| 2005 | 54.1 | 61.2 | P 56.8 | P 61.3 | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 63.2 | 49.8 | 49.8 | 42.3 | 38.1 | 34.2 | 37.8 | 37.6 | 34.7 | 35.4 | 30.8 | 32.0 |
| 2002 | 38.3 | 37.9 | 36.5 | 34.2 | 34.4 | 35.4 | 40.6 | 44.1 | 37.8 | 37.1 | 36.8 | 36.7 |
| 2003 | 38.3 | 35.4 | 33.3 | 33.5 | 36.5 | 41.7 | 37.8 | 37.4 | 43.2 | 46.4 | 48.6 | 50.2 |
| 2004 | 62.5 | 63.8 | 58.7 | 69.4 | 75.4 | 71.2 | 63.5 | 56.8 | 57.4 | 59.9 | 59.7 | 56.3 |
| 2005 | 58.5 | 60.3 | P 65.1 | P 64.9 | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 53.1 | 50.9 | 52.0 | 45.5 | 43.0 | 39.7 | 38.5 | 33.6 | 33.5 | 34.2 | 33.6 | 30.9 |
| 2002 | 29.6 | 26.9 | 32.0 | 31.7 | 30.6 | 37.4 | 37.1 | 38.7 | 36.3 | 36.0 | 37.9 | 35.1 |
| 2003 | 32.7 | 32.2 | 31.3 | 31.3 | 33.1 | 37.8 | 33.6 | 32.2 | 40.3 | 43.7 | 46.4 | 49.3 |
| 2004 | 47.3 | 50.4 | 54.9 | 62.8 | 64.4 | 69.6 | 67.3 | 66.9 | 64.6 | 62.2 | 58.7 | 55.9 |
| 2005 | 60.3 | 62.8 | P 63.1 | P 60.3 | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 59.5 | 59.5 | 53.4 | 49.3 | 48.6 | 43.0 | 43.3 | 43.9 | 39.9 | 37.6 | 37.1 | 34.9 |
| 2002 | 33.8 | 31.7 | 30.2 | 30.4 | 30.2 | 29.1 | 32.0 | 31.3 | 30.0 | 29.5 | 32.9 | 34.7 |
| 2003 | 34.5 | 31.5 | 32.9 | 33.5 | 34.2 | 35.1 | 32.7 | 33.1 | 37.1 | 36.7 | 37.2 | 39.2 |
| 2004 | 40.3 | 42.1 | 44.8 | 48.7 | 52.0 | 58.7 | 57.4 | 57.6 | 60.3 | 62.1 | 64.6 | 64.0 |
| 2005 | 61.2 | 64.7 | P 63.7 | P 65.1 | | | | | | | | |
| Manufacturing payrolls, 84 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 22.0 | 17.3 | 22.0 | 17.9 | 16.1 | 22.6 | 13.1 | 15.5 | 18.5 | 17.3 | 14.9 | 11.9 |
| 2002 | 19.0 | 19.6 | 22.0 | 32.1 | 26.2 | 31.0 | 35.7 | 23.2 | 28.6 | 15.5 | 18.5 | 18.7 |
| 2003 | 35.1 | 19.0 | 19.0 | 11.9 | 19.6 | 20.8 | 22.6 | 24.4 | 32.7 | 35.1 | 39.9 | 42.9 |
| 2004 | 39.3 | 49.4 | 50.0 | 65.5 | 60.1 | 51.8 | 60.7 | 48.8 | 42.9 | 42.3 | 48.4 | 44.6 |
| 2005 | 42.3 | 44.6 | P 41.1 | P 50.0 | | | | | | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 32.7 | 20.8 | 16.7 | 14.3 | 14.3 | 11.9 | 11.9 | 9.5 | 7.7 | 12.5 | 11.3 | 9.5 |
| 2002 | 10.7 | 11.9 | 11.3 | 17.9 | 14.9 | 20.2 | 25.6 | 23.6 | 20.2 | 13.7 | 6.9 | 9.5 |
| 2003 | 16.1 | 14.3 | 12.5 | 6.9 | 10.7 | 10.7 | 14.3 | 15.5 | 18.5 | 27.4 | 31.5 | 35.1 |
| 2004 | 42.3 | 43.5 | 43.9 | 58.3 | 69.0 | 69.6 | 62.5 | 53.6 | 52.4 | 44.6 | 45.2 | 35.7 |
| 2005 | 45.2 | 42.9 | P 50.6 | P 47.6 | | | | | | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 22.6 | 24.4 | 21.4 | 19.6 | 14.3 | 11.9 | 13.1 | 11.3 | 10.7 | 7.1 | 7.7 | 5.4 |
| 2002 | 6.0 | 8.3 | 8.3 | 9.5 | 7.1 | 13.1 | 12.5 | 11.3 | 14.3 | 8.3 | 8.3 | 7.7 |
| 2003 | 12.5 | 10.1 | 7.1 | 8.3 | 11.3 | 10.7 | 4.8 | 10.1 | 13.1 | 16.7 | 19.6 | 26.8 |
| 2004 | 27.4 | 29.8 | 33.3 | 47.0 | 52.4 | 57.1 | 60.1 | 58.9 | 58.9 | 60.6 | 45.2 | 42.9 |
| 2005 | 43.5 | 44.0 | P 43.5 | P 38.7 | | | | | | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 29.8 | 32.1 | 20.8 | 19.0 | 13.1 | 12.5 | 10.7 | 11.9 | 11.9 | 10.1 | 8.3 | 6.0 |
| 2002 | 7.1 | 6.0 | 6.0 | 6.5 | 7.1 | 3.6 | 4.8 | 6.0 | 4.8 | 7.1 | 4.8 | 8.3 |
| 2003 | 10.7 | 6.0 | 6.6 | 6.0 | 8.3 | 7.1 | 7.1 | 8.3 | 10.7 | 10.7 | 9.5 | 10.7 |
| 2004 | 13.1 | 14.3 | 13.1 | 19.0 | 25.6 | 34.5 | 43.6 | 40.5 | 45.8 | 48.2 | 49.4 | 46.4 |
| 2005 | 45.2 | 45.8 | P 48.4 | P 48.4 | | | | | | | | |

¹Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span.

P= preliminary.

NOTE: Figures are the percent of industries with employment

increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

U. S. Department of Labor

Commissioner
Bureau of Labor Statistics
Washington, D.C. 20212



MAY 27 2005

The Honorable Carolyn Maloney
Joint Economic Committee
U.S. House of Representatives
Washington, D.C. 20515

Dear Congresswoman Maloney:

At the May 6 hearing of the Joint Economic Committee, you requested information on the average job growth 49 months after the start of a recession. I have enclosed a table that shows the data for six post World War II recessions as designated by the National Bureau of Economic Research. Four postwar recessions are excluded from the table because the 49-month period overlaps with the start of a new recession. Employment growth over the 6 periods shown in the table has ranged from 4.6 percent to 11.0 percent with an average of 7.0 percent.

I hope this information is helpful to you. Please let me know if I can be of any further assistance. Also, Thomas Nardone, Assistant Commissioner for Current Employment Analysis, can be reached at 202-691-6378 and would be happy to answer any follow-up questions that you or your staff may have regarding these data.

Sincerely yours,

A handwritten signature in cursive script, reading "Kathleen P. Utgoff".

KATHLEEN P. UTGOFF
Commissioner

Enclosure

Change in Nonfarm Payroll Employment 49 Months After Recession Onset
 [In thousands]

| Recession Onset | | 49 Months After Recession Onset | | Change in Employment Level | Percent Change in Em- ployment |
|--------------------|------------|---------------------------------|------------|----------------------------------|---|
| Month ¹ | Employment | Month | Employment | | |
| Nov-48 | 45,194 | Dec-52 | 50,164 | 4,970 | 11.0 |
| Jul-53 | 50,536 | Aug-57 | 53,128 | 2,592 | 5.1 |
| Apr-60 | 54,812 | May-64 | 58,089 | 3,277 | 6.0 |
| Nov-73 | 77,909 | Dec-77 | 84,408 | 6,499 | 8.3 |
| Jul-81 | 91,594 | Aug-85 | 96,819 | 6,225 | 6.8 |
| Jul-90 | 109,773 | Aug-94 | 114,801 | 5,028 | 4.6 |
| Average | | | | 4,765 | 7.0 |
| Mar-01 | 132,511 | Apr-05 | 133,293 | 782 | 0.6 |

¹ As designated by the National Bureau of Economic Research (NBER).
 Source: Bureau of Labor Statistics, Current Employment Statistics (CES) Survey.



1789

S. HRC. 109-164

THE ECONOMIC OUTLOOK

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

JUNE 9, 2005

Printed for the use of the Joint Economic Committee



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THE ECONOMIC OUTLOOK

THURSDAY, JUNE 9, 2005

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., in room HR-2118, Rayburn House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Representatives Present: Representatives Saxton, English, Paul, Brady, McCotter, Maloney, Hinchey, Sanchez, and Cummings.

Senators Present: Senators Bennett, DeMint, and Reed.

Staff present: Chris Frenze; Colleen Healy; Bob Keleher; Brian Higginbotham; John Kachtik; Natasha Moore; Jeff Wrase; Chad Stone; Matt Solomon; and Nan Gibson.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning. The hearing will come to order.

I am very pleased this morning to welcome Chairman Greenspan before the Joint Economic Committee. Chairman Greenspan's testimony will provide useful insights on the current economic expansion and the potential for further economic progress.

A broad array of standard economic data indicates that the economic expansion is on a solid footing. The U.S. economy grew 4 percent in 2004 and advanced at a 3.5 percent rate in the first quarter of 2005.

A rebound in business investment has played an important role in explaining the pickup of the economy since 2003. Equipment and software investment has also been strong over this period.

The improvement in economic growth is reflected in other economic figures as well. For example, over the last 4 months, 3.5 million jobs have been added to the business payrolls. The unemployment rate stands at 5.1 percent, consumer spending continues to grow, home ownership is at record highs and household net worth is also at a high level.

Meanwhile, inflation pressures appear to be contained. Interest rates remain at historically low levels with long-term interest rates, including mortgage rates, actually declining recently. This decline of long-term interest rates, even as the Fed is increasing short-term interest rates, is very unusual, a topic I would like to discuss later on.

In short, overall economic conditions remain positive. It is clear that an accommodative monetary policy and tax incentives for investment have made important contributions to the improvement of the economy in recent years. Recently released minutes from the Federal Reserve suggest that the central bank expects this economic trend to continue. As always, there are some aspects of the economy that should be monitored quite closely. There appears to be pressures in some local housing markets, but these are unlikely to pose a significant threat to the national economic expansion.

Also, quite importantly, the increase in oil prices has had an impact on certain sectors of the economy, but has not severely undermined overall economic growth. A consensus of Blue Chip forecasters projects that the economic expansion will continue through 2005 and 2006. This is consistent with Federal Reserve forecasts for economic growth through 2006.

In summary, the economic situation is solid and the outlook remains favorable. That is the good news.

At this point I would like to yield to the gentleman from Rhode Island, Senator Reed.

[The prepared statement of Hon. Jim Saxton appears in the Submissions for the Record on page 40.]

OPENING STATEMENT OF HON. JACK REED, RANKING MEMBER, A U.S. SENATOR FROM RHODE ISLAND

Senator Reed. Thank you, Chairman Saxton, and welcome, Chairman Greenspan, I want to thank you for coming here to testify today at a time when there are so many genuine puzzles about the direction of the American economy. Chairman Greenspan, you have been rather upbeat about the economic outlook and let me be the first to say that I hope you're right. However, I am concerned about what continues to be a disappointing economic recovery for the typical American worker. Economic insecurity for workers is widespread as a healthy job recovery is yet to take hold, wages are failing to keep pace with inflation, inequality is growing and private pensions are in jeopardy.

Job growth sputtered again last month when only 78,000 jobs were added, calling into question the strength of the labor market recovery. We still have not seen several consecutive months of solid job gains, which is disappointing 42 months into a recovery.

At this point in the last recovery, the economy had created over 4 million more jobs than we have seen in this recovery and we regularly saw gains of 200,000 to 300,000 and sometimes even 400,000 jobs per month. Employers don't seem to have enough confidence in this recovery to pick up their pace of hiring.

Of course the real disappointment in this recovery is how workers have been left out of the economic growth we have seen so far. Strong productivity growth has translated into higher profits for businesses, not more take-home pay for workers. Since the start of the economic recovery in late 2001, corporate profits from current production have risen by 67 percent. By contrast, employee compensation rose by only 17 percent. Since the economy started generating jobs in June of 2003, the average hourly earnings of production workers in non-farm industries have fallen by 1.4 percent after inflation.

The stagnation of earnings in the face of higher prices for food and medical care is squeezing the take-home pay of workers. I hope that the Federal Open Market Committee is paying close attention to the labor market as they set the direction of monetary policy. Workers have been short-changed so far in this recovery, and I believe that the economy should be able to accommodate some acceleration in wages to catch up to productivity growth without generating undue fears of inflation.

Any wage gains we have seen seem to be concentrated at the top of the earnings distribution while the largest losses are at the bottom. As *The New York Times* noted this week, the distribution of earnings has become so unequal that even the merely wealthy are being left behind in the dust by the small slice of super-rich Americans.

I know, Chairman Greenspan, that you have expressed concern about the widening inequality of income and earnings in the American economy. So this development cannot be encouraging to you.

Another troubling development is how unstable the private pension system is becoming. Data released this week by the Government's Pension Benefit Guaranty Corporation show that the country's 1,108 weakest pension plans had an aggregate shortfall of \$353.7 billion at the end of last year, 27 percent more than the previous year. Meanwhile, the PBGC itself is underfunded.

Social Security does face long-term challenges, but at the moment it looks like the strongest leg of our retirement system. Rising national savings is the key to our economic growth, a good way to reduce our record trade deficit and, as your past testimony reflects, the best way to meet the fiscal challenges posed by the retirement of the baby boom generation. Unfortunately, the President's large Federal budget deficits are undermining national saving and leaving us increasingly hampered in our ability to deal with the host of challenges we face.

The President's policy priority for large tax cuts for those who are already well off and private retirement accounts that add to the debt and worsen Social Security solvency would take us in exactly the wrong direction for the future.

Finally, there are real questions about whether today's workers can look forward to a future of economic prosperity or one of continued risk and uncertainty about whether they will have good jobs and the means to provide a comfortable standard of living for their families. Indeed, it is a very real question in the mind of all the people I represent whether they will enjoy the same standard of living that their parents enjoyed before them or are enjoying at this moment, and for the first time in my lifetime there is serious concern that the quality of life—the standard of living in the United States will slip rather than progress forward.

Chairman Greenspan, I look forward to your testimony about the economic outlook and exploring some of these issues with you further in the questioning. Thank you, Mr. Chairman.

[The prepared statement of Hon. Jack Reed appears in the Submissions for the Record on page 50.]

Representative Saxton. Mr. Chairman, thank you again for being with us this morning, and we look forward to your testimony.

**STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN,
BOARD OF GOVERNORS, FEDERAL RESERVE SYSTEM**

Mr. Greenspan. Thank you very much, Mr. Chairman, Senator and Members of the Committee. I am pleased once again to appear before this Committee, as I have done for many a year.

Over the past year, the pace of economic activity in the United States has alternately paused and quickened. The most recent data support the view that the soft readings on the economy observed in the early spring were not presaging a more serious slowdown in the pace of activity. Consumer spending firmed again, and indicators of business investment became somewhat more upbeat. Nonetheless, policymakers confront many of the same imbalances and uncertainties that were apparent a year ago.

Our household savings rate remains negligible. Moreover, only modest, if any, progress is evident in addressing the challenges associated with the pending shift of the baby boom generation into retirement that will begin in a very few years. And although prices of imports have accelerated, we are at best in only the earliest stages of a stabilization of our current account deficit, a deficit that now exceeds 6 percent of U.S. Gross Domestic Product.

A major economic development over the past year has been the surge in the price of oil. Sharply higher prices of oil imports have diminished U.S. purchasing power. The value of petroleum imports rose from 1.4 percent of nominal GDP in the first quarter of 2004 to 1.8 percent in the first quarter of this year. The alternating bouts of rising and falling oil prices have doubtless been a significant contributor to the periods of deceleration and acceleration of U.S. economic activity over the past year.

Despite the uneven character of the expansion over the past year, the U.S. economy has done well, on net, by most measures. Real GDP has grown by 3.7 percent over that period, the unemployment rate has fallen to 5.1 percent and core personal consumption expenditures prices have risen a historically modest 1.6 percent.

But the growth of productivity, though respectable at 2.5 percent over the year ending in the first quarter, is far less than the extraordinary pace of 5.5 percent during 2003.

Excluding a large, but apparently transitory, surge in bonuses and the proceeds of stock option exercises late last year, overall hourly labor compensation has exhibited few signs of acceleration. Thus, the rise in underlying unit labor costs has been mainly the result of the slower growth of output per hour. At the same time, evidence of increased pricing power can be gleaned from the profit margins of non-financial businesses, which have continued to press higher even outside the energy sector. Whether that rise in unit costs will feed into the core price level or be absorbed by a fall in profit margins remains an open question.

Among the biggest surprises of the past year has been the pronounced decline in long-term interest rates in U.S. Treasury securities despite a 2 percentage point increase in the Federal funds rate. This is clearly without recent precedent. The yield on 10-year Treasury notes, currently at about 4 percent, is 80 basis points less than its level a year ago. Moreover, even after the recent backup in credit risk spreads, yields for both investment grade and less-

than-investment grade corporate bonds have declined even more than Treasuries over the same period.

The unusual behavior of long-term interest rates first became apparent almost a year ago. In May and June of last year market participants were behaving as expected. With a firming of monetary policy by the Federal Reserve widely expected, they built large short positions in long-term debt instruments in anticipation of the increase in bond yields that has been historically associated with a rising Federal funds rate. But by summer, pressures emerged in the marketplace that drove long-term rates back down. And in March of this year, market participants once again bid up long-term rates, but as occurred last year, forces came into play to make those increases short lived. There remains considerable conjecture amongst analysts as to the nature of those market forces.

That said, there can be little doubt that exceptionally low interest rates on 10-year Treasury notes, and hence on home mortgages, have been a major factor in the recent surge of home building and home turnover and especially in the steep climb in home prices. Although a bubbling in home prices for the Nation as a whole does not appear likely, there do appear to be at a minimum signs of froth in some local markets where home prices seem to have risen to unsustainable levels.

The housing market in the United States is quite heterogeneous, and it does not have the capacity to move excesses easily from one area to another. Instead, we have a collection of only loosely connected local markets. Thus, while investors can arbitrage the price of a commodity such as aluminum between Portland, Maine and Portland, Oregon, they cannot do that with home prices because they cannot move the houses. As a consequence, unlike the behavior of commodity prices, which varies little from place to place, the behavior of home prices varies widely across the Nation.

Speculation in homes is largely local, especially for owner-occupied residences. For homeowners to realize accumulated capital gains on a residence, a precondition of a speculative market, they must move. Another formidable barrier to emergence of speculative activity in housing markets is that home sales involve significant commissions and closing costs, which average in the neighborhood of 10 percent of the sales price. Where homeowner sales predominate, speculative turnover of homes is difficult.

But in recent years, the pace of turnover of existing homes has quickened. It appears that a substantial part of the acceleration in turnover reflects the purchase of second homes, either for investment or vacation purposes. Transactions in second homes of course are not restrained by the same forces that restrict the purchases or sales of primary residences. An individual can sell without having to move. This suggests that speculative activity may have had a greater role in generating the recent price increases than it has customarily had in the past.

The apparent froth in housing markets may have spilled over into mortgage markets. The dramatic increase in the prevalence of interest-only loans, as well as the introduction of other relatively exotic forms of adjustable rate mortgages, are developments of particular concern. To be sure, these financing vehicles have their appropriate uses. But to the extent that some households may be em-

ploying these instruments to purchase a home that would otherwise be unaffordable, their use is beginning to add to the pressures in the marketplace.

The U.S. economy has weathered such episodes before without experiencing significant declines in the national average level of home prices. In part, this is explained by an underlying uptrend in home prices. Because of the degree of customization of homes, it is difficult to achieve significant productivity gains in residential building despite the ongoing technological advances in other areas of our economy. As a result, productive gains in residential construction have lagged behind the average productivity increases in the United States for many decades. This shortfall has been one of the reasons that house prices have consistently outpaced the general price level for many decades.

Although we certainly cannot rule out home price declines, especially in some local markets, these declines, were they to occur, likely would not have substantial macro-economic implications. Nationwide banking and widespread securitization of mortgages make it less likely that financial intermediation would be impaired than was the case in prior episodes of regional house price corrections. Moreover, a substantial rise in bankruptcies would require a quite significant overall reduction in the national average housing price level because the vast majority of homeowners have built up substantial equity in their homes despite large home equity withdrawals in recent years financed by the mortgage market.

In conclusion, Mr. Chairman, despite some of the risks that I have highlighted, the U.S. economy seems to be on a reasonably firm footing and underlying inflation remains contained. Accordingly, the Federal Open Market Committee in its May meeting reaffirmed that it "believes that policy accommodations can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability."

Thank you very much. I look forward to your questions.

[The prepared statement of Hon. Alan Greenspan appears in the Submissions for the Record on page 52.]

Representative Saxton. Mr. Chairman, thank you very much for that very thorough statement. I would like to lead off with a question that relates to something that you mentioned early in your testimony, and that is the unusual set of circumstances that we see in the relationship between short-term and long-term interest rates.

Over the last year or so, the Fed has increased short-term interest rates by a quarter point 8 times. And long-term rates, as you pointed out in your testimony, have come down.

There is a chart displayed there that shows the increase in short-term rates and that historically during a period of time such as this, long-term rates would be expected to follow an upward path. However, as the blue line shows, that has not happened. In this case, and as a matter of fact I don't know what the Fed policy is going to be going forward, but if this trend continues those two lines could actually meet at some point. So I have essentially three questions.

In your opinion, what has caused this unusual set of circumstances in the relationship between short-term and long-term rates? Second, what do you think might be the potential effects of it on the economy going forward? Third, does this relationship suggest any negative impact on prices and in our ability to control inflation? Is there anything that from a policy point of view we should begin to look at to correct the situation, if in fact it needs to be corrected? And I would be interested in your thoughts on those questions.

Mr. Greenspan. Well, Mr. Chairman, with respect to your first question, as I have indicated previously in various commentaries, this particular configuration is unprecedented in recent experience. Indeed, it is even more exaggerated than it appears on the chart for a very important reason; namely, that the 10-year note which is I believe what you have plotted up there—

Representative Saxton. Is that correct?

Mr. Greenspan [continuing]. Is actually an average, both of long-term rates, meaning, say, a combination of 1-year maturities, 9 and 10 years out, and comparable 1-year short-term rates. If you average them out, you get the 10-year yield. But it means that when the Federal Reserve is raising the Federal funds rate, the short end of the market goes up, and the elements that go into the construction of the 10-year average automatically go up solely because the short-term rates have gone up, which means that the longer term rates—that is, say, from the 5-year maturities—the 1-year maturities 5 years out and longer, have actually gone down more. And if you actually plot those data it is the fastest decline that we have seen in that longer term set of patterns in many decades.

So something unusual is clearly at play here. We have concluded that it is not a U.S. phenomenon because all one needs to do is look abroad and you get very much the same patterns that we see here in the United States. So it is clearly of international origin. There are numbers of hypotheses, frankly all of which are credible to one degree or extent, which people have put forth to explain this. They run anywhere from that the world economy is slowing down to the fact that the degree of and pace of global integration is such as to open up very significant areas of educated, low-cost employment pools in China, India, and in the former Soviet Union. There are vast numbers of people who are skilled, educated, and have a very significant interest in working hard, and they have all come on the market at the same time and have had the effect, as best we can judge, in bringing the cost structure in the world down, which obviously would be reflected in inflation premiums in the low end of the market, which clearly have gone down. I might say both inflation premiums and the real risk premiums as well.

All of these in one way or another probably are part of the explanation. We don't know yet which are the really important ones and probably will not know except in retrospect. But it is a profoundly important phenomenon and really quite different from what one would expect. Its effect on the United States is very clear in the sense that, as I pointed out in my prepared remarks, mortgage rates are lower than they would ordinarily be in a regular cyclical pattern in the United States, and the consequence of that is we

have had a very strong housing market, as I am sure you are all aware.

But certain elements of froth are clearly developing in local markets as a consequence. The low long-term interest rates have also obviously affected other asset values, stock prices, and asset prices elsewhere and has undoubtedly been a factor in the expansion of the economy. How this will all turn out and how we integrate it into the basic underlying monetary policy structure is something we are spending a very considerable amount of time on, making certain we understand this process that is going on as best we can.

Obviously, as you point out in your third question, what may be quite critical here with these lower long-term rates than we ordinarily expect, is to be sure it isn't potentially engendering inflationary forces, and that is something which, needless to say, we are focusing on very extensively, endeavoring to get as much data as we can.

At the moment we are finding little evidence of inflationary pressures on the product side, but it is certainly the case that underlying unit labor costs are rising. There is some evidence, as I indicated in my prepared remarks, that passing through of costs has been easier, but in any event, the overall inflation rate does at this stage remain modest. But we will remain vigilant.

Representative Saxton. Thank you. Let me just follow up, Mr. Chairman. During this period of time when we have seen increased short-term rates and falling long-term rates, the economy, as you note in your statement, seems to be doing reasonably well. You note that the economy has done well on net by most measures as a matter of fact, and you cite standard data on GDP growth, unemployment, and inflation that reflect the ongoing economic expansion.

In addition, Fed projections of economic growth for 2005 and 2006 are generally consistent with the Blue Chip consensus, are they not?

Mr. Greenspan. I believe they are, Mr. Chairman.

Representative Saxton. And your statement also suggests that despite risks to the economic outlook, the economic expansion currently appears to be strong enough to absorb additional tightening of monetary policy without serious damage. Is this a reasonable reference to your remarks? Am I right in saying that?

Mr. Greenspan. I don't wish to go beyond the statements that the Federal Open Market Committee have agreed upon, and the way we have formulated it is basically the way I communicated in the very tail end of my prepared statement.

Representative Saxton. One final item and then we will turn to Senator Reed. In this morning's *Wall Street Journal* there is an article which credits past Fed policy for curbing the effects of the collapse of the stock market and the tech investment bubble in 2000. At the same time, the article suggests that an accommodative Fed policy has instead contributed to a housing bubble.

It seems to me that given the enormous shocks to the economy from the collapse of the stock market and technology bubbles in 2000, that the Fed did the right thing in relaxing monetary policy and in retrospect perhaps could have done that even sooner. The thrust of Fed policy seems to have averted what could have been

a much more serious economic fallout from the popping of the bubbles in 2000.

Looking back, do you believe that the Fed relaxation of monetary policy after the busting of the bubble in 2000 was the best course given the risky conditions at the time?

Mr. Greenspan. I do, Mr. Chairman. We couldn't draw that conclusion at the point we were implementing the policy, because we knew that what we were doing—that is, addressing the consequence of a very severe deflation of a bubble—carried with it potential side effects.

As best we can judge, things have turned out reasonably as we had expected; both positively and negatively. But in our judgment, the positive effects of the policy far exceeded the negative ones. And we decided at that time it was the appropriate policy to initiate, and while it is too soon to judge the final conclusions of how all of this comes out; I think that given the same facts under the same conditions we would have implemented the same policy.

Representative Saxton. I thank you very much, Mr. Chairman. Senator Reed.

Senator Reed. Thank you very much, Chairman Saxton, and thank you, Chairman Greenspan. Let me for a moment focus on several aspects of your testimony, first your very useful comments about the recent spike in employee compensation for the past two quarters. As I understand your testimony, this was attributable generally to a surge in bonuses and stock option exercises that are transitory, is that correct?

Mr. Greenspan. As best we can judge. We don't have actual official data. All we get are the data that are reported under the unemployment insurance system, which accounts for almost 100 percent coverage of wages and salaries. What we do not get is a breakdown in any form which tells us where it is. We have other data which gives us the level of employment by supervised workers and non-supervisory workers and payroll data for non-supervisory workers, so we can infer certain things. And as you pointed out in your earlier remarks, there really is a very substantial difference in the labor market where the 80 percent of the non-supervisory workers' wage increases have been relatively modest, and indeed if you deflate by the Consumer Price Index it is actually negative. I don't like the Consumer Price Index, but you do you get the numbers you are suggesting. What happens, however, is that the 20 percent, which is an issue of the supervisory, skilled and other workers, is reflecting a problem which we have discussed in the past; namely, we have a very significant divergence in our labor market which has consequences we need to address soon rather than later.

Senator Reed. As a follow-up point, Mr. Chairman, so wage compensation is not a significant factor in driving inflation, as you pointed out. If you use the Consumer Price Index deflator it is almost negative. Is that a fair statement?

Mr. Greenspan. That would not be true if you included 100 percent of workers. In other words, wages and salaries per hour overall, even excluding bonuses and stock option realizations, are rising at a reasonably good clip, because the rate of increase in the super-

visory, skilled worker categories is far faster than the numbers you were quoting.

Senator Reed. But essentially what we are seeing, I think unfortunately, is a divergence between highly-skilled, highly-compensated individuals and the rest of the work force. And we have had this discussion before, and I know we all like to think about the better education and better training, et cetera, but in the short run, in the immediate run, what policy options should we pursue to enhance the incomes of most of the workers of America?

Mr. Greenspan. Well, Senator, I don't think there are short-term policies other than the ones we typically use to assuage those who fall into unemployment or policies in the tax area which we endeavor to redistribute income.

The basic problem, as we have discussed previously, as best I can judge, goes back to the education system. We do not seem to be pushing through our schools our student body at a sufficiently quick rate to create a sufficient supply of skilled workers to meet the ever-rising demand for skilled workers, which means that wage rates are accelerating. But the very people who have not been able to move up into the education categories where they become skilled overload the lesser skilled market and cause wages to be moving up, well below average. The consequence, of course, is a divergence and an increased concentration of income.

And as I have often said, this is not the type of thing which a democratic society, a capitalist democratic society can really accept without addressing, and as far as I am concerned the cause is very largely education. It is not the children, because at the 4th grade they are above world average. Whatever it is we do between the 4th grade and the 12th grade is obviously not as good as what our competitors abroad do because we, our children, fall below, well below, the median in the world, which suggests we have to do something to prevent that from happening. And I suspect were we able to do that we will indeed move children through high school and into college and beyond in adequate numbers, as indeed we did in the early post-World War II period, such that we do not get the divergence in income which is so pronounced in the data we currently look at.

Senator Reed. I have other questions, but this argument can be looked at from a different perspective. Back in the 1950s and the 1960s, we had jobs that were producing incomes for families. We had college education costs which were reasonable. We had in some respects better access to health care at more affordable prices so that families could, in fact, save and provide for their children in a way that they can't do today.

But let me move forward. This is a debate that will go forth, I think, further.

You mentioned in response to Chairman Saxton's question this conundrum about interest rates, the yield curve, short-term and long-term rates. But there are some that might see the lack of movement in the long-term rates as a justification for deficits; i.e., deficits don't make a difference, but I think, Mr. Chairman, you have also insisted that deficits do make a difference ultimately for interest rates. Is that true?

Mr. Greenspan. It is, Senator.

Senator Reed. And essentially we have choices before us with respect to these budget deficits. They will, if we don't respond to them, continue to impair national savings and thus our ability to invest in the economy. Is that correct also?

Mr. Greenspan. I believe so.

Senator Reed. And it seems to me at a time where we have to deal with the interest rates to further compound our problems by further reducing taxes, such as the estate tax, would be exactly the wrong direction to pursue. What is your view, Mr. Chairman?

Mr. Greenspan. Well, all I can say is that I have argued before the relevant committees that fiscal policy as it moves into the early part of the next decade is going to run into very severe problems unless we restore PAYGO and other means of restraint on the system. And so I don't want to get involved in any particular policy configurations, but I do think that we have to recognize that something very unusual is about to happen to this country in that we are going to get a huge exodus from the labor force. And remember, the baby boom generation was followed by the baby bust generation, which means that we have relatively fewer workers, on average, ever increasingly as we move into the next decade and beyond to produce the goods and services required, not only for the workers and their families, but for the huge increase in retirees. So we have a very important task out there of creating a level of savings and investment which will make sure that the replacement rate in real terms of retirees enables them to maintain a reasonably adequate standard of living without encroaching on the growth in standard of living of the American work force.

Senator Reed. Just a final point, Mr. Chairman. It seems that we have positioned ourselves adversely to deal with that challenge as we have gone from a surplus to a significant deficit, and that the proposal of the Administration is to further exacerbate the deficit by tax policies. Again that *New York Times* article to me was extraordinarily revealing. It has been estimated that if the President's tax cuts are made permanent, Americans making between \$100,000 and \$200,000, the new middle class in America if you will, will be paying 5 to 9 percent more in taxes than those making over \$1,000,000 a year. That doesn't seem to me to be either good economic policy or good social policy.

Mr. Greenspan. Well, Senator—

Senator Reed. We have to deal with these issues.

Mr. Greenspan. I don't want to comment on individual policies. I have stated before to you—and other committees, on occasion—that I do think that there are parts of the existing recent tax changes, especially with respect to eliminating part of the double taxation of dividends, which I think enhance economic growth, enhance the tax base and increase tax revenues. And that is good economic policy. Having said that, I would argue that all tax and all spending policy should be under PAYGO, which therefore makes them, theoretically at least, hopefully deficit neutral.

Senator Reed. Thank you, Mr. Chairman.

Representative Saxton. I would like to thank Senator Reed for asking the question about the educational component. I think that is extremely important, and I am going to ask my staff to perhaps get with your staff, Mr. Chairman, to explore the details of the

studies that you have referred to, and I thank you for your input on that.

Now that the Ranking Member has completed his questions, we are going to move to Senator Bennett and, as we do, we are going to implement the 5-minute rule in the interest of making sure that all Members have an opportunity to ask questions as well.

Senator Bennett.

Senator Bennett. Thank you, Mr. Chairman.

Chairman Greenspan, I agree with you that we don't really know what is behind the anomaly indicated by the chart that the Chairman put up and there are a number of theories.

I want to suggest another one to you, because I know you believe in the power of markets, that markets send us messages, that many times those of us who are policymakers want to ignore and think we are smarter than the markets. The market is saying something interesting here, and I have heard the various explanations. The one that I want you to consider and perhaps comment on, maybe the markets are being very complimentary to you and the Open Market Committee by saying: we like the way you are handling the challenge of inflation and we like the measured pace, to use your phrase, with which you have adopted the overnight rate increases. And the reason the long-term rates are as low as they are is because we have confidence that inflation is under control.

If that is indeed what the combined wisdom of the market is saying here, it might suggest that when you got to 3.5 in June you stop. Or August, I guess, would be the time that the anticipation is. I know you are far too cagey to respond to the number here because the television cameras are running, but would you comment on the idea that there may be a different kind of message here coming from the marketplace in terms of the way the interest rates are reacting to what the Fed is doing and talking about where you think the ideal overnight rate should be, whether 3 percent, 5 percent, 4 percent, something of that kind in an ideal set of economic circumstances, the target that you could live with?

Mr. Greenspan. Well, Senator, I have commented that it is very difficult to know where that so-called neutral rate is, but we probably will know it when we are there, because we will observe a certain degree of balance which we had not perceived before, which would suggest to us that we are very close to where that rate is. We don't have the statistical ability to forecast where it is or to judge it other than being in place at a certain time and looking at what the specific events are, because that means we don't have to forecast what happens, we just can observe. But if you have to forecast and then observe, it makes it exceptionally difficult.

On the broader question of whether it is a Fed correction or, as it is more generally stated, credibility of central banks throughout the world, we obviously would like to believe it, but the problem with it is, it doesn't give us any information that is useful to us. In other words, if we said that is true, it doesn't tell us what to do. And so, that is for others to judge. My own suspicion is there is less there than meets the eye. But even if I am mistaken on it, it does not help in knowing what to do next.

Senator Bennett. I accept that. My only comment would be that this anomaly, this extraordinary circumstance, might suggest that the golden mean, if I can use that term, is lower than we may have thought in the previous analysis with respect to this.

I would like to focus on one other issue, and that is long-term savings. The savings rate in this country, as you have told us and as we recognized, is lower than it ought to be. That has entered into the debate with respect to how we might deal with the Social Security crisis that we are facing. I agree with you that we are going to have an extraordinary, indeed unprecedented, historical event in the next 20 years. The percentage of Americans of retirement age is going to double in a 20-year period. It has also gone up in an incremental fashion, but it is going to go up in a very sharp upward fashion that has never happened before.

What can we do to stimulate increased savings? Well, I have some suggestions as to what we could do to stimulate increased savings, and one of them is a form of payroll deduction separate and apart from the payroll deduction that goes into Social Security, called the Save For Tomorrow accounts. I think you may be familiar with those.

Have you any feel, or any opinion, as to what would happen if there was a more formal kind of payroll deduction across the economy aimed at increased personal savings? And if that was successful, Save For Tomorrow has been successful in the firms that have used it. If that was successful across the economy would that have a beneficial effect if we saw the savings rate of everybody start to go up?

Mr. Greenspan. Well, Senator, the only new evidence we have, if I can put it that way, with respect to savings concerns the suggestion that if right now an employee has to opt in on a 401(k), for example, there is some evidence to suggest that if the 401(k) is automatic unless the employee opts out, that we may find that there is a significantly larger amount of savings that is being created.

Senator Bennett. That is an aspect of the Save For Tomorrow account.

Mr. Greenspan. Yes, I understand that, so there is some evidence to suggest that there is something valid in that general proposition. I am a little gun-shy on the issue of inducing savings in this country because I have seen just too many vehicles promising to do something important, and as you know we have ended up with a very low savings rate.

So it is clearly the market that is generating the vast amount of the savings flows, the expansion and contraction, and I am reasonably certain that if we get a significant increase in savings, in household savings for example, it is more likely to be reflective of a slowdown in the rate of mortgage increases rather than any of the other variables that we are using. But I would say that anything which does promise to increase savings is a very worthwhile endeavor because, as I said before, the slow growth that is implicit in the labor force starting 2006, 2010, and thereafter, if it is going to produce enough goods to meet all the retirees' needs as well as those of workers themselves, has got to have a significant pickup in output per hour growth. And that historically has been associ-

ated with increased capital investment, which in turn requires mainly domestic savings to finance it since we cannot count indefinitely on foreign savings doing that.

Therefore, anything which increases domestic savings has a double effect in one respect on the longer term outlook, because it will displace the potential loss of foreign savings and contribute to a level of savings that will be required to maintain a viable society with a very large number of retirees.

Representative Saxton. Senator Bennett, thank you for bringing up that extremely important subject of savings. It is something that is on all of our mind, and thank you for bringing that up.

Mrs. Maloney.

Representative Maloney. Thank you, Mr. Chairman, Ranking Member, and welcome, Mr. Greenspan. As you indicated in your testimony, the American economy is resilient and I expect that we will continue to experience a cyclical recovery in the economy. But I did not hear much in your statement about the longer run imbalances associated with our failure to address the problem with the large Federal deficits, the largest trade deficit in our history and the largest debt ever in our history, over \$7.6 trillion, and like Senator Bennett, I am concerned about our national savings. And, as you both indicated, our national savings is quite low as a share of our national income. And aren't large Federal budget deficits one of the main reasons why?

Mr. Greenspan. They are, Congresswoman.

Representative Maloney. We are financing an increasing share of our net national investment with foreign borrowing rather than our own saving, and as you indicate we can only depend on our own domestic savings and not on more foreign borrowing, but aren't we financing an increasing share of our net national investment with foreign borrowing rather than our own saving?

Mr. Greenspan. Well, the significant increase in foreign borrowing or, to be more exact, the significant increase in the amount of financing of our domestic consumption that is coming from abroad, a very considerable amount of it is not debt, but when it is not United States debt, when it is not the United States that is borrowing, it is foreigners who want to invest here. So it is a mixed issue, but however you look at it, it is not something on which we can depend indefinitely.

Indeed, our net debt on foreign income is rising quite significantly year after year and the service cost, that is of course quite substantial. So we can't count on that going on indefinitely and if we are going to cite the level of capital stock that is necessary to meet the requirement of, say, 2020, 2030, we are going to have to get a much higher level of savings than we have and in the process we are going to have to create capital assets which induce a very significant rise in productivity growth.

Representative Maloney. Doesn't that mean, this increasing share of net national investment with foreign money—doesn't that mean that most of the benefits from that investment will accrue to our foreign creditors rather than increasing standards of living here in the United States for our citizens?

Mr. Greenspan. Congresswoman, it will depend wholly on what, of course, are net claims on U.S. residents, because obviously to the

extent that we borrow or even get equity capital from abroad, we have got to pay the servicing costs of that. When you have a very large net foreign debt, a significant amount of domestic production is essentially owned by foreigners. Indeed the income from production goes abroad and is not available to domestic residents of the United States, so that the issue is essentially what is the level of net claims against U.S. residents as a share of GDP, that being the best measure, as I can see, to measure the type of problem you are raising.

Representative Maloney. Can you talk with the Committee about what would happen to interest rates and investment if foreigners were no longer willing to accept our IOUs?

Mr. Greenspan. Well, I don't think that is going to be an issue anywhere of significance, because there is always a question, what do they do with their other resources? But having said that, we at the Federal Reserve have looked at a very special part of that problem, which is the large accumulation of U.S. Treasury issues in foreign accounts.

What we have concluded is that because of the extraordinary depth of the U.S. Treasury market, even as large as the holdings are of those abroad, their impact on the Treasury interest rate level is still rather modest. The reason why is that U.S. Treasuries complete with a huge block of other debt instruments throughout the world—both dollar dominated instruments, and of course a very large block of foreign currency denominated issues.

As a consequence, even were the net accretion of U.S. Treasuries on foreign accounts to cease, its impact, I think, would be evident, but not serious.

Representative Saxton. I thank the gentlelady for the questions.

We will move now to Senator DeMint.

Senator DeMint. Thank you, Mr. Chairman.

Thank you, Mr. Chairman for being here today. I appreciate very much the confidence that your steady hand has given to our economy over many years.

Today you have described a short-term economic situation as steady, as sound. But reading between the lines, and I think about what you have said about a long-term scenario, I think if we contemplated that for a few moments, it seems very alarming.

You have described a situation in which over the next 10 or 20 years, we will have the largest decrease in workforce and increase in retirement that we have ever faced as a Nation. You have also said at the same time that the workforce that we are leaving behind is well below an ability to compete in the international market as we are training them today.

As I look at where we are headed, it seems very close to Europe; a little older society, moving toward heavy social benefits, raising taxes to pay for it; a real burden on the economy. I mean, is it fair to say that there should be a greater sense of urgency on this panel and in Congress in dealing with our education situation, our entitlements?

With this massive change in front of us, it seems to me there should be a greater sense of urgency on how to deal with this and avoid the situation that many European nations are in. I know that

is a very broad question to answer, but if you could give us any direction there, I would appreciate it.

Mr. Greenspan. As I have testified previously, before a number of committees in the House and the Senate, as best I can judge, especially with respect to Medicare, because of the huge prospective increase in the number of beneficiaries, which will invariably occur and our inability to have any real particular judgment of what the trend in healthcare per beneficiary is going to be in the years out into the future, there is a not insignificant probability that we have already committed under existing law and presumed demographics far more in real resources than we can actually deliver without significantly undermining the very base of the economic system.

I think that unless we start to address this issue sooner rather than later, the markets will force it on us, and that is usually an unhappy circumstance. So I think that the extent of entitlements that have been created in the system have not been properly evaluated with respect to whether, in fact, the implicit real resources, which those commitments require, fit into a reasonable expectation of what the structure of the American economy is able to produce, especially as you put it in the context of a labor force, which may not have the skills that are required to create a level of goods and services output that will be necessary to maintain reasonable standards of living, not only of the working population, but of this huge increase in retirees.

Senator DeMint. Thank you.

Representative Saxton. Thank you.

Mr. Hinchey.

Representative Hinchey. Mr. Chairman, thank you very much. Good morning, Chairman Greenspan, it is a pleasure to see you and thank you for being here. I just wanted to make an observation about the baby boom generation and the retirement of that baby boom generation and the maintenance of those programs. It seems to me that there are more children in secondary schools in America today than ever before in history.

Our job is to create and maintain fiscal and monetary policies that are going to insure that when they get out into the workforce, they will have an abundance of good-paying jobs in order for programs like Social Security and Medicare to be sustained. That is really what our job is, isn't it, Mr. Chairman?

Mr. Greenspan. I would say that if we all are successful in doing that, it is a job well done.

Representative Hinchey. You pointed out in your testimony and in your response to questions that we are at a moment of conflicting economic circumstances, kind of a convergence of those conflicting circumstances. Since June, the Central Bank has reduced short-term interest rates by 2 points.

Mr. Greenspan. Increased.

Representative Hinchey. Increased, rather, right. Thank you. Increased short-term interest rates by 2 points, but at the same time, the 10-year Federal Reserve bond has gone down by roughly about 80 basis points, now, under 4 percent.

So the economic and financial world, as you pointed out, I think very, very correctly, is indeed changing. My question is, does the unusual behavior of the global bond market signal economic weak-

ness, because that is what we are hearing from other predictors, from Wall Street, particularly?

Mr. Greenspan. Well, it is one of the possible hypotheses. There is no question that growth is slowing in a goodly part of the world. But this has been a characteristic of the world economy ever since we started to seriously proceed toward advanced globalization, which is what I would say occurs when you begin to get not only trade imports and exports, expanding relative to the GDP which has been occurring for the last 50 years, but, more importantly, in addition, get savers willing to reach beyond their natural borders to invest abroad, which is a phenomenon which has arisen in a material way only in the past decade.

What that has done is to alter the way the world's economy functions. In so doing, I think we are getting a goodly part of backing and filling and adjustments of all sorts in which you find that instead of the economy going very smoothly forward, it goes in little cycles.

Hence it is often misread as though we are about to tilt into a recession. I think in that respect, it is important to try to cut through some of this. If that is the case, then the hypothesis that it is a weak world economy, which has been driving down long-term interest rates, is probably not correct. Indeed, it can't explain the fact that rates were going down in 2004 when we had the fastest growth worldwide in a very long period of time.

The idea of weakness—there is a certain credible ring to it. But when you begin to look at the details of the argument, it becomes less persuasive.

Representative Saxton. Mr. Hinchey, thank you very much for the questions.

We are going to move now to Mr. Paul.

Representative Paul. Thank you, Mr. Chairman.

Mr. Greenspan, I have a short question, hopefully, and then a follow-up. You talked frequently about the conundrum that was mentioned already today about the interest rates not being as low as one would anticipate. I am wondering why this is such a conundrum in the sense that this could well represent just the flattening of a yield curve, which is well-known and established and generally presages a recession, and the fact that you have mentioned that this is different in that it is worldwide. Could this not be a bad omen, that it is just a flattening of a yield curve and presages a coming recession?

Mr. Greenspan. Well, the flattening of the yield curves which get engendered as a consequence of ever-tightening monetary policy are usually in the context of rising short-term rates and rising long-term rates.

Most importantly, in the context of where they are perceived to be precursors of economic decline, it essentially commercial banks, which are the main forces of intermediation in the economy. Because obviously, if short-term rates are rising and long-term rates are holding steady or falling, and because the maturity of annual bank assets is somewhat longer than the maturity of their liabilities, if you raise short-term interest rates and lower long-term interest rates, you get a squeeze in the commercial banking system

and a pulling back of loans, which has usually been in the past a precursor of a significant decline in economic activity.

Representative Paul. Thank you. My second question has to do with debt. You have frequently talked about us having too much debt and too many deficits here in the Congress. But I am really concerned about it when you look at the unfunded liabilities of Medicare, the problems we face with Social Security, and now we have evidence that our private pension funds backed up by the U.S. Government probably have the characteristics of a Ponzi scheme similar to Social Security and that their reporting requirements have not required that they report their true assets, but just their cash-flow.

But we have a current deficit which you talk about frequently, and also a foreign debt that is into the trillions of dollars. I just wonder if we might not be fooling ourselves about our prosperity. Because if I could borrow a lot of money, if I could borrow \$1 million every year, I would have pretty good prosperity and eventually it would come to an end.

So a Nation probably has an end point as well. I think this has been magnified by the fact that the efficiency of the central banker, which you have explained that you have gotten fiat money to act as if it is gold, and in some ways, I think that is true, that people do accept our money, and that this encourages us to have more deficit, it encourages us to buy more than we pay for, buy more than we save, and contribute to the current account deficit.

So it is the combination of the monetary system and the acceptance of our money that has contributed this huge debt. But most people say, most economists recognize that there is a limit to how far we can go on the accumulation of this debt.

It is almost a Catch 22. The more efficient we are in convincing the world to take our money, the worse the problem gets, and the bigger the bubble. Instead of borrowing that money to build our manufacturing base, which we are not, everybody knows that is dwindling, we are using it for consumption. So why is it that we should be reassured that our prosperity is sound and we don't have to worry about paying this debt back?

Mr. Greenspan. Well, I think we have learned very early-on in economic history that debt in modest quantities does enhance the rate of growth of an economy and does create higher standards of living, but in excess, creates very serious problems.

First of all, I would think that one way to address the question you are raising with respect to unfunded liabilities is that we need to do a good deal more of accrual accounting in the Federal Government, which will automatically pick that up and get a realistic size of what we are dealing with. But there is no question that the amount of debt that is out there has to be serviced, and so that debt per se can not grow indefinitely.

But if we can grow indefinitely and sustainably, if we assure a means of servicing that debt, which is essentially what we try to do, but we may not be doing it as well as we should and have in the past, we have not always done it well.

Let me just make one final remark, because I didn't want to leave the implication with respect to the yield curve as though I

am concerned that the potential tilting of the yield curve is precursing a significant economic weakness.

What is different, in the past when commercial banking was our key form of financial intermediation, is we have created many more means of intermediation, so that even if the commercial banks pull away, as they did indeed in the very early 1990s, like 1990–1991, we have alternate means of financing. Indeed, with the increase of technologies and the broader globalization, I would hesitate to read into an actual downward tilt of the yield curve as meaning necessarily what it invariably meant 30, 40 years ago.

Representative Saxton. Thank you very much, Mr. Chairman.

We are going to return to Mr. Hinchey. I think I may have shorted him on his time. Mr. Hinchey. You are recognized for 2 additional minutes.

Representative Hinchey. Well, thank you very much, Mr. Chairman.

Mr. Greenspan, I think you are absolutely correct, a modest amount or reasonable amount of debt carefully applied and intelligently invested does lead to strong growth.

But the question is, how can it be carefully applied and intelligently invested? I think that part of the Federal debt that we hold, which is approaching \$8 trillion, is neither of those things.

You said a few moments ago that you continue to support the President's tax cuts. But the President's tax cuts have not only contributed to the huge debt and the annual budget deficits that we are experiencing, but they are also making it very difficult for us to meet other obligations.

In your testimony and in response to questions, you emphasized the importance of education and we all, I am sure, agree with you on that. If we are going to be competitive in the future, we have to have the best educational system training the best people in the world.

But because of this debt and because of these huge budget deficits, the Federal Government is defunding education, all across the board, and that is particularly true of higher education, making it much more expensive and much more difficult for people to go to college. The cutbacks in Medicare and Medicaid are causing problems for local and State governments, thereby causing them to raise the price of education. In my State, for example, the Governor has increased the cost of public education at the New York State University system by enormous amounts over the course of the last several years.

Aren't we in some kind of a conflict here that we need to resolve? Do you still support the tax cuts and do you believe that those tax cuts should be made permanent?

Mr. Greenspan. Mr. Hinchey, I have said on numerous occasions that I support the tax cuts in the context of PAYGO. I support a lot of programs directly and indirectly, but only if they don't affect the deficit. The only way that is true is if they are passed under PAYGO.

Now the problem is that I—and I suspect all—the Members of Congress who have a vote, which I don't have, have a lot of priorities. There is a physical amount of resources which is available to make them real. We have to choose between a whole series of

things we all perceive to be of value. Indeed, numbers of bills that have come up in the Congress would not have come up if a large number of the House or the Senate didn't believe it was a worthy cause. But if you put them all together, it is very obvious that you have a large number of worthy causes, but not enough resources to meet them.

Representative Hinchey. But we have cut our resources, we have cut our resources dramatically, and this Government has abandoned PAYGO. Since the Government has abandoned PAYGO, should we make the tax cuts permanent?

Mr. Greenspan. All I will say is I will repeat what I have said. I have always approved of and have always made fiscal policy choices and recommendations only in the context of PAYGO.

Representative Saxton. Thank you very much, Mr. Chairman. We are now going to move to Ms. Sanchez.

Representative Sanchez. Thank you very much, Mr. Chairman, thank you very much for being here today. I am a Blue Dog Democrat. As you know, one of our policies is to try to institute PAYGO as much as possible here in the Congress. You know, I live my life under PAYGO, I have only one outstanding loan and that would be a mortgage.

I don't owe anybody any money—and I think that is a good way. I think the biggest problem that the United States has is a large debt and a large deficit situation going on, a structural problem that is going to be very difficult to get ourselves out of. So I have a question with respect to PAYGO, because you keep coming back to it. I think we should switch to PAYGO.

I mean, if you were in Congress, what sort of—how would you get to PAYGO? We have entitlements. We had a Medicare part D plan that was passed that was supposed to be \$400 billion over 10 years. It is \$1 trillion and growing, who knows how that is going? We had tax cuts, which the President's own comptroller said that the tax cuts are responsible for 70 percent of the deficit that is going on. What that means is there is less revenue coming in.

Some had thought if we did tax cuts somehow we would get more revenue, because people would invest more—and it doesn't seem like that really happened. We have defense spending going up, \$1.5 billion a week in Iraq alone. You know, we don't know how long we are going to be there.

Then we have discretionary spending, education, transportation, research, healthcare. You know I like to spend on investment. I took out loans to go to college, as did the rest of my family members. I think that is a good place, if you are going to be spending.

You are concerned about the haves and have-not problem and the gap growing wider. You are concerned about education, as you told us. Yet the President's policies have been to cut Head Start, to shortchange No Child Left Behind by \$9 billion, to cut funds at the community college level, to cut student loans.

Where would you go to PAYGO? What would you do? What tax cuts would you keep—I know you don't like to get into individual policies. But, you know, when you say you have got to get back to PAYGO Congress, what do you mean by that?

Mr. Greenspan. Well, let me try to be as explicit as I dare.

We have passed a large number of bills on the outlay side, and we have instituted a tax structure on the receipt side. They don't balance. But it is very clear that a majority of both Houses and the President of the United States, whoever it was at the particular time, thought that all of these items on both sides of the ledger were things that were of value to the American people, but that some of them are not possible, which means that choices must be made between very goods and only lesser goods.

In other words, what is missing in the process is choosing between things that people think are of value. I have seen very little in the way of interest in curtailing anything. There is a constituency out there for tax cuts. There is a constituency out there for expenditure increases, and very little constituency for balancing the budget—although I must say the Blue Dogs come as close as any part of the Congress to being in that particular area.

But as I recall, when I first came to Washington in the 1970s, there was at least an awareness that balancing the budget was a critical issue. Indeed, we have carried out of the 1974 Act, from which PAYGO—actually, PAYGO comes out of the combination of the 1974 and the 1990 Acts. But we constructed a system which essentially seemed to work. We have abandoned it, and I think that we have got to find a way to construct a system which enforces the issue of choosing between A and B.

Right now, everybody wants A and B. Unless you repeal the laws of arithmetic, it won't work.

Representative Sanchez. Let me ask you another question. This is with respect to housing, because I represent Orange County, California, probably the hottest housing market right now, where the mean value of a resale 1,500-square-foot 40-year-old home is running about \$600,000.

You say in your testimony that you do not think—you say these declines, were they to occur, would not likely have substantial macro-economic implications. You are talking about maybe a decline in housing in certain markets.

You know, when I look at what is going on in Orange County, I see interest-rate only loans, lots of them. I see ARMs that people are just beginning to understand are going to choke them in the next year or two. I see a lot of people who took equity out of homes that grew with the housing boom, but which they are not—if housing stops—they are not going to be able to recover out of that.

How can you say, when the brightest spot in the economy has been housing and refinance, how can you say that you don't believe that if there is a slowdown, even in some of these markets, that it will have substantial macro—it will not have substantial macro-economic implications?

Mr. Greenspan. It really gets to the question of what I mean by "substantial." Clearly, if you get a flattening out of prices, not even a decline, and you gradually reduce the realized capital gains and the unrealized capital gains on homes, equity extraction, which is a very significant contributor to personal consumption expenditures, will go down. I have no doubt that as this boom begins to basically diffuse, we will see the rate of increase in mortgage debt largely driven by equity extraction, slow down.

Since a significant part of personal consumption expenditures—and I might say home modernization—are financed by equity extraction, one would presume one will also be observing a slowing in consumption expenditures. Higher savings, but slower economic growth, at least as far as the consumer is concerned.

The reason I don't suspect that there will be substantial macro-economic effects is that I envisage, as it is occurring, capital investment will begin to take up the slack and growth will continue to a greater or lesser extent.

So I am really not saying that it has no local effect. I mean, remember what happened to Silicon Valley, which is just up the State from you. It had a really severe local effect. But it was not a national macro-economic effect.

What I was referring to was basically not that it would have no effect, but I don't perceive it on net to be a major macro-economic effect.

Representative Saxton. Thank you very much, Ms. Sanchez.

We will go now to Mr. Brady.

Representative Brady. Thank you, Mr. Chairman, I thank Chairman Greenspan. I would like to ask two questions related to the deficit, one trade and one our Federal financial deficit. You have spoken frequently about the growing role of international trade in the U.S. economy, about the savings to consumers, the opportunity to raise the standards of living, and a repeated note of caution about the trade deficit.

We have a relatively open economy, yet we find when our companies try to compete around the world, we often run into strong tariff barriers and non-tariff barriers around the world. How important is it that we pursue a trade agenda and trade agreements, like with Central America, that lower those trade barriers for U.S. producers of goods and services?

Mr. Greenspan. Congressman, I think it is exceptionally important. The major reason is that a very substantial amount of American prosperity is the consequence of an opening up of the world trading system over the last 50 years. Everybody has benefited from the increasing globalization, net—and I mean net. I do not deny that as you get globalization and the churn of the economy, there are winners and losers. But the number of winners are far in excess of the number of losers. The resources that are created in the process can help take care of those who are on the wrong side of the tradeoff.

However, a very major part of our current standard of living rests on our position in the global markets. If we start to retreat from that, I think we will find that we are very significantly impaired with respect to living standards. Competition is not something anybody likes.

I didn't like it when I was in the business community. I thought my competitors were always unfair, and I wished they would go elsewhere. But at the end of the day, I realized that they made me work harder, do better and be more successful. It is a tough thing to think in terms of, but that is what our problem is.

The facts are, the more we liberalize trade, the more we expand it, the higher are our standards of living. While we might prefer

to be quiescent and not engage in so much competition, we can do that. But there is a cost. That cost could be very significant.

Representative Brady. Thank you, Chairman. I will just thank you. That was very revealing.

On our Federal deficit, I am convinced after 9 years in Congress, if Congress were a manufacturing plant, we would manufacture spending, that is what we are good at doing. If we want to manufacture savings and efficiency, we have to retool the plant, change the process that we go about reaching our budget each year and controlling spending.

In the past you have supported a sunset process where at the Federal level we require agencies and programs to justify their existence or face consolidation, streamlining or, in some cases, elimination—the goal being to eliminate the duplication of services, to eliminate obsolete agencies, to find a more thoughtful way really of getting the bang for the buck up here.

Do you still support a sunset mechanism of some type, as a tool, one tool, to help reach that efficiency?

Mr. Greenspan. I certainly do, Congressman. One of the reasons is, as you point out, it is exceptionally effective mechanism to force a review of an ongoing program, whether it is an entitlement or any other form of program. I think we would find, that even though there is a general, conventional wisdom, that this country is extraordinarily split 50/50, we would find that the vast majority of programs that are now on the books would very readily be renewed without any question.

But enough of them would not be, and that could create fairly considerable avenues of budget savings which we don't seem to be able to create these days. As you say, it is only one tool. I mean, there are triggers, there are sunsets, there are a variety of other things, along with PAYGO, which, as far as budget process is concerned, I think would give us a far more sensible structure. But I have always envisaged sunset as being the crucial issue because every agency, every program should be reviewed.

Another Member of your Committee, Senator Sarbanes, many years ago, asked me when I was raising this issue, does that include the Federal Reserve? I said absolutely, Senator. If we cannot convince the Congress that we should still be here, we shouldn't be.

Representative Brady. Thank you, Chairman, very much. Thank you, Chairman Saxton.

Representative Saxton. Thank you. We will move now to my friend, Mr. Cummings.

Representative Cummings. Thank you, Mr. Chairman.

Chairman Greenspan, you know they say that when you speak, to paraphrase the investment commercial, everybody listens. I am hoping that they listen to some of the most powerful words I have heard from you. Those were your comments on education and how important education is and how we need to bring our children and our young people up so that they can take on these jobs that you talked about.

I am just wondering, if we have a situation where in many parts of our country where 50 percent, sometimes as much as 60 percent, of young people are dropping out of school, then you have a number of students who will get a diploma, but can barely read the diploma

itself. Even though we may—let us assume that the things that we are doing now to try to help these young people become all that God meant for them to be, taking into account all that you said about the people retiring and the problems that we have with our public education system, looking into your crystal ball—what do you see for our future?

In other words, you are talking about something that is going to take a little while to reverse, I mean, to get back on track. So those kids who may be in the—we saw in the State of Maryland some good great developments with our recent test scores. But we are talking about kids in elementary school.

So I am just wondering what do you see?

Mr. Greenspan. Well, I wish my crystal ball were as clear as I would like it to be. But let me just put a little perspective on this issue. I have been dealing on a day-by-day basis with the American economy and the American institution since 1948.

Every decade or so we look forward and it looks awful. There is no way that the United States is going to continue to survive in the state that we have been in. We, somehow by some means, seem to recreate ourselves. I think it is one of the extraordinary aspects of our country that the Constitution and the culture that derived from it is creating a dynamism that we seem to have which one way or the other we seem, when confronted with problems, to get them resolved.

With all of that experience of that happening all of these years, my inclination is just to assume. I don't know how it is going to happen, but we will do it. The trouble I have is that we only seem to do it when we are forced into a crisis.

I trust that we have the capability of being able to see something in the future, which is reasonably certain to happen, namely the demographic shifts in retirement and the problems that are now emerging in our schools. We know what will happen if we don't address both of those questions.

I should hope that instead of waiting till we are at the edge where we have to really get to work to resolve them, we can do them in advance where less effort and less resources and less angst would be required. I trust we will be able to address what we see as real problems in the next decade, in this decade, rather than waiting for them to come right up to our door.

Representative Cummings. Just, very quickly, on the pension situation, Chairman Greenspan, with companies turning to the Pension Benefits Guarantee Corporation, and it seems like many anticipate there will be a stream of companies coming, not having sufficient funds to pay off these pensions. How do you suggest that problem be addressed?

Mr. Greenspan. It is. Let me just start off with what an economist or an accountant would say about how you can fund, with no risk, a pension fund at relatively little risk.

Since you can project the liabilities, really the amounts of payout that your workforce when they retire will require, you know that cash-flow needs on a yearly basis, going out 30, 40, sometimes 50 years.

If you invested on the asset side of your balance sheet in U.S. Treasuries, which matured in the periods when you knew you

would have your cash-flow, you would have a riskless system. But that is very expensive in the sense that you don't get the interest rates or the dividends that most private pension funds get.

So what we are dealing with here is that to the extent that pension funds are invested in other than risk-free instruments, risks are being taken. It is perfectly sensible to do that, when you realize, for example, stocks over the very long term yield more than U.S. Treasuries with a reasonable degree of accuracy. There is a tendency to have not all U.S. Treasuries in your portfolio.

However, it is important to recognize that all of that is risk, and the question is somebody has to bear that risk in the event of failure. It is either the employees, corporate shareholders, or now with the Pension Benefit Guarantee Corporation, the American taxpayer. I think we have to recognize what it is we are doing when we are setting up a pension fund.

If there are risks involved, they should be identified, and the question is in the event of a problem, who bears the cost? Historically, it was always either the shareholders of the corporation or the beneficiaries. Now that we have got a very big slug of possibilities that the American taxpayer is going to have to pay for it. The Congress will have to judge how far you want to carry this.

Representative Cummings. Thank you.

Representative Saxton. Thank you very much, Mr. Cummings.

Mr. McCotter, would you have a question at this point?

Representative McCotter. No, thank you.

Representative Saxton. Thank you. Let me just say where we are in terms of time. We have been informed we will have a vote on the House floor sometime between 11:40 and 12:00 or a little bit after. So if it is all right with you, Mr. Chairman, we will begin a second round and try to do it quickly. When the time comes for us to go to vote, we will go to vote, and we will adjourn the hearing at that point.

Mr. Chairman, you have pointed out some good news. Real GDP growth is paced over 3 percent, and that is expected to continue into 2006. Housing and real estate remains strong—and as a matter of fact, at near record levels. Payroll employment is up 3.5 million jobs over the last 24 months. The unemployment rate is at 5.1 percent, which is a historic low, particularly when compared to the averages of the 1970s, 1980s and 1990s and inflationary pressures appear to be contained.

All of this has happened and continues to be a good picture, in spite of the fact that we today see oil prices well over \$50 a barrel. If someone had told me in 2003, when oil prices were at \$30 a barrel, that the economy would have continued to expand with oil prices at \$50 a barrel, I would have had great doubts. In spite of this, we have continued to see good growth.

I would just ask you, in spite of the fact that oil prices are in nominal dollars, far in excess of what they were in the late 1970s and early 1980s, adjusted for inflation, today oil prices are significantly below what they were in the late 1970s and 1980s. Can you expand on this and help us understand what is happening here in the economy, in spite of the fact that we have historically high oil prices in today's dollars, measured in nominal terms?

Mr. Greenspan. I think one of the important issues to focus on is the fact that when oil prices go up or, more exactly, when gasoline and oil prices, for example, in the United States go up, we don't curtail consumption in any measurable way. However, as time goes on, you get a change in the motor vehicle stocks, use of gasoline, so that while people don't curtail the amount of miles they travel, over the longer run, as prices stay high they start to buy increasingly fuel-efficient cars.

So while the consumption levels don't get impacted right away with a rise in oil prices, whether it is gasoline or in the case of home heating oil whether insulation is put in the home—over the longer run it does. What we find is that there is a fairly significant response in consumption, both in the United States and worldwide, over the longer run when oil prices go up.

So that the effect has been over the years, as we have moved from, for example, the late 1960s, early 1970s, when oil prices really began to move, we have seen a very dramatic decline over the long run in the ratio of oil consumption to real GDP, indicating that the structure of the American economy, its capital assets that consume energy and specifically petroleum-based products, that capital structure becomes ever more energy efficient, because it turns over toward more energy efficient-type capital, whether it be passenger cars or capital equipment.

We are now confronted with an issue where presumptions have changed. The earlier presumption was that the longer-term price will go back to what used to be termed normal, which was \$20 a barrel. We no longer perceive that that is going to occur, even though the evidence of a long-term decline in the ratio of oil to GDP continues and the evidence of increasing fuel efficiency in cars is occurring.

I think that the significant increase in the long-term futures prices for crude oil 6, 7 years out, in recent years, is suggestive of the fact that the markets do not believe that after we go through a price bulge, which then ultimately gets reversed because consumption settles down, that is not going to happen now.

Future prices have gone up for the year, to the year 2011, for example, they are up quite significantly from what they were. The reason why that has happened, as best I can judge, is more political than economic. The reserves of crude oil, as you know, are largely concentrated in OPEC countries where to a very substantial extent, national oil companies have evolved and have become monopolies in their countries and are having considerable difficulty in choosing whether the cash revenues go for domestic uses and the budgets in those countries, or are plowed back into drilling, not just to increase the oil reserves, but the capacity to produce oil from those reserves.

We are having significant shortages in the growth of long-term crude oil capacity availability, which seems to be falling short of what our projections of oil use over the longer run will be, and that has created an increase in expectations of shortages in the long run, and it is the reason why prices are up. We also have significant problems, I might add, with capital expenditures and capital availability for world refining as well.

So the international oil system is changing. We are able to function and be able to grow economically, especially in the United States, because we find ever more sophisticated ways to remove petroleum and energy as a cost in our production structures.

As a consequence, we have managed to find ways around these ever higher increases in prices. I think we will continue to do so. But there is no question that if the real price of oil were what it was back in the early 1970s, our rate of growth and our current standard of living in the United States would clearly be lower today than it currently is.

Representative Saxton. Thank you, Mr. Chairman.

Senator Reed.

Senator Reed. Thank you, Mr. Chairman.

Chairman Greenspan, you have identified two contemporary challenges to our economy, principally the housing bubble and also the trade deficit, which has to be financed. With respect to the housing bubble, you suggest that it is really a froth.

By the way, I have this image of thousands of Ph.D. students in economics running to a thesis advisor and changing the topic from exuberance, irrational exuberance, to housing froth. So that is happening as we speak.

But the housing bubble may be something because of the nature of housing and the localized implications. That is not serious. But financing our deficits, and dependence upon foreign central banks, could be the most significant challenge we face, given the fact that if there is a moment's lack of confidence in our economy or our decisionmaking, if they feel that our deficit projections would continue to be unremitting and without any type of break, there would be a tendency, obviously, to move out of dollars.

In fact, there was a stutter in the market several weeks or months ago when the South Koreans seemed to be moving. Is that to you a most significant challenge, and how long do we maintain this co-dependency?

I mean, we are hooked on their central bank money. They are seeing it as a way to continue to give us money to buy their products. How long can we maintain this, in my view, unstable co-dependency?

Mr. Greenspan. The expanding dispersion of current account balances which, as you know, are a big chunk of the deficit side, is a function of the degree of globalization.

The increasing tendency of domestic savers to invest outside of their country necessarily implies that the dispersion of current account balances will increase. The dispersion of current account balances is not necessarily a problem, provided that you do not, as a consequence, build up very significant levels of debt is a consequence of chronic deficits.

If you move between a surplus and a deficit, it is no real problem. But what our concern has got to be, especially in the United States, is if we continue to build up net claims against U.S. residents, which must be serviced.

That, I suspect, will get resolved, because the markets will not allow that to happen. The prices will change, terms of trade will change, interest rates will change. At the end of the day, exchange

rates will change one way or the other, which will effectively create changes in these balances.

But the thing which should concern us is more that which the markets cannot adjust, which is the Federal budget deficit. There is a policy question. I would focus on that as being the major issue which I think we have to worry about, because I believe that if we maintain the degree of flexibility in our economy that we have achieved in recent years, and which enabled us to absorb 9/11's economic impact, the bubble of the markets in 2000, the corporate scandals and their aftermath, it is the flexibility of the American economy, which has enabled us to do that.

I do think that so long as we continue that, and avoid protectionism, which would undermine it, I am not worried about how the international system will restructure itself. But we cannot count on the international system or the markets as such to solve our budget deficit problem. That is an issue of choice and an issue which is quite difficult, and I think must be addressed.

Senator Reed. Well, I agree with you, Mr. Chairman, we made those choices in the early 1990s, we raised taxes and we cut expenditures. Do you think there is any other way we can deal with this deficit other than by pursuit of those two courses?

Mr. Greenspan. Not that I am aware of.

Senator Reed. Thank you very much.

Representative Saxton. Thank you, Mr. Chairman and Senator Reed.

Senator Bennett.

Senator Bennett. Thank you very much, Mr. Chairman.

As I look around the world, I become more discouraged than I am about the United States. Japan seems to be unable to come out of their now decade-long recession. I spend time with Europeans now to a greater degree than I used to, and any country in Europe would kill to have our numbers, our productivity numbers, our GDP growth numbers, our unemployment numbers; they are behind us in every category. And their demographic challenge is greater than ours.

We, at least, have immigration to help us deal with the challenge. The retirement end. They don't, to the extent that we have, they are below replacement level. Their population is shrinking. One statistic that struck me: in the Second World War, Germany had 70 million population, today they have 80 million, whereas we had what—140 million in the Second World War, and we are now closing in on 290 million. The European Union in the next 30 years will become smaller than the United States populationwise. We will grow, they will not.

Basically, we are carrying the rest of the world on our shoulders in this situation.

We can talk about our deficit problem, we can talk about the foreign money we depend on, but as you indicated in an answer to a previous question, a large part of the reason the foreign money is coming here is because it feels safer here than any other place. You can you address this whole question of what we have to do in the overall context of dealing with globalization, it is a reality. It cannot be repealed. I agree were you absolutely, that we must pass CAFTA, and we must pass other free trade agreements in an effort

to get the greatest efficiency and benefit out of globalization that we can.

Protectionism would be a disaster. But other than that, comment on the overall international situation that we face in the next 10 to 15 years.

Mr. Greenspan. Well, Senator, a while back, I had to deliver a memorial lecture on Adam Smith and was required as a consequence to read *The Wealth of Nations* again, which I must say, I hadn't read for 50 years. And it was obviously different. Somebody came in and rewrote it one way or another because it seemed so modern in so many of its insights. The major insight is, I think, the serious question of what does create the wealth of nations? What is it about the United States that which gives us a special status? And, I think the way I would put it is first, it is not our real resources as such, although we, over the generations, have had a considerable amount of oil, copper, ore, iron ore and the like.

But it is fundamentally our Constitution, because the Constitution is structured in a manner which protects property rights better than anywhere else in the world. And one of the reasons why businesses have flocked here, why they have invested here, is that they know that in the event of adjudication they get a fair trial. And that our Constitution protects them.

The second major issue that has always been relevant to the United States is the nature of the people and their education and what they have in their heads. And we have managed, up until very recently, to maintain a very high level of skills. It became obviously most manifest in World War II when the kids who came out of the war were able to put together an automotive engine in 20 minutes where the rest of the world had not yet even gotten close. And we maintained that all the way through the 1960s, the 1970s. We are running into problems now. They are not overwhelming yet.

But I am concerned about the quality of our workforce that we have got to make certain can have the skills that will be required of us in the next generation. As I said to your Congressman colleague from Maryland, I have been around long enough to have considerable expectation that we will figure it out at some point. Over the years, I have been through too many hanging-over-the-edge-of-cliffs scenarios about whether we would do it or not, but we managed to. I think it would be very useful to anticipate sometime in the future what we are going to have to do and do it sooner rather than later.

Representative Saxton. Thank you very much.

Mrs. Maloney.

Representative Maloney. Thank you, Chairman Greenspan, for your truly insightful testimony today. You mentioned you just read Adam Smith. Well, have you read *The World Is Flat* by Thomas Friedman? And do you have any comments.

Mr. Greenspan. Well, the picture on the cover of his book is so revealing. I don't know if you remember what it is. It is the galleons going off the cliff and falling off the region of the earth. I found it sufficiently riveting to go find out what is in the book. And I think it is an interesting book and I think I haven't read it in full detail, but I have read parts of it.

There are big issues out here, which I think we are all trying to come to grips with. This is a different world. I mean, it is a world in which we all are economically related. When I first started in business and had to forecast the American economy, I did not have to avert to what was going on in the rest of the world because it didn't matter that much to what the GDP—or then the GNP—would be for the United States. But now, unless you start with what is going on in the rest of the world, you don't have a clue with what is going to happen here. And I think books like Tom Friedman's and others trying to delve into this have got good things and bad things in them, but I think we are all learning a great deal about how the world works. And I think it is helpful.

Representative Maloney. You commented to Senator Reed's focus on the deficits that it is a tremendous problem, and I would like to ask, wouldn't we see a sharp increase in interest rates and a decline in investment if we continued to run large Federal budget deficits?

Mr. Greenspan. Well, Congresswoman, the real problem that I have is that if you take what I perceive is likely increases in outlays, as you move into the next decade and beyond, you begin to create potentially unstable deficit situations in which deficits increase, the debt increases, the interest on that debt increases, both because interest rates go up and because the debt itself goes up, and that increases the deficit still more, and a number of the econometric scenarios that we run in that context do not reach equilibrium very easily so that we have a major task in front of us.

Representative Maloney. Thank you. You also mentioned today several times and advocated as for a pay-as-you-go policy for all of our Federal budget decisions. And that would also include budget decisions concerning tax cuts becoming permanent, would it not?

Mr. Greenspan. It would.

Representative Maloney. It would. OK. And currently that is not the policy of the Administration, and have you talked to members of the Administration and tried to persuade them of the need for pay-as-you-go rules for all of our budget decisions?

Mr. Greenspan. I have tried to persuade lots of people in this town, sometimes with success, more often than not, lesser success.

Representative Maloney. But we always listen to you, Mr. Chairman, we may not agree, but we always listen to you with great attention. And I really need more evidence to be convinced that we have a robust economic recovery, particularly for the typical American worker. And how would you characterize the behavior of payroll employment over the most recent cycle? Wouldn't you say that it took an unusually long time just to erase the jobs deficit created by the 2001 recession and that we are still well behind the pace of job creation typically seen in past economic recoveries? And, related to that, how would you characterize the unemployment? I know that it has edged down to 5.1 percent in May. But aren't we still waiting for labor force partnership participation to bounce back from the effect of the recession?

Mr. Greenspan. Well, remember, one way of looking at the fact that employment significantly lagged the recovery in the economy earlier in this decade is we had an extraordinary rise in produc-

tivity growth. Indeed, looking back at the figures, even though the economy was relatively weak very early-on in the decade, productivity started to pick up, which was very unusual and as we moved through 2002 and 2003, as I pointed out in my prepared remarks, productivity growth continued to expand, and hence raised the overall standard of living of the American economy. And that therefore, is the source of the delayed recovery in employment.

But employment, obviously, is coming back. The unemployment rate is down to quite low levels historically. It is certainly the case that the participation rate of the labor force has been moving down, although it's flattened out very recently. A goodly part of that is merely the demographics that as you move through cohorts which generally have lower labor force participation, the average comes down and that is one of the things that we are looking at.

But even making adjustment for the demographic shifts, there is a tendency for people to desire to work less than they did historically. A lot of them are going to school. And it is not only the kids. I mean, there is a very significant increase in enrolment at community colleges which have average ages of enrollments, 30, 35 and more.

Representative Maloney. My time is up, thank you very much.

Representative Saxton. I thank the Gentlelady. I just would remind the Gentlelady that today's unemployment rate is 5.1 percent, which is, as the Chairman has just pointed out, is historically low. To be more specific, during the 1970s, the average unemployment rate was 6.2 percent. During the 1980s, it was averaged at 7.3 percent. During the 1990s, it averaged 5.8 percent. And so 5.1 percent doesn't appear to me to be too bad. And I think we need to look at this in that context, and hopefully, it will be reduced even more. But in terms of the last three decades, we are doing pretty well.

Representative Maloney. Well, I thank the Chairman for pointing that out to me and would like to comment that it was lower in 2000. Thank you so much.

Representative Saxton. Again during the 1990s, the unemployment rate averaged 5.8 percent. Historical facts will bear that out.

Mr. Paul.

Representative Paul. Thank you, Mr. Chairman, I would like to follow up on Chairman Saxton's question about the oil prices. You said that the discounting of future high oil prices is probably more political than economic, and I would like to suggest that possibly there are some economic factors. You know in the 1970s, we faced a somewhat similar problem. We had a lot of inflation, and yet we had political turmoil which helped push oil prices up. But we were also living after the decade of the 1960s where we were financing the Vietnam War as well as the Great Society programs and that led to a whole decade of stagflation and significant inflation.

And most individuals now recognize that general price inflation simply is a reflex of money policy and it is not a result of political turmoil, although, the political turmoil can contribute to higher prices. And today certainly we have political turmoil in the Middle East. We see oil pipelines being burned almost on a daily basis,

and that, I would agree, certainly contributes to this anticipation that there will be future price increases in oil.

But, it also, we talk a lot of about increase and demand and I would recognize that that has something to do with the demand coming from China and other far eastern countries that would put pressure on the oil prices. But that the one factor that we essentially never talk about nor recognize is the monetary factor that maybe we still have some old fashioned inflation around. We have some house pricing inflation. We have medical care cost inflation. And we have educational cost inflation. And we also know that one true characteristic of monetary inflation when it translates into price inflation, it is never uniform. Some prices go down. Some prices go up, but you still can have inflation; you can have prices of houses going up with computer prices and TV pricing going down.

So I am suggesting that quite possibly the markets are saying to us in the Congress that we are discounting Congress's inability to handle the deficit, and therefore putting more pressure on the monetary authorities to do what they do. And that is, accommodate deficits and eventually inflate just as we do to accommodate the deficits of the 1960s, and contributed to the 1970s. Why couldn't a case be made that there is a monetary factor in here or would you still stick to the argument that you will say no, there is no economic factor, it is all political factor that anticipates higher prices of oil in the next decade or so?

Mr. Greenspan. Well, with regard to the political factors I was referring to, I am not sure I made myself clear. It was not so much the violence and terrorism that is involved, but the fact that very few of these nationalized oil companies will allow foreign oil companies to come in and drill and increase their productive capacity. In Mexico, for example, its constitution prohibits foreign involvement in its underlying crude oil reserves.

The issue of monetary policy is potentially a significant inflationary force as we have discussed before on numerous occasions. The history of fiat monies, which is what we have, tends to be chronically inflationary. At the current time, money supply growth is really quite modest. And I think it is modest around the world, and I think the reason is that a large number of us recognize that the inflation is a very deleterious force in a market economy, and that if we feed inflationary forces, we ultimately undermine the economy. The argument that we at the Fed make is that our statutory requirement is to maintain maximum sustainable growth, but we perceive the necessary condition of that to be a non-inflationary monetary policy.

Representative Paul. Thank you.

Representative Saxton. Thank you very much.

Mr. Hinchey.

Representative Hinchey. Thank you very much, Mr. Chairman, Chairman Greenspan it is always more than a pleasure and also always instructive to listen to you. I very much appreciate the opportunity to be here with you today.

Mr. Greenspan. Thank you.

Representative Hinchey. As you point out, whenever you put into place a program or a policy, it is always prudent to periodically

review that policy or program to see that it still makes sense and that it is performing as you anticipated it might.

We have an economic policy in place today which has been in place now for about 4½ years, and we have an opportunity to evaluate the outcomes and to see what it is doing for us. We talk about growth in the economy and that seems pretty significant. Unquestionably, that growth seems strong and solid. But it doesn't seem to be affecting everyone. For example, in the last 4½ years, there are now 4 million more Americans without health insurance. That number is up to 45 million now, and there are tens of millions more who have inadequate health insurance. There are about 1.3 million more Americans living in poverty than there were 4½ years ago. And the median annual income of middle class families is down by \$1,400 over the course of that period.

In the private sector, we still have not produced the number of private sector jobs that would bring us back to the number of private sector jobs that we had 4½ years ago. The benefits of our economy are increasingly flowing to a smaller number of people. In fact, a recent analysis by *The New York Times*, for example, indicates that about less than ¼¹⁰th of 1 percent of the population are getting not just the lion's share of the benefits, but most of the entire pride's share of the benefits.

If we are going to maintain a kind of social equality, or the social opportunities at least that we have had throughout our history, don't you think that we need to re-examine this policy and begin to do something different so that more people can begin to benefit from the enormous opportunities that exist in this country? Instead of having just a tiny fraction of people get all the benefits, shouldn't we be trying to share them more equitably? Aren't there things we need to be doing better?

Mr. Greenspan. I didn't read *The New York Times* article in detail, but it is a fact that the concentration of income has increased for reasons I discussed before. I do think it is important to recognize that to the extent that that occurs, it is not helpful for a democratic society, especially one of the breadth and heterogeneity of this type of society.

I have looked at the various different things that can be done. And I have concluded that with education reforms necessary, whatever that means, because I don't know enough about how to teach children in a way that would prevent them from falling to the bottom of the barrel by the time they go from 4th grade to 12th grade.

But I do know that that is both the necessary and sufficient condition to solving the problem that you are most concerned about. I am not sure what a whole series of other programs would succeed in doing. I am reasonably certain if we don't solve the education problem, whatever else we do isn't going to help very much.

Representative Hinchey. I am really talking now about the monetary and fiscal policies that we are pursuing. For example the huge tax cuts.

Mr. Greenspan. The problem I am concerned about is on a pretax level. You will get the same numbers.

Representative Hinchey. The ones I am concerned about are at a post-tax level.

Mr. Greenspan. I understand that. What I am trying to say—

Representative Hinchey. Because if you have these huge tax cuts, which take enormous amounts of money out of the Treasury, put them into the hands of just a tiny fraction of the American people, and just let them do with it what they want, they will not invest that money into society. If you had a tax cut, for example, that was more equitable, that was distributed more equitably among the middle class, then you would see more investment going back into the society. You talk about education. Because of the fact that we are running these huge budget deficits now as a result of the tax cuts and other actions—the war in Iraq, for example—we can't afford to invest more in education. Now the Administration is arguing that we can't afford Social Security. We can't afford Medicare, we can't afford education. They are cutting back on Pell Grants. They are cutting back on other means of funding education.

So if we are not putting enough money into education then you have classrooms that are overcrowded. You have educational conditions that are actually depriving young people of the education that they should have. We are not using our resources equitably, intelligently, we are using them in ways that are reckless and radical and putting them into the hands of a tiny fraction of the American people rather than having those resources spread in a more, not just egalitarian, but at least more democratic way.

Mr. Greenspan. Well, it is a factual issue here that leaving aside the question of equity, those monies come back into investment. In other words, unless you consume your income, it is going back into financing investment.

Representative Hinchey. But Mr. Chairman, the investments are going to buy an island in the South Pacific or buy a factory in China or buy some kind of information distribution system in India. That is where they're going. They are not coming back into our economy.

Mr. Greenspan. I think you would find if you actually had the full detail, those would be extraordinarily small proportions of what actually gets invested. Look, the truth of the matter is, I don't want to argue the other side of the question of equity, because I don't necessarily disagree with that. But there is no question that this standard of living is unmatched. And it is unmatched for everybody. Everybody has got a car. And the cars that people have today are so superior to what they were 50 years ago it is unimaginable.

So, you can look at the system and say it has got a lot of problems. And sure it does. It always has. But, you can't get around the fact that this is the most extraordinarily successful economy in history. And while we may not distribute the resources in the way that you or maybe I would think is necessarily appropriate, the fact is it is still a very successful economic system. And what we are going to find is that over the years, if we resolve the education problems, I think we will find that everybody is getting very significant advances.

If we were in such poor shape why do so many people want to come to this country?

Coming to this country, taking the lowest paying jobs which are several multiples of what they can make at home. We have got to be doing something which is not bad.

Representative Saxton. Thank you very much, Mr. Greenspan. Mr. McCotter has joined us and we are going to move to him for a question.

Representative McCotter. Thank you, Mr. Chairman. You had spoken about having to dust off your Adam Smith. I guess I have to dust off my civics book when I get home, because it was always my understanding that taxation occurred with the consent of the governed. The tax cuts are not taken from the Treasury and placed in the hands of the few unless at first they are taken from the hands of the people who earned them and then stuffed into the Federal Treasury. And it can only be done with their consent. So maybe we have a difference of opinion. I will go check and see whether I am right or not.

Speaking of the consent of the governed, in economic models as you rightly pointed out, in the past we only had to focus on the United States of America, what is good for GM is good for the country, and so forth.

At this point in time, given the globalization of much of the economic sectors, do any economic models take into account the different natures of the governments involved in global trade?

Mr. Greenspan. Different what?

Representative McCotter. The different type of government. For example, let's use two examples. The United States of America is a free republic. It has an entrepreneurial system and, say, somebody like the People's Republic of China, which is a communist government, it is a totalitarian state.

Do economic models anywhere account for the different natures of the governments? For example, we can discuss where we would rightly or wrongly invest, in education or elsewhere, but we have to do it through the consent of the governed and through consensus in the Congress and then express incentivize. We cannot command and control an economic sector or our economic decisions. We have a free market. We can help. We can hurt. We cannot command and control.

How does a free republic with the entrepreneurial free market system engage with a communist country which is a totalitarian state which has a command and control structure which we cannot follow? Do economic models take these into account? My concern is that over time, as we look at this, is that economists tend to look at market forces. Not the aberrations in market forces that can be caused by a totalitarian government, whereby an economic policy will not be determined by an aggregation of individual decisions made throughout a free market, but at the behest and the command of a dictatorial government.

Do any economic models take this into account or do we simply assume that perhaps these totalitarian states can be treated as a dichotomy between their government and perhaps a system that they are employing economically at a given time?

Mr. Greenspan. Econometric models don't. In fact, they presuppose a market economy and are not sufficiently sophisticated in their mathematical constructions to say they differentiate between differing types of market capitalism. There are huge differences in economic development, depending on whether or not you have a rule of law, whether you have property rights, what type of govern-

ment you have, is it representative, is it republic, is it democratic in its nature? That is a part of economics which I wouldn't call modeling, but it is called development economics, and what they try to figure out is, as did Adam Smith, what causes the wealth of nations? And there the conclusions come out fairly clearly. Namely that when you have, if you want to call it a model, you actually had an experiment in central planning versus market forces for 40 years with East Germany and West Germany in which they came out of the same culture, language, everything similarly. The only thing that was fundamentally different was their political structure. And when the end of the 40 years, the experiment came to an end and we looked. East Germany's standard of living was a third of West Germany's.

So you can, in a sense, get a model, if you want to call it that, to produce those results. But, it is very rare that that occurs. And the only time I know they would use models in central planning was the Gosplan in the Soviet Union which was very sophisticated and didn't work.

Representative McCotter. And bring this up to my concern over time whether or not there is a lot of faith in the permanent normalization in trade relations with the People's Republic of China has been that you will get democracy following economic opportunity if we continue to trade with China on this basis, if we drop human rights as a criteria, if we allow them access to our markets and we go back and forth is that somehow they will magically realize that the vanguard of the proletariat is no longer needed to run the lives of their people.

My concern is not that we have soon a past model, such as the Soviet Union or East Germany. My concern is that we may be seeing a different hybrid of a totalitarian government. We may be seeing a totalitarian government that will allow a limited amount of economic opportunity without any political freedom whatsoever, without any real democracy whatsoever. And as a resident of the United States, I asked the question because my concern is that we tend to think that what we have here in the free republic through democracy and through an entrepreneurial economy is somehow entitled to us rather than simply an experiment in democracy which, as some of us know, did not work out too well in the ancient Athenian city-state very long. And that as Russia goes backwards with their economic models and China continues down the path, we are basically, as an article of faith, hoping that China does the right thing and becomes more like us in the next 20 years, rather than even bother to entertain the notion if we continue to trade with them in the manner that we are trading with them and dealing with them, that somehow in the next 20 years, we might start looking a lot more like them. So that is why I asked the question, but as always, I enjoy engaging with you, Mr. Chairman.

Mr. Greenspan. Thank you.

Representative Saxton. Thank you very much.

Ms. Sanchez.

Representative Sanchez. Thank you, Mr. Chairman.

Mr. Chairman, what I want to go back to, what I see over time, your concern of this, I hate to call it as the haves and have-nots, but the widening and disparity of what is going on, and to a large

extent, you talked today at length about how education may be one of those big issues that makes the widening, or the gap that is occurring.

I ask because I come from the fifth wealthiest county in the Nation, Orange County, California. And yet, the Rockefeller Foundation about 5 months ago issued a report that said that the city that was the worst place to be poor is Santa Ana, California. That is the county seat of Orange County. And then when I look at the percent of giving rates, charitable giving, county-by-county in the Nation, Orange County is pretty low on the list as a percent. And when we see where it gives, a lot of the giving that we are seeing in my area goes to the arts.

So I am looking at the policy or what is it that is creating this disparity and one of the issues that comes up is this whole issue of the estate tax. And to tell the truth, that has come up in different forms, I have voted one way or the other depending on whether or not I think this will work.

As a Blue Dog, we tried to put in a proposal that would basically have no tax all the way up to 97 percent of all households in the United States. But that didn't go through. The House recently passed an estate tax that said there will be no estate tax. I want to ask you because one of the arguments that people used in trying to sway some of us to vote one way or the other was this other whole issue of if you don't tax with an estate tax, then people will not put their monies into charitable types of institutions. They won't make the Carnegie Foundation. They won't make these foundations that in turn come back and do education on a more broad base, or invest in research on a more broad base.

What do you think about eliminating completely the estate tax versus something of, you know, trying to eliminate it from most, but not the very top 2 percent of estate tax estates? What is your opinion on that?

Mr. Greenspan. I don't have a view on that particularly. I think that there is a great deal of literature as to whether or not Americans contribute to charities because of the graduated income tax or not at all. I mean, obviously, through very significant charitable contributions and bequeathing of very large trusts for charitable distributions, before the income tax, we obviously had Carnegie and Rockefeller, and a variety of other major contributors. But it is an analytical question as to the impact of the estate tax or indeed the income taxes on charitable giving, and I am not sufficiently familiar with the conclusions of that. I don't really have a position on it.

Representative Sanchez. Aside from this education gap, what do you think might be other policies that we, the Federal Government, have instituted that are creating this widening of the gap between those who have the low paying service jobs and those who have the creative, technological-type jobs?

Mr. Greenspan. Congresswoman, I don't think we need to do anything else. If we succeed in solving the education issue, I think we have got it solved. Remember, we came out of World War II with the GI Bill of Rights, and a lot of technological capability, what the technologies were back at the end of World War II. And we had, for several decades, a very rapidly growing economy and,

no increasing concentration of income. In other words, all wage levels moved the same. You are not going to eliminate the differential wage levels because those are skill-based.

But what we need to eliminate is the ever gradual spreading of those wages which we now see and there are lots of ways you can come out at it, but all I can say is that if you can solve the education problem you don't have to do anything else. And if you don't solve it, nothing else is going to matter all that much.

Representative Sanchez. Thank you Mr. Chairman. Thank you.

Representative Saxton. Thank you, Ms. Sanchez.

Mr. Chairman, we have got to go vote, and we want to thank you for being here with us this morning. We are pleased with the news that you bring us today. And, I want to thank you also for emphasizing the concern that you have with regard to the educational issues in our society. I think that is extremely important. I sit here in this room, actually on the Armed Services Committee, and one of the things that we are reminded about from time to time is the shortage of engineers that work in various capacities that provide for expertise in the area of defense, national security. These are important issues and I agree with you that we need to recognize them and work on them. Thank you again for being here with us this morning and we look forward to seeing you again in the future.

Mr. Greenspan. Thank you, Mr. Chairman.

[Whereupon, at 12:30 p.m., the hearing was adjourned.]

Submissions for the Record



CONGRESS OF THE UNITED STATES

JOINT ECONOMIC COMMITTEE

CHAIRMAN JIM SAXTON

PRESS RELEASE

For Immediate Release
June 9, 2005

**STATEMENT OF
CHAIRMAN JIM SAXTON**

Press Release #109-24
Contact: Christopher Frenze
Executive Director
(202) 225-3923

Economic Outlook

WASHINGTON, D.C. – I am pleased to welcome Chairman Greenspan before the Joint Economic Committee today. Chairman Greenspan's testimony will provide useful insights on the current economic expansion and the potential for further economic progress.

A broad array of standard economic data indicates that the economic expansion is on a solid footing. The U.S. economy grew 4 percent in 2004, and advanced at a 3.5 percent rate in the first quarter of 2005. A rebound in business investment has played an important role in explaining the pick-up in the economy since early 2003. Equipment and software investment has been strong over this period.

The improvement in economic growth is reflected in other economic figures as well. Over the last 24 months, 3.5 million jobs have been added to business payrolls. The unemployment rate stands at 5.1 percent. Consumer spending continues to grow. Homeownership has hit record highs. Household net worth is also at a high level.

Meanwhile, inflation pressures appear to be contained. Interest rates remain at historically low levels, with long-term interest rates, including mortgage rates, actually declining recently. This decline of long-term interest rates, even as the Fed is increasing short-term rates, is very unusual.

In short, overall economic conditions remain positive. It is clear that accommodative monetary policy and tax incentives for investment have made important contributions to the improvement in the economy in recent years. Recently released minutes from the Federal Reserve suggest that the central bank expects this economic strength to continue.

As always, there are some aspects of the economy that should be monitored closely. There appears to be speculative pressures in some local housing markets, but these seem unlikely to pose a significant threat to the national economic expansion. The increase in oil prices has had an impact on certain sectors of the economy, but has not severely undermined overall economic growth.

The consensus of Blue Chip forecasters projects that the economic expansion will continue through 2005 and 2006. This is consistent with Federal Reserve forecasts for economic growth through 2006. In summary, the current economic situation is solid, and the outlook remains favorable.

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Congress of the United States

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(CREATED PURSUANT TO SEC. 641 OF PUBLIC LAW 104, 75TH CONGRESS)

Washington, DC 20510-6602

June 22, 2005

The Honorable Alan Greenspan
 Chairman
 Board of Governors of the Federal Reserve System
 20th Street and Constitution Avenue, NW
 Washington, DC 20551

Dear Chairman Greenspan:

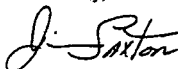
I would like to thank you for your recent testimony on the Economic Outlook before the Joint Economic Committee. Your testimony addressed a number of compelling and timely issues, and the printed record of the hearing will be an invaluable resource.

I would appreciate your addressing the attached four questions for the record.

Also, a copy of the June 9, 2005, hearing transcript is enclosed. Please have a member of your staff return the corrected transcript, together with your answers to the submitted questions, to my Executive Director, Christopher Frenze, Joint Economic Committee, 433 Cannon Office Building, Washington, D.C. 20515. Should your staff have any questions, please call Chris at (202) 225-3923.

Thank you and I look forward to your response.

Sincerely,



Jim Saxton
 Chairman

Questions Submitted for the Record
Chairman Saxton for Chairman Greenspan
June 22, 2005

- Economists have established a connection between movements in the yield spread (i.e., the difference between the long-term bond yield and the fed funds rate) and the thrust of monetary policy. As the yield spread widens, policy becomes easier and becomes tighter as the spread narrows or inverts. Such an empirical relation has been identified by a number of researchers, including several within the Federal Reserve System. Further, the Conference Board uses this spread as one of its most reliable components in its index of leading economic indicators.

On the other hand, some policymakers and researchers seem to contend that the recent decline in the long-bond yield is an independent source of policy stimulus. An example of this is provided by the recent reduction in the long bond yield that stimulated the real estate sector. In this view, in situations when the yield spread narrows in part due to a decline in the long bond yield, the spread does not measure the same degree of monetary policy restrictiveness. Recently, for example, as the Fed narrowed the spread by increasing the fed funds rate and an accompanying fall in the long-bond yield took place, a given narrowing of the spread was not seen as restrictive as earlier was believed. According to this view, in these circumstances, it is possible that the monetary authorities could misinterpret heretofore important policy indicators.

At our recent JEC hearing, you indicated that the decline of the long-bond yield may be stimulative. In that context,

- (1) Could you comment on the above interpretation?
 - (2) In our current circumstances, do you view a reduction in the long-bond yield as stimulative or restrictive?
 - (3) Could you expand on your previous discussions of this topic?
- During the June 9 Joint Economic Committee hearing, I asked you about a *Wall Street Journal* article published that morning that included criticism of the Fed for its handling of the conditions arising from the 2000 bursting of the stock market and technology bubbles. The article contended that in addressing the macroeconomic fallout of the bubbles that popped in 2000, the Fed helped create a housing bubble that is still expanding. In response to my question, you effectively defended the Fed's actions. However, could you expand on the potential risks to the macroeconomic situation had the Fed not acted as it did in easing monetary policy?

- Oil prices have increased significantly to levels above \$50/b. In assessing the economic effects of these oil price increases, the earlier experience of the U.S. still influences many. Historically, the U.S. has experienced a number of supply-restrictive episodes; prices increased largely because of restrictive supply. The oil price supply shocks of the 1970s, for example, caused prices to increase sharply and adversely impacted the real sectors of most economies.

Currently, we are again experiencing significant increases in oil prices. Today, however, there are a number of reasons to believe that those oil price hikes may not impact the real economy as severely as earlier episodes of the 1970s did. Consider, for example, the following:

- ✓ The economy is more energy-efficient today.
- ✓ The **real** price of oil has not increased to the degree that it did in the 1970s.
- ✓ Recent price hikes have (for the most part) been the result of increases in demand, and therefore, the product of healthy economies rather than supply-side shortages.

In view of these considerations, what is the Fed's latest thinking on the following:

- (1) the economic affects of our current oil price increases?
- (2) the future of the price of oil?

- A consensus view among monetary policy makers is that monetary policy should not be used to respond to, manage, or attempt to "burst" an asset price "bubble." Rather, monetary policy should be used to provide for overall, macroeconomic price stability, not asset price stability in one particular sector. Should a "bubble burst" and adversely affect the macroeconomy, then the monitoring authority can and should respond.
 - ✓ Given this view, is there any **regulatory policy tool** that can be used to moderate lending in "frothy" sectors that fuel asset price inflation?
 - ✓ Is there a "regulatory substitute" that can help to minimize asset price bubbles?
 - ✓ Is the recent **Interagency Credit Risk Management Guidance for Home Equity Lending** such an attempt?
 - ✓ Is this **Guidance** an example of some "**regulatory suasion**" to help with this problem?
 - ✓ What **regulatory options** does the Federal Reserve have to better manage or influence asset price bubbles?
 - ✓ What are the most risky lending practices currently contributing to the froth in the housing sector?



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WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

July 11, 2005

The Honorable Jim Saxton
Chairman
Joint Economic Committee
Washington, D.C. 20510

Dear Mr. Chairman:

I am enclosing for the record my responses to your additional questions following the Committee's hearing of June 9, 2005, on the Economic Outlook.

Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Greenspan", written over the word "Sincerely,".

Enclosure

Chairman Greenspan subsequently submitted the following in response to written questions received from Chairman Saxton in connection with the hearing before the Joint Economic Committee on June 9, 2005:

- Economists have established a connection between movements in the yield spread (i.e., the difference between the long-term bond yield and the fed funds rate) and the thrust of monetary policy. As the yield spread widens, policy becomes easier and becomes tighter as the spread narrows or inverts. Such an empirical relation has been identified by a number of researchers, including several within the Federal Reserve System. Further, the Conference Board uses this spread as one of its most reliable components in its index of leading economic indicators.

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- (3) Could you expand on your previous discussions of this topic?

Although the slope of the yield curve can at times be a useful indicator, there are several points to bear in mind.

- First, the slope of the yield curve has flattened considerably over the past year, but currently it is about in its average range for the last twenty years.
- Second, a sharp flattening of the yield curve is not a foolproof indicator of economic weakness. Indeed, the yield curve narrowed sharply over the period 1992-1994 even as the economy was entering the longest sustained expansion of the postwar period.

- Third, researchers have developed a number of statistical models relating the slope of the yield curve to future GDP growth. Based on recent readings of the slope of the yield curve, such models typically project continued moderate expansion of GDP for the foreseeable future.

The decline in long-term nominal bond yields observed over the past year appears to have reflected, at least in part, in lower real interest rates. Lower real interest rates reduce the cost of borrowing for households and businesses and support the prices of many other assets. Thus, the decline in long-term yields, other things equal, is stimulative. However, interest rates both affect, and are affected by, a wide range of other variables. Consequently, movements in bond yields should not be assessed in isolation but need to be interpreted in the context of overall domestic and foreign economic and financial developments.

- **During the June 9 Joint Economic Committee hearing, I asked you about a *Wall Street Journal* article published that morning that included criticism of the Fed for its handling of the conditions arising from the 2000 bursting of the stock market and technology bubbles. The article contended that in addressing the macroeconomic fallout of the bubbles that popped in 2000, the Fed helped create a housing bubble that is still expanding. In response to my question, you effectively defended the Fed's actions. However, could you expand on the potential risks to the macroeconomic situation had the Fed not acted as it did in easing monetary policy?**

The Federal Reserve aggressively eased monetary policy over the course of 2001, beginning early that year, in response to factors that were tending to weaken the U.S. economy. Those factors initially included a considerable slump in capital spending in the wake of the shakeout in the technology sector, a substantial inventory correction, a slowing of economic growth abroad, and the effects on consumer spending of the sharp decline in equity prices. Later in the year, those influences were compounded by the adverse economic effects of the terrorist attacks on September 11.

In the event, the United States experienced a recession during 2001, albeit one that was neither especially severe nor prolonged in comparison with other downturns in the post-World-War-II period. Absent the monetary stimulus applied promptly by the Federal Reserve in 2001, that recession could have been considerably deeper and more costly for our nation. The sharp reduction in money market interest rates resulting from our monetary policy actions fostered a considerable easing of broader financial market conditions. Longer-term interest rates fell particularly notably, reaching their lowest levels in decades. The drop in yields provided substantial support to interest-sensitive spending--especially housing, but probably to expenditures on consumer durables and business investment as well. Without the more accommodative financial conditions, this pickup in interest-sensitive spending would presumably have been greatly damped--or may not have

occurred at all--and the result could have been a much more severe economic downturn. Moreover, it is worth recalling that, even as events turned out, inflation appeared to be in the process of falling to uncomfortably low levels--and possibly so low that the ability of monetary policy to help stabilize the economy could have been impaired.

- Oil prices have increased significantly to levels above \$50/b. In assessing the economic effects of these oil price increases, the earlier experience of the U.S. still influences many. Historically, the U.S. has experienced a number of supply-restrictive episodes; prices increased largely because of restrictive supply. The oil price supply shocks of the 1970s, for example, caused prices to increase sharply and adversely impacted the real sectors of most economies.

Currently, we are again experiencing significant increases in oil prices. Today, however, there are a number of reasons to believe that those oil price hikes may not impact the real economy as severely as earlier episodes of the 1970s did. Consider, for example, the following:

- ✓The economy is more energy-efficient today.
- ✓The real price of oil has not increased to the degree that it did in the 1970s.
- ✓Recent price hikes have (for the most part) been the result of increases in demand, and therefore, the product of healthy economies rather than supply-side shortages.

In view of these considerations, what is the Fed's latest thinking on the following:

- (1) The economic affects of our current oil price increases?
- (2) The future of the price of oil?

The spot price of West Texas Intermediate crude oil currently is trading around \$60 per barrel. The high price reflects the significant global demand for crude oil as well as the limited ability of oil-producing nations to expand their production in the short run. Far-dated futures prices, which reflect the market's expectations of prices six years hence, are around \$55 per barrel. The small expected decline from current prices reflects the market's view that the supply-demand balance for oil will not change appreciably over the medium term.

These high oil prices are having an effect on the U.S. economy. Consumer price inflation has moved up along with the higher crude oil prices. This has reduced households' purchasing power and adversely affected spending. Businesses too seem to have reassessed the profitability of some investment projects in the light of significantly higher energy costs. Based on econometric estimates done by the Board staff, the increase in oil prices since the end of 2003 probably has shaved roughly 1/2 percentage point off of real GDP growth last year, and they look to restrain growth this year by approximately

3/4 percentage point. Aside from these “headwinds,” the U.S. economy seems to be coping pretty well with the run-up in crude oil prices.

• A consensus view among monetary policy makers is that monetary policy should not be used to respond to, manage, or attempt to “burst” an asset price “bubble.” Rather, monetary policy should be used to provide for overall macroeconomic price stability, not asset price stability in one particular sector. Should a “bubble burst” and adversely affect the macroeconomy, then the monitoring authority can and should respond.

✓ Given this view, is there any regulatory policy tool that can be used to moderate lending in “frothy” sectors that fuel asset price-inflation?

✓ Is there a “regulatory substitute” that can help minimize asset bubbles?

✓ Is the recent Interagency Credit Risk Management Guidance for Home Equity Lending such an attempt?

✓ Is this Guidance an example of some “regulatory suasion” to help with this problem?

✓ What regulatory options does the Federal Reserve have to better manage or influence asset bubbles?

✓ What are the most risky lending practices currently contributing to the froth in the housing sector?

Bank regulatory policies are neither designed nor used to influence asset prices in particular sectors of the economy. Rather, their purpose is to ensure adequate bank risk management and thereby strengthen the safety and soundness of individual banking firms, foster a resilient banking system, and protect FDIC-insured deposits. To be sure, bank regulatory policies can be influenced by macroeconomic and broad market developments. Macroeconomic and market trends and risks may induce action to modify regulations, particularly if banks do not appear to be taking appropriate account of such developments in the measurement and management of their own risks.

With respect to regulatory options or “regulatory substitutes” to address asset price bubbles, some observers have suggested increasing margin requirements to counter perceived speculation in equities markets. Even if one presumes that a bubble in this market can be identified before it bursts, however, such an approach is unlikely to succeed. Only a small fraction of equity is purchased using credit. Moreover, money is fungible, so that if an attempt were made to limit the amount of credit that could be used for a

particular purpose, say, the purchase of securities, it is highly likely that some investors who would be constrained by such a regulation would find ways to channel credit from other sources to effect the desired purchases--for example, by funding more of the security purchase with funds ostensibly borrowed for other purposes, such as mortgage or consumer loans.

The recent Interagency Credit Risk Management Guidance for Home Equity Lending was not a regulatory effort to combat a housing price bubble, nor was it an example of regulatory suasion aimed at asset prices. Rather, it was a response to indications that some banks were not appropriately managing risks in the home equity area. The regulatory system is not designed to influence or control asset bubbles, but rather to ensure that bubbles, should they develop, do not lead to unsafe lending practices. Although the guidance was not aimed at affecting asset prices directly, it may nevertheless affect market conditions through changes in the availability of credit for some riskier households.

As I indicated in my testimony, there does not appear to be a "bubble" in home prices for the nation as a whole, but there are signs of "froth" in some local markets where home prices seem to have risen to unsustainable levels. It is not clear whether lending practices have contributed to these local conditions. After all, the mortgage market is national in scope, while rapid price increases have been in particular areas. The Interagency Credit Risk Management Guidance for Home Equity Lending listed a number of product, risk management, and underwriting risk factors and trends that suggested that some financial institutions may not fully recognize the risk embedded in home equity loan portfolios. These factors include interest-only features on some loans, loans with limited or no documentation of borrowers' financial condition, high loan-to-value and debt-to-income ratios, greater use of automated valuation models, and increased use of loan brokers or other third parties to generate transactions. These factors have not necessarily had a material effect on housing prices. The possibility that home prices may be unsustainably high does, however, contribute to the risks associated with such lending, since it may suggest that the value of some loans' collateral may be vulnerable to declines. Indeed, the guidance indicated that financial institutions should perform stress tests of their key portfolio segments, including evaluations of the effects of declines in home values.

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STAFF DIRECTOR

Opening Statement
Senator Jack Reed
Joint Economic Committee Hearing
June 9, 2005

Thank you, Chairman Saxton. I want to welcome Chairman Greenspan and thank you for testifying here today at a time when there are so many genuine puzzles about the direction of the American economy.

Chairman Greenspan, you have been rather upbeat about the economic outlook, and let me be the first to say that I hope you're right. However, I am concerned about what continues to be a disappointing economic recovery for the typical American worker. Economic insecurity for workers is widespread as a healthy jobs recovery has yet to take hold, wages are failing to keep pace with inflation, income inequality is growing, and private pensions are in jeopardy.

Job growth sputtered again last month when only 78,000 jobs were added, calling into question the strength of the labor market recovery. We still have not seen several consecutive months of solid job gains, which is disappointing 42 months into a recovery. At this point in the last recovery, the economy had created over four million more jobs than we have seen in this recovery, and we regularly saw gains of 200,000 to 300,000 and sometimes 400,000 jobs per month. Employers don't seem to have enough confidence in this recovery to pick up their pace of hiring.

Of course, the real disappointment in this recovery is how workers have been left out of the economic growth we have seen so far. Strong productivity growth has translated into higher profits for businesses not more take home pay for workers. Since the start of the economic recovery in late 2001, corporate profits from current production have risen by 67 percent. By contrast, employee compensation rose by only 17 percent. Since the economy started generating jobs in May 2003, the average hourly earnings of production workers in nonfarm industries have fallen by 1.4 percent after inflation. The stagnation of earnings in the face of higher prices for gasoline, food, and medical care is squeezing the take home pay of workers.

I hope that the Federal Open Market Committee is paying close attention to the labor market as they set the direction of monetary policy. Workers have been shortchanged so far in this recovery, and I believe that the economy should be able to accommodate some acceleration in wages to catch up to productivity growth without generating undue fears of inflation.

Any wage gains we have seen seem to be concentrated at the top of the earnings distribution, while the largest losses are at the bottom. As the *New York Times* noted this week, the distribution of earnings is also becoming so unequal that "Even the merely wealthy are being left behind in the dust by the small slice of super-rich Americans." I know,

Chairman Greenspan, that you have expressed concern about widening inequality of income and earnings in the American economy, so this development cannot be encouraging to you.

Another troubling development is how unstable the private pension system is becoming. Data released this week by the government's Pension Benefit Guaranty Corp. (PBGC) show that the country's 1,108 weakest pension plans had an aggregate shortfall of \$353.7 billion at the end of last year – 27 percent more than the previous year. Meanwhile, the PBGC itself is under-funded. Social Security does face long-term challenges, but at the moment it's looking like the strongest leg of our retirement system.

Raising national saving is the key to our economic growth, a good way to reduce our record trade deficit, and, as your past testimony reflects, the best way to meet the fiscal challenges posed by the retirement of the baby boom generation. Unfortunately, the President's large federal budget deficits are undermining national saving and leaving us increasingly hampered in our ability to deal with the host of challenges we face. The President's policy priorities of large tax cuts for those who are already well off and private retirement accounts that add to the debt and worsen Social Security's solvency would take us in exactly the wrong direction for the future.

Finally, there are real questions about whether today's workers can look forward to a future of economic prosperity or one of continued risk and uncertainty about whether they will have good jobs and the means to provide a comfortable standard of living for their families.

Chairman Greenspan, I look forward to your testimony about the economic outlook, and exploring some of these issues further with you in the questioning.

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PREPARED STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN,
BOARD OF GOVERNORS, FEDERAL RESERVE SYSTEM

Chairman Saxton, Vice Chairman Bennett, and Members of the Committee, I am pleased to appear once again before the Joint Economic Committee.

Over the past year, the pace of economic activity in the United States has alternately paused and quickened. The most recent data support the view that the soft readings on the economy observed in the early spring were not presaging a more-serious slowdown in the pace of activity. Consumer spending firmed again, and indicators of business investment became somewhat more upbeat. Nonetheless, policy-makers confront many of the same imbalances and uncertainties that were apparent a year ago.

Our household saving rate remains negligible. Moreover, modest, if any, progress is evident in addressing the challenges associated with the pending shift of the baby-boom generation into retirement that will begin in a very few years. And although prices of imports have accelerated, we are, at best, in only the earliest stages of a stabilization of our current account deficit—a deficit that now exceeds 6 percent of U.S. Gross Domestic Product (GDP).

A major economic development over the past year has been the surge in the price of oil. Sharply higher prices of oil imports have diminished U.S. purchasing power. The value of petroleum imports rose from 1.4 percent of nominal GDP in the first quarter of 2004 to 1.8 percent in the first quarter of this year. The alternating bouts of rising and falling oil prices have doubtless been a significant contributor to the periods of deceleration and acceleration of U.S. economic activity over the past year.

Despite the uneven character of the expansion over the past year, the U.S. economy has done well, on net, by most measures. Real GDP has grown by 3.7 percent over that period, the unemployment rate has fallen to 5.1 percent, and core-personal consumption expenditure prices have risen a historically modest 1.6 percent. But the growth of productivity, though respectable at 2½ percent over the year ending in the first quarter, is far less than the extraordinary pace of 5½ percent during 2003. Excluding a large but apparently transitory surge in bonuses and the proceeds of stock option exercises late last year, overall hourly labor compensation has exhibited few signs of acceleration. Thus, the rise in underlying unit labor costs has been mainly the result of the slower growth of output per hour. At the same time, evidence of increased pricing power can be gleaned from the profit margins of non-financial businesses, which have continued to press higher even outside the energy sector. Whether that rise in unit costs will feed into the core price level or will be absorbed by a fall in profit margins remains an open question.

Among the biggest surprises of the past year has been the pronounced decline in long-term interest rates on U.S. Treasury securities despite a 2-percentage-point increase in the Federal funds rate. This is clearly without recent precedent. The yield on ten-year Treasury notes, currently at about 4 percent, is 80 basis points less than its level of a year ago. Moreover, even after the recent backup in credit risk spreads, yields for both investment-grade and less-than-investment-grade corporate bonds have declined even more than Treasuries over the same period.

The unusual behavior of long-term interest rates first became apparent almost a year ago. In May and June of last year, market participants were behaving as expected. With a firming of monetary policy by the Federal Reserve widely expected, they built large short positions in long-term debt instruments in anticipation of the increase in bond yields that has been historically associated with a rising Federal funds rate. But by summer, pressures emerged in the marketplace that drove long-term rates back down. In March of this year, market participants once again bid up long-term rates, but as occurred last year, forces came into play to make those increases short lived. There remains considerable conjecture among analysts as to the nature of those market forces.

That said, there can be little doubt that exceptionally low interest rates on ten-year Treasury notes, and hence on home mortgages, have been a major factor in the recent surge of homebuilding and home turnover, and especially in the steep climb in home prices. Although a "bubble" in home prices for the Nation as a whole does not appear likely, there do appear to be, at a minimum, signs of froth in some local markets where home prices seem to have risen to unsustainable levels.

The housing market in the United States is quite heterogeneous, and it does not have the capacity to move excesses easily from one area to another. Instead, we have a collection of only loosely connected local markets. Thus, while investors can arbitrage the price of a commodity such as aluminum between Portland, Maine, and Portland, Oregon, they cannot do that with home prices because they cannot move the houses. As a consequence, unlike the behavior of commodity prices, which varies

little from place to place, the behavior of home prices varies widely across the Nation.

Speculation in homes is largely local, especially for owner-occupied residences. For homeowners to realize accumulated capital gains on a residence—a precondition of a speculative market—they must move. Another formidable barrier to the emergence of speculative activity in housing markets is that home sales involve significant commissions and closing costs, which average in the neighborhood of 10 percent of the sales price. Where homeowner sales predominate, speculative turnover of homes is difficult.

But in recent years, the pace of turnover of existing homes has quickened. It appears that a substantial part of the acceleration in turnover reflects the purchase of second homes—either for investment or vacation purposes. Transactions in second homes, of course, are not restrained by the same forces that restrict the purchases or sales of primary residences—an individual can sell without having to move. This suggests that speculative activity may have had a greater role in generating the recent price increases than it has customarily had in the past.

The apparent froth in housing markets may have spilled over into mortgage markets. The dramatic increase in the prevalence of interest-only loans, as well as the introduction of other relatively exotic forms of adjustable-rate mortgages, are developments of particular concern. To be sure, these financing vehicles have their appropriate uses. But to the extent that some households may be employing these instruments to purchase a home that would otherwise be unaffordable, their use is beginning to add to the pressures in the marketplace.

The U.S. economy has weathered such episodes before without experiencing significant declines in the national average level of home prices. In part, this is explained by an underlying uptrend in home prices. Because of the degree of customization of homes, it is difficult to achieve significant productivity gains in residential building despite the ongoing technological advances in other areas of our economy. As a result, productivity gains in residential construction have lagged behind the average productivity increases in the United States for many decades. This shortfall has been one of the reasons that house prices have consistently outpaced the general price level for many decades.

Although we certainly cannot rule out home price declines, especially in some local markets, these declines, were they to occur, likely would not have substantial macro-economic implications. Nationwide banking and widespread securitization of mortgages make it less likely that financial intermediation would be impaired than was the case in prior episodes of regional house price corrections. Moreover, a substantial rise in bankruptcies would require a quite-significant overall reduction in the national housing price level because the vast majority of homeowners have built up substantial equity in their homes despite large home equity withdrawals in recent years financed by the mortgage market.

In conclusion, Mr. Chairman, despite some of the risks that I have highlighted, the U.S. economy seems to be on a reasonably firm footing, and underlying inflation remains contained. Accordingly, the Federal Open Market Committee in its May meeting reaffirmed that it “. . . believes that policy accommodation can be removed at a pace that is likely to be measured. Nonetheless, the Committee will respond to changes in economic prospects as needed to fulfill its obligation to maintain price stability.”

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S. HRG. 109-271

THE EMPLOYMENT SITUATION: SEPTEMBER 2005

HEARING

BEFORE THE

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

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OCTOBER 7, 2005
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THE EMPLOYMENT SITUATION: SEPTEMBER 2005

FRIDAY, OCTOBER 7, 2005

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC

The Committee met, pursuant to call, at 9:30 a.m., in room 1334, Longworth House Office Building, the Honorable Jim Saxton, Chairman of the Joint Economic Committee, presiding.

Representatives present: Representatives Saxton, English, Paul, Maloney, and Sanchez.

Senator present: Senator Reed.

Staff present: Chris Frenze, Robert Keleher, Colleen J. Healy, John Kachtik, Brian Higginbotham, Chad Stone, and Matt Salomon.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning. I would like to welcome Deputy Commissioner Rones, from the Bureau of Labor Statistics, and his colleagues before the committee this morning to discuss the September employment data. As we all know, both the household and establishment measures of employment in September have been affected by Hurricane Katrina. The catastrophic impact of Katrina on the Gulf Coast has caused a tragic loss of life and widespread destruction of property and businesses. Many of the affected businesses either have been unable to reopen or have only partially recovered and do not have the resources to continue to meet payrolls at previous levels. As a result, employment was essentially unchanged in September as measured by both employment surveys.

According to the establishment survey, payroll employment shows an apparent decline of 35,000 in September, but this is not a statistically meaningful number. Household survey employment was also statistically unchanged. The unemployment rate edged up by two-tenths of a percent in December. It is likely the effects of the hurricanes will affect the employment data for the next several months. The hurricanes will also temporarily reduce the rate of economic growth in the second half of 2005.

According to the Congressional Budget Office, the hurricanes will reduce the rate of economic growth by about a half a percentage point in the second half of the year. Some forecasters expect that reconstruction in the Gulf region will boost economic activity in the next year. The National Association for Business Economics survey

projects that the economy will still grow at a rate exceeding 3 percent in both 2005 and 2006. Unfortunately, the upward trend in employment growth was disrupted in September and may take a few months to fully recover. Nonetheless, the data reported today demonstrate a resilience in the U.S. economy in absorbing yet another severe shock.

The Federal Government has responded to the hurricanes by providing \$62 billion in disaster aid in addition to other Federal assistance triggered under a variety of programs. Others have sought as much as \$250 billion in disaster aid, an amount viewed as excessive by many, including the Washington Post editorial page. The Congress will devote much time in the coming months to finding the right policy mix needed for the recovery of the Gulf Coast. Tax and regulatory relief for the employers and employees devastated by the hurricane should certainly be a part of the response.

Mrs. Maloney, do you have an opening statement?

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 16]

**OPENING STATEMENT OF HON. CAROLYN B. MALONEY,
A U.S REPRESENTATIVE FROM NEW YORK**

Representative Maloney. Yes, thank you very much. I know that Senator Reed is voting, and he will be here and he does have a statement. I would like very much to welcome Deputy Commissioner Rones and his staff.

I know that you must have been faced with an incredible challenge in producing this month's jobs report. It must have been incredibly hard. I commend you for overcoming the difficult circumstances you must have encountered.

This month's employment report is obviously very dominated by Katrina, and it is impossible to know what it would have looked like without the hurricanes. The net loss of 35,000 jobs is well below what many analysts were predicting, so I am wondering if we have yet seen the full impact of the hurricanes in our job loss and in our job data.

I do know that prior to Katrina, American workers were still waiting to see the benefits of the economic recovery. Job growth was sluggish, there was hidden unemployment, real wages were stagnating, and wage and income inequality was on the rise, which I find tremendously troubling.

I believe this trend is very bad for our country, and I would welcome any comments by you on what we can do to try to adjust it. I hope the Bush administration is paying attention to these trends and will begin to address the growing economic insecurity that is felt by many American workers.

I thank you for your time, and I really look forward to your statements. Thank you.

[The prepared statement of Representative Maloney appears in the Submissions for the Record on page 17]

Representative Saxton. Mr. Rones, we are anxious to hear your report this morning, so why don't you go ahead?

**STATEMENT OF PHILIP RONES, DEPUTY COMMISSIONER,
BUREAU OF LABOR STATISTICS**

Mr. Rones. Mr. Chairman, and members of the committee, thank you for the opportunity to discuss the September employment and unemployment statistics that we released this morning. Commissioner Utgoff was under the weather this week, and she sends her regrets.

Nonfarm payroll employment was little changed. It was down 35,000 in September, and the unemployment rate increased from 4.9 to 5.1 percent. September labor market developments reflected both the impact of Hurricane Katrina and ongoing job market trends. Over the 12-month period prior to September, nonfarm employment increased by an average of 194,000 per month, and the unemployment rate trended down from 5.4 to 4.9 percent.

Before looking at the data in greater detail, I would like to briefly review the extraordinary efforts that the Bureau of Labor Statistics, the Census Bureau and our State partners undertook to obtain information from our sample establishments and households in the areas affected by Hurricane Katrina.

The hurricane struck the Gulf Coast on August 29th, prior to the reference periods for our September surveys. The severity and scope of the damage led us to carefully evaluate our data collection and estimation procedures. As a result, we modified some aspects of survey operations, and we announced those changes 2 weeks ago. We did not alter the concept or the definitions for either survey. In the payroll survey, employed persons are those who receive pay for any part of the pay period that includes the 12th day of the month. Therefore, people who were on payrolls in the aftermath of Hurricane Katrina were counted as employed even if they were absent from work. In the household survey, employed persons include those who are temporarily absent from their jobs, whether they were paid or not. To be classified as unemployed, persons must be actively looking for work and be available to take a job.

In the establishment survey, BLS and our State partners worked especially hard to contact respondents in hurricane-affected areas in September. We also modified our estimation procedures so that businesses that were closed following the storm, as well as firms that were still operating, would be better represented in the estimates. In the household survey, Census Bureau interviewers worked under difficult conditions to interview sample households in the Gulf Coast. Interviews were not conducted in the two parishes that were under mandatory evacuation orders. These extra steps undoubtedly helped us to get a better picture of the national labor market situation for September.

Turning to the data from our payroll survey, one way to roughly gauge the impact of the hurricane on job growth in September is to compare the over-the-month employment change with the monthly average for the prior year. The change recorded for September, a loss of 35,000 jobs, is about 230,000 less than the average monthly gain over the previous 12 months. Using this simple approach to gauge the hurricane impact assumes that in the absence of the storm, employment growth would have followed its recent trend. To test that assumption, we constructed a rough estimate of the change in payroll employment from August to Sep-

tember, excluding all the sample units in the disaster areas. This exercise showed that total nonfarm employment would have increased by an amount in line with the prior year's average. We will know more about the hurricane's impact when local employment estimates become available later this month.

As we look at the official September data for specific industries, I would note that job losses in the storm-related areas may have been offset or exacerbated by developments in the rest of the economy. In September, retail trade employment overall was down 88,000. There was a particularly large employment decline in food and beverage stores. Much of this decline reflects industry restructuring and associated store closures unrelated to the hurricane. In leisure and hospitality, the job total fell by 80,000 in September in part due to the hurricane. There were large losses in food services and drinking places, and in amusement, gambling, and recreation establishments.

Employment in professional and business services increased by 52,000 over the month, with a large gain in temporary help services. The employment increase in temporary help services for September was more than twice as large as the average monthly gain for the prior 12 months. It is possible that some of the September growth was due to the hiring of workers to assist in post-hurricane recovery efforts.

Health care added 37,000 jobs over the month, continuing its long-term growth. Employment also continued to trend up in financial activities.

In the goods-producing sector of the economy, construction added 23,000 jobs in September, equal to the average monthly gain for the prior year. Manufacturing employment was down by 27,000. Much of the decline reflected a strike in the aerospace industry that took 18,000 workers off payrolls.

Turning to some of the major labor market indicators from our household survey, the number of unemployed persons rose by 270,000 over the month, and the jobless rate increased from 4.9 to 5.1 percent. Most of the increase in unemployment occurred among job losers, and the labor force participation rate held at 66.2 percent in September.

In summary, payroll employment was little changed in September, and the unemployment rate rose to 5.1 percent. It is clear that Hurricane Katrina adversely affected labor market conditions in September. However, we cannot quantify precisely the overall effects of the disaster and its aftermath on the September employment and unemployment figures. We hope to get additional insight as more data becomes available.

Of course, my colleagues and I would now be glad to answer any of your questions.

Representative Saxton. Thank you very much, Mr. Ronces.

[The prepared statement of Mr. Ronces appears in the Submissions for the Record on page 19]

Representative Saxton. Senator Reed was delayed by a vote in the Senate this morning, so he has asked that he be granted some time here to give his opening statement. So we will proceed with your opening statement.

**OPENING STATEMENT OF HON. JACK REED, RANKING
MINORITY, A U.S. SENATOR FROM RHODE ISLAND**

Senator Reed. Thank you, Mr. Chairman, very much. Again I apologize. We had a vote on the defense appropriations bill, which is something that no one can miss.

Thank you again, Mr. Chairman. This is a very important hearing because it is our first look at the jobs data that begins to reflect the impact of Hurricane Katrina. I want to commend Deputy Commissioner Rones and all of the members of the Bureau of Labor Statistics for producing this month's employment statistics under truly extraordinary circumstances. Thank you very much.

Obviously, this month's employment report is dominated by the devastating impact of Hurricane Katrina on the gulf coast. The human costs were tragic and the property losses staggering. For the economy as a whole, the net job losses in September were 35,000. That is substantially below what markets were expecting, which may reflect the difficulty we face in getting a clear picture of the impact of the hurricane on employment.

We don't know what this month's employment report would have looked like without Katrina, but we do know that prior to Katrina, the labor market was still feeling the effects of the most protracted job slump in decades. The growth in payroll and employment since job losses peaked in May 2003 has been modest by the standards of most economic recoveries, and we haven't seen very many months of truly healthy job growth.

Although the unemployment rate has come down, it is still considerably higher than the 4 percent rate achieved in the expansion of the 1990s. There is evidence of hidden unemployment, with labor force participation and the fraction of the population with a job still at depressed levels.

And finally, of course, there is the disappointing performance of wages. The typical worker's earnings are not keeping up with their rising living expenses. Gasoline prices have been high, and home heating costs are expected to be substantially higher this winter than they were last winter. The real wage gains we have seen in the past year or so have been concentrated in the upper reaches of the wage distribution, while real earnings in the middle or lower portions of the distributions are falling.

I am troubled by the fact that President Bush wasted little time exercising his power to lift a Federal law governing workers' pay on Federal contracts in the hurricane-ravaged areas. That provision, known as the Davis-Bacon Act, requires Federal contractors to pay the prevailing or average wage in the region. According to the Department of Labor, the prevailing wage for construction labor is about \$10 an hour in New Orleans, where last year the overall poverty rate was about 2 percentage points higher than the national average, and 25 percent of children lived in poverty.

It is certainly hard to take seriously the President's rhetoric about wanting to lift families out of poverty while legitimizing sub-par wages for workers rebuilding their communities on the gulf coast. The Davis-Bacon wage protection for workers should be restored immediately.

The American economy is resilient and forecasters expect that reconstruction efforts in the wake of the gulf hurricanes will stimu-

late the recovery in jobs from the depressed levels we see in this month's job report. I hope they are right. But I also hope that President Bush knows that many American workers do not feel they are part of the economic recovery. That was reflected in the Conference Board's consumer confidence index which dropped by 17.9 percent last month, its largest decline since October of 1990, and the University of Michigan's index of consumer sentiment, which posted its largest drop since December 1980. Economic insecurity is not just growing, it is becoming palpable.

I look forward to Deputy Commissioner Rones' statement and further discussion of the September employment situation. I thank the Chairman for allowing me these words. Thank you.

Representative Saxton. Thank you, Senator.

[The prepared statement of Senator Reed appears in the Submissions for the Record on page 50]

Representative Saxton. Mr. Rones, when I received word of the announced data this morning, I was somewhat surprised. I anticipated that there would be significant loss of employment due to the hurricanes, which I believe goes without saying, actually occurred. Yet we saw a loss of employment nationwide of only 35,000 jobs which is, as I noted earlier, statistically insignificant.

The question is this: If we lost hundreds of thousands of jobs, then what accounts for the mild, statistically insignificant measure of job losses?

Mr. Rones. The best way to look at the job loss is not just looking at that net loss of 35,000. It is really looking at the difference between that and what we would have normally expected to get based on recent trends.

A simple calculation of that tells us that we were about 230,000 below the normal trend. That is probably a better measure of the hurricane effects. We also have to keep in mind that there were quite a number of particularly larger companies that continued to pay people. So even though those people were displaced from their jobs, by our definitions they were still employed because they were still on employer payrolls. Clearly, we are seeing a substantial hurricane effect in our data.

Representative Saxton. And while we are seeing a substantial hurricane effect, what could be said about the job growth picture or job loss picture nationwide?

Mr. Rones. What we were able to do is run our employment data, leaving out the establishments from the hurricane-affected area. So basically we are looking at what happened in the rest of the country as kind of a baseline. In fact, the employment grew right on trend, roughly 200,000 or so for the month of September, which was pretty much what we were getting before the hurricane.

Representative Saxton. Is the level of September payroll employment statistically different from that of August?

Mr. Rones. The level is not. That is, the decline of 35,000 is not statistically significant. Again, in this special circumstance, I would look at it differently. I would say that compared to what we would have gotten—and again our estimate for the rest of the economy gives us a good foundation for that—we were about 230,000 down. A change like that would clearly be statistically significant.

Representative Saxton. The same could be said about the household employment levels?

Mr. Rones. The household employment is essentially unchanged.

Representative Saxton. Does the data reported today suggest that the underlying trend in job growth continues, if one were to set aside the temporary effects of the hurricane versus a follow-on to my original question?

Mr. Rones. Yes. I think that is definitely the case. I think that is what we see in the remainder of the country, a continuation of recent trends.

Representative Saxton. Were you able to see any data that give any insight into the continuing effects of the hurricanes in the region affected?

Mr. Rones. Certainly in the employment data that we have on hand, we see effects across the industry range. When we get the State data, which will be available in 2 weeks, we will have a much better view of the geographically isolated effects.

We were able to take a cursory look at the firm-specific data in this region, and clearly we are seeing disemployment effects across the industry range.

Representative Saxton. Have you been able to look at it on a state-by-state basis—I suspect that Louisiana and Mississippi were the States with the most difficult situation—and talk a little bit about that for us?

Mr. Rones. Again, the official data for the States won't be available for 2 weeks. The State analysts have spent some time reviewing all the data for their States specifically. But from our national sample, we are able to take a cursory look at the State data. Again, it is clear that the weakness is isolated in those States. I am talking specifically about our payroll employment data.

Representative Saxton. Could you highlight industry data in today's report that seem to have been significantly affected by the hurricane?

Mr. Rones. When we do that exercise where we look at the rest of the economy, that is, geographically, the rest of the Nation, as compared to the hurricane-affected areas, we see declines across the board. Some of things that show up in the national statistics that I talked about in my statement would be, for instance, the leisure and hospitality industry might be partly a result of that.

On the flip side, some of the growth in temporary help might be the first signs that some temporary workers are on duty in Louisiana and Mississippi doing some of the recovery work.

Representative Saxton. Thank you. One more question. Have you noticed on an industry-by-industry basis the effects on the oil and gas extraction industry?

Mr. Rones. Let me get those numbers for you.

Representative Saxton. Sure.

Mr. Rones. Employment in oil and gas extraction was up 1,000. That may be partly due to the payment status of employees, even on those rigs that were closed, many of those people may have been paid.

Representative Saxton. So you don't really know whether that 1,000 gross is a real number or whether it is because people have just remained on payrolls?

Mr. Rones. Right. It doesn't necessarily reflect how many people are actually on duty. What it does reflect is their payment status.

Representative Saxton. Thank you, Mr. Reed.

Senator Reed. Thank you very much, Mr. Chairman.

And again, Commissioner Rones and your colleagues, you are doing an exceptional job under very difficult circumstances, and I thank you for that.

I just want to probe, if I could, some of the methods you had to adopt to come up with these statistics and see what biases might be included in that approach. As I understand it, businesses that did not respond to the payroll survey were treated as having zero employment. What bias might that lead to in terms of over- or undercounting?

Mr. Rones. The businesses that would have been treated that way are just those in the most affected areas: The places that were under water, the places that were evacuated, the places that had extreme damage. So our assumption was that those people were not working, even if we didn't get a report. It seemed like quite a reasonable assumption. We didn't carry that assumption to the remainder of the disaster counties or other areas in those States. So while the bias from that would be a potential upward bias, we did as much as we could to contact those firms. If we were unable to do that, we tried to actually get secondary sources, even through the Internet, as to whether those companies were working or whether they were paying their employees. So despite the potential bias that you mentioned, I think we were probably able to do a pretty good job of estimation.

Senator Reed. Going to a related issue, there are some businesses that were keeping people on the payroll at least temporarily, although there was no work because of the conditions in their company. And those workers might not ultimately go back to work, but at least in the short run they are being kept on the payrolls.

That could understate the negative job impacts of the storm, and that is another potential bias. How have you tried to deal with that, Commissioner?

Mr. Rones. We have maintained our concepts, so in these data, we are reflecting the payroll status. What you will see is, in coming months, those effects will show up. As an example, we have had some announcements from some of the government entities in the New Orleans area, where they have kept people on payrolls, that they will cut back. So we will pick that up in future months.

Senator Reed. So in this situation, these numbers will potentially get worse as companies who, in the immediate shock of the storm, maintained employment, now are realizing they can't, and New Orleans is a good example?

Mr. Rones. It will definitely go both ways. At the same time that people are being let go because their companies or the government agencies can't pay them anymore, other companies will be coming back on line as their electricity comes back and services are restored. So how that washes out, it is hard to predict. But there will be factors that go both ways.

Senator Reed. Now, with respect to the household survey, you indicated very clearly that you could not conduct interviews in Jef-

erson and New Orleans Parish. And the procedure to make up for that lack of information was to survey in other parishes?

Mr. Ronces. No. What we did in our household survey was basically keep with our normal estimation procedures. And it doesn't work particularly well for this disaster because the way it works is, other people who did report end up representing those who didn't.

In the payroll survey, we were able to make reasonable assumptions about the status of people. We talked about if a firm is shut down in a disaster area that is under water, we can say that they weren't employed. That is a reasonable assumption. But the household survey concepts make it difficult for us to do that. So if you lost your job down there, how are we going to classify you next month? Are you unemployed? Well, we don't know whether you are looking for work because we don't know where you are. And you have to be actively looking for work to be classified that way.

Chances are many of those people at the time of the survey would have been out of the labor force; that is, they were taking care of family business or taking care of household problems. They were not actively looking for work. They were not available for work. And finally, others may have viewed their job loss as temporary, so they expect to be recalled. Under our concept, those people would have been employed.

So we just had no good basis to simply assign a labor force status for the people that we didn't get information for.

Senator Reed. So for the household survey, you are much less confident about the accuracy versus the payroll survey?

Mr. Ronces. I think that is a fair statement. What I would suggest, though, for those who are interested in unemployment, is to look at the unemployment insurance claims data. Now, normally we would say that the claims are far more restrictive a concept than our total unemployment. That is always the case.

But the Department of Labor has expanded its eligibility requirements for people who might not otherwise have qualified for unemployment insurance. And, in fact, what we see is, that leading up to the hurricane we had weekly claims of about 320,000 each week, and it was pretty stable. If you look at the last 4 weeks, the Department of Labor data showed that claims have been at least 300,000 higher than we would have expected. And so that is a reasonable gauge of unemployment, probably a better gauge than we can get from our household surveys.

Senator Reed. And with that gauge, what would be the unemployment rate—do you have it off the top of your head?

Mr. Ronces. Well, if there was an increase of 300,000 in unemployment, it would raise the rate two-tenths

Senator Reed. So that number would be 5.3?

Mr. Ronces. Well, we are reporting 5.1, but we are probably picking up some of that unemployment. So perhaps it could have gone up a tenth, but that is speculation on our part.

Senator Reed. Let me just quickly turn to another issue. I know this is an employment hearing, but the BLS also is collecting price information. One of the questions that the Chairman alluded to is the effect of the storms not just on employment in the energy sector, but on energy prices. It is my assumption and presumption

that energy prices were accelerating well in advance of Katrina, and I would sense—I would ask if that is accurate.

And second, what is your notion of how Katrina will affect these energy prices overall.

The final point, how will that contribute to the CPI? If you have any thoughts.

Mr. Rones. I will ask Dr. Greenlees to answer that.

Senator Reed. Thank you.

Dr. Greenlees. Well, on the question of whether energy prices were accelerating prior to the hurricane, that is certainly correct.

The most recent data in the Consumer Price Index, which is our most broad measure of inflation, are for August. We will publish the September CPI data on October 14th.

But through August of this year, energy prices facing consumers have been increasing at a seasonally adjusted annual rate of 25.7 percent. So that is significantly higher than in recent years.

On the question of whether increases will result from the hurricane, we don't have a direct method of determining any subsequent increase in energy prices or gasoline prices in the CPI that would be attributable to the hurricane as opposed to anything else. We wouldn't be doing that sort of analysis. But the question is, do we expect to see further energy price increases? Well, the answer would be, again, yes.

There are data for September that are published by the Energy Information Administration of the Department of Energy that suggest that there have been significant increases in gasoline prices during September. And we would expect those to show up in the Consumer Price Index. The weight of gasoline, for example, in the CPI is such that if, for example, there was a 10 percent increase in gasoline prices, that would raise the CPI by about five-tenths of a percent by itself.

Senator Reed. Thank you very much, Dr. Greenlees. Thank you very much, Commissioner.

Representative Saxton. Senator, I can't resist the opportunity to follow up on Senator Reed's last question and Dr. Greenlees' remarks. I think the hurricane situation has demonstrated full well the vulnerability that this country faces in terms of its energy supply and disruptions in the energy supply.

It seems to me that while we are going to vote on the energy bill later today, that we continue to ignore the basic elements of finding other ways, through creativity and using different types of science, to develop efficient ways to fuel our economy, literally fuel our economy—other than petroleum. It is a frustration to me to have watched this go on over these many years and for our bills that we are considering today—which I don't intend to vote for—continue along the same lines when, in fact, technology exists to get us away from petroleum.

I would just say to my companions here on the dias, you may check out a couple of bills that I have introduced that I call "Set America Free" legislation, which would move us toward alternative fuels. It would move us toward biofuels. It would move us in transportation toward hybrid automobiles. Again, these technologies already exist. They are already being produced. We are just not using them.

Mr. Paul.

Representative Paul. Thank you, Mr. Chairman. I have just one brief question. So far today, we have heard that the hurricane is very important in affecting the unemployment statistics. We talk about other events like 9/11 and oil shocks and how this will affect the economy and unemployment.

I am wondering if any of you give consideration to monetary policy and its effect on the business cycle, and thus affecting the unemployment rate? How often do you take that into consideration, and do you consider it very important issue?

Mr. Rones. We have a strict rule in the Bureau of Labor Statistics that we avoid policy analysis so that you can be in a position where you can trust that the statistics and the analysis that we put out are unbiased. So on that basis, I would say that I really don't have an opinion on the effect of monetary policy on employment.

Representative Paul. So you are saying you don't have an opinion that monetary policy could have on it? I am not saying what the effect is or what monetary policy you should advocate, but do you think there is a connection?

Mr. Rones. As a trained economist, I would certainly grant you that there is a potential effect of monetary policy on the economy.

Representative Paul. Thank you.

Representative Saxton. Thank you. Ms. Maloney.

Representative Maloney. Thank you, Mr. Chairman, and I intend to look at your "Set America Free" bill. I agree with you completely that we should be moving to hybrid cars and alternative energies. We should have done it a long time ago. So I may be joining you in that effort.

I am very concerned, Mr. Rones, about the reports of the growing gap between the haves and the have-nots. This is not good for anyone. I just would like to ask what has happened to the average hourly earnings of wage and salary workers since the economy finally started to create jobs in May of 2003; and, specifically, has the increase in wages over that period been less than the increase in the cost of living?

Mr. Rones. The average hourly earnings of production workers rose from 15.31 in May 2003 to 16.15 in August 05. Those are seasonally adjusted figures. That is an increase of 5.5 percent. So over the same period, the CPI rose by 7 percent.

Representative Maloney. So wages have really lagged far behind the growth in productivity over the past 4 years, would you say?

Mr. Rones. We have certainly experienced strong productivity growth in recent years. Output per hour in our nonfarm business sector rose more than 14 percent from the second quarter of 2001 to the second quarter of this year. Over the same period, the average hourly earnings for production workers rose by 10.7 percent, so definitely less than the increase in productivity.

Representative Maloney. Is that an unusual trend? Productivity increases so much over wages?

Mr. Rones. In the long term, there tends to be a relationship between productivity and wages. In relatively short periods of time, you can see them going in directions that aren't consistent with the

long-term trend. So I would say it is unusual, but it is not typical of the long-term trend.

Representative Maloney. The Bureau of Labor Statistics publishes data on the usual weekly earnings of full-time workers, including some information about the wage distribution; is that correct?

Mr. Roncs. That is correct. That comes from our household survey.

Representative Maloney. Our staff has calculated that from the fourth quarter of 2000 to the fourth quarter of 2004, median earnings have increased by just .2 percent per year after inflation. Does that seem about right to you?

Mr. Roncs. Yes, that is very close. I think our calculations for that period are .15 percent, which could round to .2, so that is about right.

Representative Maloney. Over that same period, hasn't there been widening inequality, with growth at the top of the distribution but a decline at the bottom?

Mr. Roncs. So over that same 4-year period that you asked about in the previous question, the way we look at this is we look at deciles. You take the earnings distribution of the population and break it into tenths. So if we look at the ninth decile, which is the highest earners, their earnings went up 13.7 percent over that period. If you go to the bottom end of the distribution, it is somewhat less; it is 8.5 percent.

Representative Maloney. Quite a bit less. Hasn't that inequality gotten worse in the most recent four quarters, with the real growth only at the top, the 90th percentile, and declined elsewhere; and the largest decline at the very bottom, the tenth percentile?

Mr. Roncs. Over the past year—so the most recent data we are looking at would be the second quarter. Over that year, weekly earnings at the ninth decile—again, those are the highest earners—are up about 3.1 percent in nominal terms. Earnings at the first decile are up just 1 percent.

So given that the CPI is up 3 percent over that period, we would say that in the ninth decile there is a very, very slight increase in real earnings, where at the bottom of the distribution there is a decline in real earnings.

Representative Saxton. Thank you very much.

Ms. Sanchez.

**STATEMENT OF HON. LORETTA SANCHEZ,
A U.S. REPRESENTATIVE FROM CALIFORNIA**

Representative Sanchez. Thank you, Mr. Chairman. Thank you, gentlemen, for being before us.

I have several questions and they go along two lines. One, I would like to talk a little bit about what is going on with Katrina, if you can; and secondly, just overall, what I see looming on the horizon for the economy and things that are worrying me.

If you were a victim of Katrina, where would you go—where would you go to file unemployment? I mean, were there—could you go if you were a refugee in Texas and do that? So have you seen any of the real impact on people who are—I know that you said

that some people stayed employed, like with the city. But yesterday the city announced half of its workers would go off.

So I am wondering about the logistics so we can figure out when we will really see the impact of something like Katrina.

Mr. Rones. I think we are seeing the impact, because one of the first things the Department of Labor did was to make sure that the people in the area had a way to file for unemployment insurance benefits.

There were special grants given to the affected States to increase their capacity to accommodate this flow of claimants. The Department of Labor has contracted for—I think it is 150 counselors—to work at employment centers, not only in Louisiana, Alabama, Mississippi, but in all the States surrounding it that got substantial numbers of refugees, to help people in their transition to jobs in those areas. I think that is a system that worked pretty well.

When I say that the unemployment insurance claims were more than 300,000 above what they would have been under a normal situation, that would be a substantial portion of the people who are displaced from jobs.

Representative Sanchez. You know, I am also worried about this prevailing wage rollback by the President. The biggest reason is, of course, people who are used to making \$18 or \$36 an hour now may make \$8 or \$9 an hour. How do you think that will affect these people?

Have you guys looked at the prevailing wage reduction in a construction area like that? I ask this question because I am assuming that with the Federal moneys coming in, that construction will at some point start to pick up in that area and we will see a significant number of new jobs created because of rebuilding after Katrina. But what I have seen in my particular area is people maybe not being unemployed but being underemployed.

In other words, they used to have a \$36-an-hour job with benefits and now they have two part-time jobs, one at \$7 an hour and one at \$8 an hour, neither of which carry benefits.

Would you anticipate that type of a situation given that—a very basic pillar called prevailing wage in the construction industry may go away in Katrina?

Mr. Rones. I wouldn't comment on the policy decision to waive the Davis-Bacon.

Representative Sanchez. I am asking in your economist role, what would you anticipate would happen there with underemployment?

Mr. Rones. What I would say is we have a lot of experience with measuring the effects of worker displacement. Typically it is for other reasons. As a supplement to our household survey, every 2 years we look at worker displacements, and what we find is that it is not unusual for people who lose jobs, for any reason—and I would include the hurricane in that context—to take a considerable amount of time to find work, and for those who find work to find work at lower wages. So that is a fairly typical impact of worker displacement.

What we also find is many people, maybe even the majority of people, relatively soon after displacement, are able to get jobs that are comparable to their original jobs.

Representative Sanchez. But in this particular case, the Federal Government is pretty much lowering the mandate, so people probably won't find comparable jobs. If you are a carpenter who used to make \$36 an hour, I think it is going to be very difficult for you to go back into the same arena and make those \$36 an hour now that the prevailing wage has been undone by the President, wouldn't you say?

Mr. Rones. I wouldn't phrase it that way because of our different roles. But I understand that you are saying that there will be a reduction in the pay rate for jobs in the construction industry. We will wait to measure that in our surveys and to see what the effect is.

One thing we do know is that employment pay rates are subject to the laws of supply and demand. There will be an unprecedented demand for construction labor in that area. Again, economic theory would tell me that that would tend to drive up the prevailing wages in that area.

Representative Sanchez. So you think it is going to go above the prevailing wage rate?

Mr. Rones. No. I am saying that when you have an increase in demand of that magnitude, economic theory would tell you that wages tend to go up.

Representative Sanchez. I know my time is up—

Representative Saxton. Excuse me—

Representative Sanchez. I would like to just put on the record that the President has, in fact, lowered the prevailing wage rate. He is hoping that the cost per hour will come down.

Representative Saxton. Mrs. Sanchez, if you could please summarize, if you haven't already.

Representative Sanchez. Mr. Chairman, let me repeat what I just said. President Bush, I think, has lowered the prevailing wage rate because it is his hope that people will make less per hour when they go in these construction jobs. That is the whole reasoning behind lowering the prevailing rate. Thank you.

Representative Saxton. Mr. Rones, thank you for being with us this morning. We appreciate it very much.

I was interested in the comment that you made. It occurred to me about the same time when Ms. Sanchez was asking her question, that with the population in the area dispersed the way it is, and workers in that population dispersed, who would like to go back home, and with the amount of reconstruction or construction that there is to be done, certainly the demand for labor will increase. It would be very difficult to discern what effect that would have on the cost of labor in the area, given the fact that we know that there is going to be a high demand and given the questions involved in where the labor is and whether there will be an adequate supply of labor. So it could very well be, as you suggest, that the cost of labor could increase.

Mr. Reed.

Senator Reed. Mr. Chairman, I don't have a question. I believe neither does Ms. Maloney, but I think Congresswoman Sanchez has a question.

Representative Saxton. We are not going to have a second round. We are going to let Mr. Rones go. Thank you for coming this

morning. We appreciate very much your participation and we look forward to seeing you in the months ahead.

Mr. Rones. Thank you very much.

[Whereupon, at 10:24 a.m., the committee was adjourned.]



CONGRESS OF THE UNITED STATES

JOINT ECONOMIC COMMITTEE

CHAIRMAN JIM SAXTON

PRESS RELEASEFor Immediate Release
October 7, 2005**STATEMENT OF CHAIRMAN
JIM SAXTON
SEPTEMBER EMPLOYMENT
SITUATION**Press Release #109-38
Contact: Christopher Frenze
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WASHINGTON, D.C. - I would like to welcome Deputy Commissioner Rones of the Bureau of Labor Statistics (BLS) and his colleagues before the Committee this morning to discuss the September employment data.

As we all know, both the household and establishment measures of employment in September have been affected by Hurricane Katrina. The catastrophic impact of Katrina on the Gulf Coast has caused a tragic loss of life and widespread destruction of property and businesses. Many of the affected businesses either have been unable to reopen or have only partially recovered, and do not have the resources to continue to meet payrolls at previous levels. As a result, employment was essentially unchanged in September as measured in both employment surveys.

According to the establishment survey, payroll employment shows an apparent decline of 35,000 in September, but this is not statistically meaningful. Household survey employment was also statistically unchanged. The unemployment rate edged up by 0.2 percent in September. It is likely that the effects of the hurricanes will affect the employment data for the next several months. The hurricanes will also temporarily reduce the rate of economic growth in the second half of 2005.

According to the Congressional Budget Office (CBO), the hurricanes will reduce the rate of economic growth by about half a percentage point in the second half of the year. Some forecasters expect that reconstruction in the Gulf region will boost economic activity next year.

The National Association for Business Economics (NABE) survey projects that the economy will still grow at a rate exceeding 3 percent in both 2005 and 2006. Unfortunately, the upward trend in employment growth was disrupted in September, and may take a few months to fully recover. Nonetheless, the data reported today demonstrate the resilience of the U.S. economy in absorbing yet another severe shock.

The Federal Government has responded to the hurricanes by providing \$62 billion in disaster aid in addition to the other Federal assistance triggered under a variety of programs. Others have sought as much as \$250 billion in disaster aid, an amount viewed as excessive by many, including the *Washington Post* editorial page. The Congress will devote much of its time in coming months to finding the right policy mix needed for the recovery of the Gulf Coast. Tax and regulatory relief for the employers and employees devastated by the hurricanes should certainly be part of the Federal response.

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Statement of Rep. Carolyn Maloney
JEC Hearing on the Employment Situation
October 7, 2005

Thank you, Mr. Chairman. I know Senator Reed has a statement, but I would like to welcome Deputy Commissioner Rones and the other members of the BLS staff. I know you have been faced with an extraordinary challenge producing this month's job report, and I commend you for the effort you have put in.

This month's employment report is dominated by Katrina and Rita and it is impossible to know what it would have looked like without the hurricanes. The net loss of 35,000 jobs is well below what many analysts were expecting, so I am wondering if we have yet seen the full impact of the hurricanes in our jobs data.

I do know that prior to Katrina American workers were still waiting to see the benefits of the economic recovery. Job growth was sluggish, there was hidden unemployment, real wages were stagnating, and wages and income inequality was on the rise. I hope the Bush Administration is paying attention to those trends and will begin to address the growing economic insecurity felt by American workers.

Statement of

Philip L. Rones
Deputy Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, October 7, 2005

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to discuss the September employment and unemployment statistics that we released this morning.

Nonfarm payroll employment was little changed (-35,000) in September, and the unemployment rate increased from 4.9 to 5.1 percent. September labor market developments reflected both the impact of Hurricane Katrina and ongoing job market trends. Over the 12-month period prior to September, nonfarm employment increased by an average of 194,000 per month, and the unemployment rate trended down from 5.4 to 4.9 percent.

Before looking at the data in greater detail, I'd like to briefly review the extraordinary efforts the Bureau of Labor Statistics, the Census Bureau, and our state partners undertook to obtain information from our sample establishments and households in the areas affected by Hurricane Katrina.

The hurricane struck the Gulf Coast on August 29, prior to the reference periods for our September surveys. The severity and scope of the damage led us to carefully evaluate our data collection and estimation procedures. As a result, we modified some aspects of survey operations and we announced those changes about 2 weeks ago. We did not alter the concepts or definitions for either survey. In the payroll survey, employed persons are those who receive pay for any part of the pay period that includes the 12th day of the month. Therefore, people who were on payrolls in the aftermath of Hurricane Katrina were counted as employed even if they were absent from work. In the household survey, employed persons include those who are temporarily absent from their jobs, whether they are paid or not. To be classified as unemployed, persons must be actively seeking work and be available to take a job.

In the establishment survey, BLS and our state partners worked especially hard to contact respondents in

hurricane-affected areas in September. We also modified our estimation procedures so that businesses that were closed following the storm, as well as firms that were still operating, would be better represented in the estimates. In the household survey, Census Bureau interviewers worked under difficult conditions to interview sample households in the Gulf Coast. (Interviews were not conducted in two parishes in the New Orleans area that were under mandatory evacuation orders.) These extra steps undoubtedly helped us get a better picture of the national labor market situation for September.

Turning to the data from our payroll survey, one way to roughly gauge the impact of the hurricane on job growth in September is to compare the over-the-month employment change with the monthly average for the prior year. The change reported for September--a loss of 35,000 jobs--is about 230,000 less than the average monthly gain over the previous 12 months. Using this simple approach to gauge the hurricane impact assumes that, in the absence of the storm, employment growth would have followed its recent trend. To test that assumption, we constructed a rough estimate of the change in payroll employment from August to September excluding all of the sample units in the disaster areas. This exercise showed that total nonfarm employment

would have increased by an amount in line with the prior year's average. We will know more about the hurricane's impact when local employment estimates become available later this month.

As we look at the official September data for specific industries, I would note that job losses in the storm-related areas may have been offset or exacerbated by developments in the rest of the country. In September, retail trade employment overall was down by 88,000. There was a particularly large employment decline in food and beverage stores (-30,000); much of this decline reflects industry restructuring and associated store closures unrelated to the hurricane. In leisure and hospitality, the job total fell by 80,000 in September, in part due to the hurricane. There were large losses in food services and drinking places (-54,000) and in amusement, gambling, and recreation establishments (-19,000).

Employment in professional and business services increased by 52,000 over the month, with a large gain in temporary help services (32,000). The employment increase in temporary help services for September was more than twice as large as the average monthly gain for the prior 12 months. It is possible that some of the September growth

was due to the hiring of workers to assist in post-hurricane recovery efforts.

Health care added 37,000 jobs over the month, continuing its long-term growth. Employment also continued to trend up in financial activities.

In the goods-producing sector of the economy, construction added 23,000 jobs in September, equal to the average monthly gain for the prior year. Manufacturing employment was down by 27,000 in September; much of the decline reflected a strike in the aerospace industry that took 18,000 workers off payrolls.

Turning to some of the major labor market indicators from our household survey, the number of unemployed persons rose by 270,000 over the month and the jobless rate increased from 4.9 to 5.1 percent. Most of the increase in unemployment occurred among job losers. The labor force participation rate held at 66.2 percent in September.

In summary, payroll employment was little changed in September, and the unemployment rate rose to 5.1 percent. It is clear that Hurricane Katrina adversely affected labor market conditions in September. However, we cannot quantify precisely the overall effects of the disaster and its aftermath on the September employment and unemployment

figures. We hope to get additional insight as more data become available.

My colleagues and I now would be glad to address your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information:

| | | |
|---------------------|---|---|
| Household data: | (202) 691-6378 http://www.bls.gov/cps/ | USDL 05-1946 |
| Establishment data: | 691-6555 http://www.bls.gov/oes/ | Transmission of material in this release is embargoed until 8:30 A.M. (EDT), Friday, October 7, 2005. |
| Media contact: | 691-5902 | |

THE EMPLOYMENT SITUATION: SEPTEMBER 2005

Nonfarm payroll employment was little changed (-35,000) in September, and the unemployment rate rose to 5.1 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The measures of employment and unemployment reported in this news release reflect both the impact of Hurricane Katrina, which struck the Gulf Coast in late August, and ongoing labor market trends. Over the 12 months ending in August, payroll employment grew by an average of 194,000 a month and the unemployment rate trended downward.

Hurricanes Katrina and Rita

Data for September are the first from the household survey (Current Population Survey or CPS) and the establishment survey (Current Employment Statistics survey or CES) to reflect the impact of Hurricane Katrina.

In September, the CPS was conducted largely according to standard procedures. Efforts were made to contact households in storm-affected areas with the exception of Orleans and Jefferson parishes in Louisiana, which were under mandatory evacuation orders when interviewer instructions were issued.

For the September CES estimates, several modifications to the usual estimation procedures were adopted to better reflect employment in Katrina-affected areas. The changes included: a) modification of procedures to impute employment counts for survey nonrespondents in the most heavily impacted areas, b) adjustments to sample weights for sample units in the more broadly defined disaster area to compensate for lower-than-average survey response rates, and c) modification of the adjustment procedure for the business net birth/death estimator to reflect likely changes in business birth/death patterns in the disaster areas.

Hurricane Rita made landfall during the September data collection period. As a result, response rates for both surveys were lower than normal in some areas. However, because the reference periods for both surveys occurred before Hurricane Rita struck, the impact of this storm on measures of employment and unemployment was negligible.

For more information on household and establishment survey procedures and estimates for September 2005, see <http://www.bls.gov/katrina/cpscesquestions.htm>. Or, call (202) 691-6378 for information about the household survey, and (202) 691-6555 for information about the establishment survey.

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | Aug.- Sept. change |
|---|--------------------|----------|--------------|----------|----------|--------------------------|
| | 2005 | | 2005 | | | |
| | II | III | July | Aug. | Sept. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 149,003 | 149,835 | 149,573 | 149,841 | 150,093 | 252 |
| Employment..... | 141,404 | 142,319 | 142,076 | 142,449 | 142,432 | -17 |
| Unemployment..... | 7,599 | 7,516 | 7,497 | 7,391 | 7,661 | 270 |
| Not in labor force..... | 76,671 | 76,587 | 76,580 | 76,581 | 76,600 | 19 |
| Unemployment rates | | | | | | |
| All workers..... | 5.1 | 5.0 | 5.0 | 4.9 | 5.1 | 0.2 |
| Adult men..... | 4.4 | 4.4 | 4.3 | 4.3 | 4.5 | .2 |
| Adult women..... | 4.6 | 4.6 | 4.7 | 4.4 | 4.6 | .2 |
| Teenagers..... | 17.4 | 16.1 | 16.1 | 16.5 | 15.8 | -7 |
| White..... | 4.4 | 4.3 | 4.3 | 4.2 | 4.5 | .3 |
| Black or African American..... | 10.3 | 9.5 | 9.5 | 9.6 | 9.4 | -.2 |
| Hispanic or Latino ethnicity..... | 6.1 | 5.9 | 5.5 | 5.8 | 6.5 | .7 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 133,429 | p133,994 | 133,865 | p134,076 | p134,041 | p-35 |
| Goods-producing ¹ | 22,134 | p22,148 | 22,134 | p22,154 | p22,155 | p1 |
| Construction..... | 7,217 | p7,261 | 7,235 | p7,262 | p7,285 | p23 |
| Manufacturing..... | 14,292 | p14,255 | 14,270 | p14,261 | p14,234 | p-27 |
| Service-providing ¹ | 111,295 | p111,846 | 111,731 | p111,922 | p111,886 | p-36 |
| Retail trade ² | 15,180 | p15,230 | 15,249 | p15,265 | p15,177 | p-88 |
| Professional and business services..... | 16,867 | p17,007 | 16,964 | p17,002 | p17,054 | p52 |
| Education and health services..... | 17,289 | p17,427 | 17,377 | p17,427 | p17,476 | p49 |
| Leisure and hospitality..... | 12,741 | p12,799 | 12,801 | p12,838 | p12,758 | p-80 |
| Government..... | 21,753 | p21,845 | 21,817 | p21,843 | p21,874 | p31 |
| Hours of work ³ | | | | | | |
| Total private..... | 33.7 | p33.7 | 33.7 | p33.7 | p33.7 | p0.0 |
| Manufacturing..... | 40.4 | p40.5 | 40.5 | p40.5 | p40.5 | p.0 |
| Overtime..... | 4.4 | p4.5 | 4.5 | p4.5 | p4.4 | p-.1 |
| Indexes of aggregate weekly hours (2002=100) ³ | | | | | | |
| Total private..... | 102.4 | p102.9 | 102.8 | p103.0 | p102.8 | p-0.2 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$16.03 | p\$16.16 | \$16.14 | p\$16.15 | p\$16.18 | p\$0.03 |
| Average weekly earnings, total private..... | \$40.86 | p\$44.48 | \$43.92 | p\$44.26 | p\$45.27 | p1.01 |

¹ Includes other industries, not shown separately.

² Quarterly averages and the over-the-month change are calculated using unrounded data.

³ Data relate to private production or nonsupervisory workers.

p=preliminary.

Unemployment (Household Survey Data)

Both the number of unemployed persons, 7.7 million, and the unemployment rate, 5.1 percent, rose in September. They had been trending down in recent months and remain lower than a year earlier. (See table A-1.)

The unemployment rates for most major worker groups—adult men (4.5 percent), adult women (4.6 percent), whites (4.5 percent), and Hispanics or Latinos (6.5 percent) rose in September. The jobless rates for teenagers (15.8 percent) and blacks (9.4 percent) showed little change. The unemployment rate for Asians was 4.1 percent, not seasonally adjusted. (See tables A-1, A-2, and A-3.)

In September, the number of persons unemployed due to job loss rose by 234,000 to 3.7 million. The number of newly unemployed—those who were unemployed less than 5 weeks—grew by 193,000 to 2.7 million. Both of these numbers had been trending down in recent months. (See tables A-8 and A-9.)

Total Employment and the Labor Force (Household Survey Data)

Total employment (142.4 million) and the employment-population ratio (62.8 percent) were little changed in September. The labor force participation rate (66.2 percent) was unchanged over the month. (See table A-1.)

Persons Not in the Labor Force (Household Survey Data)

In September, 1.4 million persons were marginally attached to the labor force, about the same as a year earlier. These individuals wanted and were available to work and had looked for a job sometime in the prior 12 months. They were not counted as unemployed, however, because they did not actively search for work in the 4 weeks preceding the survey. The number of discouraged workers, at 362,000 in September, was little changed from a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. The other 1.1 million persons marginally attached to the labor force had not searched for work for reasons such as school attendance or family responsibilities. (See table A-13.)

Industry Payroll Employment (Establishment Survey Data)

Total nonfarm payroll employment was little changed in September (-35,000), seasonally adjusted. This followed job gains of 277,000 in July and 211,000 in August (as revised). Hurricane Katrina caused job losses in September among many industries in the affected areas. At the national level, these storm-related losses may have been offset or exacerbated in some industries by developments in the rest of the country. (State and metropolitan area payroll data, including information by industry, will be released by BLS on October 21.) (See table B-1.)

Retail trade lost 88,000 jobs in September, with declines spread across several component industries. Over the prior 12 months, employment in retail trade had increased by 18,000 per month on average. In September, there were job losses in clothing and accessories stores (-28,000), sporting goods stores (-17,000), and building material and garden supply stores (-9,000). Over the month, food and beverage stores lost 30,000 jobs, much of which was due to store closings unrelated to the hurricane.

Employment in the leisure and hospitality industry fell by 80,000 in September, partly due to the hurricane. Employment in food services, which includes restaurants and drinking places, decreased by 54,000 over the month, after averaging monthly gains of 23,000 jobs during the 12 months ending in August. Amusements, gambling, and recreation lost 19,000 jobs in September.

In September, manufacturing employment was down by 27,000 and has declined by 118,000 over the year. The September job decline was concentrated in transportation equipment, reflecting a strike of 18,000 workers in the aerospace industry. Employment declines in electrical equipment and appliances (-4,000) and paper and paper products (-3,000) were offset by a gain in machinery manufacturing (7,000).

Employment in transit and ground passenger transportation declined by 8,000 in September. Air transportation lost 6,000 jobs over the month; about half of the job loss was due to strike activity in the industry. Truck transportation employment was flat in September and has shown little change since June.

Professional and business services employment rose by 52,000 in September. More than half of the employment increase was in temporary help services (32,000), where hurricane recovery efforts may have boosted hiring. Employment in architectural and engineering services rose by 8,000 over the month. These increases were partly offset by a decline in legal services (-7,000).

Health care employment continued to grow in September, rising by 37,000. Ambulatory health care services, which include doctors' offices and outpatient clinics, added 16,000 jobs. Hospitals and nursing and residential care facilities also contributed to the employment gain.

Construction employment rose by 23,000 in September, about in line with the industry's average monthly gain over the past year. Job gains in September were concentrated largely among residential specialty trade contractors. Mining employment continued to trend upward, adding 5,000 jobs over the month. Support activities for mining operations accounted for much of the increase.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls was unchanged at 33.7 hours in September, seasonally adjusted. The manufacturing workweek remained at 40.5 hours, and factory overtime was down by 0.1 hour to 4.4 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls declined by 0.2 percent in September to 102.8 (2002=100). The manufacturing index was down by 0.1 percent over the month to 93.6. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls rose by 3 cents in September to \$16.18, seasonally adjusted. Average weekly earnings increased by 0.2 percent over the month to \$545.27. Over the year, average hourly earnings increased by 2.6 percent, and average weekly earnings grew by 2.3 percent. (See table B-3.)

The Employment Situation for October 2005 is scheduled to be released on Friday, November 4, at 8:30 A.M. (EST).

Benchmark Revisions of the Payroll Survey

In accordance with usual practice, the Bureau of Labor Statistics has completed preliminary tabulations of the universe counts for the first quarter of this year. The tabulations indicate that the estimate of total nonfarm payroll employment will require a downward revision of 191,000, or one-tenth of one percent, for the March 2005 reference month. The historical average for benchmark revisions over the last 10 years has been plus or minus two-tenths of one percent. BLS will publish data revised to the March 2005 benchmark on February 3, 2006, with the release of data for January 2006.

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with state agencies. The sample includes about 160,000 businesses and government agencies covering approximately 400,000 individual workites. The active sample includes about one-third of all nonfarm payroll workers. The sample is drawn from a sampling frame of unemployment insurance tax accounts.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are not in the labor force. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as federal, state, and local government entities. *Employees on nonfarm payrolls* are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-providing sector. Industries are classified on the basis of their principal activity in accordance with the 2002 version of the North American Industry Classification System.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.
- The household survey includes people on unpaid leave among the employed. The establishment survey does not.
- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.
- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Most seasonally adjusted series are independently adjusted in both the household and establishment surveys. However, the ad-

justed series for many major estimates, such as total payroll employment, employment in most supersectors, total employment, and unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

For both the household and establishment surveys, a concurrent seasonal adjustment methodology is used in which new seasonal factors are calculated each month, using all relevant data, up to and including the data for the current month. In the household survey, new seasonal factors are used to adjust only the current month's data. In the establishment survey, however, new seasonal factors are used each month to adjust the three most recent monthly estimates. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 430,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -330,000 to 530,000 (100,000 +/- 430,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. At an unemployment rate of around 5.5 percent, the 90-percent confidence interval for the monthly change in unemployment is about +/- 280,000, and for the monthly change in the unemployment rate it is about +/- .19 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth, an estimation procedure with two components is used to account for business births. The first component uses business deaths to impute employment for business births. This is incorporated into the sample-based link relative estimate procedure by simply not reflecting sample units going out of business, but imputing to them the same trend as the other firms in the sample. The second component is an ARIMA time series model designed to estimate the residual net birth/death employment not accounted for by the imputation. The historical time series used to create and test the ARIMA model was derived from the unemployment insurance universe micro-level database, and reflects the actual residual net of births and deaths over the past five years.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.2 percent, ranging from less than 0.05 percent to 0.5 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$27.00 per issue or \$53.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household and establishment survey data published in this release. For unemployment and other labor force categories, these measures appear in tables I-B through I-D of its "Explanatory Notes." For the establishment survey data, the sampling error measures and the actual size of revisions due to benchmark adjustments appear in tables 2-B through 2-F of *Employment and Earnings*.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|------------|----------------------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| TOTAL | | | | | | | | | |
| Civilian noninstitutional population | 225,941 | 226,421 | 226,633 | 223,841 | 225,670 | 225,911 | 226,153 | 226,421 | 226,863 |
| Civilian labor force | 147,186 | 150,468 | 149,838 | 147,531 | 149,122 | 149,123 | 148,273 | 149,841 | 150,083 |
| Participation rate | 65.7 | 66.5 | 66.1 | 65.9 | 66.1 | 66.0 | 65.9 | 66.2 | 66.2 |
| Employed | 136,841 | 143,142 | 142,579 | 139,527 | 141,475 | 141,638 | 142,076 | 142,448 | 142,432 |
| Employment-population ratio | 60.6 | 63.2 | 62.9 | 62.3 | 62.7 | 62.7 | 62.8 | 62.9 | 62.8 |
| Unemployed | 7,545 | 7,327 | 7,259 | 8,005 | 7,847 | 7,498 | 7,497 | 7,391 | 7,651 |
| Unemployment rate | 5.1 | 4.9 | 4.8 | 5.4 | 5.1 | 5.0 | 5.0 | 4.8 | 5.1 |
| Not in labor force | 78,755 | 75,953 | 78,855 | 78,410 | 78,547 | 78,783 | 78,880 | 78,581 | 78,800 |
| Persons who currently want a job | 4,720 | 5,017 | 4,757 | 4,603 | 4,728 | 5,240 | 5,015 | 4,823 | 4,937 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 108,020 | 109,332 | 109,475 | 108,020 | 108,804 | 108,802 | 109,190 | 109,332 | 109,475 |
| Civilian labor force | 78,844 | 81,078 | 80,130 | 78,041 | 80,048 | 80,053 | 80,189 | 80,428 | 80,327 |
| Participation rate | 73.0 | 74.2 | 73.2 | 73.2 | 73.5 | 73.4 | 73.4 | 73.5 | 73.4 |
| Employed | 74,854 | 77,388 | 76,448 | 74,629 | 75,985 | 76,092 | 76,272 | 76,448 | 76,236 |
| Employment-population ratio | 69.3 | 70.8 | 69.8 | 69.1 | 69.9 | 69.6 | 69.9 | 69.9 | 69.6 |
| Unemployed | 3,980 | 3,694 | 3,684 | 4,413 | 4,062 | 3,971 | 3,827 | 3,980 | 4,092 |
| Unemployment rate | 5.0 | 4.6 | 4.6 | 5.6 | 5.1 | 5.0 | 4.9 | 4.9 | 5.1 |
| Not in labor force | 29,176 | 28,252 | 29,345 | 28,979 | 28,886 | 28,988 | 28,991 | 28,923 | 29,148 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 99,778 | 101,004 | 101,138 | 99,778 | 100,834 | 100,754 | 100,874 | 101,004 | 101,138 |
| Civilian labor force | 75,428 | 77,119 | 76,769 | 75,462 | 76,439 | 76,466 | 76,624 | 76,851 | 76,790 |
| Participation rate | 75.6 | 76.4 | 75.9 | 75.6 | 76.0 | 75.9 | 76.0 | 76.1 | 75.9 |
| Employed | 72,044 | 74,061 | 73,637 | 71,701 | 73,100 | 73,174 | 73,363 | 73,527 | 73,318 |
| Employment-population ratio | 72.2 | 73.3 | 72.8 | 71.9 | 72.6 | 72.6 | 72.7 | 72.8 | 72.5 |
| Unemployed | 3,382 | 3,058 | 3,132 | 3,761 | 3,339 | 3,298 | 3,261 | 3,304 | 3,471 |
| Unemployment rate | 4.5 | 4.0 | 4.1 | 5.0 | 4.4 | 4.3 | 4.3 | 4.3 | 4.5 |
| Not in labor force | 24,349 | 23,885 | 24,367 | 24,314 | 24,196 | 24,292 | 24,250 | 24,173 | 24,348 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 115,921 | 117,089 | 117,218 | 115,921 | 116,736 | 116,849 | 116,983 | 117,089 | 117,218 |
| Civilian labor force | 68,342 | 69,390 | 68,708 | 68,490 | 69,075 | 68,080 | 68,374 | 69,431 | 69,785 |
| Participation rate | 59.0 | 59.3 | 58.5 | 59.1 | 59.1 | 58.1 | 59.3 | 59.3 | 59.5 |
| Employed | 64,777 | 65,758 | 65,133 | 64,898 | 65,000 | 65,645 | 65,804 | 66,000 | 65,196 |
| Employment-population ratio | 55.9 | 56.2 | 55.6 | 56.0 | 56.1 | 56.1 | 56.3 | 56.4 | 56.5 |
| Unemployed | 3,565 | 3,634 | 3,575 | 3,592 | 3,565 | 3,515 | 3,570 | 3,431 | 3,589 |
| Unemployment rate | 5.2 | 5.2 | 5.1 | 5.2 | 5.2 | 5.1 | 5.1 | 4.8 | 5.1 |
| Not in labor force | 47,579 | 47,700 | 47,509 | 47,431 | 47,661 | 47,789 | 47,589 | 47,658 | 47,453 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 107,820 | 108,088 | 108,114 | 107,820 | 108,672 | 108,778 | 108,880 | 108,998 | 109,114 |
| Civilian labor force | 65,032 | 65,384 | 65,247 | 65,008 | 65,478 | 65,470 | 65,768 | 65,781 | 65,130 |
| Participation rate | 60.3 | 60.0 | 60.7 | 60.2 | 60.3 | 60.2 | 60.4 | 60.3 | 60.6 |
| Employed | 61,862 | 62,308 | 61,153 | 61,938 | 62,464 | 62,451 | 62,090 | 62,867 | 63,077 |
| Employment-population ratio | 57.4 | 57.2 | 57.0 | 57.4 | 57.5 | 57.4 | 57.4 | 57.7 | 57.8 |
| Unemployed | 3,081 | 3,078 | 3,095 | 3,069 | 3,015 | 3,019 | 3,078 | 2,894 | 3,053 |
| Unemployment rate | 4.7 | 4.7 | 4.7 | 4.7 | 4.6 | 4.6 | 4.7 | 4.4 | 4.6 |
| Not in labor force | 42,887 | 43,012 | 42,868 | 42,912 | 43,192 | 43,308 | 43,113 | 43,235 | 43,983 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 16,248 | 16,421 | 16,443 | 16,248 | 16,364 | 16,381 | 16,398 | 16,421 | 16,443 |
| Civilian labor force | 6,727 | 7,068 | 6,822 | 7,062 | 7,204 | 7,182 | 7,182 | 7,249 | 7,173 |
| Participation rate | 41.4 | 43.1 | 41.5 | 43.5 | 44.0 | 43.9 | 43.8 | 44.1 | 43.6 |
| Employed | 5,945 | 6,775 | 5,789 | 5,887 | 5,911 | 6,013 | 6,024 | 6,055 | 6,026 |
| Employment-population ratio | 36.7 | 41.3 | 35.2 | 36.2 | 36.1 | 36.7 | 36.7 | 36.8 | 36.7 |
| Unemployed | 1,082 | 1,191 | 1,033 | 1,175 | 1,293 | 1,178 | 1,158 | 1,193 | 1,138 |
| Unemployment rate | 16.1 | 13.0 | 15.1 | 16.6 | 17.8 | 16.4 | 16.1 | 16.5 | 15.9 |
| Not in labor force | 9,519 | 9,455 | 9,621 | 9,186 | 9,160 | 9,199 | 9,217 | 9,172 | 9,271 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.
NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-2. Employment status of the civilian population by race, sex, and age

(Numbers in thousands)

| Employment status, race, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|---------------------------------------|-------------------------|-----------|------------|----------------------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 183,022 | 184,999 | 184,851 | 183,022 | 184,167 | 184,326 | 184,430 | 184,689 | 184,851 |
| Civilian labor force | 120,762 | 121,106 | 122,614 | 120,865 | 122,177 | 121,985 | 122,383 | 122,658 | 122,917 |
| Participation rate | 66.0 | 65.7 | 66.3 | 66.1 | 66.3 | 66.2 | 66.3 | 66.4 | 66.4 |
| Employed | 115,451 | 118,021 | 117,420 | 115,318 | 116,791 | 116,778 | 117,149 | 117,471 | 117,317 |
| Employment-population ratio | 63.1 | 63.5 | 63.6 | 63.0 | 63.4 | 63.4 | 63.5 | 63.6 | 63.5 |
| Unemployed | 5,331 | 5,144 | 5,194 | 5,677 | 5,386 | 5,206 | 5,234 | 5,197 | 5,500 |
| Unemployment rate | 4.4 | 4.2 | 4.2 | 4.7 | 4.4 | 4.3 | 4.3 | 4.2 | 4.5 |
| Not in labor force | 62,240 | 61,503 | 62,237 | 62,027 | 61,889 | 62,343 | 62,107 | 62,091 | 62,034 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 62,919 | 64,133 | 63,941 | 62,859 | 63,747 | 63,891 | 63,700 | 63,894 | 63,824 |
| Participation rate | 78.0 | 78.2 | 78.2 | 77.9 | 78.4 | 78.3 | 78.2 | 78.4 | 78.2 |
| Employed | 60,528 | 61,945 | 61,587 | 60,149 | 61,326 | 61,371 | 61,353 | 61,510 | 61,248 |
| Employment-population ratio | 73.1 | 74.0 | 73.5 | 72.6 | 73.5 | 73.5 | 73.4 | 73.5 | 73.1 |
| Unemployed | 2,390 | 2,187 | 2,354 | 2,710 | 2,420 | 2,520 | 2,346 | 2,384 | 2,576 |
| Unemployment rate | 3.8 | 3.4 | 3.8 | 4.3 | 3.8 | 3.8 | 3.7 | 3.7 | 4.0 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 52,248 | 52,408 | 53,021 | 52,243 | 52,455 | 52,325 | 52,757 | 52,762 | 52,973 |
| Participation rate | 59.6 | 59.4 | 60.0 | 59.6 | 59.8 | 59.4 | 59.8 | 59.8 | 59.9 |
| Employed | 50,114 | 50,283 | 50,941 | 50,141 | 50,399 | 50,294 | 50,874 | 50,791 | 50,550 |
| Employment-population ratio | 57.2 | 57.9 | 57.5 | 57.2 | 57.2 | 57.0 | 57.4 | 57.4 | 57.1 |
| Unemployed | 2,132 | 2,145 | 2,180 | 2,102 | 2,056 | 2,041 | 2,083 | 1,991 | 2,123 |
| Unemployment rate | 4.1 | 4.1 | 4.1 | 4.0 | 3.9 | 3.9 | 3.9 | 3.8 | 4.0 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 5,618 | 6,524 | 5,751 | 5,893 | 5,976 | 5,988 | 5,826 | 6,012 | 6,020 |
| Participation rate | 44.6 | 52.2 | 45.2 | 46.7 | 47.2 | 47.1 | 46.7 | 47.3 | 47.3 |
| Employed | 4,689 | 5,612 | 5,012 | 5,028 | 5,056 | 5,123 | 5,121 | 5,181 | 5,219 |
| Employment-population ratio | 38.1 | 45.8 | 39.4 | 39.9 | 39.9 | 40.4 | 40.4 | 40.8 | 41.0 |
| Unemployed | 809 | 812 | 739 | 865 | 920 | 865 | 805 | 832 | 801 |
| Unemployment rate | 14.4 | 12.3 | 12.9 | 14.7 | 15.4 | 14.2 | 13.6 | 13.8 | 13.3 |
| BLACK OR AFRICAN AMERICAN | | | | | | | | | |
| Civilian noninstitutional population | 26,163 | 26,572 | 26,818 | 26,163 | 26,450 | 26,488 | 26,528 | 26,572 | 26,818 |
| Civilian labor force | 16,705 | 17,252 | 17,113 | 16,711 | 17,050 | 17,147 | 17,190 | 17,154 | 17,285 |
| Participation rate | 63.9 | 64.9 | 64.3 | 63.9 | 64.5 | 64.7 | 64.8 | 64.6 | 64.2 |
| Employed | 15,057 | 15,573 | 15,574 | 14,991 | 15,329 | 15,378 | 15,581 | 15,498 | 15,490 |
| Employment-population ratio | 57.5 | 58.6 | 58.5 | 57.2 | 58.0 | 58.1 | 58.7 | 58.3 | 58.2 |
| Unemployed | 1,648 | 1,679 | 1,539 | 1,720 | 1,721 | 1,769 | 1,609 | 1,655 | 1,807 |
| Unemployment rate | 8.9 | 9.7 | 8.0 | 10.4 | 10.1 | 10.3 | 9.5 | 9.6 | 9.4 |
| Not in labor force | 9,457 | 9,319 | 9,504 | 9,452 | 9,400 | 9,341 | 9,336 | 9,417 | 9,531 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,468 | 7,781 | 7,712 | 7,470 | 7,615 | 7,706 | 7,785 | 7,739 | 7,890 |
| Participation rate | 71.1 | 72.8 | 72.1 | 71.1 | 71.8 | 72.4 | 72.8 | 72.4 | 71.8 |
| Employed | 6,798 | 7,129 | 7,083 | 6,707 | 6,894 | 6,983 | 7,118 | 7,077 | 7,017 |
| Employment-population ratio | 64.3 | 66.7 | 66.2 | 63.8 | 65.0 | 65.4 | 66.7 | 66.2 | 65.6 |
| Unemployed | 710 | 651 | 629 | 763 | 720 | 723 | 667 | 662 | 874 |
| Unemployment rate | 9.5 | 8.1 | 8.2 | 10.2 | 9.2 | 9.8 | 8.4 | 8.6 | 8.6 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 6,537 | 6,614 | 6,712 | 6,504 | 6,589 | 6,639 | 6,629 | 6,604 | 6,674 |
| Participation rate | 64.5 | 64.3 | 64.8 | 63.8 | 64.3 | 64.5 | 64.3 | 64.2 | 64.6 |
| Employed | 7,796 | 7,885 | 8,028 | 7,747 | 7,871 | 7,883 | 7,800 | 7,922 | 7,870 |
| Employment-population ratio | 58.9 | 59.6 | 59.8 | 58.6 | 59.0 | 59.6 | 59.0 | 59.0 | 58.4 |
| Unemployed | 742 | 729 | 685 | 757 | 716 | 752 | 709 | 702 | 704 |
| Unemployment rate | 8.7 | 8.5 | 7.9 | 8.9 | 8.4 | 8.8 | 8.2 | 8.2 | 8.1 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 702 | 878 | 689 | 737 | 846 | 815 | 816 | 810 | 732 |
| Participation rate | 28.9 | 35.3 | 27.6 | 30.3 | 34.3 | 32.9 | 32.9 | 32.8 | 29.4 |
| Employed | 520 | 598 | 465 | 528 | 543 | 543 | 545 | 521 | 483 |
| Employment-population ratio | 20.9 | 22.8 | 18.6 | 21.6 | 22.0 | 22.3 | 22.0 | 20.9 | 19.6 |
| Unemployed | 187 | 319 | 224 | 211 | 303 | 274 | 270 | 290 | 249 |
| Unemployment rate | 28.1 | 36.3 | 32.5 | 28.6 | 35.8 | 32.4 | 31.1 | 36.8 | 32.6 |
| ASIAN | | | | | | | | | |
| Civilian noninstitutional population | 8,563 | 8,920 | 8,968 | (2) | (2) | (2) | (2) | (2) | (2) |
| Civilian labor force | 6,278 | 6,536 | 6,553 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 65.8 | 66.0 | 65.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 6,008 | 6,300 | 6,294 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 62.8 | 63.8 | 63.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 270 | 236 | 270 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 4.3 | 3.8 | 4.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Not in labor force | 3,287 | 3,382 | 3,403 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Data not available.

NOTE: Estimates for the above race groups will not sum to totals shown in table A-1 because data are not presented for all races. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-3. Employment status of the Hispanic or Latino population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|-----------|------------|----------------------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| HISPANIC OR LATINO ETHNICITY | | | | | | | | | |
| Civilian noninstitutional population | 28,238 | 29,264 | 29,201 | 27,333 | 28,889 | 29,076 | 29,166 | 29,294 | 29,381 |
| Civilian labor force | 19,420 | 19,986 | 19,915 | 19,444 | 19,761 | 19,777 | 19,794 | 19,814 | 19,941 |
| Participation rate | 68.5 | 68.3 | 67.9 | 69.6 | 68.2 | 68.0 | 67.9 | 68.0 | 67.9 |
| Employed | 16,143 | 16,840 | 16,808 | 16,078 | 16,576 | 16,623 | 16,698 | 16,761 | 16,844 |
| Employment-population ratio | 54.0 | 54.4 | 53.6 | 53.9 | 54.1 | 54.0 | 54.1 | 54.1 | 53.5 |
| Unemployed | 1,278 | 1,146 | 1,227 | 1,366 | 1,183 | 1,154 | 1,098 | 1,153 | 1,297 |
| Unemployment rate | 6.6 | 5.7 | 6.2 | 7.0 | 6.0 | 6.0 | 5.5 | 6.6 | 6.5 |
| Not in labor force | 8,818 | 9,278 | 9,486 | 8,889 | 9,228 | 9,302 | 9,374 | 9,350 | 9,420 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 11,091 | 11,483 | 11,480 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 84.0 | 83.8 | 83.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 10,350 | 10,991 | 10,925 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 79.9 | 80.5 | 79.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 541 | 472 | 555 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 4.9 | 4.1 | 4.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,343 | 7,378 | 7,372 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 58.7 | 57.1 | 58.9 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 6,787 | 6,900 | 6,891 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 54.2 | 53.4 | 53.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 556 | 478 | 491 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 7.6 | 6.5 | 6.7 | (2) | (2) | (2) | (2) | (2) | (2) |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 986 | 1,146 | 1,052 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 37.6 | 42.4 | 39.2 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 605 | 949 | 881 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 30.7 | 35.1 | 32.5 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 179 | 197 | 171 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 18.2 | 17.2 | 17.0 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Data not available.

NOTE: Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-4. Employment status of the civilian population 25 years and over by educational attainment

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|------------|---------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| Less than a high school diploma | | | | | | | | | |
| Civilian labor force | 12,815 | 12,816 | 12,863 | 12,742 | 12,798 | 12,803 | 13,156 | 12,863 | 12,770 |
| Participation rate | 45.6 | 45.9 | 45.7 | 45.3 | 45.3 | 45.6 | 47.5 | 46.1 | 45.3 |
| Employed | 11,780 | 11,821 | 11,891 | 11,606 | 11,800 | 12,006 | 12,154 | 11,803 | 11,728 |
| Employment-population ratio | 42.0 | 42.7 | 42.2 | 41.3 | 41.8 | 42.5 | 43.8 | 42.6 | 41.8 |
| Unemployed | 1,025 | 897 | 972 | 1,133 | 996 | 898 | 1,002 | 950 | 1,042 |
| Unemployment rate | 8.0 | 7.0 | 7.5 | 8.9 | 7.8 | 7.0 | 7.6 | 7.8 | 8.2 |
| High school graduates, no college¹ | | | | | | | | | |
| Civilian labor force | 37,781 | 38,094 | 38,362 | 37,700 | 38,233 | 38,080 | 37,969 | 38,104 | 38,325 |
| Participation rate | 63.3 | 63.4 | 63.9 | 63.2 | 63.2 | 63.2 | 63.5 | 63.4 | 63.9 |
| Employed | 36,170 | 36,379 | 36,637 | 35,694 | 36,514 | 36,307 | 36,120 | 36,327 | 36,399 |
| Employment-population ratio | 60.6 | 60.5 | 61.0 | 60.2 | 60.4 | 60.2 | 60.5 | 60.5 | 60.6 |
| Unemployed | 1,611 | 1,705 | 1,725 | 1,606 | 1,719 | 1,773 | 1,820 | 1,777 | 1,926 |
| Unemployment rate | 4.3 | 4.5 | 4.5 | 4.8 | 4.5 | 4.7 | 4.8 | 4.7 | 5.0 |
| Some college or associate degree | | | | | | | | | |
| Civilian labor force | 34,453 | 35,136 | 35,154 | 34,431 | 34,690 | 34,636 | 34,851 | 35,008 | 35,128 |
| Participation rate | 72.2 | 72.3 | 72.4 | 72.2 | 73.1 | 73.3 | 73.2 | 73.2 | 72.9 |
| Employed | 33,099 | 33,696 | 33,923 | 33,037 | 33,351 | 33,293 | 33,547 | 33,764 | 33,859 |
| Employment-population ratio | 69.4 | 69.7 | 69.8 | 69.3 | 70.3 | 69.6 | 69.5 | 69.4 | 69.7 |
| Unemployed | 1,354 | 1,240 | 1,221 | 1,394 | 1,348 | 1,351 | 1,304 | 1,254 | 1,267 |
| Unemployment rate | 3.9 | 3.5 | 3.5 | 4.0 | 3.9 | 3.9 | 3.7 | 3.6 | 3.6 |
| Bachelor's degree and higher² | | | | | | | | | |
| Civilian labor force | 40,485 | 41,059 | 41,817 | 40,471 | 40,913 | 40,943 | 41,297 | 41,431 | 41,589 |
| Participation rate | 77.8 | 77.5 | 78.2 | 77.8 | 77.4 | 77.5 | 77.8 | 78.1 | 78.1 |
| Employed | 38,424 | 40,132 | 40,815 | 38,438 | 39,918 | 40,007 | 40,309 | 40,579 | 40,582 |
| Employment-population ratio | 73.9 | 75.6 | 78.3 | 75.8 | 75.5 | 75.7 | 75.9 | 76.5 | 76.3 |
| Unemployed | 1,061 | 986 | 1,002 | 1,033 | 995 | 936 | 987 | 852 | 978 |
| Unemployment rate | 2.6 | 2.4 | 2.4 | 2.8 | 2.4 | 2.3 | 2.4 | 2.1 | 2.4 |

¹ Includes persons with a high school diploma or equivalent.

² Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-5. Employed persons by class of worker and part-time status

(In thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture and related industries | 2,374 | 2,389 | 2,284 | 2,221 | 2,220 | 2,239 | 2,334 | 2,178 | 2,142 |
| Wage and salary workers | 1,373 | 1,386 | 1,250 | 1,213 | 1,229 | 1,312 | 1,311 | 1,218 | 1,117 |
| Self-employed workers | 968 | 987 | 989 | 970 | 959 | 1,004 | 987 | 926 | 981 |
| Unpaid family workers | 34 | 31 | 38 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Nonagricultural industries | 137,287 | 140,758 | 140,298 | 137,460 | 139,294 | 139,237 | 139,668 | 140,345 | 140,481 |
| Wage and salary workers | 127,382 | 131,248 | 130,755 | 127,829 | 129,494 | 129,707 | 130,068 | 131,021 | 130,994 |
| Government | 20,211 | 18,995 | 20,284 | 20,165 | 20,779 | 20,464 | 20,492 | 20,469 | 20,251 |
| Private industries | 107,055 | 111,250 | 110,471 | 107,692 | 108,697 | 108,203 | 109,551 | 110,556 | 110,728 |
| Private households | 787 | 950 | 881 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Other industries | 106,354 | 110,300 | 109,610 | 106,910 | 107,938 | 108,399 | 108,534 | 109,705 | 109,687 |
| Self-employed workers | 9,615 | 9,400 | 9,453 | 9,481 | 9,788 | 9,465 | 9,514 | 9,289 | 9,355 |
| Unpaid family workers | 90 | 110 | 89 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| PERSONS AT WORK PART TIME ² | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 4,073 | 4,402 | 4,230 | 4,476 | 4,361 | 4,465 | 4,427 | 4,453 | 4,591 |
| Stack work or business conditions | 2,552 | 2,508 | 2,660 | 2,805 | 2,741 | 2,658 | 2,723 | 2,768 | 2,882 |
| Could only find part-time work | 1,280 | 1,355 | 1,316 | 1,312 | 1,346 | 1,420 | 1,368 | 1,428 | 1,363 |
| Part time for noneconomic reasons | 19,824 | 17,471 | 19,812 | 19,410 | 19,435 | 19,021 | 19,528 | 19,518 | 19,579 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 4,024 | 4,332 | 4,189 | 4,400 | 4,280 | 4,386 | 4,369 | 4,457 | 4,522 |
| Stack work or business conditions | 2,511 | 2,567 | 2,639 | 2,750 | 2,705 | 2,618 | 2,673 | 2,747 | 2,832 |
| Could only find part-time work | 1,277 | 1,344 | 1,312 | 1,320 | 1,331 | 1,416 | 1,369 | 1,420 | 1,366 |
| Part time for noneconomic reasons | 19,245 | 17,114 | 19,414 | 19,081 | 19,160 | 18,633 | 19,084 | 19,141 | 19,188 |

¹ Data not available.² Persons at work excludes employed persons who were absent from their job during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and

bad weather.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-6. Selected employment indicators

(In thousands)

| Characteristic | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|---------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| | | | | | | | | | |
| Total, 16 years and over | 139,641 | 143,142 | 142,579 | 138,527 | 141,475 | 141,638 | 142,076 | 142,449 | 142,432 |
| 16 to 19 years | 5,645 | 6,778 | 6,798 | 5,687 | 5,911 | 6,013 | 6,024 | 6,055 | 6,036 |
| 19 to 17 years | 2,139 | 2,622 | 2,253 | 2,149 | 2,249 | 2,296 | 2,241 | 2,282 | 2,285 |
| 19 to 19 years | 3,507 | 4,153 | 3,536 | 3,730 | 3,662 | 3,712 | 3,769 | 3,769 | 3,752 |
| 20 years and over | 133,996 | 136,367 | 135,780 | 132,840 | 135,564 | 135,625 | 135,052 | 136,394 | 136,396 |
| 20 to 24 years | 13,813 | 14,039 | 13,714 | 13,641 | 13,725 | 13,829 | 13,904 | 13,775 | 13,942 |
| 25 years and over | 120,483 | 122,328 | 122,076 | 119,200 | 121,772 | 121,772 | 122,120 | 122,682 | 122,545 |
| 25 to 34 years | 98,041 | 98,808 | 99,229 | 97,667 | 98,455 | 98,274 | 98,530 | 98,958 | 98,817 |
| 35 to 44 years | 30,698 | 30,992 | 30,854 | 30,598 | 30,680 | 30,492 | 30,609 | 30,709 | 30,674 |
| 45 to 54 years | 34,828 | 34,816 | 34,940 | 34,556 | 34,600 | 34,629 | 34,707 | 34,701 | 34,622 |
| 55 to 64 years | 32,730 | 33,495 | 33,426 | 32,604 | 33,195 | 33,183 | 33,217 | 33,548 | 33,324 |
| 55 years and over | 22,442 | 23,523 | 23,947 | 22,326 | 23,302 | 23,498 | 23,590 | 23,725 | 23,728 |
| Men, 16 years and over | 74,864 | 77,380 | 76,446 | 74,629 | 75,685 | 76,092 | 76,272 | 76,449 | 76,236 |
| 16 to 19 years | 2,820 | 3,325 | 2,909 | 2,927 | 2,885 | 2,919 | 2,910 | 2,923 | 2,918 |
| 19 to 17 years | 1,037 | 1,247 | 1,026 | 1,040 | 1,068 | 1,088 | 1,014 | 1,084 | 1,048 |
| 19 to 19 years | 1,783 | 2,077 | 1,773 | 1,874 | 1,813 | 1,851 | 1,865 | 1,862 | 1,863 |
| 20 years and over | 72,044 | 74,081 | 73,637 | 71,701 | 73,100 | 73,174 | 73,363 | 73,527 | 73,318 |
| 20 to 24 years | 7,124 | 7,483 | 7,186 | 7,151 | 7,273 | 7,367 | 7,414 | 7,303 | 7,248 |
| 25 years and over | 64,920 | 66,578 | 66,441 | 64,607 | 65,731 | 65,807 | 65,920 | 66,282 | 66,043 |
| 25 to 34 years | 52,917 | 53,823 | 53,676 | 52,553 | 53,181 | 53,124 | 53,198 | 53,530 | 53,329 |
| 35 to 44 years | 17,057 | 17,298 | 17,164 | 16,917 | 16,972 | 16,921 | 16,989 | 17,119 | 17,025 |
| 45 to 54 years | 16,760 | 16,958 | 16,953 | 16,538 | 16,739 | 16,803 | 16,825 | 16,794 | 16,918 |
| 55 to 64 years | 17,100 | 17,689 | 17,580 | 16,988 | 17,431 | 17,400 | 17,365 | 17,627 | 17,489 |
| 55 years and over | 12,000 | 12,755 | 12,765 | 11,943 | 12,698 | 12,682 | 12,722 | 12,753 | 12,714 |
| Women, 16 years and over | 64,777 | 65,758 | 66,133 | 64,898 | 65,490 | 65,545 | 65,804 | 66,000 | 66,196 |
| 16 to 19 years | 2,825 | 3,450 | 2,890 | 2,959 | 3,026 | 3,095 | 3,114 | 3,133 | 3,119 |
| 19 to 17 years | 1,101 | 1,375 | 1,217 | 1,109 | 1,181 | 1,230 | 1,227 | 1,227 | 1,238 |
| 19 to 19 years | 1,724 | 2,075 | 1,763 | 1,856 | 1,849 | 1,860 | 1,873 | 1,928 | 1,899 |
| 20 years and over | 61,952 | 62,308 | 63,133 | 61,809 | 62,464 | 62,451 | 62,630 | 62,867 | 63,077 |
| 20 to 24 years | 6,389 | 6,556 | 6,518 | 6,492 | 6,452 | 6,491 | 6,491 | 6,472 | 6,596 |
| 25 years and over | 55,563 | 55,750 | 56,635 | 55,497 | 56,020 | 55,966 | 56,200 | 56,400 | 56,522 |
| 25 to 34 years | 45,124 | 44,983 | 45,633 | 45,114 | 45,293 | 45,150 | 45,333 | 45,428 | 45,488 |
| 35 to 44 years | 13,629 | 13,427 | 13,080 | 13,591 | 13,899 | 13,818 | 13,618 | 13,591 | 13,648 |
| 45 to 54 years | 15,853 | 15,781 | 15,960 | 15,917 | 15,841 | 15,826 | 15,822 | 15,917 | 16,006 |
| 55 to 64 years | 15,830 | 15,785 | 15,806 | 15,808 | 15,764 | 15,763 | 15,832 | 15,920 | 15,836 |
| 55 years and over | 10,439 | 10,768 | 11,082 | 10,383 | 10,733 | 10,816 | 10,867 | 10,972 | 11,014 |
| Married men, spouse present | 45,269 | 45,823 | 45,573 | 45,083 | 45,725 | 45,257 | 45,486 | 45,700 | 45,438 |
| Married women, spouse present | 34,721 | 34,428 | 34,974 | 34,704 | 34,747 | 34,622 | 34,865 | 34,997 | 34,945 |
| Women who maintain families | 6,751 | 6,768 | 6,872 | (1) | (1) | (1) | (1) | (1) | (1) |
| Full-time workers ¹ | 115,245 | 119,815 | 117,781 | 114,631 | 118,846 | 117,200 | 117,332 | 117,837 | 117,376 |
| Part-time workers ² | 24,396 | 23,327 | 24,798 | 24,729 | 24,662 | 24,464 | 24,749 | 24,873 | 25,014 |

¹ Data not available.² Employed full-time workers are persons who usually work 35 hours or more per week.³ Employed part-time workers are persons who usually work less than 35 hours per week.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-7. Selected unemployment indicators, seasonally adjusted

| Characteristic | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|--|---|-----------|------------|---------------------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| Total, 16 years and over | 8,005 | 7,391 | 7,601 | 5.4 | 5.1 | 5.0 | 5.0 | 4.9 | 5.1 |
| 16 to 17 years | 1,175 | 1,193 | 1,138 | 16.6 | 17.9 | 16.4 | 16.1 | 16.5 | 15.9 |
| 18 to 17 years | 522 | 523 | 529 | 18.6 | 20.0 | 18.3 | 18.7 | 18.6 | 18.8 |
| 18 to 19 years | 851 | 876 | 805 | 14.9 | 16.3 | 15.2 | 14.4 | 15.1 | 13.9 |
| 20 years and over | 6,830 | 6,198 | 6,525 | 4.9 | 4.5 | 4.4 | 4.5 | 4.3 | 4.6 |
| 20 to 24 years | 1,433 | 1,347 | 1,324 | 8.5 | 8.8 | 8.8 | 8.3 | 8.9 | 8.7 |
| 25 years and over | 5,395 | 4,872 | 5,192 | 4.3 | 4.0 | 3.9 | 4.0 | 3.8 | 4.1 |
| 25 to 34 years | 4,506 | 4,077 | 4,299 | 4.4 | 4.2 | 4.1 | 4.2 | 4.0 | 4.2 |
| 35 to 44 years | 1,877 | 1,605 | 1,747 | 5.2 | 5.1 | 5.2 | 5.2 | 5.0 | 5.4 |
| 45 to 54 years | 1,607 | 1,345 | 1,330 | 4.4 | 3.9 | 3.8 | 3.9 | 3.7 | 3.7 |
| 55 years and over | 1,222 | 1,126 | 1,222 | 3.8 | 3.5 | 3.4 | 3.6 | 3.3 | 3.5 |
| 55 years and over ² | 859 | 788 | 874 | 3.7 | 3.2 | 3.1 | 3.5 | 3.2 | 3.6 |
| Men, 16 years and over | 4,413 | 3,960 | 4,082 | 5.8 | 5.1 | 5.0 | 4.9 | 4.9 | 5.1 |
| 16 to 19 years | 652 | 656 | 620 | 18.2 | 20.0 | 18.0 | 18.6 | 18.3 | 17.5 |
| 18 to 17 years | 269 | 293 | 286 | 20.6 | 22.5 | 21.7 | 23.2 | 21.6 | 21.4 |
| 18 to 19 years | 379 | 359 | 334 | 16.8 | 18.4 | 17.5 | 15.5 | 16.4 | 15.2 |
| 20 years and over | 3,761 | 3,304 | 3,471 | 5.0 | 4.4 | 4.3 | 4.3 | 4.3 | 4.6 |
| 20 to 24 years | 838 | 821 | 801 | 10.5 | 9.2 | 9.3 | 8.7 | 10.1 | 8.9 |
| 25 years and over | 2,923 | 2,502 | 2,668 | 4.3 | 3.9 | 3.7 | 3.7 | 3.6 | 3.9 |
| 25 to 34 years | 2,443 | 2,094 | 2,225 | 4.4 | 4.0 | 3.9 | 3.9 | 3.8 | 4.0 |
| 35 to 44 years | 930 | 793 | 911 | 5.2 | 4.8 | 4.6 | 4.6 | 4.4 | 5.1 |
| 45 to 54 years | 849 | 705 | 873 | 4.4 | 3.6 | 3.6 | 3.4 | 3.6 | 3.5 |
| 55 years and over | 694 | 660 | 642 | 3.8 | 3.4 | 3.4 | 3.7 | 3.5 | 3.5 |
| 55 years and over ² | 480 | 406 | 432 | 3.9 | 3.0 | 3.1 | 3.2 | 3.1 | 3.3 |
| Women, 16 years and over | 3,602 | 3,431 | 3,569 | 5.2 | 5.2 | 5.1 | 5.1 | 4.9 | 5.1 |
| 16 to 19 years | 423 | 528 | 518 | 15.0 | 16.8 | 13.8 | 13.8 | 14.6 | 14.2 |
| 18 to 17 years | 253 | 230 | 243 | 18.8 | 17.7 | 15.1 | 14.5 | 15.8 | 16.4 |
| 18 to 19 years | 271 | 307 | 272 | 12.8 | 14.2 | 12.8 | 13.2 | 13.9 | 12.6 |
| 20 years and over | 3,059 | 2,894 | 3,053 | 4.7 | 4.6 | 4.6 | 4.7 | 4.4 | 4.6 |
| 20 to 24 years | 595 | 526 | 624 | 8.4 | 8.4 | 8.1 | 7.7 | 7.5 | 7.4 |
| 25 years and over | 2,472 | 2,370 | 2,524 | 4.3 | 4.1 | 4.2 | 4.3 | 4.0 | 4.3 |
| 25 to 34 years | 2,094 | 1,983 | 2,073 | 4.4 | 4.3 | 4.4 | 4.5 | 4.2 | 4.4 |
| 35 to 44 years | 747 | 812 | 836 | 5.2 | 5.4 | 5.9 | 5.9 | 5.6 | 5.8 |
| 45 to 54 years | 758 | 640 | 657 | 4.5 | 4.0 | 4.1 | 4.2 | 3.9 | 3.9 |
| 55 years and over | 658 | 631 | 580 | 3.5 | 3.4 | 3.4 | 3.6 | 3.2 | 3.5 |
| 55 years and over ² | 384 | 422 | 453 | 3.5 | 3.2 | 3.3 | 4.1 | 3.8 | 3.9 |
| Married men, spouse present | 1,396 | 1,348 | 1,298 | 3.0 | 2.7 | 2.6 | 2.6 | 2.9 | 2.8 |
| Married women, spouse present | 1,120 | 1,157 | 1,226 | 3.1 | 3.1 | 3.3 | 3.4 | 3.2 | 3.4 |
| Women who maintain families ³ | 780 | 678 | 730 | 8.2 | 7.9 | 8.2 | 8.8 | 7.2 | 7.6 |
| Full-time workers ⁴ | 6,733 | 6,038 | 6,260 | 5.5 | 5.0 | 4.9 | 4.9 | 4.9 | 5.1 |
| Part-time workers ⁴ | 1,266 | 1,348 | 1,338 | 6.0 | 5.6 | 5.4 | 5.5 | 5.1 | 5.3 |

¹ Unemployment as a percent of the civilian labor force.² Not seasonally adjusted.³ Full-time workers are unemployed persons who have expressed a desire to work full time (35 hours or more per week) or are on layoff from full-time jobs.⁴ Part-time workers are unemployed persons who have expressed a desire to work

part time (less than 35 hours per week) or are on layoff from part-time jobs.

NOTE: Detail shown in this table will not necessarily add to totals because of the independent seasonal adjustments of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-8. Unemployed persons by reason for unemployment

(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|-----------|------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 3,644 | 3,297 | 3,373 | 4,014 | 3,648 | 3,690 | 3,633 | 3,430 | 3,774 |
| On temporary layoff | 615 | 813 | 670 | 919 | 864 | 875 | 859 | 860 | 882 |
| Not on temporary layoff | 3,029 | 2,484 | 2,703 | 3,094 | 2,782 | 2,705 | 2,674 | 2,610 | 2,742 |
| Permanent job leavers | 2,157 | 1,711 | 1,908 | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ |
| Persons who completed temporary jobs | 672 | 773 | 857 | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ | (1) ¹ |
| Job leavers | 876 | 911 | 832 | 830 | 942 | 944 | 826 | 839 | 878 |
| Reentrants | 2,373 | 2,441 | 2,378 | 2,417 | 2,253 | 2,219 | 2,294 | 2,451 | 2,422 |
| New entrants | 652 | 678 | 577 | 607 | 728 | 661 | 628 | 632 | 633 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers and persons who completed temporary jobs | 48.3 | 45.0 | 46.5 | 50.4 | 47.5 | 49.7 | 49.6 | 47.1 | 48.7 |
| On temporary layoff | 9.2 | 11.1 | 9.2 | 11.8 | 11.3 | 13.2 | 12.9 | 11.9 | 12.8 |
| Not on temporary layoff | 40.1 | 33.9 | 37.2 | 38.9 | 36.3 | 36.5 | 35.7 | 35.2 | 35.9 |
| Job leavers | 11.6 | 12.4 | 12.8 | 10.4 | 12.3 | 11.4 | 11.0 | 11.3 | 11.5 |
| Reentrants | 31.4 | 33.3 | 32.8 | 30.4 | 30.7 | 30.0 | 32.0 | 33.1 | 31.7 |
| New entrants | 8.6 | 8.3 | 7.9 | 8.8 | 9.5 | 8.9 | 8.4 | 8.5 | 8.1 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2.5 | 2.2 | 2.3 | 2.7 | 2.4 | 2.5 | 2.4 | 2.3 | 2.5 |
| On temporary layoff | .6 | .8 | .6 | .9 | .8 | .8 | .8 | .8 | .8 |
| Not on temporary layoff | 1.8 | 1.6 | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Job leavers | .4 | .5 | .4 | .5 | .5 | .4 | .4 | .4 | .4 |

¹ Data not available.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-9. Unemployed persons by duration of unemployment

(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|-----------|------------|---------------------|----------|-----------|-----------|-----------|------------|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,737 | 2,460 | 2,772 | 2,786 | 2,699 | 2,696 | 2,671 | 2,542 | 2,735 |
| 5 to 14 weeks | 2,056 | 2,420 | 2,079 | 2,251 | 2,282 | 2,342 | 2,430 | 2,272 | 2,286 |
| 15 weeks and over | 2,732 | 2,448 | 2,408 | 2,971 | 2,687 | 2,350 | 2,437 | 2,699 | 2,811 |
| 15 to 26 weeks | 1,063 | 1,033 | 962 | 1,227 | 1,133 | 1,041 | 1,067 | 1,243 | 1,131 |
| 27 weeks and over | 1,669 | 1,415 | 1,428 | 1,744 | 1,534 | 1,310 | 1,369 | 1,444 | 1,480 |
| Average (mean) duration, in weeks | 19.5 | 18.4 | 18.2 | 18.8 | 18.8 | 17.1 | 17.6 | 18.9 | 18.3 |
| Median duration, in weeks | 9.5 | 9.2 | 8.4 | 9.5 | 9.1 | 9.1 | 9.0 | 9.4 | 9.6 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 36.5 | 39.6 | 38.2 | 34.9 | 33.4 | 36.2 | 34.6 | 33.9 | 35.8 |
| 5 to 14 weeks | 27.3 | 33.0 | 28.6 | 28.1 | 29.7 | 31.8 | 32.7 | 30.3 | 29.9 |
| 15 weeks and over | 36.2 | 33.4 | 33.2 | 37.1 | 35.0 | 31.9 | 32.8 | 35.8 | 34.2 |
| 15 to 26 weeks | 14.1 | 14.1 | 13.5 | 15.3 | 14.9 | 14.1 | 14.1 | 16.6 | 14.6 |
| 27 weeks and over | 22.1 | 19.3 | 19.8 | 21.7 | 20.1 | 17.8 | 18.7 | 19.2 | 19.4 |

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-10. Employed and unemployed persons by occupation, not seasonally adjusted

(Numbers in thousands)

| Occupation | Employed | | Unemployed | | Unemployment rates | |
|--|------------|------------|------------|------------|--------------------|------------|
| | Sept. 2004 | Sept. 2005 | Sept. 2004 | Sept. 2005 | Sept. 2004 | Sept. 2005 |
| Total, 18 years and over ¹ | 139,641 | 142,579 | 7,545 | 7,259 | 5.1 | 4.8 |
| Management, professional, and related occupations | 48,573 | 49,377 | 1,268 | 1,161 | 2.5 | 2.3 |
| Management, business, and financial operations occupations | 20,464 | 20,588 | 525 | 449 | 2.5 | 2.1 |
| Professional and related occupations | 28,109 | 28,789 | 742 | 712 | 2.8 | 2.4 |
| Service occupations | 22,829 | 23,181 | 1,547 | 1,593 | 6.3 | 6.4 |
| Sales and office occupations | 35,520 | 36,018 | 1,909 | 1,723 | 5.1 | 4.6 |
| Sales and related occupations | 15,912 | 16,344 | 863 | 842 | 5.1 | 4.9 |
| Office and administrative support occupations | 19,608 | 19,675 | 1,046 | 881 | 5.1 | 4.3 |
| Natural resources, construction, and maintenance occupations | 14,727 | 15,902 | 979 | 971 | 6.2 | 5.8 |
| Farming, fishing, and forestry occupations | 1,068 | 1,041 | 93 | 119 | 7.8 | 10.2 |
| Construction and extraction occupations | 8,734 | 9,454 | 669 | 659 | 7.1 | 6.5 |
| Installation, maintenance, and repair occupations | 4,895 | 5,407 | 217 | 194 | 4.2 | 3.5 |
| Production, transportation, and material moving occupations | 17,992 | 18,100 | 1,162 | 1,189 | 6.1 | 6.2 |
| Production occupations | 8,424 | 9,273 | 597 | 592 | 6.0 | 6.0 |
| Transportation and material moving occupations | 8,568 | 8,828 | 565 | 498 | 6.2 | 5.3 |

¹ Persons with no previous work experience and persons whose last job was in the Armed Forces are included in the unemployed total.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-11. Unemployed persons by industry, not seasonally adjusted

| Industry | Number of unemployed persons (In thousands) | | Unemployment rates | |
|---|---|------------|--------------------|------------|
| | Sept. 2004 | Sept. 2005 | Sept. 2004 | Sept. 2005 |
| Total, 18 years and over ¹ | 7,545 | 7,259 | 5.1 | 4.8 |
| Nonagricultural private wage and salary workers | 5,874 | 5,706 | 5.2 | 4.9 |
| Mining | 8 | 12 | 1.5 | 2.0 |
| Construction | 629 | 572 | 6.8 | 5.7 |
| Manufacturing | 852 | 775 | 5.0 | 4.7 |
| Durable goods | 512 | 439 | 4.8 | 4.2 |
| Non-durable goods | 339 | 337 | 9.4 | 5.5 |
| Wholesale and retail trade | 1,127 | 1,038 | 5.5 | 4.9 |
| Transportation and utilities | 208 | 211 | 3.9 | 3.7 |
| Information | 178 | 188 | 3.4 | 4.9 |
| Financial activities | 374 | 290 | 4.0 | 2.7 |
| Professional and business services | 750 | 662 | 5.9 | 6.7 |
| Education and health services | 693 | 658 | 3.3 | 3.5 |
| Leisure and hospitality | 864 | 842 | 7.5 | 7.3 |
| Other services | 301 | 307 | 4.9 | 4.9 |
| Agriculture and related private wage and salary workers | 88 | 127 | 6.4 | 9.5 |
| Government workers | 568 | 568 | 2.7 | 2.7 |
| Self employed and unpaid family workers | 382 | 282 | 3.3 | 2.6 |

¹ Persons with no previous work experience are included in the unemployed total.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-12. Alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | | |
|---|-------------------------|-----------|------------|---------------------|----------|-----------|-----------|-----------|------------|--|
| | Sept. 2004 | Aug. 2005 | Sept. 2005 | Sept. 2004 | May 2005 | June 2005 | July 2006 | Aug. 2006 | Sept. 2006 | |
| | | | | | | | | | | |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 1.9 | 1.6 | 1.6 | 2.0 | 1.8 | 1.6 | 1.6 | 1.8 | 1.7 | |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.5 | 2.2 | 2.3 | 2.7 | 2.4 | 2.5 | 2.4 | 2.3 | 2.5 | |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 5.1 | 4.9 | 4.8 | 5.4 | 5.1 | 5.0 | 5.0 | 4.9 | 5.1 | |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 0.4 | 0.5 | 0.5 | 0.7 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | |

NOTE: Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but

have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures," in the October 1995 issue of the Monthly Labor Review. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-13. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|------------|------------|------------|------------|------------|------------|
| | Sept. 2004 | Sept. 2005 | Sept. 2004 | Sept. 2005 | Sept. 2004 | Sept. 2005 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 76,755 | 76,656 | 29,176 | 29,345 | 47,579 | 47,500 |
| Persons who currently want a job | 4,720 | 4,757 | 2,062 | 2,024 | 2,658 | 2,733 |
| Searched for work and available to work now ¹ | 1,561 | 1,438 | 848 | 704 | 713 | 734 |
| Reason not currently looking | | | | | | |
| Discouragement over job prospects ² | 412 | 362 | 254 | 201 | 148 | 161 |
| Reasons other than discouragement ³ | 1,148 | 1,076 | 583 | 504 | 565 | 573 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 7,672 | 7,705 | 3,979 | 3,928 | 3,692 | 3,777 |
| Percent of total employed | 5.5 | 5.4 | 5.3 | 5.1 | 5.7 | 5.7 |
| Primary job full time, secondary job part time | 4,027 | 4,014 | 2,292 | 2,295 | 1,715 | 1,719 |
| Primary and secondary jobs both part time | 1,618 | 1,725 | 501 | 532 | 1,117 | 1,193 |
| Primary and secondary jobs both full time | 200 | 250 | 193 | 171 | 87 | 80 |
| Hours vary on primary or secondary job | 1,713 | 1,660 | 971 | 913 | 742 | 747 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.

² Includes those who are too young or old, and other types of discrimination.

³ Includes those who did not actively look for work in the prior 4 weeks for such reasons as school or family responsibilities, ill health, and transportation problems, as well

as a small number for which reason for nonparticipation was not determined.

⁴ Includes persons who work part time on their primary job and full time on their secondary job(s), not shown separately.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Change from Aug. 2005 ¹ to Sept. 2005 ² |
|--|-------------------------|--------------|---------------------------|----------------------------|---------------------|-------------|--------------|--------------|---------------------------|----------------------------|--|
| | Sept. 2004 | July 2005 | Aug. 2005 ¹ | Sept. 2005 ² | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 ¹ | Sept. 2005 ² | |
| Total nonfarm | 132,127 | 133,583 | 133,793 | 134,325 | 131,880 | 133,413 | 133,588 | 133,865 | 134,076 | 134,041 | -35 |
| Total private | 110,635 | 112,650 | 113,142 | 112,618 | 110,203 | 111,659 | 111,828 | 112,048 | 112,233 | 112,187 | -68 |
| Goods-producing | 22,341 | 22,486 | 22,568 | 22,447 | 21,947 | 22,138 | 22,134 | 22,134 | 22,154 | 22,155 | 1 |
| Natural resources and mining | 608 | 640 | 644 | 647 | 597 | 624 | 626 | 629 | 631 | 636 | 5 |
| Logging | 71.8 | 87.2 | 87.9 | 87.9 | 63.0 | 64.9 | 64.8 | 65.3 | 64.9 | 64.5 | -4 |
| Mining | 536.4 | 572.8 | 576.4 | 578.8 | 528.5 | 559.5 | 563.1 | 563.4 | 566.4 | 571.2 | 4.8 |
| Oil and gas extraction | 124.0 | 126.1 | 126.1 | 126.0 | 124.0 | 125.2 | 125.4 | 126.4 | 126.7 | 127.7 | 1.0 |
| Mining, except oil and gas ¹ | 213.7 | 228.1 | 228.8 | 224.1 | 208.5 | 219.4 | 221.2 | 219.9 | 219.8 | 219.5 | -3 |
| Coal mining | 73.6 | 78.7 | 78.4 | 78.4 | 72.9 | 78.6 | 77.2 | 77.6 | 77.5 | 78.0 | 5 |
| Support activities for mining | 198.7 | 216.8 | 221.5 | 226.5 | 199.0 | 214.9 | 216.5 | 217.1 | 219.9 | 224.0 | 4.3 |
| Construction | 7,229 | 7,642 | 7,580 | 7,517 | 6,998 | 7,213 | 7,230 | 7,235 | 7,262 | 7,285 | 23 |
| Construction of buildings | 1,683.3 | 1,743.5 | 1,754.0 | 1,740.3 | 1,647.8 | 1,663.9 | 1,666.2 | 1,669.2 | 1,705.7 | 1,708.3 | 2.8 |
| Residential building | 922.6 | 974.9 | 973.3 | 968.4 | 905.5 | 941.7 | 943.8 | 946.6 | 949.5 | 953.7 | 4.2 |
| Nonresidential building | 760.7 | 768.6 | 780.7 | 771.9 | 742.3 | 722.2 | 722.4 | 722.6 | 756.2 | 754.6 | -1.6 |
| Heavy and civil engineering construction | 963.9 | 1,007.1 | 1,014.7 | 1,006.1 | 902.1 | 925.8 | 937.4 | 938.2 | 939.7 | 940.2 | .5 |
| Specialty trade contractors | 4,582.0 | 4,791.8 | 4,811.7 | 4,770.9 | 4,447.8 | 4,583.7 | 4,598.4 | 4,587.8 | 4,616.7 | 4,636.6 | 19.9 |
| Residential specialty trade contractors | 2,176.8 | 2,283.0 | 2,286.5 | 2,284.0 | 2,113.9 | 2,190.5 | 2,192.7 | 2,189.9 | 2,189.8 | 2,218.7 | 17.8 |
| Nonresidential specialty trade contractors | 2,405.2 | 2,508.7 | 2,525.2 | 2,486.9 | 2,333.9 | 2,403.2 | 2,405.7 | 2,407.9 | 2,417.8 | 2,419.9 | 2.1 |
| Manufacturing | 14,404 | 14,304 | 14,344 | 14,283 | 14,352 | 14,301 | 14,278 | 14,270 | 14,281 | 14,234 | -27 |
| Production workers | 10,169 | 10,066 | 10,150 | 10,124 | 10,117 | 10,092 | 10,086 | 10,081 | 10,081 | 10,070 | -11 |
| Durable goods | 8,865 | 8,936 | 8,976 | 8,932 | 8,957 | 8,961 | 8,947 | 8,940 | 8,945 | 8,924 | -21 |
| Production workers | 6,182 | 6,173 | 6,236 | 6,224 | 6,172 | 6,198 | 6,197 | 6,197 | 6,214 | 6,210 | -4 |
| Wood products | 54.7 | 55.1 | 55.2 | 55.6 | 55.1 | 54.8 | 55.0 | 54.9 | 54.9 | 54.4 | -3 |
| Nonmetallic mineral products | 618.8 | 610.9 | 610.0 | 607.1 | 608.8 | 601.8 | 601.3 | 609.4 | 607.9 | 606.8 | -1.9 |
| Primary metals | 467.1 | 462.3 | 465.1 | 466.8 | 466.4 | 468.2 | 465.3 | 465.4 | 465.3 | 468.3 | 1.0 |
| Fabricated metal products | 1,507.1 | 1,522.8 | 1,526.7 | 1,534.7 | 1,508.5 | 1,520.7 | 1,521.0 | 1,523.6 | 1,523.7 | 1,525.5 | 1.8 |
| Machinery | 1,444.3 | 1,458.9 | 1,459.9 | 1,463.1 | 1,448.7 | 1,458.2 | 1,458.2 | 1,460.5 | 1,460.5 | 1,467.8 | 7.1 |
| Computer and electronic products | 1,330.8 | 1,340.9 | 1,338.9 | 1,331.3 | 1,332.5 | 1,329.5 | 1,333.4 | 1,333.8 | 1,334.4 | 1,332.5 | -1.9 |
| Computer and peripheral equipment | 211.9 | 215.8 | 215.2 | 215.0 | 211.9 | 213.3 | 214.8 | 214.7 | 215.0 | 215.0 | .0 |
| Communications equipment | 151.2 | 155.3 | 154.7 | 154.4 | 151.0 | 154.2 | 154.3 | 154.4 | 154.3 | 154.7 | .4 |
| Semiconductors and electronic components | 456.1 | 449.6 | 449.2 | 445.7 | 457.0 | 446.5 | 447.3 | 447.1 | 448.9 | 445.7 | -1.2 |
| Electronic instruments | 433.2 | 442.5 | 442.8 | 440.6 | 434.6 | 437.2 | 439.2 | 440.4 | 441.3 | 441.5 | 2 |
| Electrical equipment and appliances | 447.5 | 440.4 | 439.5 | 434.8 | 447.0 | 443.6 | 440.1 | 439.4 | 439.2 | 435.2 | -4.0 |
| Transportation equipment | 1,770.3 | 1,725.7 | 1,763.3 | 1,737.0 | 1,768.5 | 1,779.5 | 1,784.3 | 1,782.5 | 1,768.8 | 1,736.8 | -22.0 |
| Motor vehicles and parts | 1,110.6 | 1,036.3 | 1,077.8 | 1,081.8 | 1,109.9 | 1,097.2 | 1,079.8 | 1,068.7 | 1,075.6 | 1,060.8 | 5.2 |
| Furniture and related products | 571.4 | 556.9 | 561.5 | 555.8 | 572.1 | 561.8 | 561.0 | 558.5 | 558.6 | 556.8 | -1.8 |
| Miscellaneous manufacturing | 63.4 | 66.2 | 65.7 | 65.7 | 65.4 | 65.3 | 65.7 | 65.7 | 65.6 | 65.7 | .7 |
| Nonfarm goods | 5,439 | 5,368 | 5,308 | 5,351 | 5,395 | 5,340 | 5,329 | 5,330 | 5,318 | 5,310 | -8 |
| Production workers | 3,967 | 3,913 | 3,914 | 3,900 | 3,945 | 3,894 | 3,883 | 3,894 | 3,887 | 3,860 | -7 |
| Food manufacturing | 1,526.4 | 1,510.2 | 1,518.3 | 1,506.3 | 1,494.3 | 1,480.7 | 1,488.4 | 1,488.8 | 1,483.1 | 1,478.7 | -4.4 |
| Beverages and tobacco products | 199.8 | 195.4 | 194.2 | 196.5 | 194.9 | 191.3 | 190.4 | 190.6 | 189.8 | 189.9 | 1.1 |
| Textile mills | 238.3 | 222.1 | 221.8 | 222.7 | 237.3 | 226.1 | 229.9 | 223.0 | 221.7 | 221.4 | -3 |
| Textile product mills | 176.1 | 179.3 | 179.0 | 177.3 | 177.8 | 178.4 | 178.9 | 177.9 | 177.9 | 178.7 | .8 |
| Apparel | 263.9 | 256.0 | 256.9 | 256.8 | 261.0 | 259.2 | 257.0 | 258.0 | 255.3 | 253.9 | -1.4 |
| Leather and allied products | 42.9 | 42.9 | 43.6 | 43.1 | 42.7 | 42.8 | 42.8 | 43.5 | 43.4 | 43.1 | -3 |
| Paper and paper products | 500.5 | 497.8 | 497.2 | 491.7 | 499.3 | 498.3 | 498.4 | 495.9 | 494.1 | 490.8 | -3.3 |
| Printing and related support activities | 963.5 | 957.2 | 954.7 | 954.1 | 981.8 | 958.5 | 955.8 | 953.9 | 952.7 | 952.8 | -1 |
| Petroleum and coal products | 115.0 | 119.8 | 120.2 | 118.7 | 113.2 | 117.1 | 118.9 | 116.9 | 117.2 | 116.9 | -3 |
| Chemicals | 893.5 | 894.9 | 879.9 | 876.4 | 895.5 | 877.8 | 878.4 | 879.9 | 878.3 | 879.5 | 1.2 |
| Plastics and rubber products | 80.3 | 80.2 | 80.4 | 80.2 | 80.7 | 80.3 | 80.3 | 80.2 | 80.2 | 80.2 | 0 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Change from Aug. 2005-Sept. 2005P | | |
|---|-------------------------|-----------|------------|-------------|---------------------|----------|-----------|-----------|------------|-----------------------------------|-------------|-----|
| | Sept. 2004 | July 2005 | Aug. 2005P | Sept. 2005P | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005P | | Sept. 2005P | |
| Service-providing | 109,886 | 111,097 | 111,225 | 111,878 | 100,933 | 111,275 | 111,454 | 111,731 | 111,922 | 111,886 | -36 | |
| Private service-providing | 88,394 | 90,494 | 90,574 | 90,171 | 88,256 | 89,521 | 89,694 | 89,914 | 90,079 | 90,012 | -67 | |
| Trade, transportation, and utilities | 25,514 | 25,903 | 25,937 | 25,811 | 25,555 | 25,842 | 25,854 | 25,922 | 25,944 | 25,850 | -94 | |
| Wholesale trade | 5,677.9 | 5,761.8 | 5,759.8 | 5,744.3 | 5,672.4 | 5,719.0 | 5,722.3 | 5,729.8 | 5,735.7 | 5,738.2 | 2.5 | |
| Durable goods | 2,956.8 | 3,096.2 | 3,065.4 | 2,991.8 | 2,960.2 | 2,983.0 | 2,983.0 | 2,983.3 | 2,992.3 | 2,993.8 | 1.5 | |
| Nondurable goods | 2,018.8 | 2,027.3 | 2,025.2 | 2,023.8 | 2,008.1 | 2,014.0 | 2,013.7 | 2,014.7 | 2,015.2 | 2,015.1 | -1.1 | |
| Electronic markets and agents and brokers | 704.3 | 728.3 | 728.3 | 729.1 | 704.1 | 720.9 | 722.5 | 725.8 | 729.2 | 728.3 | 1.1 | |
| Retail trade | 14,853.2 | 15,222.1 | 15,233.8 | 15,098.3 | 15,037.7 | 15,185.8 | 15,197.1 | 15,248.2 | 15,264.9 | 15,176.9 | -88.0 | |
| Motor vehicle and parts dealers ¹ | 1,508.4 | 1,941.8 | 1,941.3 | 1,935.5 | 1,898.4 | 1,917.3 | 1,916.4 | 1,923.5 | 1,925.7 | 1,925.8 | .1 | |
| Automobile dealers | 1,251.8 | 1,263.0 | 1,262.8 | 1,262.0 | 1,247.3 | 1,254.7 | 1,252.6 | 1,257.3 | 1,257.4 | 1,256.8 | 0.6 | |
| Furniture and home furnishings stores | 555.2 | 561.0 | 564.4 | 565.3 | 561.9 | 569.1 | 568.1 | 569.4 | 568.9 | 571.1 | 2.2 | |
| Electronics and appliance stores | 504.2 | 518.5 | 526.0 | 529.3 | 513.8 | 521.9 | 524.5 | 529.2 | 533.3 | 535.5 | 2.2 | |
| Building material and garden supply stores | 1,229.2 | 1,314.4 | 1,283.7 | 1,253.2 | 1,222.5 | 1,267.8 | 1,273.8 | 1,278.9 | 1,278.3 | 1,267.0 | -8.3 | |
| Food and beverage stores | 2,819.2 | 2,859.8 | 2,851.8 | 2,828.1 | 2,827.1 | 2,838.5 | 2,840.2 | 2,842.5 | 2,842.4 | 2,812.4 | -30.0 | |
| Health and personal care stores | 938.4 | 955.2 | 958.5 | 950.1 | 942.1 | 958.0 | 955.7 | 958.1 | 959.7 | 954.2 | -5.5 | |
| Gasoline stations | 681.7 | 690.0 | 694.6 | 687.5 | 678.0 | 678.6 | 674.0 | 680.0 | 681.7 | 682.1 | .4 | |
| Clothing and clothing accessories stores | 1,351.7 | 1,423.8 | 1,436.3 | 1,382.2 | 1,371.9 | 1,394.5 | 1,408.1 | 1,426.3 | 1,426.3 | 1,398.8 | -27.5 | |
| Sporting goods, hobby, book, and music stores | 840.7 | 818.9 | 827.1 | 824.1 | 838.7 | 837.2 | 838.3 | 837.2 | 838.3 | 821.5 | -16.8 | |
| General merchandise stores ¹ | 2,788.0 | 2,816.4 | 2,821.7 | 2,807.3 | 2,832.9 | 2,868.0 | 2,861.6 | 2,867.1 | 2,865.9 | 2,856.6 | -7.3 | |
| Department stores | 1,570.5 | 1,582.6 | 1,586.2 | 1,595.8 | 1,603.3 | 1,629.5 | 1,628.7 | 1,637.1 | 1,635.1 | 1,630.7 | -4.4 | |
| Miscellaneous store retailers | 913.8 | 920.6 | 926.0 | 924.0 | 924.0 | 917.0 | 921.1 | 924.0 | 922.2 | 924.3 | 926.0 | 1.7 |
| Nonstore retailers | 422.7 | 408.0 | 413.9 | 424.3 | 423.6 | 418.0 | 418.4 | 419.8 | 422.1 | 423.9 | 1.8 | |
| Transportation and warehousing | 4,311.4 | 4,339.8 | 4,342.6 | 4,362.8 | 4,274.1 | 4,361.4 | 4,359.9 | 4,367.6 | 4,367.0 | 4,359.0 | -6.0 | |
| Air transportation | 915.4 | 908.5 | 907.4 | 906.1 | 913.8 | 908.1 | 907.8 | 906.1 | 903.1 | 906.9 | -6.2 | |
| Rail transportation | 226.4 | 224.9 | 223.4 | 224.3 | 225.5 | 224.3 | 223.9 | 223.9 | 223.1 | 223.2 | .1 | |
| Water transportation | 58.3 | 65.1 | 68.2 | 64.8 | 67.2 | 61.5 | 62.2 | 62.3 | 60.0 | 63.7 | 3.7 | |
| Truck transportation | 1,380.8 | 1,412.2 | 1,417.7 | 1,414.3 | 1,358.6 | 1,382.8 | 1,381.3 | 1,395.5 | 1,393.4 | 1,393.4 | 0.0 | |
| Transit and ground passenger transportation | 397.7 | 332.1 | 325.5 | 367.7 | 386.3 | 389.8 | 389.8 | 389.8 | 389.8 | 389.6 | -0.3 | |
| Pipeline transportation | 38.0 | 38.5 | 40.0 | 39.9 | 39.0 | 39.3 | 39.3 | 39.2 | 39.7 | 39.9 | .2 | |
| Scenic and sightseeing transportation | 32.6 | 32.2 | 38.3 | 34.8 | 27.8 | 28.3 | 28.4 | 28.9 | 28.9 | 28.9 | 0.0 | |
| Support activities for transportation | 540.1 | 556.2 | 558.1 | 569.0 | 537.7 | 557.2 | 554.5 | 556.0 | 553.7 | 557.4 | 3.7 | |
| Couriers and messengers | 569.8 | 579.8 | 581.9 | 578.2 | 563.8 | 582.4 | 582.3 | 582.4 | 588.0 | 584.8 | -1.2 | |
| Warehousing and storage | 581.3 | 580.3 | 586.0 | 580.7 | 562.5 | 577.8 | 583.3 | 584.5 | 587.2 | 589.8 | 2.8 | |
| Utilities | 571.1 | 579.8 | 580.5 | 575.4 | 571.1 | 576.4 | 575.1 | 575.1 | 576.7 | 578.8 | .9 | |
| Information | 3,114 | 3,198 | 3,194 | 3,143 | 3,127 | 3,146 | 3,146 | 3,146 | 3,151 | 3,153 | 2 | |
| Publishing industries, except Internet | 908.9 | 912.7 | 912.0 | 910.9 | 909.2 | 905.7 | 907.0 | 910.0 | 908.9 | 910.9 | 2.0 | |
| Motion picture and sound recording industries | 379.4 | 404.8 | 408.0 | 398.0 | 396.7 | 394.2 | 393.1 | 392.2 | 399.1 | 403.3 | 4.2 | |
| Broadcasting, except Internet | 328.1 | 333.6 | 333.4 | 329.1 | 328.1 | 330.8 | 331.8 | 332.8 | 333.0 | 329.4 | -3.6 | |
| Internet publishing and broadcasting | 32.0 | 35.4 | 35.7 | 36.0 | 32.0 | 35.2 | 35.6 | 35.1 | 33.7 | 36.2 | .5 | |
| Telecommunications | 1,028.4 | 1,037.2 | 1,033.1 | 1,028.2 | 1,028.4 | 1,036.2 | 1,034.8 | 1,033.5 | 1,031.0 | 1,029.6 | -1.2 | |
| ISPs, search portals, and data processing | 336.1 | 391.3 | 390.5 | 393.8 | 387.8 | 393.5 | 393.4 | 391.2 | 391.8 | 393.0 | 1.2 | |
| Other information services | 51.4 | 51.3 | 51.0 | 49.9 | 51.5 | 50.2 | 50.8 | 50.9 | 50.4 | 50.1 | -1.3 | |
| Financial activities | 6,089 | 6,300 | 6,306 | 6,290 | 6,053 | 6,199 | 6,208 | 6,227 | 6,244 | 6,255 | 11 | |
| Finance and insurance | 5,974.4 | 6,098.8 | 6,103.4 | 6,085.5 | 5,982.1 | 6,052.9 | 6,052.5 | 6,072.3 | 6,064.2 | 6,064.4 | 10.2 | |
| Monetary authorities—central bank | 21.5 | 20.5 | 20.5 | 20.4 | 21.5 | 20.4 | 20.4 | 20.3 | 20.3 | 20.3 | 0 | |
| Credit intermediation and related activities ¹ | 2,635.6 | 2,837.1 | 2,940.1 | 2,828.5 | 2,841.0 | 2,908.7 | 2,915.4 | 2,922.5 | 2,929.0 | 2,936.6 | 7.6 | |
| Depository credit intermediation ¹ | 1,781.1 | 1,818.4 | 1,817.8 | 1,806.9 | 1,785.1 | 1,787.8 | 1,802.1 | 1,804.2 | 1,809.3 | 1,812.2 | 2.9 | |
| Commercial banking | 1,284.1 | 1,321.1 | 1,321.7 | 1,313.4 | 1,286.4 | 1,308.9 | 1,311.0 | 1,311.9 | 1,314.8 | 1,318.8 | 2.0 | |
| Securities, commodity contracts, investments | 771.2 | 782.0 | 794.6 | 782.4 | 772.3 | 787.8 | 788.6 | 788.1 | 791.0 | 793.1 | 2.1 | |
| Insurance carriers and related activities | 2,262.1 | 2,282.6 | 2,282.7 | 2,259.2 | 2,283.3 | 2,253.6 | 2,254.6 | 2,255.7 | 2,255.5 | 2,259.3 | .8 | |
| Funds, trusts, and other financial vehicles | 84.0 | 86.4 | 85.5 | 85.0 | 84.0 | 84.6 | 85.6 | 85.7 | 85.4 | 85.1 | -3 | |
| Real estate and rental and leasing | 2,114.8 | 2,201.3 | 2,202.2 | 2,174.5 | 2,101.3 | 2,136.4 | 2,145.0 | 2,154.8 | 2,159.3 | 2,160.2 | .9 | |
| Rental and leasing services | 852.7 | 877.4 | 872.4 | 855.9 | 847.8 | 855.8 | 858.1 | 858.1 | 857.3 | 853.3 | -4.5 | |
| Lessors of nonfinancial intangible assets | 24.9 | 25.0 | 26.6 | 26.7 | 24.8 | 26.0 | 25.5 | 25.8 | 26.0 | 26.4 | .4 | |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Change from Aug. 2005-Sept. 2005P | |
|--|-------------------------|-----------|-----------|-------------|---------------------|----------|-----------|-----------|-------------|-----------------------------------|-------|
| | Sept. 2004 | July 2005 | Aug. 2005 | Sept. 2005P | Sept. 2004 | May 2005 | June 2005 | July 2005 | Sept. 2005P | | |
| Professional and business services | 16,635 | 17,078 | 17,197 | 17,182 | 16,514 | 16,851 | 16,908 | 16,964 | 17,002 | 17,054 | 52 |
| Professional and technical services ¹ | 6,732.7 | 6,653.5 | 6,963.9 | 6,929.3 | 6,605.4 | 6,822.1 | 6,950.9 | 6,974.3 | 6,990.9 | 7,005.5 | 14.6 |
| Legal services | 1,482.8 | 1,180.1 | 1,168.3 | 1,151.4 | 1,166.8 | 1,163.3 | 1,163.0 | 1,163.8 | 1,162.0 | 1,155.3 | -6.9 |
| Accounting and bookkeeping services | 748.6 | 793.5 | 796.1 | 790.6 | 618.1 | 651.4 | 658.5 | 661.7 | 665.3 | 667.8 | 2.5 |
| Architectural and engineering services | 1,273.5 | 1,338.9 | 1,343.4 | 1,336.5 | 1,270.5 | 1,303.9 | 1,310.8 | 1,317.5 | 1,323.8 | 1,332.0 | 6.2 |
| Computer systems design and related services | 1,157.6 | 1,181.8 | 1,188.8 | 1,188.4 | 1,161.1 | 1,178.2 | 1,182.4 | 1,184.8 | 1,187.4 | 1,191.2 | 3.8 |
| Management and technical consulting services | 789.0 | 819.0 | 822.3 | 819.4 | 787.9 | 801.9 | 805.3 | 811.9 | 815.0 | 817.0 | 2.0 |
| Management of companies and enterprises | 1,718.1 | 1,753.3 | 1,744.4 | 1,727.7 | 1,715.0 | 1,734.1 | 1,735.7 | 1,735.8 | 1,734.9 | 1,732.2 | -0.7 |
| Administrative and waste services | 6,183.9 | 6,371.3 | 6,488.8 | 6,524.6 | 7,093.2 | 6,187.9 | 6,219.5 | 6,254.1 | 6,275.3 | 6,316.4 | 40.7 |
| Administrative and support services ¹ | 7,854.1 | 8,038.4 | 8,157.7 | 8,200.0 | 7,667.3 | 7,868.8 | 7,885.7 | 7,927.4 | 7,951.3 | 7,994.7 | 43.4 |
| Employment services ¹ | 3,631.0 | 3,715.2 | 3,840.5 | 3,699.5 | 3,513.5 | 3,987.9 | 3,688.0 | 3,707.2 | 3,731.8 | 3,766.1 | 36.5 |
| Temporary help services | 2,534.3 | 2,550.1 | 2,650.0 | 2,768.0 | 2,436.7 | 2,517.7 | 2,539.8 | 2,548.8 | 2,567.1 | 2,598.8 | 31.7 |
| Business support services | 744.7 | 743.9 | 745.9 | 745.0 | 752.8 | 753.3 | 751.4 | 751.7 | 752.4 | 753.2 | .8 |
| Services to buildings and dwellings | 1,773.8 | 1,847.2 | 1,836.2 | 1,811.6 | 1,706.4 | 1,722.4 | 1,729.0 | 1,739.5 | 1,738.1 | 1,740.2 | 2.1 |
| Waste management and remediation services | 329.8 | 332.9 | 331.1 | 324.8 | 325.9 | 321.1 | 323.8 | 328.7 | 324.4 | 321.7 | -2.7 |
| Education and health services | 16,917 | 17,044 | 17,041 | 17,378 | 17,019 | 17,289 | 17,336 | 17,377 | 17,427 | 17,478 | 49 |
| Educational services | 2,702.0 | 2,510.5 | 2,487.7 | 2,789.5 | 2,773.2 | 2,822.2 | 2,835.5 | 2,837.8 | 2,850.7 | 2,860.2 | 9.5 |
| Health care and social assistance | 14,214.6 | 14,533.6 | 14,553.1 | 14,588.8 | 14,246.1 | 14,467.2 | 14,500.9 | 14,539.5 | 14,576.4 | 14,616.1 | 39.7 |
| Health care ¹ | 12,084.5 | 12,365.7 | 12,367.2 | 12,390.1 | 12,108.0 | 12,272.1 | 12,300.3 | 12,337.4 | 12,368.0 | 12,404.5 | 36.5 |
| Ambulatory health care services ¹ | 4,959.6 | 5,110.0 | 5,129.7 | 5,126.8 | 4,976.0 | 5,069.7 | 5,094.6 | 5,104.0 | 5,122.5 | 5,138.7 | 16.2 |
| Offices of physicians | 2,058.1 | 2,128.4 | 2,136.8 | 2,132.7 | 2,064.5 | 2,114.4 | 2,119.5 | 2,124.2 | 2,132.5 | 2,137.7 | 5.2 |
| Outpatient care centers | 446.6 | 462.4 | 463.0 | 468.1 | 448.7 | 455.3 | 459.7 | 461.2 | 462.7 | 466.9 | 4.2 |
| Home health care services | 777.6 | 808.2 | 809.1 | 812.0 | 778.5 | 788.8 | 804.1 | 807.3 | 810.2 | 814.8 | 4.6 |
| Hospitals | 4,303.1 | 4,401.2 | 4,400.8 | 4,400.8 | 4,306.0 | 4,352.6 | 4,314.5 | 4,389.2 | 4,433.2 | 4,405.6 | 10.4 |
| Nursing and residential care facilities ¹ | 2,821.8 | 2,854.5 | 2,856.7 | 2,862.7 | 2,825.0 | 2,839.0 | 2,841.2 | 2,849.2 | 2,852.3 | 2,862.9 | 9.9 |
| Nursing care facilities | 1,577.9 | 1,577.2 | 1,580.1 | 1,583.6 | 1,578.6 | 1,572.7 | 1,573.2 | 1,575.9 | 1,577.0 | 1,580.4 | 3.4 |
| Social assistance ¹ | 2,130.1 | 2,187.9 | 2,185.9 | 2,196.7 | 2,140.1 | 2,195.1 | 2,200.2 | 2,202.1 | 2,208.4 | 2,211.8 | 3.2 |
| Child day care services | 788.3 | 750.8 | 748.2 | 789.6 | 767.9 | 788.0 | 793.2 | 792.7 | 791.3 | 791.3 | 0.0 |
| Leisure and hospitality | 12,706 | 13,426 | 13,411 | 12,953 | 12,522 | 12,730 | 12,765 | 12,801 | 12,838 | 12,758 | -80 |
| Arts, entertainment, and recreation | 1,908.1 | 2,129.6 | 2,108.9 | 1,907.3 | 1,836.2 | 1,824.9 | 1,830.6 | 1,834.8 | 1,844.8 | 1,825.8 | -18.1 |
| Performing arts and spectator sports | 376.4 | 368.6 | 369.4 | 377.6 | 363.8 | 361.7 | 364.1 | 363.8 | 364.0 | 362.8 | -1.2 |
| Museums, historical sites, zoos, and parks | 118.2 | 129.8 | 127.1 | 120.1 | 118.3 | 117.3 | 117.5 | 117.8 | 117.8 | 119.0 | 1.4 |
| Amusements, gambling, and recreation | 1,411.5 | 1,611.4 | 1,592.4 | 1,409.6 | 1,354.3 | 1,345.9 | 1,348.0 | 1,353.4 | 1,363.3 | 1,344.0 | -19.3 |
| Accommodations and food services | 10,800.0 | 11,297.9 | 11,301.8 | 11,045.2 | 10,685.3 | 10,911.1 | 10,934.2 | 10,965.8 | 10,992.7 | 10,932.6 | -60.1 |
| Accommodations | 1,630.3 | 1,973.8 | 1,967.9 | 1,857.7 | 1,801.5 | 1,830.3 | 1,830.9 | 1,829.1 | 1,835.6 | 1,829.2 | -6.4 |
| Food services and drinking places | 8,969.7 | 9,324.1 | 9,333.9 | 9,187.5 | 8,883.8 | 9,080.8 | 9,104.2 | 9,136.7 | 9,157.1 | 9,103.4 | -53.7 |
| Other services | 5,419 | 5,545 | 5,518 | 5,444 | 5,436 | 5,468 | 5,479 | 5,477 | 5,473 | 5,466 | -7 |
| Repair and maintenance | 1,226.5 | 1,256.9 | 1,244.8 | 1,232.4 | 1,226.9 | 1,241.4 | 1,244.1 | 1,244.3 | 1,239.0 | 1,233.8 | -5.1 |
| Personal and laundry services | 1,270.8 | 1,237.4 | 1,286.8 | 1,278.5 | 1,271.5 | 1,284.4 | 1,283.2 | 1,280.1 | 1,281.1 | 1,282.5 | 1.4 |
| Membership associations and organizations | 2,821.4 | 3,001.6 | 2,985.9 | 2,833.0 | 2,637.9 | 2,942.4 | 2,951.7 | 2,952.2 | 2,952.8 | 2,949.2 | -1.6 |
| Government | 21,482 | 20,633 | 20,651 | 21,707 | 21,677 | 21,754 | 21,760 | 21,817 | 21,843 | 21,874 | 31 |
| Federal | 2,734 | 2,736 | 2,731 | 2,722 | 2,730 | 2,722 | 2,719 | 2,719 | 2,719 | 2,718 | -1 |
| Federal, except U.S. Postal Service | 1,953.4 | 1,957.3 | 1,952.0 | 1,943.7 | 1,946.6 | 1,940.8 | 1,937.6 | 1,937.3 | 1,937.1 | 1,937.1 | -2 |
| U.S. Postal Service | 780.4 | 778.9 | 778.7 | 778.7 | 783.4 | 781.2 | 781.2 | 781.1 | 781.2 | 780.7 | -0.5 |
| State government | 4,890 | 4,763 | 4,796 | 5,042 | 5,000 | 5,023 | 5,026 | 5,034 | 5,036 | 5,050 | 14 |
| State government education | 2,253.1 | 1,976.0 | 1,983.9 | 2,280.8 | 2,283.7 | 2,277.8 | 2,278.2 | 2,283.5 | 2,287.3 | 2,286.8 | 11.0 |
| State government, excluding education | 2,737.1 | 2,777.3 | 2,771.6 | 2,751.3 | 2,736.4 | 2,745.5 | 2,747.6 | 2,750.9 | 2,749.1 | 2,751.4 | 2.3 |
| Local government | 13,768 | 13,144 | 13,164 | 13,943 | 13,947 | 14,009 | 14,015 | 14,064 | 14,088 | 14,106 | 18 |
| Local government education | 7,833.2 | 6,736.5 | 6,813.8 | 7,586.5 | 7,793.2 | 7,823.5 | 7,830.3 | 7,873.9 | 7,862.8 | 7,904.2 | 11.4 |
| Local government, excluding education | 6,135.0 | 6,407.5 | 6,349.7 | 6,194.2 | 6,153.4 | 6,185.9 | 6,194.9 | 6,190.1 | 6,195.0 | 6,201.6 | 6.6 |

¹ Includes other industries, not shown separately.² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.³ Includes ambulatory health care services, hospitals, and nursing and residential care facilities.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | | Change from: Aug. 2005-Sept. 2005 ^P |
|---|-------------------------|-----------|------------------------|-------------------------|---------------------|----------|-----------|-----------|------------------------|-------------------------|-----|--|
| | Sept. 2004 | July 2005 | Aug. 2005 ^P | Sept. 2005 ^P | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 ^P | Sept. 2005 ^P | | |
| Total private | 33.6 | 33.8 | 33.9 | 33.8 | 33.8 | 33.7 | 33.7 | 33.7 | 33.7 | 33.7 | 0.0 | |
| Goods-producing | 39.7 | 39.7 | 40.3 | 40.6 | 40.1 | 39.9 | 39.9 | 39.9 | 39.9 | 39.9 | .0 | |
| Natural resources and mining | 44.3 | 45.5 | 46.4 | 46.8 | 44.5 | 45.8 | 45.6 | 45.9 | 46.0 | 45.9 | -1 | |
| Construction | 37.6 | 38.8 | 39.3 | 39.4 | 38.3 | 38.5 | 38.5 | 38.2 | 38.3 | 38.2 | -1 | |
| Manufacturing | 40.6 | 39.9 | 40.6 | 41.0 | 40.8 | 40.4 | 40.4 | 40.5 | 40.5 | 40.5 | .0 | |
| Overtime hours | 4.7 | 4.3 | 4.7 | 4.8 | 4.6 | 4.4 | 4.4 | 4.5 | 4.5 | 4.4 | -1 | |
| Durable goods | 40.9 | 40.3 | 41.1 | 41.5 | 41.2 | 40.8 | 40.9 | 41.0 | 41.1 | 41.0 | -1 | |
| Overtime hours | 4.6 | 4.3 | 4.8 | 4.8 | 4.7 | 4.4 | 4.4 | 4.6 | 4.7 | 4.5 | -2 | |
| Wood products | 30.7 | 30.8 | 30.9 | 31.0 | 30.4 | 30.6 | 30.5 | 30.6 | 30.4 | 30.5 | .1 | |
| Nonmetallic mineral products | 43.0 | 41.6 | 42.3 | 43.1 | 42.4 | 41.8 | 41.7 | 41.6 | 41.6 | 42.1 | .5 | |
| Primary metals | 42.8 | 42.4 | 42.8 | 43.2 | 43.1 | 42.5 | 42.7 | 43.1 | 43.0 | 43.0 | .0 | |
| Fabricated metal products | 40.7 | 40.3 | 40.7 | 41.1 | 41.2 | 40.7 | 40.7 | 40.8 | 40.7 | 40.8 | -1 | |
| Machinery | 41.5 | 41.5 | 41.8 | 42.0 | 42.3 | 41.9 | 41.9 | 42.1 | 42.0 | 41.8 | -2 | |
| Computer and electronic products | 40.1 | 39.7 | 39.8 | 40.7 | 40.3 | 39.9 | 39.8 | 40.1 | 39.9 | 40.2 | .3 | |
| Electrical equipment and appliances | 40.0 | 40.2 | 41.1 | 41.7 | 40.8 | 40.2 | 40.2 | 40.9 | 40.9 | 41.2 | .3 | |
| Transportation equipment | 42.3 | 40.5 | 42.7 | 43.0 | 42.4 | 41.8 | 42.2 | 42.2 | 42.8 | 42.4 | -.4 | |
| Motor vehicles and parts ² | 42.5 | 39.8 | 42.8 | 43.2 | 42.4 | 41.4 | 42.0 | 41.9 | 42.9 | 42.5 | -.4 | |
| Furniture and related products | 38.6 | 39.2 | 39.6 | 39.8 | 39.3 | 39.1 | 39.3 | 39.3 | 39.2 | 39.2 | .0 | |
| Miscellaneous manufacturing | 38.0 | 37.6 | 38.7 | 39.9 | 39.4 | 38.6 | 38.7 | 38.2 | 38.7 | 38.8 | .1 | |
| Nondurable goods | 40.1 | 39.4 | 39.8 | 40.2 | 40.1 | 39.7 | 39.7 | 39.7 | 39.7 | 39.7 | .0 | |
| Overtime hours | 4.8 | 4.3 | 4.5 | 4.7 | 4.4 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | .0 | |
| Food manufacturing | 39.8 | 39.8 | 39.2 | 39.5 | 39.3 | 39.0 | 38.8 | 39.0 | 38.8 | 38.7 | -.1 | |
| Beverages and tobacco products | 39.8 | 40.0 | 40.6 | 39.9 | 39.2 | 39.0 | 40.0 | 39.9 | 40.0 | 39.5 | -.5 | |
| Textile mills | 39.9 | 39.8 | 40.0 | 40.0 | 40.2 | 40.4 | 40.3 | 40.2 | 39.9 | 39.8 | -.1 | |
| Textile product mills | 38.7 | 37.8 | 38.4 | 38.7 | 39.1 | 38.7 | 38.1 | 38.2 | 38.5 | 38.3 | -.2 | |
| Apparel | 35.5 | 34.9 | 35.8 | 35.0 | 36.2 | 35.1 | 35.4 | 35.3 | 35.6 | 35.2 | -.4 | |
| Leather and allied products | 37.2 | 38.4 | 38.3 | 38.5 | 38.2 | 38.5 | 38.6 | 39.3 | 38.4 | 38.4 | .0 | |
| Paper and paper products | 42.4 | 41.9 | 42.3 | 42.7 | 42.2 | 42.3 | 42.2 | 42.2 | 42.4 | 42.4 | .0 | |
| Printing and related support activities | 38.4 | 38.1 | 38.3 | 38.9 | 38.3 | 38.4 | 38.2 | 38.4 | 38.3 | 38.4 | .1 | |
| Petroleum and coal products | 45.8 | 45.6 | 44.6 | 47.9 | 46.0 | 45.8 | 45.6 | 45.4 | 45.2 | 48.9 | 1.7 | |
| Chemicals | 42.7 | 41.6 | 41.5 | 42.0 | 42.8 | 42.3 | 42.1 | 42.0 | 41.7 | 42.0 | .3 | |
| Plastics and rubber products | 40.1 | 38.8 | 39.8 | 40.5 | 40.3 | 39.6 | 39.8 | 39.8 | 39.9 | 40.1 | .2 | |
| Private service-providing | 32.3 | 32.8 | 32.5 | 32.3 | 32.5 | 32.4 | 32.4 | 32.4 | 32.4 | 32.4 | .0 | |
| Trade, transportation, and utilities | 33.6 | 33.6 | 33.5 | 33.4 | 33.6 | 33.4 | 33.3 | 33.3 | 33.3 | 33.3 | .0 | |
| Wholesale trade | 37.6 | 37.5 | 37.5 | 37.7 | 37.8 | 37.6 | 37.8 | 37.8 | 37.5 | 37.6 | .1 | |
| Retail trade | 30.9 | 31.0 | 30.9 | 30.6 | 30.8 | 30.6 | 30.5 | 30.5 | 30.5 | 30.5 | .0 | |
| Transportation and warehousing | 37.4 | 37.1 | 37.0 | 36.8 | 37.5 | 37.1 | 37.0 | 37.0 | 36.9 | 36.6 | -.3 | |
| Utilities | 41.5 | 41.1 | 41.1 | 42.4 | 41.4 | 40.9 | 41.2 | 41.2 | 41.3 | 41.9 | .8 | |
| Information | 36.2 | 36.8 | 36.8 | 36.4 | 36.3 | 36.6 | 36.4 | 36.6 | 36.4 | 36.6 | .2 | |
| Financial activities | 35.2 | 35.9 | 35.9 | 35.7 | 35.5 | 36.0 | 36.0 | 36.1 | 36.0 | 36.0 | .0 | |
| Professional and business services | 34.0 | 34.2 | 34.3 | 34.3 | 34.7 | 34.1 | 34.1 | 34.3 | 34.2 | 34.3 | .1 | |
| Education and health services | 32.4 | 32.7 | 32.8 | 32.8 | 32.5 | 32.6 | 32.6 | 32.7 | 32.5 | 32.7 | .2 | |
| Leisure and hospitality | 25.3 | 26.4 | 26.4 | 25.3 | 25.6 | 25.8 | 25.8 | 25.7 | 25.7 | 25.8 | -.1 | |
| Other services | 30.8 | 31.2 | 31.2 | 30.9 | 31.0 | 30.9 | 31.0 | 31.0 | 31.0 | 30.9 | -.1 | |

¹ Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. These groups account for approximately four-fourths of the total employment on private nonfarm payrolls.

² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.

^P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|------------------------|-------------------------|-------------------------|-----------|------------------------|-------------------------|
| | Sept. 2004 | July 2005 | Aug. 2005 ^p | Sept. 2005 ^p | Sept. 2004 | July 2005 | Aug. 2005 ^p | Sept. 2005 ^p |
| Total private | \$15.79 | \$16.05 | \$16.06 | \$16.22 | \$530.54 | \$542.49 | \$544.43 | \$548.24 |
| Seasonally adjusted | 15.77 | 16.14 | 16.15 | 16.18 | 533.03 | 543.92 | 544.26 | 545.27 |
| Goods-producing | 17.40 | 17.63 | 17.70 | 17.76 | 690.78 | 699.91 | 713.31 | 721.06 |
| Natural resources and mining | 17.97 | 18.72 | 18.64 | 18.74 | 796.07 | 851.76 | 864.90 | 877.03 |
| Construction | 19.42 | 19.56 | 19.59 | 19.73 | 730.19 | 758.93 | 769.69 | 777.36 |
| Manufacturing | 16.35 | 16.49 | 16.60 | 16.63 | 663.61 | 657.95 | 673.96 | 681.63 |
| Durable goods | 17.06 | 17.21 | 17.42 | 17.43 | 697.75 | 693.66 | 715.96 | 723.35 |
| Wood products | 13.14 | 13.18 | 13.05 | 13.09 | 521.66 | 521.93 | 520.70 | 523.60 |
| Nonmetallic mineral products | 16.51 | 16.82 | 16.84 | 16.73 | 709.93 | 703.97 | 712.33 | 721.06 |
| Primary metals | 18.60 | 18.94 | 18.96 | 19.09 | 806.40 | 803.06 | 811.49 | 824.89 |
| Fabricated metal products | 15.43 | 15.84 | 15.88 | 15.92 | 628.00 | 638.35 | 646.32 | 654.31 |
| Machinery | 16.85 | 17.11 | 16.95 | 16.88 | 699.28 | 711.78 | 705.12 | 708.12 |
| Computer and electronic products | 17.48 | 18.63 | 18.63 | 18.49 | 700.95 | 739.61 | 741.47 | 752.54 |
| Electrical equipment and appliances | 15.08 | 15.28 | 15.30 | 15.23 | 633.20 | 614.26 | 628.63 | 635.09 |
| Transportation equipment | 21.91 | 21.40 | 22.29 | 22.44 | 826.79 | 869.94 | 951.78 | 964.92 |
| Furniture and related products | 13.39 | 13.45 | 13.47 | 13.56 | 519.53 | 527.24 | 533.41 | 537.77 |
| Miscellaneous manufacturing | 13.97 | 14.24 | 14.14 | 14.11 | 530.86 | 535.42 | 547.22 | 548.88 |
| Nondurable goods | 15.23 | 15.33 | 15.24 | 15.30 | 610.72 | 604.00 | 606.55 | 615.06 |
| Food manufacturing | 13.09 | 13.02 | 12.99 | 12.97 | 520.98 | 505.18 | 509.21 | 512.32 |
| Beverages and tobacco products | 19.17 | 19.01 | 18.46 | 18.61 | 762.97 | 760.40 | 750.29 | 742.54 |
| Textile mills | 12.25 | 12.44 | 12.46 | 12.44 | 486.78 | 492.62 | 499.40 | 497.60 |
| Apparel | 11.49 | 11.76 | 11.75 | 11.69 | 444.66 | 444.15 | 451.20 | 452.40 |
| Leather and allied products | 9.93 | 10.27 | 10.20 | 10.30 | 352.52 | 358.42 | 365.16 | 360.50 |
| Paper and paper products | 11.56 | 11.54 | 11.58 | 11.70 | 430.03 | 443.14 | 443.51 | 450.45 |
| Printing and related support activities | 16.21 | 16.20 | 17.93 | 17.95 | 772.10 | 782.58 | 758.44 | 766.47 |
| Textile mill and related support activities | 15.99 | 15.73 | 15.83 | 16.01 | 612.86 | 599.31 | 606.29 | 622.79 |
| Petroleum and coal products | 24.44 | 24.56 | 24.08 | 24.25 | 1,119.35 | 1,117.48 | 1,073.97 | 1,161.58 |
| Chemicals | 19.44 | 19.71 | 19.73 | 19.67 | 830.09 | 819.94 | 818.60 | 834.54 |
| Plastics and rubber products | 14.75 | 14.91 | 14.89 | 14.91 | 591.48 | 578.51 | 592.62 | 603.88 |
| Private service-providing | 15.35 | 15.63 | 15.61 | 15.79 | 495.81 | 509.54 | 507.33 | 510.02 |
| Trade, transportation, and utilities | 14.69 | 15.00 | 14.95 | 15.02 | 493.58 | 504.00 | 500.83 | 501.67 |
| Wholesale trade | 17.71 | 18.20 | 18.16 | 18.26 | 665.90 | 682.50 | 681.00 | 668.40 |
| Retail trade | 12.21 | 12.43 | 12.38 | 12.36 | 377.29 | 385.33 | 382.54 | 378.22 |
| Transportation and warehousing | 16.51 | 16.80 | 16.82 | 16.83 | 617.47 | 623.26 | 622.34 | 619.34 |
| Utilities | 25.89 | 26.84 | 26.55 | 27.15 | 1,074.44 | 1,103.12 | 1,091.21 | 1,151.16 |
| Information | 21.73 | 22.02 | 22.15 | 22.52 | 788.63 | 805.93 | 810.69 | 819.73 |
| Financial activities | 17.62 | 17.93 | 17.92 | 17.97 | 620.22 | 643.69 | 643.33 | 641.53 |
| Professional and business services | 17.47 | 17.93 | 17.86 | 17.97 | 593.98 | 613.21 | 612.60 | 616.37 |
| Education and health services | 16.30 | 16.77 | 16.73 | 16.84 | 528.12 | 548.36 | 545.40 | 546.88 |
| Leisure and hospitality | 8.94 | 9.01 | 9.04 | 9.26 | 226.18 | 237.86 | 238.66 | 234.28 |
| Other services | 14.06 | 14.14 | 14.18 | 14.29 | 433.05 | 441.17 | 442.42 | 441.56 |

¹ See footnote 1, table B-2.

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail, seasonally adjusted

| Industry | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 ² | Sept. 2005 ³ | Percent change from: Aug. 2005-Sept. 2005 ⁴ |
|--------------------------------------|------------|----------|-----------|-----------|------------------------|-------------------------|--|
| Total private: | | | | | | | |
| Current dollars | \$15.77 | \$16.03 | \$16.07 | \$16.14 | \$16.15 | \$16.16 | 0.2 |
| Constant (1982) dollars ⁵ | 8.25 | 8.19 | 8.21 | 8.20 | 8.15 | N.A. | (²) |
| Goods-producing | 17.30 | 17.54 | 17.58 | 17.60 | 17.65 | 17.64 | -1 |
| Natural resources and mining | 18.06 | 18.58 | 18.66 | 18.74 | 18.77 | 18.83 | .3 |
| Construction | 19.27 | 19.36 | 19.43 | 19.52 | 19.50 | 19.56 | .3 |
| Manufacturing | 16.29 | 16.53 | 16.55 | 16.56 | 16.64 | 16.57 | -.4 |
| Excluding overtime ⁶ | 15.42 | 15.68 | 15.70 | 15.68 | 15.76 | 15.72 | -.3 |
| Durable goods | 16.98 | 17.28 | 17.32 | 17.34 | 17.45 | 17.38 | -.5 |
| Nondurable goods | 15.18 | 15.31 | 15.29 | 15.25 | 15.28 | 15.26 | -.1 |
| Private service-providing | 15.36 | 15.63 | 15.67 | 15.76 | 15.75 | 15.80 | .3 |
| Trade, transportation, and utilities | 14.68 | 14.91 | 14.91 | 15.04 | 15.01 | 15.00 | -.1 |
| Wholesale trade | 17.73 | 18.04 | 18.11 | 18.25 | 18.24 | 18.29 | .3 |
| Retail trade | 12.16 | 12.38 | 12.35 | 12.47 | 12.43 | 12.33 | -.8 |
| Transportation and warehousing | 16.53 | 16.57 | 16.69 | 16.76 | 16.81 | 16.83 | .1 |
| Utilities | 25.82 | 26.49 | 26.37 | 27.00 | 26.82 | 27.02 | .7 |
| Information | 21.82 | 21.97 | 22.08 | 22.18 | 22.24 | 22.35 | .5 |
| Financial activities | 17.64 | 17.82 | 17.90 | 17.99 | 17.95 | 17.98 | .2 |
| Professional and business services | 17.54 | 17.94 | 17.98 | 18.05 | 18.06 | 18.06 | .0 |
| Education and health services | 16.28 | 16.60 | 16.67 | 16.73 | 16.75 | 16.80 | .3 |
| Leisure and hospitality | 8.95 | 9.09 | 9.10 | 9.13 | 9.15 | 9.25 | 1.1 |
| Other services | 14.05 | 14.20 | 14.22 | 14.25 | 14.27 | 14.28 | .1 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was -0.6 percent from July 2005 to Aug. 2005, the latest month available.⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

⁵ P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Percent change from: Aug. 2005- Sept. 2005 ² |
|---|-------------------------|-----------|------------------------|-------------------------|---------------------|----------|-----------|-----------|------------------------|-------------------------|---|
| | Sept. 2004 | July 2005 | Aug. 2005 ² | Sept. 2005 ² | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 ² | Sept. 2005 ² | |
| Total private | 100.8 | 104.1 | 104.6 | 103.6 | 100.9 | 102.3 | 102.5 | 102.8 | 103.0 | 102.8 | -0.2 |
| Goods-producing | 98.2 | 99.3 | 101.5 | 101.7 | 97.4 | 98.0 | 98.1 | 98.1 | 98.2 | 98.3 | .1 |
| Natural resources and mining | 108.3 | 117.3 | 121.1 | 122.4 | 105.9 | 114.4 | 114.9 | 115.9 | 117.1 | 117.3 | .2 |
| Construction | 104.6 | 112.8 | 115.0 | 114.1 | 102.1 | 106.3 | 106.6 | 105.9 | 106.4 | 106.5 | .1 |
| Manufacturing | 94.8 | 92.4 | 94.8 | 95.3 | 94.7 | 93.6 | 93.5 | 93.7 | 93.7 | 93.6 | -.1 |
| Durable goods | 95.0 | 93.5 | 96.3 | 97.0 | 95.5 | 95.0 | 95.2 | 95.5 | 96.0 | 95.7 | -.3 |
| Wood products | 99.6 | 99.8 | 100.7 | 100.7 | 100.8 | 98.0 | 98.2 | 98.3 | 97.9 | 98.5 | .8 |
| Nonmetallic mineral products | 103.1 | 97.8 | 99.5 | 100.6 | 99.2 | 95.8 | 96.0 | 95.1 | 95.1 | 95.7 | .6 |
| Primary metals | 92.8 | 92.7 | 92.1 | 93.9 | 93.3 | 91.7 | 92.0 | 93.1 | 92.7 | 93.3 | .6 |
| Fabricated metal products | 97.5 | 97.8 | 98.8 | 100.1 | 98.8 | 96.5 | 96.8 | 96.0 | 96.6 | 96.9 | .1 |
| Machinery | 95.2 | 97.5 | 97.1 | 99.1 | 97.5 | 96.0 | 96.0 | 99.1 | 98.9 | 99.2 | .3 |
| Computer and electronic products | 90.4 | 95.3 | 96.8 | 99.5 | 91.0 | 93.8 | 94.3 | 96.1 | 96.7 | 96.4 | 1.8 |
| Electrical equipment and appliances | 88.0 | 88.8 | 87.7 | 89.3 | 89.0 | 87.3 | 86.7 | 88.4 | 88.2 | 88.0 | -.2 |
| Transportation equipment | 96.3 | 88.8 | 97.4 | 96.5 | 96.3 | 96.0 | 95.9 | 95.0 | 97.2 | 94.9 | -2.4 |
| Motor vehicles and parts ² | 96.9 | 83.4 | 94.6 | 96.3 | 96.6 | 93.4 | 93.0 | 90.9 | 94.7 | 94.7 | .0 |
| Furniture and related products | 92.3 | 90.9 | 92.2 | 91.2 | 93.8 | 90.8 | 91.3 | 91.0 | 90.7 | 90.4 | -.3 |
| Miscellaneous manufacturing | 90.3 | 88.2 | 91.0 | 91.3 | 90.1 | 90.5 | 89.7 | 90.8 | 90.9 | .1 | |
| Nondurable goods | 94.2 | 90.8 | 91.7 | 92.3 | 93.2 | 91.0 | 90.8 | 90.8 | 90.4 | 90.3 | -.1 |
| Food manufacturing | 101.2 | 97.7 | 99.3 | 99.4 | 97.4 | 96.5 | 96.0 | 96.5 | 95.6 | 95.2 | -.4 |
| Beverages and tobacco products | 94.9 | 88.6 | 89.3 | 89.1 | 89.7 | 91.6 | 94.6 | 94.8 | 94.6 | 94.1 | -.5 |
| Textile mills | 78.0 | 71.2 | 71.8 | 72.0 | 78.6 | 74.2 | 73.3 | 72.8 | 71.6 | 71.2 | -.6 |
| Textile product mills | 90.7 | 91.5 | 92.3 | 93.3 | 92.7 | 92.7 | 90.9 | 92.0 | 92.9 | 93.3 | .4 |
| Apparel | 74.3 | 64.2 | 65.8 | 64.4 | 74.6 | 65.4 | 65.4 | 65.8 | 65.0 | 63.8 | -.8 |
| Leather and allied products | 81.9 | 84.0 | 88.0 | 87.6 | 84.4 | 84.3 | 85.3 | 87.8 | 86.9 | 86.9 | .0 |
| Paper and paper products | 90.8 | 89.0 | 90.1 | 90.3 | 90.0 | 90.1 | 89.4 | 89.4 | 89.6 | 89.3 | -.6 |
| Printing and related support activities | 93.4 | 91.7 | 91.8 | 93.2 | 93.1 | 92.4 | 91.6 | 91.9 | 91.4 | 91.8 | .4 |
| Petroleum and coal products | 110.6 | 109.1 | 106.0 | 111.2 | 108.6 | 108.1 | 107.0 | 106.5 | 104.2 | 106.8 | 2.5 |
| Chemicals | 96.7 | 95.7 | 94.6 | 94.8 | 99.5 | 96.8 | 96.2 | 95.9 | 94.7 | 95.0 | .3 |
| Plastics and rubber products | 94.1 | 89.1 | 91.5 | 93.1 | 94.2 | 91.4 | 91.2 | 91.1 | 91.6 | 91.9 | .3 |
| Private service-providing | 101.7 | 105.6 | 105.4 | 104.0 | 102.1 | 103.6 | 103.9 | 104.2 | 104.4 | 104.2 | -.2 |
| Trade, transportation, and utilities | 99.9 | 102.1 | 101.9 | 100.9 | 100.1 | 101.1 | 100.9 | 101.2 | 101.3 | 100.7 | -.6 |
| Wholesale trade | 99.0 | 101.4 | 101.4 | 101.8 | 99.4 | 100.6 | 100.7 | 100.9 | 100.8 | 101.1 | .3 |
| Retail trade | 99.3 | 101.9 | 101.8 | 99.4 | 99.6 | 100.2 | 100.1 | 100.5 | 100.6 | 99.7 | -.9 |
| Transportation and warehousing | 104.3 | 104.7 | 104.4 | 105.3 | 103.5 | 105.4 | 105.1 | 105.1 | 104.8 | 103.7 | -1.0 |
| Utilities | 96.2 | 97.8 | 97.9 | 99.4 | 96.0 | 96.1 | 96.9 | 97.0 | 97.6 | 98.4 | .8 |
| Information | 98.9 | 103.9 | 103.7 | 102.7 | 99.9 | 103.1 | 102.6 | 103.3 | 102.8 | 104.0 | 1.2 |
| Financial activities | 101.7 | 106.6 | 106.6 | 105.1 | 102.4 | 105.1 | 105.4 | 106.0 | 105.8 | 105.9 | .1 |
| Professional and business services | 103.2 | 107.3 | 106.8 | 108.3 | 104.5 | 105.2 | 106.7 | 106.7 | 106.8 | 107.3 | .5 |
| Education and health services | 103.0 | 104.8 | 104.4 | 106.2 | 103.9 | 106.0 | 106.2 | 106.8 | 106.3 | 107.1 | .8 |
| Leisure and hospitality | 103.5 | 114.7 | 114.5 | 105.5 | 103.0 | 105.7 | 106.0 | 105.9 | 106.2 | 105.1 | -1.0 |
| Other services | 95.9 | 100.1 | 99.4 | 97.0 | 96.8 | 97.7 | 96.1 | 96.1 | 97.8 | 97.5 | -.4 |

¹ See footnote 1, table B-2.² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.³ = preliminary.

NOTE: The indexes of aggregate weekly hours are calculated by

dividing the current month's estimates of aggregate hours by the corresponding 2002 annual average levels. Aggregate hours estimates are the product of estimates of average weekly hours and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-6. Indexes of aggregate weekly payrolls of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Percent change from: Aug. 2005-Sept. 2005 ^P |
|--|-------------------------|-----------|------------------------|-------------------------|---------------------|----------|-----------|-----------|------------------------|-------------------------|--|
| | Sept. 2004 | July 2005 | Aug. 2005 ^P | Sept. 2005 ^P | Sept. 2004 | May 2005 | June 2005 | July 2005 | Aug. 2005 ^P | Sept. 2005 ^P | |
| Total private | 106.5 | 111.7 | 112.4 | 112.4 | 106.5 | 109.8 | 110.3 | 111.0 | 111.2 | 111.3 | 0.1 |
| Goods-producing | 104.6 | 107.3 | 110.0 | 110.6 | 103.1 | 105.3 | 105.6 | 105.7 | 106.2 | 106.2 | .0 |
| Natural resources and mining | 113.2 | 127.7 | 131.2 | 133.4 | 111.3 | 123.7 | 124.6 | 129.3 | 127.8 | 128.5 | .5 |
| Construction | 109.6 | 119.1 | 121.6 | 121.5 | 108.2 | 111.2 | 111.9 | 111.6 | 112.1 | 112.5 | .4 |
| Manufacturing | 101.3 | 99.6 | 102.7 | 103.6 | 100.9 | 101.2 | 101.2 | 101.4 | 102.0 | 101.4 | -.6 |
| Durable goods | 101.2 | 100.4 | 104.7 | 105.6 | 101.3 | 102.5 | 103.0 | 103.3 | 104.5 | 103.7 | -.8 |
| Nondurable goods | 101.3 | 98.4 | 98.8 | 99.8 | 99.9 | 98.5 | 98.1 | 97.9 | 97.6 | 97.3 | -.3 |
| Private service-providing | 107.2 | 113.4 | 113.0 | 112.9 | 107.8 | 111.3 | 111.8 | 112.8 | 112.9 | 113.1 | .2 |
| Trade, transportation, and utilities | 104.7 | 109.2 | 108.6 | 108.1 | 104.7 | 107.5 | 107.4 | 108.6 | 108.5 | 107.8 | -.6 |
| Wholesale trade | 103.3 | 108.7 | 108.5 | 109.2 | 103.8 | 106.9 | 107.5 | 108.5 | 108.3 | 108.9 | .6 |
| Retail trade | 104.0 | 108.8 | 108.0 | 105.3 | 103.9 | 108.4 | 106.0 | 107.4 | 107.2 | 105.3 | -1.8 |
| Transportation and warehousing | 109.2 | 111.6 | 111.4 | 112.4 | 108.5 | 111.5 | 111.2 | 111.8 | 111.7 | 110.7 | -.9 |
| Utilities | 103.9 | 109.5 | 108.4 | 112.6 | 103.5 | 106.2 | 108.7 | 109.3 | 109.3 | 111.0 | 1.8 |
| Information | 106.4 | 113.3 | 113.7 | 114.5 | 106.9 | 112.1 | 112.2 | 113.4 | 113.2 | 115.1 | 1.7 |
| Financial activities | 110.8 | 118.2 | 118.1 | 116.8 | 111.7 | 115.8 | 118.7 | 117.9 | 117.4 | 117.7 | .3 |
| Professional and business services | 107.3 | 114.5 | 115.4 | 115.8 | 109.0 | 112.3 | 113.0 | 114.8 | 114.7 | 115.3 | .5 |
| Education and health services | 110.4 | 115.5 | 114.8 | 117.6 | 111.2 | 115.7 | 118.4 | 117.5 | 117.1 | 118.3 | 1.0 |
| Leisure and hospitality | 107.8 | 120.5 | 120.7 | 114.0 | 107.5 | 112.1 | 112.5 | 112.8 | 113.3 | 113.4 | .1 |
| Other services | 98.2 | 103.2 | 102.7 | 101.0 | 99.1 | 101.1 | 101.8 | 101.9 | 101.8 | 101.4 | -.4 |

¹ See footnote 1, table B-2.

P = preliminary.

NOTE: The indexes of aggregate weekly payrolls are calculated by dividing the current month's estimates of aggregate payrolls by

the corresponding 2002 annual average levels. Aggregate payroll estimates are the product of estimates of average hourly earnings, average weekly hours, and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-7. Diffusion indexes of employment change

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|------|------|------|------|------|------|------|--------|--------|------|------|------|
| Private nonfarm payrolls, 278 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 48.5 | 47.7 | 48.6 | 32.7 | 42.4 | 40.8 | 36.7 | 39.0 | 37.6 | 33.6 | 36.9 | 37.1 |
| 2002 | 41.0 | 35.6 | 39.7 | 39.2 | 40.5 | 47.7 | 42.8 | 43.0 | 42.1 | 39.0 | 41.5 | 35.1 |
| 2003 | 44.4 | 38.7 | 33.3 | 41.4 | 39.4 | 39.9 | 42.1 | 39.4 | 50.4 | 48.9 | 50.0 | 50.5 |
| 2004 | 50.9 | 53.4 | 68.0 | 67.3 | 64.6 | 59.7 | 55.4 | 53.9 | 57.6 | 58.6 | 54.7 | 54.3 |
| 2005 | 54.1 | 61.2 | 53.1 | 61.7 | 57.4 | 54.7 | 58.8 | P 54.9 | P 53.2 | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 53.2 | 49.8 | 49.8 | 42.3 | 38.1 | 34.2 | 37.8 | 37.8 | 34.7 | 35.4 | 30.8 | 32.0 |
| 2002 | 35.3 | 37.9 | 36.5 | 34.2 | 34.4 | 39.4 | 40.6 | 44.1 | 37.8 | 37.1 | 35.8 | 36.7 |
| 2003 | 38.3 | 35.4 | 33.3 | 33.5 | 36.5 | 41.7 | 37.8 | 37.4 | 43.2 | 46.4 | 48.6 | 50.2 |
| 2004 | 52.5 | 53.8 | 58.7 | 69.4 | 75.4 | 71.2 | 63.5 | 56.6 | 57.4 | 59.9 | 59.7 | 58.3 |
| 2005 | 58.5 | 60.3 | 63.7 | 62.4 | 59.4 | 64.2 | 61.3 | P 61.2 | P 55.9 | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 53.1 | 50.9 | 52.0 | 45.5 | 43.0 | 39.7 | 38.5 | 33.6 | 33.5 | 34.2 | 33.6 | 30.9 |
| 2002 | 29.5 | 29.9 | 32.0 | 31.7 | 30.9 | 37.4 | 37.1 | 38.7 | 35.3 | 36.0 | 37.9 | 35.1 |
| 2003 | 32.7 | 32.2 | 31.3 | 31.3 | 33.1 | 37.8 | 33.6 | 32.2 | 40.3 | 43.7 | 46.4 | 49.3 |
| 2004 | 47.3 | 50.4 | 54.9 | 62.6 | 64.4 | 69.6 | 67.3 | 66.9 | 64.6 | 62.2 | 59.7 | 55.9 |
| 2005 | 60.3 | 62.6 | 63.7 | 62.2 | 62.6 | 63.1 | 64.0 | P 61.9 | P 61.3 | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 58.5 | 59.5 | 53.4 | 49.3 | 48.6 | 45.0 | 43.3 | 43.9 | 39.9 | 37.8 | 37.1 | 34.8 |
| 2002 | 33.8 | 31.7 | 30.2 | 30.4 | 30.2 | 29.1 | 32.0 | 31.3 | 30.0 | 29.5 | 32.9 | 34.7 |
| 2003 | 34.5 | 31.5 | 32.9 | 33.5 | 34.2 | 35.1 | 32.7 | 33.1 | 37.1 | 38.7 | 37.2 | 39.2 |
| 2004 | 49.3 | 42.1 | 44.8 | 48.7 | 52.0 | 56.7 | 57.4 | 67.6 | 60.3 | 62.1 | 64.8 | 64.0 |
| 2005 | 61.2 | 64.7 | 64.2 | 65.6 | 63.8 | 60.4 | 63.8 | P 66.2 | P 62.9 | | | |
| Manufacturing payrolls, 84 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 22.0 | 17.3 | 22.0 | 17.9 | 16.1 | 22.6 | 13.1 | 15.5 | 18.5 | 17.3 | 14.9 | 11.9 |
| 2002 | 19.0 | 19.6 | 22.0 | 32.1 | 28.2 | 31.0 | 35.7 | 23.2 | 28.6 | 15.5 | 18.5 | 18.7 |
| 2003 | 35.1 | 19.0 | 19.0 | 11.9 | 19.6 | 20.8 | 22.6 | 24.4 | 32.7 | 35.1 | 39.9 | 42.9 |
| 2004 | 39.3 | 49.4 | 50.0 | 65.5 | 60.1 | 51.8 | 60.7 | 48.8 | 42.9 | 42.3 | 46.4 | 44.6 |
| 2005 | 42.3 | 44.6 | 41.1 | 47.6 | 44.0 | 33.9 | 50.0 | P 36.9 | P 48.2 | | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 32.7 | 20.6 | 16.7 | 14.3 | 14.3 | 11.9 | 11.9 | 9.5 | 7.7 | 12.5 | 11.3 | 9.5 |
| 2002 | 10.7 | 11.9 | 11.3 | 17.9 | 14.9 | 20.2 | 25.6 | 23.8 | 20.2 | 13.7 | 8.9 | 9.5 |
| 2003 | 16.1 | 14.3 | 12.5 | 8.9 | 10.7 | 10.7 | 14.3 | 15.5 | 18.5 | 27.4 | 31.5 | 35.1 |
| 2004 | 42.3 | 43.5 | 42.9 | 58.3 | 59.0 | 69.6 | 62.5 | 53.6 | 52.4 | 44.8 | 45.2 | 33.7 |
| 2005 | 45.2 | 42.9 | 52.4 | 46.4 | 41.7 | 38.7 | 41.1 | P 44.0 | P 43.5 | | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 22.6 | 24.4 | 21.4 | 19.6 | 14.3 | 11.9 | 13.1 | 11.3 | 10.7 | 7.1 | 7.7 | 5.4 |
| 2002 | 6.0 | 8.3 | 8.3 | 9.5 | 7.1 | 13.1 | 12.5 | 11.3 | 14.3 | 8.3 | 8.3 | 7.7 |
| 2003 | 12.5 | 10.1 | 7.1 | 8.3 | 11.3 | 10.7 | 4.8 | 10.1 | 13.1 | 18.7 | 19.6 | 26.8 |
| 2004 | 27.4 | 29.8 | 33.3 | 47.0 | 52.4 | 57.1 | 60.1 | 58.9 | 58.9 | 50.6 | 45.2 | 42.9 |
| 2005 | 43.5 | 44.0 | 42.3 | 39.3 | 38.7 | 36.9 | 36.9 | P 35.1 | P 39.9 | | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 29.8 | 32.1 | 20.6 | 19.0 | 13.1 | 12.5 | 10.7 | 9.1 | 11.9 | 10.1 | 8.3 | 6.0 |
| 2002 | 7.1 | 6.0 | 6.0 | 6.5 | 7.1 | 3.8 | 4.8 | 6.0 | 4.8 | 7.1 | 4.8 | 8.3 |
| 2003 | 10.7 | 6.0 | 6.5 | 6.0 | 8.3 | 7.1 | 7.1 | 8.3 | 10.7 | 10.7 | 9.5 | 10.7 |
| 2004 | 13.1 | 14.3 | 13.1 | 19.0 | 23.6 | 34.5 | 43.5 | 40.5 | 45.8 | 48.2 | 49.4 | 48.4 |
| 2005 | 45.2 | 45.8 | 47.6 | 44.6 | 42.3 | 39.3 | 39.3 | P 38.1 | P 36.9 | | | |

¹Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span.
 P= preliminary.

NOTE: Figures are the percent of industries with employment

increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

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CHAD STONE
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Opening Statement
Senator Jack Reed
Joint Economic Committee Hearing
October 7, 2005

Thank you, Chairman Saxton. This is a very important hearing because it is our first look at jobs data that begin to reflect the impact of Hurricane Katrina. I want to commend Deputy Commissioner Rones for the hard work that the Bureau of Labor Statistics staff put into producing this month's employment statistics under truly extraordinary circumstances.

Obviously this month's employment report is dominated by the devastating impact of Hurricane Katrina on the Gulf coast. The human costs were tragic and the property losses staggering. For the economy as a whole, the net job losses in September were 35,000. That is substantially below what markets were expecting, which may reflect the difficulty we face in getting a clear picture of the impact of the hurricane on employment.

We don't know what this month's employment report would have looked like without Katrina, but we do know that prior to Katrina, the labor market was still feeling the effects of the most protracted jobs slump in decades. The growth in payroll employment since job losses peaked in May 2003 has been modest by the standards of most economic recoveries, and we haven't seen very many months of truly healthy job growth.

Although the unemployment rate has come down, it is still considerably higher than the 4 percent rate achieved in the expansion of the 1990s. There is evidence of hidden unemployment, with labor force participation and the fraction of the population with a job still at depressed levels.

Finally, of course, there is the disappointing performance of wages. The typical worker's earnings are not keeping up with their rising living expenses. Gasoline prices have been high and home heating costs are expected to be substantially higher this winter than they were last winter. The real wage gains we have seen in the past year or so have been concentrated in the upper reaches of the wage distribution, while real earnings in the middle and lower portions of the distribution are falling.

I am troubled by the fact that President Bush wasted little time exercising his power to lift the federal law governing workers' pay on federal contracts in the hurricane-ravaged areas. That provision, known as the Davis-Bacon Act, requires federal contractors to pay the prevailing or average wage in the region.

According to the Department of Labor, the prevailing wage for construction labor is about \$10 an hour in New Orleans, where last year the overall poverty rate was about two percentage points higher than the national average and 25 percent of children lived in poverty. It's certainly hard to take seriously the President's rhetoric about wanting to lift families out of poverty while legitimizing sub-par wages for workers rebuilding their communities on the Gulf Coast. The Davis-Bacon wage protection for workers should be restored immediately.

The American economy is resilient, and forecasters expect that reconstruction efforts in the wake of the Gulf hurricanes will stimulate a recovery in jobs from the depressed levels we see in this month's jobs report. I hope they are right.

But I also hope President Bush has noticed that many American workers do not feel they are a part of the economic recovery. That was reflected in the Conference Board's consumer confidence index, which dropped by 17.9 percent last month, its largest decline since October 1990, and in the University of Michigan's index of consumer sentiment which posted its largest drop since December 1980. Economic insecurity is not just growing, it's becoming palpable.

I look forward to Deputy Commissioner Rones' statement and to a further discussion of the September employment situation.

1792

S. HRG. 109-392

THE ECONOMIC OUTLOOK

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

OCTOBER 20, 2005

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THE ECONOMIC OUTLOOK

THURSDAY, OCTOBER 20, 2005

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC

The Committee met, pursuant to notice, at 10 a.m., in room 311, Cannon House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Representatives Present: Saxton, Ryan, English, Paul, Maloney, Hinchey, and Sanchez.

Senators present: Bennett and Reed.

Staff present: Chris Frenze, Robert Keleher, Brian Higginbotham, Colleen Healy, John Kachtik, Suzanne Stewart, Jeff Schlagenhauf, Emily Gigena, Chad Stone, Matt Salomon, Nan Gibson, and Daphne Federling.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning. I am pleased to have the opportunity to welcome Chairman Bernanke and the members of our second panel as well before the Joint Economic Committee this morning.

The Committee values its long history of cooperation with the Council of Economic Advisers. The testimony today will provide a solid foundation for understanding the forces that are shaping current economic conditions, as well as the economic outlook.

The recent hurricanes have caused a tragic loss of life and property on the Gulf Coast and also have had temporary effects on the U.S. economy as a whole. One reason for this national impact is that a significant portion of U.S. oil and gas production is concentrated in the Gulf, and much of it is still damaged. Thus, it is reasonable to expect that the economic impact of the hurricanes will slow GDP growth during the second half of 2005.

In 2006, as recovery efforts proceed, many economists expect growth to be a bit higher than previously forecast. Despite hurricane damage, a broad array of standard economic data indicates that the economic expansion has built up a strong momentum. The U.S. economy grew at 4 percent during 2004 and advanced at a rate of about 3.5 percent in the first half of 2005. A rebound in business investment has played an important role in explaining the pickup of the economy since 2003. Equipment and software investment has been strong over this period.

The improvement in economic growth is reflected in other economic figures as well. For example, since May of 2003, business

payrolls have increased by 4.2 million jobs. The unemployment rate stands at 5.1 percent. Consumer spending continues to grow. Home ownership has hit record highs. Household net worth is also at a record level, and productivity growth continues at a healthy pace.

Long-run inflation pressures appear to be contained, and that is good news. Long-term interest rates, including mortgage rates, are still relatively low, in spite of the fact that the Fed has increased short-term rates. It is clear that the Fed remains poised to keep inflation under control.

In summary, overall economic conditions remain positive. The U.S. economy has displayed remarkable flexibility and resilience in dealing with many shocks.

It is clear that monetary policy and tax incentives for investment have made important contributions to the improvement of the economy in recent years. Recently released minutes from the Federal Reserve suggest that the central bank expects this economic strength to continue. The Administration forecast for economic growth in 2006 is compatible with those of the Blue Chip consensus and Federal Reserve.

With growth expected to exceed 3 percent next year, the current economic situation is solid, and the outlook remains favorable.

At this time, we will go to Ranking Member Senator Reed for his opening statement.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 37.]

**OPENING STATEMENT OF HON. JACK REED, RANKING
MINORITY MEMBER, A U.S. SENATOR FROM RHODE ISLAND**

Senator Reed. Thank you very much, Mr. Chairman.

I want to welcome Chairman Bernanke to the hearing today. I hope he will give us some important insights into current economic conditions and the President's policies and the direction of these policies.

I am also pleased that we will have a second panel of witnesses to provide additional perspectives on the current economic conditions and outlook.

Like many Americans, my concerns about the economic outlook and the Administration's stewardship of the economy have grown in the wake of Hurricane Katrina and Hurricane Rita and the new hurricane in the Gulf. Economic insecurity for workers is widespread as energy prices are soaring. Employer-provided health insurance coverage is falling, private pensions are in jeopardy, and American workers are still waiting to see the benefits of the economic recovery reflected in their paychecks.

President Bush's tax cuts were poorly designed to stimulate broadly shared prosperity, and it produced a legacy of large budget deficits that leaves us increasingly hampered in our ability to deal with the host of challenges that we face. The devastating impact of Hurricanes Rita and Katrina will put short-term strains on the Federal budget, strains that would be fairly easy to absorb if our budget and economic policies were sound, but they are not.

The President's goals of making his tax cuts permanent and cutting the deficit in half are simply incompatible. Large and persistent budget deficits have also contributed to an ever-widening

trade deficit that forces us to borrow vast amounts from abroad and puts us at risk of a major financial collapse if foreign lenders suddenly stop accepting our IOUs. The trade deficit of \$59 billion in August is close to the record for a single month of more than \$60 billion set in February.

The broader current account deficit, which measures how much we are borrowing from the rest of the world, is running at a record annual rate of nearly \$800 billion, or well over 6 percent of GDP. I will be interested in the Chairman's views on whether the budget deficit and trade deficit are dangerous imbalances that pose a risk to the economic outlook. I am also pleased that we will be able to hear Dr. Setser's views, which may be somewhat different.

I hope that we would all agree that raising our future standard of living and preparing adequately for the retirement of the baby boom generation require that we have a high level of investment and that a high fraction of that investment be financed by our own national savings, not by foreign borrowing. We followed such prosperity enhancing policies under President Clinton, but that legacy of fiscal discipline has been squandered under President Bush.

Sound policies are clearly important for the long run, but I am also deeply concerned about what continues to be a disappointing economic recovery for the typical American worker. Strong productivity gains have turned up in the bottom line for the shareholders, but not in the paychecks of workers. The typical worker's earnings are not keeping up with their rising living expenses, and both earnings and economic inequality are increasing.

It is certainly hard to take seriously the President's rhetoric about wanting to lift families out of poverty when he has refused to support an increase in the minimum wage and has lifted the Davis-Bacon Act, thereby legitimizing subpar wages for workers rebuilding the communities in the hurricane-stricken gulf coast region.

Even though home heating costs are expected to skyrocket this winter, President Bush said he will not request additional funds for the Low Income Home Energy Assistance Program known as LIHEAP. Together with my colleagues, Senators Snowe and Collins, we have been trying to reverse that by providing additional funds, and I hope we succeed, but I think the Administration should be supportive, not antagonistic to that approach.

I look forward to your testimony, Chairman Bernanke, about the economic outlook; and thank you again, Mr. Chairman, for this hearing.

[The prepared statement of Senator Reed appears in the Submissions for the Record on page 49.]

Representative Saxton. Thank you.

Thank you for being with us this morning, Dr. Bernanke. Let me just say, for purposes of introduction, Dr. Bernanke was sworn in June of 2005 as chairman of the President's Council of Economic Advisers. Prior to his appointment to the Council, Dr. Bernanke served as a member of the Board of Governors of the Federal Reserve.

We are pleased to have you here today.

I might also note, as a New Jerseyan, that Dr. Bernanke has served as professor of economic and public affairs at Princeton University.

Dr. Bernanke.

STATEMENT OF HON. BEN BERNANKE, CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS, WASHINGTON, DC

Dr. Bernanke. Thank you.

Chairman Saxton, Vice Chairman Bennett, Ranking Member Reed and Members of the Committee, thank you for the opportunity to testify before the Joint Economic Committee. We appreciate the long-standing and mutually beneficial relationship between the Committee and the Council of Economic Advisers. My remarks today will focus on the current state of the economy, but of course, such an overview would be incomplete without an eye to the human and economic impacts of Hurricanes Katrina and Rita in the U.S. Gulf Coast.

While it has been nearly two months since Hurricane Katrina made landfall, its devastation will have a protracted impact on the Gulf region. As you know, Hurricane Katrina wreaked unprecedented losses on the people of Louisiana, Mississippi, and the Alabama coasts. Katrina took many lives, destroyed communities and shook a vital portion of our nation and our economy. The Gulf region was then hit by Hurricane Rita, which did significant damage, but in most areas less than was feared.

In response to the disasters, the President has directed all agencies of the Federal Government to devote their maximum effort to helping the victims of the hurricanes and to begin the process of cleaning up and rebuilding the region. The President has also proposed a series of measures to restore the Gulf's communities and economy.

One of the greatest assets we have in rebuilding after a hurricane is the overall strength of the national economy. The resiliency of the economy—the product of flexible labor markets, a culture of entrepreneurship, liquid and efficient capital markets and intense market competition—is helping it to absorb the shocks to energy and transportation from the hurricanes. The ability of our economy to grow and create jobs will act as a lifeline to the regions and people most affected. Thus, these recent events make it all the more important that we keep the fundamentals of the national economy strong and continue to promote economic policies that will encourage growth and job creation.

When thinking about where the economy is now and where it is heading, it is useful to keep in mind just how far the U.S. economy has come in recent years. The economy's resilience was put to severe test in the past 5 years, even prior to Katrina. A remarkable range of shocks hit the U.S. economy, beginning with a sharp decline in stock prices in 2000 and the recession that followed in 2001. The economy was further buffeted by the terrorist attacks of September 11, 2001, and the subsequent geopolitical uncertainty. Business and investor confidence was shaken by a series of corporate scandals in 2002. By early 2003, uncertainty about economic prospects was pervasive and the economy appeared to be sputtering.

Yet, in the face of all these shocks, together with new challenges such as the recent sharp rise in energy prices, the American economy has rebounded strongly. Policy actions taken by the President and the Congress were important in getting the economy back on track. Notably, beginning with the President's 2001 tax cuts, multiple rounds of tax relief increased disposable income for all taxpayers, supporting consumer confidence and spending, while increasing incentives for work and entrepreneurship. Additional tax legislation passed in 2002 and 2003 provided incentives for businesses to expand their capital investments and reduce the cost of capital by lowering tax rates on dividends and capital gains.

Together with appropriate monetary policies, these policy actions helped spur economic growth in both the short run and the long run. Today, the U.S. economy is in the midst of a strong and sustainable economic expansion. Over the past four quarters real GDP has grown at a 3.6 percent rate and over the past eight quarters real growth has been at a 4.1 percent annual rate.

Prior to Katrina, the near-term forecast of both CEA and private-sector economists had called for continued solid growth. The destruction wrought by Katrina and Rita may reduce growth somewhat in the short run, but the longer-term growth trajectory remains in place. I will return to economic prospects in a moment.

An important reason for the recovery has been improved business confidence. To an extent unusual in the post-War period, the slowdown at the beginning of this decade was business-led rather than consumer-led. Home building and purchases of consumer durables did not decline as they typically do in a cyclical downturn. Instead, the primary source of weakness was the reluctance of businesses to hire and to invest. Supported by appropriate fiscal and monetary policies and by the economy's innate strengths, business confidence has risen markedly in the past few years. The effects are evident in the investment and employment data. From its trough in the first quarter of 2003, business fixed investment has increased over 21 percent, with the biggest gains coming in equipment and software.

Since the labor market bottomed out in May 2003, more than four million net new payroll jobs have been added. Currently, the unemployment rate stands at 5.1 percent, up from 4.9 in August prior to the job losses that followed Katrina.

Although growth and GDP and jobs capture the headlines, one of the biggest macroeconomic stories of the past few years is what has been happening to productivity. Productivity growth is the fundamental source of improvements in living standards and the primary determinant of the long-run growth potential of the economy. Over the past four years, labor productivity in the non-farm business sector has grown at a 3.4 percent annual rate, and productivity in manufacturing has risen at a 5.7 percent annual rate. Productivity growth has slowed recently as businesses have absorbed millions of new workers—a normal development for this stage of an economic expansion—but it remains—in the four quarters ending in the second quarter this year—at the quite respectful level of 2.2 percent and 6.3 percent in the non-financial corporate sector. Thus, on each of the three key indicators of the real economy—GDP growth, job creation, and productivity growth—the United States in

recent years has the best record of any major industrial economy and by a fairly wide margin.

Finally, while there has been a notable rise in overall inflation this year, prices on nonenergy products have continued to increase at moderate rates. In particular, soaring energy prices have played the largest role in boosting the overall consumer price index to an increase of 4.7 percent in the past year, up from a 2.5 increase over the year-earlier period.

In contrast, core consumer prices—as measured by the consumer price index, excluding volatile food and energy prices—rose only 2 percent the past 12 months, unchanged from the year-earlier pace. Long-term expectations also remain low and stable, based on measures of inflation compensation derived from inflation-indexed Treasury securities.

To be clear, the focus on core inflation by no means implies the rise in energy prices is inconsequential. Sharply higher energy costs place a heavy burden on household budgets and increase firms' costs of production. I will discuss the energy situation in more detail in a moment. However, the stability in core inflation and inflation expectations does suggest that overall inflation is likely to return to levels consistent with price stability in coming quarters.

Let me turn now to the outlook. In the shorter term, the devastation wrought by the hurricanes has already had palpable effects on the national rates of job creation and output growth. Payroll employment declined by 35,000 in September, its first decline since May of 2003, and industrial production fell 1.3 percent, its largest monthly decline in over two decades. Both of these declines appear to be entirely accounted for as the effects of the hurricanes. The Bureau of Labor Statistics estimates employment growth would have been roughly 200,000 in the absence of the hurricanes, and the Federal Reserve estimates that industrial production would have increased about .04 percent. Consumer confidence also dropped in September, although growth in consumer spending has continued to be solid.

While the effects of the storm certainly reduced growth in the third quarter relative to what it would have been otherwise, most private-sector economists expect healthy growth for the remainder of this year and in 2006. For example, the Blue Chip panel of forecasters now projects growth at 3.2 percent in the second half of 2005 and 3.3 percent growth in 2006. Recovery and rebuilding will contribute to job creation and growth by the latter part of this year and in 2006.

The economic impact of the hurricanes included significant damage to the country's energy infrastructure. As you know, Katrina shuttered a substantial portion of U.S. refining and pipeline capacity, which led to a spike in gasoline prices in the weeks after the storm. Rita caused further damage. The Federal Government has assisted in, among other ways, by lending or selling oil from the Strategic Petroleum Reserve, arranging for additional shipment of oil and refined products from abroad to the United States, and providing appropriate regulatory waivers to increase the flexibility of the energy supply chain. In part because of these efforts and a vigorous private-sector response, oil prices have returned to roughly

their pre-Katrina levels. Wholesale gasoline prices have also retreated to the levels of mid-August, suggesting the recent declines in prices at the pump is likely to continue. National gas prices may remain elevated somewhat longer, however, because of lost production in the Gulf, the difficulty of increasing natural gas imports, and damage to plants that process natural gas for final use.

Even as the energy sector continues to recover, it remains true that the prices of oil and natural gas have risen sharply in the past two years, reflecting a tight balance of supply and demand. High energy prices are burdening household budgets and raising production costs, and continued increases would at some point restrain economic growth. Thus far, at least, the growth effects of energy price increases appear relatively modest. The economy is much more energy efficient today than it was in the 1970s when energy shocks contributed to sharp slowdowns.

Well-controlled inflation and inflation expectations have also moderated the effects of energy price increases since those increases no longer set off an inflation spiral and the associated increases in interest rates as they did three decades ago. In addition, allowing prices to adjust, rather than rationing gasoline, is helping to minimize the overall impact on the economy.

House prices have risen by nearly 25 percent over the past two years. Although speculative activity has increased in some areas, at a national level these price increases largely reflect strong economic fundamentals, including robust growth in jobs and income, low mortgage rates, steady rates of household formation, and factors that limit the expansion of housing supply in some areas.

House prices are unlikely to continue rising at current rates. However, as reflected in many private-sector forecasts such as the Blue Chip forecast mentioned earlier, a moderate cooling in the housing market, should one occur, would not be inconsistent with the economy continuing to grow at or near its potential next year.

The current account deficit presents some economic challenges. At 6.3 percent, the ratio of the current account deficit to GDP is now at its highest recorded level. Gradually reducing the account deficit over a period of time would be desirable. While the current account imbalance partly reflects the strong growth of the U.S. economy and its attractiveness to foreign investors, low U.S. national saving also contributes to the deficit. The United States should work to increase its national saving rate over time by encouraging private saving and by controlling federal spending to reduce the federal budget deficit. Our trading partners must also play a role in reducing imbalances by becoming less reliant on export-led growth and increasing domestic spending and by allowing their exchange rates to move flexibly as determined by the market.

The economic challenges posed by Hurricanes Katrina and Rita reinforce, once again, the importance of economic policies that promote growth and increase the resilience of the economy. Energy issues, in particular, have come to the fore recently. The energy bill recently passed by Congress and signed by the President should help address the nation's energy needs in the longer term. As an additional step, the Administration will continue to work with Congress to take measures that permit needed increases in refinery capacity. The Administration has made a number of other proposals

to increase economic growth, including proposals to reduce the economic cost of litigation, to increase quality and reduce costs in the health care sector, and to address national needs in education and job training.

The Administration is currently engaged in several international negotiations, including the Doha round at the World Trade Organization, as well as talks with China on a number of matters involving trade, exchange rates and needed financial reforms. Liberalized trade and capital flows promote economic growth, and we should strive to achieve those objectives in the context of a gradual reduction of current account imbalances. It is important that we persist in these efforts and not retreat to economic isolationism, which would negatively affect the long-run growth potential of the economy.

Fiscal discipline, always important, has become increasingly so in the face of the likely costs of assisting the victims of the hurricanes and of helping in the rebuilding. Before the impact of the hurricanes, strong economic growth was helping to reduce the budget deficit and the government finished fiscal year 2005 with a much lower-than-expected deficit.

The President remains committed to controlling spending and cutting the budget deficit in half by 2009. His 2006 budget made numerous proposals to save more than \$200 billion over the next 10 years from both discretionary and mandatory programs.

In the budget resolution earlier this year, Congress laid plans to pass \$35 billion out of the President's \$70 billion in savings for mandatory programs over the next 5 years. Congress should now make good on that plan by passing at least \$35 billion in mandatory savings in reconciliation legislation.

Further savings beyond \$35 billion would be highly desirable. The President continues to seek a decrease in non-security discretionary spending in fiscal year 2006 appropriation bills, and the Administration is working on options for spending rescissions. The President also remains committed to reforms to address fiscal challenges in the longer term, such as Social Security.

Finally, I note that the Tax Reform Advisory Panel, whose official report will go to the Secretary of the Treasury on November 1st, has kicked off a much-needed debate on how to make the Federal Tax Code simpler, fairer, and more pro-growth. We thank them for their hard work and look forward to reviewing their recommendations.

Thank you very much for the opportunity to be here today, and I would be happy to take any questions.

[The prepared statement of Dr. Bernanke appears in the Submissions for the Record on page 52.]

Representative Saxton. Thank you very much, Dr. Bernanke. We appreciate your being here.

Thank you.

Let me begin with a question on business investment. As most of us know, in recent economic analysis a lot of credit has been given to business investment that has spurred economic growth. However, when the recovery started in the last quarter of 2001, business investment was not great. In fact, it was not good in 2002, and it didn't begin to click in until the second quarter of 2003.

Coincidentally, Congress passed some tax legislation that was recommended by the President in 2003 which appears to have stimulated investment. Dr. Bernanke, do you believe that the tax legislation that was passed in 2003 had this effect; and, if so, how important do you think it was?

Dr. Bernanke. As I agreed, it was very important. As your chart shows, investment was quite weak until the middle of 2003. The President's tax proposals which were passed by Congress included, first, measures to reduce the cost of capital, including reductions in dividends and capital gains taxes; second, bonus depreciation provisions which increased the incentives for firms to make capital investment.

Of your private nonresidential investment, there were two components. There are both equipment and structures. Structures investment has remained somewhat moderate in terms of its recovery, reflecting overbuilding in the late 1990s and relatively high vacancy rates in office buildings, for example. So investment in the structure side, while we expect it to recover, has not yet fully recovered to earlier rates. However, the recovery in equipment investment has been quite strong; and I believe that the tax measures that you mentioned were an important component in that recovery.

Representative Saxton. Thank you, sir.

Let me turn quickly to another question. I would like to show you another chart that shows the history of inflation during the past several years; and it is fairly obvious by looking at the chart that inflation has remained in check since the early 1990s.

[The chart appears in the Submissions for the Record on page 40.]

As an advocate of inflation targeting, it appears to me that the Fed has successfully kept the measure of inflation in the range, as the chart shows, between 1 and 2 percent, which some refer to as the Fed's, quote, comfort zone. This appears to be similar to informal inflation and targeting, inflation targeting. By keeping inflation low and in this narrow range, hasn't the Fed reduced risk and helped keep long-term interest rates lower than they would otherwise be, in spite of the fact the Fed has increased short-term rates in recent times?

Dr. Bernanke. Indeed, sir, you are correct. Bringing inflation down has been an important accomplishment. It has been often noted that, since about 1986, that the U.S. economy has been more stable. This is referred to by economists as a so-called grade moderation. In my belief, one of the major contributors to the increased stability of the economy, the fact the recessions are less frequent and severe than they were earlier, is the fact that inflation remains low and stable.

As you point out, inflation, core inflation has remained within the 1 point to 2 percent range, which I believe is consistent with overall price stability. Looking forward, I hope the Fed will continue to maintain its commitment to keep inflation low and stable. I believe that is the best way to achieve its overall objectives of economic stability, price stability and low interest rates, as you point out.

Representative Saxton. Thank you.
Senator Reed.

Senator Reed. Thank you very much, Mr. Chairman. Thank you, Chairman Bernanke.

Much has happened since the President's tax cuts were first advocated or passed here—9/11, huge costs for homeland security, the war in Iraq—which has consumed over \$200 billion. In fact, I think one of your predecessors, NEC Director Lindsey, accurately predicted that, much to the chagrin of the Administration.

We have hurricanes that we are going to spend billions of dollars in the Gulf, and yet the President seems to still be solely stuck on permanent tax cuts. Some people suggest that he is not paying attention to the reality of what has been happening in the last several years about the expenditures that we just can't avoid and the need, as you also suggested, to balance the budget, bring down the deficit. So what is more important, reducing the deficit or continued tax cuts?

Dr. Bernanke. Thank you.

First, as you point out, a good bit of the costs that have occurred are related to security expenditures, the global war on terror; second, the disasters in the Gulf. I think most economists would agree that, to the extent that deficit spending is appropriate for large expenditures of this type, using deficit spending as a partial way of funding it is not an unreasonable approach.

With respect to taxes, it is my belief, and I think many economists would agree, that low marginal tax rates are supportive of economic growth, particularly in the long run, and that keeping them low, therefore, is an important priority. The question one would ask is, "Before we begin raising taxes, have we really satisfied ourselves that we have reduced government spending as much as possible and that the existing programs that we are funding meet rigorous cost-benefit tests?" I would submit that we would want to look very hard at government spending, make sure it is controlled before we raise taxes, which, in turn, would have negative impacts on the economy.

Looking in the future, first in the near term, I do believe the President will be successful in his promise to bring the deficit down half by 2009. If that is accomplished, then, as a share of GDP, it will be significantly lower than the long-term average.

Looking further out, we face very substantial increased costs in terms of entitlement programs. I would submit that there is simply no way that tax increases could ever cover the projected costs of those entitlement programs because they, on current plans, over the next few decades will rise, will increase government spending by 50 percent or more. Therefore, both in the short run as we look at current government programs and in the long run at entitlement programs, we need to think how hard we are going to maintain discipline in fiscal spending.

Senator Reed. We have gone from a surplus in the Clinton administration, when tax policies seemed to be not adversely affecting the economy, to a situation now where we have no surplus, we have deficits, cumulative deficits going forward many years, a position of economic weakness rather than strength. Everyone is sympathetic about programs that don't seem to be working efficiently, but we are talking about cutting deeply into programs that are necessary for many Americans: those entitlement programs, et cetera.

As we approach the baby boom generation, we seem to have squandered the flexibility and strength which we had several years ago with a surplus.

Again, in the short run, what is more important, to deal with this deficit or to have permanent tax cuts?

Dr. Bernanke. With respect to the arrival of deficits in the early part of this decade, I believe that the tax revenues that were received in the late 1990s were well above normal levels and I think I attribute that to the stock boom and the unsustainable state of the economy in the late 1990s. The deficits that arose early this decade primarily, in my opinion, arose because of the decline in the stock market, the end of the Internet bubble and then, on the spending side, from the increased costs of the War on Terror in particular.

So I think—

Senator Reed. Well, I have just 30 seconds. Can you give us your estimate of how much we will be spending on homeland security and the war in Iraq over the next 5 years? Because I presume you would not want to cut those funds.

Dr. Bernanke. I think efficiency should be applied throughout the budget. Wherever we can find savings, it is important to do so. I do not know, however, what the spending will be on those items you are referring to.

Senator Reed. So you would urge us to look closely at the military budget, Iraq, everything.

Dr. Bernanke. I think the cost-benefit analysis should be applied wherever it is appropriate. However, the President has set forward proposals for savings that would double, for example, the current proposed savings under the budget resolution. So there certainly are many proposals that have been put forth by the White House, and I think we should look throughout the entire budget and see where we can find programs that are not providing value for money.

Senator Reed. Thank you.

Representative Saxton. Thank you very much, Senator Reed. We are going now to Senator Bennett.

Senator Bennett. Thank you, Mr. Chairman.

The longer I sit on this Committee, the more I realize the debate just keeps being recycled. I remember the first time I came to the JEC as the Committee's very junior, very green, newest Member. One of your predecessors, Dr. Tyson, was the witness and her comment was, "Compared to other industrial nations in the world, we are seriously undertaxed; and this Administration is going to fix that."

Now, with the benefit of a dozen years of hindsight, looking back at the U.S. economic position vis-à-vis that of other industrialized nations, to pick a few—Germany, France, Japan, Great Britain—would you say that our tax policies have been more conducive to growth than theirs and that the level of taxation, which in my opinion should be measured as a percentage of GDP rather than in numbers of tax rates and tax brackets, but the amount, whatever the method, by which the Government takes money out of the economy relative to the GDP is the number that I think makes the most sense. Do you think our present band of GDP tax revenues

is too high or too low compared to other industrialized nations, their rate of growth? Just get into this whole question of the American economy and tax policy and growth vis-à-vis other countries.

Dr. Bernanke. Thank you, Senator.

There have been three important long-term trends in tax policy in the United States. They encompass both Democratic and Republican administrations.

Since President Kennedy, there has been generally declines in the marginal tax rates both at the highest level, but throughout the distribution. My view, and I think that this has become broadly accepted, is that lower marginal tax rates improve incentives for work and promote growth. The differences in marginal tax rates here and abroad, I think, account for a significant part of the difference in U.S. economic performance in terms of growth and productivity relative to other countries.

The other two trends are, first, that the share of taxes, the share of GDP collected in taxes has not in fact changed very much despite the declines in marginal tax rates, suggesting that growth and other measures have been sufficient to keep revenues strong.

The ultimate way to determine the appropriate level of revenue collection—I think, again, the first place to look is to ask the question, what does the Government need to spend; we need to look at spending programs in terms of whether they are providing value for money.

So my approach is to think first about government spending. It is, in fact, the share of GDP that goes to government spending which is the true measure of the burden of the government on the national economy, and that is where we have to make sure that we are getting full value for money.

Let me just add that although I think the U.S. tax system on the whole has been positive in terms of promoting growth, investment, entrepreneurship, and productivity, relative to other industrial countries, there is still a lot of improvement that can be had in the U.S. Tax Code. The President's tax panel is reporting and the objectives of tax reform would be to make the system simpler—it is incredibly complex—to make it more fair and to increase still further its tendency to increase and support economic growth. I think there is progress that can be made, but this bipartisan consensus over 40 years of reducing tax rates and improving incentives I think has paid off in terms of U.S. economic performance.

Senator Bennett. Let me just comment, my reaction to the Mack-Breaux Commission is that I am sorry they weren't more bold. The present tax system is a disaster in terms of simplicity and efficiency, and we continue to nibble around the edges as we have done ever since we created the tax in the 1930s. I would have preferred something much more dramatic than they have proposed. I would endorse the direction they are proposing, but I would like to move in another direction. Thank you very much.

Chairman Saxton has given us a chart that shows the relative unemployment in various countries. Maybe we are not doing so badly when we compare American unemployment with some of that of the other industrial nations. Thank you.

[The chart appears in the Submissions for the Record on page 39.]

Representative Saxton. Chairman Bernanke, if I may refer to the chart to my right, your left. The unemployment rate in the so-called Euro zone is shown on this chart to be about 8.6 percent; in Canada, 6.7 percent; and here in the United States at 5.1 percent. Your comments relative to and Senator Bennett's comments relative to the tax situation I suspect you would agree has something to do with this in various economies.

Dr. Bernanke. Yes, sir. In addition, another dimension of this labor market performance is job creation where over the past two or three years total job creation in the United States is greater than that of Germany and Japan and the UK combined. Our tax system makes a constructive contribution to this performance. In addition, we have flexible and diverse labor markets which also can adapt to shocks and have allowed us remarkably to deal with high energy prices, hurricanes and many other shocks to the economy and still continue to have growth and job creation.

Representative Saxton. Thank you, sir.

Mrs. Maloney.

Representative Maloney. Thank you very much and welcome. Congratulations on your appointment.

You testified that productivity growth is absolutely fundamental to the improvement of the standard of living for Americans and for our long-term growth, but in order to have productivity we have to have jobs.

At a recent forum that we had, Professor Blinder testified and said some interesting and, for me, some rather disturbing things about outsourcing for the future of this country. He argued that we can expect a dramatic increase in the amount of outsourcing because there is a huge educated population in China, India and other countries, and any job that can be remotely subject to outsourcing or can be done in another country, he says is in jeopardy. He predicts that outsourcing will be an incredible drain on American jobs in the future. I would like to hear your comments on what he has put forward, and does the Administration have policies that would address the fact that a huge number of American jobs may be at risk in the future.

Dr. Bernanke. Thank you.

First of all, we certainly don't want to see any American lose their job. If someone loses a job, we hope to have ways of helping them retrain and relocate as needed to find good new work. We want to support American workers in every way that we can.

There is certainly some outsourcing in terms of purchases of services abroad. There is also insourcing. For example, the United States, although we have a very large overall current account deficit, we have a surplus on services. Americans provide financial, educational, tourism, and other services to people the world over. So it is a source of prosperity in markets for us as well.

In addition, we benefit from foreign direct investment. Many Americans are employed by foreign companies with plants in the United States, for example, in the automobile industry. So trade is a two-way street. I think it is important to protect Americans who lose their jobs or whose jobs come under pressure from international trade, but I think we need to be careful not to embrace economic isolationism.

With respect to overall jobs, I dispute the conclusion that either trade or even current account deficits destroy jobs. As was just shown on the diagram, the unemployment rate here is lower than Germany, which has a larger current account surplus, lower than Japan or other countries which have large current account surpluses. The job creation is better here. I believe that the U.S. economy will prosper in an international global economy and that jobs will be created, as many as needed, to employ all those who want to work.

Representative Maloney. So, you do not see outsourcing as a challenge to American jobs. How much do you believe the United States will have to borrow from the rest of the world this year to support our swollen trade deficit? Some people have said it will be as much as 600, 700, 800 billion dollars. What is your estimate?

Dr. Bernanke. As I mentioned in my testimony, the current account deficit is currently 6.3 percent of GDP, so that would be roughly the amount of foreign acquisition of U.S. assets associated with the current account deficit. I agree that we need to bring the current account deficit down, and I believe we can do so over a period of time. Doing so requires more savings of the United States, including a reduction in the U.S. budget deficit.

Representative Maloney. That is roughly \$800 billion. What would happen, Professor, if the rest of the world decided that it was too risky to hold this large amount of our debt? Would we see a collapse of the dollar, high interest rates, and possibly an international crisis if countries decided not to continue holding our debt?

Dr. Bernanke. I don't anticipate any such development. U.S. bonds are well regarded as safe and liquid investments. They are the primary source of international reserves.

Representative Maloney. Finally, what are your comments on the growing trend of inequality between the haves and have-nots that has been displayed? We have a chart. This also was a theme at our hearing with Professor Blinder, and I believe that leaders on both sides of the aisle are concerned about this trend. It is not good for our country, it is not good for our people, and what policies does the Administration have to address this growing trend of inequality between the haves and have-nots?

[The chart appears in the Submissions for the Record on page 51.]

Dr. Bernanke. Ma'am, that is a very complex question. I won't have time to answer in full detail. But I would point to one trend which is over the last 25 years or so the returns to education have risen. Therefore, people who are more educated, have college degrees or advanced degrees, the differential in their earnings to those who have high school or less has increased. This is reflective of the change in our economy toward a more technologically dynamic economy, one where higher skills are valued.

The fact that we have become more technologically dynamic is a positive thing, but the increased inequality and earnings associated with this is a concern. I think certainly one approach is to try and spread the benefits of education, skills and training more broadly to make sure everyone is equipped to deal with the demands of our current economy.

Representative Saxton. Thank you very much.

Mr. Paul.

Representative Paul. Thank you, Mr. Chairman.

On page 8, you talk about the current account deficit which you expressed concern about and you discussed, as well as expressing concern about spending and deficits. You talked about a \$35 billion cut, which to me seems like a drop in the bucket and will turn out to be irrelevant. We can't even get it passed here. It is over 5 years, and the national debt is going up nearly \$600 billion a year. I don't think we are addressing the real problem, and the real problem is the Government is out of control and spending is out of control.

But I think some of the problems you discuss here are probably related to monetary policy, and we never seem to connect the two. Yet in a speech a few years ago, I thought you did make a connection, and I want to just quote from that 2002 speech.

He says, "We conclude that under a paper money system, a determined Government can always generate higher spending and hence positive inflation. While there are some who are less enthusiastic about paper money than that, I don't see inflation ever as a positive because it caused some of these problems that we are concerned about." But also increased spending naturally is going to lower savings. You would like to see higher savings. So we have a system of money where free market people supposedly have total monopoly control of the money supply and interest rates so we manipulate interest rates down to 2 percent on savings and then we want people to save. These are artificially low interest rates. So people on fixed incomes aren't going to save. There is really no incentive. Then we tax them on the interest they earn.

To me, that is reflection of a very flawed monetary policy, and it does confirm Nixon's contention in 1971 that we are all Keynesians now, and we are resorting to the liquidation of debt through the debasement of currency, and it also invites concern about deflation which you have had concern about. But, since 1971, we have had a 1,300 percent increase in the money supply and we have the privilege of being the reserve currency of the world, so we are encouraged to spend.

But I think it is so unfair. It is not, as far as I am concerned, good economics, and it is unfair to the people who want to save. Then we get concerned about savings and then we create a monetary system that does increase spending not only in the private sector, but in the Government sector. As long as the Fed is there waiting ready to monetize anything we spend on, I think we are going to continue guns and butter, endless war spending, endless domestic spending.

So I would like to suggest why can't we make a better connection to monetary policy, and I think you would be the expert on this that might be able to do that, and how can we justify this as being a fair system to the elderly who would like to earn a decent interest on their savings?

Dr. Bernanke. Related back to an earlier question from Mr. Saxton, I think the best thing the Federal Reserve can do to avoid the problems you are referring to and make sure people get a fair return on their savings is to keep inflation low and stable. That has been the objective, and success has been increased over a pe-

riod of time. You keep inflation low and stable. Then the cost of living for the retirees, for example, doesn't go up as fast. The real returns to savings are not eroded by inflation.

So I think the appropriate approach is to focus on keeping inflation in the medium term low and stable. I believe that supports the Fed's other objectives of low interest rates and stable employment growth. So that would be the central part of my prescription for making monetary policy constructive in terms of economic growth and stability.

Representative Paul. But for the elderly, the cost of living is not 2 percent, so I think it is a fiction to tell the people there is no inflation. If most of their money is being spent on medical care and on energy and keeping their house warm, these people are having an inflation rate of 10, 12 or 15 percent and we deny this. So at the same time the Government says there is no inflation, therefore it is justified to have low interest rates. My contention is, why should we assume that we know what the interest rates ought to be? Why as free market people do we not resort to the marketplace to determine interest rates?

Dr. Bernanke. There have been many proposals along those lines, and some of them are quite interesting. Under our current system, the central bank has been required by Congress to manage the monetary system, and I think the best way to do that in a stable manner is again, to focus on making sure that we have price stability.

You point out correctly we do have inflation now. We have 4.7 percent inflation in the last year. The biggest contributor to that is higher energy prices, which in turn depends on a variety of factors, including the supply and demand for energy around the world. That is a real phenomenon, one that is affecting people's budgets. It is hitting a lot of people, a lot of firms. There is no question that is a negative influence on our economy.

Representative Saxton. Thank you very much. The gentleman's time has expired.

Mr. Hinchey.

Representative Hinchey. Thank you very much, Mr. Chairman.

Chairman Bernanke, it is nice to see you, and thank you for being here.

We are talking about economic growth; and it strikes me that growth, somewhat like beauty, is in the eye of the beholder. Looking at the chart over here on unemployment rates, I think that those figures in many respects do not reflect aspects of our culture that, if they were taken into consideration, would cause some dramatic differences in the levels of those charts.

For example, we have two million people in prison in the United States, more than in any other country in the world, with the possible exception of China. We don't know how many they have, but if that were reflected in that chart number it would go up considerably.

We have the highest level of homeless people of any advanced industrial country in the world. If that number were considered in there, the unemployment rate would go up substantially.

There are a great number of people who have dropped out of the economy. That number of people is not reflected in that chart over there as well.

So you have a situation where we are not just facing up to the truth. We are not addressing the real needs of people in this country, and one of the ways that we are avoiding that is pretending that the situation is rosy, rosy where for a lot of people it really isn't. One of the reasons why we have had the kind of growth that you described in your testimony over the last several years is that we have experienced an extraordinary amount of economic stimulation, both fiscal and monetary; and the fiscal stimulation, of course, has resulted in huge budget deficits, in fact, record budget deficits for the last 3 years and a record and growing national debt.

The question arises, I think, in the minds of anyone looking at this objectively, how much longer can we sustain that kind of so-called economic stimulation, which is the source of whatever growth we are experiencing? And, of course, going back to the idea of the inequality of that growth, we are seeing more and more inequality in this country.

The tax cuts that were passed by this Congress have had extraordinary economic benefits for the wealthiest people in America, but, at the same time, they are causing economic hardship for millions and millions of other people. We have 37 million people in America now living below poverty. That is an increase of more than one million in the last couple of years. We have 45 million people now without health insurance, most of them working people making incomes of above \$50,000 a year. Nevertheless, 45 million Americans are without health insurance. That number has gone up by nearly 8 million in the last 5 years.

So the inequality that we are experiencing is very, very dramatic. Anyone sitting here at this table or as a member of the President's Council of Economic Advisers pretending that everything is just fine in America, that everybody is benefiting from this growth in the economy isn't really being honest about the situation.

What is it that we ought to be doing to address the real economic needs of the average America?

With another example, the median income of the average American family has been flat for the last 5 years. They are experiencing no growth whatsoever. That is the first time that that has happened in recorded history in our nation. So, what can we do, what can this Congress do and what can you recommend as the sole member of the President's Council of Economic Advisers that we can do to address the real needs of the real people of America?

Dr. Bernanke. Thank you. That was a very lengthy question.

First of all, with respect to the labor market, it is true that the unemployment rate is calculated relative to the labor force, and that in turn depends on how many people are actively seeking work and would include, for example, prisoners. If you look at other measures of the labor force, the share of the total population that is working or the number of jobs that are created, both of those also suggest a very strong labor force, so I don't think incarceration rates, for example, are the issue here.

Also, in terms of sustainability, ultimately what allows us to continue to grow is the rate of productivity growth. As I mentioned in

my testimony, we have had remarkable productivity growth going back to the mid-1990s.

Representative Hinchey. That productivity growth is not being shared equitably. We have lost 3 million manufacturing jobs in the last several years here in this country. The kind of growth that you are talking about is not being shared equitably. If we are going to put up a chart reflecting the unemployment rates between Europe and another country that I can't see or another place that I can't see and the United States, we need to take into consideration the cultural aspects of those countries. The things that you are talking about are not reflected there. The number of people that are in the employment arena in Europe is reflected in those numbers.

Representative Saxton. I am sorry, but the gentleman's time has expired.

Representative Hinchey. They are not reflected here in this chart.

Representative Saxton. Let me just remind everybody, we have this room for just 2 hours. We started right on time. We are now 55 minutes into the first hour, and we haven't finished the first round of questions. So we are going to go to Mr. Ryan.

Representative Ryan. I will try to keep under the 5 minutes.

First, I want to make a clarification and ask a quick question. I think it was Senator Reed who talked about the tax cuts, how they supposedly balloon the deficits and how we should not extend these tax cuts. Mr. English and I serve on the Ways and Means Committee that wrote that tax cut, so I looked up the spreadsheet from the Joint Committee on Taxation that we used in 2003 to estimate what they would cost.

In 2003, our official scorekeeper estimated that in the next year, 2004, the individual income tax cuts would cost this country \$106 billion in revenue loss and that the corporate tax revenue loss would cost us \$35 billion. So, we thought in 2003 individual receipts would go down by \$106 billion. What happened? They went up 14 percent. We thought corporate receipts would go down, because of the tax cuts, \$35 billion. What happened, they went up 33.4 percent. In total, in light of our scorekeeping, our estimate, we thought that in 2004 we would lose \$148 billion in revenues from those tax cuts. We thought we would increase the budget deficit by \$148 billion. What actually ended up happening in 2004 was revenues went up \$116 billion.

Look at what is happening in 2005. In 2005, so far this year, individual income tax receipts are up 15 percent and corporate income tax receipts are up 47 percent. We have had the largest year-to-year increase in revenues in this country since 1981 and, in particular, in our budget deficit in the first quarter of this year, we have the largest drop, an unprecedented first quarter drop of \$94 billion. The budget deficit is now down \$94 billion pre-Katrina, and we are preparing a package to pay for that one as well.

So, I think it is very important as we talk about tax policy and what to do in the future, and what not to do in the future, not look at estimates that were done a few years ago that we already know for a fact are not only incorrect, but are way off. Let's look at reality, and let's look at actual performance, and let's look at the fact that these tax cuts not only help produce jobs and economic

growth, lower the retirement or lower the unemployment rates, but these tax cuts actually increased revenue to the Federal Government, which is helping us get this budget deficit down. So it is a very important dose of reality.

Here is my quick question. Two important tax cuts expire in 2008, dividends and capital gains; they are off the track with respect to the rest of the tax cuts which expire in 2010.

I want your opinion, Dr. Bernanke, on how the economy views this; how do the markets look at this? I am very concerned that the longer we delay in extending those two provisions that expire in 2008, the more it will produce more uncertainty in the capital markets, will make capital less attractive in the United States and more attractive in foreign countries, will depress our savings rate even more, and would be harmful to our economy. But that is just my own personal concern. Could you address what the economic ramifications, in your opinion, are of not extending the capital gains and dividend tax cuts; and are we hurting ourselves with respect to the economy by delaying extending those cuts? Is it wrong to wait until the last minute to extend those cuts, and should we do this now or should we not be concerned about that?

Dr. Bernanke. Thank you. First of all, I agree about your comments about 2005, that tax receipts have been about \$100 billion more than expected, and the deficit correspondingly lower.

With respect to taxes on capital gains and dividends, the President, as you know, is in strong support of continuing those tax measures. I do think that uncertainty and delay, although sequel, would be costly in the sense that investors would not know exactly what to anticipate in making their decisions. So there is, I think, some validity to that concern.

Representative Ryan. So we will forego economic growth that we would have otherwise been able to achieve in this economy if we delay in extending those two provisions from 2008 to, say, 2010 or permanently.

Dr. Bernanke. There will be an increase in uncertainty and there may be some effect on growth, yes.

Representative Ryan. Thank you.

Representative Saxton. Thank you.

Ms. Sanchez.

Representative Sanchez. Thank you, Mr. Chairman. And I have to tell you that as a trained economist, I feel like I am in—and I am used to sitting in a room with lots of economists and everybody having different opinions—but I really feel like I am in the twilight zone here. It is just amazing to hear some of the things that are being said here.

I find it interesting that this Administration would pat itself on its back by comparing the European Union's unemployment to the United States', for example. Europe has been vigorously incorporating poor countries into its economy, cold war economies that were totally devastated by communism, and cold war workers who have had a very hard time accommodating to the market economy. So to compare their unemployment rate to the United States, I mean, I think this Administration has been terrible about accommodating poor people, about educating poor people, about bringing people who are underemployed or unemployed into the realm. And

we see it basically with the differences between the gap, income gap. And certainly Chairman Greenspan spoke about this when he was before us most recently.

I have a couple of questions. I hope I get to them. The first one would be, I am interested in the comments that were just made about the revenue levels with respect to the tax cut, because when I look at the numbers, I see that the revenue levels in the Bush administration have been actually lower as a share of GDP than at any time since 1959. So with increased spending priorities—I mean, this Administration is spending like crazy, it is just unbelievable—why is it better to have deficits than to pay for them on a pay-as-you-go basis, Mr. Chairman?

Dr. Bernanke. There was a decline in tax revenues in 2001, I believe, which I think was justified, first of all, by the recession and the appropriate fiscal response to that. And in addition, it has been the case in the past that in a short period following cuts in marginal tax rates, which, as I mentioned, occurred under both Democratic and Republican administrations, there was a period of reduced tax revenues associated in the short run with that reduction. However, over a longer period, there is a tendency to return to a more normal level, and currently income tax revenues, for example, as a share of GDP, are very close to their long-run average and they are projected to go above the long-run average by 2009.

Representative Sanchez. But over the time, they have been lower than at any time since 1959. Are you saying that all of a sudden, the next couple of years, we are just going to do such incredible things that that is not going to be true? I mean, given the fact that I have got two Louisiana Senators asking for \$250 billion for Louisiana, for example, that I am sure most people here are going to try to put in a supplemental spending.

Dr. Bernanke. Well, as I mentioned earlier, I think that some deficit spending is appropriate when you are facing a global war on terror and natural disasters. It certainly would not have been—a balanced budget policy in 2001 would not have been a constructive economic policy, in my view. I think that the President is going to meet his objective of reducing the deficit in half by 2009, and if he does so as a share of GDP, we will be actually well below—

Representative Sanchez. And how do you think he is going to do that? I mean, I don't know where you got this figure from, but you just said that you thought that entitlements were going to be increasing by 50 percent, and I don't know over what time period you gave us. I mean, when I think of entitlements, I think of veterans health care, Social Security, disability benefits, a death benefit to survivors of people who have put into Social Security, Medicare. Are you trying to tell me that the President is going to cut health care to the elderly, retirement to the elderly, cut moneys to those who are disabled, cut money to orphans, cut health care to veterans, cut the retirement of our people who have served in the military? Is that what his intentions are to bring down the deficit, if you are looking at a 50 percent increase over this time period?

Dr. Bernanke. No, ma'am. I have two different time frames in mind. The President's 2009 commitment obviously is over the next few years, and over the next few years I believe that—not cutting,

but simply slowing the very rapid rate of growth of some programs will be sufficient to restore the deficit to a lower level.

However, the real challenges for America are not in the next five years, they are over the next 20 and 30 and 40 years; and that is what my figures about 50 percent were referring to, around 2030 and 2035. If you make no changes in current programs such as Social Security and Medicare and Medicaid, and they continue to grow at recent pace, reflecting the graying of America, the retirement of the baby boomers and the like, there is going to be an enormous increase in the share of national resources absorbed by Government programs, much greater than we could conceivably cover by tax increases. We will need to consider how to modify those programs so that they serve their purposes without busting the budget.

Representative Sanchez. It sounds to me, Mr. Chairman, like you are expecting the President to cut those programs—

Representative Saxton. The time of the gentledady has expired.

Representative Sanchez. Thank you, Mr. Chairman.

Representative Saxton. Mr. English.

Representative English. I would like to move this debate a little bit, Doctor, out of the twilight zone and maybe focus on a couple of things where we are comparing apples to apples. You have been criticized, I see, for pointing out what I think is a useful point: that our unemployment rate in this country, although it is not very good in parts of my district, overall is significantly lower than that of many of our European trading partners.

I wonder if you could briefly, maybe provide a perspective of comparing the growth rate within the United States—which I think is very much affected by our tax policy, and Chairman Greenspan has conceded that point up front—would you compare our growth rate with that of our trading partners in Europe?

Dr. Bernanke. I don't immediately recall the recent growth rates in the major countries, but I am quite certain that the U.S. growth rate in recent years, and also over the last decade, for that matter, is higher by a significant margin than other major industrial countries such as Germany, U.K., France, and Japan. And job creation is significantly greater in the United States than in those countries.

Representative English. And that growth rate has a direct bearing on our ability to grow our tax base and generate revenues that in turn will move us away from a deficit position. Has that not been the experience over the last year—as Mr. Ryan was careful to point out—with, in effect, a reduction in the overall deficit picture beyond estimates of about \$95 billion. That \$95 billion drop—which I realize didn't take into account Katrina and some other factors—that was largely driven, as I understand it, by a growth in revenues that are directly attributable to economic growth. Am I mistaken on that point?

Dr. Bernanke. No, sir, you are correct. GDP growth in the United States has been 4.1 percent annually over the past two years. I believe that tax policy had a significant role to play in creating that growth. Revenues have grown accordingly with economic growth, and indeed in 2005 they appear to be significantly higher

than we expected, even given the amount of economic growth that we observed.

Representative English. Then I think the issue here is what do we need to do to continue that growth path despite price shocks in the energy sector. And here I want to go back to Mr. Ryan's point with regard to current tax rates on dividends and long-term capital gains. I am concerned about the message we might send to markets if we don't move now to extend the current rates.

And this week I noticed that the chief economist at Wachovia, John Silvia, published a research note in which he said, and I quote, "Policy makers can enhance employment and growth by providing a stable tax environment for capital by extending the 15 percent tax rate."

Now, opportunities lost may be difficult to quantify in the short run, but the competitive nature of a global marketplace suggests that other nations will attract the capital necessary to improve their competitiveness and long-term employment if we fail to extend the current 15 percent rate.

Now, do you think this concern is an immediate one? You have already testified that it would make sense for us to move sooner rather than later, but at what point will markets start to make the judgment that Congress may lack the political will to extend its current pro-growth policies?

Dr. Bernanke. Well, as I indicated, I think it is important that we make the tax cuts permanent. The markets will have to make their own assessment about the probabilities and the risks associated with that. And I really don't have much to add on that side, other than the more we can assure markets that we continue to favor pro-growth policies and a low cost to capital, the better off we are going to be.

I realize it is a very complex budget negotiation going on, and I want to say, in addition, that we do need to look at the spending side and make sure that spending is under control and we are eliminating programs that are not providing good value. Ultimately, if the spending grows beyond reasonable ranges, then it will be extremely difficult to maintain the low tax rate.

So part of keeping taxes low is also keeping spending low, and I think that is equally important as we look at the budget process.

Representative English. And ultimately, economic growth is critical to us in meeting our social needs, which the gentlelady from California was kind enough to catalog for us.

I yield back the balance of my time, Mr. Chairman.

Representative Saxton. Thank you very much, Mr. English.

Chairman Bernanke, thank you very much for being with us this morning. I wish we had more time; however, we are pressed, and so we thank you for being here with us. And you can be sure that we will invite you back again.

Dr. Bernanke. Thank you very much for having me.

Representative Saxton. We are now going to move to our second panel: Dr. Mickey D. Levy, who is the Chief Economist at the Bank of America in New York City; Dr. David F. Seiders, Chief Economist, National Association of Home Builders here in Washington, DC; and Dr. Brad Setser, Senior Economist and Director of

Global Research at the Roubini Global Economics in New York City. If you would be so kind as to take your places.

Representative Saxton. And, Dr. Levy, when you are ready, sir, we would appreciate hearing from you.

**STATEMENT OF DR. MICKEY D. LEVY, CHIEF ECONOMIST,
BANK OF AMERICA, NEW YORK, NY**

Dr. Levy. Yes. Mr. Chairman, and Members of the Committee, I am very pleased to discuss the economy and associated economic policies, particularly in regard to following Ben Bernanke's comments. I think it is extraordinarily important to point out the underlying fundamentals in the U.S. economy, how strong they are. And here I refer to the flexible and efficient production processes, labor markets, the low inflation, the relatively favorable taxes and regulatory policies, and this leads to the U.S. economy growing much faster than every other industrialized nation.

This has been true, the United States has grown at least a percentage point faster than Europe every year since 1990, with the exception of 2002. Capital spending is multiples higher. And I would say U.S. potential growth is 3½ percent plus, to the plus side. And we have an \$11 trillion economy. And so 3½ percent growth adds an extra output of \$375 billion, which creates jobs and the like. And I think it is incumbent for policymakers to maintain policies that are consistent with sustained healthy economic growth, not just for raising standards of living, but for the best environment for budget policymaking.

There was sound economic growth prior to Katrina, showing some signs of moderation, but healthy increases in employment, modest increases in wages, healthy increases in personal income, business investment was rising, and corporate profits had reached an all-time high. And, I might note, exports had reaccelerated significantly.

The impact of Katrina will cause a temporary—and I underline the word temporary—impact on employment, consumption, trade, and inflation. And the data we have seen for September, post-Katrina, suggests that the impacts are identifiable and local, meaning that in the rest of the Nation there continues to be healthy growth. And I might note that the healthy economic expansion and the Fed's accommodation so far will help absorb displaced workers, and that is already occurring.

I expect in the next quarter and this quarter, and perhaps into early 2006, moderation in the rate of consumption growth; but then you are starting to see, as we speak, increased Government purchases, increased Government spending and fiscal policy multipliers are really going to kick in. And you can have that occur just at the same time consumption is bouncing back next year. So next we could have very strong economic growth.

I might note here that the higher headline inflation due to higher energy prices is reducing real purchasing power and is having a temporary negative impact on real wages. I do not expect that to continue. I do expect sustained productivity gains to generate increases in wages.

I would like to clarify two misperceptions I read about—I see about characteristics in the economy that are commonly viewed as

flaws. And the first is the low rate of personal saving. And I would like to point out here that the rate of personal saving, which is close to zero, is a flow variable; it does not include any appreciation of stocks or bonds, it does not include any appreciation of real estate. Therefore, this rate of personal saving is so low it excludes every avenue through which most households save. Meanwhile, total household wealth, even excluding all debt, is at an all-time high. So I say the rate of personal saving, in an odd sense, reflects confidence in the U.S. economy. People, even if they feel like they might lose their job, they can find another one, so they spend their cash flow and wealth continues to rise.

The other misperception about the economy is the trade deficit which is very, very large. Many people perceive that the high trade deficit is due to U.S. consumers, which is borrow to the hilt and spend their money on imported goods. But in fact if you look at a composition of what we import, it is amazing, because 40 percent of all imported goods to the United States are industrial materials and capital goods, even excluding oil and excluding autos. That is as much as total imports of all consumer goods.

Now, if you look at the way the United States has consistently grown faster than any other industrialized nation and its capital spending is multiples faster, the wide trade deficit, the fact that we are importing more than we are exporting, is a natural consequence of that. And it may just last a long time, and it may just be sustainable. That is, if we had a recession, and capital spending fell and consumption slowed, then, sure, the trade deficit is going to come in. What should your objective be?

But I would also point out so far this year, the trade deficit has come in, for some reason import growth is slow, the exports are accelerating nicely. And when I look around the world I see very strong economic growth in Asia, and Japan is really coming back to stronger growth. The Latin countries are doing fairly well now. All of our major trading partners, except for Europe, are doing poorly; so I think we can look forward to continued growth in exports, but the trade deficit is going to stay wide.

In this regard, the extraordinarily large current account, it has widened. I do not perceive it is an immediate problem. When we think about—when we ask the question, will foreign central banks and foreign portfolio managers continue to buy dollar-denominated assets, the answer is yes; they are doing so because it is economically rational for them to do so. Put yourself in their shoes. They see stronger economic growth in the United States, higher interest rates, higher inflation-adjusted interest rates, a credible central bank, credible policymakers, predictable policymakers. If you were in their shoes, you would allocate your resources to the United States. And I don't see any dramatic shift in global asset allocation that would lead to either a dramatic decline in the dollar or a sharp rise in interest rates.

Having said that, the character of the current account deficit has changed. In the 1990s we had an investment boom and saving was OK, but insufficient relative to investment. Now the problem we have is investments bouncing back, but saving is low, OK. So you have insufficient saving relative to national investment, just like Japan has excess saving relative to investment, so the exports are

capital here. The culprit of the lack of saving is not as much the low rate of personal saving as it is the budget deficit, and this needs to be addressed.

And so the problem, I see, is we have this issue that, when I look at it, both the current trade account deficits—we should expect them to be wide—it is a natural consequence of differences.

Let me just put it as a question. If you see such large differences in economic growth across nations and large differences in rates of saving and investment and you believe in international trade and capital flows, why would you ever expect current accounts and trade accounts to be in balance? You shouldn't. But we have this problem.

Now, what is the solution? I would love to see the solution be the United States, Europe, and Asian policymakers sit around the table and say, OK, United States says we will lower our budget deficit by 2 percent GDP, Europe says we will lower taxes, reduce our burdensome regulations, increase our potential growth from 2 to 3, and Asia—China would come along and say if you do that, we will float our currency. That is a pro-growth solution. But the point here—the reason I am bringing that out is when you look at these imbalances, think about pro-growth solutions rather than just reducing imbalances just to reduce them. My expectation is that consumption growth in the United States will bounce back post-Katrina, but it will slow—it will bounce back to a more moderate level than we had. I mean, if you look at the average annualized growth of consumption, really the last 45 years it has averaged 3.6 percent, we are not much higher than that now. I think it is going to bounce back to a slower rate of growth, exports are going to surprise to the upside, and the trade deficit will decline, and that imbalance will decline a bit, but we still have this long-run budget problem.

And on the budget issue I would just note, trying to be as absolutely nonpartisan as possible, if you look at what has happened to the composition of spending in the budget and the composition of the growth in spending, in the last 3—in the 1990s, the vast majority of the move toward budget surpluses on a cash flow basis was due to the decline in defense spending. In the last 3–4 years, both sides of the political aisle have voted for increase in defense spending. Neither party has come up with a great long-run solution for Medicaid or Medicare, both of which are rising fast as a share of the budget and the GDP, and we all know the Social Security issue.

So basically, given the short-run intractability of the spending side of the budget—I am being a realist here—what fiscal policymakers should be addressing now is to address the larger budgets on an accrual basis; that is, look at the large entitlement and retirement programs, which is the larger source of the increase of the budget over the last 15 years, and have a rational debate and say—and ask the question, how can we put together programmatic changes that are fair to current participants, that put in place the right incentives—

Representative Saxton. Doctor, if I may ask you to cut it—

Dr. Levy [continuing.] And for the long run, just make the benefit structures rational. Thank you.

[The prepared statement of Dr. Levy appears in the Submissions for the Record on page 55.]

Representative Saxton. Thank you very much.
Dr. Seiders.

**STATEMENT OF DR. DAVID F. SEIDERS, CHIEF ECONOMIST,
NATIONAL ASSOCIATION OF HOME BUILDERS,
WASHINGTON, DC**

Dr. Seiders. Well, thank you, Mr. Chairman. It is genuinely an honor to be here today. I appreciate the opportunity to testify, and will certainly take any questions you may have.

My name is David Seiders. I am Chief Economist with the National Association of Home Builders. My written statement contains detailed forecasts for the economy and the housing sector, on a quarterly basis, through 2007.

Today, I would just like to concentrate on what the role of housing has been in the economic expansion so far, and how I view the evolving role of housing in the near-term outlook.

Let me say at the beginning, that my forecasts assume that the current economic and housing policy structure remains very much intact. Housing certainly has some beneficial provisions in both the Tax Code and the housing finance system, and I'm assuming in the forecast that they are unchanged in the near term.

There has been a lot of talk about imbalances here this morning, and you may be aware that Chairman Greenspan recently described the current "housing boom," as he called it, as one of America's great economic imbalances. I certainly don't share that opinion, and I will tell you why as we go along.

As you know, the housing sector has been a real pillar of strength for the economy, even in the recession of 2001, and certainly in the economic expansion since then. The housing production component of gross domestic product has been growing rapidly and delivering solid contributions to GDP growth. The housing stock itself produces housing services that are consumed by households, a big piece of consumer spending in the GDP accounts that also has been showing solid growth.

When housing is moving well in terms of sales and production, we are pulling other industries with us, like furniture and appliances and those sorts of things. And as Chairman Greenspan has been talking a lot about recently, the strong house price appreciation that we have seen in recent years has created huge capital gains and equity benefits for America's homeowners, about 70 percent of all households. And that equity generation has supported a lot of consumer spending. When you add all this up, we estimate, I think conservatively, that housing has been accounting for at least a full percentage point of GDP growth in recent times. That is at least a quarter of the total, so it has been quite a story.

I mentioned that this kind of performance, particularly the behavior of house prices, has generated widespread speculation that the housing "boom" is overdone, and that it is likely to "bust" and possibly cause not only serious damage to our sector, the housing sector, but also to the economy overall. And we have been seeing a lot of analogies drawn between the current housing boom, if I can

use the term, and the stock market bubble that preceded the recession of 2001. I think those analogies are really off base.

My own view is that the housing market will inevitably cool down to some degree before long, but a destructive housing bust is not in the cards. Furthermore, rebuilding in the wake of this year's hurricane season will add to housing production for years to come. Everything considered, I think that the housing sector should transition away from being this strong GDP engine—fairly soon probably—but continue to play a vital role in the economy going forward.

Recent housing market indicators, on balance, have been suggesting that the housing market may be plateauing in terms of the volume of sales and starts and so forth. We got some very strong numbers yesterday on permit issuance and housing starts in September, a little stronger than I expected. However, my surveys of builders and some other indicators suggest that there is kind of a flattening going on out there in terms of volume, certainly not yet in terms of pricing. And so I think that the housing market, in terms of sales and production, if not topping out now, is close to it.

Going forward, my forecast does recognize emerging affordability issues that have been created, first of all, by the succession of rapid house price gains in many parts of the country. We are seeing that affordability factor putting a bind on home buying now. And we expect the affordability issue to be more complicated as we go ahead, as the interest rate structure, both short and long rates, gravitates up further; and that process certainly has begun.

I am also looking for less support to the housing market from two special factors that probably are temporary. One is heavy use of what Chairman Greenspan has called "exotic" forms of adjustable-rate mortgages, including deeply discounted interest-only adjustable-rate loans and various structures like that. Certainly the financial regulators are taking a very hard look at that right now. I expect to see these types of loans recede in the market, in terms of their importance.

The other special factor we have seen is a lot of investors out there, and a lot of them probably just short-term speculators in the housing market. As the market situation evolves and housing demand does fade to some degree, because of the affordability issue, I think we will see a lot of those speculators go to the sidelines as well.

So, what does my forecast show? It says that we are going to see the housing numbers, in terms of home sales and housing starts, move off in 2006. The decline probably will be only about 5 percent from 2005, which will easily be a record for the single-family market, in particular, and also a very strong year for the condo market.

In terms of pricing, we are still seeing double-digit increases in house values nationally, 20 percent or more in 50 to 60 metro areas in recent times. As housing demand fades as I have described, and volume comes off, I think that the rate of appreciation in house values will recede. To what rate next year, I am not exactly sure. If I had to make a guess, probably 10 to 12 percent this year, next year something like half that pace.

Don't expect to be worrying about a national house price decline over the next couple of years. We may see some declines develop in some of the hottest areas where the prices have risen the most. But even in those areas, unless the economy falters, I think price declines are a low probability. One of the key things in those areas has been serious supply constraints, mainly land-use controls which prevent the builders from meeting the housing demand that is there. As we go forward, more supply will keep coming on those markets, and I think that the price rebalancing will be an orderly process.

Mr. Chairman, that concludes my remarks.

[The prepared statement of Dr. Seiders appears in the Submissions for the Record on page 60.]

Representative Saxton. Thank you very much, Dr. Seiders.

Before we go to Dr. Setser, let me just say that we have a series of votes currently on the House floor, and House Members will be scampering out to make those votes, and then we will try to get back for the question and answer period. In the meantime, Senator Bennett is going to take the Chair. Thank you.

Dr. Setser.

**STATEMENT OF DR. BRAD SETSER, SENIOR ECONOMIST
AND DIRECTOR OF GLOBAL RESEARCH, ROUBINI GLOBAL
ECONOMICS, LLC, NEW YORK, NY**

Dr. Setser. I want to thank Chairman Saxton and the Members of the Joint Economic Committee for the opportunity to testify here today.

My remarks will focus on one particular aspect of the economic outlook, the payments deficit that the United States is running with the rest of the world. I want to make five points.

First, the U.S. current account deficit has reached an unprecedented size for a major economy. Barring a sharp fall in oil prices, that deficit is likely to rise next year.

Second, the U.S. external deficit reflects policy decisions both here in the United States and abroad, not simply private savings and investment decisions. Both the large U.S. fiscal deficit and the unwillingness of many economies elsewhere in the world to allow their currencies to appreciate against the dollar are contributing to this deficit.

Third, trade deficits at nearly 6 percent of U.S. GDP are simply not sustainable over time.

Fourth, large current account deficits reflect borrowing that is needed to finance consumption in excess of income. The availability of sufficient financing to sustain deficits of the current-size—borrowing that may reach \$900 billion next year—should not be taken for granted. Consequently, these large ongoing deficits will be a risk to the U.S. economic outlook for many years to come.

Finally, policy actions both here and abroad can help, first to stabilize and then to reduce the U.S. external deficit. The needed policy steps by now, I think, are well known, but no less urgent.

First, the U.S. current account deficit is now quite large. The current account deficit is, by definition, the sum of the trade deficit, the deficit on transfer payments—U.S. foreign aid, and private gifts of U.S. citizens abroad—and the balance on income. The income

balance reflects the difference between what the United States earns on its foreign assets and what the United States must pay on its liabilities. The United States pays both dividends on foreign investments here in the United States and the interest on our rising external debt.

In the second quarter, that balance—the balance on income—turned negative for the first time in some time, and over time the balance on investment income will contribute increasingly to the U.S. current account deficit.

In 2005, I expect the current account deficit to rise to a bit over \$800 billion. That will reflect a trade deficit that will increase to about \$720 billion, largely on the back of higher oil prices, continued transfer deficits, and for the first time in several years, an income deficit.

That \$800 billion deficit is a significant increase from the \$520 billion deficit of 2003 and the roughly \$670 billion deficit of 2004. I expect the trend of wider deficits to continue in 2006 for three reasons:

First, the pace of growth of non-oil imports, as has been noted, has been relatively subdued this year. That reflects a lag after very strong growth at the end of 2004. As the U.S. economy continues to grow, I expect some resumption in the growth of non-oil imports.

Second, I expect the current strong export growth to slow. Why? Because the dollar has been strengthening this year, and that will impact the trade balance.

I disagree somewhat with Dr. Levy in his emphasis on strong growth in Asia and low growth in Europe. If you look at the composition of U.S. export growth this year, U.S. exports to Europe have been growing faster than U.S. exports to the Asia Pacific region for the simple reason the dollar fell substantially against the euro in 2003 and 2004.

Finally, the balance on investment income, the amount of interest that the United States has to pay on the external debt, is set to rise substantially. The roughly \$800 billion that we have to borrow this year, assuming an interest rate at around 5 percent, translates into a \$40 billion increase in our net payments abroad.

Second point, this rising external deficit is a function of policy choices both here and abroad—policy choices that have reduced savings relative to investment in the United States and increased savings relative to investment in the rest of the world. The key policy decision that we in the United States made is to increase our structural fiscal deficit. That deficit went up during the recession, as Dr. Bernanke noted. It has not come down commensurately as the economy has recovered. As investment has picked up from its low levels, that has correspondingly widened the gap between savings and investment here in the United States.

Abroad, savings and investment have evolved in different ways in different countries, but I think it is important to recognize the main counterparts to the U.S. current account deficit—or to the rise in the U.S. account deficit—has not been an increase in Europe's current account surplus. Europe's current account surplus, broadly speaking, has been falling. Japan's surplus has been rising, but the rise, roughly \$60 billion since 1997, is in no way on the same scale as the increase in the U.S. current account deficit. The

main counterpart to the increase in the U.S. current account deficit has been the enormous increase in the surpluses that have been run by so-called emerging and developing economies. That reflects rises in savings in China and in the oil-exporting countries, and falls in investment in many other emerging Asian economies.

The vector that has carried these surplus savings to the United States, by and large, has not been the private flow of capital; rather, it has been the unprecedented increase in the accumulation of hard currency reserves by emerging economies. The increase in true reserves, the annual increase, has gone from about \$116 billion in 2001 to about \$500 billion last year, and I expect around \$600 billion this year just in the world's emerging economies.

Third point. These deficits are not sustainable over time. Particularly trade deficits of this magnitude are not sustainable over time. Why? Because a constant trade deficit, according to basic external debt sustainability analysis, implies a rising external debt-to-GDP ratio over time, and a rising external debt-to-GDP ratio implies a rising current account deficit as the amount of interest that we have to pay on our external debt rises over time.

Indeed, should the trade deficit gradually fall to roughly zero over the next 10 years, something that would imply substantial changes, the U.S. national external debt would still rise to about 50 percent of U.S. GDP, and at the end of that adjustment period the United States would still be running a significant current account deficit.

Fourth, as I mentioned earlier, sustaining ongoing deficits of this magnitude next year requires net inflows of capital from abroad of between \$900 billion and \$1 trillion dollars; that implies that we have to commit some of our future income to pay for that inflow of debt. And broadly speaking, since we are relying on foreign savings to finance investment here at home, some of the benefits of investment here will flow to our foreign creditors.

More immediately, though, the risk is that the financing needed to sustain these deficits won't be available at current relatively low interest rates. Any rise in interest rates might provoke a slowdown in U.S. economic activity.

The combination of market forces and policy decisions that will bring about the necessary adjustment in the U.S. trade deficit is subject to substantial uncertainty, but there is no doubt that the adjustment, when it comes, implies substantial changes in the drivers of growth both in the United States and in our trading partners. Specifically, consumption growth here in the United States must slow, and consumption growth in our trading partners needs to rise.

Recent studies by the staff of the Federal Reserve Board offer hope that the necessary adjustment process will be relatively smooth. However, caution is in order. The United States is in many ways operating outside the realm of historical experience. But I think one lesson from international experience is pretty clear. As a country's external debt grows, it becomes more, not less, important to maintain confidence in a country's fiscal policy choices. Reducing the fiscal deficit, put simply, is the best way to raise national savings.

Policy changes are also necessary abroad. China, Malaysia, and many oil-exporting countries need to unpeg or reduce the degree to which they peg their currencies to the dollar. Spending in oil-exporting countries must rise if oil prices stay high, and China needs to take steps to stimulate consumption.

As I have argued, the expansion of the U.S. trade deficit reflects mutually reinforcing policy choices. The stabilization and the eventual fall in the U.S. deficit will also be far smoother if that process is supported by appropriate policy changes. No doubt market forces will eventually demand adjustment even in the absence of policy change. But as both the current President of the New York Fed, Tim Geithner, and former Treasury Secretary Robert Rubin have emphasized, without supporting policies the needed market moves are bigger and the risk of disrupted market moves is far higher.

Thank you.

[The prepared statement of Dr. Setser appears in the Submissions for the Record on page 67.]

Senator Bennett [Presiding.] Thank you very much. This is a very interesting and worthwhile panel, and it looks like Senator Reed and I are going to have the next 15 minutes to ourselves before the lease runs out and we are forced to leave the room.

I would like Dr. Setser and Dr. Levy to kind of go at each other here, because they have slightly different views; but there is also a degree of agreement and common ground from which to have this exchange.

Let me just make a comment before I ask the two of you to respond to each other. Everybody agrees that the American deficit has to come down; that is, the amount of borrowing by the government, whose percentage of GDP has to be stabilized—I am of the opinion that if it stays at its present level as a percentage of GDP that is within historic norms, then it is completely sustainable. However, if you look ahead at the demographics, it becomes abundantly clear that it cannot stay within its present percent of GDP without some fairly fundamental changes in the spending patterns. And we saw the peace dividend that occurred in the 1990s that brought the deficit down, and we all assumed we were responsible. All of us here in the Congress took full credit for it, and the Clinton administration took full credit for it, and that is the way politics works. But the peace dividend is a one-time dividend, and if we are going to bring the deficit down, we are going to need to have the courage to address the entitlement problem. And the entitlement problem is summarized by our friend Ted Stevens, who, when he went on the Appropriations Committee, said the Appropriations Committee controlled two-thirds of the Federal budget and one-third was mandatory spending outside of the purview of the appropriations process.

Today those numbers are reversed. We have a budget of roughly \$2½ trillion, and that portion that is subject to appropriations is roughly \$800 billion, a third. And the percentages keep going in favor of the mandatory spending, to the detriment of discretionary spending. And the \$800 billion—\$840 I think is the actual number—roughly \$800 billion that the appropriations covers includes defense, which is roughly half.

So if you take away half of the discretionary spending and say it is off limits because of defense, and you are going to, quote, "balance the budget by Congress getting its act in order and holding down spending, you have a universe of \$400 billion that you have to deal with out of a \$2½ trillion budget, unless you are willing to tackle the mandatory spending, the entitlement spending, which means Social Security, Medicare and Medicaid. And if we say those must be held inviolate, we will see the two-thirds that is currently mandatory grow to three-fourths, or to 90 percent, or eventually 100 percent. And if you want to talk about something that is unsustainable, that is a trend that is unsustainable and affects everything else we are talking about.

OK. Having made that point, Dr. Setser and Dr. Levy, can you comment back and forth on each other, and we will try to hold what you say between the two of you for maybe the next 7 minutes, and then Senator Reed can ask his for the next 7 minutes, and we will have taken the time that is available to us because I don't think our House colleagues are coming back. Is that a fair division of time, Senator?

Dr. Levy. Let me take a crack at it. I would note in the 1990s, even as the cash flow government budget went from deficit to surplus, on an accruable basis the deficit—on an accrual basis, the budget was deteriorating because of the continued rising in the unfunded liabilities.

It is imperative to address the long-run budget imbalance because if we look realistically in the short run, many aspects of the programs that are growing the fastest are intractable. So it is now important to address in a very rational, fair way that doesn't affect current recipients, change the policies that will affect the long run, grandfather them in.

And I remember when I was working on the Hill in the late 1970s and the Social Security projections were accurate—they proved to be accurate. And the issues are the same, just the numbers are bigger. Address them in an appropriate way.

I would like to make two comments on the current account. Very frequently in my position I have to talk to portfolio managers that run all of the Asian central bank money. And I was just over there, and they are very economically rational. And they are seeking the highest risk-adjusted expected rates of return. They have no intention at all of dramatically altering their asset allocation.

Second, if you think about it, in the last year with low interest rates, when they buy, say, a 2-year debt, we are borrowing at, say, 3 percent, now it is 4 percent, the issue is what are we doing with the imported capital? To the extent we are using it—and as I mentioned it in my testimony—to finance corporate purchases of industrial materials and capital goods, I guarantee you the average rate of return on that imported capital is higher than the cost of financing it. So once again, the culprit once again is the budget deficit. And not just the budget deficit per se, but the entitlement programs, the consumption-oriented ones that increase spending without adding to the Nation's long-run productive capacity.

Senator Bennett. Dr. Setser.

Dr. Setser. Well, I do think Dr. Levy and I share a common opinion that the best way that the pace of increase in the current

account deficit can first be reduced and then the deficit can be brought down is by taking steps to increase national savings, and the first best way to do so is to reduce the fiscal deficit.

I am not convinced, however, that the debate about entitlements is totally relevant here, and I say that for the following reason, and with complete respect for the opinions of the Senator.

In my personal opinion, the trade deficit and the trends of the unsustainability about the trade deficit are likely to manifest themselves as a problem in a much shorter time frame than the time frame that is relevant for the debate about entitlements, and particularly for the debate about Social Security. And I would note in that context that at this current point in time, Social Security runs a cash flow surplus, as is well known, and this reduces the cash flow deficit of the rest of the government. So my concern would be that in the context of reforming our entitlements, we increase our near-term fiscal deficits—cash flow deficits—and increase our near-term borrowing. That would not increase our own national savings or decrease our dependence on savings from abroad.

As I have argued, our current dependence on foreign savings is already quite high. And since I don't think we are talking about a 40-year problem or a 20-year problem, I think we are talking about more of a 10-year problem, so I think the time frames are a little bit different.

The question about the continued availability of financing to sustain the U.S. current account deficit—which is much larger than the U.S. fiscal deficit—does hinge, as Dr. Levy suggested, on the portfolio decisions made by Asian central banks. I would also note it hinges on the portfolio decisions made by the Russian central bank and by the central banks of the major oil-exporting countries. One of the major evolutions that has occurred this year is that a growing share of our deficit is indirectly being financed by Saudi Arabia, by Russia, by the other countries with large oil exporters.

I differ slightly from Dr. Levy in his assessment that it is rational for these countries, on an investment basis, to be sending and to be buying U.S. treasuries at the current rate; I say that for the following reason. Most forecasts for the size of the dollar depreciation against Asian currencies that would be needed to bring the trade deficit down over time, are quite large; therefore, even the interest rates of 4 percent or 5 percent that these countries are getting on your dollar assets here, is unlikely to compensate them for the future exchange rate risk. So while I don't think Asian central banks are likely to shift their portfolio away from dollar assets, I think there is a risk that over time they may be less willing to add to their stock of dollar assets. And remember, we do need \$800—or \$900 billion every year. We get it 1 year, we still need it the next year. I also differ slightly in my assessment of the uses to which this imported savings is being put.

Senator Bennett. I am sorry to interrupt you, but I would like Senator Reed to—

Senator Reed. Go ahead, Doctor.

Dr. Setser. My concern is that the external debt that we are taking on right now is not being, by and large, used to finance investment in the tradables portion of the U.S. economy, and external debt is ultimately a claim on our tradable production of goods

and services. So while in the short run, shifting resources toward the residential housing sector and toward other sectors can help sustain growth, in the long run it is not obvious to me that improvement in our residential housing stock will generate the future export revenue needed to pay back the interest on that rising external debt.

Senator Bennett. Thank you.

Senator Reed. Thank you, Senator Bennett.

It strikes me that we all are saying the same thing, just in different ways. That is that we have to increase national savings. There are several ways to do that. One is to reduce the budget deficit, or to increase household personal savings. And it strikes me with all the discussion particularly around this room about tax policy, tax policy doesn't seem to produce a lot of increases in personal savings.

Do you want to comment on that, Dr. Setser?

Dr. Setser. I tend to agree with that. I think the general studies suggest that tax incentives for savings have offsetting effects, that on one level they may increase some savings at the margins, but a lot of the benefits from the tax incentives go to people who would otherwise have saved, and so are offset by reductions in tax revenues, and the overall impact on national savings is small.

Senator Reed. Dr. Levy, I will let you respond, too, but behind that question is another question. If we can't effectively—or don't choose to effectively stimulate household savings, then we are left to close the budget deficit in order to achieve this goal of increasing national savings and investment; is that—

Dr. Levy. You want to reduce the budget deficit in any way, in any case, because how you spend and how you tax determines the allocation of national resources. And once again, what you want to do is effect a policy that is best for a sustained, healthy long-run economic growth.

With regard to tax incentives, I respectfully disagree. I think they have increased saving.

I would like to embellish on one other point, and it is an oddity in the following way—

Senator Reed. Excuse me. In your testimony you indicated that the numbers suggest a close to zero household savings rate. You made some interesting points about the fact that it doesn't include residential real estate and stocks, et cetera, but I just want you to clarify now whether you are saying that tax policy is actually stimulating savings.

Dr. Levy. Well, the rate of personal savings has come down because it is a cash flow measure and people are spending their cash flow because their wealth is going up. Let me juxtapose that with the double-digit rate of saving, personal saving in Germany, because people are still pessimistic about the economy and their prospect for jobs, where there is a 7½ percent rate of personal saving in Japan where there is a lot of angst.

Let me add this oddity. In the last year oil prices have increased significantly. On an annualized basis, the doubling of oil prices has increased revenues to OPEC just in the United States by over \$200 billion. U.S. consumers have smoothed their consumption pattern, that lowers their rate of saving; but because it is all denominated

in dollars, a lot of it flows back into the United States and keeps the real cost of capital low.

So it is very ironic, like circa 1970s recycling petro dollars; that is, lowering our rate of personal saving and widening our current account deficit. That is, the cost of higher energy crisis is real.

Senator Reed. And both those things are bad in terms of lowering savings and—

Dr. Levy. Yes.

Senator Reed. Dr. Setser, do you have a final comment?

Dr. Setser. I agree with the mechanism that Dr. Levy described by which the oil surplus is being recycled back on the United States. I think the ironic thing, in some sense, is that the oil surplus that these countries have comes not just from exporting oil to the United States, but to exporting oil to Asia. And one of the striking features of the current situation is while they are earning money from the entire world, it seems like a disproportionate share of their savings is flowing back to the United States.

However, I wouldn't assert that is a necessary consequence of the fact that oil is priced in dollars. In liquid capital markets, it is quite easy to sell oil for a dollar and trade that dollar for a euro, and I think over time we shouldn't assume that current patterns will continue.

Senator Reed. Well, thank you very much, gentlemen. Thank you, Senator Bennett.

Senator Bennett. This has been a most worthwhile panel. And, Dr. Seiders, you didn't get into this macro stuff because you are talking about housing—

Dr. Seiders. The House Members are probably more interested in that. Just kidding.

Senator Bennett. I found your comments to be very useful.

Let me just make one comment, back to my earlier one about the mandatory spending and the entitlements. Dr. Setser, the only reason that I pick on Social Security is that it is the easy one. Medicare and Medicaid are going to be much more difficult. And if we cannot in the Congress come together to solve the Social Security long-term structural problem—I agree with Dr. Levy, we should hold the present participants harmless, because I happen to be one of them; but for my children and grandchildren, if we can't come together to deal with Social Security in a bipartisan fashion, we will never, ever get our arms around the Medicare problem.

Social Security is the easy one because it is simply moving numbers around. We know all the people, we know all the dollars that can be allocated. Medicare has so many other problems connected with it.

So I agree with you that Social Security may not be the big one, but at least I want to take it on because I think it is the easy one.

And thank you very much for your participation here. The hearing is adjourned.

[Whereupon, at 12 p.m., the Committee was adjourned.]

Submissions for the Record

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

I am pleased to welcome Chairman Bernanke and the members of our second panel of witnesses before the Joint Economic Committee this morning. This Committee values its long history of cooperation with the Council of Economic Advisers. The testimony today will provide a solid foundation for understanding the forces that are shaping current economic conditions as well as the economic outlook.

The recent hurricanes have caused a tragic loss of life and property on the Gulf Coast, and also have had temporary effects on the U.S. economy as a whole. One reason for this national impact is that a significant portion of U.S. oil and gas production is concentrated in the Gulf, and much of it is still damaged. Thus it is reasonable to expect that the economic impact of the hurricanes will slow GDP growth in the second half of 2005. In 2006, as recovery efforts proceed, many economists expect growth to be a bit higher than previously forecast.

Despite the hurricane damage, a broad array of standard economic data indicates that the economic expansion has built up strong momentum. The U.S. economy grew 4 percent in 2004, and advanced at a rate of about 3.5 percent in the first half of 2005. A rebound in business investment has played an important role in explaining the pick-up in the economy since early 2003. Equipment and software investment has been strong over this period.

The improvement in economic growth is reflected in other economic figures as well. Since May of 2003, business payrolls have increased by 4.2 million jobs. The unemployment rate stands at 5.1 percent. Consumer spending continues to grow. Homeownership has hit record highs. Household net worth is also at a record level. Productivity growth continues at a healthy pace.

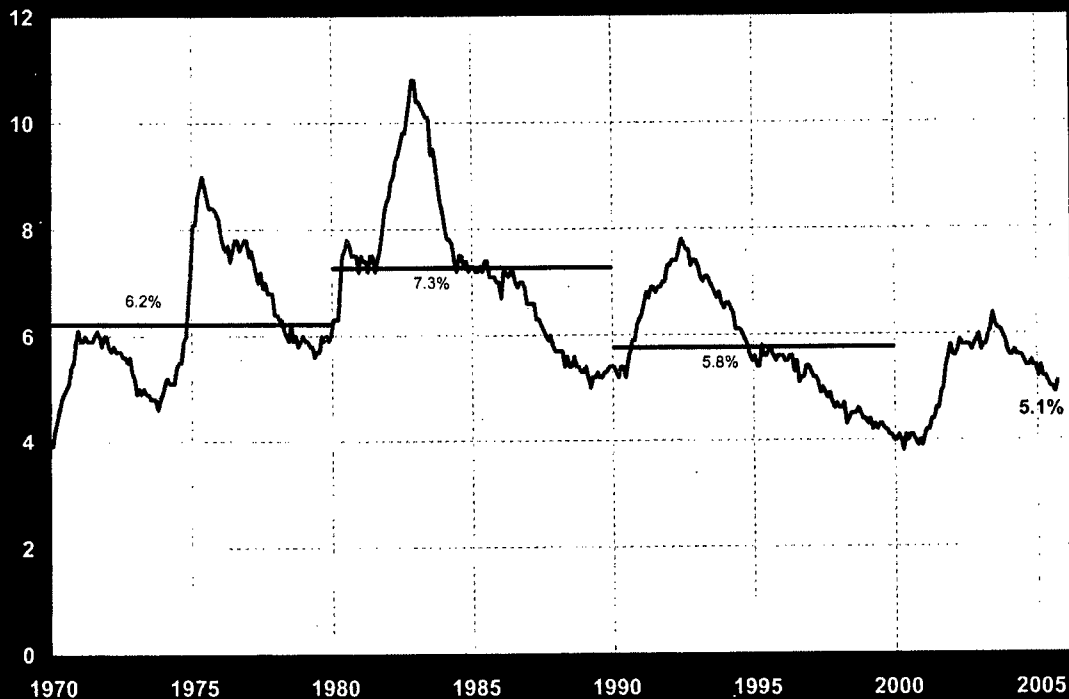
Long run inflation pressures appear to be contained. Long-term interest rates, including mortgage rates, are still relatively low. It is clear that the Fed remains poised to keep inflation under control.

In summary, overall economic conditions remain positive. The U.S. economy has displayed remarkable flexibility and resilience in dealing with many shocks. It is clear that monetary policy and tax incentives for investment have made important contributions to the improvement in the economy in recent years. Recently released minutes from the Federal Reserve suggest that the central bank expects this economic strength to continue.

The Administration forecast for economic growth in 2006 is comparable with those of the Blue Chip consensus and the Federal Reserve. With growth expected to exceed 3 percent next year, the current economic situation is solid and the outlook remains favorable.

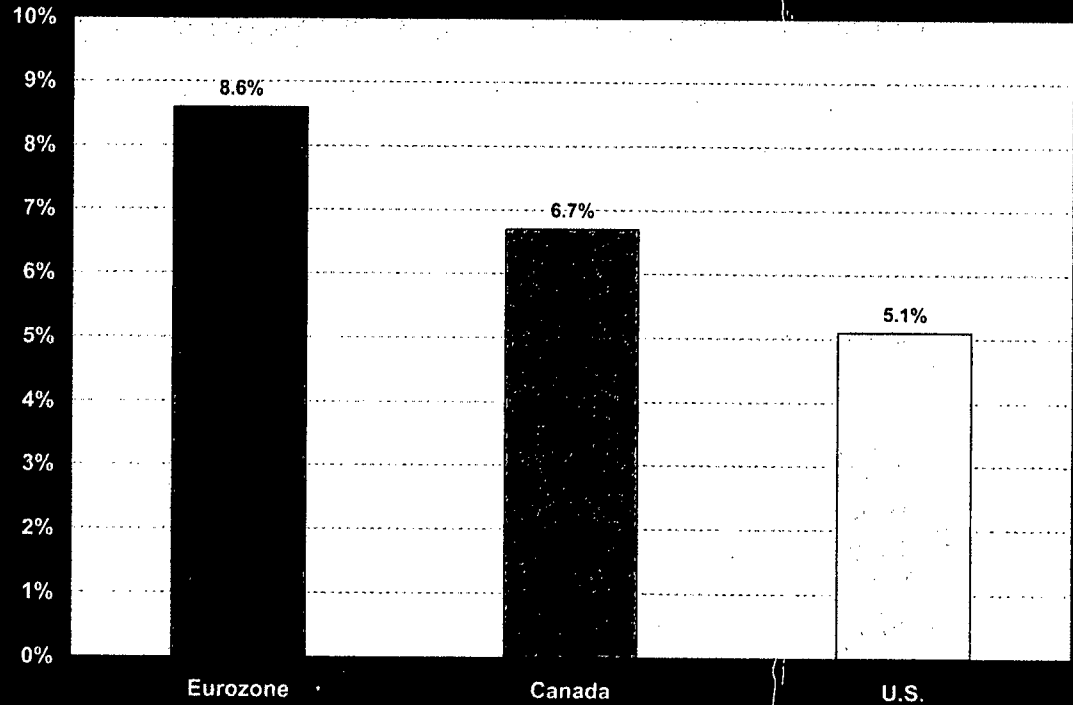
Civilian Unemployment Rate

SA, %



Source: Bureau of Labor Statistics / Haver Analytics

Unemployment Rates (Latest Data)



Source: Statistics Canada /Statistical Office of the European Communities /Bureau of Labor Statistics /Haver Analytics

Core PCE Inflation

% Change - Year to Year

SA, 2000 = 100

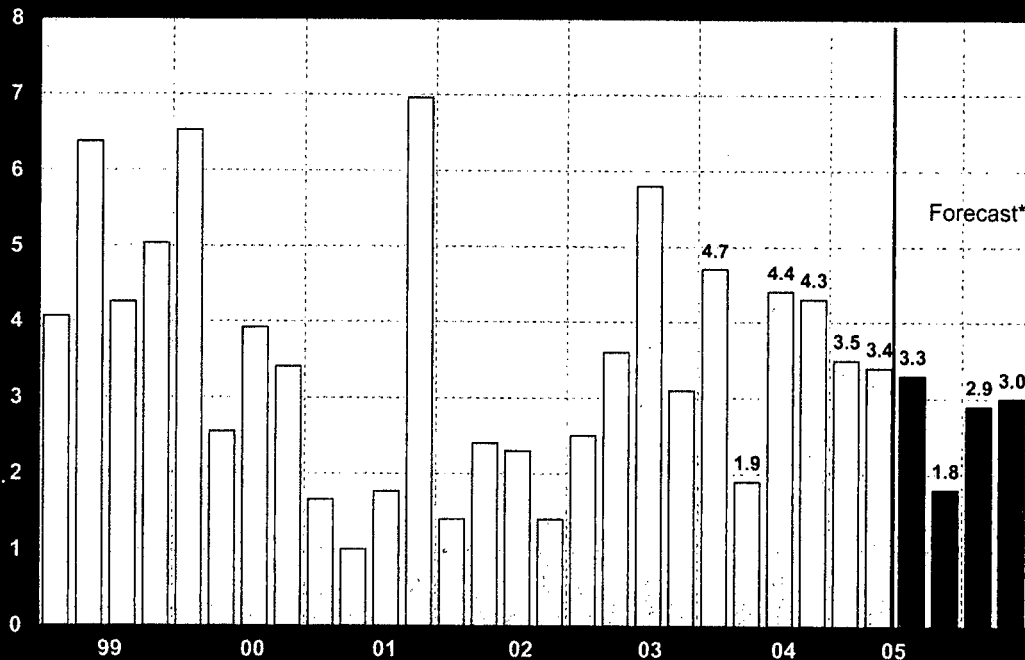


Source: Bureau of Economic Analysis / Haver Analytics
PCE: Personal Consumption Expenditures

Personal Consumption Expenditures

% Change - Annual Rate

SAAR, Bil.Chn.2000\$



Source: Bureau of Economic Analysis/Haver Analytics/ *Blue Chip Consensus

ECONOMIC EFFECTS OF INFLATION TARGETING

After decades of debate, the case for inflation targeting is well established. This paper focuses on one key ingredient of the argument supporting inflation targeting: The proposition that a credible implementation of inflation targeting will calm and stabilize various financial markets, anchor the price system, and limit inflation as well as its variability and persistence. Other competing views—i.e., (a) that inflation targeting has no impact on financial markets and (b) that inflation targeting leads to asset price bubbles and hence to financial market volatility—are briefly outlined.

These alternative views are presented and briefly contrasted with existing empirical evidence. Some key findings include the following:

- There is little or no evidence that inflation targeting adversely affects financial markets.
- While not unanimous, the weight of the existing empirical evidence appears to support the view that inflation targeting matters and will work to calm and limit the variability of financial markets, as well as the persistence of inflation. As the empirical literature suggests, this will likely help to foster healthier economic growth. Although some research findings are consistent with competing hypotheses, this research has a number of problems.

Since there is little evidence that inflation targeting has adverse effects on financial markets or the economy, adopting inflation targeting once price stability is attained likely will make maintaining price stability easier. As emphasized by others, adopting inflation targeting will help *future* economic performance in that gains in credibility will be preserved for future Federal Reserve chairmen.

INTRODUCTION

The theoretical case for inflation targeting (IT) has been spelled out during the course of the last 15 years in a number of publications, including several JEC studies. The case for IT is a strong one, supported by a number of compelling arguments. According to proponents, adopting IT certainly does make a difference by improving the performance of the economy, the financial system, and the inflation rate. The arguments supporting this approach, however, will not be repeated here; these arguments have been amply described elsewhere. Instead, one component of the arguments supporting the adoption of IT will be reviewed and assessed.

In particular, IT proponents contend that its adoption will help to calm and stabilize financial markets. More precisely, the adoption of credible IT will provide *an anchor* to the financial system and to financial markets. In so doing, financial markets will stabilize as inflation is driven from the price system. Temporary deviation of inflation will be ignored. This credibly reduced inflation is associated with less volatile financial markets, smaller risk premiums, and lower inflationary expectations. *In this view, then, IT is associated with more stable financial markets.*

On the other hand, some economists contend that IT is associated with asset price bubbles, and thus, asset price volatility. In particular, as credible IT works to stabilize conventional measured inflation, to reduce risk premiums, and to tame economic fluctuations, economies experience *more risk taking* and more risky investment. Economies will also experience increased stock price volatility and associated asset price bubbles. According to this view, there is a kind of “moral hazard” of economic policymaking: The more stable/predictable the economic environment, the more risk taking and risky investment take place. Proponents of this view point to several classic episodes in which asset price bubbles followed periods of price stability; e.g., the United States during the 1920s, as well as more recent episodes in Japan and the U.S. *In this view, then, IT is associated with more volatile asset prices and financial markets, the opposite contention of the above, more conventional view.*

This paper briefly describes these alternative views, reviews relevant empirical evidence, and attempts to reconcile these seemingly conflicting positions.

AN UNCONVENTIONAL VIEW: INFLATION TARGETING (IT) AND ASSET PRICE VOLATILITY

Recently, a few economists have broken rank with the conventional view supporting IT. These economists contend that low inflation environments tend not to be associated with asset price stability. Instead, they argue that IT or low inflation environments tend to be associated with asset price movements and bubbles (or financial fragility) and asset price volatility. Fildaro, for example, states that:

. . . The achievement of a low, stable inflation environment has not simultaneously brought about a more stable asset price environment. The record over

the last decade, in fact, has raised the prospect of asset price booms and busts as a permanent feature of the monetary policy landscape.¹

Similarly, Borio and Lowe (2002) argue that:

... financial imbalances can buildup in a low inflation environment ... while low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices ... We stress that financial imbalances can and do buildup in periods of disinflation or in a low inflation environment.²

Furthermore, in reviewing the economic environment of the past 30 years or so, Borio and White (2004) maintain that this environment can be characterized as improving in price stability while at the same time experiencing more financial instability.³

Some endorsing this alternative view include some economists sympathetic to the Austrian School and several economists affiliated with at the Bank for International Settlements (BIS).⁴

This alternative view embodies some important implications. Notably, proponents of this view contend that price stability or IT causes sharp movements in asset prices; i.e., price stability or IT is associated with asset price bubbles.

According to proponents of this view, IT central banks themselves increasingly (but unwittingly) work to create the environment conducive to the formation of asset price bubbles or instabilities. Specifically, as modern central banks learn to control inflation and tame economic fluctuation, thereby stabilizing economic activity, these economies will experience *more risk taking*, more innovation, more investment and sometimes stronger advances in productivity. They will experience increased stock market volatility and associated asset price bubbles. Credible IT policies, therefore, stabilize conventionally measured price indices while at the same time create new incentives to take risk.

In this view, there is a kind of "moral hazard" of economic policymaking: The more stable/predictable the economic environment, the more risk taking, investment, and innovation take place. In sum, low inflation environments are increasingly associated with financial imbalances and asset price volatility.

THE CONVENTIONAL VIEW: INFLATION TARGETING CALMS AND STABILIZES FINANCIAL MARKET PRICES

There are several theoretical explanations of how financial markets are affected by the existing monetary regime. In particular, different explanations exist as to how movements in financial market prices are shaped by the adoption of IT and its associated consequent price stabilization. *One* of the direct benefits of IT, for example, is the calming, stabilizing effect it has on financial market prices and on the market price system itself. In short, IT stabilizes prices and *serves as an anchor* to the price system. According to Levin et al., for example:

... under an inflation-targeting regime, expectations about inflation, particularly at longer horizons, should be "anchored" by the target, and thus should be less affected by changes in actual inflation ... Having inflation expectations that are well anchored—that is, unresponsive to short-run changes in inflation—is of significant benefit to a country's economy ... Keeping inflation expectations anchored helps to keep inflation itself low and stable.⁵

More specifically, as inflation rates are credibly lowered and as stable prices eventually emerge, inflation and inflationary expectations will have less of a disturbing effect on price movements. Price reactions to both economic policy announcements and economic data releases will be tempered. This reduction in inflation and inflationary expectations will lower the variability of relative and nominal prices. And

¹Fildaro, Andrew, "Monetary Policy and Asset Price Bubbles: Calibrating the Monetary policy tradeoffs," *BIS Working Paper* No. 155, June (2004), p.

²Borio Claudio, and Philip Lowe, "Asset Prices Financial and Monetary Stability: Exploring the Nexus," *BIS Working Paper* No. 114, (July 2002), Abstract, p. 1.

³Borio, Claudio and William White, "Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes," *BIS Working Paper* No. 147 (February 2004).

⁴These authors, include, for example, Charles Bean, Claudio Borio, Philip Lowe, William White, Andrew Filadro, Andrew Crockett, and others.

⁵Jeremy Piger, "Does Inflation Targeting Make a Difference?," *Monetary Trends*, Federal Reserve Bank of St. Louis, April 2004, p. 1. See also Levin, Andrew T., Natalucci, Fabio M. and Piger, Jeremy M., "The Macroeconomic Effects of Inflation Targeting," Federal Reserve Bank of St. Louis Review, July/August 2004, 86 (4).

this reduction of inflation and inflationary expectations will also reduce uncertainty and thereby lower risk spreads.

Furthermore, distorting interactions of inflation with the tax code will gradually be minimized. In short, the operation and working of the price system will be improved as adopting IT will reduce market volatility.

These factors will contribute to calming and stabilizing a number of important markets including the short-term money market, long-term bond market, foreign exchange market, sensitive commodity markets, as well as equity markets. All of these improvements will work to better enable to function, improve market efficiency, and inevitably to improve economic growth and performance.

INDIRECT APPROACHES TO STABILIZE MARKETS

There are additional indirect, but important ways in which IT can work further to calm and stabilize movements in market prices. More specifically, IT necessarily involves an increase in central bank *transparency*, which can work to further stabilize markets.⁶ The benefits of monetary policy transparency cited in the literature include a reduction in both the level of and variability of inflation, as well as output.⁷

IT, after all, involves the announcement of and explicit public identification of policy goals or policy rules. This involves providing more information to the market. Markets work better with more information; more specifically, they absorb new information and use it to form common, concentrated expectations about the future.⁸ As markets begin to anticipate policy changes, the initial steps of the monetary transmission mechanism between policy action and economic activity begin to work more efficiently.⁹ Policy surprises affecting markets become smaller and fewer in number. Central bank credibility begins to build and to anchor inflationary expectations, thereby helping to stabilize financial markets. As one proponent put it: "the strength of inflation targeting, vis-à-vis other monetary regimes lies precisely in how transparency enhances monetary credibility and anchors private expectations."¹⁰

In short, increased transparency changes behavior so that markets function better and in a more stable, predictable manner that works to stabilize markets.

EMPIRICAL EVIDENCE

In sum, alternative views as to the effects IT might have on financial markets suggest that, *the adoption of IT could result in these markets becoming more volatile, less volatile, or unaffected by IT. Existing evidence sheds some light on validity of these alternative views.*

Does IT result in more Volatile Financial Markets?

Hard empirical evidence supporting the view that IT causes financial market volatility appears difficult to muster. Much of the literature sympathetic to this view is not focused directly on such empirical evidence. Rather, it often deals with broader issues of monetary policy and the policy role played by asset price "bubbles". Borio and Lowe, for example, make such a connection:

While low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices. Accordingly, in some situations, a monetary response to credit and asset markets may be appropriate to preserve both financial and monetary stability.¹¹

But the argument that price stability or IT itself fosters asset price bubbles, asset price volatility, or financial instability has been neither adequately nor convincingly established. And the case that financial imbalances develop because of stable price environments, has not been demonstrated; it has *not* been shown that price stability

⁶Transparency has several dimensions. These involve explicit identification of policy objectives, issuing inflation reports, policy announcements, and testimony, i.e., providing much more information to the market. See for example, Seth B. Carpenter, "Transparency and Monetary Policy: What Does the Literature tell policymakers?" Working Paper, Board of Governors of the Federal Reserve System, April 2004. p. 1.

⁷See Carpenter, *op. cit.*, p. 1.

⁸See, for example, Gavin, William, "Inflation Targeting," *Business Economics*, April 2004, pp. 30, 36.

⁹See, Charles Freedman, "Panel Discussion: Transparency in the Practice of Monetary Policy," *Review*, Federal Reserve Bank of St. Louis, July/August, 2002, p. 155.

¹⁰Klaus Schmidt-Hebbel and Matias Tapia, "Statement" (2002), p. 11)

¹¹Borio Claudio and Philip Loew, "Asset Prices, Financial and Monetary Stability: Exploring the Nexus," BIS Working Paper No. 114, July 2002, Abstract.

causes financial instability. In short, no direct “hard core” or formal statistical or econometric evidence supports this view. Instead, anecdotal compilations of “stylized facts” are used to assess historical episodes in support of the view. Additionally, only a few episodes appear to have the characteristics (low inflation, credit growth, asset price bubbles, etc) consistent with this view. Instead of such evidence, proponents rely on assumptions relating to the credibility of policymakers, investment activity, technological advances, or productivity gains that can serve to constrain the price increases of goods and services. In sum, little *hard empirical evidence* supporting the view that price stability or IT contributes to or causes volatile financial markets exists.

Empirical Evidence: Does IT matter? Is IT unrelated to economic performance or to market volatility?

A number of studies have examined whether the adoption of IT improves economic performance (as measured by movements in inflation, output, and/or interest rates) or affects the volatility of market variables. In short, they have tested to see if IT matters.

Several researchers have addressed this question. Despite a good deal of effort, however, some of their empirical results have been mixed. As a result, this research in turn has raised a number of methodological questions. More specifically, in assessing these questions in recent years, researchers have often used a common methodology. The reason for this is that recently both IT and non-IT countries experienced improvement in economic performance as measured, for example, by inflation or the level of interest rates. Focusing on any one IT country in isolation might lead researchers to falsely conclude that IT caused the improvement. But non-IT countries may have experienced similar affects. Some researchers contend, therefore, that to test for the effects of IT, improvements in IT countries must be made relative to improvements in non-IT countries.

Examples of research results: Implying IT doesn't matter include the following:

- Ammer and Freeman (1995) surveyed three IT countries, New Zealand, Canada, and the United Kingdom. They found that although each reached its inflation goal, bond yields suggested that long-term inflationary expectations exceeded targets as did short-term measures of inflationary expectations. This suggests that these countries did not attain the credibility necessary to properly anchor other prices and stabilize the price system. Moreover, there is no evidence that announcement of an explicit IT policy would reduce inflationary expectations.¹²

- Johnson (2002) employed data from 11 countries. He adopted a methodology which divided up his sample into inflation targeting and non-inflation targeting countries. His results are mixed. Specifically, he found that while the level of inflationary expectations falls after announcing explicit inflation targets, the variability of expected inflation does not. In describing his results, Johnson contended that “inflation targets allowed a larger disinflation with smaller forecast errors to take place in targeting countries.”¹³

- Recent research by Ball and Sheridan (2003) is perhaps the most forceful example of empirical work concluding that IT does not matter. These authors, for example, conclude that:

... on average, there is no evidence that inflation targeting improves performance as measured by the behavior of inflation, output, or interest rates . . . overall it appears that targeting does not matter. Inflation targeting has no effect on the level of long-term interest rates, contrary to what one would expect if targeting reduces inflation expectations . . . targeting does not affect the variability of the short-term interest rates controlled by policymakers . . . we find no evidence that inflation targeting improves a country's economic performance.¹⁴

In short, some research clearly concludes that IT does *not* matter.

SOME QUESTIONS AND CRITIQUE

There are, however, a number of fundamental reasons why this research and its conclusions are both questionable and in conflict with the results of other research.

¹²John Ammer and Richard T. Freeman, “Inflation Targeting in the 1990s. The Experiences of New Zealand, Canada, and the United Kingdom,” *Journal of Economics and Business*, 1995, 47:165–192, pp. 165,189.

¹³David R. Johnson, “The Effect of Inflation Targeting on the Behavior of Expected Inflation: Evidence from an 11 country panel,” *Journal of Monetary Economics*, 49 (2002) 1521–1538, p. 1537.

¹⁴Ball, Laurence and Niamh Sheridan, “Does Inflation Targeting Matter?,” Paper presented at NBER Inflation Targeting Conference, January 2003 (March 2003), pp. 2,3,4,29.

For example, many economists question the methodology employed in these studies. The selection and identification of “non-IT countries,” for example, is one of these issues. Several economists, analysts, and even Federal Reserve officials have pointed out that a number of key countries, including the U.S., are identified as *non IT countries* in the studies because they do not have *explicit inflation targets*. But many of these countries consistently pursued an implicit inflation targeting strategy. *So the label may be misleading and inappropriate for several countries.* This misspecification also applies to countries pegging their currencies to a currency whose central bank is following ITs; (i.e., some countries in Europe and Asia). These observations were made by, Gertler, Mankiw, Federal Reserve officials and others.¹⁵ These contentions draw into question the validity of the methodology and results of these empirical studies.

Furthermore, recent IMF research surveys and delineates the many dimensions to and ways of classifying and categorizing IT. This research underscores the large number of variables that can be used to select and define IT. It is a reminder that there may be no easy, simple way of neatly identifying an IT central bank.

Because of the multi-dimensional character of IT regimes, it is difficult to clearly and neatly dichotomize existing central banks into IT and non-IT categories. Definitions of IT, for example, should be adjusted to reflect the realities of “flexible” IT. The clean dichotomization maintained by theoretical researchers may not be nearly as clean as suggested by the authors. Consequently, the empirical results may not be as clean as suggested by some of the results of these papers.

Additionally, several statistical or econometric issues and critiques were identified in much of this literature. In his comments on Ball and Sheridan, for example, Gertler notes that “existing evidence in favor of inflation targeting is open to identification problems.”¹⁶ Ball and Sheridan themselves assert that their empirical results are often not strictly comparable to the results of other studies because of unusual techniques that were employed.¹⁷

Empirical Evidence: IT is related to macroeconomic performance and to financial market volatility: IT does make a difference.—Despite the widespread practical support accorded IT in recent years, not much hard empirical support was found favoring IT in early, initial research.¹⁸ As time passed and more historical data has come to the fore, however, researchers have uncovered a number of important empirical regularities tending to support IT. Some of the evidence comes from single-country case studies suggesting that IT tends to stabilize markets. Other evidence is cross-section support. For example, a number of recent empirical studies examined the relationship between IT and macroeconomic performance, as well as between IT and financial market behavior: i.e., these studies attempted to assess whether IT matters. While mixed, the bulk of the new evidence indicates that IT matters; IT has a positive significant impact on economic and financial market performance.

The following “bullet points” supply an abbreviated summary of the recent key empirical studies relevant to this topic:

- In a (1996) report to the FOMC, David Stockton surveyed existing literature related to price objectives for monetary policy.¹⁹ In that survey, Stockton identified several well-known established empirical relationships pertinent to this topic. They included the following:

- * Both cross-country and time-series evidence supports the notion that inflation reduces the growth of real output (or productivity).
- * Inflation is positively related to the variability of relative prices.
- * Inflation is positively related to inflation uncertainty.
- * In general, relative price variability and inflation uncertainty adversely affect real output.

- In his recent book *Inflation Targeting* (2003), Truman summarizes the principal conclusions of the empirical literature on inflation targeting.²⁰ In particular, IT generally:

¹⁵ See Gertler, Mark, “Comments on Ball and Sheridan,” Prepared for the NBER Conference on Inflation Targeting, January 2003. (June 2003), pp 1, 3–5; Mankiw N. Gregory, (2001), “U.S. Monetary Policy During the 1990’s. NBER Working Paper No. 8471, Cambridge, Mass Sept 2003; and Marvin Goodfriend, “Inflation Targeting in the United States?,” (2003) Paper prepared for the NBER Conference on Inflation Targeting, January 2003.

¹⁶ Gertler, Mark, “Comments on Ball and Sheridan,” June 2003, Paper prepared for the NBER Conference on Inflation Targeting, January 2003, p. 1.

¹⁷ Ball and Sheridan, *op. cit.*, p. 28. (The unusual technique was regression to the mean.)

¹⁸ See Neumann and Von Hagen, p. 127.

¹⁹ David J. Stockton, “The Price Objective for Monetary Policy: An Outline of the Issues,” A Report to the FOMC Board of Governors, June 1996.

²⁰ Edwin M. Truman, *Inflation Targeting in the World Economy*, Institute for International Economics, Washington, D.C. October 2003, p. 72.

* Has had a favorable effect on inflation, inflation variability, inflation expectations, and the persistence of inflation.

* Has not had a negative effect on economic growth, the variability of growth, or unemployment.

* Has had mixed effects on both the level and variability of real, nominal, short-term, and long-term interest rates.

* Has had positive effects on exchange rate stability.

* Has affected the reaction functions of the central banks that have adopted the framework.²¹

- For the most part, economists have established empirically a negative relationship between inflation uncertainty and real economic activity. Elder (2004), for example, relates that:

Our main empirical result is that uncertainty about inflation has significantly reduced real economic activity over the post-1982 period . . . Our findings suggest that . . . macroeconomic policies that reduce volatility in the inflation process are likely to contribute to greater overall growth.²²

- In a early study, Ammer and Freeman (AF) (1995) examined three IT countries. This study provided mixed results for IT. On the one hand, inflation did not exceed the targets and this result occurred without sharp increases in short-term rates. These researchers found that "inflation fell by more than was predicted by the models in the early 1990s, an indication of the effect of the new regime."²³ However, "longer term interest rates suggest that none of these countries rapidly achieved complete long-term credibility for their announced long-run inflation intentions."²⁴

- Some of the earlier (pre-2000) literature was summarized by Neuman and von Hagen (NvH) and included the following observations:

* Some authors find that "IT might . . . serve to lock in gains from disinflation rather than to facilitate disinflation."²⁵ After introducing IT, inflation and interest rates remained below values predicted by existing models.

* Other authors found that the "volatility of official central bank interest rates . . . declined substantially after the introduction of IT."²⁶

- Neumann and von Hagen (NvH) (2002) reviewed earlier studies of inflation targeting episodes. They presented "evidence on the performance of IT central banks."²⁷ In particular, NvH showed that ". . . IT has reduced short-term variability in central bank interest rates and in headline inflation . . ."²⁸ (The NvH paper) "suggests that IT has indeed changed central bank behavior . . ." (NvH) "looked at different types of evidence in order to validate" (the claim that inflation targeting) "is a superior concept for monetary policy." "Taken together, the evidence confirms that IT matters. Adopting this policy has permitted IT countries to reduce inflation to low levels and to curb the volatility of inflation and interest rates . . ."²⁹ In discussing this paper, Mishkin reminds us that NvH "produce several pieces of evidence quite favorable to inflation targeting."³⁰

- Johnson (2002) shows that inflation "targets reduced the level of expected inflation in targeting countries"³¹ . . . "The evidence is very strong that the period after the announcement of inflation targets is associated with a large reduction in the level of expected inflation . . . that (significant) reduction took place in all 5 countries with inflation targets. This is an important success of inflation targets." . . . "inflation targets allowed a larger disinflation with smaller forecast errors to take place in targeting countries."³² In sum, inflation targeting presumably favorably affected the bond and other markets by influencing inflationary expectations and reducing uncertainty premiums.

²¹ *Ibid.* p. 72. (The points outlined were taken from Truman, p. 72.)

²² John Elder, "Another Perspective on the Effects of Inflation Uncertainty."

²³ Neumann and von Hagen, *op.cit.*, p.128.

²⁴ John Ammer and Richard T. Freeman, "Inflation Targeting in the 1990's: The Experiences of New Zealand, Canada, and the United Kingdom," *Journal of Economics and Business*, 1995; 47: 165-192, p. 189.

²⁵ Neumann and von Hagen, *op.cit.*, p.128.

²⁶ *Ibid.*, p. 129.

²⁷ Manfred J.M. Neumann and Jurgen Von Hagen, "Does Inflation Targeting Matter?," Federal Reserve Bank of St. Louis, Review, July/August 2002, p. 130.

²⁸ *Ibid.*, p.127.

²⁹ *Ibid.*, pp. 128, 144 (parenthesis added).

³⁰ Frederick Mishkin, "Commentary," FRB St. Louis Review, July/August, 2002, p.144.

³¹ David R. Johnson, "The Effect of Inflation Targeting on the Behavior of Expected Inflation: Evidence from an 11 country panel."

³² *Journal of Monetary Economics* 49 (2002), p. 1522. *ibid.*, pp/1537. (parenthesis added).

• Levin, Natalucci and Piger (LNP) (2004) find “evidence that IT plays a significant role in anchoring long-term inflationary expectations and in reducing the . . . persistence of inflation”³³ The evidence suggests that IT practitioners can more readily delink their inflationary expectations from realized inflation.³⁴ In short, IT plays a significant role in anchoring long-term inflation expectations and long-term interest rates themselves.³⁵

* LNP find that “inflation targeting affects the public’s expectations about inflation” . . . “under an inflation targeting regime, expectations about inflation, particularly at longer horizons, should be ‘anchored’ by the target, and thus should be less affected by changes in actual inflation.” “Keeping inflation expectations anchored helps to keep inflation itself low and stable.”³⁶

* In commenting on this paper, Uhlig (2004) . . . “concludes that these figures seem to suggest that an environment of low and stable inflation helps to reduce output volatility and support economic activity.”³⁷

• Recent empirical research at the Federal Reserve by Gurkaynak, Sack and Swanson (GSS) (2003) shows that the Fed could boost the economy by being more transparent about its long-term inflation objectives.³⁸ GSS “show that the long-term interest rates (of non-IT countries) react excessively to macroeconomic data releases and to news about monetary policy. This overreaction is caused by changes in the market’s long-term inflation expectations.”³⁹

IT, however, works to anchor (or prevent excess volatility in) long-term market’s. Consequently, in IT countries (like the UK), markets do not overreact or display over-sensitivity. The empirical results of the paper suggest “that the central bank can help stabilize long-term forward rates and inflation expectations by credibly committing to an explicit inflation target.”⁴⁰ Commitment to an explicit target will help stabilize both long rates and inflation expectations.

• Other research conducted at the Federal Reserve also relates to this evidence. Carpenter (2004), for example, surveyed empirical studies of transparency.⁴¹ The summarized results are mixed, but suggest there is evidence of a relationship between IT and both transparency and lower inflation. Moreover, it is emphasized by several authors that there is no evidence that IT causes any harm. Swanson (2004) showed that increased central bank transparency acts to reduce financial market surprises and uncertainties. This suggests that IT—which is tantamount to increased transparency of policy goals—may aid in reducing financial market volatility and stabilizing financial markets.⁴²

• Several studies establish that additional central bank transparency in the form of announced inflation target, works to lower inflation and stabilizes output. Recently Fatas, Mihov, and Rose (FMR), for example, found “that both having and hitting quantitative targets (like IT) for monetary policy is systematically and robustly associated with lower inflation . . . Successfully achieving a quantitative monetary goal (like ITs) is also associated with less volatile output.”⁴³ These authors find that “. . . countries with transparent targets for monetary policy achieve lower inflation.”⁴⁴ They found “that having a quantitative *de jure* target for the monetary authority tends to lower inflation and smooth business cycles; hitting that target *de facto* has further positive effects. These effects are economically large, typically sta-

³³ Andrew T. Levin, Fabio M. Natalucci, and Jeremy M. Piger, “The Macroeconomic Effects of Inflation Targeting,” Federal Reserve Bank of St. Louis, Jan. 23, 2004. Abstract.

³⁴ *Op. cit.*, Abstract.

³⁵ *Op. cit.*, p. 2.

³⁶ Jeremy Piger, “Does Inflation Targeting Make a Difference?” *Monetary Trends*, April, 2004.

³⁷ Jeremy M. Piger and Daniel L. Thornton, “Editor’s Introduction,” *Federal Reserve of St. Louis Review*, July/August 2004, Volume 86, Number 4, p. 5.

³⁸ See Refet S. Gurkaynak, Brian Sack, and Eric Swanson, “The Excess Sensitivity of Long-Term Interest Rates, Evidence and Implications for Macroeconomic Models,” *Finance and Economic Discussion Series, Federal Reserve Board*, November 17, 2003; William Gavin, “Inflation Targeting, Why It Works and How to Make it Work Better,” *Business Economics*, Vol XXXIX April, 2004, p. 32.

³⁹ See Gavin, *op cit*, pp. 32, 36 (parenthesis added).

⁴⁰ GSS, *op.cit.* p. 28.

⁴¹ Seth Carpenter, “Transparency and Monetary Policy: What Does the Academic Literature Tell Policymakers?,” Working Paper, Board of Governors of the Federal Reserve System, April 2004, pp. 11–13.

⁴² Eric T. Swanson, “Federal Reserve Transparency and Financial Market Forecasts of Short-Term Interest Rates,” Working Paper, Board of Governors of the Federal Reserve System, February 9, 2004.

⁴³ Antonio Fatas, Ilian Mihov, and Andrew K. Rose, “Quantitative Goals for Monetary Policy,” NBER Working Paper No. W 10846, October 2004, Abstract (parenthesis added.)

⁴⁴ *Ibid*, p. 1.

tistically significant and reasonably insensitive to perturbations in (their) econometric methodology.”⁴⁵

- Siklos (2004) found that “inflation-targeting countries have been able to reduce the nominal interest rate to a greater extent than have non-inflation targeting countries . . . It is also found that central banks with the clearest policy objectives have a relatively lower nominal interest rates.”⁴⁶

This abbreviated review of some of the recent literature suggests that overall, there is a good deal of evidence supporting the case for IT. This review suggests that inflation targeting does matter. More specifically, credible commitment to an explicit IT likely will work to help lower and stabilize the level and variability of inflation. This result occurs in part because of the reduction and stabilization of inflationary expectations. Hence, it will likely lower both the level and variability of the long bond rate. IT will anchor the price system and help to stabilize short-term interest rates, long-term interest rates, the foreign exchange and stock markets. Some research suggests IT also helps to dampen the business cycle and stabilize movements in output. Additionally there is a body of evidence indicating that transparency helps to stabilize markets and fosters central bank credibility.

SUMMARY AND CONCLUSIONS

After decades of debate, the case for inflation targeting is well established. This paper focuses on one key ingredient of the argument supporting inflation targeting. Namely, it examines the proposition that a credible implementation of inflation targeting will calm and stabilize various financial markets, anchor the price system, and limit inflation, as well as its variability and persistence. Other competing views—i.e., (a) that inflation targeting has no impact on financial markets and (b) that Inflation Targeting leads to asset price bubbles and hence to financial market volatility—are briefly outlined.

These alternative views are presented and briefly contrasted with existing empirical evidence. Some key findings include the following:

- There is little or no evidence that inflation targeting has adverse effects on financial markets.

- Research finding that inflation targeting does not matter has problems, in part related to the selection and definition of inflation targeting countries.

- The weight of the existing empirical evidence appears to support the case for inflation targeting; i.e. overall, it supports the view that inflation targeting matters and will work to calm and limit the variability of financial markets as well as the persistence of inflation. It will serve to anchor the price system. As the empirical literature suggests, this will likely foster healthier economic growth.

There is little evidence that inflation targeting has adverse effects on or hurts financial markets or the economy.⁴⁷ Accordingly, adopting inflation targeting once price stability is attained likely will make it easier to maintain.⁴⁸ As emphasized by Gertler, “the case made for adopting formal targets in the U.S. is not that this system would have improved past performance, but rather that it would help future performance by preserving gains in credibility for Greenspan’s successor.”⁴⁹

PREPARED STATEMENT OF SENATOR JACK REED, RANKING MINORITY MEMBER

Thank you, Chairman Saxton. I want to welcome Chairman Bernanke, who I hope will give us useful insights on current economic conditions and where he thinks the President’s policies are taking us. I am also pleased that we will have a second panel of witnesses to give us further perspectives on the economic outlook.

Like many Americans, my concerns about the economic outlook and the Administration’s stewardship of the economy have grown in the wake of Hurricane Katrina. Economic insecurity for workers is widespread as energy prices are soaring, employer-provided health insurance coverage is falling, private pensions are in jeopardy, and American workers are still waiting to see the benefits of the economic recovery reflected in their paychecks.

⁴⁵ *Ibid.* p. 21. (parenthesis added).

⁴⁶ Pierre L. Siklos, “Central Bank Behavior, The Institutional Framework, and Policy Regimes: Inflation Versus Non-Inflation Targeting Countries,” *Contemporary Economic Policy*, vol 22, no. 3, July 2004, 331–343, pp 331, 332.

⁴⁷ Ball and Sheridan, *op.cit.*, p. 29.

⁴⁸ See Anthony M. Santomero, “Monetary Policy and Inflation Targeting in the United States,” *Business Review*, Federal Reserve Bank of Philadelphia, Fourth Quarter 2004, p. 1.

⁴⁹ Mark Gertler, “Comments on Ball and Sheridan.” A Paper presented to the NBER conference on Inflation Targeting, January 2003, p. 5. The point was also made by Ball and Sheridan, *op. cit.*, p. 30

President Bush's tax cuts were poorly designed to stimulate broadly shared prosperity and have produced a legacy of large budget deficits that leave us increasingly hampered in our ability to deal with the host of challenges we face. The devastating impact of Hurricanes Katrina and Rita will put short-term strains on the Federal budget—strains that would be fairly easy to absorb if our budget and economic policies were sound, but they are not. The President's goals of making his tax cuts permanent and cutting the deficit in half are simply incompatible.

Large and persistent budget deficits also have contributed to an ever-widening trade deficit that forces us to borrow vast amounts from abroad and puts us at risk of a major financial collapse if foreign lenders suddenly stop accepting our IOU's. The trade deficit of \$59 billion in August is close to the record for a single month of more than \$60 billion set in February. The broader current account deficit, which measures how much we are borrowing from the rest of the world, is running at a record annual rate of nearly \$800 billion, or well over 6 percent of GDP.

I will be interested in Chairman Bernanke's views on whether the budget and trade deficits are dangerous imbalances that pose a risk to the economic outlook. But I am also pleased that we will be able to hear Dr. Setser's views, which may be somewhat different.

I hope that we would all agree that raising our future standard of living and preparing adequately for the retirement of the baby boom generation require that we have a high level of national investment and that a high fraction of that investment be financed by our own national saving—not by foreign borrowing. We followed such prosperity-enhancing policies under President Clinton, but that legacy of fiscal discipline has been squandered under President Bush.

Sound policies for the long run are clearly very important, but I am also deeply concerned about what continues to be a disappointing economic recovery for the typical American worker. Strong productivity gains have shown up in the bottom lines of shareholders but not in the paychecks of workers. The typical worker's earnings are not keeping up with their rising living expenses. And both earnings and income inequality are increasing.

Instead of addressing these problems, the President's policies seem to be piling on. It's certainly hard to take seriously the President's rhetoric about wanting to lift families out of poverty when he has refused to support an increase in the minimum wage and he has lifted the Davis-Bacon Act, thereby legitimizing sub-par wages for workers rebuilding their communities in the hurricane-stricken Gulf Coast region.

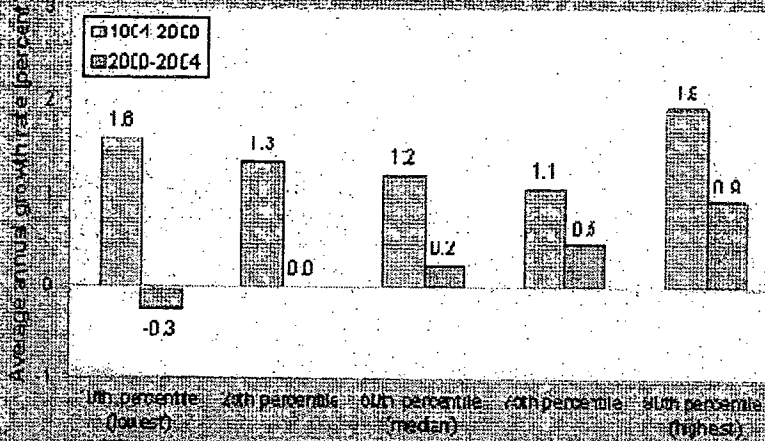
And even though home heating costs are expected to skyrocket this winter, President Bush has said he will not request additional funds for the Low Income Home Energy Assistance Program, known as LIHEAP. Together with Republican Senators Susan Collins and Olympia Snowe, I have offered an amendment to increase LIHEAP by \$3.1 billion, so that low-income Americans won't be left out in the cold this winter. I would like to know if the Administration is willing to reconsider its position on providing additional LIHEAP funds and if not, why not?

It seems to me that the President's compassionate words hardly match his Administration's actions. Now is not the time to cut funding for important programs such as LIHEAP and Medicaid that support working families and seniors, while the President continues to push for irresponsible tax breaks for those who are already well-off.

I look forward to Chairman Bernanke's testimony about the economic outlook, and I will listen with interest to anything the Chairman and our witnesses can tell me that will allay my concerns about that outlook.

Real Earnings Growth Has Slowed and Become More Unequal under President Bush

Change in Real Cash Weekly Earnings of Full-time Workers



NOTE: Growth rates are shown quarterly for each quarter over the entire annual rate.
 SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

PREPARED STATEMENT OF HON. BEN BERNANKE, CHAIRMAN, COUNCIL OF
ECONOMIC ADVISERS, WASHINGTON, DC

Chairman Saxton, Vice-Chairman Bennett, Ranking Member Reed, and Members of the Committee, thank you for the opportunity to testify before the Joint Economic Committee. We appreciate the long-standing and mutually beneficial relationship between the Committee and the Council of Economic Advisers. My remarks today will focus on the current state of the economy, but of course such an overview would be incomplete without an eye to the human and economic impacts of hurricanes Katrina and Rita in the U.S. Gulf Coast.

While it has been nearly 2 months since Hurricane Katrina made landfall, its devastation will have a protracted impact on the Gulf region. As you know, Hurricane Katrina wreaked unprecedented losses on the people of the Louisiana, Mississippi, and Alabama coasts. Katrina took many lives, destroyed communities, and shook a vital portion of our Nation and our economy. The Gulf region was then hit by Hurricane Rita, which did significant damage but, in most areas, less than was feared. In response to the disasters, the President has directed all agencies of the Federal Government to devote their maximum effort to helping the victims of the hurricanes and to begin the process of cleaning up and rebuilding the region. The President has also proposed a series of measures to restore the Gulf's communities and economy.

One of the greatest assets we have in rebuilding after a hurricane is the overall strength of the national economy. The resiliency of the economy—the product of flexible labor markets, a culture of entrepreneurship, liquid and efficient capital markets, and intense market competition—is helping it to absorb the shocks to energy and transportation from the hurricanes. The ability of our economy to grow and create jobs will act as a lifeline to the regions and people that have been most affected. Thus these recent events make it all the more important that we keep the fundamentals of the national economy strong and continue to promote economic policies that will encourage growth and job creation.

THE ECONOMIC EXPANSION

When thinking about where the economy is now and where it is heading, it is useful to keep in mind just how far the U.S. economy has come in recent years. The economy's resilience was put to severe test during the past 5 years, even prior to Katrina. A remarkable range of shocks hit the U.S. economy, beginning with the sharp decline in stock prices in 2000 and the recession that followed in 2001. The economy was further buffeted by the terrorist attacks of September 11, 2001, and the subsequent geopolitical uncertainty. Business and investor confidence was shaken by a series of corporate scandals in 2002. By early 2003, uncertainty about economic prospects was pervasive and the economy appeared to be sputtering.

Yet, in the face of all these shocks, together with new challenges such as the recent sharp rise in energy prices, the American economy has rebounded strongly. Policy actions taken by the President and the Congress were important in helping to get the economy back on track. Notably, beginning with the President's 2001 tax cuts, multiple rounds of tax relief increased disposable income for all taxpayers, supporting consumer confidence and spending while increasing incentives for work and entrepreneurship. Additional tax legislation passed in 2002 and 2003 provided incentives for businesses to expand their capital investments and reduced the cost of capital by lowering tax rates on dividends and capital gains.

Together with appropriate monetary policies, these policy actions helped spur economic growth in both the short run and the long run. Today the U.S. economy is in the midst of a strong and sustainable economic expansion. Over the past four quarters real GDP has grown at a 3.6 percent rate, and over the past eight quarters real growth has been at a 4.1 percent annual rate. Prior to Katrina, the near-term forecasts of both CEA and private-sector economists had called for continued solid growth. The destruction wrought by Katrina and Rita may reduce growth somewhat in the short run, but the longer-term growth trajectory remains in place. I'll return to economic prospects in a moment.

An important reason for the recovery has been improved business confidence. To an extent unusual in the postwar period, the slowdown at the beginning of this decade was business-led rather than consumer-led. Homebuilding and purchases of consumer durables did not decline as they typically do in cyclical downturns; instead the primary source of weakness was the reluctance of businesses to hire and to invest. Supported by appropriate fiscal and monetary policies and by the economy's innate strengths, business confidence has risen markedly in the past few years. The effects are evident in the investment and employment data. From its trough in the first quarter of 2003, business fixed investment has increased over 21 percent, with

the biggest gains coming in equipment and software. Since the labor market bottomed out in May 2003, more than 4 million net new payroll jobs have been added. Currently, the unemployment rate stands at 5.1 percent, up from 4.9 percent in August, prior to the job losses that followed Katrina.

Although growth in GDP and jobs capture the headlines, one of the biggest macroeconomic stories of the past few years is what has been happening to productivity. Productivity growth is the fundamental source of improvements in living standards and the primary determinant of the long-run growth potential of the economy. Over the past 4 years, labor productivity in the nonfarm business sector has grown at a 3.4 percent annual rate, and productivity in manufacturing has risen at a 5.7 percent annual rate. Productivity growth has slowed recently as businesses have absorbed millions of new workers—a normal development for this stage of an economic expansion—but it remains (in the four quarters ending 2005:Q2) at the quite respectable level of 2.2 percent (and 6.3 percent in the nonfinancial corporate sector). Thus, on each of three key indicators of the real economy—GDP growth, job creation, and productivity growth—the United States in recent years has the best record of any major industrial economy, and by a fairly wide margin.

Finally, while there has been a notable rise in overall inflation this year, prices on nonenergy products have continued to increase at moderate rates. In particular, soaring energy prices have played the largest role in boosting the overall consumer price index to an increase of 4.7 percent over the past year, up from a 2.5 percent increase over the year-earlier period. In contrast, core consumer prices (as measured by the consumer price index excluding volatile food and energy prices) rose only 2.0 percent over the past 12 months, unchanged from its year-earlier pace. Long-term-inflation expectations also remain low and stable, based on measures of inflation compensation derived from inflation-indexed Treasury securities. To be clear, the focus on core inflation by no means implies that the rise in energy prices is inconsequential; sharply higher energy costs place a heavy burden on household budgets and increase firms' costs of production. I will discuss the energy situation in more detail in a moment. However, the stability in core inflation and inflation expectations does suggest that overall inflation is likely to return to levels consistent with price stability in coming quarters.

THE ECONOMIC OUTLOOK

Let me turn now to the outlook. In the shorter term, the devastation wrought by the hurricanes has already had palpable effects on the national rates of job creation and output growth. Payroll employment declined by 35,000 in September, its first decline since May 2003, and industrial production fell 1.3 percent, its largest monthly decline in over two decades. Both of these declines appear to be entirely accounted for as the effects of the hurricanes. The Bureau of Labor Statistics estimates that employment growth would have been roughly 200,000 in the absence of the hurricanes, and the Federal Reserve estimates that industrial production would have increased about 0.4 percent. Consumer confidence also dropped in September, although growth in consumer spending has continued to be solid. While the effects of the storms certainly reduced growth in the third quarter relative to what it would have been otherwise, most private-sector economists expect healthy growth for the remainder of this year and in 2006. For example, the Blue Chip panel of forecasters now projects growth at 3.2 percent in the second half of 2005 and 3.3 percent growth in 2006. Recovery and rebuilding will contribute to job creation and growth by the latter part of this year and in 2006.

The economic impact of the hurricanes included significant damage to the country's energy infrastructure. As you know, Katrina shattered a substantial portion of U.S. refining and pipeline capacity, which led to a spike in gasoline prices in the weeks after that storm. Rita caused further damage. The Federal Government has assisted, in among other ways, by lending or selling oil from the Strategic Petroleum Reserve, arranging for additional shipments of oil and refined products from abroad to the United States, and providing appropriate regulatory waivers to increase the flexibility of the energy supply chain. In part because of these efforts and a vigorous private-sector response, oil prices have returned to roughly their pre-Katrina levels. Wholesale gasoline prices have also retreated to levels of mid-August, suggesting that the recent decline in prices at the pump is likely to continue. Natural gas prices may remain elevated somewhat longer, however, because of lost production in the Gulf, the difficulty of increasing natural gas imports, and damage to plants that process natural gas for final use.

Even as the energy sector continues to recover, it remains true that the prices of oil and natural gas have risen sharply in the past 2 years, reflecting a tight balance of supply and demand. High energy prices are burdening household budgets

and raising production costs, and continued increases would at some point restrain economic growth. Thus far at least, the growth effects of energy price increases appear relatively modest. The economy is much more energy-efficient today than it was in the 1970s, when energy shocks contributed to sharp slowdowns. Well-controlled inflation and inflation expectations have also moderated the effects of energy price increases, since those increases no longer set off an inflation spiral and the associated increases in interest rates, as they did three decades ago. In addition, allowing prices to adjust, rather than rationing gasoline, is helping to minimize the overall impact on the economy.

House prices have risen by nearly 25 percent over the past 2 years. Although speculative activity has increased in some areas, at a national level these price increases largely reflect strong economic fundamentals, including robust growth in jobs and incomes, low mortgage rates, steady rates of household formation, and factors that limit the expansion of housing supply in some areas. House prices are unlikely to continue rising at current rates. However, as reflected in many private-sector forecasts such as the Blue Chip forecast mentioned earlier, a moderate cooling in the housing market, should one occur, would not be inconsistent with the economy continuing to grow at or near its potential next year.

The current account deficit presents some economic challenges. At 6.3 percent, the ratio of the current account deficit to GDP is now at its highest recorded level. Gradually reducing the current account deficit over a period of time would be desirable. While the current-account imbalance partly reflects the strong growth of the U.S. economy and its attractiveness to foreign investors, low U.S. national saving also contributes to the deficit. The United States should work to increase its national saving rate over time, by encouraging private saving and by controlling Federal spending to reduce the budget deficit. Our trading partners must also play a role in reducing imbalances, by becoming less reliant on export-led growth and increasing domestic spending, and by allowing their exchange rates to move flexibly as determined by the market.

CONCLUSION

The economic challenges posed by hurricanes Katrina and Rita reinforce once again the importance of economic policies that promote growth and increase the resilience of the economy. Energy issues in particular have come to the fore recently. The energy bill recently passed by Congress and signed by the President should help address the Nation's energy needs in the longer term. As an additional step, the Administration will continue to work with Congress to take measures that will permit needed increases in refinery capacity. The Administration has made a number of other proposals to increase economic growth, including proposals to reduce the economic costs of litigation, to increase quality and reduce costs in the health-care sector, and to address national needs in education and job training.

The Administration is currently engaged in several international negotiations, including the Doha round of the World Trade Organization, as well as talks with China on a number of matters involving trade, exchange rates, and needed financial reforms. Liberalized trade and capital flows promote economic growth, and we should strive to achieve those objectives in the context of a gradual reduction of current account imbalances. It is important that we persist in these efforts and not retreat to economic isolationism, which would negatively affect the long-run growth potential of the economy.

Fiscal discipline, always important, has become increasingly so in the face of the likely costs of assisting the victims of the hurricanes and of helping in the rebuilding. Before the impact of the hurricanes, strong economic growth was helping to reduce the budget deficit and the Government finished fiscal year 2005 with a much lower-than-expected deficit. The President remains committed to controlling spending and cutting the budget deficit in half by 2009. His 2006 budget made numerous proposals to save more than \$200 billion over the next 10 years from both discretionary and mandatory programs. In the budget resolution earlier this year, Congress laid plans to pass \$35 billion out of the President's \$70 billion in savings from mandatory programs over the next 5 years. Congress should now make good on that plan by passing at least \$35 billion in mandatory savings in reconciliation legislation. Further savings beyond \$35 billion would be highly desirable. The President continues to seek a decrease in non-security discretionary spending in FY2006 appropriations bills, and the Administration is working on options for spending rescissions. The President also remains committed to reforms to address fiscal challenges in the longer term, such as Social Security.

Finally, I note that the tax reform advisory panel, whose official report will go to the Secretary of the Treasury on November 1, has kicked off a much-needed de-

bate on how to make the Federal tax code simpler, fairer, and more pro-growth. We thank them for their hard work and look forward to reviewing their recommendations.

Thank you for the opportunity to be here today. I would be happy to answer your questions.

PREPARED STATEMENT OF DR. MICKEY D. LEVY, CHIEF ECONOMIST, BANK OF AMERICA, NEW YORK, NY

My outlook for U.S. economic performance is upbeat, based on sound fundamentals that underlie high potential growth and a history of resilience to shocks. The negative effects of Katrina on employment, consumer spending, trade and inflation will be temporary, and growth will bounce back in 2006, aided by a significant jump in Government purchases. Increases in wages and personal incomes will continue to support consumption. Housing activity is slowing, and prices are beginning to recede, but it is very unlikely that average values will decline sharply and unhinge the economic expansion. As always, the economy faces risks: present concerns include higher energy prices and further aggressive monetary tightening, a negative shock or a global slump. The Federal Reserve is expected to raise rates to 4.5–4.75 percent, but this would not be considered excessive. The probability of recession in 2006 is very low. Sustained long-run economic health requires fiscal reform involving programmatic changes to the Government's retirement and health care policies that are fair to current participants, incorporate the right incentives, and slow the growth of future benefits.

(1) Solid fundamentals provide a favorable long-run outlook for U.S. economic growth, and the efficiency and flexibility of the economy and capital markets provide resilience to external shocks. Potential growth is 3.5+ percent.

Long-run annualized growth has averaged 3.4 percent, and recent positive trends in productivity point to sustained healthy economic growth and rising standards of living. Favorable foundations, often overlooked in short-term assessments of economic conditions, include the efficiency and flexibility of U.S. production processes and labor markets, favorable tax and regulatory environment facilitating the entrepreneurship and business investment that support technological innovation, extraordinarily efficient capital markets and a well-capitalized banking system, and low inflation and the inflation-fighting credibility of the Federal Reserve. Following an elongated early expansion spurt in productivity, labor productivity gains have moderated but are expected to remain healthy, which combined with labor-force growth points to sustained economic growth over 3.5 percent.

Growth of U.S. GDP and capital spending has exceeded all other large industrialized nations, and its potential growth is higher. Moreover, combined with the responsiveness of economic policymakers, sound fundamentals provide significant resilience to external shocks. All recent economic expansions, including the current one that began in 2001Q4, have experienced external shocks that potentially could have sidetracked performance: Latin American debt crises in the early 1980s and mid-1990s, the Russian default and Asian financial crisis in 1997, the collapse of LTCM in 1998, 9–11, and most recently, Hurricane Katrina. In each case, adjustment processes unfolded more quickly than widely anticipated and, following temporary slowdowns, economic growth quickly snapped back. The resilience provided by these built-in stabilizers and smoothed cycles have reinforced confidence in U.S. economic performance.

(2) Economic growth, which was solid prior to Katrina, will moderate for several quarters, followed by a reacceleration to trendline in 2006. Risks to the outlook are slower growth as a consequence of tighter monetary policy and higher energy prices, or a negative shock or global slump.

The economy grew at an estimated 3.8 percent annualized pace in the first three quarters of 2005, and displayed healthy characteristics and surprising vigor prior to Katrina. In particular, consumer and business investment spending was quite resilient to the negative impact of higher energy prices. This reflected several factors: energy consumption per unit of GDP has declined significantly in recent decades in response to higher energy prices, and nominal spending growth has exceeded 6 percent, reflecting the Federal Reserve's monetary accommodation, so that the higher outlays for energy have not significantly "crowded out" real spending on non energy goods and services. Employment gains averaged 177,000 per month, and the unemployment rate dipped to 4.9 percent. Wages were increasing modestly, contributing to healthy increases in disposable income. Businesses were very disciplined, and inventories were very low relative to sales. Corporate profits and cash-flows rose to all-time highs.

Katrina generated huge declines in national wealth (by some estimates, up to \$150 billion), caused unprecedented displacement of households and workers, involved large uninsured business losses, and impaired and disrupted oil and gas refining facilities as well as the port of New Orleans. Although large, these losses in wealth must be judged relative to the \$11 trillion U.S. economy and its high growth potential, and household net worth of nearly \$50 trillion. The loss in wealth has little direct impact on measured GDP, while the clean up and rebuilding, however financed, count as production and adds to GDP.

As a result of Katrina, U.S. economic growth will temporarily slow and its composition will change. Consumption growth is projected to slow sharply from its estimated 3.8 percent pace over the past 4 quarters, to approximately 1 percent annualized in Q4, followed by a modest rebound in 2006Q1. Business investment is unlikely to be significantly affected, while both imports and exports may be temporarily delayed, which may temporarily slow production. Aided by a sharp boost in Government purchases and associated "fiscal policy multipliers," real GDP is projected to rebound significantly in the first half of 2006, just when the growth of private consumption is rebounding.

Certainly, the economy faces risks. Domestic demand would slump in the second half of 2006 if the Fed inadvertently hikes rates too much and energy prices rise further. With the Federal funds rate at 3.75 percent, monetary policy remains accommodative, and the inflation-adjusted funds rate is below its long-run average. It is likely the Fed will raise interest rates to 4.5–4.75 percent by mid-2006, which I consider toward the higher end of the range of a "neutral" funds rate. Monetary tightening far beyond "neutral" would accentuate the impacts of higher energy prices. Internationally, a negative global shock, sharply lower global growth that generated declining U.S. exports, or a sharp fall in the demand for U.S. dollar-denominated assets that led to global financial turmoil would harm the U.S. economy. However, such international events are unlikely, and the risks of an economic downturn in 2006 remain modest.

(3) Consumer spending growth is projected to slow significantly through year-end 2005 and rebound to a moderate pace in 2006, while business investment spending is expected to continue rising at a healthy pace.

The expected temporary sharp slowdown in consumption growth in Q4 stems from several factors: The disruptions to economic activity in the hurricane/flood-affected region, including the negative impact on consumption and provision of services (business, personal, health and education services, etc.); the depressing impacts of higher energy prices and the temporary rise in unemployment on real disposable personal income; and the decline in motor vehicle sales from earlier unsustainable incentive-driven levels. Through August, increases in employment and wages had more than offset the higher energy prices, with real disposable personal income averaging 2.3 percent year-over-year growth in the first half of 2005. Consumer spending will find additional support from low real-interest rates and household net worth—which measures the total value of stocks, bonds and real estate held by households net of all household debt—that reached an all-time record in its last reading. Noteworthy, however, the sustained rapid growth of consumer spending in the face of higher energy prices has lowered the rate of personal saving even further.

In the near term, the combination of temporary declines in employment and higher energy prices will dent real purchasing power, but the impact must be put into perspective: Even displaced households will continue to consume (shelter, food and clothing) regardless of how the purchases are financed, and declines in consumer activities in the Gulf Coast region will be partially offset by increases in other regions. Look for consumer spending to rebound, but to a slower pace of growth.

Business investment spending is projected to continue to grow at a healthy pace, and is unlikely to be materially affected in the near term. Factors underlying investment, including product demand, corporate profits and cashflows, and low real costs of capital, remain positive. The rebuilding of structures and the reconstruction of damaged infrastructures in the Gulf Coast, including oil and gas refining facilities, will boost investment spending.

(4) Employment has fallen modestly and the unemployment rate has risen in the aftermath of Katrina, but these are temporary effects, and labor markets remain generally healthy. Wages are rising to reflect sustained productivity gains, but the sharp increases in energy prices have temporarily suppressed real wage gains.

Katrina's displacement of businesses and households will temporarily disrupt otherwise healthy labor markets. Employment fell modestly in September and the unemployment rate rose to 5.1 percent. A hallmark of the current expansion has been the slow return to health of the U.S. labor market, following the 2001 recession and severe equity market declines in 2000–2002. Business caution was unusually high

and slow to recede, contributing to the above-trend pace of productivity gains. However, prior to Katrina, the pace of layoffs, measured with initial unemployment claims, had receded to very low levels, and businesses were both hiring and expanding the hours worked of existing employees.

This slow cyclical rebound in employment and business caution and discipline will serve to mitigate the impact of Katrina on net payrolls. Importantly, outside the affected Gulf Coast region, economic conditions and business hiring have remained strong. These conditions provide a positive backdrop for facilitating the re-absorption into the workforce of many displaced workers. In addition, labor shortages and temporarily high wages have begun to attract workers back into the affected region. Following temporary weakness, employment is projected to resume its growth, and the unemployment rate should again recede below 5 percent.

Until recently, real wages had been rising, although not as fast as gains in labor productivity. Rapid increases in nonwage costs, including employer contributions for worker health care, partially explain the gap. The recent sharp rise in energy prices has pushed headline inflation above wage gains, reducing real wages. This too is likely to be temporary, as the rising demand for labor lifts wages while headline inflation recedes.

(5) The jump in Government spending for the Katrina cleanup and rebuilding and the expected fiscal policy multipliers will support economic growth in Q4 and boost it in 2006, but will contribute to a renewed spike in budget deficits.

Prior to Katrina, rapid growth in tax receipts (a whopping 14.6 percent in the just completed FY2005) had contributed to a faster-than-expected decline in the budget deficit. The deficit for FY2005 fell to less than \$320 billion or 2.6 percent of GDP, a significant reduction from 3.5 percent in 2003 and 3.6 percent in 2004. Fiscal responses to Katrina may raise the deficit by as much as 1 percent of GDP, as tax receipts temporarily slump and outlays surge. So far, Congress has authorized more than \$60 billion in Katrina-related spending, and the total Federal fiscal response almost certainly will be higher.

To date, the financial market reaction to Katrina and the anticipated fiscal response has been modest: The U.S. dollar has been virtually unchanged and bond yields have drifted up, reflecting both related and unrelated concerns. Inflationary expectations have risen, the underlying economy has shown strength and resilience, and markets fear a letdown by fiscal policymakers in the wake of the hurricanes. The longer-run costs are not trivial. The higher deficit will add to the stock of Government debt, raising net interest costs. The net costs to sustainable economic growth depend on a host of factors, including how the Government funds are spent, the returns on such spending and investments and how they influence private incentives, and how the outlays are financed—through offsetting spending reductions, tax increases or higher debt. All of these factors have important implications for the allocation of national resources. I urge fiscal policymakers to consider these issues in all of their dimensions, and encourage a rational debate about how to allocate the Government funds in the most economically efficient manner.

(6) Corporate profits, which have grown to record levels, are projected to continue increasing through 2006, although higher energy prices will adversely affect profits in select industries.

Operating profits—after-tax profits with inventory valuation and capital consumption allowance adjustments—have risen 9.9 percent in the last year and almost 59 percent cumulatively since the 2001Q4 recession trough, modestly faster than profits gains during prior economic expansions. Profits have benefited from healthy growth in product demand, firm margins generated by modest pricing power and strong productivity gains that have constrained unit labor costs, low interest rates that have allowed businesses to restructure their financial balance sheets and the low U.S. dollar that has boosted repatriated profits from overseas activities. Higher energy prices have depressed profits unevenly, with outsized impacts on the airline, automobile and other select industries.

I project profits to rise at a moderating pace in 2006, reflecting ongoing business discipline, enhanced production efficiencies and global demand for U.S. products. The Fed rate hikes will slow growth in nominal spending, which will dampen business top-line revenue growth. Business pricing power will be limited, but sustained productivity gains should largely offset upward pressures on wage compensation and help constrain increases in unit labor costs. Nonlabor costs may rise however, largely reflecting, among other influences, higher insurance costs.

(7) Housing activity is expected to soften and average prices decline modestly, but the probability of sharp declines that would unhinge consumer spending and the economy is low.

Following the unprecedented rise in residential sales, housing construction and home prices, the real estate market is showing signs of cooling. In select regions in

which prices had soared, inventories of unsold homes have jumped up—presumably in response to the high prices—and the volume of sales transactions has begun to slow. In response to the Fed's rate hikes and flattening yield curve, there has been a clear shift in mortgage applications toward longer-term mortgages and away from short-term variable mortgages that had contributed to real estate price speculation.

Clearly, the rate of real estate appreciation in recent years is unsustainable. A crucial issue is how and why the market will adjust, and whether any fall in real estate prices will harm overall economic performance. My assessment is that housing values will decline from lofty levels in select "speculative-driven" regions, but average housing prices will dip only modestly, and as long as the economy continues to expand at a healthy pace and inflation and bond yields remain reasonably low, the adjustment in housing activity and prices will not unduly harm the macro economy.

Concerns that the sharp appreciation of real estate has been the primary factor driving consumer spending are overstated; while housing appreciation has contributed positively to net worth and the propensity to spend, real disposable income, which has continued to rise, remains the crucial variable underlying consumer spending. A slump in overall economic activity, employment and incomes would generate sharp declines in housing; however, a flattening in housing, including significant price declines in speculative markets in response to the Fed rate hikes and modestly higher mortgage rates, may slow the rate of consumption growth, but is very unlikely to unhinge the economic expansion.

(8) Exports are projected to continue rising rapidly, reflecting improving global economic trends; but recently slower import growth has begun to narrow the trade deficit.

Real exports, which rose very sluggishly early this expansion, but accelerated to a rapid 9.1 percent average annualized growth pace in the last 2 years, are projected to grow strongly through 2006, as global economic conditions continue to improve. Imports have been much more volatile: After declining during the 2001 recession, they have increased at a 7.5 percent average annual pace, faster than exports, and the trade deficit has widened. However, so far in 2005, import growth has slowed significantly to a 3.5 percent pace-contributing to a narrowing trade deficit.

With the exception of economic weakness in core European nations, the economies of major U.S. export markets are healthy. Asia, destination for approximately 26 percent of U.S. exports, continues to grow significantly faster than the global average. Importantly, Japan, the world's second largest economy, is rebounding to sustainable healthy growth following prolonged stagnation and deflation. I expect Japan will grow significantly faster than consensus estimates through 2006. China's economy shows no signs of slowing from its long-run 9+ percent rate of expansion. U.S. exports to China have grown 46 percent in the last year, reaching \$39 billion, and should continue to increase rapidly. India's economy and trade with the U.S. are also expanding rapidly. Growth in Canada remains healthy, Mexico is growing on the coattails of the U.S. expansion, and Brazil, Argentina and Chile are expanding and enjoying relative stability. Europe's economic performance will remain uneven. Misguided tax and regulatory policies constrain potential growth in core European nations, while other European nations, including some that will be joining the European Union, are growing rapidly.

The substantial widening of the U.S. net export deficit in recent years implies that foreign producers have supplied a growing share of domestic demand. Moreover, fueling concerns about the trade deficit, the common perception is that "excessive consumer spending" is the primary culprit of rapid import growth. In fact, nearly 40 percent of total U.S. imported goods are industrial supplies and capital goods (excluding automobiles and petroleum), which directly contribute to business production and expansion. The growth and composition of imports suggest strongly that the wide trade deficit is to some extent a reflection of the U.S.'s economic strength, and is not as bothersome as is commonly perceived.

As long as the U.S. continues to grow faster than other industrial nations, and its investment growth is stronger, its trade deficit will tend to remain wide. However, the strength in exports and recent slowing in import growth, which must be interpreted cautiously, have reduced the trade gap. As economic growth improves in other regions of the world, investment in these nations will expand, and real interest rates will rise. Slower growth in U.S. consumption, higher household savings rates, a greater reliance on exports to spur domestic economic growth and a gradual narrowing in the U.S. trade gap are natural and necessary consequences of an improved balance in world economies. The best contribution for U.S. economic policy is to encourage the positive trends abroad while sustaining healthy domestic economic fundamentals.

(9) *Headline inflation has risen due to higher energy prices, but core measures of inflation, excluding food and energy, have remained low. Core inflation may rise modestly in response to Katrina, but I expect that any rise will be temporary, and project inflation to remain low in 2006.*

Following the energy price spike that accompanied Katrina, the CPI has now risen 4.7 percent in the past 12 months, highest since mid-1991 and a substantial jump from 2.5 percent only a year ago. Core measures of inflation that exclude food and energy have drifted up very modestly: both the core PCE deflator and core CPI have risen 2.0 percent in the past 12 months, ending in August and September respectively. Presently, the core PCE deflator is at the top end of the Fed's central tendency forecast of 1.75–2.0 percent through 2006. The Fed and most macroeconomists generally focus on core measures of inflation because historically, the food and energy components have been very volatile, and have tended to regress to their long-run averages, while core measures of inflation have provided the most reliable forecasts of future inflation.

Core inflation may rise gently through year-end 2005 as a consequence of Katrina-related price increases of materials and commodities, but I expect that will prove to be temporary, and core inflation will remain relatively low in 2006. I am very impressed with the Fed's inflation-fighting resolve. The Fed rate hikes will slow nominal spending growth, which will constrain excess domestic demand relative to productive capacity (the Fed's central tendency forecast for nominal GDP is 5.25–5.5 percent for 2006, a meaningful deceleration from its 6.1 percent year-over-year pace). Moreover, the rapid expansion of the economies of low-cost producers China and India has lifted global productive capacity, and should continue to put downward pressure on the prices of traded goods. A widening array of services is also traded, helping to lower accompanying cost structures. These trends increase real output globally while constraining inflation.

(10) *The Federal Reserve's primary focus remains low inflation, and it will continue to hike short-term rates into 2006. Bond yields are projected to rise, but not as much as short-term rates, contributing to a flatter yield curve.*

Even though the Fed has raised its Federal funds rate target from 1 percent to 3.75 percent, it perceives that monetary policy remains accommodative, and it will continue to raise rates in order to constrain core inflation. The Fed does not have a "formal" numeric inflation target like many central banks, but it has clearly signaled that low inflation is its primary goal. Beyond the typical issues of forecasting inflation and the economy amid uncertainty, the difficulty the Fed faces is that there is no reliable measure of monetary thrust that provides a clear, forward-looking guideline for conducting policy, and there are many crosscurrents in various monetary indicators. The "neutral" Federal funds rate is uncertain. At present, the funds rate remains below its long-run average in inflation-adjusted terms, nominal spending growth remains too fast to be consistent with stable low long-run inflation, and the unemployment rate is low. However, growth of the monetary aggregates has not provided reliable estimates of nominal spending; although their recent moderate growth points to slower nominal GDP growth, the seemingly excess liquidity in financial markets in recent years has not been reflected in money supply measures. The sharp flattening of the yield curve historically has implied monetary restrictiveness, but the real costs of capital remain low. The lags between monetary policy and economic activity always add a degree of difficulty to Fed decisionmaking.

I expect that the Fed will raise rates through mid-2006, to approximately 4.5 to 4.75 percent. Core inflation is unlikely to recede appreciably, and the Fed will remain concerned about inflation in light of sustained economic growth, low unemployment and scattered production bottlenecks. Although a "neutral" funds rate is unobservable, my assessment is these anticipated rate hikes would lift rates to a level consistent with a neutral monetary policy, and would slow nominal spending and help constrain inflation. Following several years of very low rates and monetary stimulus, the Fed will perceive it necessary to hike rates to the high end of estimated range of neutrality. Rising world real interest rates also imply a higher equilibrium funds rate target.

Bond yields, which have drifted up recently reflecting concerns about inflation, are projected to rise to 5 percent by mid-2006. This would involve a further flattening of the yield curve; I do not expect the Federal funds rate to rise above 10-year Treasury bond yields. Low core inflation and the Fed's credibility anchor bond yields. With inflation expectations around 2 percent, a rise to 5 percent bond yield would provide an ex ante 3 percent real interest rate, in line with the long-run average of inflation-adjusted bond yields.

(11) *The high U.S. trade deficit has resulted largely from the U.S.'s relative economic strength, while the unprecedented U.S. current account deficit reflects global*

differences in growth, saving and investment, and is not likely to be the primary source of economic destabilization.

Since 1990, U.S. economic and investment growth has been persistently and significantly stronger than Europe, Japan and other industrialized nations, and its future potential growth is estimated to be higher. The rising U.S. trade deficit reflects and is consistent with its relative economic strength, as its strong domestic demand and investment spending support rapid growth in imports. As long as the U.S. maintains this growth advantage, which boosts the demand for imports, and the demand for U.S. dollar-denominated assets remains high, the trade deficit will remain large.

In general, the large current account imbalances of many nations and international capital flows reflect the large difference in rates of economic growth, investment and saving. The unprecedented U.S. current account deficit—now exceeding 6 percent of GDP—reflects the U.S.'s insufficient saving relative to investment, other nations' excess saving, and the strong demand for U.S. dollar-denominated assets as global portfolio managers seek the highest risk-adjusted rates of return on investment. While U.S. investment remains strong, its large budget deficit and low rate of personal saving drag down national saving.

In contrast, Asian nations tend to be large savers. Japan exports capital, as its weak investment and high saving have generated current account surpluses (Japan has been running a large government deficit, but its private sector saving has been very high, reflecting the prolonged deflation and long-run concerns about government finances and pensions). Barring a sharp change in global economic fundamentals, I do not expect a dramatic shift in asset allocations away from U.S. dollars that would generate a sharp fall in the U.S. dollar and/or rise in interest rates that would damage U.S. economic performance. That said, there are initiatives that international policymakers could agree on that would reduce global imbalances and boost growth at the same time. A coordinated package that would reduce U.S. budget deficits, institute pro-growth tax cuts and regulatory reforms in Europe, and involve agreement by select Asian nations, including China, to float their currencies, is such a package.

(12) The largest risks to the medium-term U.S. economic outlook are excessive monetary tightening and higher energy prices or an unanticipated slump in global economies. The U.S. economic expansion is not likely to be sidetracked by large global imbalances or falling housing prices. Addressing the U.S.'s large Government budget imbalances remains crucially important to long-run economic health.

Beyond the widely anticipated temporary economic slowdown following Katrina, the largest risks to U.S. macro performance in 2006 are not the negative ripple effects of a collapsing housing market or financial turmoil resulting from a dramatic withdrawal of foreign capital from U.S. dollar-denominated assets. Rather, my concerns center on the lagged impacts of significant monetary tightening coupled with sustained high energy prices, or some unforeseen global slump. So far, the economy has been very resilient to higher energy prices and Fed rate hikes, but consumer and business investment spending could be hurt by further energy price increases and rate hikes beyond the neutral range. The Fed's top priority should be constraining inflation, but it must mind its lagged policy impacts, particularly in light of leveraged household balance sheets. However, the low real costs of capital and lean business inventories provide important buffers and substantially reduce the probability of economic downturn.

Although the Government's long-run budget imbalance is unlikely to hamper near-term economic performance, addressing future rapid growth in projected outlays and the Government's unfunded liabilities is crucially important to the Nation's long-run economic health. Delays in policy changes only raise future economic costs. The estimated difference between projected spending and taxes under current law is so large that raising taxes to "close the gap" on paper would damage economic performance and adversely affect the financing gap. Successfully achieving fiscal responsibility requires programmatic changes to the major entitlement programs, the sources of the recent and projected future spending increases, that are fair to current program participants, provide the right incentives, and are financially viable for the long run.

PREPARED STATEMENT OF DR. DAVID F. SEIDERS, CHIEF ECONOMIST, NATIONAL ASSOCIATION OF HOME BUILDERS, WASHINGTON, DC

Thank you Chairman Saxton and Members of the Joint Economic Committee. I appreciate the opportunity to testify before you today on behalf of the National Association of Home Builders (NAHB). NAHB represents more than 220,000 members

involved in home building, remodeling, multifamily construction, property management, subcontracting, and light commercial construction. NAHB is affiliated with more than 800 State and local home builder associations around the country. Our builder members will construct approximately 80 percent of the more than 1.84 million new housing units projected for construction in 2005.

The home building industry has been one of the strongest contributors to the national economy in recent years. We have had record years of production that have led to the highest homeownership rate in U.S. history—69 percent. It is in America's interest to assure that the home building industry maintains its leadership role in the economy, not only because housing and related industries account for 16 percent of the gross national product (GDP), but most importantly because of the benefits of home ownership to our country.

INTRODUCTION

The current U.S. economic expansion began almost 4 years ago, payroll employment has been growing for about 2 years, and the unemployment rate has come down substantially in the process.

The housing sector has been a pillar of strength throughout this economic expansion. The housing production component of GDP (residential fixed investment) has delivered major contributions to growth, particularly since early last year, and surging home sales and residential construction have pulled related components of GDP ahead as well—including the furniture and household equipment component of consumer spending. The volume of services produced by the housing stock and consumed by households also has been a large and growing component of GDP. Finally, surging house prices have generated massive amounts of wealth for America's homeowners, and debt-financed "extraction" of housing equity has supported spending on residential remodeling and a variety of consumer goods and services. Everything considered, it's safe to say that the housing sector has contributed at least a full percentage point to overall GDP growth in recent times, conservatively accounting for between one-fourth and one-third of the total.

The extraordinarily strong performance of housing, including the large cumulative increase in house prices, has prompted widespread charges of an unsustainable housing boom, as well as projections of a bust that could wreck not only the housing market, but also the entire economy. Indeed, analogies have been drawn between the current housing market and the stock market bubble that preceded the recession of 2001.

The housing market inevitably will cool down to some degree before long, but a destructive housing bust is not in the cards; furthermore, rebuilding in the wake of this year's hurricane season will add to housing production for years to come. Everything considered, the housing sector should transition from a strong engine of economic growth to a more neutral factor in the GDP growth equation, but housing will continue to play a vital role in U.S. economic activity going forward.

It should be noted that the housing forecasts presented below (attachment) assume that the current U.S. housing policy structure remains essentially intact, with some temporary enhancements to deal with the extraordinary housing issues created by hurricanes Katrina and Rita and with maintenance of current benefits to housing in the tax code and the housing finance system.

FORECAST HIGHLIGHTS

- The U.S. economy was performing quite well prior to hurricanes Katrina and Rita and has enough fundamental strength to easily weather the storms.

- The hurricanes took an immediate toll on growth of economic output and employment and may shift energy costs upward for an extended period of time. But the recovery and reconstruction process will soon provide enough economic stimulus to outweigh the negatives, thanks largely to the Federal Government response.

- The higher energy costs provoked by the hurricanes are putting upward pressures on headline inflation numbers, but that effect will diminish with time. Core inflation (excluding prices of food and energy) promises to accelerate modestly during the next year or so as labor markets tighten further and high energy prices inevitably leak into the core.

- The Federal Reserve tightened monetary policy another notch on September 20, judging that the longer-term inflationary implications of Katrina outweigh the short-term economic negatives. Additional quarter-point hikes are likely at the next three FOMC meetings, taking monetary policy to an approximately "neutral" position as Chairman Greenspan's term runs out at the end of January 2006.

- Long-term interest rates have firmed up from their post-Katrina lows as the bond markets have judged that the economy will weather both storms and generate

an inflation issue in line with the Fed's concerns. Long-term rates should move up somewhat further in coming quarters, lessening the risk of yield curve inversion as the central bank raises short-term rates.

- Katrina and Rita destroyed more than 350,000 housing units and significantly damaged another 330,000, creating the potential for a huge repair and rebuilding process with major implications for residential remodeling, manufactured home shipments and conventional housing starts—both inside and outside the impacted areas.

- NAHB's housing forecasts incorporate tentative assumptions regarding the timing and the patterns of repair and rebuilding in the wake of the hurricanes. We're assuming that existing rental vacancies and available subsidized housing units in the Gulf region and elsewhere will meet some of the current need. We've also bolstered our outlook for residential remodeling and manufactured home shipments through 2007 while phasing in increases in conventional housing starts (single-family and multifamily) over an even longer period of time.

- Recent housing market indicators, on balance, suggest that home sales and housing starts were toying with cyclical peaks prior to Katrina, and surveys of builders and lenders conducted since then seem consistent with that judgment. However, the housing market still has a lot of fundamental strength and home prices still are trending upward—at least according to most measures we have in hand.

- NAHB's housing outlook recognizes declines in housing affordability measures that so far have been caused by sustained rapid increases in house prices and that figure to be further eroded down the line by a persistent upshift in the interest rate structure. We're also anticipating less support to the single-family and condo markets from "exotic" forms of adjustable-rate mortgages and from investors/speculators that have been relying on short-term capital gains—two factors that undoubtedly have contributed to the recent housing boom in some areas.

- NAHB's housing forecast through 2007 shows a definite cooling down of the single-family and condo markets, with relatively strong performances turned in by rental housing, manufactured homes and remodeling—owing in part to Katrina and Rita. Everything considered, the housing production component of GDP (residential fixed investment) should soon fall out of the economic "growth engine" category and exert a slight drag on GDP growth in both 2006 and 2007.

- The anticipated fade in demand for single-family houses and condo units will result in some deceleration of price gains in 2006–2007, but national average prices will not actually fall in the type of economic and financial market environment portrayed in our forecast. Prices could fall in some local markets that have experienced particularly strong increases in recent times, although persistent supply constraints in such areas should continue to support home prices for some time.

- Homeowner finances currently are quite healthy, despite a huge volume of borrowing against accumulated housing equity in recent years, and the Fed's Financial Obligations Ratio for homeowners still is in a manageable range. Furthermore, the vast majority of homeowners will not be disadvantaged by perspective increases in market interest rates and most have equity positions that could easily absorb declines in house values—should they occur in some local markets.

ECONOMIC GROWTH

Incoming data suggest that annualized growth of real gross domestic product (GDP) was heading toward a robust pace of about 4.5 percent in the third quarter before Hurricane Katrina hit the Gulf Coast on August 29. We estimate that Katrina took nearly a percentage point out of third-quarter GDP growth (dropping it to an estimated 3.6 percent) and that the one-two punch from Katrina and Rita will hold fourth-quarter growth to 3.2 percent—still a trend-like performance that displays the resilience of the U.S. economy to serious shocks.

GDP growth should accelerate in the first half of 2006 as rebuilding activities gear up in the wake of this year's unprecedented hurricane damage. A bit further out, GDP growth should settle down to a sustainable trend pace (around 3.25 percent), reflecting minimal remaining slack in labor markets and maintenance of solid growth in labor productivity.

LABOR MARKETS

The employment report for September contained upward revisions to payroll employment for both July and August, bringing the average monthly gain to a robust 244,000. The preliminary estimate of net job losses in September came to only 35,000, much less than the consensus expectations, although data collection problems in the Gulf region definitely created a wide range of uncertainty.

For now, the Labor Department suggests that, in the absence of Katrina, employment growth probably would have followed its recent trend (an average gain of 194,000 for the previous 12 months), meaning that Katrina probably subtracted around 230,000 jobs from the national numbers in September. It's also worth noting that strikes subtracted 22,000 from the September payroll employment numbers, implying that, ex-Katrina and ex-strikes, payroll employment increased by about 225,000—in line with the strong July-August performance.

The labor market report for October will have to cope with hurricanes Katrina and Rita, both because more Katrina casualties will drop off payrolls and because Rita destroyed additional jobs of her own. However, the September-October disruption to job markets will be temporary, and national net job growth should regain a solid trend before long. Indeed, we're looking for resumption of strong payroll employment growth in 2006, aided by rebuilding activities, followed by a slowdown in 2007 as GDP growth recedes to around trend. The unemployment rate should sag a bit next year from the current hurricane-related level (5.1 percent) but then edge up a bit in 2007.

ENERGY COSTS AND INFLATION

The hurricanes have seriously complicated the inflation picture, boosting energy prices and headline inflation in the near term and putting some upward pressure on core inflation down the line as energy prices inevitably seep into the business cost structure.

The disruptions to energy production and transmission in the Gulf region caused energy prices to spike sharply after Katrina, but prices subsided within a few weeks as the supply situation improved. However, the arrival of Rita caused energy prices to surge again, particularly for gasoline and natural gas, and prices for these products are likely to remain elevated for quite a while.

We're currently assuming that the spot price of WTI crude oil averages a record \$65/barrel in the fourth quarter and gradually recedes to about \$45/barrel by late 2007. We expect the retail price of gasoline to continue to recede gradually from the post-Katrina peak (above \$3.00/gallon) but remain historically high across the forecast horizon. We also assume that persistently higher prices for natural gas will make their way into the prices for residential gas and electric service as utilities gain regulatory approval to raise their rates.

We expect core inflation to firm up to some degree, particularly in 2006, reflecting tight labor markets and stronger growth of hourly compensation, as well as some pass-through of high energy prices. Core consumer price inflation is likely to rise from year-over-year rates of slightly below 2 percent in the third quarter of this year to about 2.5 percent by 2007. That pace may be around the upper end of the Federal Reserve's "comfort zone."

INTEREST RATE STRUCTURE

The apparent strong forward momentum of the U.S. economy, along with the prospects for higher headline and core inflation, apparently have steeled Federal Reserve resolve to keep the inflation situation under control and have sent long-term rates upward.

The Fed enacted another quarter-point increase in short-term interest rates at the September 20 meeting of the Federal Open Market Committee (FOMC), raising the Federal funds rate to 3.75 percent (the bank prime rate went to 6.75 percent in the process). While acknowledging the negative economic effects of Hurricane Katrina, the FOMC characterized these negatives as temporary and focused heavily on the evolving threats to core inflation. And while continuing to say that remaining monetary policy accommodation can be removed at a "measured" pace, the FOMC held open the possibility of a more aggressive approach in the event that inflation concerns become more serious than expected.

In recent weeks, various Fed spokespersons have stressed the evolving inflation threat, and another quarter-point rate hike at the next FOMC meeting on November 1 seems a foregone conclusion. Furthermore, we're assuming additional rate hikes at the December 13 and January 31 meetings, as Chairman Greenspan's term runs out. We're assuming the 4.5 percent funds rate will be considered "neutral" and that monetary policy will hold steady for some time.

The bond markets apparently share the Fed's perspectives on economic growth and inflation, and market expectations for monetary policy are essentially the same as ours. As a result, long-term interest rates have backed up considerably from their post-Katrina lows and the long-term home mortgage rate edged over 6.0 percent in the second week of October. Our forecast shows some additional increase in long-

term rates in coming quarters, with the home mortgage rate reaching 6.6 percent by the fourth quarter of 2006.

HURRICANE HOUSING DAMAGE

According to the October 3 Red Cross "disaster assessment" for hurricanes Katrina and Rita, the two storms destroyed an estimated 356,000 housing units, with 353,000 attributed to Katrina. This was more than 12 times the number destroyed in any previous natural disaster (or series of disasters) in the Nation's history.

Furthermore, 146,000 units suffered "major" damage (not currently habitable), 184,000 had "minor" damage (could be occupied), and an additional 206,000 had "extremely minor" or "nuisance" damage such as a few missing shingles or broken windows. Four-fifths of the "destroyed" housing units (uninhabitable and beyond repair) are in Louisiana and nearly one-fifth are in Mississippi, while Alabama and Texas got off quite lightly in this regard. Total damaged housing units (needing major, minor or extremely minor repairs) amounted to 329,000 in Louisiana, 173,000 in Mississippi, 33,000 in Texas, and about 1,000 in Alabama.

The Red Cross has been trying to categorize destroyed or damaged homes by type of unit. Current estimates say 88 percent of destroyed units are single-family homes, 11 percent are apartment units and less than 1 percent are manufactured homes. Census Bureau numbers, on the other hand, show that about 15 percent of the housing stock in Louisiana, Mississippi, and Alabama consisted of manufactured homes in 2000. Thus, it's likely that the Red Cross has been categorizing many destroyed or damaged HUD-code housing units as conventionally built single-family homes.

Whatever the exact numbers, it's perfectly clear that the cleanup, repair and rebuilding process in the wake of Katrina and Rita will be immense and that the implications for residential maintenance and repair, spending on improvements (including replacements of major systems), manufactured home shipments and conventional housing starts are profound. The timing and composition of the process will depend heavily on the pattern of Government responses.

REPAIR/RECONSTRUCTION ASSUMPTIONS

It's extremely difficult to estimate the patterns of repair and reconstruction of the housing stock that was destroyed or damaged by hurricanes Katrina and Rita. Experience with previous natural disasters, along with evolving patterns of Federal Government assistance in the wake of Katrina-Rita, have led us to the following working assumptions for the 9-quarter period extending through the end of 2007:

- \$1.8 billion for outlays on residential maintenance and repair.
- \$4.7 billion for improvements to residential structures (including replacements of major systems such as roofs and heating systems).
- 38,000 manufactured home shipments (HUD-code units).
- 90,000 conventional housing starts (80 percent single-family units), including units built on existing foundations in the Gulf region.

RECENT HOUSING PERFORMANCE

Housing market indicators painted a fundamentally positive picture through the pre-Katrina period (essentially through August). Single-family starts and permits for August held in the record range established during other recent months, sales of existing homes (based on closings) displayed a similar pattern, and "pending" sales of existing homes (based on contracts signed) actually moved up to a new record in August. Sales of new homes (contract basis) fell off in August following a record pace in July, but statistical problems definitely contributed to volatility in those months (hardly a new problem with this series).

For the post-Katrina period, NAHB's single-family Housing Market Index fell by two points in September, but regained that loss in October, leaving the index slightly below the cyclical peak in June. The weekly index of applications for mortgages to buy homes (Mortgage Bankers Association series) was essentially flat throughout August, September, and early October (4-week moving average basis).

Everything considered, it seems fair to say that single-family housing activity has been toying with a cyclical peak and is poised to show some fade before long. Measures of home-buying affordability have been eroding in the face of ongoing rapid increases in house prices in many areas, and the recent upshift in short- and long-term interest rates figures to take some toll as well. Furthermore, there's a good chance that those "exotic" forms of adjustable-rate mortgages are losing some luster under the public scrutiny of Federal financial regulators and the rating agencies.

Finally, there's some tentative evidence of decline in the investor shares of purchases of single-family homes and condo units, and this component of demand can be quite fragile.

THE HOUSING FORECASTS

NAHB's forecast shows a slight decline in total housing starts in the fourth quarter of this year, partly because of hurricane effects in the Gulf region, and we expect total starts to be down moderately in both 2006 and 2007, despite hurricane-related additions.

Our forecast for 2006–2007 shows a cumulative decline of 9 percent in single-family starts from the 2005 record. The multifamily sector is essentially flat in this forecast, thanks primarily to a good performance by the rental sector. We expect manufactured home shipments to pick up significantly in coming quarters, reaching 150,000 units in 2006 before settling back toward a pre-Katrina pace. Residential remodeling should post solid growth (in both nominal and real terms) throughout the forecast period, supported by a massive amount of homeowner equity and swollen repair/improvement needs in the wake of the hurricanes.

Everything included, the residential fixed investment component of GDP should soon move out of the strong "growth engine" category occupied since the 2001 recession, although the real value of RFI should remain within a few percentage points of the record high reached in the third quarter of this year.

HOMEOWNER FINANCES

Various media reports have been insisting that heavy borrowing against housing equity has been pushing homeowner finances to the brink of disaster. Indeed, Federal Reserve Chairman Alan Greenspan recently unveiled Fed research showing net home equity "extraction" of \$600 billion in 2004 (6.92 percent of disposable income), and borrowing against equity could be even bigger this year.

These are staggering numbers, of course, but they don't actually mean that something has gone wrong. Indeed, the Fed's own national balance sheets show that homeowner equity grew to \$10.5 trillion by mid-2005, up by 18 percent from a year earlier. Furthermore, the aggregate housing debt-to-value ratio stood at 43 percent at mid-year, lower than at any time in recent years.

It's also clear that mortgage debt repayment is not placing an undue burden on the income of America's homeowners—partly because mortgage debt has been substituting for a lot of shorter-term, higher-cost, consumer debt. Indeed, the Fed's Financial Obligations Ratio for homeowners was only 16.37 percent in the second quarter, compared with 28.87 percent for renter households.

While it's possible to find debt-strapped homeowners, the overall picture shows remarkably healthy homeowner finances and a housing equity nest egg that could withstand sizable shocks. Indeed Chairman Greenspan recently pointed out that "only a small fraction of households across the country have loan-to-value ratios greater than 90 percent" and that "the vast majority of homeowners have a sizable equity cushion with which to absorb a potential decline in house prices."*

Mr. Chairman, that concludes my remarks. Again, thank you for the opportunity to appear before you today. I look forward to answering any questions you or the Members of the Committee may have for me.

* Alan Greenspan, remarks on "Mortgage Banking" to the American Bankers Association Annual Convention, September 26, 2005

NAHB ECONOMIC AND HOUSING FORECAST

14-Oct-05

| | Economic Activity | | | | Interest Rates | | | New Housing Units | | | | | Home Sales | | Residential Fixed Investment** | Percent Chg. | | | | | | | | | | | | | |
|----------------------------|-------------------|-------------------------|----------------|------------------|------------------|------------|--------------------|-------------------|-------------------|--------------|------------------------|----------------------|------------|-------------------------------|--------------------------------------|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | Real GDP | Consumer Price Index | Unemp. Rate | Federal Funds | Prime Percent | Mortgages* | | Starts | | | Mfg. Home Shipments | Total New Housing | New | Single- Family Existing | | | | | | | | | | | | | | | |
| | | | | | | Fixed Rate | Adjustable Rate | Total | Single- Family | Multi-Family | | | | | | | | | | | | | | | | | | | |
| | Percent Change | | | | | | | | | | | | | | | Thousands of Units | | | | | | | | | | | | | |
| Annual Data *** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1992 | 3.3% | 3.0% | 7.5% | 3.5% | 6.3% | 8.4% | 5.6% | 1,201 | 1,032 | 170 | 210 | 1,412 | 614 | 3,143 | 13.8% | | | | | | | | | | | | | | |
| 1993 | 2.7% | 3.0% | 6.9% | 3.0% | 6.0% | 7.3% | 4.6% | 1,292 | 1,131 | 161 | 255 | 1,546 | 674 | 3,421 | 8.2% | | | | | | | | | | | | | | |
| 1994 | 4.0% | 2.6% | 6.1% | 4.2% | 7.1% | 8.4% | 5.3% | 1,446 | 1,191 | 255 | 305 | 1,751 | 667 | 3,554 | 9.6% | | | | | | | | | | | | | | |
| 1995 | 2.5% | 2.8% | 5.6% | 5.8% | 8.8% | 8.0% | 6.1% | 1,361 | 1,082 | 279 | 341 | 1,702 | 670 | 3,514 | -3.2% | | | | | | | | | | | | | | |
| 1996 | 1.7% | 2.9% | 5.4% | 5.3% | 8.3% | 7.8% | 5.7% | 1,469 | 1,154 | 314 | 362 | 1,830 | 756 | 3,783 | 8.0% | | | | | | | | | | | | | | |
| 1997 | 4.5% | 2.3% | 4.9% | 5.5% | 8.4% | 7.6% | 5.6% | 1,475 | 1,136 | 338 | 354 | 1,828 | 806 | 3,973 | 1.9% | | | | | | | | | | | | | | |
| 1998 | 4.2% | 1.5% | 4.5% | 5.4% | 8.4% | 6.9% | 5.6% | 1,621 | 1,278 | 344 | 374 | 1,995 | 889 | 4,492 | 7.6% | | | | | | | | | | | | | | |
| 1999 | 4.4% | 2.2% | 4.2% | 5.0% | 8.0% | 7.4% | 6.0% | 1,647 | 1,306 | 341 | 348 | 1,996 | 879 | 4,626 | 6.0% | | | | | | | | | | | | | | |
| 2000 | 3.7% | 3.4% | 4.0% | 6.2% | 9.2% | 8.1% | 5.7% | 1,573 | 1,232 | 341 | 250 | 1,823 | 880 | 4,607 | 0.8% | | | | | | | | | | | | | | |
| 2001 | 0.8% | 2.8% | 4.8% | 3.9% | 6.9% | 7.0% | 5.8% | 1,601 | 1,272 | 330 | 192 | 1,793 | 907 | 4,723 | 0.4% | | | | | | | | | | | | | | |
| 2002 | 1.6% | 1.6% | 5.8% | 1.7% | 4.7% | 6.5% | 4.6% | 1,710 | 1,363 | 347 | 168 | 1,878 | 976 | 4,995 | 4.8% | | | | | | | | | | | | | | |
| 2003 | 2.7% | 2.3% | 6.0% | 1.1% | 4.1% | 5.8% | 3.8% | 1,854 | 1,505 | 349 | 131 | 1,985 | 1,091 | 5,441 | 8.4% | | | | | | | | | | | | | | |
| 2004 | 4.2% | 2.7% | 5.5% | 1.3% | 4.3% | 5.8% | 3.9% | 1,950 | 1,604 | 345 | 130 | 2,080 | 1,200 | 5,913 | 10.3% | | | | | | | | | | | | | | |
| 2005 | 3.6% | 3.4% | 5.1% | 3.2% | 6.2% | 5.8% | 4.5% | 2,032 | 1,683 | 349 | 134 | 2,166 | 1,275 | 6,167 | 6.4% | | | | | | | | | | | | | | |
| 2006 | 3.5% | 2.8% | 5.0% | 4.5% | 7.5% | 6.5% | 5.4% | 1,940 | 1,590 | 350 | 150 | 2,090 | 1,215 | 5,894 | 0.6% | | | | | | | | | | | | | | |
| 2007 | 3.3% | 2.2% | 5.0% | 4.5% | 7.5% | 6.6% | 5.5% | 1,883 | 1,533 | 350 | 143 | 2,025 | 1,171 | 5,707 | -0.9% | | | | | | | | | | | | | | |
| Quarterly Data **** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2004 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q1 | 4.3% | 3.9% | 5.7% | 1.0% | 4.0% | 5.6% | 3.5% | 1,929 | 1,562 | 367 | 126 | 2,055 | 1,189 | 5,563 | 5.1% | | | | | | | | | | | | | | |
| Q2 | 3.5% | 4.4% | 5.6% | 1.0% | 4.0% | 6.1% | 3.9% | 1,923 | 1,600 | 323 | 127 | 2,050 | 1,203 | 6,070 | 17.8% | | | | | | | | | | | | | | |
| Q3 | 4.0% | 1.6% | 5.4% | 1.4% | 4.4% | 5.9% | 4.1% | 1,974 | 1,635 | 339 | 129 | 2,103 | 1,164 | 5,970 | 2.6% | | | | | | | | | | | | | | |
| Q4 | 3.3% | 3.6% | 5.4% | 1.9% | 4.9% | 5.7% | 4.1% | 1,973 | 1,621 | 352 | 138 | 2,111 | 1,243 | 6,047 | 1.6% | | | | | | | | | | | | | | |
| 2005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q1 | 3.8% | 2.4% | 5.3% | 2.5% | 5.4% | 5.8% | 4.2% | 2,083 | 1,709 | 374 | 137 | 2,220 | 1,249 | 5,980 | 9.5% | | | | | | | | | | | | | | |
| Q2 | 3.3% | 4.2% | 5.1% | 2.9% | 5.9% | 5.7% | 4.2% | 2,044 | 1,693 | 351 | 129 | 2,174 | 1,289 | 6,297 | 10.8% | | | | | | | | | | | | | | |
| Q3 | 3.6% | 4.8% | 5.0% | 3.5% | 6.4% | 5.8% | 4.5% | 2,020 | 1,690 | 330 | 125 | 2,145 | 1,300 | 6,290 | 3.3% | | | | | | | | | | | | | | |
| Q4 | 3.2% | 4.2% | 5.1% | 4.0% | 7.0% | 6.1% | 5.0% | 1,980 | 1,640 | 340 | 145 | 2,125 | 1,261 | 6,101 | -0.8% | | | | | | | | | | | | | | |
| 2006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q1 | 3.8% | 1.8% | 5.0% | 4.4% | 7.4% | 6.3% | 5.2% | 1,959 | 1,609 | 350 | 150 | 2,109 | 1,237 | 5,993 | -0.6% | | | | | | | | | | | | | | |
| Q2 | 3.5% | 1.4% | 5.0% | 4.5% | 7.5% | 6.4% | 5.3% | 1,944 | 1,594 | 350 | 150 | 2,094 | 1,218 | 5,902 | -0.2% | | | | | | | | | | | | | | |
| Q3 | 3.3% | 2.2% | 4.9% | 4.5% | 7.5% | 6.5% | 5.4% | 1,934 | 1,584 | 350 | 150 | 2,084 | 1,208 | 5,864 | -0.7% | | | | | | | | | | | | | | |
| Q4 | 3.2% | 2.2% | 4.9% | 4.5% | 7.5% | 6.6% | 5.5% | 1,924 | 1,574 | 350 | 150 | 2,074 | 1,199 | 5,817 | -0.7% | | | | | | | | | | | | | | |
| 2007 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q1 | 3.3% | 2.2% | 4.9% | 4.5% | 7.5% | 6.6% | 5.5% | 1,910 | 1,560 | 350 | 145 | 2,055 | 1,189 | 5,773 | -1.2% | | | | | | | | | | | | | | |
| Q2 | 3.2% | 2.2% | 5.0% | 4.5% | 7.5% | 6.6% | 5.5% | 1,880 | 1,530 | 350 | 145 | 2,025 | 1,180 | 5,724 | -1.3% | | | | | | | | | | | | | | |
| Q3 | 3.3% | 2.2% | 5.0% | 4.5% | 7.5% | 6.6% | 5.5% | 1,870 | 1,520 | 350 | 140 | 2,010 | 1,159 | 5,673 | -1.2% | | | | | | | | | | | | | | |
| Q4 | 3.2% | 2.2% | 5.0% | 4.5% | 7.5% | 6.6% | 5.5% | 1,870 | 1,520 | 350 | 140 | 2,010 | 1,156 | 5,659 | 1.1% | | | | | | | | | | | | | | |

* Freddie Mac Commitment Rates: 30-Yr. Average conventional mortgage rate and 1-Yr. Adjustable Rate; forecast of these rates are produced by NAHB.

** Includes the dollar volume of construction put-in-place for new single-family and multifamily structures, manufactured home shipments,

brokerage commissions on home sales, and improvements to existing structures (additions, alterations, and major replacements).

*** Annual totals are averages of seasonally adjusted quarterly data and may not match reported annuals from other sources.

**** All quarterly data are at annual rates, and all data except interest rates are seasonally adjusted.

PREPARED STATEMENT OF DR. BRAD SETSER, SENIOR ECONOMIST AND DIRECTOR OF
GLOBAL RESEARCH, ROUBINI GLOBAL ECONOMICS, LLC, NEW YORK, NY

I want to thank Chairman Saxton and the Joint Economic Committee for the opportunity to testify. My remarks will focus on one particular aspect of the economic outlook—but a very important one—the payments deficit the United States is running with the rest of the world. I will make five key points:

- The U.S. current account deficit has reached an unprecedented size for a major economy. Barring a sharp fall in oil prices, this deficit is likely to continue to increase in the next year, in part because of rising interest payments on the United States growing external debt.

- The U.S. external deficit is a reflection of policy decisions, both here in the U.S. and abroad, not just private saving and investment decisions. Both the large U.S. fiscal deficit and the unwillingness of many economies to allow their currencies to appreciate against the dollar have contributed to the United States large deficit. Net private flows have not been large enough to finance the United States current account deficit.

- Trade deficits of nearly 6 percent of U.S. GDP are not sustainable over time. They imply a rapid increase in the U.S. external debt to GDP ratio and a growing current account deficit.

- The availability of sufficient financing to sustain deficits of this size at current U.S. interest rates should not be taken for granted. The larger the deficit, and the longer adjustment is delayed, the greater the associated risks.

- Policy actions, both at here and abroad, can help first to stabilize and then to reduce the U.S. external deficit. The needed policy steps are by now well known, but no less urgent. A reduction in the U.S. fiscal deficit would increase national savings, and thus reduce the United States' need to draw on the world's savings. Our trading partners need to show greater willingness to allow their currencies to appreciate and to take policy steps to encourage domestic consumption growth.

The current account deficit looks likely to continue to grow in 2006.—The current account deficit is the sum of the trade deficit, the balance on transfer payments, and the balance on labor and investment income. This deficit totaled \$395 billion in the first half of the year, largely because of the \$346 billion trade deficit. The trade deficit is set to widen further in the second half of the year on the back of higher oil prices and the disruption to U.S. oil production and refining created by Katrina and Rita. The current account deficit has, until now, largely tracked the U.S. trade deficit, but this is likely to change going forward. The balance on investment income turned negative in the second quarter, and further deterioration is to be expected as higher short-term rates work their way through the U.S. external debt stock. A surge in incoming transfer payments as European re-insurers make Katrina-related claims may offset some of this increase.

The 2005 trade deficit is likely to approach \$720 billion and, in conjunction with a transfers deficit of \$85 billion and a negative income balance, push the current deficit to around \$815 billion, or about 6.6 percent of U.S. GDP—up substantially from the \$520 billion (4.6 percent of GDP) deficit of 2003 and the \$668 billion deficit of 2004 (5.7 percent of GDP). In dollar terms, the 2005 deficit will be about twice as large as the \$413 billion deficit of 2000, the peak deficit of the .com investment boom.

If both the U.S. and the world continue to grow at close to their current rates in 2006, the current account deficit is likely to continue to widen in 2006. The recent increase in the trade deficit has been driven almost exclusively higher oil prices; monthly non-oil imports have been roughly constant since January. Subdued non-oil imports combined with strong export growth to lead the non-oil trade deficit to fall ever so slightly in the second quarter. However, this improvement in the non-oil balance is likely to be difficult to sustain in 2006. Strong export growth in 2005 reflects the lagged impact of falls in dollar/euro in 2003 and 2004, plus a cyclical recovery in demand for civil aircraft. By 2006, the recent rise in the dollar is likely to begin to slow export growth. The slowdown in the growth of non-oil imports is therefore partially a reaction to the exceptionally rapid growth of these imports at the tail end of 2004. So long as the U.S. economy continues to grow as expected, it is reasonable to expect growth in non-oil imports to resume, though at a lower rate than 2004.

The balance on investment income is likely to continue to deteriorate. Remember, the U.S. will take on \$800 billion in new external debt over the course of 2005 to finance its ongoing external deficit. If that debt only carries an average interest rate of 5 percent, it implies an additional \$40 billion in external payments. The full impact of the Fed's recent tightening on short-term rates will also begin to manifest itself in 2006, as existing short-term debt is refinanced at a higher rate. The result-

ing 2006 current account deficit is likely to top \$900 billion, and exceed 7 percent of GDP.

The current account deficit essentially measures of how much we have to borrow from the rest of the world to support the amount we consume in excess of our income. It consequently is equal to the gap between what the U.S. saving and U.S. investment. The U.S. budget deficit—a drain on national savings—is likely to increase in 2006 on the back of Katrina. Barring a fall in investment or rise in household savings, so the overall gap between overall national savings and investment is likely to continue to widen. Put differently, savings imported from the rest of the world will finance an increasing share of domestic U.S. investment.

| | 2003 | 2004 | 2005 (f) | 2006 (f) |
|-----------------------------|--------|--------|----------|----------|
| Trade balance | -495 | -618 | -720 | -780 |
| o/w oil | -130 | -175 | -241 | -260 |
| Non-oil trade balance | -365 | -443 | -479 | -520 |
| Transfers balance | -71 | -81 | -85 | -90 |
| Income balance | 46 | 30 | -10 | -65 |
| Current account | \$520 | \$668 | \$815 | \$935 |
| (% of GDP) | (4.7%) | (5.6%) | (6.6%) | (7.1%) |

Policy choices in the U.S. and abroad have contributed to the increase in the deficit.—Current account deficits of this magnitude are without precedent for a major economy. As Dr. Bernanke has emphasized, these deficits have, to date, been financed at remarkably low interest rates. Indeed, current U.S. interest rates seem, on their face, insufficient to compensate the central banks of the emerging market economies now financing the United States for the risk of further dollar depreciation. Consequently, it is interesting to review the forces that have led to the emergence of such a large U.S. external deficit.

The U.S. current account deficit, by definition, has to be matched by a current account surplus in rest of the world. The fall in savings relative to investment in USA necessarily has been matched by a rise in savings relative to investment in rest of world. The U.S. external deficit started to widen in the late 90s, as investment in the U.S. surged and investment in certain Asian economies fell sharply. The U.S. external deficit, surprisingly, did not fall when U.S. investment fell sharply in 2001 and 2002, largely because changes in tax policy—along with an upturn in expenditure growth—turned a small structural fiscal surplus to a structural fiscal deficit of around 3 percent of GDP.¹ Since the fiscal deficit peaked as a share of GDP in 2004, the recent deterioration in the U.S. current account deficit has been driven by a fall in household savings and a rebound in investment. This reflects a surge in investment in residential property, and, as Chairman Greenspan has emphasized, rising house prices also seem to be closely linked to the fall in U.S. household savings.

Dr. Bernanke has noted that the main counterpart to the recent rise in the U.S. current account deficit is not found in either Japan or Europe.² The eurozone's current account surplus fell between 1997 and 2005.³ The roughly \$60 billion rise in Japan's current account surplus between 1997 and 2005 is far too small to account for the much larger rise in the U.S. current account deficit. Rather, rising U.S. deficits have been matched by rising surpluses in emerging and developing economies.

These surpluses have different causes. Emerging Asia's surplus has increased since 1997, driven first by the Asian crisis and, more recently, by the surge in China's current account surplus. Setting China aside, the savings rates in most Asian emerging economies have been constant. Their surpluses reflect a fall in investment, which fell (from quite high levels) during the crisis and have yet to recover. China is a different story: its national savings rate has soared to over 50 percent of its GDP, with most of the increase occurring recently. It is hard to find evidence of a global savings glut, but it is hard to deny the presence of savings glut in China. Latin America has shifted from a deficit to a surplus, largely because improvements

¹ IMF, 2005. See Table of 14 of the statistical appendix of the WEO. William Gale and Peter Orzag have reached a similar conclusion; see <http://www.brookings.edu/views/articles/20050214galeorszag.pdf>.

² Ben Bernanke, "The Global Savings Glut and the U.S. Current Account Deficit," The Homer Jones Lecture, April 14, 2005. <http://www.federalreserve.gov/boarddocs/speeches/2005/20050414/default.htm>.

³ The eurozone's surplus fell from \$96 billion in 1997 to an estimated \$24 billion in 2005; Japan's surplus rose from \$97 billion to an estimated \$153 billion in 2005. The surplus of the Asian NICs rose from \$6 to \$80 billion, and a \$85 billion deficit in "other emerging markets and developing economies" turned into a \$410 billion surplus in 2005. IMF data and estimates.

in the fiscal position of most Latin governments have pushed national savings rates up. Finally, rising oil prices have led to higher savings in the world's oil exporters.

It is important to note that private capital flows have not carried the savings surplus of emerging economies to the U.S. Rather the large scale flow of capital from emerging economies to the U.S. is a function of policy decisions on the part of many emerging economies to resist pressures for currency appreciation—pressures stemming, in some cases, from rising current account surpluses and, in other cases, from private capital flows. In 2004, IMF data shows that private investors put \$150 billion more into the emerging world than they took out. Such private flows potentially could have financed a substantial current account deficit, or at least allowed emerging economies to reduce their large current account surpluses. However, in aggregate, these economies maintained current account surpluses, in some cases, quite large surpluses even as private flows picked up. Consequently, private flows to emerging economies generally have financed faster reserve growth, and thus have been recycled back to the U.S. and Europe.

IMF data indicates that reserve accumulation by emerging economies has gone from \$116 billion in 2001 to \$517 billion in 2004.⁴ In 2003 and early 2004, Japan also intervened heavily to prevent the dollar from depreciating against the yen. According to official U.S. data, central bank financing of the U.S. rose from \$116 billion in 2002 to \$278 billion in 2003 and \$395 billion in 2004—and U.S. data almost certainly understates total dollar reserve growth, and thus foreign central bank's indirect role in the financing of U.S. deficits.

U.S. data shows a substantial reduction of central bank flows so far in 2005. This data needs to be interpreted with some caution. Reserve accumulation, once adjustments are made for the falling dollar value of euro reserves, is still running at a roughly \$600 billion annual pace. Overall, global growth has not fallen, but the composition of countries adding to their reserves certainly has changed. Japan has stopped intervening, while reserve growth in both China and the world's oil exporters has picked. Almost all of Japan's increase in reserves showed up in the U.S. data. However, recorded Chinese purchases of U.S. debt in both 2004 and 2005 have equaled only about 40 percent of China's reserve increase. OPEC and Russia combined to run a current account surplus of perhaps \$200 billion in the first half of 2005, but—at least according to U.S. data—they only purchased only \$5 billion in U.S. long-term debt (and \$1.5 billion in U.S. stocks). There are several ways to reconcile this data: China and the oil exporters may account for some of the increase in "onshore" central bank dollar deposits in the second quarter; they may have added to their offshore dollar deposits; they may have purchased U.S. securities via intermediaries (inflows from the UK have been strong); or they may have built up their holdings of euros—driving down yields on European bonds and thus encouraging private capital to flow to the U.S.

Consequently, in my view, rapid reserve growth by emerging economies continues to be a key reason why the U.S. has been able to finance its current account deficit without difficulty.

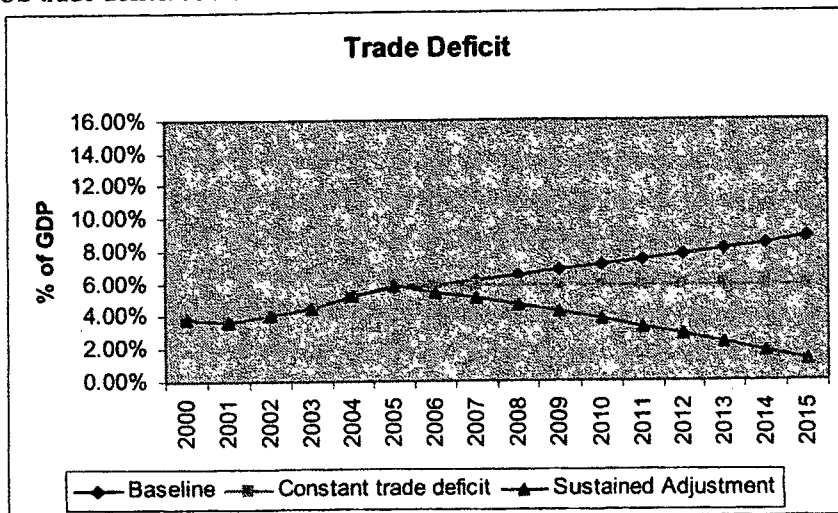
Large trade deficits are not sustainable over time.—The current U.S. position differs from the U.S. position in the 1980s in two key ways: The underlying deficit now is substantially larger, and U.S. is by now a substantial net debtor. The 2005 current account deficit, combined with the reduced dollar value of American assets in Europe, is likely to lead the U.S. net external debt⁵ to increase to around 30 percent of U.S. GDP at end of 2005.

Basic external debt sustainability analysis implies that sustained trade deficits of the current level will lead to the United States net external debt to rise relative to GDP. Sustained trade deficits also imply a rising current account deficit, as the current account deficit includes interest payments on external debt. Stabilizing the U.S. net external debt-to-GDP ratio at between 50–60 percent of U.S. GDP (a relatively high level) requires the elimination of the trade deficit over the next 10 years. Even in that scenario, the U.S. current account deficit is likely to remain close to 3 percent of U.S. GDP. If this adjustment is delayed, U.S. external debt-to-GDP will stabilize at higher levels, net interest payments will be higher, and the U.S. could eventually need to run substantial trade surpluses to avoid ongoing increases in its external debt-to-GDP ratio.

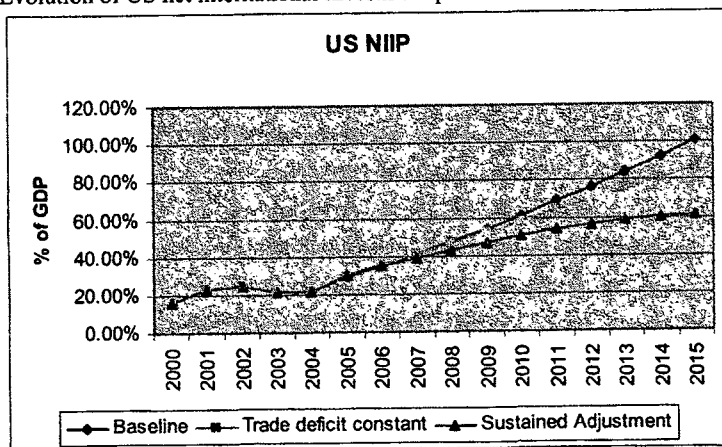
⁴The 2004 increase was inflated by perhaps \$60 billion as a result of the rising dollar value of euro reserves.

⁵I am using net external debt as shorthand for the United States Net International Investment position. The international investment position includes U.S. equity investment abroad, and foreign equity investment in the U.S. Since U.S. equity (FDI and portfolio equity) investment abroad is worth more than foreign equity investment in the U.S., the negative U.S. Net International Investment position is entirely the product of a large negative net debt position.

US trade deficit as a share of GDP: scenarios



Evolution of US net international investment position: Scenarios



Note: no adjustments for valuation gains associated with future dollar depreciation; dollar depreciation, particularly against the euro, pound and Canadian dollar, tends to increase the value of US external assets, and thus reduce US net debt

Relying on foreign savings to finance a substantial share of investment in the U.S. implies that, over time, more and more of the income earned on investment in the U.S. will need to be sent abroad. Here is one way to think about it: A Chinese company believed that the future income of Unocal, a U.S. oil company, was worth about \$20 billion. Financing this year's current account deficit would therefore require selling off the future income of 40 Unocals. Since next year's deficit is larger, it would require selling off the future income of another 50 Unocals. The U.S. has been financing its external deficits by selling debt not equity, but the basic principle is the same.

International experience also suggests that deficits associated with fiscal deficits and low levels of national savings are of greater concern than deficits associated with high levels of investment. The recent shift in composition of investment toward residential property is not particularly encouraging either: Housing is not an obvious source of future export income.

Short-term risks can be reduced with coordinated policy action.—Even if the trade deficit stabilizes in 2006 and begins to fall in 2007, the U.S. is likely to still need between \$900 billion and a trillion in financing from the rest of the world in each of the next 2 years. In the long-run, failing to make the adjustments needed to raise national savings and bring the U.S. trade deficit down over time poses real risks to the U.S. economy. In the short-run, though, the biggest risk is that market conditions will change suddenly. Should the market's demand for adjustment exceed the capacity of the U.S. economy to adjust smoothly, U.S. growth could slow—perhaps significantly. The dollar would fall and interest rates would rise, and the drag on the economy from higher interest rates would exceed the stimulus to the U.S. export sector from a falling dollar. U.S. trade and current account deficits have built over time; we do not want to be forced to get rid of those deficits over night.

The combination of market forces and policy decisions that will bring about the necessary adjustment in the U.S. trade deficit is subject to substantial uncertainty. But there is no doubt that the adjustment, when it comes, will require substantial changes in the drivers of growth, both in the U.S. and among our trading partners. In the U.S., consumption must grow more slowly than overall income, generating an increase in savings. Some sectors of the economy that currently are doing well may do less well, and resources will likely shift into the production of tradable goods and services. As former Treasury Assistant Secretary and long-term Director of the Federal Reserve's international staff, Edwin Truman has emphasized, overall U.S. growth could slow even during a relatively orderly adjustment process. Conversely, countries that until now have relied heavily on U.S. demand growth to spur their own economies will have to find new motors to propel their own growth. Just as the composition of growth must change here in the U.S., so too must it change abroad. After a period of time when U.S. imports have grown faster than U.S. exports, the world is likely looking at an extended period when U.S. exports will grow faster than U.S. imports.

Recent studies by the staff of the Federal Reserve Board offers hope that the adjustment process will prove to be relatively smooth, and need not involve either a sharp rise in interest rates or a large slowdown in growth. However, caution is still in order. The U.S. is in many ways operating outside realm of historical experience. The U.S. current account deficit now is far bigger than the deficit of the 1980s. The U.S. trade deficit is exceptionally large relative to the U.S. export sector. In 2004, the U.S. exported more "debt" than "goods." The U.S. is starting the adjustment process with very low long-term interest rates. The U.S. has significant assets abroad, which can help ease the adjustment process, but also very large gross external debts. Any sustained increase in U.S. interest rates could have a significant impact on the size of U.S. external interest payments. The adjustment process in the world's largest economy will have far larger impacts on the rest of the world than past adjustments in smaller economies.

International experience certainly suggests one clear lesson: As a country's external debt grows, it becomes more, not less, important to maintain fiscal policy credibility. Reducing the U.S. fiscal deficits is the easiest and most certain way to bring about the needed increase in U.S. national savings; it is likely to prove central to maintaining the confidence of the United States external creditors during what could be a long period of adjustment. Work by the IMF and OECD suggest that a \$1 reduction in the fiscal deficit would lead to a 40 to 50 cent reduction in the U.S. current account deficit.

Just as policy changes here in the U.S. can help to increase U.S. savings relative to investment, policy changes in the rest of the world can raise their consumption growth relative to their income growth, raise their imports relative to their exports and reduce their savings relative to their investment. China, Malaysia and many oil exporting countries need to be willing to allow their currencies to appreciate against the dollar. All these countries are now running large current account surpluses, and countries with big surpluses cannot peg, or otherwise tie their currencies tightly to dollar, without impeding effective adjustment in the global balance of payments. If higher oil prices are sustained, oil exporters will need to spend more and save less. The low level of consumption in China relative to Chinese GDP suggests that there is substantial scope, with appropriate policies, for strong consumption growth in China to replace strong consumption growth in the U.S. as the driver of global demand growth. Continental Europe needs to direct its domestic macroeconomic policies toward supporting domestic demand during the adjustment process.

The expansion of the U.S. trade deficit reflects mutually reinforcing policy choices, both here in the U.S. and abroad. The stabilization and eventual fall of the U.S. deficit will also be far smoother if this process is supported by appropriate policy changes. No doubt, market forces will eventually demand adjustment even in the

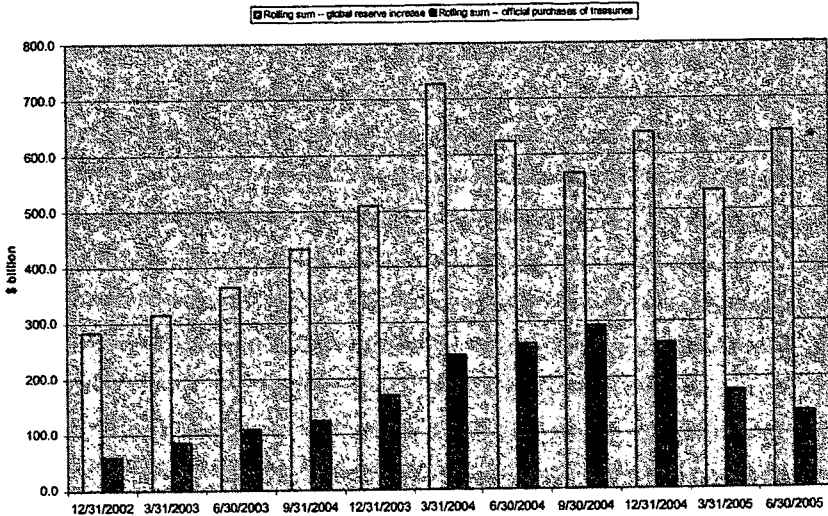
absence of policy changes. But, as both New York Federal Reserve President Timothy Geithner and former Treasury Secretary Robert Rubin have emphasized, without supportive policies, the needed market moves are bigger and the risks of disruptive market moves are substantially higher.

Central bank financing of the U.S. current account deficit

| | 2002 | 2003 | 2004 | 2005 (f) |
|--|------|------|------|----------|
| U.S. current account deficit | 475 | 520 | 668 | 815 |
| Central bank financing (BEA data) | 116 | 278 | 395 | 205 |
| As percent of deficit | 24% | 53% | 59% | 25% |
| BIS estimate for increase in dollar reserves ⁶ | 187 | 423 | 498 | ? |
| As percent of U.S. deficit | 39% | 81% | 75% | ? |
| Memo: Global reserve increase, all currencies (Setser estimates, based on IMF data with adjustments for valuation changes) | 285 | 510 | 640 | 600 |

Four quarter sum of increase in global reserves v. four quarter sum of central bank purchases of US Treasuries.

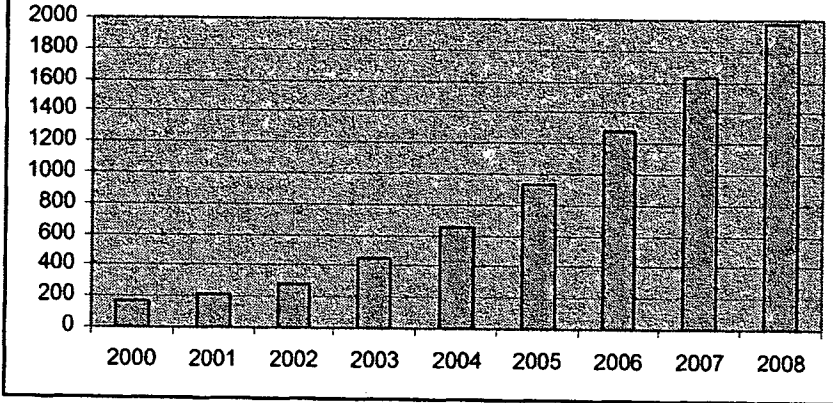
Global reserve increase v. reported official purchases of treasuries



⁶ Includes the increase in central banks "offshore" dollar deposits reported in the international banking system. See Robert McCauley, "Distinguishing global dollar reserves from official holdings in the United States," BIS Quarterly Review, September 2005. For more on different measures of central bank financing of the U.S., see Matthew Higgins and Thomas Klitgaard, "Reserve accumulation: implications for global capital flows and financial markets," Current Issues in Economics and Finance, Volume 10 No. 10. Federal Reserve Bank of New York. September-October 2004.

Chinese Reserves, including reserves transferred to state banks

China's reserves, \$ billion, 2005-08 forecast



Recorded Chinese Purchases of U.S. Assets v. Chinese Reserve Accumulation

| | T-bills | Treasuries | Agencies | Corp. Bonds | Foreign | Total in U.S. data | Estimated change in reserves (adjusted for valuation) | % |
|---------------------|---------|------------|----------|-------------|---------|--------------------|---|-----|
| 2002 | 0.2 | 24.1 | 29.3 | 6.1 | 3.5 | 63.1 | 74.5 | 85% |
| 2003 | 0.3 | 30.1 | 29.4 | 4.5 | 4.0 | 68.4 | 157 | 43% |
| 2004 | 17.3 | 18.9 | 16.4 | 12.1 | 3.0 | 67.4 | 194 | 34% |
| Jan-June 2005 | 2.5 | 17.3 | 11.3 | 13.2 | 14.3 | 48.7 | 137 | 35% |
| 2005 f | | | | | | 110 | 275 | 40% |

From: Derived from Prasad and Wei (2005), updated to reflect 2005 TIC data. See <http://www.hbs.edu/units/bgic/seminarpdfs/Prasad%20IFC%20Supplement.pdf>

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S. HRG. 109-484

THE ECONOMIC OUTLOOK

HEARING
BEFORE THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES
ONE HUNDRED NINTH CONGRESS
FIRST SESSION

NOVEMBER 3, 2005

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THE ECONOMIC OUTLOOK

THURSDAY, NOVEMBER 3, 2005

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The Committee met, pursuant to notice, at 10 a.m., in room 2175, Rayburn House Office Building, the Honorable Jim Saxton (Chairman of the Committee) presiding.

Present: Representatives Saxton, English, Brady, Paul, Maloney, Hinchey, Sanchez and Cummings.

Staff Present: Chris Frenze, Robert Keleher, Colleen Healy, John Kachtik, Emily Gigena, Brian Higginbotham, Chad Stone, Matt Salomon, and Nan Gibson.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM THE STATE OF NEW JERSEY

Representative Saxton. Good morning, I am pleased to welcome Chairman Greenspan before the Committee once again to testify on the economic outlook. We appreciate the many times that you have testified before this Committee, Mr. Chairman, and recognize your outstanding stewardship of monetary policy during your tenure as Fed Chairman.

You have guided monetary policy through stock market crashes, wars, terrorist attacks and natural disasters with a steady hand. Under your tenure, price stability has been the norm, with inflation low and stable. You have made a great contribution to the prosperity of the United States, and the Nation is in your debt.

A broad array of standard economic data reflect the health of the U.S. economy. Figures released last week indicate that the economy grew at a 3.8 percent rate last quarter despite the massive regional destruction wrought by the hurricanes.

So far during 2005, the economy has expanded at a 3.6 percent rate, roughly in line with Federal Reserve expectations as well as the Blue Chip indicators.

Equipment and software investment has bolstered the economy since 2003 and continues at a healthy pace. This component of investment responded especially sharply to the incentives contained in the 2003 tax package. Employment has also gained over the period with 4.2 million jobs added to the business payrolls since May 2003, and the unemployment rate is at 5.1 percent.

Consumer spending continues to grow. Home ownership has reached record highs. Household net worth is also at a record level. Productivity continues at a healthy pace, and although higher en-

ergy prices have raised business costs and imposed hardships on many consumers, these prices have not derailed the expansion.

As the Fed recently suggested, long-term inflation pressures are contained. As a result, long-term interest rates, such as mortgage rates, are still relatively low.

By its actions, the Fed has made clear its determination to keep inflation in check.

In summary, the economy has displayed impressive flexibility and resilience in absorbing many shocks. Monetary policy and tax incentives for investment have made important contributions in accelerating the expansion in recent years.

The most recent release of Fed minutes indicates that the central bank expects this economic growth to continue through 2006.

The Blue Chip Consensus of private economic forecasters also suggests that the economy will grow in excess of 3 percent next year.

Current economic conditions are positive, and the outlook for 2006 is favorable.

Mrs. Maloney, we are ready for your opening statement.

[The prepared statement of Representative Jim Saxton appears in the Submissions for the Record on page 27.]

**OPENING STATEMENT OF HON. CAROLYN B. MALONEY,
A U.S. REPRESENTATIVE FROM THE STATE OF NEW YORK**

Representative Maloney. Well, thank you very much, Mr. Chairman, and on that note I would like to place inside the record Senator Reed's opening statement and hope that everyone about will get a chance to see it. It is over on the desk.

[The prepared statement of Senator Jack Reed, Ranking Minority Member, appears in the Submissions for the Record on Page 36.]

Representative Maloney. First of all, I want to welcome Chairman Greenspan for his appearance before the Joint Economic Committee as Fed Chairman.

This will probably be your last appearance before us, and first of all, I want to say that New York is so proud of you. And we take tremendous pride in the fact that you are a born, tried and true New Yorker. And many of my constituents have expressed their gratitude for your service and their hope that in retirement you will be able to spend more time back in New York City.

You have really done a great service for this Nation. You have pulled us through some difficult times that were outlined by the Chairman. I would like to add to that list, 9/11. That was a very difficult economic time. And your leadership is greatly appreciated by New York and the entire Nation.

Over the past 18 years, Chairman Greenspan has achieved a really remarkable record of success as the country's central banker. He has steadfastly maintained the Fed's credibility for keeping inflation under control while dealing flexibly with a variety of economic challenges. The 10-year economic expansion of the 1990's was the longest on record. One contributing factor was Chairman Greenspan's strong sense in the middle of that expansion that there was room for monetary policy to accommodate further reductions in the unemployment rate, even though the conventional wisdom at the time said otherwise.

Of course, another contributing factor was the Clinton administration's strong commitment to deficit reduction, which created a fiscal policy environment conducive to strong, sustainable, non-inflationary growth.

Unfortunately, that discipline is now a distant memory and Chairman Greenspan's successor will face a host of problems managing monetary policy in the face of historically large budget deficits, largest in history, a record current account deficit, a negative household savings rate, rising inflation and a labor market recovery that remains very weak in many respects.

As always, I look very much forward to hearing Chairman Greenspan's testimony. I hope that, in addition to his views on the economic outlook, he will share with us some reflections on what has made his tenure at the Fed so successful and what are the key lessons he would like to pass on to his successor. We thank you for your many years of public service.

[The prepared statement of Representative Carolyn B. Maloney appears in the Submissions for the Record on page 36.]

Chairman Greenspan. Thank you.

Representative Saxton. Mr. Chairman, let me just add my personal thanks for you being here today and just say that, in my office, there is a great picture of you with me, and as my constituents come in and tell me whatever it is that is on their minds, on the way out the door, I often point to that picture and say, "and there we are planning for this great economy." And so it has been a pleasure working with you, sir, and Mr. Chairman, we are ready for your statement.

STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Chairman Greenspan. First, let me thank you both for your thoughtful and kind comments. I will be excerpting my prepared remarks and request the full transcript be included in the record.

Representative Saxton. Without objection. Thank you.

Chairman Greenspan. Prior to the hurricanes that severely damaged the Gulf Coast, the economy appeared to have considerable momentum. But pressures on inflation remained elevated. Then Hurricane Katrina hit at the end of August, causing widespread disruptions to oil and natural gas production and driving the price of light sweet crude oil above \$70 per barrel. With the recovery from the first storm barely under way, Hurricane Rita hit, causing additional destruction, especially to the energy production and distribution systems in the Gulf.

These events are likely to exert a drag on employment and production in the near term and to add to the upward pressure on the general price level. But the prices of crude oil and refined petroleum products have now fallen significantly from their peaks, and repair and rebuilding activities are underway in many parts of the affected region.

Outside the areas affected by the storms, economic fundamentals remain firm, and the U.S. economy appears to have retained considerable forward momentum.

If allowance is taken for the effects of Katrina and Rita and for the now-settled machinists strike at Boeing, industrial production

rose at an annual rate of $5\frac{1}{4}$ percent in the third quarter. That is up from an annual rate of $1\frac{1}{4}$ percent in the second quarter when a marked slowing of inventory accumulation was a restraining influence on growth.

The September employment report showed a loss of 35,000 jobs. However, an upward revision to payroll gains over the summer indicated a stronger underlying pace of hiring than before the storms that had been previously estimated.

The Bureau of Labor Statistics estimates that employment growth in areas not affected by the storms was in line with the average pace over the 12 months ending in August.

Retail spending eased off in September, likely reflecting the effects of the hurricanes and higher gasoline prices.

Major chain stores report a gradual recovery over October in the pace of spending, though light motor vehicle sales declined sharply last month when some major incentives to purchase expired.

The longer-term prospects for the United States' economy remain favorable. Structural productivity continues to grow at a firm pace, and rebuilding activity following the hurricanes should boost real GDP growth for a while.

More uncertainty, however, surrounds the outlook for inflation. The past decade of low inflation and solid economic growth in the United States and in many other countries around the world has been without precedent in recent decades.

Much of that favorable performance is attributable to the remarkable confluence of innovations that spawned new computer, telecommunication and networking technologies, which especially in the United States, have elevated the growth of productive capacity, suppressed unit labor costs and helped to contain inflationary pressures. The result has been a virtuous cycle of low prices and solid growth.

Contributing to the disinflationary pressures that had been evident in the global economy of the past decade or more has been the integration of in excess of 100 million educated workers from the former Soviet bloc into the world's open trading system. More recently, and of even greater significance, has been the freeing from central planning of large segments of China's 750-million workforce. The gradual addition of these workers, plus workers from India, a country which is currently undergoing a notable increase in its participation in the world trading system, will approximately double the overall supply of labor once all these workers become fully engaged in competitive world markets.

Of course, at current rates of production, the half of the world's labor force that has been newly added to the world competitive marketplace is producing no more than one quarter of world output. With increased education and increased absorption of significant cutting-edge technologies, that share will surely rise.

Over the past decade or more, the gradual assimilation of these new entrants into the world's free market trading system has restrained the rise of unit labor costs in much of the world and hence has helped to contain inflation.

As this process has unfolded, inflation expectations have decreased, and accordingly, the inflation premiums embodied in long-term interest rates around the world have come down.

The effective augmentation of world supply and the accompanied disinflationary pressures have made it easier for the Federal Reserve and other central banks to achieve price stability in an environment of genuinely solid economic growth. But this seminal shift in the world's workforce is producing, in effect, a level adjustment in unit labor costs.

To be sure, economic systems evolve from centrally planned to market-based only gradually and at times in fits and starts. Thus, this level adjustment is being spread over an extended period. Nevertheless, the suppression of cost growth and world inflation at some point will begin to abate and, with the completion of this level adjustment, gradually end.

These global forces pressing inflation and interest rates lower may well persist for some time. Nonetheless, it is the rate at which countries are integrated into the global economic system, not the extent of their integration, that governs the degree to which the rise in world unit labor costs will continue to be subdued.

Where the global economy is currently in this dynamic process remains open to question. But going forward, these trends will need to be monitored carefully by the world's central banks.

Mr. Chairman, I want to conclude with a few remarks about the Federal budget situation which, at least until Hurricanes Katrina and Rita struck the Gulf Coast, were showing signs of modest improvement. Indeed, tax receipts have exhibited considerable strength of late, posting an increase of nearly 15 percent in fiscal year 2005 as a result of sizable gains in individual and, even more, corporate income taxes.

Thus, although spending continued to rise gradually last year; the deficit in the unified budget dropped to \$319 billion, nearly \$100 billion less than the figure for fiscal year 2004 and a much smaller figure than many had anticipated earlier in the year.

Lowering the deficit further in the near term, however, will be difficult in light of the need to pay for post-hurricane reconstruction and relief.

But even apart from the hurricanes, our budget position is unlikely to improve substantially further until we restore constraints similar to the Budget Enforcement Act of 1990, which were allowed to lapse in 2002. Even so, the restoration of PAYGO and discretionary caps will not address the far more difficult choices that confront the Congress as the baby boom generation edges toward retirement.

As I have testified on numerous occasions, current entitlement law may have already promised to this next generation of retirees more in real resources than our economy, with its predictably slowing rate of labor force growth, will be able to supply.

So long as health care costs continue to grow faster than the economy as a whole, as seems likely, Federal spending on health and retirement programs would rise at a rate that risks placing the budget on an unsustainable trajectory. Specifically, large deficits will result in rising interest rates and an ever-growing ratio of debt service to GDP. Unless the situation is reversed, at some point, these budget trends will cause serious economic disruptions.

We owe it to those who will retire over the next couple of decades to promise only what the government can deliver. The present pol-

icy path makes current promises, at least in real terms, highly conjectural. If fewer resources will be available per retiree than promised under current law, those in their later working years need sufficient time to adjust their work and retirement decisions. Crafting a core strategy that meets the Nation's longer-run needs will become ever more difficult and costly the more we delay.

The one certainty is that the resolution of the Nation's demographic challenge will require hard choices and that the future performance of the economy will depend on those choices. No changes will be easy, as they all will involve setting priorities and making tradeoffs among valid alternatives.

The Congress must determine how best to address the competing claims on our limited resources. In doing so, you will need to consider not only the distributional effects of policy changes, but also the broader economic effects on labor supply, retirement behavior and private savings. The benefits of taking sound, timely action could extend many decades into the future.

Thank you very much.

I look forward to your questions, Mr. Chairman.

[The prepared statement of Hon. Alan Greenspan appears in the Submissions for the Record on page 37.]

Representative Saxton. Thank you, very much, Mr. Chairman.

Mr. Chairman, let me refer first in a question to something that you mentioned in your testimony, and that is, expectations related to inflation. I would like to put up a chart, if I may, that shows changes in core personal consumption expenditures, which is a measure of inflation that the Fed likes to use. The Fed has successfully kept this measure of inflation between 1 and 2 percent, which some refer to as the Fed's comfort zone. By keeping inflation low and in this narrow range, it seems to me that the Fed has reduced and helped keep long-term interest rates lower than they would otherwise be.

We know that we have had 12 short-term increases in interest rates brought about by monetary policy. And at the same time, long-term rates, which often in the past have tracked along with short-term rates, have remained relatively low.

[The chart entitled "Core PCE Inflation" appears in the Submissions for the Record on page 41.]

By lowering uncertainty, by keeping inflation controlled and reducing the inflation premium embedded in interest rates, it seems to me that price stability has helped promote long-term economic growth and, in doing so, kept long-term interest rates relatively low. Is this a policy result that was planned by the Fed, and, if so, what is your perception of how well it has worked?

Chairman Greenspan. Well, I go back to the earlier years when I first joined the Federal Reserve, and our general policy that emerged from that particular period going forward was a recognition of our dual mandate to maintain maximum, sustainable growth and price stability.

What we began to learn—which came as a conceptual shock to most economists in the 1970s—is that you could get both rising unemployment and rising inflation concurrently. We began to recognize that, indeed, rising inflation causes unemployment or, the reverse, that a necessary condition for maximum sustainable growth

is price stability. So what has occurred over the years is a recognition that rather than having a dual set of goals which are independent of one another, which indeed was the general policy prescription in earlier decades, it is price stability which creates economic growth, employment and higher standards of living.

We have chosen the core PCE inflation measure as our standard gauge largely because, as I have argued many times in the past, there are structural problems in the consumer price index which don't capture the inflation rate per se.

We are also aware that even though this is a superior measure to the CPI, it nonetheless does have upward measurement bias. And it ranges, depending on how you look at some of the numbers, from a half a percent, to as much as a percentage point.

Second, as you may recall, we ran into what looked to be the beginnings of at least possible disinflationary pressures in the summer of 2003, another surprise to economists who did not believe that would be feasible in a world of fiat money, but Japan proved otherwise.

We have gained from that experience a recognition that we don't want to get close to that particular area, either. So we have chosen effectively to perceive price stability largely as the range which you are seeing, after making adjustment for the statistical and economic adjustments which we learned over the last couple of decades.

I don't want to communicate to you that somehow we had this chart up there, and every time the inflation rate got close to the top, we tightened it, and every time it got down to the bottom, we eased. That is not the way policy is run because there are long leads in various different things. But essentially, as I indicated, fairly early on in this particular period, I thought that we had, in fact, achieved price stability. While it has moved up and down since then, it has broadly stayed in that range.

And judging from the data which you have cited, Mr. Chairman, it appears to be a range which is really quite conducive to economic growth and prosperity that are associated with that.

Representative Saxton. Thank you very much. Let me ask a question that is related to inflation, as it also relates to energy. Oil prices in particular have shot up, as every American consumer knows, boosting increases in the major broad price indices. Arguably, however, the additional expense of oil might not be inflationary if it were offset by cutting back on other expenses.

In the absence of an accommodative monetary policy, should oil prices necessarily be expected to lead to increases in inflation? Would you give us your response to that?

Chairman Greenspan. Yes, Mr. Chairman. I think there are two aspects to this. One is a technical issue which relates to the degree to which American businesses, confronted with increasing energy costs, institute various different actions, either by capital equipment or changing of the structure by which goods are produced. The extent to which they do that can increase the efficiency of oil use. Indeed, we have been seeing that for several decades.

The ratio of British thermal units per constant dollar of GDP has effectively been falling progressively decade after decade since the 1970s in this country, so that the intensity of energy use—and in-

deed oil use as well—is about half of what it was relative to the level of GDP, say, 30 years ago.

The increasing, if I may put it in these terms, productivity of energy, gains in productivity associated with more efficient use of energy, continues to this day. Indeed, as best we can judge, the very sharp increases in prices, and therefore costs to the non-financial, non-energy corporations of this country, actually induced a fairly significant rise in efficiency, so it all didn't pass through as cost increases. But more important is the perception that inflation overall will be contained.

Indeed, as you point out, inflation expectation is a crucial variable in any market system, largely because it tends to be a key factor in wage rates and labor costs generally.

As long as the Federal Reserve is perceived to be holding inflation expectations in check, which means holding core inflation in check, the pass-through of energy costs into the underlying inflation rate will be subdued.

And indeed, the data indicate that while, prior to the early 1980's, a goodly part of energy costs were indeed passed through into the general price level, subsequent to then, there is very little indication that has been the case, and we associate it with the significant decline in inflation expectations. One of the reasons why we are very firm in the notion that this country should not visit the 1970s again, in the way of inflation, is that we have managed to keep expectations contained. As difficult as energy problems are—there is no doubt there has been a very significant amount of hardship, and I think people are going to be quite surprised at their heating bills this winter—we have not had the pass-throughs into other products in a manner which existed in the 1970s.

Representative Saxton. Let me ask you just one final question. According to a FOMC statement of last Tuesday, "core inflation has been relatively low in recent months and longer-term inflation expectations remain contained."

Given the need for the Fed to preempt inflation, to what extent is the Fed now addressing inflationary expectations or fears that may not be fully evident in the current available data?

Chairman Greenspan. Inflationary expectations are reasonably well measured concurrently and in real time in the sense that we pick them up from a variety of different sources, but mostly from the structure of interest rates: very specifically, the differences between interest rates, which are defined in real terms, such as Treasury TIPS, and what we call additional compensation required for inflation. That pretty much picks up what we are looking at.

Although we measure the same phenomena in a number of different ways—in other words, we have a whole series of measures which relate to inflation expectation, essentially picking up the same general attitude that is embodied in the marketplace—they all very much show the same sort of pattern, which is that inflation expectations are contained.

Representative Saxton. Thank you, Mr. Chairman.

We are going to move now to Mrs. Maloney for her questions.

Representative Maloney. Thank you, Chairman Greenspan. The question that my constituents ask me, I am going to ask you: If the economy is so good and inflation is so well behaved and there

is price stability, then why does everything cost so much more when you go to buy something? They are feeling pressured in their lives.

The question that I hear from my neighbors and friends and constituents is, when we have so many economic indicators that are unhealthy, how are we having a healthy economy? We have a costly war, the largest deficit in history, the largest trade deficit in history, high energy costs, a weak dollar, huge investment from foreign countries. All of these patterns are very troubling to people, yet the economy appears, according to your testimony, strong and moving forward.

They question, how can it be strong when there are so many concrete problems out there that are unhealthy for the economy? And I would like to frame the question in terms of your career at the Fed. When you first came in the 1970s, your first job was with President Ford as the head of his Council of Economic Advisors. And when you took that job, the country was going through a great deal of what we are going through now, possibly less shocked than we are now, you had the high energy price shock, but not the huge deficits in history, and you didn't have a war. But inflation in 1974 shot up to double-digit territory, and by 1975, the economy was in a serious recession with the unemployment rate rising from under 6 percent in 1974 to 8.5 percent in 1975.

Now we are experiencing yet another energy price shock. But your testimony is very optimistic. And you are saying that we will not see any inflation, that we will not see any recession. You are very optimistic.

I want to know how are you confident that we will not—that we will be able to avoid the same type of economic outcomes now that we had in the 1970s? Has the economy fundamentally changed? Are we more competitive? Is it the world economy? Is it Fed policy? What has changed so that the economy has not experienced the really dramatic problems that we had in the 1970s?

I guess a part of it is, what are the key changes over the past 30 years in our economy and in the way that we are conducting monetary policy that have put us in a better position to withstand energy supply shocks or price shocks?

Chairman Greenspan. Well, Congresswoman, that is a very important question, because it is the experience that we had in the 1970's that gave us a far better understanding of how the post-World War II American economy functions.

First, let me say that we have a very complex, huge economy which is churning. There are winners, and there are losers, and there are pockets in the economy where things are exceptionally weak, areas where they are strong.

The best way of summarizing why I say things are doing well is that I would suspect that, on average, I worry about 20 different problems which seem insurmountable out there. Today, there are only 12 or thereabouts. So, they are still out there. And you know, I have mentioned on innumerable occasions, despite the fact that the economy overall is growing, there is a definite bimodal labor market in the sense that for the 80 percent of the labor force which are production workers, wages are growing far less quickly than the skilled workers. This is, as I have mentioned before you on nu-

merous occasions, essentially an educational problem which we need to adjust because it is creating a skewing of economic distribution in this country, which I think is a very unsettling trend for a democracy.

That, to me, is where I think the major problems are.

But what I should also point out the reason people are seeing prices rising is that they are. They are seeing them, however, for a lot of petroleum-related products. The one statistic that I think almost everybody is able to audit clearly every day, every week, is the price of gasoline. It is a homogeneous product, and it is listed on the signs in the service stations all the time, and needless to say, the price has been fluctuating all over the place.

But the Bureau of Labor Statistics does an excellent job in trying to truly get what is the structure of price change in this country. Those data, which essentially come from the BLS and in detail, are the best we can do. So I think that it is mainly a selective view, when you look at the total, which people often see in a period like this. But when you look at all the data, it doesn't show the concern of acceleration that I often hear, as you do.

What has changed since the 1970s with respect to oil is, as I mentioned before, we are using only half as much as we used to relative to the GDP in the 1970s. As a consequence of that—and also because of the fact that the underlying inflation rate is now much lower—we are able to absorb a remarkable amount of that increase because we have an extraordinarily more flexible economy than we had in the mid-70s.

Indeed, that very flexibility itself is one of the reasons we have gotten through a whole series of shocks that the Chairman mentioned early on. It is the development of that flexibility, coupled with the fact that the use of energy is much less than it was, that has enabled us to absorb the energy shock with nowhere near the consequences that we confronted in the earlier period.

Representative Maloney. Thank you.

In your testimony today, Chairman Greenspan, you stress the long-term core pressures that we face with the retiring baby boomers. And we have very little flexibility in our core. Most of it is entitlements. We have very little discretionary spending now in our Federal core. So this is a huge challenge. But weren't those pressures also there in 2001? And wouldn't it have been better if we had focused on that challenge in 2001, instead of enacting tax cuts that lost revenue and reduced our national savings? And I want to read the following quote from a story that was in the *New York Times* on Monday:

"Mr. Greenspan is widely perceived as having given an agreement to President Bush's plans for a big tax cut in 2001 and thus to have helped set the stage for the huge deficits that followed."

And do you have any regrets about the way you expressed yourself in 2001? And were you surprised that your testimony was interpreted as having given a green light of support for these policies that have added to this extremely large core deficit?

Chairman Greenspan. Let me review what was going on then and what I actually testified to with respect to the budget at that particular point.

We, as you know, then had very large surpluses, which all of the technical experts projected further, and indeed, the Congressional Budget Office projected them further. The Office of Management and Budget projected them further. The staff at the Federal Reserve projected them further. We were all trying to get as full detailed an analysis as we could on something which we found very surprising, namely, chronic surpluses, which we never believed we would ever see, and we could not find any technical reasons to say that those data were incorrect.

Indeed, the Federal Reserve embarked upon a study of what we would do when the actual supplies of U.S. Treasury issues would become inadequate for purposes of open market operations, meaning that the level of debt outstanding would approach *de minimis* levels.

The problem, if you get to that point and still have surpluses, is that you have to accumulate technically private assets plus State and local assets.

I have always argued that that is potentially very destabilizing where large claims on American businesses would be held by the U.S. Government.

As a consequence, I argued at that time that we ought to cut taxes before the debt would get to such levels that we couldn't reduce it any more and would therefore have to accumulate assets. Were I confronted with the same data today as I was then, I would have given exactly the same testimony.

I must tell you, however, that in that whole evaluation I did recognize, in the testimony, that even though we couldn't find anything wrong with the forecasts of surpluses should they, in fact, dissipate, we ought to have procedures which would follow up any changes in budgetary policies, whether for tax cuts or expenditure increases, and essentially have triggers or other means of review that would reverse the actions that would be taken at that particular point in time.

So, I have gone back and I have reviewed that testimony. And I must tell you that, aside from the fact that the probability that we all perceived of the deficit reemerging was small and that was clearly a forecast gone wrong—not that the probability was small, but that we would maintain the surpluses. Aside from that, I must say, I would reproduce the testimony word for word.

Representative Maloney. Well, former Treasury Secretary O'Neill reports that when he expressed concern about the possible impact of the proposed tax cuts on the deficit and he said that Vice President Cheney said, "Reagan proved that deficits don't matter." And did you have any idea when you gave that testimony in 2001 that the Administration was not serious about containing deficits, was not serious about enforcement rules to help turn record deficits into surpluses and to control the core?

Chairman Greenspan. I think the "deficits don't matter" was a reference that they don't have an impact on interest rates. And I disagree with that. I disagreed with it then; I disagree with it now. And I disagree with it because the facts prove otherwise.

Representative Maloney. My time is up, and as always, it is a great pleasure to listen and learn from you. Thank you.

Chairman Greenspan. Thank you.

Representative Saxton. Thank you, Mrs. Maloney.
Mr. Paul.

Representative Paul. Thank you, Mr. Chairman.
And welcome, Mr. Greenspan.

Looking at your last three paragraphs, I certainly would agree with your concern about the concerns for the future, the future financing of the medical care system as well as the retirement programs, as well as financing the debt. And to me, I read that as a rather dire warning of what we should be dealing with in the Congress. And you make a suggestion that the entitlement laws should be looked at because we cannot much sustain this.

And yet I think that is only part of the problem, because the entitlement system is certainly one reason why we spend a lot of money. I don't think we can do this without addressing the subject of what we do with our foreign policy as we spend hundreds of billions of dollars overseas destroying countries and then rebuilding countries.

I cannot see how we can adjust our ways here unless we talk about that as well. But I also think that we should tie in this deficit spending and this commitment to the future to overall monetary policy because I think the system of money that we have had helped create the problems that we have. And we can't separate the two because it certainly makes it a lot easier for Congress to spend if there is some way of creating new money to accommodate these deficits.

Just in the time that you have been at the Fed, we have had a lot of monetary inflation. We have had a lot of new money pumped into the system. As a matter of fact—over \$600 trillion as measured by M3—it is all new money. It is three times as much money as we had in 1987. But interestingly enough, the total debt, government debt, corporate debt and personal debt, has done the same thing. It has tripled. It was approximately \$8 trillion in 1987, and now it is like \$25 trillion. So a lot of new money was created. And we have a lot of new debt in the system. But we also suffered a consequence, our dollar now is worth 55 cents. So that to me seems unfair because if I had saved money in 1987, I am only going to get 55 cents back on my dollar.

I think there is a moral element to this, too, as well as an economic argument. Why save? And we don't save. And if we need more money to take care of our entitlements or fight a war or accommodate the debt, we just literally are able to go and depend on the Federal Reserve to make sure interest rates don't go up.

And then I think another problem we have is we look at the wrong things when we are looking at our problems. It has been said that the government tells us there is really no inflation. But you know we could use what we strike out. We could look at medical care costs. We could look at food. We could look at energy. We could look at the cost of government, taxes. And who knows, the inflation rate might be 12 percent or 14 percent. So sometimes I think we deceive ourselves with the system of money that we have today by looking at the wrong things.

Because of globalization and productivity, prices have in some respect been held in check. But I cannot see how we can continuously reassure ourselves that that is good, because it doesn't deal with

the problem of the malinvestment, the overinvestment, the bubbles that develop, as well as the debt that builds up.

And this could not be done other than with someone being able to create credit out of thin air.

I think it should be held in check.

So, in order to get this into a question, isn't there—isn't there something unfair about the system? How can we justify stealing value from people who save, cheat the people who are on retirement and then they get so little on their interest earned as well? Is this a wise thing to do economically? Because you have expressed the concerns that I have. But I cannot see how you can separate that from the overall monetary system that we have been dealing with a lot longer than you have been in charge of the Fed.

Chairman Greenspan. Well, Congressman, the first thing that we have to recognize is that the inflation rate, properly measured, at this particular stage has been very close to zero for a very long period of time.

In other words, as I said earlier, those numbers are biased upwards because of the way we calculate it. So while that is true about a number of the statistics you quote, those statistics go back well before the inflation rate stabilized and are reflecting very substantial inflation pressures which existed, especially during the 1970s when the inflation rate was double-digit.

But the level of nominal GDP has gone up basically roughly the same after certain types of adjustments, with what the real underlying GDP properly measured would have done. That tells me that we are not unduly inflating the system.

Representative Paul. Well, I don't think that reconciles the facts that I can get from the Federal Reserve that show that our dollar is worth 55 cents compared to 1987. If that is not the reverse of what you see in rising price and inflation, my dollar just doesn't buy as much any more. And the trend is continuous since 1914. It is worth 5 cents. So I don't see how you can say there is no inflation.

Chairman Greenspan. Well, you and I have discussed this issue at length many times over the years. And I agree with you in part, and I disagree with you on the other part.

Representative Paul. Can you say anything favorable about gold today?

Representative Saxton. The gentleman's time has expired. We are going to go now to Mr. Hinchey.

Representative Hinchey. Thank you very much, Mr. Chairman.

Mr. Greenspan, I just want to say that we are going to miss you, really miss you.

I think that you have probably been one of the most effective chairmen of the board in the history of the Federal Reserve.

Chairman Greenspan. Thank you.

Representative Hinchey. And also I think one of the most interesting and instructive. And I think that that instruction has come on a variety of levels, so you have done one heck of a job. I won't say, Brownie, but you have done one heck of a job. And I think we are going to miss you a great deal, and I want to thank you, take this opportunity to thank you very much for your service

and to share the things that were said by my friend and colleague, Mrs. Maloney, a few moments ago. As a New Yorker, I am very proud of you, too.

The economic circumstances that we are experiencing today, growth in the economy, is a result of a variety of things, not the least of which, the most of which, frankly, I think is the conflux of some extraordinary circumstances of economic stimulation. We have had record low interest rates, extraordinary amount of Federal spending and record tax cuts, all coming at the same time. And if you don't have economic stimulation and a growing, creating-new-money economy when you are pouring all that money in, both in terms of monetary and fiscal policy, then you are in deep, deep trouble.

So I am frankly very concerned about what is going to happen when the conflux of circumstances wears out. And it certainly will in the not-too-distant future.

So that would be my first question to you. What is going to happen when all of this stimulation starts to decline?

Chairman Greenspan. Congressman, it depends on what is going on in the world generally, because you can remove all of that stimulation, but if the underlying incentives in the private system are increasing—and I think they are, at the moment, especially coming out of the hurricanes—you can more than offset the stimulation, if you want to put it that way, from the private sector.

Representative Hinchey. That is true. And if that happens, that may be the case—

Chairman Greenspan. Well, the history of stimulating a market economy is mixed. There are innumerable occasions in the past when we have engaged in very significant stimulation—in other words, large deficits, large expansions of the monetary base—and we found that real GDP barely grew, and often fell into recession because of the inflation which was engendered by the excess stimulant. I think we have to be careful about defining what type of stimulus, what part of the economy it is imposed on or injected into and what is going on mainly in the private sector, because that is where most of the job generation occurs.

Representative Hinchey. Well, the job generation in the private sector—

Chairman Greenspan. Let me just follow up. I recognize that and agree with you. I think that there is going to be significant pulling back in the overall degree of stimulus. At least I hope there is, because if we engage in fiscal policy that I was concerned about, that was in the latter part of my testimony, then we are going to get exceptionally large amounts of fiscal stimulus which we are not going to want.

Representative Hinchey. Well, Mr. Chairman, I know that is a very vague and ambiguous answer. And it is probably the best you can do in the context. But the fact of the matter is that I think we are going to be facing some very serious problems when we begin to pull back. And we will have to pull back. In terms of the job production in the private sector, this economy has lost substantially more than a million manufacturing jobs in the last 5 years. And those are the best paying jobs.

One of the scholars at the American Enterprise Institute very recently made the observation that the benefits in the economy—and these are his words—the benefits of the economy are not filtering down, that the creating-new-money benefits are going to capital and not to workers.

And we see that very, very clearly. The median pre-tax income is now \$44,389. That is the lowest it has been since 1997.

We have a situation here in our country where the average, the median income of the average American family has been flat for 5 years. The biggest problem that we are going to face, in addition to maintaining the growth of the economy, assuming that we can do that, even as we have to withdraw all of this stimulation that we have been pouring into it because growing core deficits and a national debt now that exceeds \$8 trillion—the biggest problem that we are going to face, is how to engage in some more equitable distribution of the benefits of the creating-new-money growth in the context of a democratic society.

How are we going to do that?

Chairman Greenspan. Well, first of all, let me just say that there is a question about what the real median income level has been, and it gets to different types of price deflation and which types of data are employed.

Representative Hinchey. That number takes into consideration inflation.

Chairman Greenspan. I don't disagree with the conclusion that you raised as a consequence of that.

The issue is most vividly reflected in the fact that, in the last period, 20 percent of the workforce, which is largely supervisory by definition, has had hourly wage increases approaching 10 percent, whereas the increase for those in the 80 percent, who are perceived to be production workers, is under 4 percent.

That is essentially creating a type of bimodal distribution.

The argument that seems most convincing to me as to the cause of this problem, indeed it is almost necessary, is that we have clearly observed a major increase in the need for skilled workers to basically staff our ever-increasingly complex technological capital stock.

On the other hand, we have seen a relative decrease in those who are required to do less skilled work. Our educational system, however, has, as best we can judge, been falling short in pushing our students, from fourth grade to high school and from high school into the universities relative to the rest of the world. As a consequence, we are left with a shortage of skilled workers who go through this whole educational process, and with a lot of more lesser-skilled people than are needed to staff our capital structure. The result is that wages are rising rapidly among the skilled and at a very subdued level for the lesser skilled, creating a very marked change in the distribution of income. And it is showing up in the capital as well.

Representative Saxton. Thank you very much, Mr. Hinchey.

Representative Hinchey. Wish we had more opportunity to follow up, Mr. Chairman.

Chairman Greenspan. I agree with you. I think this is a very important question for the United States.

Representative Saxton. Thank you, Mr. Chairman, and Mr. Hinchey.

We are going to go to the gentleman from northwestern Pennsylvania, a Member of the Ways and Means Committee, Mr. English.

Representative English. Thank you, Mr. Chairman.

Chairman Greenspan, let me first say I would also like to thank you for your long years of testimony before this and other committees up here on the Hill and your willingness to speak truth to power and present some powerful economic realities to us whether they are politically comfortable at the moment or not.

I am particularly grateful in this testimony that you have focused on the nuances of the problems that you see in our fiscal policy, and particularly the fact that we have an ongoing challenge in dealing with the deficit. I was particularly grateful for how your testimony also focused on the fact that prior to Katrina, we had, in effect, seen a lowering of the deficit by a little under \$100 billion for the previous year, the result at least in large part of economic growth interacting with the Tax Code to produce additional revenues. To me, that points the way for at least partially digging out from under this problem even though we now have huge additional obligations, as some of the other Members have noted.

To me, through all of this you have made the case for strong policies to continue to encourage economic growth, and I am concerned that we have, in effect, in the Tax Code scheduled under current law a tax increase in a couple of the provisions that directly impact on our growth rate, and here I am noting for the record that in 2008 under current law, the capital gains tax rate will go back up, and the reforms in dividends will be phased out. And I wonder if you would comment on whether you think that that is sound policy, or whether Congress should move now while we have the opportunity to make the current rates permanent before the market begins to anticipate that we might allow those tax increases to go into law. Do you share my concern, Mr. Chairman?

Chairman Greenspan. I think there are two issues here, Congressman, and I thank you, incidentally, for your kind remarks. The first is, I have testified previously that the partial elimination of the double taxation of dividends has been a major contribution to the structure of our tax system, and I should very much like to see it continued.

Secondly, however, I would like to see it continued in the context of PAYGO, in the sense that we should not be cutting taxes by borrowing, we should be cutting taxes by reducing the level of spending, and that is an issue which I think is critical.

We do not have the capability of having both productive tax cuts and large expenditure increases and presume that the deficit doesn't matter, because it will create very serious backlashes in the system. So I would like to see the extension of that provision in the tax law, but I would insist that it be done in the context of a PAYGO, which is not currently on the books. As I indicated in my testimony, one of the very first things that we ought to recognize is that if we are going to come to grips with the long, very difficult budget problems that exist as the baby boomers start to retire, we have to put in place a structure which will enable the Congress to make rational choices. I don't believe this is realistically possible

unless something like the Budget Enforcement Act of 1990 is on the books, and if that is the case, then I would say let's confront the question of the tradeoffs, of what the advantages are of keeping or even increasing the reduction of the double taxation on dividends with the context of what other priorities there are.

There are no easy choices. The easy choices are long gone. These choices are between things which a majority of the Congress has previously said are good and another one which the majority of Congress has said are good, but both can't exist at the same time.

Representative English. Thank you, Mr. Chairman, and thank you, Mr. Chairman.

Representative Saxton. Thank you, Mr. English.

Ms. Sanchez.

Representative Sanchez. Thank you, Mr. Chairman, and thank you, Chairman Greenspan, for your service to our country. I think most of my colleagues have already spoken about your service, and I would associate myself with their words.

I have a couple of questions. One has to do with the capital markets and our budget situation here in Washington, D.C., and the other has to do with something in your testimony on page 5 with respect to the result of 100 million educated workers from the former Soviet bloc entering into the world's trading system, China's 750 million people workforce, and India are also engaging in it.

Let me go first with this one, because basically what you have said in here is the economy, the world's economy, has been able to absorb much of this workforce. You have also said in there, or you alluded to the fact, that they are educated workers, and my biggest fear for this country's future, competitively speaking, is that we are doing such a poor job in education. When I go to the universities, the teachers in the graduate departments of science and math tend to be foreigners; and probably three-quarters of the classes are.

So I guess my question to you is with this disparity that we continue to see growing between no growth or actually a decrease in the real income of unskilled workers in the United States versus the high-skilled workers, what do you think we do as a Nation to address that?

Chairman Greenspan. Let me address the issue, because I think this is a critical question that we will be confronted with as the years go on. The global world is changing in a way which is that an ever-higher proportion of value added in the world, goods and services produced—meaning value which the world consumers view as value—is becoming increasingly conceptual and less physical, more services and less physical goods.

We have recently done an analysis of 136 countries in the world which indicates that there is a very high correlation between the proportion of services to GDP and the relative real per capita income in that country, reflecting that those countries with an above-average amount of services relative to goods being produced tend to have the higher standard of living.

What we in the United States are going through is a very difficult transition. Our standard of living continues to increase, our per capita real GDP continues to be increasing amongst the major countries; we are obviously well ahead even considering the problem I was discussing with Congressman Hinchey previously. On

the average we are well ahead, which essentially says that we are going through a period which is extremely stressful for those people who are producing goods. Indeed we have had an extraordinary decline—not in industrial production, which has held up—but in employment involved in industrial production. The job loss has been horrendous, and in certain areas of the country it has really been a very serious and stressful problem.

It does say to us, however, that our standard of living is dependent on our ability to create services, conceptual services, ever more as an increasing ratio to goods, and this is where our educational system is going to be critical. While we will find that both China and India have a huge number of educated people, they still are missing one thing which we have, which in addition to our fairly wide but, as I said previously, less than numerous skilled workers, we have a really very imaginative workforce and a very productive workforce.

We also have what the others don't have, namely the Constitution of the United States. What that has done, in my judgment, is to create a rule of law which enables individuals both in this country and those investing from abroad—in other words, those who invest in the United States—to know and trust the course of this country to protect their rights. That is true both of citizens of the United States and foreigners, and I believe that has been a very major factor in why we do as well as we do, and indeed a lot of the so-called development research which endeavors to determine why certain economies prosper and others don't would subscribe to that.

But unless we get our educational system in check, even our Constitution is not likely to protect us over the very long run. But we do have an awful lot going for us, and if we can resolve our educational problems, we will maintain the very extraordinary position the United States holds in the world at large.

Representative Sanchez. I see my time has expired, Mr. Chairman.

Representative Saxton. Thank you very much, Ms. Sanchez.

Mr. Brady.

Representative Brady. Thank you, Mr. Chairman, for this hearing and, Mr. Chairman, like others, I want to thank you for your service. It has been famously said you make a living by what you get; you make a life by what you give. You have given back so much through your guidance of our economy and the Fed to the prosperity of this Nation. I just want to join others in thanking you for your leadership.

I want to ask two questions, one related to foreign holdings of U.S. debt and the other to the account deficit the United States is running. In your view, what do you see as the real world risk to the large amount of foreign holdings of our U.S. debt? In the account deficit, while we mostly look at that as a function of what we purchase and what we export, there is a savings component in that trade deficit that I think is often ignored. Can you give your views to us on what impact we can have, what role that plays long term for us?

Chairman Greenspan. I think it is part of the globalization process which has been accelerating over recent years, especially

since 1995. In other words, the last decade has been a remarkable period of expanding trade, movement of capital, and all the various measures which we use to say that globalization has increased. You can compare, for example, the U.S. economy 150 years ago—where we had a lot of interstate movement of goods and services and trade deficits between the States, but very little outside of our borders—as we expanded into a national market, all of that activity that is going on between peoples in different geographical areas—which creates deficits and creates debts and all the variety of other elements—spills over our sovereign borders, and now we look at it in somewhat a different way, but it really is not.

I grant you that there is exchange-rate risk and legal risk with respect to whose jurisdiction you are in, but a lot of what we are observing is economic process, which is adjusted. The markets are gradually adjusting.

The big puzzle to everybody is how is it possible for the United States to have a current account deficit of more than 6 percent of the GDP. It is one of the major puzzles, and the reason why I believe it exists is that it is a market phenomenon which is reflecting globalization. It can't go on indefinitely, as I indicated previously, but a lot of these variables—that is, the big increase in debt holdings or U.S. Treasury holdings by foreign central banks or the even larger holdings of American debt by foreign citizens—all of this is a buildup which is characteristic of the global markets.

At some point globalization will slow down, but we are in a period where it has been undergoing extraordinary expansion and has had effects we have yet to fully understand. Indeed, one of the problems that we have run into, which was a great surprise to us, is how apparently globalization forces have affected the long-term interest rates when we started tightening our monetary policy in June 2004. Long-term interest rates did not rise because of these extraordinary forces, which we are just now beginning to understand.

So, yes, we ought to be looking at these various different increases. A very significant part of our Federal debt is held outside of this country. It is close to half, depending on what the denominator is. But that is part and parcel of the globalization process, and I think the presumption that when it stops, the whole world is going to collapse is not correct, unless we fall back on a degree of protectionism which has not existed in the world in the post-World War II period.

Representative Brady. Thank you.

Would your advice to Congress be to not overreact to those elements until we see further how it is working out? And what the impact is in this?

Chairman Greenspan. Yes. Most certainly, Congressman, and indeed I have argued in other recent testimony that the best way we can address this type of problem is to make certain that our economy overall is sufficiently flexible so that adverse events—the unforecastable events that occur as a part of this globalization—will not have a significant negative impact on production or employment in this country. As far as policy is concerned, that is a policy issue, and I think we ought to move as best we can to create as much flexibility as we can in our system.

Representative Brady. Thank you, Mr. Chairman.

Representative Saxton. Mr. Chairman, let me just ask a quick question here. We have talked about various stimuli that have occurred in recent years, and one of the by-products of the easing of monetary policy which began in 2001 was to give homeowners whose properties had increased in value the opportunity to refinance at lower rates of interest. And as people did that, we found them not only refinancing to the balance of their higher rate mortgage, but also taking out more of their equity, which supported consumer spending.

I am just curious to know whether the Fed anticipated that this would happen and your thoughts on—just generally on this matter.

Chairman Greenspan. Well, in the early stages we didn't, largely because the proportion of cash-outs that were associated with refinancing were relatively small. But as refinancing became ever easier, as the costs of refinancing declined, and as the home equity loans became a major instrument for household debt accumulation—or, more exactly, an ability to extract equity from homes, plus the automatic extraction of equity that occurs when homes are sold and the realized capital gains for all practical purposes come out as cash—these have turned out to be extraordinarily large amounts relative to disposable income. Ten years ago we would not have been able to forecast them because we would not have been able to foresee the extraordinary changes that would emerge in the mortgage markets, in the secondary mortgage market, in the whole structure of asset-based securities generally, and the willingness on the part of households and their ability to extract very substantial amounts of equity as the capital gains built up.

We have been observing that phenomenon very closely. Indeed, my colleagues at the Fed and I have put together a fairly detailed series trying to trace the issue of cash-outs and the effects of equity extraction from home turnover and home equity loans, and trying to determine to what extent that has been a factor in the decline in the savings rate in this country. We are still examining it. There are conflicts in the data, and it is very clear a good part of the decline in the savings rate is directly attributable to the extraction of equity.

Representative Saxton. Mr. Chairman, one of my great staffers and I have had ongoing conversations about the so-called flattening of the yield curve, which essentially means that short-term rates have gone up, while long-term rates have stabilized, creating a very small gap between short-term and long-term rates. What, in your opinion, is the effect of this on the economy in the future?

Chairman Greenspan. Mr. Chairman, that used to be one of the most accurate measures we had to indicate when a recession was about to occur and when a recovery was about to occur. It has lost its capability of doing so in recent years. The markets have become far more complex, and the simple relationships that that yield curve slope indicated no longer work. For example, remember we used to have Reg Q a number of years ago, which essentially limited the extent to which you could increase interest rates, short-term deposit rates, and that created all sorts of imbalances in the system and was an indicator which induced the change in the

structure of the yield curves, which did anticipate fairly accurately what was going to happen to financial markets and to the economy.

The effectiveness of that relationship to where the economy is going has virtually disappeared, and while it has significant financial impacts, it's no longer useful as a leading indicator to the extent that it was.

Representative Saxton. I thank you for that.

I just want to refer to the chart that we put up. The red line, of course, refers to short-term rates, which have gone up 12 times. The darker gray line indicates the level of long-term rates. My question is: If banks are forced to pay interest at relatively high rates on short-term loans, what is the encouragement to loan with long-term rates when there is such a small difference in the spread?

[The chart entitled "Yield Spread" appears in the Submissions for the Record on page 42.]

Chairman Greenspan. Well, what is happening is that, for example, in the mortgage market where we used to find that rates were low, say, back closer to June 2004, adjustable-rate mortgages became an extraordinarily important instrument. They are obviously undergoing significant contraction now, as rates go up, even though a very substantial number of those loans are so-called hybrids, they are half short-term, half long-term mortgages. But consumers are changing their behavior, and we would have clearly expected that to happen, and we don't think that's bad. We think that is good.

Representative Saxton. Thank you.

Mrs. Maloney.

Representative Maloney. Thank you, Mr. Greenspan.

When you say that inflation causes recession, are you saying that the private economy on its own collapses, or are you saying that inflation leads to a monetary policy response of higher interest rates that slows the economic activity?

Chairman Greenspan. I think the problem is that it is the inflation process itself that creates the difficulty, and to the extent that monetary policy is inappropriate, the central bank can contribute to that, or it can actually reduce the probability. But there are broader inflationary processes in the private economy as well, so it is a combination of a number of forces.

Representative Maloney. What caused the 1981 recession?

Chairman Greenspan. Essentially a recognition on the part of government generally that the acceleration of inflation that was building for the latter part of the 1970s was creating such huge distortions that unless and until we confronted it, this country could get into very serious trouble. As a consequence, my predecessor in October 1979 withdrew a huge amount of liquidity from the system in order to bring down the inflation rate. That process, while it ultimately was clearly successful and importantly successful to the economy longer term, had short-term consequences, which was a very severe recession.

I would in a sense debit the recession to the earlier policies that created the inflationary pressures which necessitated the reaction that we had rather than to the Federal Reserve's action in 1979. We had no choice, and indeed had that action not been done, had

that action not been implemented, I fear for the stability of our system, therefore, going forward.

Representative Maloney. You have spoken very eloquently today about the growing—and expressed concern about the growing gap between the haves and the have-nots, the inequality that is growing in our country, which is a very bad trend, and the solutions that you have talked about are all long term.

I want to pick up on one of the points that you made about the effects of integrating China and India into the world economy, and you described that as helping to keep labor costs contained and helpful in restraining inflation, but doesn't it also contribute to inequality by putting a downward pressure on the wages of U.S. workers and the competition that they feel internationally?

Chairman Greenspan. It hasn't put downward pressure overall. What it has done is tended to put downward pressure mainly in the goods area of the American economy, because that is where their capabilities at this particular stage of the development are most evident, and the impact has been fairly pronounced in a number of areas of this country, especially in the manufacturing area.

Representative Maloney. I would like to bring up a point that Dr. Alan Blinder brought up at a Democratic forum we had on the economy, and he argued that continuing advances in telecommunications technology are going to make global outsourcing of jobs a much larger problem in the future. He says we have a challenge now, but in the future it is going to be absolutely huge, and that in the coming years the highly-skilled educated workers could be just as vulnerable as the less-skilled workers. And doesn't that imply that education and training are at the least a very incomplete answer to the challenge that we confront with the outsourcing of jobs and the growing middle-class job insecurity that I hear every day in my office?

Chairman Greenspan. As globalization proceeds and very clearly creates an average higher level of standard of living in this country, it also, because it rests upon what we call creative destruction, induces a greater degree of insecurity in the system. This is manifested by the fact that today half a million people lose their jobs every week, and another half a million quit, and we hire a million people, plus or minus, every week. The churning is extraordinary. It basically means that the old view of job security which we tended to have, or the way we viewed what it was in earlier generations, is disappearing.

We are now finding that education is not wholly constrained to our earlier years; it is basically becoming a lifelong proposition. Community colleges, for example, are becoming a major part of our education system, and the average age of the people in community colleges is quite high. So people are recognizing that they are going to have more than one job—indeed, they may have more than one profession—in their lifetime.

This is the choice that we must make. In other words, if we want the benefits of the huge amount of interaction, division of labor and specialization that is implicit in an ever-growing world economy, that implies a huge amount of both insourcing and outsourcing of all goods. We at the moment, of course, are the recipient of more insourcing than we send out. We have a net surplus of services.

I don't know whether that will continue to exist or not, but I do agree that the amount of exchange of services across national borders is almost surely going to increase, and as a consequence, standards of living will increase. But in the process there are winners and losers, and if you have creative destruction—which essentially means you move the obsolescent capital, less productive capital, to cutting-edge technologies—it necessarily means that the workforce which is involved in the growingly obsolescent technology has to move to another part of the economy.

That is happening. It is happening in the vast, vast majority of cases. But there is a small and very pronounced segment of the world economy which is creating problems which are difficult to reverse.

Representative Maloney. My time is up. Thank you very much.

Representative Saxton. Mr. Paul.

Representative Paul. Thank you, Mr. Chairman.

You mentioned earlier that we have been debating the monetary issue for a long time, and I guess that will go on. I am quite confident that what I say here or whatever we say together probably won't determine whether paper wins over gold or vice versa, because I think the market will determine that.

I think the only thing that I have on my side is history, because paper currencies don't have a very good history. They usually end up in the waste can, and gold survives the many thousands of years it has been used. So time will tell.

But a question I have relating to gold is currently, especially since the early 1980s, 25 years, the last time there was ever any serious talk about gold, today it is inappropriate to talk about it, but since that time, of course, the dollar has lost a lot of value. But during that time essentially paper has won out, intellectually speaking. Nobody speaks of gold, but the question I have is why does our Government—why does policy still mean that we should hold the gold?

And I don't have any problems with this. I would think that if we trust paper, we ought to just get rid of the gold and spend the money. We are in big deficits; we could get a lot of money for it. So if gold is so out of place, and we will never have to use it again, why couldn't we make the case for just getting rid of it, as well as the IMF?

Representative Saxton. Mr. Chairman, before you answer, if I may just ask my colleagues, Mr. Hinchey and, I think, Ms. Sanchez also have a question. We are in the beginning of a series of votes, so if we could get through this question rather expeditiously and go to Mr. Hinchey and then Ms. Sanchez, and then we will vote, and we won't have to ask you to wait for us to come back from this series.

Go ahead and respond to this question, if you would.

Chairman Greenspan. The question is what do we do with the gold supply?

Representative Paul. If we don't believe in gold, why don't we just get rid of it?

Chairman Greenspan. It is a very interesting question and a question debated at length on rare occasions within government.

The bottom line is that in periods of extreme chaos, it has turned out that gold has been the ultimate means by which transactions have been consummated. It occurred, for example, during World War II when you could only negotiate transactions with gold.

I must say, however, there was a vigorous debate in the Ford administration as to whether it made any sense to hold gold stock at all, and the debate ended up with leaving it as it is. I would suspect the same psychology exists around the world, and that is the reason why the IMF basically holds the gold that it does and is also the reason that other central banks are holding the gold that they do. You might be aware, for example, that the Europeans have sold off significant amounts of their gold, but they still hold quite a good deal.

Representative Paul. Thank you.

Representative Saxton. Thank you, Mr. Paul.

Mr. Hinchey.

Representative Hinchey. Thank you, Mr. Chairman.

Mr. Chairman, in response to one of the questions that I was asking earlier with regard to this growing inequality in income, you were drawing attention to the inequality between supervisory personnel and nonsupervisory personnel. I understand that, and that is fine, but that isn't the real issue. The real issue is the huge growing inequality between people at the top of the income ladder and those down at the middle.

As I pointed out, even a very conservative scholar at the very conservative American Enterprise Institute pointed out the benefits of the tax cuts are going to capital and not to workers. That is a problem that we face.

Now, you, of course, looking at these growing surpluses back in the beginning of this decade, were very supportive of the ideological tax cuts that came out of this Administration which were designed to benefit people at the upper income of the ladder.

Now, at the same time, this country for several decades now has been facing some very serious infrastructure deterioration, everything from energy to transportation, to environmental protection, health care, general quality of life. All of that has been declining for decades in the public sector. Wouldn't it have been wiser to take some of that money in those surpluses, rather than just give almost all of it to the wealthiest people in the country, to use some of it to build up the basic infrastructure of the country rather than continuing to witness this serious deterioration?

The final aspect of my question is we have another tax cut coming up next year, 2006. That tax cut comes about at a time when the median income is just over \$44,000, meaning half of the people in the country make less than that. This tax cut is going to benefit people making over \$182,000 and couples making more than \$326,000. Aren't we on the wrong track here, Mr. Chairman?

Chairman Greenspan. Congressman, I think that a large number of economists, perhaps most, view the issue of tax policy in two ways: one, how does it impact on the growth of the economy and the increase in the tax base that is associated with the growth. My argument in favor of a number of the tax cuts which have been offered in recent years, especially the one which I thought was the most structurally desirable—namely the elimination of the double

taxation of dividends for lots of reasons—is essentially because I believed they would enhance economic growth. Similarly, I was a strong supporter of the 1986 Tax Reform Act, which, as you know, eliminated many of the loopholes, expanded the tax base and improved the system materially.

As I said there are two schools with respect to taxation. One is what does it do to the economy and to the tax base; and two, what does it do to the distribution of income. In considering the issue you have to look at both, and I think that there is a tendency for one side of this aisle to look one way, the other side to look at the other. Perhaps we ought to be aware that there is double-entry bookkeeping involved here, as in many other things.

Representative Saxton. Thank you, Mr. Chairman.

Representative Hinchey. That is not an answer, Mr. Chairman, but I thank you very much for it, and I wish you the very best in the future.

Chairman Greenspan. Thank you very much, Congressman.

Representative Sanchez. Thank you, Mr. Chairman.

Mr. Chairman, before I came to the Congress, I was involved in the capital markets, and so I have a question for you, just an overall question that has been bothering me for a while. And I asked my friends on Wall Street, and most of the time they just shrug their shoulders and don't have a good answer for this. Maybe I thought as a parting—since this will be the last time you are before our Committee, maybe you could give me some advice on this.

I am worried that we have an \$8 trillion debt, and from my calculation, even though you brought up today that you thought the unified budget was at a deficit of \$319 billion right now, I sometimes, when I look at it, truly look at it, I look at us spending between \$400 and \$800 billion more every year, at least in the last 5 years of this Congress, because I think—and I believe there is a lot of things that don't get taken into account; supplementals that we do here, supplemental appropriation bills, the two Louisiana Senators asking for \$250 billion just for Louisiana; a Medicare Part D package that was supposed to be \$400 billion spending over 10 years, now it is calculated at at least \$1.3 trillion, probably will get to \$2 trillion by the time we finish with that. We spend \$1.55 billion a week in Iraq, with no end in sight in that place, and that doesn't include the reinvestment we are going to need to do in our vehicles and everything that is wasting away in that desert right now. I have in Congress a lot of colleagues who want to increase our Army by 100,000 new troops and don't really know what the cost is to that or the capacity that we currently have and how that is going to affect our troops. So we have all these big spending plans out there.

My question is why haven't the capital markets told Congress and Washington, D.C., to get their act together? Why are they ignoring what is happening here?

Chairman Greenspan. That is an excellent question, Congresswoman, and let me explain to you what I think the answer is, but I don't know for certain. As part of this globalization trend, not only have we had the major disinflationary forces that are occurring because of the educated workers of the former Soviet Union, China and India coming in, but we also have had the issue of, as

I think I testified before the House Banking Committee, an excess of saving over investment and a general set of forces suppressing long-term interest rates.

So the question really is why is it that with what has to be rising expectations of very heavy borrowing as we move out, say, into the early part of the next decade, why isn't that beginning to reflect itself in, say, 10-year notes, because it has to be out there for 10 years.

I think the answer—I don't really fully feel comfortable with it, it is one of the issues that I think is on the table and has to be understood—is that the disinflationary pressures, the excess savings pressures, have more than offset the expectational concerns that rising supplies of U.S. Treasury debt have out there. I think that is going to change. I think, as I tried to indicate in my prepared remarks, that is a gradually changing process, but I find it utterly inconceivable, frankly, that we can have the type of potential fiscal outlook which now confronts us over the next 15, 20 years without having a significant impact on long-term interest rates.

So I guess the answer to your question is there are other forces involved offsetting it, or, to put it another way, that the impact has been delayed.

Representative Saxton. Mr. Chairman, just let me add to the chorus of appreciation for the many appearances that you have made here before the Joint Economic Committee over the years. We have benefited greatly from your wisdom, and we thank you. And in conclusion I would just like to offer my wishes for the best of everything in the future. Thanks for being with us.

Chairman Greenspan. Thank you very much, Mr. Chairman, and I thank the Committee. I have always enjoyed being here, and I must say I get questions at this Committee which I don't hear elsewhere, and they are most interesting. Thank you.

Representative Saxton. Thank you, sir.

[Whereupon, at 11:48 a.m., the Committee was adjourned.]

Submissions for the Record

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

I am pleased to welcome Chairman Greenspan before the Committee once again to testify on the economic outlook. We appreciate the many times you have testified before this Committee, and recognize your outstanding stewardship of monetary policy during your tenure as Fed chairman.

You have guided monetary policy through stock market crashes, wars, terrorist attacks and natural disasters with a steady hand. Under your tenure price stability has been the norm, with inflation low and stable. You have made a great contribution to the prosperity of the U.S., and the Nation is in your debt.

A broad array of standard economic data reflects the health of the U.S. economy. Figures released last week indicate that the economy grew at a 3.8 percent rate last quarter, despite the massive regional destruction wrought by the hurricanes. So far during 2005, the economy has expanded at a 3.6 percent rate, roughly in line with Federal Reserve expectations as well as the Blue Chip Consensus.

Equipment and software investment, which has bolstered the economy since 2003, continues at a healthy pace. This component of investment responded especially sharply to the incentives contained in the 2003 tax legislation. Employment has also gained over this period, with 4.2 million jobs added to business payrolls since May of 2003. The unemployment rate is 5.1 percent.

Consumer spending continues to grow. Homeownership has reached record highs. Household net worth is also at a record level. Productivity growth continues at a healthy pace.

Although higher energy prices have raised business costs and imposed hardship on many consumers, these prices have not derailed the expansion.

As the Fed recently suggested, long-term inflation pressures are contained. As a result, long-term interest rates, such as mortgage rates, are still relatively low. By its actions the Fed has made clear its determination to keep inflation in check.

In summary, the economy has displayed impressive flexibility and resilience in absorbing many shocks. Monetary policy and tax incentives for investment have made important contributions in accelerating the expansion in recent years. The most recent release of Fed minutes indicates that the central bank expects this economic growth to continue through 2006. The Blue Chip Consensus of private economic forecasters also suggests that the economy will grow in excess of 3 percent next year.

Current economic conditions are positive, and the outlook for 2006 is favorable.

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Congress of the United States

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November 14, 2005

The Honorable Alan Greenspan
 Chairman
 Board of Governors of the Federal Reserve System
 20th Street and Constitution Avenue, NW
 Washington, DC 20551

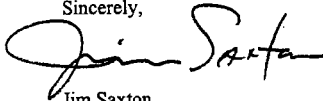
Dear Chairman Greenspan:

Chairman Greenspan, on behalf of the Members of the Joint Economic Committee, I would once again like to express our appreciation and gratitude for so many years of outstanding and productive service to our country. Many millions of Americans have greatly benefited from the positive economic consequences your legacy of price stability has established. You have our best wishes for great happiness in your future retirement from the Federal Reserve.

Most recently, we appreciate your testimony earlier this month before the JEC, and have attached several additional questions for the record. A copy of the November 3, 2005, transcript also is attached. Please have a member of your staff return your corrected transcript, together with your answers to the submitted questions, to my Executive Director, Christopher Frenze, Joint Economic Committee, 433 Cannon House Office Building, Washington, DC 20510. Should your staff have any questions, please call Chris on (202) 225-3923.

Thank you and I look forward to your response.

Sincerely,



Jim Saxton
 Chairman
 Joint Economic Committee

**Questions Submitted for the Record by Joint Economic Committee
Chairman Saxton for Chairman Greenspan**

- Since the “neutral” rate is not observable, how do you know when you’ve reached the “neutral” rate? What variables do you monitor to make judgments as to how close to neutral the fed funds rate is? As the fed funds rate is ratcheted up, and given the lags that exist, does the possibility of raising it above a neutral level increase?
- Over the last year and a half, the Federal Reserve has raised the Federal Funds rate by 3.0 percentage points and indicated that further increases are likely in order to check inflation. Yet long-term interest rates, including mortgages, are lower now than when the FOMC began tightening. In past comments you have termed this situation a “conundrum” without recent precedent. What explains the low level of long-term rates?
- I was intrigued by your response to my question relating to the yield curve and associated yield spread between the fed funds rate and the 10-year bond yield. In particular, your response to the spread question was as follows:

“...that used to be one of the ...most accurate measures we used to have to indicate when a recession was about to occur and when a recovery was about to occur. It has lost its capability of doing so in recent years...it has significant financial impacts, it’s no longer useful as a leading indicator to the extent that it was.”

In pondering this comment, **three considerations appear to be especially relevant**: (1) **First**, the importance of a yield spread for monetary policy has been long recognized by classical economists. Both Henry Thornton and Knut Wicksell recognized that when the central-bank- controlled short-rate moves **relative to a long-term market rate**, relative prices, incentives, and behaviors change. (2) **Second**, the recent (2005) extensive review and summary of the literature pertaining to research on the yield spread (published by the Federal Reserve Bank of New York) concludes that the weight of the evidence supports the potency of the yield spread. (See Estrella; October 2005) (3) **Third**, the Conference Board includes a yield spread variable in its index of leading economic indicators. The Conference Board conducts an ongoing evaluation of

these indicators and an especially thorough, major reevaluation of the composite was made last July. The bottom line is that the yield spread remains a key component of this composite.

- In light of these considerations, what available evidence or other factors support the view that the yield spread is no longer especially useful? Has the Board staff assessed this relationship recently?
- One of the strategies or institutional changes that you have supported in recent years relates to the increased transparency of the Federal Reserve. This increased Federal Reserve transparency has, for the most part, been associated with more benefits than costs. Doesn't this increased transparency work to the benefit of both the Federal Reserve and the public?



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

November 28, 2005

The Honorable Jim Saxton
Chairman
Joint Economic Committee
Washington, D.C. 20510

Dear Mr. Chairman:

I am pleased to enclose my responses to the additional questions you forwarded in connection with the November 3 hearing.

I also wanted to thank you, and the other members of the committee, for your kind and generous comments at the hearing and in your letter. It has been a pleasure appearing before the Joint Economic Committee over the years.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Greenspan", with a long horizontal line extending to the right.

Enclosure

Chairman Greenspan subsequently submitted the following to written questions received from Chairman Saxton in connection with the Joint Economic Committee hearing on November 3, 2005:

Q.1. Since the “neutral” rate is not observable, how do you know when you’ve reached the “neutral” rate? What variables do you monitor to make judgments as to how close to neutral the fed funds rate is? As the fed funds rate is ratcheted up, and given the lags that exist, does the possibility of raising it above a neutral-level increase?

A. 1. Although the concept of a “neutral interest rate” is a useful theoretical construct, difficulties in implementing it in practice limit its usefulness as a framework for monetary policymaking. For one thing, a variety of definitions of a neutral real interest rate are possible. For another, quantitative estimates of the level of such a rate are subject to considerable uncertainty. Also, such estimates can vary widely depending on the type of measure and the prevailing and projected economic conditions. In particular, all variables that contribute to making a macroeconomic forecast are relevant for estimates of neutral interest rates, greatly complicating such assessments. Thus, it is impossible to know with any certainty when the neutral rate has been reached. Moreover, the use of neutral real rates in the formulation of monetary policy is not necessarily straightforward. For instance, in some circumstances, attaining a “neutral” federal funds rate would in principle be an appropriate objective for monetary policy, but in others--particularly when inflation is too high or too low--aiming for a neutral funds rate in the near term would not be appropriate. These uncertainties and complications suggest that reliance on a single summary measure such as a neutral real interest rate would be unwise as a strategy for formulating monetary policy. Rather, a full consideration of current and prospective economic developments, and of the risks to the outlook, is essential for the conduct of monetary policy.

Q.2. Over the last year and a half, the Federal Reserve has raised the federal funds rate by 3.0 percentage points and indicated that further increases are likely in order to check inflation. Yet long-term interest rates, including mortgages, are lower now than when the FOMC began tightening. In past comments, you have termed this situation a “conundrum” without recent precedent. What explains the low level of long-term interest rates?

A.2. As I noted in my monetary policy testimony before the Congress in July, two distinct but overlapping developments appear to be at work in explaining the low level of long-term interest rates: a longer-term trend decline in bond yields and an acceleration of that trend over the period since mid-2004. Both developments are particularly evident in the nominal interest rate applying to the one-year period ending ten years from today that can be inferred from the U.S. Treasury yield curve. In 1994, that so-called forward rate

exceeded 8 percent. By mid-2004, it had declined to about 6-1/2 percent--an easing of about 15 basis points per year on average. Over the past year, that drop steepened, and the forward rate fell 130 basis points to less than 5 percent.

Some, but not all, of the decade-long trend decline in that forward yield can be ascribed to expectations of lower inflation, a reduced risk premium resulting from less inflation volatility, and a smaller real term premium that seems due to a moderation of the business cycle over the past few decades. As I noted in my testimony before the Joint Economic Committee in February, the effective productive capacity of the global economy has substantially increased, in part because of the breakup of the Soviet Union and the integration of China and India into the global marketplace. And this increase in capacity, in turn, has doubtless contributed to expectations of lower inflation and lower inflation-risk premiums.

In addition to these factors, the trend reduction worldwide in long-term yields surely reflects an excess of intended saving over intended investment. This configuration is equivalent to an excess of the supply of funds relative to the demand for investment. Because intended capital investment is to some extent driven by forces independent of those governing intended saving, the gap between intended saving and investment can be quite wide and variable. It is real interest rates that bring actual capital investment worldwide and its means of financing, global saving, into equality. We can directly observe only the actual flows, not the saving and investment tendencies. As best we can judge, *both* high levels of intended saving and low levels of intended investment have combined to lower real long-term interest rates over the past decade.

Q.3. I was intrigued by your response to my question relating to the yield curve and associated yield spread between the fed funds rate and the 10-year bond yield. In particular, your response to the spread question was as follows:

“...that used to be one of the...most accurate measures we used to have to indicate when a recession was about to occur and when a recovery was about to occur. It has lost its capability of doing so in recent years...it has significant financial impacts, it's no longer useful as a leading indicator to the extent that it was.”

In pondering this comment, three considerations appear to be especially relevant: (1) First, the importance of a yield spread for monetary policy has been long recognized by classical economists. Both Henry Thornton and Knut Wicksell recognized that when the central-bank-controlled short-rate moves relative to a long-term market rate, relative prices, incentives, and behaviors change. (2) Second, the recent (2005) extensive review and summary of the literature pertaining to research on the yield spread (published by the Federal Reserve Bank of New York) concludes that the weight of the evidence supports the potency of the yield spread. (See Estrella, October 2005). (3) Third, the Conference Board includes a yield curve spread

variable in its index of leading economic indicators. The Conference Board conducts an ongoing evaluation of these indicators and an especially thorough, major reevaluation of the composite was made last July. The bottom line is that the yield spread remains a key component of this composite.

In light of these considerations, what available evidence or other factors support the view that the yield spread is no longer especially useful? Has the Board staff assessed this relationship recently?

A.3. Although the slope of the yield curve remains an important financial indicator, it needs to be interpreted carefully. In particular, a flattening of the yield curve is not a foolproof indicator of future economic weakness. For example, the yield curve narrowed sharply over the period 1992-1994 even as the economy was entering the longest sustained expansion of the postwar period.

Three basic factors affect the slope of the yield curve--the current level of the real federal funds rate relative to the long-run level, the level of near-term inflation expectations relative to expected inflation at longer horizons, and the level of near-term risk premiums relative to risk premiums at longer horizons.

Statistical analysis indicates that the first factor--the gap between the current and long-run levels of the real federal funds rate--is the key component from which the yield curve slope derives much of its predictive power for future GDP growth. When the level of the real federal funds rate is pushed well below its long-run level, economic stimulus is imparted and the yield curve steepens. The economic stimulus influences output growth with a lag; as a result, the steepening of the yield curve in this scenario is a predictor, albeit not the cause of, stronger economic activity ahead. Conversely, when the level of the real federal funds rate is pushed above its long-run level, economic restraint is imparted and the yield curve flattens. Once again, the economic restraint influences output growth with a lag, so the flattening (inversion) of the yield curve in this scenario would signal weaker economic growth ahead, but would not itself be the cause of the weakening.

The connection between future output growth and the other two factors affecting the slope of the yield curve--the gap between near-term and long-term inflation expectations and the difference between near-term and long-term risk premiums--is far less certain and likely to depend on economic circumstances. For example, a rise in near-term inflation expectations above long-term inflation expectations would tend to flatten the yield curve and might also signal a prospective weakening in aggregate demand. This configuration in inflation expectations might reflect adverse supply factors that have pushed up inflation expectations in the near term but that are expected to dissipate over time. In this case, the flattening of the yield curve might well be a signal of an improving inflation picture that could also be accompanied by a favorable outlook for economic growth.

The connection between output growth and risk premiums is also quite uncertain. A fall in distant horizon risk premiums would flatten the yield curve and might signal a weakening in economic activity if, for example, the drop in risk premiums in fixed-income markets was associated with a "flight to safety" on the part of global investors seeking a safe haven from turbulence in equity markets and other risky assets. But it is also possible that a decline in distant horizon risk premiums could be a sign that investors are generally more willing to bear risk. In this case, a flattening of the yield curve stemming from this factor could be an indicator of an easing in financial conditions that would stimulate future economic activity.

In summary, many factors can affect the slope of the yield curve, and these factors do not all have the same implications for future output growth. In judging the indicator value of any particular change in the slope of the yield curve, it is critical to understand the underlying forces that may be affecting the yield curve at that moment. As the 1992-1994 episode attests, simply relying upon an average statistical relationship estimated over a very long sample can be quite misleading.

Q.4. One of the strategies or institutional changes that you have supported in recent years relates to the increased transparency of the Federal Reserve. This increased Federal Reserve transparency has, for the most part, been associated with more benefits than costs. Doesn't this increased transparency work to the benefit of both the Federal Reserve and the public?

A.4. Greater transparency with regard to Federal Reserve actions encourages public discussion and informed scrutiny, important aspects of accountability in a democratic society. Transparency also enables financial markets to better predict monetary policy decisions, which can contribute to improved policy outcomes. However, providing more complete information about policy decisions is not without cost. Transparency requires careful attention by policymakers, and so constrains the time they have for actually making decisions. More importantly, excessive transparency could inhibit policymakers, making them less spontaneous in their remarks and less willing to explore new ideas. Such an outcome would have adverse effects on policy decisions. The Federal Reserve's current practices strike a reasonable balance between transparency and the degree of confidentiality appropriate to support the policy process.

PREPARED STATEMENT OF SENATOR JACK REED, RANKING MINORITY

Thank you, Chairman Saxton. I want to welcome Chairman Greenspan for his last appearance before the Joint Economic Committee as Fed Chairman. As always, I look forward to his perspectives on the economic outlook, but I'm also interested in any reflections he may have on his tenure as Fed chairman.

Some have called Chairman Greenspan the most successful central banker in history. On his watch, inflation was kept under tight control and we enjoyed the longest economic expansion on record from March 1991 to March 2001.

While the Chairman's track record managing monetary policy is very impressive, his role in justifying the 2001 tax cuts is more problematic. I know that Chairman Greenspan will point to his caveats about the need for triggers and other cautions, but in the real world of politics, he was seen as giving the green light to President Bush's tax cuts, and now we are living with the consequences.

President Bush's tax cuts were poorly designed to stimulate broadly shared prosperity and have produced a legacy of large budget deficits that leave us increasingly hampered in our ability to deal with the host of challenges we face. Large and persistent budget deficits are undermining national saving, and they have contributed to an ever-widening trade deficit. Our vast borrowing from abroad puts us at risk of a major financial collapse if foreign lenders suddenly stop accepting our IOUs.

Raising national saving is the key to our economic growth, a good way to reduce our record trade deficit, and, as the Chairman's past testimony reflects, the best way to meet the fiscal challenges posed by the retirement of the baby boom generation. But what has the President offered us? A plan to replace part of Social Security with private accounts that would increase the deficit without raising national saving and a proposal to make his tax cuts permanent that is simply incompatible with reducing the deficit.

Sound policies for the long run are clearly very important, but I am also deeply concerned about what continues to be a disappointing economic recovery for the typical American worker. Strong productivity gains have shown up in the bottom lines of shareholders but not in the paychecks of workers. The typical worker's earnings are not keeping up with their rising living expenses, including soaring energy prices. And both earnings and income inequality are increasing.

Chairman Greenspan has regularly expressed concern about the widening inequality of income and earnings in the American economy, but his solutions are always focused on the long term. While I too acknowledge the importance of education and training, we face an immediate problem.

The flooding of New Orleans forced America to confront the existence of poverty. A new report shows that hunger in America has risen dramatically over the last 5 years, with more than 38 million people living in households that suffer directly from hunger and food insecurity, including nearly 14 million children. The minimum wage has been losing purchasing power steadily, and low- and moderate-income households face crushing energy bills this winter.

Of course, many of these problems in the American economy lie outside the purview of the Federal Reserve, where Chairman Greenspan has carried out his official monetary policy responsibilities well. He has shown flexibility rather than a rigid adherence to any predetermined policy rule in responding to changing economic circumstances, in order to pursue the multiple policy goals of price stability, high employment, and sustainable growth.

I hope the next Fed chairman observes that precedent when he takes up his duties in the face of historically large budget deficits, a record current account deficit, a negative household saving rate, rising inflation, and a labor market recovery that remains tepid in many respects.

Chairman Greenspan will be a hard act to follow. The impending "Greenspan deficit" is but the latest addition to our concerns about the economic outlook. Chairman Greenspan, I want to thank you for your public service and I look forward to your testimony today.

PREPARED STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY

Thank you, Chairman Saxton. Senator Reed will not be able to be here because of votes in the Senate, so I request that his opening statement be entered into the record, and I would like to make a few brief remarks.

I want to welcome Chairman Greenspan for his last appearance before the Joint Economic Committee as Fed Chairman. Over the past 18 years, Chairman Greenspan has achieved a remarkable record of success as the country's central banker. He has steadfastly maintained the Fed's credibility for keeping inflation under control while dealing flexibly with a variety of economic challenges.

The 10-year economic expansion of the 1990s was the longest on record. One contributing factor was Chairman Greenspan's strong sense in the middle of that expansion that there was room for monetary policy to accommodate further reductions in the unemployment rate, even though the conventional wisdom at the time said otherwise. Of course, another contributing factor was the Clinton administration's strong commitment to deficit reduction, which created a fiscal policy environment conducive to strong, sustainable, non-inflationary growth.

Unfortunately, that fiscal discipline is now a distant memory, and Chairman Greenspan's successor will face a host of problems managing monetary policy in the face of historically large budget deficits, a record current account deficit, a negative household saving rate, rising inflation, and a labor market recovery that remains tepid in many respects.

I look forward to Chairman Greenspan's testimony. I hope that, in addition to his views on the economic outlook, he will share with us some reflections on what made his tenure at the Fed so successful and what are the key lessons he would want to pass on to his successor.

PREPARED STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN,
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Mr. Chairman, when I last appeared before the Joint Economic Committee in early June, economic activity appeared to be reaccelerating after a slowdown in the spring. The economy had weathered a further run-up in energy prices over the winter, and aggregate demand was again strengthening. Real gross domestic product (GDP) growth averaged 3½ percent at an annual rate over the first half of the year, and subsequent readings on activity over the summer were positive. By early August, the economy appeared to have considerable momentum, despite a further ratcheting up of crude oil prices; pressures on inflation remained elevated.

As you know, the economy suffered significant shocks in late summer and early autumn. Crude oil prices moved sharply higher in August, bid up by growth in world demand that continued to outpace the growth of supply. Then Hurricane Katrina hit the Gulf Coast at the end of August, causing widespread disruptions to oil and natural gas production and driving the price of West Texas Intermediate crude oil above \$70 per barrel. Because of a lack of ready access to foreign supplies, natural gas prices rose even more sharply. At the end of September, with the recovery from the first storm barely under way, Hurricane Rita hit, causing additional damage and destruction—especially to the energy production and distribution systems in the Gulf. Most recently, Hurricane Wilma caused widespread power outages and property damage across the State of Florida. These events are likely to exert a drag on employment and production in the near term and to add to the upward pressures on the general price level. But the economic fundamentals remain firm, and the U.S. economy appears to retain important forward momentum.

Of course, the higher energy prices caused by the hurricanes are being felt well beyond the Gulf Coast region. Those higher prices resulted from the substantial damage that occurred to our nation's energy production and distribution systems. Of the more than 3,000 oil and gas production platforms in the paths of Katrina and Rita, more than 100 were destroyed, and an additional 50 suffered extensive damage. Of the 134 manned drilling rigs operating in the Gulf, 8 were lost, and an additional 38 were either set adrift by the storms or were badly damaged. At present, both oil and natural gas production in the Gulf are operating at less than 50 percent of pre-Katrina levels. Since the first evacuations of oil and gas facilities were ordered before Katrina, cumulative shortfalls represented almost 4 percent of the nation's annual production of crude oil and 2 percent of our output of natural gas.

The combination of flooding, wind damage, and a lack of electric power also forced many crude oil refineries and natural gas processing plants to shut down. The restoration of production at the affected natural gas processing facilities has proceeded particularly slowly, in part because of the lack of natural gas feedstocks and infrastructure problems. Most refineries, however, will be back on line within the next month or so, though a few may take longer.

In the interim, a greater output of refined petroleum products in other areas of the country and much higher imports, especially of gasoline, are making up for the production shortfalls in Gulf refining. The temporary lifting of some environmental regulations and the suspension of the Jones Act facilitated those adjustments. In addition, refiners have shifted the mix of production toward more gasoline and less heating oil and jet fuel. That shift has had benefits in the short run, though the

longer it continues, the greater the possibility of upward pressure on distillate fuel oil prices during the winter heating season.

Releases from the nation's Strategic Petroleum Reserve relieved much of the upward pressure on crude oil prices, and imports of refined products responded rapidly to ease the price pressures stemming from the loss of refinery production in the Gulf. As a consequence, the nationwide retail price of gasoline for all grades has declined 60 cents per gallon from its peak of \$3.12 per gallon in the week of September 5. Motorists appear to have economized on their driving, and gasoline demand appears to be off a bit. However, it will take time and an appreciable increase in the fuel economy of our stock of motor vehicles to fundamentally change the amount of motor fuel used on our nation's highways.

The far more severe reaction of natural gas prices to the production setbacks that have occurred in the Gulf highlights again the need to expand our nation's ability to import natural gas. In contrast to the fall in crude oil prices and the sharp narrowing of refinery margins during the past 2 months, natural gas prices have remained high. Moreover, judging from elevated distant futures prices, traders expect natural gas prices to edge lower but to stay high for the foreseeable future. This expectation largely reflects a natural gas industry in North America that is already operating at close to capacity and our inability to import large quantities of far cheaper, liquefied natural gas (LNG) from other parts of the world. At present, natural gas supplies appear to be sufficient to meet the near-term demands—even with some ongoing shortfall in Gulf production. However, a colder-than-average winter would stress this market, and prices will likely remain vulnerable to spikes until the spring.

U.S. imports of LNG have been constrained by inadequate global capacity for liquefaction, as well as by environmental and safety concerns that have restricted the construction of new LNG import terminals in the United States. In 2002, such imports accounted for only 1 percent of U.S. gas consumption. Despite the major effort to expand imports, the Department of Energy forecasts LNG imports this year at only 3 percent of gas consumption. Canada, which has recently supplied one-sixth of our consumption, cannot expand its pipeline exports significantly in the near term, in part because of the role that Canadian natural gas plays in supporting increasing oil production from tar sands.

The disruptions to energy production have noticeably affected economic activity. We estimate that the storms held down the increase in industrial production 0.4 percentage point in August and an additional 1.7 percentage point in September.

Except for the hurricane effects, readings on the economy indicate a continued solid expansion of aggregate demand and production. If allowance is taken for the effects of Katrina and Rita and for the now-settled machinist strike at Boeing, industrial production rose at an annual rate of 5¼ percent in the third quarter. That's up from an annual pace of 1¼ percent in the second quarter, when a marked slowing of inventory accumulation was a restraining influence on growth.

The September employment report showed a loss of 35,000 jobs. However, an upward revision to payroll gains over the summer indicated a stronger underlying pace of hiring before the storms than had been previously estimated. The Bureau of Labor Statistics estimates that employment growth in areas not affected by the storms was in line with the average pace over the twelve months ending in August.

Retail spending eased off in September, likely reflecting the effects of the hurricanes and higher gasoline prices. Major chain stores report a gradual recovery over October in the pace of spending, though light motor vehicle sales declined sharply last month, when some major incentives to purchase expired.

The longer-term prospects for the U.S. economy remain favorable. Structural productivity continues to grow at a firm pace, and rebuilding activity following the hurricanes should boost real GDP growth for a while. More uncertainty, however, surrounds the outlook for inflation.

The past decade of low inflation and solid economic growth in the United States and in many other countries around the world has been without precedent in recent decades. Much of that favorable performance is attributable to the remarkable confluence of innovations that spawned new computer, telecommunication, and networking technologies, which, especially in the United States, have elevated the growth of productivity, suppressed unit labor costs, and helped to contain inflationary pressures. The result has been a virtuous cycle of low prices and solid growth.

Contributing to the disinflationary pressures that have been evident in the global economy over the past decade or more has been the integration of in excess of 100 million educated workers from the former Soviet bloc into the world's open trading system. More recently, and of even greater significance, has been the freeing from central planning of large segments of China's 750 million workforce. The gradual

addition of these workers plus workers from India—a country which is also currently undergoing a notable increase in its participation in the world trading system—would approximately double the overall supply of labor once all these workers become fully engaged in competitive world markets. Of course, at current rates of productivity, the half of the world's labor force that has been newly added to the world competitive marketplace is producing no more than one quarter of world output. With increased education and increased absorption of significant cutting-edge technologies, that share will surely rise.

Over the past decade or more, the gradual assimilation of these new entrants into the world's free-market trading system has restrained the rise of unit labor costs in much of the world and hence has helped to contain inflation.

As this process has unfolded, inflation expectations have decreased, and accordingly, the inflation premiums embodied in long-term interest rates around the world have come down. The effective augmentation of world supply and the accompanying disinflationary pressures have made it easier for the Federal Reserve and other central banks to achieve price stability in an environment of generally solid economic growth.

But this seminal shift in the world's workforce is producing, in effect, a level adjustment in unit labor costs. To be sure, economic systems evolve from centrally planned to market-based only gradually and, at times, in fits and starts. Thus, this level adjustment is being spread over an extended period. Nevertheless, the suppression of cost growth and world inflation, at some point, will begin to abate and, with the completion of this level adjustment, gradually end.

These global forces pressing inflation and interest rates lower may well persist for some time. Nonetheless, it is the rate at which countries are integrated into the global economic system, not the extent of their integration, that governs the degree to which the rise in world unit labor costs will continue to be subdued. Where the global economy is currently in this dynamic process remains open to question. But going forward, these trends will need to be monitored carefully by the world's central banks.

I want to conclude with a few remarks about the Federal budget situation, which—at least until Hurricanes Katrina and Rita struck the Gulf Coast—was showing signs of modest improvement. Indeed, tax receipts have exhibited considerable strength of late, posting an increase of nearly 15 percent in fiscal 2005 as a result of sizable gains in individual and, even more, corporate income taxes. Thus, although spending continued to rise rapidly last year, the deficit in the unified budget dropped to \$319 billion, nearly \$100 billion less than the figure for fiscal year 2004 and a much smaller figure than many had anticipated earlier in the year. Lowering the deficit further in the near term, however, will be difficult in light of the need to pay for post-hurricane reconstruction and relief.

But even apart from the hurricanes, our budget position is unlikely to improve substantially further until we restore constraints similar to the Budget Enforcement Act of 1990, which were allowed to lapse in 2002. Even so, the restoration of PAYGO and discretionary caps will not address the far more difficult choices that confront the Congress as the baby-boom generation edges toward retirement. As I have testified on numerous occasions, current entitlement law may have already promised to this next generation of retirees more in real resources than our economy, with its predictably slowing rate of labor force growth, will be able to supply.

So long as health-care costs continue to grow faster than the economy as a whole, as seems likely, Federal spending on health and retirement programs would rise at a rate that risks placing the budget on an unsustainable trajectory. Specifically, large deficits will result in rising interest rates and an ever-growing ratio of debt service to GDP. Unless the situation is reversed, at some point these budget trends will cause serious economic disruptions.

We owe it to those who will retire over the next couple of decades to promise only what the government can deliver. The present policy path makes current promises, at least in real terms, highly conjectural. If fewer resources will be available per retiree than promised under current law, those in their later working years need sufficient time to adjust their work and retirement decisions.

Crafting a budget strategy that meets the nation's longer-run needs will become ever more difficult and costly the more we delay. The one certainty is that the resolution of the nation's demographic challenge will require hard choices and that the future performance of the economy will depend on those choices. No changes will be easy, as they all will involve setting priorities and making tradeoffs among valued alternatives. The Congress must determine how best to address the competing claims on our limited resources. In doing so, you will need to consider not only the distributional effects of policy changes but also the broader economic effects on labor

supply, retirement behavior, and private saving. The benefits of taking sound, timely action could extend many decades into the future.

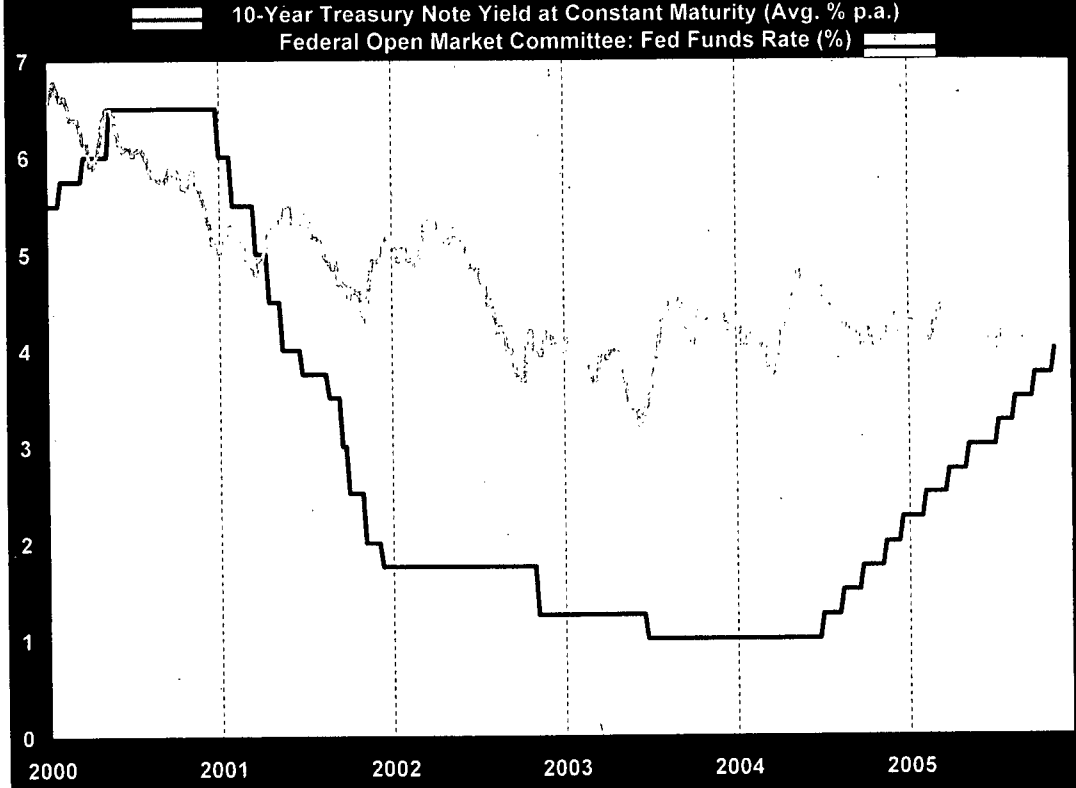
Core PCE Inflation

% Change - Year to Year SA, 2000 = 100



Source: Bureau of Economic Analysis / Haver Analytics
PCE: Personal Consumption Expenditures

Yield Spread



Congress of the United States

JOINT ECONOMIC COMMITTEE
(CREATED PURSUANT TO SEC. 561 OF PUBLIC LAW 304, 78TH CONGRESS)

Washington, DC 20510-6602

November 2, 2005

The Honorable Alan Greenspan
Chairman
Board of Governors of the
Federal Reserve System
20th & Constitution Avenue, NW
Washington, DC 20551

Dear Mr. Chairman:

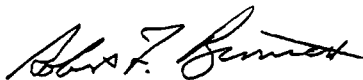
Tomorrow you will be testifying before the Joint Economic Committee on the Economic Outlook. I am looking forward to discussing the current state of the economy and its future outlook with you at tomorrow's hearing.

As you know, one of the major issues facing Congress is how best to facilitate recovery and rebuilding in the areas affected by recent hurricanes, most notably Katrina and Rita. The debate over how to meet the challenge before us has been wide ranging as has been the scope of suggested policy responses. I will be quite interested to hear what views and suggestions you might have for the Congress.

There is one proposal being considered in a number of forums that I am particularly interested in discussing with you. Some have suggested that to aid in the recovery and rebuilding efforts the Congress should authorize the creation and issuance of federally guaranteed municipal securities. I would be most interested in hearing your views on whether such an approach represents a wise course of action and what impacts, direct and indirect, such a policy approach would have on the economy, the federal budget, bond markets in general, and the market for Treasury securities.

Once again, I look forward to your testimony tomorrow and hope you will provide us with some wise counsel on the specific issue of creating federally guaranteed municipal securities.

Sincerely,



Robert F. Bennett
Vice Chairman



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

November 4, 2005

The Honorable Robert F. Bennett
Vice Chairman
Joint Economic Committee
Washington, D.C. 20510

Dear Mr. Vice Chairman:

Thank you for your letter enquiring as to my views regarding whether--as you put it--"the Congress should authorize the creation and issuance of federally guaranteed municipal securities" as a means of aiding the recovery effort in the Gulf-Coast area.

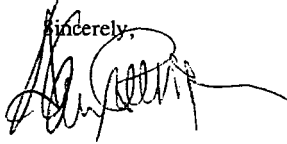
For a variety of reasons, I believe such a step would be quite inadvisable. First and foremost, authorization of federally guaranteed municipal securities would set an unfortunate precedent. To date, the federal government has not been in the business of guaranteeing municipal debt, and I am concerned that if it were to get into that business for the governments directly affected by the recent hurricanes, many other municipal governments would appeal for similar treatment. Moreover, if federally guaranteed municipal securities were issued, financial-market participants might perceive an implicit federal guarantee of the whole of the nearly \$2 trillion outstanding in municipal debt, resulting in an enormous new contingent liability for the federal government.

Second, provision of a federal guarantee would come at a cost. Under current federal credit rules, provision of a guaranteed loan should--appropriately--be scored as entailing a subsidy. (These scoring rules capture the essential idea that issuance of a guarantee increases the exposure of the federal government to risk.) If the scope of the guarantee could be tightly limited, the explicit cost would be small in the context of the overall resources being committed to the Gulf Coast area. However, if--as I fear might be realistic--the guarantee was seen as extending to a much wider base of municipal debt, the implicit cost could be quite significant and would likely not be reflected in budget costs.

At present, municipal governments are able to purchase bond insurance from private insurers; about half of all municipal bonds are insured. If the Congress determined that it wanted to support the affected state and municipal governments in their efforts to borrow at low cost, it could appropriate to those governments the amounts required to

The Honorable Robert F. Bennett
Page Two

purchase insurance from private providers. Alternatively, the Congress could simply augment the overall financial assistance being provided to the affected governments, and let those governments determine whether the funds would best be used to purchase bond insurance or for some other purpose. Either approach, it seems to me, would underscore the special nature of the action and thus run less risk of opening the door to a much wider federal commitment.

Sincerely,


Congress of the United States

JOINT ECONOMIC COMMITTEE
(CREATED PURSUANT TO SEC. 8(a) OF PUBLIC LAW 804, 79TH CONGRESS)

Washington, DC 20510-6602

November 7, 2005

The Honorable James Saxton
Chairman
Joint Economic Committee
Washington, DC 20510-6602


Dear Mr. Chairman:

I regret that business on the Senate floor prevented me from participating in last Thursday's hearing on the "Economic Outlook" with Federal Reserve Board of Governors Chairman Alan Greenspan.

I intended to ask Chairman Greenspan for his views on various proposals to allow for the creation and issuance of federally guaranteed municipal securities in connection with the recovery and rebuilding efforts following recent hurricanes along the Gulf Coast.

I wrote to Chairman Greenspan prior to the hearing and indicated that I intended to pursue that line of questioning. Chairman Greenspan was kind enough to provide me with his views on the subject by letter. I would respectfully ask that my letter and Chairman Greenspan's response be made a part of the permanent record of the hearing.

Sincerely,



Robert F. Bennett
Vice Chairman

1794

S. HRG. 109-237

THE EMPLOYMENT SITUATION: OCTOBER 2005

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

NOVEMBER 4, 2005

Printed for the use of the Joint Economic Committee



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[Created pursuant to Sec. 5(a) of Public Law 304, 79th Congress]

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THE EMPLOYMENT SITUATION: OCTOBER 2005

FRIDAY, NOVEMBER 4, 2005

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC

The Committee met, pursuant to call, at 9:30 a.m., in room 2226, Rayburn House Office Building, the Honorable Jim Saxton, Chairman of the Committee, presiding.

Representatives present: Representatives Saxton, McCotter, and Maloney.

Senator present. Senator Reed.

Staff present: Chris Frenze, Robert Keleher, Colleen Healy, John Kachtik, Brian Higginbotham, Emily Gigena, Chad Stone, Matt Salomon, and Daphne Clones.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning. It is a pleasure to welcome Commissioner Utgoff before the Committee once again to testify on the employment situation.

The employment figures released today may reflect the indirect affects of the recent hurricanes. Payroll employment increased by 56,000 in October to a total level of 134.1 million workers. According to the separate household survey, the unemployment rate edged down to 5.0 percent, a decrease of one tenth of a percentage point.

Other standard economic indicators reflect the health of the U.S. economy. Figures released last week indicate that the economy grew at a 3.8 percent rate in the last quarter of this year, despite the massive regional destruction wrought by the hurricanes.

So far in 2005, the economy has expanded at a 3.6 percent rate, roughly in line with the Federal Reserve expectations as well as the Blue Chip Consensus indicators. Equipment and software investment, which has bolstered the economy since 2003, continues at a healthy pace. This component of investment responded especially sharply to the incentives contained in the 2003 tax legislation.

Employment has also gained over the period, with 4.2 million jobs added to business payrolls since May of 2003. The unemployment rate, as I said a minute ago, is at 5 percent. Consumer spending continues to grow. Home ownership has reached record highs. Household net worth is also at record levels. Productivity growth continues at a high pace, although higher energy prices have raised

business costs and imposed hardship on many consumers. These energy prices have not derailed the expansion.

In summary, the economy has displayed impressive flexibility and resilience in absorbing many shocks. Monetary policy and tax incentives for investment have made important contributions in accelerating the expansion in recent years. The most recent release of Fed minutes indicates that the central bank expects the economic growth to continue through 2006. The Blue Chip Consensus of private economic forecasters also suggests that the economy will grow in excess of 3 percent next year, and that employment will continue to rise.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 15.]

OPENING STATEMENT OF HON. JACK REED, A U.S. SENATOR FROM RHODE ISLAND

Representative Saxton. I would like to ask our Ranking Member if he would like to make a statement at this point.

Senator Reed. Thank you very much, Chairman Saxton, thank you, Commissioner and your staff, for joining us this morning. This hearing gives us the opportunity to continue examining the impact of the recent hurricanes on the jobs data and to try to discern underlying trends in the labor market. I want to commend Commissioner Utgoff for the hard work her staff at the Bureau of Labor Statistics has put into producing these statistics under extraordinary circumstances, particularly the hurricane.

As measured by initial claims for unemployment insurance, the number of people who have lost their jobs due to Hurricanes Katrina and Rita has now exceeded the half million mark, and more job losses are expected from Hurricane Wilma. In the coming months I hope the reconstruction efforts will stimulate a recovery in jobs throughout the region.

Beyond the hurricane-affected areas, the labor market showed signs of losing strength. For the economy as a whole, this month's BLS report shows that only 50,000 net jobs were created. It appears high gas prices may be squeezing employers as well as consumers.

Even before the hurricanes, the labor market was still feeling the effects of the most protracted job slump in decades. Cumulative payroll employment growth has been modest by the standards of most economic recoveries, and we continue to see evidence of hidden unemployment, with labor force participation and the fraction of the population with a job still at depressed levels.

The typical worker's earnings are not keeping up with rising living expenses, which is squeezing family budgets. Gasoline prices have been high, and home heating costs are expected to be substantially higher this winter than they were last winter. In the past year, real wages have fallen throughout the earnings distribution, with the largest declines in the bottom half.

I am pleased that President Bush reversed his unwise decision to suspend the Davis-Bacon Act in the hurricane-ravaged areas and restored Federal wage protection for workers on Federal contracts. But the President's steadfast refusal to support an increase in the

minimum wage still makes it hard to take seriously his rhetoric about wanting to lift families out of poverty.

I look forward to the Commissioner's statements and further discussion of the October employment situation. Thank you.

[The prepared statement of Senator Reed appears in the Submissions for the Record on page 16.]

Representative Saxton. Commissioner Utgoff, we will be pleased to hear from you at this time. Thank you.

STATEMENT OF KATHLEEN P. UTGOFF, COMMISSIONER, BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR; ACCOMPANIED BY JOHN M. GALVIN, ASSOCIATE COMMISSIONER FOR EMPLOYMENT AND UNEMPLOYMENT STATISTICS AND JOHN S. GREENLEES, ASSOCIATE COMMISSIONER FOR PRICES AND LIVING CONDITIONS

Commissioner Utgoff. Thank you very much, Mr. Chairman and members of the Committee. I appreciate this opportunity to comment on the labor market data we released this morning. I would also like to say that I have with me Jack Galvin, who is Associate Commissioner for Employment and Unemployment, and John Greenlees, who is Associate Commissioner for Prices.

Turning to our data that we released this morning, nonfarm payroll employment was little changed in October, and the jobless rate was 5.0 percent. Payroll employment was flat in September, minus 8,000. That was a revised figure.

Before discussing the payroll survey data in detail, I would note that the October estimates were prepared using the same modified procedures that were introduced in September to better gauge employment developments in areas affected by Hurricane Katrina. We will continue to evaluate our data collection and estimation procedures and will resume standard survey operations when it is appropriate.

You will recall that in our analysis of the September employment data, we concluded that the weakness was largely due to the job loss in areas devastated by Hurricane Katrina. This conclusion was based on an estimate of the change in payroll employment excluding all of the sample units in the disaster areas. That exercise showed that job growth outside the disaster area was in line with the average monthly increase for the Nation as a whole during the prior year.

We did a similar exercise for October and concluded that the relatively weak increase was not attributable to the areas directly affected by Katrina. Rather, job growth in the remainder of the country appeared to be below trend in October. In addition, the direct impact of Hurricane Rita on the national employment data for October was judged to be minimal. It is possible, of course, that the employment growth for the Nation could have been held down by indirect affects of Hurricane Katrina and Rita, for example, because of their impacts on gas prices. I will note that Hurricane Wilma made landfall after the October survey reference period, so we may not see effects of that until next month.

Turning to the national developments by industry, leisure and hospitality employment edged down in October. This follows a substantial decline in September, at least some of it which was hurri-

cane-related. Employment in retail trade was basically unchanged in October after a large decline in September. In addition, there was little job growth in professional and business services in October. The number of jobs in its temporary help component showed little movement over the month as well.

A few major industries posted notable gains in October. Employment in the construction industry rose by 33,000 over the month compared with average growth of about 21,000 per month during the first 9 months of the year. Some of the October gain reflects post-hurricane rebuilding and clean-up efforts.

Employment and financial activities continue to increase, rising by 22,000. About half of this gain occurred in credit intermediation. Employment, health care, and social assistance also continued to expand in October.

Elsewhere in the economy, employment in the information industry fell over the month, mostly because of a large decline in motion picture and sound recording.

Factory employment edged up in October because of the return of aerospace workers from a strike. The manufacturing workweek rose by an unusually large amount, four tenths of an hour. Increases in the factory workweek occurred throughout most of the component industries. Average hourly earnings of private production for nonsupervisory workers on private nonfarm payrolls rose by \$0.08 in October to \$16.27 following a 2-cent increase in September. Over the year, average hourly earnings were up by 2.9 percent.

Looking at some of the household survey indicators, the jobless rate was 5.0 percent in October. The unemployment rate basically has held steady since May of this year. Both the labor force participation rate and employment-population ratio were little changed in October.

I would also like to discuss some preliminary findings on the employment status of persons directly affected by Hurricane Katrina. Shortly after the hurricane struck, Bureau analysts together with our colleagues at the Census Bureau devised a short series of hurricane-related questions for inclusion in the October Current Population Survey. These questions were designed to identify and solicit information from survey respondents who were evacuated from their homes even temporarily because of Hurricane Katrina.

It is important to note that the estimates based on these questions are not representative of all evacuees, but only those who were interviewed through normal household survey procedures. Some evacuees reside outside the scope of the survey, such as those currently living in hotels or shelters.

Based on information collected by CPS-sampled households, there were 791,000 persons aged 16 and over who had evacuated from where they were living in August due to Hurricane Katrina. About 300,000 of these persons had returned to the home from which they evacuated, and the remaining 500,000 had not returned to their August residences.

Of the 800,000 evacuees, 55.7 percent were in the labor force in October, and their unemployment rate was 24.5 percent. The jobless rate among those who have not been able to return home was substantially higher than the rate for those who returned to their

August place of residence. Again, these figures do not reflect the situation of persons still residing in shelters, hotels or other places out of the scope of the household survey.

Even with these limitations we believe that these data provide useful information about the employment status of those persons affected by Hurricane Katrina. As people make the transition to more permanent housing, the estimates may be more representative of the situation of all evacuees. We plan to keep these special Katrina-related questions in the survey at least through January 2006.

Summarizing labor market developments for October, nonfarm payroll employment was little changed over the month, and the unemployment rate was 5.0 percent.

My colleagues and I will now be glad to address your questions.

Representative Saxton. Thank you, Commissioner, for your very concise and informative statement.

[The prepared statement of Ms. Utgoff appears in the Submissions for the Record on page 17.]

Representative Saxton. Commissioner, in your statement you have a lot to say about the weather events that occurred, namely Hurricane Katrina and Rita, which were back-to-back storms at the end of August and the beginning of September.

In looking at the employment numbers from the month of September and now, of course, the month of October, we see a much different trend than we had been seeing for the months in the first half of the year. In January, we had job growth of about 124,000 jobs; in February, 300,000 jobs; in March, 122,000; in April, 292,000; and that trend continued June, July and August. The numbers were 175,000, 277,000 new jobs, and in August, 211,000 new jobs.

When we get to September and see the effects of, for some reason—and I assume that you have talked about weather events significantly because you think that had something to do with it—all of a sudden the September numbers were down to a negative 35,000, which have just been revised back up to a negative 8,000, and this month's numbers were also on the weak side.

Can you venture some opinion, venture some reasoning that would support the notion that the hurricanes have had a lot to do with this?

Commissioner Utgoff. We have come to the conclusion that in October, Hurricane Katrina, which is the hurricane that has most affected employment, did not cause additional losses, that the weak employment situation is throughout the country. I think it is fair to speculate that things such as higher gas prices have influenced people's behavior in a way that has dampened the employment situation.

The employment in discount stores and supercenters was weak, as was employment in leisure and hospitality. These are the kinds of places where people are not spending their money because they may be spending their money on higher gas prices.

Representative Saxton. Not spending because they are spending it on higher gas prices, that decision that an individual or a family has to make about where they are going to spend their dollars.

Commissioner Utgoff. Yes.

Representative Saxton. In addition to that, wouldn't it discourage people to see \$3 on the pump? So that affects people's behavior, and that negative behavior may be an indirect result of the hurricane that we see the resulting weakening of the numbers, which occurred simultaneous with the occurrence of these weather events.

Commissioner Utgoff. Yes, yes. There are many strong economic numbers that have come out this month, but the employment numbers reflect an economy that is not growing as rapidly as it has been before.

Representative Saxton. Are there any other indicators in the data that you have seen that would say that there are other factors at play here?

Commissioner Utgoff. I would like to point out that manufacturing showed a small gain because of return from a strike, but there was also a 0.4 percent gain in hours in the manufacturing industry spread throughout the entire industry, which is often a sign that employers are on the cusp of bringing back additional people. First they add hours, and then they add additional people. So that may be one positive sign, for this month for employment to be stronger next month. We also have the lingering effect of Hurricane Rita and Wilma, which really did not show up this month in the data because of the timing of the survey and may show up in later months.

Representative Saxton. So the results of Rita are not in this survey?

Commissioner Utgoff. They are, but we had good response rates from employers who were affected by the hurricane. Next month there may be rebuilding, there may be other activities that go on that will affect the employment situation.

Representative Saxton. Can you shed any light for us on the difficulties that may have resulted from the devastating storms that occurred in having an effect on your ability to collect and analyze this work-related data?

Commissioner Utgoff. The last 2 months have shown a real effort by dedicated public servants to get out the best numbers possible so that we could judge what was happening in the economy. The Census Bureau made every opportunity to get to every household that they could. There were two parishes that they were not able to get into because they were completely evacuated. They got back into those parishes this month. There was a higher response rate. That is for the household survey.

In the payroll survey, Herculean efforts were made to get responses from people that when normally they would do things like many people who do touchtone entry, where they pick up the phone and they just push—call a number and push a few buttons, and that is their response, we called all those people individually. People worked long hours to contact virtually every person they could in the hurricane-affected areas.

Jack Galvin, Associate Commissioner for Employment.

Mr. Galvin. That covers it pretty well. We also had cases of establishment survey respondents seeking out different numbers to reach us and report their information via touchtone data entry.

Our 1-800 numbers were down for a while, but these employers thought it important to report their numbers.

Representative Saxton. I see. The lack of communication that resulted in the couple of weeks immediately after Katrina seemed to have been a very significant impediment to me in regard to your ability to collect data. I had a friend who still lives in New Orleans, who ended up in Baton Rouge, and I tried to call him for 2 weeks with no luck, and he was in Baton Rouge. It must have posed some real challenges.

Commissioner Utgoff. We didn't change the definitions of employment for the payroll survey, but as we discussed last month, we did change the statistical analysis of those numbers. For your friend who may have owned a business, if he didn't report, in normal months we would have assumed that in first closing if you didn't report, in the first period you didn't report, that you looked like other people in your class, size, industry, area, and we didn't assume that this time. We assumed that people who reported zero employment did have zero employment. We went through all of our procedures for estimating employment and changed many of them.

Representative Saxton. Yesterday Chairman Greenspan was here to testify before the Joint Economic Committee, and he was pleased to reflect on the 3.8 percent growth that we saw in the last quarter; he was pleased to project that growth will continue in the next year or so at a rate, GDP rate, above 3 percent. He was pleased to talk about low long-term interest rates. He was pleased to see that in spite of Katrina and Rita and Wilma, and in spite of uncertainties created by the Gulf War, by the war on terror, and in spite of the interest rate increases that the Fed has deemed necessary, that he expects the economy to continue to grow.

Do you see anything in the numbers that would speak contrary to that view?

Commissioner Utgoff. The numbers that we are putting out, many of them are very strong. The only cause for concern is this month's employment situation is relatively weak compared to the very strong employment growth that we have been seeing earlier.

Representative Saxton. In that regard previous Commissioners always have warned us about reading too much into the monthly data release. Would you say that this month's data is statistically significant, or is it something that we need to wait and see as we move forward?

Commissioner Utgoff. I will say the same thing as every other Commissioner: One month data is not something that you want to make a significant judgment on.

Representative Saxton. We have got the weather events that could have a temporary affect here, and we know from past experience that the statistical significance of 1 month's numbers are not always particularly meaningful.

Commissioner Utgoff. Yes.

Representative Saxton. Thank you, Commissioner.

Mr. Reed; I'm sorry, Senator Reed. My friend.

Senator Reed. Jack.

Thank you, Commissioner, and thank you, Mr. Chairman.

We were seeing what appeared to be sustained job growth over the last several months, but I understand the August number was revised down from the initial report; is that correct?

Commissioner Utgoff. Yes, that is correct.

Senator Reed. The initial report for August jobs was? Do we recall a revised number?

Commissioner Utgoff. Just a moment.

Mr. Galvin. When we reported August back in September, we reported it at 169-, then in our second closing last month we revised it up to 211-, and now we are reporting 148-.

Senator Reed. We went from 211- to 148-, and that was before Katrina and Rita and Wilma; is that correct, before the hurricanes?

Commissioner Utgoff. Yes, the August number would not have been affected by the hurricanes.

Senator Reed. So what we were seeing was growth, and something suddenly might have happened in August to cause a revision downward. Then we have this month's report, which I thought was interesting, because in response to the Chairman's question, you point out you did not really see the primary affects of the hurricane because the weakness was nationwide; is that a fair statement?

Commissioner Utgoff. Yes.

Senator Reed. And so, we saw revised numbers downward in August, we had a hurricane, and now we are seeing very, I think being polite, modest growth in jobs in this month, which is nationwide and not targeted to the hurricane effects.

The other aspect here I think is interesting is labor force participation. That seems to be consistently poor. In fact, I think there was a slight increase—I should say a slight decrease in labor force participation in October?

Commissioner Utgoff. Down one tenth of a percent.

Senator Reed. Down a tenth. Not statistically significant, but indicating there is a huge reservoir of people who are not counted in the unemployment rolls because they are not actively seeking work, and that seems to be stable at high levels. I guess historically in terms of a recovery from a recession, these levels of workforce participation seem to be high; is that accurate, too?

Commissioner Utgoff. The decrease in labor force participation that occurred with the recession that started in 2000 was significant and has not returned to prerecession levels.

Senator Reed. I think that is a significant issue when it comes to the truth of the situation of American families across the country.

We have been talking about payroll growth and job growth, et cetera, but unemployment claims for this month seem to be growing also; is that fair?

Commissioner Utgoff. I believe that the initial claims were—

Mr. Galvin. Overall initial claims declined, 12,000.

Senator Reed. How about in terms of, again, talking in terms of the hurricanes; are those claims still coming out of the hurricane areas?

Commissioner Utgoff. Yes.

Mr. Galvin. ETA has reported that the number has gone above 500,000 of initial claims related to the hurricanes.

Senator Reed. What is your expectation with respect to additional claims coming out of those regions? Let me step back for a second. Is there a delay because people have difficulty because they have been uprooted in filing their claims?

Commissioner Utgoff. There has been a concerted effort to have additional places to file unemployment insurance in all the areas that have been affected and to make sure that the places where evacuees have gone in large numbers have the ability to file for both employment insurance and disaster unemployment assistance.

Senator Reed. Do you expect a significant number of people have not yet filed?

Commissioner Utgoff. I can't opine on that.

Senator Reed. Let me turn to a final topic. One of the things that is both interesting and in a sense disturbing is we have an increase in productivity which is substantial, yet wages seem to be not reflecting those increases in productivity. Productivity went up, wages seem still to be rather anemic, and in real terms, wages are falling. If that is a trend that is going to continue, that has ominous implications for the economy. People are working harder and harder, and the overall economy is more productive, and yet they are not receiving any increase in wages.

How does that work for most of the people that work in this country? Do you have a comment on that dilemma?

Commissioner Utgoff. Over the long run we normally see that productivity and wages move in the same direction; not always, but normally. That has not happened in the last few years. Productivity has increased faster than wages and compensation.

Senator Reed. That might be the long run, but that is—2 years of data is a significant amount of data, which suggests that this is a huge problem, because I think the premise that we all have in our market economy is that increased productivity will be shared in some sense with increased wages. If there is a disconnect between productivity increases and wage increases, that is, again, an ominous development in the country and I think something we have to be terribly concerned about. Thank you.

Representative Saxton. Mr. McCotter.

Representative McCotter. Thank you for being here.

Along similar lines, I am just curious if we have ever had a study, because I come from Michigan. Just so you know, we hear a lot in Michigan about the outsourcing of jobs, jobs lost. One question I can't seem to get answered because I don't know if anybody keeps track of it, and if you don't, nobody does, is what jobs are lost overseas as opposed to what jobs are lost to other States. Is there anywhere I could go find that?

Commissioner Utgoff. We have a survey that addresses part of that for large layoffs where there have been 50 or more people laid off in a 5-week period and the layoff lasts more than a month. We call back the company and ask where the movement of jobs has been, and it is far more common for job loss to be the result of movement of a company's activities to another State or another area than it is for it to be moving out of the country. So that outsourcing—there is outsourcing, but it represents a relatively small fraction of job loss due to the movement of work either with-

in the company or to a different company and within the United States and outside the United States.

Representative McCotter. Where can I get that?

Commissioner Utgoff. We will be happy to send you more material. We have both quarterly reports and a year-end report that talks about that.

Representative McCotter. Can I get the latest year-end report and the latest quarterly?

Commissioner Utgoff. Yes.

Representative McCotter. Along the lines of what the Senator talked about, the increase in productivity and the stagnation of wages to match that rise, is there any analysis of how the flood tide of globalization is causing that? It seems to me that one of the problems would be that if you have to compete globally with any nation, not simply developed democracies, what happens is you will try to do everything you can to be more productive, and one of the things that you can't because it increases prices of your products would be to reward your employees for their increased productivity. Is there anywhere to find a correlation between those two? Because it is an ominous trend to find people working harder because they are forced to compete globally with any country which may or may not have similar protections for their people and find out at the end of the day that is merely to tread water and to survive economically, not to grow and prosper and pursue your American dream. Is there anywhere that can be found?

Commissioner Utgoff. We have data on the increase in wages and compensation benefits for the people over the 2-year period that you are talking about, and for people who do not have significant education, wages have been stagnant or falling. It is a stark example of why we really need to have a good educational and training system to prevent wage stagnation in a world of global competition.

Representative McCotter. Relative to Michigan specifically from what you were just saying, then, is that it is probably statistically borne out that the people who are hurt the most will be in such areas as manufacturing, it would seem to me, because the history has been that you do not need an advanced degree although the work is very technical to go into a very well-paying job, to be able to produce, and then what we are seeing now is that that no longer is a career path, the statistics bearing out the people who get the degrees generally don't go work at Ford on the assembly line, or they don't work in the manufacturing area. Are we seeing then from the statistics a special problem within the manufacturing sector because of this trend?

Commissioner Utgoff. The manufacturing executives have told the Department of Labor that they have help wanted signs up not for assembly-line workers, but for workers who have more training and more education; that manufacturing has become much more of a high-tech industry where productivity has reduced the need for workers with limited education.

Representative McCotter. If you would indulge me one last question. Are they also telling you that they are able to take the people who are engaged in the manufacturing sector currently and then bring them into those jobs?

Commissioner Utgoff. They are all very interested in training programs either on their own or with the help of the Department of Labor and the Department of Education to make sure that people graduate from high school with the skills that they need to enter the high-tech manufacturing workforce, because that is where manufacturing is headed, and to retrain their workers to take new jobs.

Representative McCotter. The high tech.

Commissioner Utgoff. In higher tech.

Representative Saxton. Good questions. Thank you.

Mrs. Maloney.

Representative Maloney. Welcome.

Commissioner Utgoff. Thank you.

Representative Maloney. What fraction of the population actually has a job?

Commissioner Utgoff. Let me get to the numbers.

Representative Maloney. If you want you can get back to me later.

Commissioner Utgoff. No, no, no. We have all these numbers.

The employment to population ratio in October 2005 was 62.9 percent.

Representative Maloney. What would the unemployment rate be if you included people who want to work but have given up? They are not officially in the labor force, they have been turned down 10 times, and are not actively looking? What would the unemployment rate be if you included those people?

Commissioner Utgoff. In October 2005, our broadest measure of labor utilization, U6, was 8.7 percent.

Representative Maloney. What would the unemployment rate be if you included people working part time for economic reasons?

Commissioner Utgoff. U6 includes those working part time for economic reasons.

Representative Maloney. This also includes people who would like to work but have given up?

Commissioner Utgoff. It includes discouraged workers.

Representative Maloney. I would argue the real unemployment rate is 8.7 percent.

Anyway, I would like to ask you to clarify for me—first of all, I want to go back to the numbers that you gave us. You said that there was a net gain of 56,000 jobs in October and a loss of 8,000 jobs in the revised September reading. How many of those net gain jobs at 56,000 are filled by women, and how many are filled by men? Likewise, I think it is important to see who it is that is losing a job. How many of the net loss of 8,000 jobs in the revised reading had been filled by women, and how many had been filled by men?

Commissioner Utgoff. The number that you refer to, 56,000, is net. They are both people who have gotten jobs and people who have lost jobs.

Representative Maloney. How many of them were women, and how many were men?

Commissioner Utgoff. We don't have that statistic.

Representative Maloney. Did you at one time keep that statistic?

Commissioner Utgoff. Yes, we did.

Representative Maloney. I find that an important statistic to have. In fact, Senator Kennedy with the help of Senator Reed, proposed an amendment to put it back into the payroll data, and I would just like to clarify why the Bureau has discontinued the women workers series on the current employment statistic survey. Why did you discontinue it? It is half the population. That is an important number to study.

Commissioner Utgoff. The statistic that you are talking about would not be available to me to report to you for October because—

Representative Maloney. That wasn't my question. My question is why did you stop—why did you discontinue keeping that statistic.

Commissioner Utgoff. The decision was made based on the fact that the burden on employers for collecting that statistic was not worth the amount of use that statistic was getting. We know that because we can measure the hits on the Web site. We know that in the last 10 years that 6 articles have been written that partially use that data, and we have calculated that if it takes employers a minute apiece to answer that question, and you use a relatively low bookkeeper salary, that the cost of those 6 articles is almost \$3.5 million apiece.

Representative Maloney. I would like to request a copy of those six articles. According to the research that we looked at, that question has an 86 percent response rate. It is the second highest responded-to question of any on the survey; the only one being higher is how many employees do you have. The only business organizations that responded supported collecting the data. There was no business that went on record being opposed to collecting the data. They all came out in supporting it. Researchers use this data. The Federal Reserve Bank of New York has used it, and many others use it.

So, I cannot understand why in the world you have removed it. There is no substitute. Businesses don't seem to have a problem with it since they all responded to the comment period at OMB, in the original comment period, in support of it. Researchers use it, and there seems to be overwhelming support for it. The comments submitted to BLS ran 9 to 1 in favor of it, and I believe the Senate just voted overwhelmingly, in a bipartisan way I might add, to continue collecting it. I must say I have signed numerous letters in a bipartisan way in support of it, and I have spoken to professional researchers who tell me that they use it, that it is valuable. I can't understand why getting the number of women employed is not important.

Now in your breakdown of these numbers by industry, how many industries do you break it down by?

Mr. Galvin. Over 1,000 industries.

Representative Maloney. Eight hundred industries.

Mr. Galvin. That is the national numbers. The women's workers numbers were broken down to a high level of industry detail of about 40 high-level sectors.

Representative Maloney. Forty high-level sectors. I would like to look at how you collected it in the past. I might say that I went to your Web site in the past, and I have never seen it mentioned,

it is never in your press releases. If people don't know about it, then they won't be using it.

I would just like to ask you; it was my understanding that the New York Federal Reserve testified to the usefulness of this data; is that correct, about the New York Federal Reserve Bank?

Commissioner Utgoff. There was a written response from the Federal Reserve bank that they had used the data.

Representative Maloney. If they are using it, I think we need to give them the data they need.

Does collecting this data impose a large burden on BLS, or is there some compelling reason why we should not continue to collect this data since the response was 9 to 1 in support of continuing it? Every business that wrote in wrote in in support of it.

Commissioner Utgoff. First, let me make an important point. The data on industry by women is available in the Current Population Survey. We are making that more useful to our users by producing a longer-time series. It is just the nature of when you ask an employer do you want to put this data down, when they spend 12 minutes a month—excuse me, 12 minutes a year responding to it, they are not going to write a letter.

It is our job as a statistical agency to make the judgment that 12 minutes a month for 400,000 employers is a very large burden compared with 6 articles in 10 years.

Representative Maloney. Commissioner, if no one writes in in opposition, why are you even having a comment period if you are going to make a decision not based on the comments? Nine to one the comments were in support of continuing the data, and researchers have told me, that the other data that you are using is not the same. They have told me that the CPS data comes from a different source, individuals rather than employers, and has a smaller sample size. BLS states that—you have stated that it is less reliable for month-to-month employment changes. The Federal Reserve uses this data. I would respectfully urge you to continue collecting it.

Now, if Congress passes a bill forcing you to collect it, would you collect it?

Commissioner Utgoff. Yes.

Representative Maloney. I would urge in a bipartisan way that we put in such a bill. I know that Senator Kennedy and like-minded people will be working in the conference committee to keep the legislation in, and, quite frankly, I am absolutely appalled that of all the things to cut out, it is keeping data on employed women. I think that women's data should be kept, and I urge you on your own to make this correction.

Commissioner Utgoff. We produce voluminous data on women; earnings, use of their time, and when they are displaced from the workforce. We cover every aspect of women in the labor force.

Representative Maloney. Maybe I should wait until the second round.

Representative Saxton. Actually, Senator Reed and I have tentatively agreed not to have a second round.

Representative Maloney. May I have a follow-up question.

Representative Saxton. The gentlelady has made her point, and you are rapidly approaching the 10-minute—your red light has

been on for 5 minutes. If you would ask another question and conclude, I would appreciate it.

Senator Reed. I have one more question.

Representative Maloney. What is the Bureau doing to study the wage gap specifically, and what are you doing to determine how much of the wage gap is attributed to discrimination by employer, and are you designing any surveys on this issue, or do you have any surveys on this issue?

Commissioner Utgoff. We just produced a lengthy report, I will send everybody on the Committee a copy, on highlights of women's earnings. We publish earnings by age, race, all kinds of groups, to compare them to men so that we know in what industries women are making progress relative to men, in what educational groups women are making progress relative to men, occupations. This is a 40-page report that was just recently produced and will continue to be produced.

The data that you say are being dropped were never used by the BLS to evaluate women's earnings and the progress of their earnings and are not suitable for doing that.

We will continue to be a major source of information on women in the workforce and how women in the workforce are doing relative to men by numerous categories.

Representative Maloney. I thank you for your testimony, and you may not be using the information, but other researchers, including the Federal Reserve, are using the information on the number of women employed, or losing jobs, and that is valuable information and I would respectfully urge BLS to place that back in their column of items.

Representative Saxton. Commissioner, I would like to thank you for being here with us this morning. We appreciate it very much. We always enjoy these sessions, but we enjoy them even more when you bring us good news. Hopefully next month we will have some good news.

Commissioner Utgoff. We have had a spate of hurricanes, and hopefully that will die down. And no snow storms next month.

Representative Saxton. Thank you.

[Whereupon, at 10:22 a.m., the Committee was adjourned.]



CONGRESS OF THE UNITED STATES
JOINT ECONOMIC COMMITTEE

CHAIRMAN JIM SAXTON

PRESS RELEASE

For Immediate Release
November 4, 2005

**STATEMENT OF
CHAIRMAN JIM SAXTON**

Contact: Christopher Frenze
Executive Director
(202) 225-3923

OCTOBER EMPLOYMENT SITUATION

WASHINGTON, D.C. – It is a pleasure to welcome Commissioner Utgoff before the Committee once again to testify on the employment situation.

The employment figures released today may reflect the indirect effects of the recent hurricanes. Payroll employment increased by 56,000 in October to a level of 134.1 million. According to the separate household survey, the unemployment rate edged down to 5.0 percent.

Other standard economic indicators reflect the health of the U.S. economy. Figures released last week indicate that the economy grew at a 3.8 percent rate last quarter, despite the massive regional destruction wrought by the hurricanes. So far during 2005, the economy has expanded at a 3.6 percent rate, roughly in line with Federal Reserve expectations as well as the Blue Chip Consensus.

Equipment and software investment, which has bolstered the economy since 2003, continues at a healthy pace. This component of investment responded especially sharply to the incentives contained in the 2003 tax legislation. Employment has also gained over this period, with 4.2 million jobs added to business payrolls since May of 2003. The unemployment rate is 5.0 percent.

Consumer spending continues to grow. Homeownership has reached record highs. Household net worth is also at a record level. Productivity growth continues at a healthy pace. Although higher energy prices have raised business costs and imposed hardship on many consumers, these prices have not derailed the expansion.

In summary, the economy has displayed impressive flexibility and resilience in absorbing many shocks. Monetary policy and tax incentives for investment have made important contributions in accelerating the expansion in recent years. The most recent release of Fed minutes indicates that the central bank expects this economic growth to continue through 2006. The Blue Chip Consensus of private economic forecasters also suggests that the economy will grow in excess of 3 percent next year, and that employment will continue to rise.

SEN. JACK REED (RI)

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Congress of the United States
Joint Economic Committee
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CHAD STONE
 STAFF DIRECTOR

Opening Statement
Senator Jack Reed
Joint Economic Committee Hearing
November 4, 2005

Thank you, Chairman Saxton. This hearing gives us the opportunity to continue examining the impact of the recent hurricanes on the jobs data and to try to discern underlying trends in the labor market. I want to commend Commissioner Utgoff for the hard work that her staff at the Bureau of Labor Statistics (BLS) has put into producing these statistics under extraordinary circumstances.

As measured by initial claims for unemployment insurance, the number of people who have lost their jobs due to hurricanes Katrina and Rita has now exceeded the half-million mark, and more job losses are expected from Hurricane Wilma. In the coming months, I hope the reconstruction efforts will stimulate a recovery in jobs throughout the region.

Beyond the hurricane-affected areas, the labor market showed signs of losing strength. For the economy as a whole, this month's BLS report shows that only 56,000 net jobs were created. It appears that high gas prices may be squeezing employers as well as consumers.

Even before the hurricanes, the labor market was still feeling the effects of the most protracted jobs slump in decades. Cumulative payroll employment growth has been modest by the standards of most economic recoveries, and we continue to see evidence of hidden unemployment, with labor force participation and the fraction of the population with a job still at depressed levels.

The typical worker's earnings are not keeping up with rising living expenses, which is squeezing family budgets. Gasoline prices have been high and home heating costs are expected to be substantially higher this winter than they were last winter. In the past year, real wages have fallen throughout the earnings distribution, with the largest declines in the bottom half.

I am pleased that President Bush reversed his unwise decision to suspend the Davis Bacon Act in the hurricane-ravaged areas and restored federal wage protections for workers on federal contracts. But the President's steadfast refusal to support an increase in the minimum wage still makes it hard to take seriously his rhetoric about wanting to lift families out of poverty.

I look forward to Commissioner Utgoff's statement and to a further discussion of the October employment situation.

Statement of

Kathleen P. Utgoff
Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, November 4, 2005

Mr. Chairman and Members of the Committee:

I appreciate this opportunity to comment on the labor market data we released this morning.

Nonfarm payroll employment was little changed in October (+56,000), and the jobless rate was 5.0 percent. Payroll employment was flat in September (-8,000, as revised).

Before discussing the payroll survey data in detail, I would note that the October estimates were prepared using the same modified procedures that we introduced in September to better gauge employment developments in areas affected by Hurricane Katrina. We will continue to

evaluate our data collection and estimating procedures and will resume standard survey operations when it is appropriate.

You will recall that in our analysis of the September employment data, we concluded that the weakness was largely due to the job loss in areas devastated by Hurricane Katrina. This conclusion was based on an estimate of the change in payroll employment excluding all of the sample units in the disaster areas. That exercise showed that job growth outside the disaster areas was in line with the average monthly increase for the nation as a whole during the prior year (about 200,000). We did a similar exercise for October and concluded that the relatively weak increase was not attributable to the areas directly affected by Katrina. Rather, job growth in the remainder of the country appeared to be below trend in October. In addition, the direct impact of Hurricane Rita on the national employment data for October was judged to be minimal. It is possible, of course, that employment growth for the nation could have been held down by indirect effects of Hurricanes Katrina and Rita, for example, because of their impact on gas prices. (Hurricane Wilma made landfall after the October survey reference period.)

Turning to the national developments by industry, leisure and hospitality employment edged down in October. This followed a substantial decline in September, at least some of which was hurricane related. Employment in retail trade was basically unchanged in October after a large decline in September. In addition, there was little job growth in professional and business services in October; the number of jobs in its temporary help component showed little movement over the month.

A few major industries posted notable job gains in October. Employment in the construction industry rose by 33,000 over the month, compared with average growth of about 21,000 jobs per month during the first 9 months of the year. Some of the October gain reflects post-hurricane rebuilding and clean-up efforts. Employment in financial activities continued to increase, rising by 22,000; about half of this gain occurred in credit intermediation. Employment in health care and social assistance also continued to expand in October, rising by 23,000.

Elsewhere in the economy, employment in the information industry fell by 15,000 over the month, mostly because of a large decline in motion pictures and sound recording.

Factory employment edged up in October because of the return of aerospace workers from a strike. The manufacturing workweek rose by an unusually large amount, 0.4 hour; increases in the factory workweek occurred throughout most of the component industries.

Average hourly earnings of private production or nonsupervisory workers on private nonfarm payrolls rose by 8 cents in October to \$16.27, following a 2-cent increase in September. Over the year, average hourly earnings were up by 2.9 percent.

Looking at some major household survey indicators, the jobless rate was 5.0 percent in October. The unemployment rate basically has held steady since May of this year. Both the labor force participation rate and employment-population ratio were little changed in October, at 66.1 percent and 62.9 percent, respectively.

I'd also like to discuss some preliminary findings on the employment status of persons directly affected by Hurricane Katrina. Shortly after the hurricane struck, Bureau analysts, together with our colleagues at the Census Bureau, devised a short series of hurricane-related questions for inclusion in the October Current Population Survey. These questions were designed to identify and solicit information from survey respondents who had

evacuated from their homes, even temporarily, because of Hurricane Katrina.

It is important to note that the estimates based on these questions are not representative of all evacuees, but only those who were interviewed through normal household survey procedures. Some evacuees reside outside the scope of the survey, such as those currently living in hotels or shelters.

Based on information collected from CPS-sampled households, there were about 800,000 persons age 16 and over who had evacuated from where they were living in August due to Hurricane Katrina. About 300,000 of these persons had returned to the home from which they had evacuated, and the remaining 500,000 had not returned to their August residence.

Of the 800,000 evacuees, 55.7 percent were in the labor force in October, and their unemployment rate was 24.5 percent. The jobless rate among those who have not been able to return home (33.4 percent) was substantially higher than the rate for those who had returned to their August place of residence (10.5 percent). Again, these figures do not reflect the situation of persons still residing in shelters, hotels, or other places out of the scope of the household survey.

Even with their limitations, we believe that these data provide useful information about the employment status of those persons affected by Hurricane Katrina. As people make the transition to more permanent housing, the estimates may become more representative of the situation of all evacuees. We plan to keep these special Katrina-related questions in the survey at least through January 2006.

Summarizing labor market developments for October, nonfarm payroll employment was little changed over the month, and the unemployment rate was 5.0 percent.

My colleagues and I now would be glad to address your questions.

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information:

Household data: (202) 691-6378
<http://www.bls.gov/cps/>

USDL 05-2118

Establishment data: 691-6555
<http://www.bls.gov/ces/>

Transmission of material in this release
is embargoed until 8:30 A.M. (EST),
Friday, November 4, 2005.

Media contact: 691-5902

THE EMPLOYMENT SITUATION: OCTOBER 2005

Nonfarm payroll employment was little changed (+56,000) in October, and the unemployment rate was essentially unchanged at 5.0 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls rose by 8 cents over the month.

Hurricanes Katrina, Rita, and Wilma

In October, interviewing for the household survey resumed in Orleans and Jefferson parishes in Louisiana. Interviews were not conducted in those areas in September because they were under mandatory evacuation orders. Otherwise, normal data collection and estimation procedures were used in the household survey for both months.

For the October establishment survey estimates, several modifications to the usual estimation procedures were again used to better reflect employment in Katrina-affected areas. The changes included: (1) modification of procedures to impute employment counts for survey nonrespondents in the most heavily impacted areas, (2) adjustments to sample weights for sample units in the more broadly defined disaster area to compensate for lower-than-average survey response rates, and (3) modification of the adjustment procedure for the business net birth/death estimator to reflect likely changes in business birth/death patterns in the disaster areas.

Hurricane Rita made landfall on the Gulf Coast near the Louisiana and Texas border in late September. For October, the number of responses to the establishment survey was only slightly below normal in the areas affected by Rita. Therefore, no special estimation procedures were used for those areas.

Hurricane Wilma struck Florida after the October survey reference periods, but during the survey collection periods. As with Hurricane Rita, the impact on data collection for the establishment survey was minimal, and no special estimation procedures were used for the affected areas. Because the reference periods for both surveys occurred before Hurricane Wilma struck, any impact of this storm would not be reflected in October's employment and unemployment estimates.

For more information on household and establishment survey procedures and estimates for October 2005, see <http://www.bls.gov/katrina/cpscesquestions.htm> on the BLS Web site or call (202) 691-6378 for information about the household survey, and (202) 691-6555 for information about the establishment survey.

Table A. Major indicators of labor market activity, seasonally adjusted
(Numbers in thousands)

| Category | Quarterly averages | | Monthly data | | | Sept- Oct change |
|---|--------------------|----------|--------------|----------|----------|------------------------|
| | 2005 | | 2005 | | | |
| | II | III | Aug. | Sept. | Oct. | |
| HOUSEHOLD DATA | | | | | | |
| Labor force status | | | | | | |
| Civilian labor force..... | 149,003 | 149,835 | 149,841 | 150,093 | 150,079 | -14 |
| Employment..... | 141,404 | 142,319 | 142,449 | 142,432 | 142,646 | 214 |
| Unemployment..... | 7,599 | 7,516 | 7,391 | 7,661 | 7,433 | -228 |
| Not in labor force..... | 76,671 | 76,587 | 76,581 | 76,600 | 76,880 | 280 |
| Unemployment rates | | | | | | |
| All workers..... | 5.1 | 5.0 | 4.9 | 5.1 | 5.0 | -0.1 |
| Adult men..... | 4.4 | 4.4 | 4.3 | 4.5 | 4.3 | -2 |
| Adult women..... | 4.6 | 4.6 | 4.4 | 4.6 | 4.6 | .0 |
| Teenagers..... | 17.4 | 16.1 | 16.5 | 15.8 | 15.9 | .1 |
| White..... | 4.4 | 4.3 | 4.2 | 4.5 | 4.4 | -.1 |
| Black or African American..... | 10.3 | 9.5 | 9.6 | 9.4 | 9.1 | -.3 |
| Hispanic or Latino ethnicity..... | 6.1 | 5.9 | 5.8 | 6.5 | 5.8 | -.7 |
| ESTABLISHMENT DATA | | | | | | |
| Employment | | | | | | |
| Nonfarm employment..... | 133,429 | p133,961 | 134,013 | p134,005 | p134,061 | p56 |
| Goods-producing ¹ | 22,134 | p22,146 | 22,159 | p22,146 | p22,195 | p49 |
| Construction..... | 7,217 | p7,260 | 7,267 | p7,279 | p7,312 | p33 |
| Manufacturing..... | 14,292 | p14,254 | 14,260 | p14,232 | p14,244 | p12 |
| Service-providing ¹ | 111,295 | p111,815 | 111,854 | p111,859 | p111,866 | p7 |
| Retail trade ² | 15,180 | p15,218 | 15,231 | p15,173 | p15,167 | p-5 |
| Professional and business services..... | 16,867 | p16,997 | 16,983 | p17,044 | p17,056 | p12 |
| Education and health services..... | 17,289 | p17,415 | 17,418 | p17,451 | p17,462 | p11 |
| Leisure and hospitality..... | 12,741 | p12,799 | 12,830 | p12,767 | p12,749 | p-18 |
| Government..... | 21,753 | p21,841 | 21,849 | p21,857 | p21,867 | p10 |
| Hours of work ³ | | | | | | |
| Total private..... | 33.7 | p33.7 | 33.7 | p33.8 | p33.8 | p0.0 |
| Manufacturing..... | 40.4 | p40.5 | 40.5 | p40.6 | p41.0 | p.4 |
| Overtime..... | 4.4 | p4.5 | 4.5 | p4.5 | p4.5 | p.0 |
| Indexes of aggregate weekly hours (2002=100) ³ | | | | | | |
| Total private..... | 102.4 | p103.0 | 102.9 | p103.2 | p103.2 | p0.0 |
| Earnings ³ | | | | | | |
| Average hourly earnings, total private..... | \$16.03 | p\$16.17 | \$16.17 | p\$16.19 | p\$16.27 | p\$0.08 |
| Average weekly earnings, total private..... | \$40.86 | p\$45.36 | \$44.93 | p\$47.22 | p\$49.93 | p2.71 |

¹ Includes other industries, not shown separately.

² Quarterly averages and the over-the-month change are calculated using unrounded data.

³ Data relate to private production or nonsupervisory workers.

p = preliminary.

Unemployment (Household Survey Data)

Both the number of unemployed persons, 7.4 million, and the unemployment rate, 5.0 percent, were little changed in October. The unemployment rate has ranged from 4.9 to 5.1 percent since May. The unemployment rates for adult women (4.6 percent), teenagers (15.9 percent), whites (4.4 percent), and blacks (9.1 percent) showed little or no change over the month. The jobless rates for adult men (4.3 percent) and Hispanics or Latinos (5.8 percent) both declined from September. In October, the unemployment rate for Asians was 3.1 percent, not seasonally adjusted. (See tables A-1, A-2, and A-3.)

After increasing by a similar magnitude in September, the number of persons unemployed due to job loss fell by 201,000 in October to 3.5 million. Since December, the number of unemployed job losers has decreased by 585,000. (See table A-8.)

Total Employment and the Labor Force (Household Survey Data)

Total employment, 142.6 million, and the civilian labor force, 150.1 million, were little changed in October. The employment-population ratio (62.9 percent) and the labor force participation rate (66.1 percent) also were little changed. (See table A-1.)

In October, persons employed part time for economic reasons—those who are available for and would prefer full-time work—decreased by 330,000 to 4.3 million. This number had been trending up in recent months. (See table A-5.)

Persons Not in the Labor Force (Household Survey Data)

The number of persons marginally attached to the labor force was 1.4 million in October, down from 1.6 million a year earlier. (Data are not seasonally adjusted.) These individuals wanted and were available to work and had looked for a job sometime in the prior 12 months. They were not counted as unemployed, however, because they did not actively search for work in the 4 weeks preceding the survey. There were 392,000 discouraged workers in October, little changed from a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. The other 1.0 million marginally attached persons had not searched for work for reasons such as school attendance or family responsibilities. (See table A-13.)

Industry Payroll Employment (Establishment Survey Data)

Total nonfarm payroll employment was little changed (+56,000) in October at 134.1 million. Employment growth was flat in September (-8,000, as revised), due in part to the effects of Hurricane Katrina. In the first 8 months of the year, payroll employment had increased by an average of 196,000 per month. In October, construction, financial activities, and health care added jobs, while employment in most other major industries showed little movement. (See table B-1.)

Over the month, construction employment increased by 33,000, with much of the gain (20,000) occurring in residential specialty trade contracting. Prior to October, construction employment had been expanding by an average of 21,000 per month in 2005. October's gain may partly reflect rebuilding and clean-up efforts following Hurricane Katrina. Mining continued to trend upward, adding 5,000 jobs over the month.

Manufacturing added 12,000 jobs in October. Employment in transportation equipment increased by 22,000, largely due to the return of 18,000 striking workers in the aerospace industry. This gain in transportation equipment employment was partly offset by job losses in computer and peripheral equipment (-2,000), electrical equipment and appliances (-3,000), and miscellaneous manufacturing (-4,000) in October.

Employment in financial activities continued to grow in October, rising by 22,000. Employment gains in credit intermediation accounted for about half of the over-the-month increase. Over the year, credit intermediation has added 107,000 jobs. Employment in insurance edged up in October.

Health care employment also continued to grow in October, increasing by 17,000. Ambulatory health care services, which include doctors' offices and outpatient clinics, added 11,000 jobs. Hospitals also contributed to the employment gain with an increase of 6,000 jobs.

Employment in the leisure and hospitality industry edged down in October, after declining by 63,000 in September. Within the industry, food services—which includes restaurants and drinking places—accounted for the weakness over the month. Prior to September, food services had been adding about 26,000 jobs per month in 2005.

Retail trade employment was essentially unchanged in October following a large decline in September. In October, there were job losses in department stores (-18,000) and automobile dealers (-9,000). Following large declines in August and September, employment in food stores edged up by 9,000 in October. Sporting goods, hobby, book, and music stores also added 9,000 jobs over the month, largely offsetting a decline in September.

Professional and business services employment was little changed in October. Over the last 12 months, however, the industry has added 442,000 jobs. Over the month, employment in computer systems design and related services increased by 8,000.

In October, employment in information decreased by 15,000. Much of this decline was due to a job loss of 11,000 in the motion picture and sound recording industry. Despite the October decline, employment in the information industry was about unchanged over the year.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls was unchanged at 33.8 hours in October, seasonally adjusted. The manufacturing workweek increased by 0.4 hour to 41.0 hours, and factory overtime was unchanged at 4.5 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls was unchanged in October at 103.2 (2002=100). The manufacturing index was up by 1.3 percent over the month to 95.1. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls rose by 8 cents in October to \$16.27, seasonally adjusted. Average weekly earnings increased by 0.5 percent over the month to \$549.93. Over the year, both average hourly and weekly earnings increased by 2.9 percent. (See table B-3.)

The Employment Situation for November 2005 is scheduled to be released on Friday, December 2, at 8:30 A.M. (EST).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics survey (establishment survey). The household survey provides the information on the labor force, employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with state agencies. The sample includes about 160,000 businesses and government agencies covering approximately 400,000 individual workites. The active sample includes about one-third of all nonfarm payroll workers. The sample is drawn from a sampling frame of unemployment insurance tax accounts.

For both surveys, the data for a given month relate to a particular week or pay period. In the household survey, the reference week is generally the calendar week that contains the 12th day of the month. In the establishment survey, the reference period is the pay period including the 12th, which may or may not correspond directly to the calendar week.

Coverage, definitions, and differences between surveys

Household survey. The sample is selected to reflect the entire civilian noninstitutional population. Based on responses to a series of questions on work and job search activities, each person 16 years and over in a sample household is classified as employed, unemployed, or not in the labor force.

People are classified as *employed* if they did any work at all as paid employees during the reference week; worked in their own business, profession, or on their own farm; or worked without pay at least 15 hours in a family business or farm. People are also counted as employed if they were temporarily absent from their jobs because of illness, bad weather, vacation, labor-management disputes, or personal reasons.

People are classified as *unemployed* if they meet all of the following criteria: They had no employment during the reference week; they were available for work at that time; and they made specific efforts to find employment sometime during the 4-week period ending with the reference week. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed. The unemployment data derived from the household survey in no way depend upon the eligibility for or receipt of unemployment insurance benefits.

The *civilian labor force* is the sum of employed and unemployed persons. Those not classified as employed or unemployed are *not in the labor force*. The *unemployment rate* is the number unemployed as a percent of the labor force. The *labor force participation rate* is the labor force as a percent of the population, and the *employment-population ratio* is the employed as a percent of the population.

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as federal, state, and local government entities. *Employees on nonfarm payrolls* are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-providing sector. Industries are classified on the basis of their principal activity in accordance with the 2002 version of the North American Industry Classification System.

Differences in employment estimates. The numerous conceptual and methodological differences between the household and establishment surveys result in important distinctions in the employment estimates derived from the surveys. Among these are:

- The household survey includes agricultural workers, the self-employed, unpaid family workers, and private household workers among the employed. These groups are excluded from the establishment survey.

- The household survey includes people on unpaid leave among the employed. The establishment survey does not.

- The household survey is limited to workers 16 years of age and older. The establishment survey is not limited by age.

- The household survey has no duplication of individuals, because individuals are counted only once, even if they hold more than one job. In the establishment survey, employees working at more than one job and thus appearing on more than one payroll would be counted separately for each appearance.

Seasonal adjustment

Over the course of a year, the size of the nation's labor force and the levels of employment and unemployment undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large; seasonal fluctuations may account for as much as 95 percent of the month-to-month changes in unemployment.

Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make nonseasonal developments, such as declines in economic activity or increases in the participation of women in the labor force, easier to spot. For example, the large number of youth entering the labor force each June is likely to obscure any other changes that have taken place relative to May, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. Insofar as the seasonal adjustment is made correctly, the adjusted figure provides a more useful tool with which to analyze changes in economic activity.

Most seasonally adjusted series are independently adjusted in both the household and establishment surveys. However, the ad-

justed series for many major estimates, such as total payroll employment, employment in most supersectors, total employment, and unemployment are computed by aggregating independently adjusted component series. For example, total unemployment is derived by summing the adjusted series for four major age-sex components; this differs from the unemployment estimate that would be obtained by directly adjusting the total or by combining the duration, reasons, or more detailed age categories.

For both the household and establishment surveys, a concurrent seasonal adjustment methodology is used in which new seasonal factors are calculated each month, using all relevant data, up to and including the data for the current month. In the household survey, new seasonal factors are used to adjust only the current month's data. In the establishment survey, however, new seasonal factors are used each month to adjust the three most recent monthly estimates. In both surveys, revisions to historical data are made once a year.

Reliability of the estimates

Statistics based on the household and establishment surveys are subject to both sampling and nonsampling error. When a sample rather than the entire population is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

For example, the confidence interval for the monthly change in total employment from the household survey is on the order of plus or minus 430,000. Suppose the estimate of total employment increases by 100,000 from one month to the next. The 90-percent confidence interval on the monthly change would range from -330,000 to 530,000 (100,000 +/- 430,000). These figures do not mean that the sample results are off by these magnitudes, but rather that there is about a 90-percent chance that the "true" over-the-month change lies within this interval. Since this range includes values of less than zero, we could not say with confidence that employment had, in fact, increased. If, however, the reported employment rise was half a million, then all of the values within the 90-percent confidence interval would be greater than zero. In this case, it is likely (at least a 90-percent chance) that an employment rise had, in fact, occurred. At an unemployment rate of around 5.5 percent, the 90-percent confidence interval for the monthly change in unemployment is about +/- 280,000, and for the monthly change in the unemployment rate it is about +/- .19 percentage point.

In general, estimates involving many individuals or establishments have lower standard errors (relative to the size of the estimate) than estimates which are based on a small number of observations. The precision of estimates is also improved when the data are cumulated over time such as for quarterly and annual averages. The seasonal adjustment process can also improve the stability of the monthly estimates.

The household and establishment surveys are also affected by *nonsampling error*. Nonsampling errors can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information on a timely basis, mistakes made by respondents, and errors made in the collection or processing of the data.

For example, in the establishment survey, estimates for the most recent 2 months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. It is only after two successive revisions to a monthly estimate, when nearly all sample reports have been received, that the estimate is considered final.

Another major source of nonsampling error in the establishment survey is the inability to capture, on a timely basis, employment generated by new firms. To correct for this systematic underestimation of employment growth, an estimation procedure with two components is used to account for business births. The first component uses business deaths to impute employment for business births. This is incorporated into the sample-based link relative estimate procedure by simply not reflecting sample units going out of business, but imputing to them the same trend as the other firms in the sample. The second component is an ARIMA time series model designed to estimate the residual net birth/death employment not accounted for by the imputation. The historical time series used to create and test the ARIMA model was derived from the unemployment insurance universe micro-level database, and reflects the actual residual net of births and deaths over the past five years.

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.2 percent, ranging from less than 0.05 percent to 0.5 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$27.00 per issue or \$53.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

Employment and Earnings also provides measures of sampling error for the household and establishment survey data published in this release. For unemployment and other labor force categories, these measures appear in tables 1-B through 1-D of its "Explanatory Notes." For the establishment survey data, the sampling error measures and the actual size of revisions due to benchmark adjustments appear in tables 2-B through 2-F of *Employment and Earnings*.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone: 1-800-877-8339.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the civilian population by sex and age
(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|------------|-----------|----------------------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2006 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2006 |
| TOTAL | | | | | | | | | |
| Civilian noninstitutional population | 224,192 | 228,663 | 228,959 | 224,192 | 225,911 | 228,153 | 226,421 | 228,663 | 228,959 |
| Civilian labor force | 147,278 | 148,638 | 150,304 | 147,893 | 148,123 | 148,573 | 149,841 | 150,093 | 150,079 |
| Participation rate | 66.0 | 65.1 | 65.2 | 66.0 | 66.0 | 65.1 | 66.2 | 66.2 | 66.1 |
| Employed | 140,447 | 142,579 | 143,340 | 139,927 | 141,036 | 142,078 | 142,449 | 142,452 | 142,646 |
| Employment-population ratio | 62.6 | 62.9 | 62.2 | 62.4 | 62.7 | 62.8 | 62.9 | 62.8 | 62.9 |
| Unemployed | 7,831 | 7,259 | 8,964 | 8,066 | 7,498 | 7,497 | 7,391 | 7,661 | 7,433 |
| Unemployment rate | 5.1 | 4.9 | 4.6 | 5.5 | 5.0 | 5.0 | 4.9 | 5.1 | 5.0 |
| Not in labor force | 78,914 | 78,655 | 76,655 | 76,299 | 78,787 | 78,580 | 78,581 | 78,652 | 78,880 |
| Persons who currently want a job | 3,665 | 4,757 | 4,780 | 5,338 | 5,240 | 5,015 | 4,823 | 4,937 | 4,997 |
| Men, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 108,153 | 109,475 | 108,616 | 108,153 | 109,062 | 109,190 | 109,332 | 109,475 | 108,616 |
| Civilian labor force | 70,282 | 69,130 | 69,305 | 70,280 | 69,663 | 69,189 | 69,400 | 69,327 | 69,255 |
| Participation rate | 73.3 | 73.2 | 73.3 | 73.3 | 73.4 | 73.4 | 73.5 | 73.4 | 73.2 |
| Employed | 75,254 | 76,448 | 76,808 | 74,852 | 76,092 | 76,272 | 76,449 | 76,238 | 76,365 |
| Employment-population ratio | 69.6 | 69.8 | 70.1 | 69.2 | 69.8 | 69.9 | 69.9 | 69.8 | 69.7 |
| Unemployed | 4,028 | 3,694 | 3,496 | 4,428 | 3,571 | 3,927 | 3,950 | 4,082 | 3,892 |
| Unemployment rate | 5.1 | 4.6 | 4.4 | 5.6 | 5.0 | 4.9 | 4.9 | 5.1 | 4.8 |
| Not in labor force | 28,871 | 29,345 | 29,310 | 28,873 | 28,998 | 28,991 | 28,932 | 29,148 | 29,360 |
| Men, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 99,804 | 101,138 | 101,265 | 99,804 | 100,754 | 100,874 | 101,004 | 101,138 | 101,265 |
| Civilian labor force | 75,744 | 76,789 | 76,978 | 75,832 | 76,482 | 76,624 | 76,821 | 76,780 | 76,606 |
| Participation rate | 75.8 | 76.0 | 76.0 | 75.7 | 75.9 | 76.0 | 76.1 | 75.9 | 75.8 |
| Employed | 72,351 | 73,637 | 73,988 | 71,895 | 73,174 | 73,383 | 73,527 | 73,318 | 73,519 |
| Employment-population ratio | 72.4 | 72.9 | 73.1 | 72.0 | 72.8 | 72.7 | 72.8 | 72.5 | 72.8 |
| Unemployed | 3,393 | 3,152 | 2,990 | 3,786 | 3,288 | 3,241 | 3,304 | 3,471 | 3,287 |
| Unemployment rate | 4.5 | 4.1 | 3.9 | 4.9 | 4.3 | 4.3 | 4.3 | 4.5 | 4.3 |
| Not in labor force | 24,160 | 24,367 | 24,287 | 24,272 | 24,292 | 24,250 | 24,173 | 24,366 | 24,659 |
| Women, 16 years and over | | | | | | | | | |
| Civilian noninstitutional population | 116,039 | 117,218 | 117,343 | 116,039 | 116,849 | 116,983 | 117,089 | 117,218 | 117,343 |
| Civilian labor force | 68,698 | 68,708 | 68,998 | 68,603 | 68,060 | 68,374 | 68,431 | 68,763 | 68,823 |
| Participation rate | 59.2 | 58.5 | 59.7 | 59.1 | 59.1 | 59.3 | 59.3 | 59.5 | 59.5 |
| Employed | 65,183 | 66,133 | 66,332 | 64,975 | 65,545 | 65,804 | 66,000 | 66,199 | 66,251 |
| Employment-population ratio | 56.2 | 56.4 | 56.7 | 56.0 | 56.1 | 56.3 | 56.4 | 56.5 | 56.5 |
| Unemployed | 3,500 | 3,575 | 3,466 | 3,628 | 3,515 | 3,570 | 3,431 | 3,569 | 3,571 |
| Unemployment rate | 5.1 | 5.1 | 5.0 | 5.3 | 5.1 | 5.1 | 4.9 | 5.1 | 5.1 |
| Not in labor force | 47,341 | 47,508 | 47,345 | 47,436 | 47,769 | 47,589 | 47,668 | 47,455 | 47,530 |
| Women, 20 years and over | | | | | | | | | |
| Civilian noninstitutional population | 108,032 | 108,114 | 108,228 | 108,032 | 108,776 | 108,880 | 108,968 | 109,114 | 109,228 |
| Civilian labor force | 63,327 | 63,247 | 68,480 | 63,126 | 65,470 | 65,788 | 65,781 | 65,130 | 68,191 |
| Participation rate | 60.5 | 60.7 | 63.9 | 60.3 | 60.2 | 60.4 | 60.3 | 60.6 | 63.6 |
| Employed | 62,321 | 63,153 | 63,581 | 62,024 | 62,451 | 62,690 | 62,857 | 63,077 | 63,173 |
| Employment-population ratio | 57.7 | 57.9 | 58.2 | 57.4 | 57.8 | 57.8 | 57.7 | 57.8 | 57.8 |
| Unemployed | 3,006 | 3,095 | 2,900 | 3,102 | 3,019 | 3,078 | 2,924 | 3,053 | 3,018 |
| Unemployment rate | 4.6 | 4.7 | 4.4 | 4.9 | 4.6 | 4.7 | 4.4 | 4.6 | 4.6 |
| Not in labor force | 42,705 | 42,868 | 42,748 | 42,906 | 43,306 | 43,113 | 43,235 | 42,983 | 43,037 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian noninstitutional population | 16,257 | 16,443 | 16,465 | 16,257 | 16,381 | 16,399 | 16,421 | 16,443 | 16,465 |
| Civilian labor force | 6,007 | 6,622 | 6,945 | 7,135 | 7,252 | 7,142 | 7,249 | 7,173 | 7,082 |
| Participation rate | 42.5 | 41.5 | 41.6 | 43.9 | 43.9 | 43.6 | 44.1 | 43.6 | 43.0 |
| Employed | 5,775 | 5,789 | 6,801 | 5,908 | 6,013 | 6,024 | 6,055 | 6,036 | 5,964 |
| Employment-population ratio | 35.5 | 35.2 | 35.3 | 36.3 | 36.7 | 36.7 | 36.9 | 36.7 | 36.2 |
| Unemployed | 1,132 | 1,033 | 1,045 | 1,227 | 1,178 | 1,168 | 1,193 | 1,138 | 1,128 |
| Unemployment rate | 16.4 | 15.1 | 15.3 | 17.2 | 16.4 | 16.1 | 16.5 | 15.9 | 15.9 |
| Not in labor force | 9,350 | 9,821 | 9,820 | 9,122 | 9,190 | 9,217 | 9,172 | 9,271 | 9,384 |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.
NOTE: Beginning in January 2006, data reflect revised population controls used in the household survey.

Table A-2. Employment status of the civilian population by race, sex, and age
(Numbers in thousands)

| Employment status, race, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|---------------------------------------|-------------------------|------------|-----------|----------------------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| WHITE | | | | | | | | | |
| Civilian noninstitutional population | 183,188 | 184,851 | 185,028 | 183,188 | 184,328 | 184,490 | 184,659 | 184,851 | 185,028 |
| Civilian labor force | 121,324 | 122,614 | 122,900 | 121,273 | 121,985 | 122,383 | 122,668 | 122,617 | 122,767 |
| Participation rate | 66.2 | 66.5 | 66.4 | 66.2 | 66.2 | 66.4 | 66.4 | 66.4 | 66.4 |
| Employed | 118,151 | 117,420 | 117,898 | 118,516 | 118,778 | 117,140 | 117,471 | 117,317 | 117,358 |
| Employers-population ratio | 63.4 | 63.5 | 63.7 | 63.1 | 63.4 | 63.3 | 63.5 | 63.5 | 63.4 |
| Unemployed | 5,173 | 5,194 | 5,002 | 5,555 | 5,205 | 5,243 | 5,197 | 5,500 | 5,441 |
| Unemployment rate | 4.3 | 4.2 | 4.1 | 4.7 | 4.3 | 4.3 | 4.2 | 4.5 | 4.4 |
| Not in labor force | 61,864 | 62,237 | 62,128 | 61,915 | 62,343 | 62,107 | 62,001 | 62,034 | 62,251 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 63,203 | 63,841 | 64,041 | 63,082 | 63,691 | 63,700 | 63,894 | 63,824 | 63,803 |
| Participation rate | 78.2 | 78.4 | 78.4 | 78.1 | 78.3 | 78.2 | 78.4 | 78.4 | 78.2 |
| Employed | 60,827 | 61,567 | 61,871 | 60,415 | 61,371 | 61,253 | 61,510 | 61,248 | 61,457 |
| Employers-population ratio | 73.4 | 73.5 | 73.8 | 72.9 | 73.5 | 73.4 | 73.5 | 73.1 | 73.3 |
| Unemployed | 2,376 | 2,274 | 2,170 | 2,676 | 2,320 | 2,246 | 2,384 | 2,576 | 2,446 |
| Unemployment rate | 3.8 | 3.6 | 3.4 | 4.2 | 3.6 | 3.7 | 3.7 | 4.0 | 3.8 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 52,412 | 53,021 | 53,194 | 52,270 | 52,325 | 52,757 | 52,762 | 52,973 | 52,960 |
| Participation rate | 59.8 | 60.0 | 60.1 | 59.8 | 59.8 | 60.0 | 60.0 | 60.0 | 60.0 |
| Employed | 50,415 | 50,841 | 51,080 | 50,180 | 50,284 | 50,874 | 50,781 | 50,850 | 50,838 |
| Employers-population ratio | 57.5 | 57.5 | 57.8 | 57.2 | 57.0 | 57.4 | 57.5 | 57.5 | 57.5 |
| Unemployed | 1,996 | 2,180 | 2,074 | 2,094 | 2,041 | 2,083 | 1,981 | 2,123 | 2,154 |
| Unemployment rate | 3.8 | 4.1 | 3.9 | 4.0 | 3.9 | 3.9 | 3.8 | 4.0 | 4.1 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 5,710 | 5,751 | 5,688 | 5,911 | 5,958 | 5,926 | 6,012 | 6,020 | 5,904 |
| Participation rate | 45.3 | 45.2 | 44.8 | 46.9 | 46.9 | 47.1 | 47.3 | 47.3 | 46.4 |
| Employed | 4,945 | 5,012 | 4,937 | 5,013 | 5,028 | 5,021 | 5,071 | 5,019 | 5,033 |
| Employers-population ratio | 38.9 | 39.4 | 38.8 | 39.8 | 40.4 | 40.4 | 40.8 | 41.0 | 39.8 |
| Unemployed | 802 | 739 | 738 | 894 | 845 | 805 | 832 | 801 | 841 |
| Unemployment rate | 14.0 | 12.9 | 13.3 | 15.1 | 14.2 | 13.6 | 13.6 | 13.3 | 14.2 |
| BLACK OR AFRICAN AMERICAN | | | | | | | | | |
| Civilian noninstitutional population | 26,204 | 26,618 | 26,683 | 26,204 | 26,488 | 26,526 | 26,572 | 26,618 | 26,653 |
| Civilian labor force | 16,893 | 17,113 | 17,255 | 16,820 | 17,147 | 17,190 | 17,154 | 17,087 | 17,158 |
| Participation rate | 64.5 | 64.5 | 64.7 | 64.2 | 64.8 | 64.7 | 64.6 | 64.6 | 64.6 |
| Employed | 15,157 | 15,574 | 15,742 | 15,012 | 15,378 | 15,381 | 15,469 | 15,480 | 15,591 |
| Employers-population ratio | 58.0 | 58.5 | 58.0 | 57.3 | 58.1 | 58.1 | 58.2 | 58.2 | 58.5 |
| Unemployed | 1,736 | 1,539 | 1,512 | 1,808 | 1,769 | 1,809 | 1,685 | 1,607 | 1,567 |
| Unemployment rate | 10.4 | 9.0 | 9.8 | 10.7 | 10.3 | 9.8 | 9.8 | 9.4 | 9.1 |
| Not in labor force | 9,312 | 9,504 | 9,408 | 9,384 | 9,341 | 9,336 | 9,417 | 9,531 | 9,505 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,531 | 7,712 | 7,782 | 7,480 | 7,708 | 7,785 | 7,738 | 7,690 | 7,678 |
| Participation rate | 71.8 | 72.1 | 72.1 | 71.2 | 72.4 | 72.8 | 72.4 | 71.8 | 71.8 |
| Employed | 6,797 | 7,083 | 7,107 | 6,722 | 6,983 | 7,116 | 7,077 | 7,017 | 7,022 |
| Employers-population ratio | 64.6 | 66.2 | 66.3 | 63.9 | 65.4 | 66.7 | 66.2 | 66.8 | 66.5 |
| Unemployed | 784 | 629 | 625 | 758 | 743 | 669 | 662 | 674 | 656 |
| Unemployment rate | 9.7 | 8.2 | 8.1 | 10.2 | 9.6 | 8.4 | 8.6 | 8.6 | 8.5 |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 6,552 | 6,712 | 6,779 | 6,513 | 6,626 | 6,609 | 6,604 | 6,574 | 6,728 |
| Participation rate | 64.6 | 64.9 | 65.3 | 64.8 | 64.5 | 64.3 | 64.2 | 64.6 | 64.8 |
| Employed | 7,795 | 8,028 | 8,123 | 7,758 | 7,883 | 7,900 | 7,902 | 7,870 | 8,080 |
| Employers-population ratio | 58.9 | 59.8 | 60.4 | 58.6 | 60.8 | 60.0 | 60.0 | 60.4 | 60.0 |
| Unemployed | 756 | 686 | 655 | 757 | 742 | 709 | 702 | 704 | 648 |
| Unemployment rate | 8.8 | 7.9 | 7.5 | 8.9 | 8.8 | 8.2 | 8.2 | 8.1 | 7.6 |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 809 | 699 | 744 | 818 | 815 | 818 | 810 | 782 | 757 |
| Participation rate | 33.2 | 27.8 | 29.7 | 35.8 | 32.9 | 32.9 | 32.6 | 29.4 | 29.3 |
| Employed | 543 | 465 | 512 | 534 | 531 | 546 | 521 | 493 | 508 |
| Employers-population ratio | 22.3 | 18.6 | 20.5 | 21.8 | 22.3 | 22.0 | 20.9 | 18.8 | 20.3 |
| Unemployed | 266 | 224 | 232 | 283 | 284 | 270 | 289 | 289 | 249 |
| Unemployment rate | 32.9 | 32.5 | 31.1 | 34.7 | 32.4 | 33.1 | 35.8 | 32.6 | 32.9 |
| ASIAN | | | | | | | | | |
| Civilian noninstitutional population | 9,540 | 9,958 | 9,931 | (2) | (2) | (2) | (2) | (2) | (2) |
| Civilian labor force | 6,334 | 6,553 | 6,591 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 66.7 | 65.8 | 66.4 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 6,028 | 6,284 | 6,387 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employers-population ratio | 62.5 | 63.1 | 64.3 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 305 | 270 | 203 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 4.6 | 4.1 | 3.1 | (2) | (2) | (2) | (2) | (2) | (2) |
| Not in labor force | 3,205 | 3,403 | 3,340 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.
² Data not available.

NOTE: Estimates for the above race groups will not sum to totals shown in table A-1 because data are not presented for all races. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-3. Employment status of the Hispanic or Latino population by sex and age

(Numbers in thousands)

| Employment status, sex, and age | Not seasonally adjusted | | | Seasonally adjusted ¹ | | | | | |
|--------------------------------------|-------------------------|------------|-----------|----------------------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| HISPANIC OR LATINO ETHNICITY | | | | | | | | | |
| Civilian noninstitutional population | 28,431 | 28,381 | 28,455 | 28,431 | 29,079 | 29,168 | 29,264 | 29,351 | 29,438 |
| Civilian labor force | 19,581 | 19,015 | 20,701 | 19,524 | 19,777 | 19,794 | 19,944 | 19,941 | 20,225 |
| Participation rate | 68.8 | 67.8 | 69.2 | 68.7 | 68.0 | 67.9 | 68.0 | 67.9 | 69.0 |
| Employed | 18,305 | 18,688 | 18,978 | 18,213 | 18,823 | 18,698 | 18,761 | 18,844 | 18,855 |
| Employment-population ratio | 64.4 | 63.8 | 64.4 | 64.1 | 64.0 | 64.1 | 64.1 | 63.5 | 64.0 |
| Unemployed | 1,256 | 1,227 | 1,722 | 1,211 | 1,154 | 1,096 | 1,183 | 1,257 | 1,170 |
| Unemployment rate | 6.4 | 6.2 | 5.6 | 5.7 | 5.8 | 5.5 | 5.8 | 6.5 | 5.8 |
| Not in labor force | 8,870 | 9,448 | 9,355 | 8,907 | 9,302 | 9,374 | 9,350 | 9,420 | 9,431 |
| Men, 20 years and over | | | | | | | | | |
| Civilian labor force | 11,149 | 11,490 | 11,527 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 64.2 | 63.8 | 64.4 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 10,590 | 10,325 | 11,088 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 60.0 | 59.8 | 60.7 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 459 | 491 | 420 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 5.0 | 4.8 | 4.4 | (2) | (2) | (2) | (2) | (2) | (2) |
| Women, 20 years and over | | | | | | | | | |
| Civilian labor force | 7,257 | 7,272 | 7,478 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 58.6 | 58.9 | 57.5 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 6,858 | 6,881 | 7,048 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 54.7 | 53.1 | 54.2 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 429 | 491 | 420 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 6.6 | 6.7 | 5.7 | (2) | (2) | (2) | (2) | (2) | (2) |
| Both sexes, 16 to 19 years | | | | | | | | | |
| Civilian labor force | 1,056 | 1,062 | 1,027 | (2) | (2) | (2) | (2) | (2) | (2) |
| Participation rate | 40.1 | 39.2 | 37.8 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employed | 847 | 861 | 843 | (2) | (2) | (2) | (2) | (2) | (2) |
| Employment-population ratio | 32.2 | 32.5 | 31.0 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployed | 259 | 491 | 184 | (2) | (2) | (2) | (2) | (2) | (2) |
| Unemployment rate | 19.7 | 17.0 | 17.9 | (2) | (2) | (2) | (2) | (2) | (2) |

¹ The population figures are not adjusted for seasonal variation; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

² Data not available.

NOTE: Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-4. Employment status of the civilian population 25 years and over by educational attainment

(Numbers in thousands)

| Educational attainment | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|------------|-----------|---------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| Less than a high school diploma | | | | | | | | | |
| Civilian labor force | 12,385 | 12,863 | 12,940 | 12,502 | 12,903 | 13,156 | 12,883 | 12,770 | 12,519 |
| Participation rate | 44.6 | 45.7 | 44.8 | 45.0 | 45.6 | 47.5 | 48.1 | 45.3 | 45.4 |
| Employed | 11,437 | 11,891 | 11,527 | 11,471 | 12,008 | 12,154 | 11,803 | 11,728 | 11,628 |
| Employment-population ratio | 41.2 | 42.2 | 41.8 | 41.3 | 42.5 | 43.8 | 42.6 | 41.8 | 42.2 |
| Unemployed | 948 | 972 | 1,413 | 1,031 | 895 | 1,002 | 980 | 1,042 | 890 |
| Unemployment rate | 7.7 | 7.6 | 6.6 | 8.2 | 7.0 | 7.6 | 7.6 | 8.2 | 7.1 |
| High school graduates, no college¹ | | | | | | | | | |
| Civilian labor force | 37,705 | 38,362 | 38,537 | 37,712 | 38,090 | 37,959 | 38,104 | 38,325 | 38,480 |
| Participation rate | 63.6 | 63.9 | 64.0 | 63.5 | 63.2 | 63.6 | 63.4 | 63.9 | 63.9 |
| Employed | 36,115 | 36,637 | 36,875 | 36,674 | 36,307 | 36,120 | 36,327 | 36,369 | 36,631 |
| Employment-population ratio | 60.8 | 61.0 | 61.2 | 60.4 | 60.2 | 60.5 | 60.5 | 60.6 | 60.8 |
| Unemployed | 1,550 | 1,725 | 1,661 | 1,038 | 1,773 | 1,839 | 1,777 | 1,956 | 1,849 |
| Unemployment rate | 4.4 | 4.5 | 4.3 | 4.9 | 4.7 | 4.8 | 4.7 | 5.0 | 4.8 |
| Some college or associate degree | | | | | | | | | |
| Civilian labor force | 34,725 | 35,154 | 35,456 | 34,548 | 34,635 | 34,851 | 35,008 | 35,128 | 35,310 |
| Participation rate | 72.1 | 72.4 | 72.6 | 71.8 | 72.3 | 71.2 | 72.0 | 72.3 | 72.3 |
| Employed | 33,392 | 33,933 | 34,172 | 33,112 | 33,283 | 33,547 | 33,754 | 33,659 | 33,659 |
| Employment-population ratio | 69.4 | 69.9 | 70.0 | 68.9 | 69.5 | 69.5 | 69.4 | 69.7 | 69.5 |
| Unemployed | 1,354 | 1,221 | 1,284 | 1,436 | 1,351 | 1,304 | 1,254 | 1,257 | 1,251 |
| Unemployment rate | 3.9 | 3.5 | 3.6 | 4.2 | 3.9 | 3.7 | 3.6 | 3.6 | 3.6 |
| Bachelor's degree and higher² | | | | | | | | | |
| Civilian labor force | 40,921 | 41,817 | 41,880 | 40,772 | 40,945 | 41,257 | 41,431 | 41,869 | 41,829 |
| Participation rate | 78.1 | 78.2 | 78.2 | 77.8 | 77.6 | 77.9 | 78.1 | 78.1 | 77.7 |
| Employed | 39,294 | 40,615 | 40,972 | 39,744 | 40,007 | 40,309 | 40,579 | 40,992 | 40,876 |
| Employment-population ratio | 78.2 | 78.3 | 78.5 | 78.8 | 78.7 | 78.9 | 78.5 | 78.0 | 78.0 |
| Unemployed | 997 | 1,002 | 907 | 1,027 | 938 | 948 | 852 | 876 | 953 |
| Unemployment rate | 2.4 | 2.4 | 2.2 | 2.5 | 2.3 | 2.4 | 2.1 | 2.4 | 2.3 |

¹ Includes persons with a high school diploma or equivalent.

² Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-4. Employed persons by class of worker and part-time status
(in thousands)

| Category | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|------------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| CLASS OF WORKER | | | | | | | | | |
| Agriculture and related industries | 2,280 | 2,284 | 2,280 | 2,155 | 2,336 | 2,334 | 2,178 | 2,142 | 2,122 |
| Wage and salary workers | 1,273 | 1,280 | 1,227 | 1,194 | 1,312 | 1,311 | 1,216 | 1,117 | 1,147 |
| Self-employed workers | 973 | 986 | 973 | 921 | 1,004 | 987 | 928 | 861 | 937 |
| Unpaid family workers | 34 | 38 | 38 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Nonagricultural industries | 138,167 | 140,298 | 141,101 | 137,764 | 139,237 | 139,868 | 140,345 | 140,461 | 140,629 |
| Wage and salary workers | 128,227 | 130,795 | 131,459 | 128,026 | 129,707 | 130,056 | 131,021 | 130,894 | 131,180 |
| Government | 20,338 | 20,294 | 20,475 | 20,213 | 20,494 | 20,492 | 20,469 | 20,291 | 20,394 |
| Private industries | 107,858 | 110,471 | 110,964 | 107,823 | 109,223 | 109,651 | 110,605 | 110,728 | 110,816 |
| Private households | 728 | 661 | 613 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Other industries | 107,171 | 108,610 | 110,182 | 107,090 | 108,359 | 108,634 | 109,705 | 108,867 | 109,985 |
| Self-employed workers | 9,860 | 9,453 | 9,349 | 9,732 | 9,485 | 9,514 | 9,269 | 9,355 | 9,360 |
| Unpaid family workers | 81 | 88 | 84 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| PERSONS AT WORK PART TIME ² | | | | | | | | | |
| All industries: | | | | | | | | | |
| Part time for economic reasons | 4,407 | 4,230 | 3,915 | 4,782 | 4,465 | 4,427 | 4,493 | 4,591 | 4,261 |
| Stack work or business conditions | 2,842 | 2,665 | 2,459 | 3,052 | 2,688 | 2,723 | 2,768 | 2,862 | 2,686 |
| Could only find part-time work | 1,312 | 1,316 | 1,238 | 1,366 | 1,420 | 1,368 | 1,428 | 1,363 | 1,318 |
| Part time for noneconomic reasons | 20,442 | 19,812 | 20,538 | 19,704 | 19,021 | 19,528 | 19,516 | 19,579 | 19,705 |
| Nonagricultural industries: | | | | | | | | | |
| Part time for economic reasons | 4,310 | 4,198 | 3,837 | 4,658 | 4,386 | 4,369 | 4,457 | 4,522 | 4,178 |
| Stack work or business conditions | 2,754 | 2,638 | 2,400 | 2,971 | 2,616 | 2,673 | 2,747 | 2,832 | 2,614 |
| Could only find part-time work | 1,302 | 1,312 | 1,225 | 1,363 | 1,416 | 1,369 | 1,420 | 1,369 | 1,298 |
| Part time for noneconomic reasons | 20,034 | 19,414 | 20,130 | 19,288 | 18,633 | 19,084 | 19,141 | 19,188 | 19,259 |

¹ Data not available.

² Persons at work excludes employed persons who were absent from their jobs during the entire reference week for reasons such as vacation, illness, or industrial dispute. Part time for noneconomic reasons excludes persons who usually work full time but worked only 1 to 34 hours during the reference week for reasons such as holidays, illness, and

bad weather.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-6. Selected employment indicators

(In thousands)

| Characteristic | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|------------|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| Total, 16 years and over | 140,447 | 142,579 | 143,340 | 139,827 | 141,638 | 142,076 | 142,449 | 142,522 | 142,648 |
| 16 to 19 years | 5,775 | 5,789 | 5,801 | 5,789 | 5,813 | 5,824 | 5,835 | 5,846 | 5,854 |
| 16 to 17 years | 2,160 | 2,253 | 2,231 | 2,189 | 2,296 | 2,241 | 2,292 | 2,285 | 2,286 |
| 18 to 19 years | 3,615 | 3,536 | 3,570 | 3,711 | 3,712 | 3,789 | 3,789 | 3,782 | 3,669 |
| 20 years and over | 134,672 | 136,790 | 137,539 | 133,020 | 135,825 | 136,252 | 136,394 | 136,265 | 136,602 |
| 20 to 24 years | 13,834 | 13,714 | 13,823 | 13,842 | 13,829 | 13,904 | 13,775 | 13,842 | 13,949 |
| 25 years and over | 120,839 | 123,076 | 123,646 | 120,056 | 121,772 | 122,120 | 122,682 | 122,546 | 122,656 |
| 25 to 34 years | 98,260 | 99,229 | 99,400 | 97,700 | 98,274 | 98,530 | 98,959 | 98,817 | 98,822 |
| 35 to 44 years | 30,638 | 30,854 | 31,068 | 30,432 | 30,482 | 30,606 | 30,709 | 30,671 | 30,844 |
| 45 to 54 years | 34,739 | 34,949 | 34,754 | 34,559 | 34,629 | 34,707 | 34,701 | 34,622 | 34,538 |
| 55 years and over | 32,883 | 33,428 | 33,559 | 32,669 | 33,163 | 33,217 | 33,548 | 33,204 | 33,369 |
| 55 years and over | 22,579 | 23,847 | 24,146 | 22,368 | 23,498 | 23,690 | 23,725 | 23,728 | 23,674 |
| Men, 16 years and over | 75,254 | 76,446 | 76,808 | 74,852 | 76,092 | 76,272 | 76,449 | 76,236 | 76,355 |
| 16 to 19 years | 2,903 | 2,809 | 2,819 | 2,867 | 2,919 | 2,910 | 2,923 | 2,918 | 2,875 |
| 16 to 17 years | 1,063 | 1,036 | 1,025 | 1,072 | 1,066 | 1,014 | 1,064 | 1,048 | 1,037 |
| 18 to 19 years | 1,840 | 1,773 | 1,794 | 1,878 | 1,851 | 1,896 | 1,862 | 1,863 | 1,838 |
| 20 to 24 years | 7,309 | 7,195 | 7,323 | 7,307 | 7,367 | 7,414 | 7,303 | 7,246 | 7,305 |
| 25 years and over | 65,042 | 66,441 | 66,665 | 64,582 | 65,807 | 65,920 | 66,282 | 66,043 | 66,207 |
| 25 to 34 years | 52,686 | 53,676 | 53,741 | 52,282 | 53,124 | 53,186 | 53,630 | 53,329 | 53,438 |
| 35 to 44 years | 17,038 | 17,164 | 17,235 | 16,900 | 16,921 | 16,988 | 17,119 | 17,025 | 17,108 |
| 45 to 54 years | 18,733 | 18,953 | 18,801 | 18,649 | 18,803 | 18,825 | 18,784 | 18,818 | 18,809 |
| 55 years and over | 17,115 | 17,660 | 17,685 | 17,033 | 17,400 | 17,395 | 17,827 | 17,489 | 17,522 |
| 55 years and over | 12,156 | 12,765 | 12,825 | 12,090 | 12,662 | 12,722 | 12,763 | 12,714 | 12,769 |
| Women, 16 years and over | 65,193 | 66,133 | 66,532 | 64,975 | 65,545 | 65,804 | 66,000 | 66,186 | 66,293 |
| 16 to 19 years | 2,872 | 2,980 | 2,982 | 2,911 | 3,095 | 3,114 | 3,133 | 3,119 | 3,078 |
| 16 to 17 years | 1,067 | 1,217 | 1,236 | 1,118 | 1,230 | 1,227 | 1,227 | 1,206 | 1,249 |
| 18 to 19 years | 1,775 | 1,768 | 1,778 | 1,801 | 1,860 | 1,873 | 1,808 | 1,863 | 1,835 |
| 20 years and over | 62,321 | 63,153 | 63,551 | 62,024 | 62,451 | 62,690 | 62,857 | 63,077 | 63,173 |
| 20 to 24 years | 6,825 | 6,518 | 6,570 | 6,325 | 6,461 | 6,491 | 6,472 | 6,566 | 6,644 |
| 25 years and over | 55,796 | 56,635 | 56,981 | 55,474 | 55,990 | 56,200 | 56,400 | 56,502 | 56,489 |
| 25 to 34 years | 45,373 | 45,853 | 45,659 | 45,118 | 45,150 | 45,333 | 45,428 | 45,468 | 45,384 |
| 35 to 44 years | 13,600 | 13,690 | 13,833 | 13,832 | 13,561 | 13,618 | 13,591 | 13,646 | 13,737 |
| 45 to 54 years | 16,006 | 15,995 | 15,853 | 15,860 | 15,626 | 15,622 | 15,917 | 16,006 | 15,820 |
| 55 years and over | 15,768 | 15,886 | 15,973 | 15,636 | 15,763 | 15,832 | 15,820 | 15,836 | 15,947 |
| 55 years and over | 10,422 | 11,082 | 11,221 | 10,350 | 10,818 | 10,867 | 10,972 | 11,014 | 11,105 |
| Married men, spouse present | 45,403 | 45,573 | 45,977 | 45,127 | 45,367 | 45,486 | 45,700 | 45,438 | 45,575 |
| Married women, spouse present | 35,273 | 34,974 | 35,285 | 34,806 | 34,822 | 34,865 | 34,957 | 34,946 | 34,958 |
| Women who maintain families | 8,064 | 8,072 | 8,075 | (¹) | (¹) | (¹) | (¹) | (¹) | (¹) |
| Full-time workers ² | 115,986 | 117,781 | 118,026 | 114,864 | 117,200 | 117,332 | 117,637 | 117,375 | 117,737 |
| Part-time workers ³ | 25,281 | 24,798 | 25,315 | 24,931 | 24,464 | 24,749 | 24,873 | 25,014 | 24,927 |

¹ Data not available.² Employed full-time workers are persons who usually work 35 hours or more per week.³ Employed part-time workers are persons who usually work less than 35 hours per week.

NOTE: Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-7. Selected unemployment indicators, seasonally adjusted

| Characteristic | Number of unemployed persons (in thousands) | | | Unemployment rates ¹ | | | | | |
|--|---|------------|-----------|---------------------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| Total, 16 years and over | 8,088 | 7,861 | 7,433 | 5.5 | 5.0 | 5.0 | 4.9 | 5.1 | 5.0 |
| 16 to 17 years | 1,227 | 1,136 | 1,126 | 17.2 | 16.4 | 16.1 | 16.5 | 15.8 | 15.9 |
| 18 to 17 years | 567 | 529 | 524 | 20.6 | 18.3 | 18.7 | 18.6 | 18.8 | 18.7 |
| 18 to 19 years | 665 | 606 | 612 | 15.2 | 15.2 | 14.4 | 15.1 | 13.9 | 14.3 |
| 20 years and over | 6,536 | 6,525 | 6,305 | 4.9 | 4.4 | 4.5 | 4.3 | 4.6 | 4.4 |
| 20 to 24 years | 1,525 | 1,324 | 1,300 | 8.8 | 8.6 | 8.3 | 8.9 | 8.7 | 8.5 |
| 25 years and over | 5,340 | 5,192 | 5,021 | 4.3 | 3.9 | 4.0 | 3.6 | 4.1 | 3.9 |
| 25 to 54 years | 4,458 | 4,259 | 4,215 | 4.4 | 4.1 | 4.2 | 4.0 | 4.2 | 4.1 |
| 25 to 34 years | 1,761 | 1,747 | 1,570 | 5.5 | 5.2 | 5.2 | 5.0 | 5.4 | 4.8 |
| 35 to 44 years | 1,469 | 1,330 | 1,387 | 4.1 | 3.8 | 3.8 | 3.7 | 3.7 | 3.9 |
| 45 to 54 years | 1,226 | 1,222 | 1,246 | 3.6 | 3.4 | 3.6 | 3.3 | 3.5 | 3.6 |
| 55 years and over | 887 | 874 | 799 | 3.8 | 3.1 | 3.5 | 3.2 | 3.6 | 3.2 |
| Men, 16 years and over | 4,438 | 4,092 | 3,862 | 5.6 | 5.0 | 4.9 | 4.9 | 5.1 | 4.8 |
| 16 to 19 years | 701 | 620 | 675 | 18.2 | 18.0 | 18.6 | 18.3 | 17.5 | 18.7 |
| 18 to 17 years | 304 | 286 | 230 | 22.1 | 21.7 | 23.2 | 21.6 | 21.4 | 18.2 |
| 18 to 19 years | 403 | 334 | 342 | 17.7 | 17.5 | 15.5 | 16.4 | 15.2 | 15.7 |
| 20 years and over | 3,736 | 3,471 | 3,287 | 4.9 | 4.3 | 4.3 | 4.3 | 4.5 | 4.3 |
| 20 to 24 years | 827 | 801 | 763 | 10.2 | 9.3 | 8.7 | 10.1 | 9.9 | 9.5 |
| 25 years and over | 2,909 | 2,658 | 2,518 | 4.3 | 3.7 | 3.7 | 3.6 | 3.9 | 3.7 |
| 25 to 54 years | 2,491 | 2,226 | 2,102 | 4.4 | 3.9 | 3.9 | 3.8 | 4.0 | 3.8 |
| 25 to 34 years | 930 | 811 | 794 | 5.2 | 4.8 | 4.8 | 4.4 | 5.1 | 4.4 |
| 35 to 44 years | 786 | 673 | 672 | 4.0 | 3.6 | 3.4 | 3.6 | 3.5 | 3.6 |
| 45 to 54 years | 686 | 642 | 636 | 3.9 | 3.4 | 3.7 | 3.3 | 3.5 | 3.5 |
| 55 years and over | 636 | 432 | 416 | 4.1 | 3.1 | 3.2 | 3.1 | 3.3 | 3.2 |
| Women, 16 years and over | 3,628 | 3,569 | 3,571 | 5.3 | 5.1 | 5.1 | 4.9 | 5.1 | 5.1 |
| 16 to 19 years | 526 | 376 | 353 | 15.1 | 13.6 | 13.6 | 14.6 | 14.2 | 15.2 |
| 18 to 17 years | 263 | 263 | 294 | 19.0 | 15.1 | 14.5 | 15.8 | 16.4 | 19.1 |
| 18 to 19 years | 282 | 272 | 270 | 12.5 | 12.8 | 13.2 | 13.9 | 12.6 | 12.8 |
| 20 years and over | 3,102 | 3,053 | 3,018 | 4.8 | 4.6 | 4.7 | 4.4 | 4.6 | 4.6 |
| 20 to 24 years | 678 | 524 | 537 | 8.4 | 8.1 | 7.7 | 7.5 | 7.4 | 7.5 |
| 25 years and over | 2,441 | 2,534 | 2,504 | 4.2 | 4.2 | 4.3 | 4.0 | 4.3 | 4.2 |
| 25 to 54 years | 2,055 | 2,073 | 2,113 | 4.4 | 4.4 | 4.5 | 4.2 | 4.4 | 4.4 |
| 25 to 34 years | 831 | 836 | 776 | 5.8 | 5.9 | 5.9 | 5.6 | 5.8 | 5.3 |
| 35 to 44 years | 1,050 | 957 | 725 | 4.1 | 4.1 | 4.2 | 3.9 | 3.9 | 4.4 |
| 45 to 54 years | 541 | 580 | 612 | 3.3 | 3.4 | 3.6 | 3.2 | 3.5 | 3.7 |
| 55 years and over ² | 380 | 453 | 357 | 3.3 | 3.3 | 4.1 | 3.8 | 3.9 | 3.1 |
| Married men, spouse present | 1,383 | 1,236 | 1,226 | 3.0 | 2.8 | 2.8 | 2.9 | 2.8 | 2.6 |
| Married women, spouse present | 1,121 | 1,226 | 1,165 | 3.1 | 3.3 | 3.4 | 3.2 | 3.4 | 3.3 |
| Women who maintain families ² | 736 | 730 | 701 | 7.8 | 8.2 | 8.8 | 7.2 | 7.8 | 7.3 |
| Full-time workers ³ | 6,611 | 6,280 | 6,042 | 5.4 | 4.9 | 4.9 | 4.9 | 5.1 | 4.9 |
| Part-time workers ⁴ | 1,461 | 1,336 | 1,405 | 5.5 | 5.4 | 5.5 | 5.1 | 5.3 | 5.3 |

¹ Unemployment as a percent of the civilian labor force.² Not seasonally adjusted.³ Full-time workers are unemployed persons who have expressed a desire to work full time (35 hours or more per week) or are on layoff from full-time jobs.⁴ Part-time workers are unemployed persons who have expressed a desire to work part time (less than 35 hours per week) or are on layoff from part-time jobs.

part time (less than 35 hours per week) or are on layoff from part-time jobs.

NOTE: Detail shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-8. Unemployed persons by reason for unemployment
(Numbers in thousands)

| Reason | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|--|-------------------------|------------|-----------|---------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 3,653 | 3,373 | 3,192 | 4,074 | 3,680 | 3,633 | 3,490 | 3,724 | 3,523 |
| On temporary layoff | 637 | 670 | 637 | 947 | 975 | 959 | 890 | 862 | 947 |
| Not on temporary layoff | 2,016 | 2,703 | 2,525 | 3,127 | 2,705 | 2,674 | 2,590 | 2,742 | 2,576 |
| Permanent job losers | 2,209 | 1,936 | 1,824 | (1) | (1) | (1) | (1) | (1) | (1) |
| Persons who completed temporary jobs | 810 | 867 | 701 | (1) | (1) | (1) | (1) | (1) | (1) |
| Job leavers | 853 | 832 | 916 | 829 | 844 | 820 | 859 | 876 | 893 |
| Reentrants | 2,353 | 2,378 | 2,292 | 2,411 | 2,219 | 2,394 | 2,451 | 2,422 | 2,359 |
| New entrants | 672 | 577 | 594 | 747 | 691 | 628 | 632 | 629 | 662 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Job losers and persons who completed temporary jobs | 48.5 | 46.5 | 45.4 | 50.5 | 49.7 | 49.6 | 47.1 | 48.7 | 47.5 |
| On temporary layoff | 8.5 | 9.2 | 9.1 | 11.8 | 13.2 | 12.8 | 11.9 | 12.8 | 12.8 |
| Not on temporary layoff | 40.0 | 37.2 | 36.3 | 38.8 | 36.5 | 36.7 | 35.2 | 35.9 | 34.7 |
| Job leavers | 11.3 | 12.8 | 13.2 | 10.3 | 11.4 | 11.0 | 11.3 | 11.5 | 12.0 |
| Reentrants | 31.2 | 32.6 | 32.9 | 29.9 | 30.0 | 32.0 | 33.1 | 31.7 | 31.7 |
| New entrants | 6.9 | 7.9 | 6.5 | 9.3 | 8.9 | 6.4 | 6.5 | 6.1 | 6.8 |
| UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE | | | | | | | | | |
| Job losers and persons who completed temporary jobs | 2.5 | 2.3 | 2.1 | 2.8 | 2.5 | 2.4 | 2.3 | 2.5 | 2.3 |
| Job leavers | .8 | .8 | .8 | .8 | .8 | .8 | .8 | .8 | .8 |
| Reentrants | 1.6 | 1.6 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| New entrants | .5 | .4 | .4 | .5 | .4 | .4 | .4 | .4 | .4 |

¹ Data not available.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-9. Unemployed persons by duration of unemployment
(Numbers in thousands)

| Duration | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|------------|-----------|---------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| NUMBER OF UNEMPLOYED | | | | | | | | | |
| Less than 5 weeks | 2,602 | 2,772 | 2,579 | 2,763 | 2,666 | 2,671 | 2,542 | 2,735 | 2,695 |
| 5 to 14 weeks | 2,076 | 2,079 | 2,040 | 2,280 | 2,242 | 2,430 | 2,272 | 2,285 | 2,265 |
| 15 weeks and over | 2,852 | 2,408 | 2,348 | 3,032 | 2,850 | 2,497 | 2,686 | 2,611 | 2,496 |
| 15 to 26 weeks | 1,185 | 882 | 880 | 1,261 | 1,041 | 1,047 | 1,240 | 1,191 | 1,045 |
| 27 weeks and over | 1,667 | 1,426 | 1,388 | 1,771 | 1,310 | 1,389 | 1,444 | 1,460 | 1,452 |
| Average (mean) duration, in weeks | 18.6 | 18.2 | 18.3 | 19.7 | 17.1 | 17.6 | 18.9 | 18.3 | 18.1 |
| Median duration, in weeks | 9.5 | 8.4 | 8.5 | 9.5 | 9.1 | 9.0 | 9.4 | 8.6 | 8.6 |
| PERCENT DISTRIBUTION | | | | | | | | | |
| Total unemployed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Less than 5 weeks | 34.6 | 38.2 | 37.0 | 34.1 | 36.2 | 34.6 | 33.9 | 35.6 | 36.1 |
| 5 to 14 weeks | 27.6 | 26.6 | 26.3 | 28.4 | 21.8 | 32.7 | 30.3 | 28.9 | 30.4 |
| 15 weeks and over | 37.9 | 33.2 | 33.7 | 37.5 | 31.9 | 32.8 | 35.6 | 34.2 | 33.5 |
| 15 to 26 weeks | 15.5 | 13.5 | 13.8 | 15.6 | 14.1 | 14.1 | 16.6 | 14.8 | 14.0 |
| 27 weeks and over | 22.4 | 19.6 | 19.9 | 21.9 | 17.8 | 18.7 | 19.2 | 19.4 | 19.5 |

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-10. Employed and unemployed persons by occupation, not seasonally adjusted
(Numbers in thousands)

| Occupation | Employed | | Unemployed | | Unemployment rates | |
|--|---------------------------------------|-----------|------------|-----------|--------------------|-----------|
| | Oct. 2004 | Oct. 2005 | Oct. 2004 | Oct. 2005 | Oct. 2004 | Oct. 2005 |
| | Total, 16 years and over ¹ | 140,447 | 143,340 | 7,531 | 6,984 | 5.1 |
| Management, professional, and related occupations | 48,917 | 49,958 | 1,191 | 1,096 | 2.4 | 2.2 |
| Management, business, and financial operations occupations | 20,508 | 20,808 | 522 | 417 | 2.5 | 2.0 |
| Professional and related occupations | 28,409 | 29,150 | 669 | 683 | 2.3 | 2.3 |
| Service occupations | 23,307 | 23,297 | 1,584 | 1,430 | 6.3 | 5.9 |
| Sales and office occupations | 35,583 | 36,237 | 1,850 | 1,748 | 5.0 | 4.8 |
| Sales and related occupations | 15,983 | 16,500 | 612 | 596 | 4.8 | 5.0 |
| Office and administrative support occupations | 19,579 | 19,737 | 1,048 | 881 | 5.1 | 4.3 |
| Natural resources, construction, and maintenance occupations | 15,004 | 15,841 | 967 | 879 | 6.1 | 5.3 |
| Farming, fishing, and forestry occupations | 888 | 1,030 | 67 | 88 | 9.0 | 7.9 |
| Construction and extraction occupations | 8,882 | 9,381 | 672 | 572 | 7.0 | 5.7 |
| Installation, maintenance, and repair occupations | 5,124 | 5,431 | 198 | 219 | 3.7 | 3.9 |
| Production, transportation, and material moving occupations | 17,656 | 18,007 | 1,245 | 1,171 | 6.8 | 6.1 |
| Production occupations | 9,248 | 9,320 | 608 | 681 | 6.2 | 6.8 |
| Transportation and material moving occupations | 8,408 | 8,687 | 637 | 490 | 7.0 | 5.3 |

¹ Persons with no previous work experience and persons whose last job was in the Armed Forces are included in the unemployed total.
NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-11. Unemployed persons by industry, not seasonally adjusted

| Industry | Number of unemployed persons (In thousands) | | Unemployment rates | |
|---|--|-----------|--------------------|-----------|
| | Oct. 2004 | Oct. 2005 | Oct. 2004 | Oct. 2005 |
| | Total, 16 years and over ¹ | 7,531 | 6,984 | 5.1 |
| Nonagricultural private wage and salary workers | 5,894 | 5,629 | 5.2 | 4.7 |
| Mining | 15 | 2 | 2.8 | 3 |
| Construction | 635 | 519 | 6.9 | 5.3 |
| Manufacturing | 884 | 800 | 5.3 | 4.8 |
| Durable goods | 525 | 481 | 5.0 | 4.6 |
| Nondurable goods | 360 | 319 | 5.9 | 5.3 |
| Wholesale and retail trade | 1,138 | 1,050 | 5.4 | 4.9 |
| Transportation and utilities | 219 | 251 | 4.0 | 4.4 |
| Information | 185 | 182 | 5.8 | 4.8 |
| Financial activities | 358 | 255 | 3.8 | 2.7 |
| Professional and business services | 781 | 748 | 6.2 | 5.8 |
| Education and health services | 628 | 626 | 2.9 | 3.4 |
| Leisure and hospitality | 853 | 796 | 7.3 | 6.8 |
| Other services | 300 | 319 | 4.8 | 5.0 |
| Agriculture and related private wage and salary workers | 102 | 85 | 7.7 | 6.7 |
| Government workers | 561 | 522 | 2.7 | 2.4 |
| Self employed and unpaid family workers | 301 | 255 | 2.7 | 2.3 |

¹ Persons with no previous work experience are included in the unemployed total.
NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

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Table A-12. Alternative measures of labor underutilization

(Percent)

| Measure | Not seasonally adjusted | | | Seasonally adjusted | | | | | |
|---|-------------------------|------------|-----------|---------------------|-----------|-----------|-----------|------------|-----------|
| | Oct. 2004 | Sept. 2005 | Oct. 2005 | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 | Oct. 2005 |
| U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force | 1.9 | 1.6 | 1.6 | 2.1 | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 |
| U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force | 2.5 | 2.3 | 2.1 | 2.8 | 2.5 | 2.4 | 2.3 | 2.5 | 2.3 |
| U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate) | 5.1 | 4.8 | 4.6 | 5.5 | 5.0 | 5.0 | 4.9 | 5.1 | 5.0 |
| U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers | 5.4 | 5.1 | 4.9 | 6.7 | 5.3 | 5.3 | 5.2 | 5.3 | 5.2 |
| U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers | 6.1 | 5.7 | 5.6 | 6.5 | 6.0 | 6.0 | 5.9 | 6.0 | 5.8 |
| U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers | 8.1 | 8.5 | 8.1 | 9.7 | 9.0 | 8.9 | 8.9 | 9.0 | 8.7 |

NOTE: Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but

have had to settle for a part-time schedule. For further information, see "BLS introduces new range of alternative unemployment measures." In the October 1995 issue of the Monthly Labor Review. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table A-13. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

| Category | Total | | Men | | Women | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| | Oct. 2004 | Oct. 2005 | Oct. 2004 | Oct. 2005 | Oct. 2004 | Oct. 2005 |
| NOT IN THE LABOR FORCE | | | | | | |
| Total not in the labor force | 76,214 | 76,655 | 28,671 | 29,310 | 47,343 | 47,345 |
| Persons who currently want a job | 5,085 | 4,785 | 2,285 | 2,135 | 2,798 | 2,651 |
| Searched for work and available to work now ¹ | 1,847 | 1,414 | 625 | 705 | 822 | 709 |
| Reason not currently looking | | | | | | |
| Discouragement over job prospects ² | 429 | 362 | 258 | 223 | 174 | 169 |
| Reasons other than discouragement ³ | 1,218 | 1,022 | 570 | 482 | 648 | 540 |
| MULTIPLE JOBHOLDERS | | | | | | |
| Total multiple jobholders ⁴ | 8,034 | 7,813 | 4,168 | 4,016 | 3,868 | 3,797 |
| Percent of total employed | 5.7 | 5.5 | 5.5 | 5.3 | 5.9 | 5.7 |
| Primary job full time, secondary job part time | 4,198 | 4,153 | 2,398 | 2,357 | 1,801 | 1,796 |
| Primary and secondary jobs both part time | 1,720 | 1,704 | 819 | 850 | 1,201 | 1,143 |
| Primary and secondary jobs both full time | 302 | 295 | 201 | 201 | 101 | 95 |
| Hours away on primary or secondary job | 1,779 | 1,809 | 1,030 | 881 | 750 | 728 |

¹ Data refer to persons who have searched for work during the prior 12 months and were available to take a job during the reference week.

² Includes those too young or old, and other types of discrimination.

³ Includes those who did not actively look for work in the prior 4 weeks for such reasons as school or family responsibilities, ill health, and transportation problems, as well

as a small number for which reason for nonparticipation was not determined.

⁴ Includes persons who work part time on their primary job and full time on their secondary job(s), not shown separately.

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

ESTABLISHMENT DATA

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Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Change from Sept. 2005 ^P to Oct. 2005 ^P |
|---|-------------------------|-----------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|------------------------|---|
| | Oct. 2004 | Aug. 2005 | Sept. 2005 ^P | Oct. 2005 ^P | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ^P | Oct. 2005 ^P | |
| Total nonfarm | 133,130 | 133,770 | 134,330 | 135,028 | 132,102 | 133,569 | 133,865 | 134,013 | 134,005 | 134,001 | 86 |
| Total private | 111,121 | 113,108 | 112,843 | 112,831 | 110,462 | 111,628 | 112,048 | 112,164 | 112,148 | 112,194 | 46 |
| Goods-producing | 22,267 | 22,586 | 22,434 | 22,468 | 21,962 | 22,134 | 22,134 | 22,150 | 22,146 | 22,186 | 49 |
| Natural resources and mining | 605 | 644 | 647 | 648 | 595 | 629 | 629 | 632 | 635 | 639 | 4 |
| Logging | 70.9 | 68.0 | 68.0 | 68.0 | 67.0 | 64.8 | 65.3 | 64.9 | 64.3 | 63.5 | -0.6 |
| Mining | 534.5 | 576.2 | 578.6 | 580.4 | 527.7 | 563.1 | 563.4 | 567.7 | 571.1 | 575.8 | 4.7 |
| Oil and gas extraction | 122.9 | 127.9 | 126.9 | 127.4 | 125.4 | 126.4 | 126.5 | 126.9 | 126.9 | 127.9 | 1.0 |
| Mining, except oil and gas ¹ | 212.7 | 226.9 | 224.8 | 226.8 | 208.4 | 221.2 | 219.9 | 220.3 | 220.2 | 222.3 | 2.1 |
| Coal mining | 73.0 | 78.5 | 78.8 | 78.2 | 72.7 | 77.2 | 77.8 | 77.6 | 78.2 | 78.3 | .1 |
| Support activities for mining | 198.9 | 221.7 | 226.9 | 228.2 | 195.7 | 216.5 | 217.1 | 219.9 | 224.0 | 225.6 | 1.6 |
| Construction | 7,255 | 7,590 | 7,508 | 7,539 | 7,043 | 7,250 | 7,235 | 7,267 | 7,279 | 7,312 | 33 |
| Construction of buildings | 1,694.4 | 1,783.0 | 1,733.7 | 1,751.1 | 1,693.0 | 1,698.2 | 1,698.2 | 1,705.4 | 1,707.9 | 1,716.3 | 8.7 |
| Residential building | 931.8 | 972.1 | 968.2 | 967.2 | 915.6 | 943.8 | 943.8 | 947.3 | 950.5 | 952.3 | 1.6 |
| Nonresidential building | 762.6 | 780.9 | 773.5 | 783.9 | 747.4 | 752.4 | 752.4 | 758.1 | 757.1 | 764.0 | 6.9 |
| Heavy and civil engineering construction | 667.3 | 1,012.4 | 1,008.4 | 1,003.4 | 904.1 | 637.4 | 638.2 | 639.0 | 640.6 | 640.1 | -0.5 |
| Specialty trade contractors | 4,599.0 | 4,814.5 | 4,791.8 | 4,784.9 | 4,476.1 | 4,598.4 | 4,597.8 | 4,622.5 | 4,630.3 | 4,655.1 | 24.8 |
| Residential specialty trade contractors | 2,181.1 | 2,288.3 | 2,286.8 | 2,306.9 | 2,120.9 | 2,192.7 | 2,189.9 | 2,208.0 | 2,221.1 | 2,241.1 | 20.0 |
| Nonresidential specialty trade contractors | 2,417.9 | 2,526.2 | 2,475.2 | 2,478.2 | 2,355.2 | 2,405.7 | 2,407.9 | 2,416.5 | 2,409.2 | 2,414.0 | 4.8 |
| Manufacturing | 14,367 | 14,342 | 14,279 | 14,281 | 14,344 | 14,276 | 14,270 | 14,280 | 14,232 | 14,244 | 12 |
| Production workers | 10,159 | 10,181 | 10,129 | 10,133 | 10,111 | 10,080 | 10,081 | 10,088 | 10,079 | 10,106 | 27 |
| Durable goods | 6,999 | 6,974 | 6,939 | 6,964 | 6,990 | 6,947 | 6,940 | 6,945 | 6,929 | 6,948 | 19 |
| Production workers | 6,189 | 6,235 | 6,221 | 6,258 | 6,172 | 6,197 | 6,197 | 6,215 | 6,210 | 6,243 | 33 |
| Wood products | 558.4 | 558.1 | 555.4 | 552.4 | 554.5 | 550.7 | 549.5 | 548.7 | 548.8 | 548.6 | -1.2 |
| Nonmetallic mineral products | 518.2 | 508.8 | 510.7 | 508.5 | 506.1 | 501.3 | 499.4 | 498.8 | 498.8 | 501.1 | .7 |
| Primary metals | 495.0 | 495.0 | 498.0 | 498.0 | 498.0 | 483.3 | 483.4 | 483.3 | 488.1 | 487.4 | 1.3 |
| Fabricated metal products | 1,814.0 | 1,827.0 | 1,821.7 | 1,826.8 | 1,811.5 | 1,821.0 | 1,823.8 | 1,823.2 | 1,822.8 | 1,823.3 | .5 |
| Machinery | 1,143.1 | 1,155.5 | 1,157.6 | 1,160.5 | 1,147.3 | 1,158.2 | 1,160.5 | 1,169.9 | 1,162.1 | 1,184.9 | 2.8 |
| Computer and electronic products ² | 1,329.0 | 1,338.8 | 1,329.9 | 1,329.9 | 1,329.8 | 1,333.4 | 1,333.9 | 1,334.2 | 1,331.5 | 1,331.1 | -0.4 |
| Computer and peripheral equipment | 209.0 | 215.3 | 214.8 | 211.8 | 208.7 | 214.8 | 214.7 | 214.7 | 214.2 | 212.8 | -1.6 |
| Communications equipment | 162.1 | 164.5 | 151.8 | 152.3 | 150.7 | 154.3 | 154.4 | 153.5 | 152.2 | 151.8 | -0.4 |
| Semiconductors and electronic components | 453.8 | 448.8 | 447.4 | 447.4 | 454.9 | 447.3 | 447.1 | 447.7 | 447.7 | 445.8 | .1 |
| Electronic instruments | 458.8 | 442.4 | 440.2 | 441.4 | 437.0 | 438.2 | 440.4 | 441.1 | 441.3 | 442.2 | .9 |
| Electrical equipment and appliances | 444.7 | 428.9 | 434.7 | 430.7 | 448.1 | 446.1 | 438.4 | 436.1 | 434.8 | 432.3 | -2.5 |
| Transportation equipment ³ | 1,770.9 | 1,782.3 | 1,747.1 | 1,769.8 | 1,771.0 | 1,784.3 | 1,782.5 | 1,780.3 | 1,746.8 | 1,759.0 | 22.4 |
| Motor vehicles and parts ⁴ | 1,118.5 | 1,077.7 | 1,067.5 | 1,085.9 | 1,111.8 | 1,079.6 | 1,066.7 | 1,070.0 | 1,065.3 | 1,084.4 | -9 |
| Furniture and related products | 570.5 | 561.3 | 558.3 | 557.1 | 571.3 | 581.0 | 588.5 | 559.1 | 558.9 | 557.9 | -1.0 |
| Miscellaneous manufacturing | 656.7 | 658.8 | 655.2 | 651.5 | 654.1 | 653.7 | 654.9 | 664.5 | 660.4 | 650.4 | -4.1 |
| Nondurable goods | 5,410 | 5,368 | 5,343 | 5,327 | 5,394 | 5,390 | 5,393 | 5,393 | 5,304 | 5,299 | -6 |
| Production workers | 3,873 | 3,918 | 3,908 | 3,895 | 3,899 | 3,883 | 3,884 | 3,871 | 3,869 | 3,869 | -6 |
| Food manufacturing | 1,522.8 | 1,519.0 | 1,500.9 | 1,498.3 | 1,493.5 | 1,488.4 | 1,486.8 | 1,482.5 | 1,475.2 | 1,474.1 | -1.1 |
| Beverages and tobacco products | 195.9 | 194.1 | 195.6 | 194.6 | 192.9 | 190.4 | 190.6 | 190.6 | 190.8 | 191.5 | .7 |
| Textile mills | 236.2 | 221.7 | 220.7 | 218.0 | 226.5 | 223.0 | 223.0 | 221.1 | 219.6 | 218.5 | -1.1 |
| Textile product mills | 177.0 | 178.0 | 177.9 | 178.8 | 178.1 | 178.9 | 178.7 | 178.2 | 178.3 | 178.8 | .3 |
| Apparel | 277.4 | 266.7 | 268.3 | 261.7 | 278.1 | 267.0 | 266.6 | 265.0 | 263.9 | 260.6 | -3.4 |
| Leather and allied products | 42.8 | 43.9 | 43.1 | 42.7 | 42.8 | 42.8 | 43.5 | 43.4 | 43.2 | 42.9 | -.3 |
| Paper and paper products | 500.1 | 497.4 | 492.8 | 491.6 | 496.4 | 496.4 | 496.7 | 494.7 | 492.2 | 491.4 | -.8 |
| Printing and related support activities | 662.7 | 654.0 | 654.3 | 651.9 | 651.0 | 658.0 | 653.9 | 652.2 | 652.4 | 651.1 | -1.5 |
| Petroleum and coal products | 114.5 | 120.2 | 118.3 | 118.2 | 113.3 | 118.9 | 116.9 | 117.2 | 116.8 | 117.1 | .5 |
| Chemicals | 861.4 | 880.0 | 875.3 | 873.4 | 894.5 | 876.9 | 877.8 | 876.7 | 875.9 | 875.9 | -.9 |
| Plastics and rubber products | 808.5 | 803.7 | 805.7 | 807.2 | 806.3 | 802.3 | 803.2 | 802.9 | 804.1 | 805.3 | 1.2 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Change from: Sept. 2005-Oct. 2005 ² | |
|---|-------------------------|-----------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|--|------------------------|
| | Oct. 2004 | Aug. 2005 | Sept. 2005 ¹ | Oct. 2005 ¹ | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ¹ | | Oct. 2005 ¹ |
| Service-providing | 110,882 | 111,204 | 111,002 | 112,570 | 110,180 | 111,454 | 111,731 | 111,854 | 111,859 | 111,888 | 7 |
| Private service-providing | 88,884 | 90,540 | 90,200 | 90,363 | 88,480 | 89,894 | 89,914 | 90,005 | 90,002 | 89,969 | -3 |
| Trade, transportation, and utilities | 25,887 | 25,917 | 25,826 | 25,840 | 25,881 | 25,854 | 25,822 | 25,910 | 25,858 | 25,865 | -3 |
| Wholesale trade | 5,684.8 | 5,759.0 | 5,741.2 | 5,745.2 | 5,674.7 | 5,722.3 | 5,729.8 | 5,733.9 | 5,734.5 | 5,735.8 | 1.3 |
| Durable goods | 2,982.8 | 3,053.7 | 2,988.3 | 2,994.8 | 2,962.8 | 2,988.1 | 2,982.9 | 2,980.8 | 2,991.2 | 2,993.5 | 2.3 |
| Non-durable goods | 2,017.3 | 2,023.8 | 2,021.2 | 2,017.5 | 2,009.1 | 2,013.7 | 2,013.1 | 2,013.1 | 2,012.2 | 2,010.3 | -1.9 |
| Electronic markets and agents and brokers | 704.9 | 731.5 | 731.7 | 733.1 | 703.3 | 722.5 | 725.8 | 730.0 | 731.1 | 732.0 | .9 |
| Retail trade | 15,108.9 | 15,258.6 | 15,098.4 | 15,203.3 | 15,058.5 | 15,197.1 | 15,248.2 | 15,230.7 | 15,172.7 | 15,167.3 | -6.4 |
| Motor vehicle and parts dealers ¹ | 1,903.3 | 1,940.7 | 1,938.4 | 1,924.0 | 1,895.4 | 1,918.6 | 1,923.5 | 1,923.9 | 1,925.2 | 1,918.8 | -4.4 |
| Automobile dealers | 1,348.3 | 1,382.2 | 1,384.3 | 1,353.1 | 1,345.0 | 1,352.6 | 1,357.3 | 1,357.7 | 1,358.1 | 1,349.4 | -8.7 |
| Furniture and home furnishings stores | 584.5 | 604.0 | 584.0 | 589.4 | 582.3 | 588.1 | 588.4 | 587.6 | 589.0 | 587.4 | -1.8 |
| Electronics and appliance stores | 520.9 | 524.0 | 527.1 | 539.5 | 520.2 | 524.5 | 529.2 | 532.5 | 533.9 | 535.8 | 1.7 |
| Building material and garden supply stores | 1,231.9 | 1,294.4 | 1,268.6 | 1,287.1 | 1,238.3 | 1,272.9 | 1,278.9 | 1,278.1 | 1,270.1 | 1,274.0 | 3.9 |
| Food and beverage stores | 2,832.1 | 2,835.6 | 2,805.6 | 2,823.9 | 2,830.2 | 2,840.2 | 2,842.5 | 2,842.5 | 2,813.9 | 2,822.7 | 6.8 |
| Health and personal care stores | 842.2 | 861.8 | 848.8 | 857.8 | 841.8 | 858.7 | 858.1 | 862.4 | 864.1 | 858.2 | 4.1 |
| Gasoline stations | 878.3 | 883.9 | 881.7 | 881.4 | 877.0 | 874.0 | 880.0 | 880.5 | 878.5 | 880.5 | 2.0 |
| Clothing and clothing accessories stores | 1,870.4 | 1,824.8 | 1,887.7 | 1,886.5 | 1,876.0 | 1,881.1 | 1,828.3 | 1,820.6 | 1,803.5 | 1,800.2 | -8.3 |
| Stores | 645.3 | 628.3 | 628.4 | 641.1 | 638.0 | 640.3 | 637.2 | 638.7 | 627.8 | 634.5 | 6.8 |
| General merchandise stores ¹ | 2,857.5 | 2,821.5 | 2,808.7 | 2,854.1 | 2,835.2 | 2,801.6 | 2,867.1 | 2,862.0 | 2,856.2 | 2,844.2 | -14.0 |
| Department stores | 1,824.1 | 1,868.2 | 1,895.0 | 1,825.7 | 1,804.2 | 1,823.7 | 1,837.1 | 1,833.1 | 1,830.1 | 1,812.0 | -18.1 |
| Miscellaneous store retailers | 828.0 | 825.9 | 917.5 | 917.3 | 920.5 | 954.0 | 922.2 | 920.0 | 917.1 | 912.1 | -5.0 |
| Nonstore retailers | 432.6 | 413.8 | 434.1 | 431.4 | 422.8 | 418.4 | 419.8 | 421.1 | 423.5 | 421.1 | -2.4 |
| Transportation and warehousing | 4,325.5 | 4,341.2 | 4,411.7 | 4,413.1 | 4,279.8 | 4,389.9 | 4,387.8 | 4,368.8 | 4,373.5 | 4,372.7 | -8 |
| Air transportation | 514.9 | 507.2 | 498.4 | 497.7 | 514.2 | 507.8 | 505.1 | 503.9 | 497.4 | 497.5 | .1 |
| Rail transportation | 225.9 | 223.4 | 224.3 | 223.8 | 223.9 | 223.9 | 223.1 | 223.1 | 223.2 | 223.0 | -.2 |
| Truck transportation | 87.7 | 86.1 | 84.8 | 83.2 | 87.7 | 82.2 | 82.3 | 82.8 | 83.3 | 83.3 | 0 |
| Water transportation | 1,375.5 | 1,415.9 | 1,414.8 | 1,417.3 | 1,358.0 | 1,396.3 | 1,395.5 | 1,392.4 | 1,395.6 | 1,400.7 | 5.1 |
| Pipeline and ground passenger transportation | 404.0 | 328.0 | 404.3 | 409.8 | 389.3 | 381.9 | 389.8 | 391.1 | 394.3 | 394.2 | -.1 |
| Tram and trolley transportation | 39.0 | 39.9 | 39.8 | 39.0 | 39.9 | 39.3 | 39.2 | 39.5 | 39.5 | 39.0 | -.5 |
| Scenic and sightseeing transportation | 28.1 | 28.4 | 28.5 | 29.5 | 28.8 | 28.4 | 28.9 | 29.0 | 29.0 | 28.6 | -.4 |
| Support activities for transportation | 642.8 | 659.0 | 681.2 | 681.9 | 639.9 | 654.5 | 656.0 | 654.3 | 657.3 | 650.4 | -6.9 |
| Couriers and messengers | 583.8 | 581.8 | 580.0 | 585.5 | 584.4 | 582.3 | 582.4 | 585.8 | 586.9 | 588.9 | 2.0 |
| Warehousing and storage | 675.6 | 594.1 | 588.8 | 595.8 | 668.2 | 683.3 | 684.5 | 685.7 | 687.0 | 687.1 | .1 |
| Utilities | 569.0 | 580.1 | 578.3 | 578.2 | 570.3 | 575.1 | 575.1 | 577.1 | 577.2 | 579.2 | 2.0 |
| Information | 3,125 | 3,194 | 3,144 | 3,180 | 3,191 | 3,148 | 3,148 | 3,147 | 3,152 | 3,157 | -15 |
| Publishing industries, except internet | 907.7 | 911.4 | 908.8 | 908.8 | 908.1 | 907.0 | 910.0 | 908.0 | 908.4 | 908.9 | 0.5 |
| Motion picture and sound recording industries | 358.6 | 467.0 | 397.5 | 386.1 | 385.3 | 383.1 | 382.2 | 386.0 | 402.2 | 391.8 | -10.8 |
| Broadcasting, except internet | 329.5 | 333.3 | 330.9 | 331.6 | 329.5 | 331.8 | 332.8 | 333.0 | 331.3 | 331.5 | .2 |
| Internet publishing and broadcasting | 32.8 | 35.6 | 35.9 | 36.2 | 33.0 | 35.8 | 35.1 | 35.6 | 36.1 | 36.4 | .3 |
| Telecommunications | 1,028.3 | 1,033.0 | 1,028.2 | 1,029.7 | 1,024.8 | 1,034.8 | 1,033.5 | 1,031.4 | 1,030.5 | 1,030.2 | -.3 |
| ISPs, search portals, and data processing | 388.4 | 392.8 | 391.8 | 388.8 | 389.2 | 393.6 | 392.2 | 392.2 | 392.0 | 389.2 | -3.4 |
| Other information services | 50.7 | 50.9 | 49.8 | 49.2 | 50.9 | 50.6 | 50.9 | 50.2 | 49.9 | 49.8 | -.3 |
| Financial activities | 8,083 | 8,307 | 8,288 | 8,276 | 8,093 | 8,208 | 8,227 | 8,246 | 8,288 | 8,288 | 22 |
| Finance and insurance | 6,882.1 | 6,102.3 | 6,089.3 | 6,108.5 | 5,904.1 | 6,022.5 | 6,072.3 | 6,068.4 | 6,102.4 | 6,120.7 | 18.3 |
| Monetary authorities - central bank | 21.2 | 20.5 | 20.4 | 20.1 | 21.3 | 20.4 | 20.3 | 20.3 | 20.2 | 20.1 | -.1 |
| Credit intermediation and related activities ¹ | 2,941.1 | 2,940.2 | 2,934.4 | 2,945.1 | 2,847.9 | 2,915.4 | 2,922.5 | 2,931.2 | 2,943.8 | 2,954.9 | 11.1 |
| Depository credit intermediation ¹ | 1,760.5 | 1,817.2 | 1,809.3 | 1,811.2 | 1,784.1 | 1,802.1 | 1,804.9 | 1,809.9 | 1,815.0 | 1,820.4 | 5.4 |
| Commercial lending | 1,263.2 | 1,321.5 | 1,314.2 | 1,314.4 | 1,268.5 | 1,311.0 | 1,311.9 | 1,315.3 | 1,318.0 | 1,321.1 | 3.1 |
| Securities, commodity contracts, investments | 774.7 | 785.0 | 782.0 | 794.3 | 777.3 | 788.6 | 788.1 | 791.5 | 789.7 | 788.4 | 2.7 |
| Insurance carriers and related activities | 2,281.8 | 2,281.3 | 2,257.2 | 2,284.2 | 2,284.1 | 2,254.6 | 2,255.7 | 2,258.2 | 2,260.0 | 2,264.0 | 4.0 |
| Funds, trusts, and other financial vehicles | 83.3 | 85.3 | 84.4 | 84.8 | 83.5 | 85.6 | 85.7 | 85.2 | 84.7 | 85.3 | .5 |
| Real estate and rental and leasing | 2,100.9 | 2,204.3 | 2,178.2 | 2,189.0 | 2,099.2 | 2,148.0 | 2,154.8 | 2,181.5 | 2,183.9 | 2,188.8 | 2.9 |
| Rentals | 1,491.0 | 1,605.9 | 1,600.6 | 1,603.2 | 1,628.6 | 1,601.4 | 1,670.7 | 1,678.8 | 1,678.5 | 1,682.8 | 3.3 |
| Rental and leasing services | 645.4 | 674.1 | 681.1 | 683.7 | 648.5 | 681.1 | 688.1 | 689.6 | 688.0 | 687.2 | -.8 |
| Lessors of nonfinancial intangible assets | 24.5 | 26.8 | 26.5 | 27.1 | 24.3 | 25.5 | 25.8 | 26.1 | 26.4 | 26.8 | .4 |

See footnotes at end of table.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry sector and selected industry detail—Continued

(In thousands)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Change from Sept. 2005-Oct. 2005 ² | |
|--|-------------------------|-----------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|---|------------------------|
| | Oct. 2004 | Aug. 2005 | Sept. 2005 ¹ | Oct. 2005 ¹ | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ¹ | | Oct. 2005 ¹ |
| Professional and business services | 16,801 | 17,183 | 17,192 | 17,250 | 16,614 | 16,906 | 16,964 | 16,983 | 17,044 | 17,058 | 12 |
| Professional and technical services ¹ | 6,601.2 | 6,962.4 | 6,930.5 | 6,971.1 | 6,535.3 | 6,950.9 | 6,974.3 | 6,988.2 | 7,001.9 | 7,008.8 | 6.9 |
| Legal services | 1,166.9 | 1,169.9 | 1,151.5 | 1,154.5 | 1,167.4 | 1,163.0 | 1,165.9 | 1,162.5 | 1,155.5 | 1,154.5 | -1.0 |
| Accounting and bookkeeping services | 762.3 | 785.2 | 792.3 | 796.2 | 821.5 | 859.5 | 861.7 | 853.5 | 866.3 | 866.2 | -1 |
| Architectural and engineering services | 1,287.5 | 1,343.4 | 1,336.9 | 1,342.1 | 1,290.5 | 1,310.0 | 1,317.5 | 1,322.3 | 1,330.6 | 1,332.7 | 2.1 |
| Computer systems design and related services | 1,106.0 | 1,187.6 | 1,196.3 | 1,201.5 | 1,187.3 | 1,182.4 | 1,184.8 | 1,187.8 | 1,181.5 | 1,189.2 | 7.7 |
| Management and technical consulting services | 794.0 | 822.2 | 818.5 | 824.3 | 790.5 | 808.3 | 811.9 | 814.7 | 816.7 | 818.3 | 2.6 |
| Management of companies and enterprises | 1,718.9 | 1,743.2 | 1,727.0 | 1,732.9 | 1,715.3 | 1,733.7 | 1,735.5 | 1,735.9 | 1,730.5 | 1,735.1 | 4.6 |
| Administrative and waste services | 6,280.7 | 6,477.7 | 6,534.0 | 6,546.4 | 6,053.1 | 6,210.5 | 6,254.1 | 6,261.0 | 6,311.1 | 6,311.0 | .5 |
| Administrative and support services ¹ | 7,952.3 | 8,145.2 | 8,207.3 | 8,226.6 | 7,736.4 | 7,893.7 | 7,927.4 | 7,935.5 | 7,968.5 | 7,982.8 | 4.3 |
| Employment services ¹ | 3,732.6 | 3,831.4 | 3,913.2 | 3,945.9 | 3,572.9 | 3,688.0 | 3,707.2 | 3,721.2 | 3,771.1 | 3,771.7 | .7 |
| Temporary help services | 2,610.8 | 2,646.2 | 2,720.4 | 2,754.7 | 2,486.5 | 2,526.6 | 2,548.8 | 2,581.9 | 2,602.4 | 2,613.5 | 11.1 |
| Business support services | 761.4 | 745.9 | 745.9 | 754.9 | 754.9 | 761.4 | 761.4 | 751.0 | 750.9 | 748.5 | -2.4 |
| Services to buildings and dwellings | 1,751.1 | 1,833.0 | 1,804.7 | 1,784.9 | 1,708.5 | 1,726.0 | 1,736.5 | 1,735.3 | 1,735.7 | 1,740.9 | 4.8 |
| Waste management and remediation services | 328.4 | 332.5 | 326.7 | 318.8 | 328.7 | 323.8 | 326.7 | 325.4 | 322.6 | 319.8 | -3.8 |
| Education and health services | 17,251 | 17,045 | 17,365 | 17,533 | 17,081 | 17,330 | 17,377 | 17,418 | 17,451 | 17,462 | 11 |
| Educational services | 2,957.8 | 2,490.1 | 2,792.7 | 3,001.5 | 2,794.0 | 2,835.5 | 2,837.8 | 2,843.2 | 2,851.8 | 2,840.5 | -11.3 |
| Health care and social assistance | 14,293.3 | 14,554.5 | 14,571.8 | 14,531.9 | 14,287.2 | 14,500.5 | 14,539.5 | 14,571.8 | 14,598.7 | 14,621.2 | 22.5 |
| Health care ² | 12,137.6 | 12,383.1 | 12,570.7 | 12,411.4 | 12,135.3 | 12,300.3 | 12,337.4 | 12,365.5 | 12,385.8 | 12,402.6 | 16.9 |
| Ambulatory health care services ¹ | 4,998.8 | 5,128.8 | 5,118.2 | 5,147.9 | 4,986.9 | 5,084.0 | 5,104.0 | 5,126.1 | 5,130.5 | 5,141.7 | 11.4 |
| Offices of physicians | 2,074.4 | 2,137.5 | 2,131.5 | 2,148.2 | 2,074.2 | 2,119.5 | 2,124.2 | 2,133.4 | 2,138.4 | 2,145.3 | 6.9 |
| Outpatient care centers | 447.9 | 462.8 | 484.8 | 488.2 | 449.5 | 456.7 | 458.1 | 462.5 | 465.5 | 469.6 | 1.4 |
| Home health care services | 788.0 | 808.0 | 805.6 | 813.8 | 782.7 | 804.1 | 807.3 | 808.9 | 808.8 | 811.5 | 1.7 |
| Hospitals | 4,310.8 | 4,401.1 | 4,368.0 | 4,402.0 | 4,311.2 | 4,374.5 | 4,384.2 | 4,391.4 | 4,397.4 | 4,403.0 | 5.6 |
| Nursing and residential care facilities ¹ | 2,828.2 | 2,894.2 | 2,859.6 | 2,891.8 | 2,827.2 | 2,841.2 | 2,848.2 | 2,852.0 | 2,858.1 | 2,857.9 | -2 |
| Nursing care facilities | 1,878.9 | 1,961.1 | 1,979.8 | 1,977.9 | 1,876.8 | 1,873.2 | 1,875.8 | 1,876.9 | 1,876.5 | 1,874.7 | -1.8 |
| Social assistance ¹ | 2,155.7 | 2,155.4 | 2,201.1 | 2,220.5 | 2,181.9 | 2,200.2 | 2,202.1 | 2,208.3 | 2,212.9 | 2,218.6 | 5.7 |
| Child day care services | 762.4 | 748.4 | 790.3 | 805.9 | 772.8 | 793.2 | 792.7 | 791.8 | 792.7 | 796.9 | 4.2 |
| Leisure and hospitality | 12,494 | 13,408 | 12,993 | 12,701 | 12,546 | 12,785 | 12,801 | 12,930 | 12,787 | 12,749 | -18 |
| Arts, entertainment, and recreation | 1,788.6 | 2,108.9 | 1,917.7 | 1,794.5 | 1,834.4 | 1,830.9 | 1,834.8 | 1,840.2 | 1,833.9 | 1,833.6 | -0 |
| Performing arts and spectator sports | 367.5 | 361.3 | 390.0 | 380.4 | 364.4 | 364.1 | 363.8 | 363.7 | 362.6 | 357.8 | -5.0 |
| Museums, historical sites, zoos, and parks | 118.3 | 127.1 | 120.8 | 118.2 | 118.2 | 117.5 | 117.6 | 117.1 | 118.0 | 117.4 | -0.6 |
| Amusements, gambling, and recreation | 1,302.8 | 1,688.5 | 1,417.1 | 1,315.9 | 1,351.0 | 1,349.0 | 1,359.4 | 1,356.6 | 1,362.2 | 1,358.8 | 6.6 |
| Accommodations and food services | 10,706.0 | 11,301.1 | 11,045.7 | 10,906.0 | 10,712.0 | 10,934.2 | 10,965.8 | 10,990.3 | 10,932.7 | 10,914.8 | -17.9 |
| Accommodations | 1,782.6 | 1,986.2 | 1,861.5 | 1,808.4 | 1,800.8 | 1,830.0 | 1,829.1 | 1,831.4 | 1,832.5 | 1,829.1 | -3.4 |
| Food services and drinking places | 8,923.4 | 9,334.9 | 9,184.2 | 9,098.6 | 8,911.4 | 9,104.2 | 9,136.7 | 9,157.9 | 9,100.2 | 9,085.7 | -14.5 |
| Other services | 5,423 | 5,618 | 5,448 | 5,454 | 5,454 | 5,479 | 5,477 | 5,489 | 5,484 | 5,452 | -12 |
| Repair and maintenance | 1,227.6 | 1,245.3 | 1,234.1 | 1,230.4 | 1,227.9 | 1,244.1 | 1,244.3 | 1,238.4 | 1,234.7 | 1,232.3 | -2.4 |
| Personal and laundry services | 1,267.5 | 1,267.5 | 1,290.0 | 1,276.7 | 1,267.8 | 1,283.2 | 1,280.1 | 1,281.2 | 1,282.8 | 1,281.3 | -1.3 |
| Membership associations and organizations | 2,926.0 | 2,953.1 | 2,934.4 | 2,927.2 | 2,938.1 | 2,951.7 | 2,952.2 | 2,948.8 | 2,946.6 | 2,938.3 | -8.3 |
| Government | 22,018 | 20,694 | 21,693 | 22,267 | 21,700 | 21,780 | 21,817 | 21,849 | 21,857 | 21,867 | 10 |
| Federal | 2,722 | 2,731 | 2,723 | 2,711 | 2,723 | 2,719 | 2,719 | 2,719 | 2,717 | 2,713 | -4 |
| Federal, except U.S. Postal Service | 1,940.5 | 1,962.0 | 1,944.3 | 1,932.5 | 1,940.1 | 1,937.6 | 1,937.5 | 1,936.5 | 1,936.4 | 1,933.6 | -2.8 |
| U.S. Postal Service | 781.2 | 778.7 | 778.7 | 778.7 | 782.5 | 781.2 | 781.1 | 781.1 | 780.7 | 779.8 | -9 |
| State government | 6,143 | 4,758 | 5,034 | 5,179 | 5,007 | 5,028 | 5,034 | 5,053 | 5,041 | 5,041 | 0 |
| State government education | 2,410.8 | 1,985.9 | 2,291.7 | 2,448.1 | 2,282.4 | 2,278.2 | 2,293.5 | 2,287.9 | 2,297.5 | 2,298.7 | 2.1 |
| State government, excluding education | 2,732.0 | 2,770.1 | 2,742.7 | 2,732.4 | 2,735.2 | 2,747.8 | 2,740.9 | 2,745.3 | 2,743.3 | 2,741.5 | -1.8 |
| Local government | 14,183 | 13,177 | 13,936 | 14,317 | 13,970 | 14,015 | 14,054 | 14,098 | 14,099 | 14,113 | 14 |
| Local government education | 8,040.3 | 6,825.8 | 7,736.3 | 8,142.2 | 7,810.5 | 7,830.3 | 7,873.9 | 7,896.7 | 7,889.0 | 7,899.3 | 10.3 |
| Local government, excluding education | 6,113.0 | 6,351.1 | 6,199.7 | 6,174.5 | 6,159.3 | 6,184.9 | 6,180.1 | 6,198.7 | 6,210.0 | 6,213.5 | 3.5 |

¹ Includes other industries, not shown separately.² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.³ Includes ambulatory health care services, hospitals, and nursing and residential care facilities.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Change from Sept. 2005- Oct. 2005 ² |
|---|-------------------------|------------------------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|------------------------|--|
| | Oct. 2004 | Aug. 2005 ³ | Sept. 2005 ³ | Oct. 2005 ³ | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ³ | Oct. 2005 ³ | |
| Total private | 33.8 | 33.9 | 33.8 | 34.0 | 33.8 | 33.7 | 33.7 | 33.7 | 33.8 | 33.8 | 0.0 |
| Goods-producing | 40.1 | 40.3 | 40.6 | 40.6 | 39.9 | 39.9 | 39.9 | 39.9 | 39.9 | 40.3 | .4 |
| Natural resources and mining | 48.4 | 46.5 | 46.3 | 46.3 | 44.8 | 45.8 | 45.9 | 46.0 | 45.7 | 45.7 | .0 |
| Construction | 38.7 | 39.3 | 39.4 | 39.0 | 38.2 | 38.5 | 38.2 | 38.3 | 38.2 | 38.5 | .3 |
| Manufacturing | 40.7 | 40.6 | 41.0 | 41.2 | 40.7 | 40.4 | 40.5 | 40.5 | 40.6 | 41.0 | .4 |
| Overtime hours | 4.7 | 4.7 | 4.8 | 4.7 | 4.5 | 4.4 | 4.5 | 4.5 | 4.5 | 4.5 | .0 |
| Durable goods | 41.2 | 41.1 | 41.5 | 41.9 | 41.2 | 40.9 | 41.0 | 41.1 | 41.1 | 41.6 | .5 |
| Overtime hours | 4.8 | 4.7 | 4.9 | 4.9 | 4.7 | 4.4 | 4.8 | 4.7 | 4.8 | 4.7 | -.1 |
| Nonmetallic mineral products | 40.4 | 40.0 | 40.2 | 41.2 | 40.3 | 39.5 | 39.6 | 39.5 | 39.9 | 40.9 | 1.0 |
| Primary metals | 42.6 | 42.2 | 42.7 | 43.5 | 42.4 | 41.7 | 41.6 | 41.6 | 41.9 | 42.9 | 1.0 |
| Fabricated metal products | 42.8 | 42.8 | 43.5 | 43.8 | 43.0 | 42.7 | 43.1 | 43.1 | 43.3 | 43.6 | .3 |
| Machinery | 41.2 | 40.7 | 41.1 | 41.8 | 41.1 | 40.7 | 40.8 | 40.8 | 40.7 | 41.5 | .8 |
| Computer and electronic products | 42.0 | 41.8 | 42.0 | 42.3 | 42.2 | 41.9 | 42.1 | 42.0 | 41.8 | 42.4 | .6 |
| Electrical equipment and appliances | 40.2 | 39.6 | 40.4 | 40.8 | 40.1 | 39.8 | 40.1 | 39.7 | 40.0 | 40.5 | .5 |
| Transportation equipment | 40.8 | 40.6 | 41.6 | 42.3 | 40.8 | 40.2 | 40.9 | 40.9 | 41.2 | 41.5 | .4 |
| Motor vehicles and parts | 42.4 | 42.7 | 43.0 | 43.0 | 42.3 | 42.2 | 42.2 | 42.8 | 42.5 | 42.8 | .3 |
| Motor vehicles and parts | 42.4 | 42.7 | 43.2 | 43.1 | 42.2 | 42.0 | 41.9 | 42.9 | 42.6 | 42.8 | .2 |
| Furniture and related products | 38.9 | 39.5 | 39.9 | 38.9 | 38.2 | 38.3 | 38.1 | 39.4 | 39.2 | 39.2 | -.2 |
| Miscellaneous manufacturing | 38.4 | 38.7 | 38.8 | 39.5 | 38.4 | 38.7 | 38.2 | 38.6 | 38.9 | 39.7 | .8 |
| Nondurable goods | 39.9 | 39.7 | 40.3 | 40.2 | 39.9 | 39.7 | 39.7 | 39.7 | 39.9 | 40.0 | .1 |
| Overtime hours | 4.5 | 4.5 | 4.5 | 4.5 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | .0 |
| Food manufacturing | 39.3 | 39.2 | 39.4 | 39.0 | 39.0 | 38.8 | 39.0 | 38.8 | 38.7 | 38.7 | .0 |
| Beverages and tobacco products | 38.3 | 40.4 | 39.7 | 41.0 | 38.6 | 40.0 | 39.9 | 40.0 | 39.4 | 41.2 | 1.9 |
| Textile mills | 39.8 | 39.9 | 40.4 | 40.2 | 40.1 | 40.3 | 40.2 | 40.0 | 40.1 | 40.4 | .3 |
| Textile product mills | 39.2 | 38.5 | 38.8 | 38.6 | 39.1 | 38.1 | 38.2 | 38.6 | 38.4 | 38.5 | .1 |
| Apparel | 36.9 | 36.9 | 36.8 | 36.9 | 36.0 | 35.4 | 35.3 | 35.7 | 35.7 | 35.9 | .2 |
| Leather and allied products | 38.5 | 38.4 | 38.5 | 38.7 | 38.4 | 38.6 | 39.3 | 38.5 | 38.4 | 38.4 | .0 |
| Paper and paper products | 42.2 | 42.2 | 43.1 | 43.3 | 42.1 | 42.2 | 42.2 | 42.5 | 42.8 | 43.1 | .3 |
| Printing and related support activities | 36.5 | 36.3 | 36.2 | 36.9 | 36.2 | 36.4 | 36.4 | 36.7 | 36.8 | 36.8 | -.1 |
| Petroleum and coal products | 45.1 | 44.7 | 45.2 | 45.7 | 45.0 | 45.6 | 45.4 | 45.3 | 47.2 | 46.4 | -.8 |
| Chemicals | 42.5 | 41.5 | 41.9 | 42.6 | 42.7 | 42.1 | 42.0 | 41.7 | 42.1 | 42.7 | .6 |
| Plastics and rubber products | 40.1 | 39.5 | 40.5 | 40.3 | 40.1 | 39.8 | 39.8 | 39.9 | 40.2 | 40.1 | -.1 |
| Private service-providing | 32.4 | 32.5 | 32.4 | 32.8 | 32.4 | 32.4 | 32.4 | 32.4 | 32.4 | 32.4 | .0 |
| Trade, transportation, and utilities | 33.5 | 33.6 | 33.5 | 33.5 | 33.6 | 33.3 | 33.3 | 33.3 | 33.3 | 33.3 | .0 |
| Wholesale trade | 37.7 | 37.5 | 37.8 | 38.1 | 37.7 | 37.8 | 37.6 | 37.5 | 37.7 | 37.7 | .0 |
| Retail trade | 30.7 | 30.9 | 30.7 | 30.5 | 30.8 | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 | .0 |
| Transportation and warehousing | 37.5 | 37.1 | 36.8 | 37.0 | 37.5 | 37.0 | 37.0 | 36.9 | 36.5 | 36.6 | .1 |
| Utilities | 41.0 | 41.0 | 41.8 | 41.5 | 40.8 | 41.2 | 41.2 | 41.1 | 41.4 | 41.3 | -.1 |
| Information | 36.3 | 36.6 | 36.5 | 36.9 | 36.3 | 36.4 | 36.6 | 36.5 | 36.6 | 36.6 | .0 |
| Financial activities | 35.5 | 35.9 | 35.8 | 36.6 | 35.7 | 36.0 | 36.1 | 36.0 | 36.1 | 36.1 | .0 |
| Professional and business services | 34.2 | 34.3 | 34.3 | 34.5 | 34.3 | 34.1 | 34.3 | 34.2 | 34.3 | 34.3 | .0 |
| Education and health services | 32.4 | 32.6 | 32.6 | 32.7 | 32.5 | 32.6 | 32.5 | 32.5 | 32.7 | 32.6 | -.1 |
| Leisure and hospitality | 25.6 | 26.4 | 25.4 | 25.8 | 25.7 | 25.8 | 25.7 | 25.7 | 25.7 | 25.7 | .0 |
| Other services | 30.9 | 31.1 | 30.9 | 31.1 | 30.9 | 31.0 | 31.0 | 30.9 | 30.9 | 30.9 | .0 |

¹ Data relate to production workers in natural resources and mining and manufacturing, construction workers in construction, and nonsupervisory workers in the service-providing industries. These groups account for approximately four-fifths of the total employment on private nonfarm payrolls.

² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.

³ Preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

| Industry | Average hourly earnings | | | | Average weekly earnings | | | |
|---|-------------------------|-----------|-------------------------|------------------------|-------------------------|-----------|-------------------------|------------------------|
| | Oct. 2004 | Aug. 2005 | Sept. 2005 ^p | Oct. 2005 ^p | Oct. 2004 | Aug. 2005 | Sept. 2005 ^p | Oct. 2005 ^p |
| Total private | \$15.82 | \$16.06 | \$16.22 | \$16.34 | \$534.72 | \$544.43 | \$548.24 | \$555.56 |
| Seasonally adjusted | 15.81 | 16.17 | 16.19 | 16.27 | 534.36 | 544.93 | 547.22 | 549.93 |
| Goods-producing | 17.39 | 17.71 | 17.76 | 17.81 | 697.34 | 713.71 | 721.06 | 723.09 |
| Natural resources and mining | 18.07 | 18.78 | 18.87 | 18.87 | 820.38 | 873.27 | 873.68 | 873.68 |
| Construction | 19.47 | 19.80 | 19.89 | 19.75 | 753.49 | 770.28 | 775.79 | 770.25 |
| Manufacturing | 16.26 | 16.60 | 16.64 | 16.70 | 681.78 | 673.96 | 682.24 | 688.04 |
| Durable goods | 16.86 | 17.42 | 17.45 | 17.51 | 699.58 | 715.96 | 724.18 | 733.67 |
| Wood products | 13.03 | 13.02 | 13.07 | 13.12 | 526.41 | 520.80 | 525.41 | 540.54 |
| Nonmetallic mineral products | 16.38 | 16.84 | 16.72 | 16.84 | 701.06 | 710.65 | 713.94 | 723.84 |
| Primary metals | 18.73 | 19.00 | 19.07 | 18.98 | 801.64 | 813.20 | 829.58 | 827.53 |
| Fabricated metal products | 15.38 | 15.88 | 15.93 | 15.89 | 633.66 | 648.32 | 654.72 | 664.20 |
| Machinery | 16.84 | 16.89 | 17.00 | 17.03 | 707.26 | 706.78 | 714.00 | 720.37 |
| Computer and electronic products | 17.52 | 18.61 | 18.67 | 18.63 | 704.30 | 738.96 | 754.27 | 760.10 |
| Electrical equipment and appliances | 15.05 | 15.33 | 15.40 | 15.50 | 614.04 | 625.46 | 640.64 | 655.65 |
| Transportation equipment | 21.78 | 22.26 | 22.32 | 22.69 | 923.47 | 951.36 | 956.76 | 975.67 |
| Furniture and related products | 13.27 | 13.47 | 13.58 | 13.43 | 516.20 | 532.07 | 541.04 | 522.43 |
| Miscellaneous manufacturing | 13.92 | 14.13 | 14.08 | 13.96 | 534.53 | 546.63 | 546.30 | 556.40 |
| Nondurable goods | 15.11 | 15.24 | 15.32 | 15.33 | 602.69 | 605.03 | 617.40 | 618.27 |
| Food manufacturing | 12.94 | 12.99 | 13.12 | 13.06 | 506.54 | 509.21 | 516.23 | 509.34 |
| Beverages and tobacco products | 19.18 | 18.48 | 18.48 | 18.05 | 734.59 | 744.17 | 732.86 | 740.05 |
| Textile mills | 12.11 | 12.44 | 12.53 | 12.31 | 481.98 | 496.36 | 498.13 | 494.86 |
| Textile product mills | 11.42 | 11.75 | 11.76 | 11.83 | 447.66 | 452.38 | 456.29 | 456.94 |
| Apparel | 9.97 | 10.21 | 10.31 | 10.24 | 357.92 | 366.54 | 369.10 | 367.62 |
| Leather and allied products | 11.58 | 11.55 | 11.71 | 11.64 | 445.83 | 443.52 | 450.84 | 450.47 |
| Paper and paper products | 17.93 | 17.92 | 17.94 | 18.10 | 756.65 | 756.22 | 773.21 | 763.73 |
| Printing and related support activities | 15.95 | 15.81 | 15.96 | 15.93 | 614.06 | 606.52 | 625.63 | 619.68 |
| Petroleum and coal products | 24.33 | 24.11 | 24.38 | 24.76 | 1,097.28 | 1,077.72 | 1,175.12 | 1,158.29 |
| Chemicals | 19.42 | 19.71 | 19.80 | 19.87 | 825.35 | 817.97 | 829.62 | 846.46 |
| Plastics and rubber products | 14.55 | 14.91 | 14.84 | 14.74 | 563.46 | 593.42 | 602.50 | 594.02 |
| Private service-providing | 15.40 | 15.62 | 15.80 | 15.94 | 498.96 | 507.65 | 511.92 | 519.64 |
| Trade, transportation, and utilities | 14.69 | 14.96 | 15.04 | 15.10 | 492.12 | 502.32 | 503.84 | 505.85 |
| Wholesale trade | 17.75 | 18.16 | 18.31 | 18.47 | 669.16 | 681.00 | 692.12 | 703.71 |
| Retail trade | 12.17 | 12.37 | 12.36 | 12.38 | 373.62 | 382.23 | 379.45 | 377.59 |
| Transportation and warehousing | 16.59 | 16.81 | 16.85 | 16.86 | 622.13 | 623.65 | 620.06 | 623.82 |
| Utilities | 26.02 | 26.65 | 27.09 | 27.17 | 1,066.82 | 1,092.65 | 1,132.36 | 1,127.56 |
| Information | 21.69 | 22.14 | 22.48 | 22.81 | 787.35 | 810.32 | 820.52 | 841.69 |
| Financial activities | 17.68 | 17.92 | 18.07 | 18.24 | 627.64 | 643.33 | 646.91 | 667.58 |
| Professional and business services | 17.54 | 17.88 | 17.99 | 18.36 | 599.67 | 613.28 | 617.06 | 633.42 |
| Education and health services | 16.30 | 16.73 | 16.82 | 16.82 | 528.12 | 545.40 | 548.33 | 550.01 |
| Leisure and hospitality | 9.02 | 9.05 | 9.22 | 9.26 | 230.91 | 238.62 | 234.19 | 238.91 |
| Other services | 14.06 | 14.19 | 14.26 | 14.33 | 434.45 | 441.31 | 441.25 | 445.66 |

¹ See footnote 1, table B-2.

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Average hourly earnings of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail, seasonally adjusted

| Industry | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ² | Oct. 2005 ² | Percent change from: Sept. 2005-Oct. 2005 ³ |
|--------------------------------------|-----------|-----------|-----------|-----------|-------------------------|------------------------|--|
| Total private: | | | | | | | |
| Current dollars | \$15.81 | \$16.07 | \$16.14 | \$16.17 | \$16.19 | \$16.27 | 0.5 |
| Constant (1962) dollars ² | 8.22 | 8.21 | 8.20 | 8.18 | 8.06 | N.A. | (.9) |
| Goods-producing | 17.32 | 17.58 | 17.60 | 17.67 | 17.64 | 17.74 | .8 |
| Natural resources and mining | 18.10 | 18.86 | 18.74 | 18.87 | 18.92 | 18.93 | .1 |
| Construction | 19.34 | 19.43 | 19.52 | 19.51 | 19.53 | 19.60 | .4 |
| Manufacturing | 16.27 | 16.55 | 16.55 | 16.65 | 16.59 | 16.70 | .7 |
| Excluding overtime ⁴ | 15.42 | 15.70 | 15.68 | 15.77 | 15.72 | 15.83 | .7 |
| Durable goods | 16.97 | 17.32 | 17.34 | 17.48 | 17.38 | 17.50 | .7 |
| Non-durable goods | 15.15 | 15.29 | 15.25 | 15.30 | 15.26 | 15.36 | .5 |
| Private service-providing | 15.40 | 15.67 | 15.76 | 15.77 | 15.80 | 15.89 | .5 |
| Trade, transportation, and utilities | 14.66 | 14.91 | 15.04 | 15.02 | 15.00 | 15.06 | .4 |
| Wholesale trade | 17.78 | 18.11 | 18.25 | 18.24 | 18.32 | 18.39 | .4 |
| Retail trade | 12.16 | 12.35 | 12.47 | 12.43 | 12.33 | 12.39 | .5 |
| Transportation and warehousing | 16.81 | 16.69 | 16.76 | 16.81 | 16.83 | 16.83 | .0 |
| Utilities | 26.00 | 26.37 | 27.00 | 26.90 | 26.96 | 27.13 | .6 |
| Information | 21.59 | 22.06 | 22.18 | 22.28 | 22.40 | 22.64 | 1.1 |
| Financial activities | 17.71 | 17.90 | 17.99 | 17.97 | 18.07 | 18.13 | .3 |
| Professional and business services | 17.63 | 17.98 | 18.05 | 18.00 | 18.06 | 18.29 | 1.1 |
| Education and health services | 16.31 | 16.67 | 16.73 | 16.75 | 16.79 | 16.82 | .2 |
| Leisure and hospitality | 9.89 | 9.10 | 9.13 | 9.16 | 9.21 | 9.22 | .1 |
| Other services | 14.08 | 14.22 | 14.26 | 14.28 | 14.28 | 14.32 | .3 |

¹ See footnote 1, table B-2.² The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.³ Change was -1.2 percent from Aug. 2005 to Sept. 2005, the latest month available.⁴ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

P = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | Percent change from: Sept. 2005- Oct. 2006 ² | |
|---|-------------------------|-----------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|---|------------------------|
| | Oct. 2004 | Aug. 2006 | Sept. 2006 ² | Oct. 2006 ² | Oct. 2004 | June 2006 | July 2006 | Aug. 2006 | Sept. 2006 ² | | Oct. 2006 ² |
| Total private | 101.9 | 104.8 | 103.7 | 104.5 | 101.2 | 102.5 | 102.8 | 102.9 | 103.2 | 103.2 | 0.0 |
| Goods-producing | 99.2 | 101.5 | 101.8 | 102.0 | 97.2 | 98.1 | 98.1 | 98.3 | 98.4 | 99.7 | 1.3 |
| Natural resources and mining | 108.5 | 121.1 | 120.6 | 121.1 | 105.9 | 114.9 | 115.9 | 116.6 | 116.8 | 117.3 | .8 |
| Construction | 108.2 | 115.1 | 114.1 | 113.3 | 103.0 | 106.6 | 105.9 | 106.6 | 106.6 | 106.0 | 1.3 |
| Manufacturing | 94.9 | 94.6 | 95.3 | 96.0 | 94.4 | 93.5 | 93.7 | 93.8 | 93.9 | 95.1 | 1.3 |
| Durable goods | 98.7 | 96.3 | 97.0 | 96.5 | 95.5 | 95.2 | 95.5 | 96.0 | 95.9 | 97.6 | 1.8 |
| Wood products | 102.0 | 100.9 | 101.5 | 103.5 | 101.0 | 98.2 | 98.3 | 98.1 | 99.6 | 101.9 | 2.3 |
| Nonmetallic mineral products | 101.6 | 99.2 | 100.1 | 101.7 | 99.1 | 98.0 | 95.1 | 95.3 | 95.8 | 98.3 | 2.6 |
| Primary metals | 92.6 | 92.1 | 94.1 | 94.8 | 93.3 | 92.0 | 93.1 | 93.0 | 93.7 | 94.6 | 1.2 |
| Fabricated metal products | 99.3 | 98.9 | 99.8 | 101.7 | 98.6 | 98.6 | 99.0 | 99.0 | 98.8 | 100.7 | 1.9 |
| Machinery | 96.2 | 97.0 | 96.3 | 99.3 | 97.2 | 98.0 | 98.1 | 98.7 | 98.4 | 100.2 | 1.8 |
| Computer and electronic products | 90.6 | 96.1 | 96.6 | 100.3 | 90.3 | 94.3 | 96.1 | 96.1 | 97.6 | 99.4 | 1.8 |
| Electrical equipment and appliances | 86.0 | 85.1 | 86.3 | 90.5 | 85.5 | 86.7 | 86.4 | 86.3 | 86.4 | 89.2 | .9 |
| Transportation equipment | 95.4 | 97.2 | 98.9 | 99.2 | 98.1 | 96.9 | 95.0 | 97.3 | 93.7 | 98.6 | 3.0 |
| Motor vehicles and parts ² | 96.5 | 94.3 | 96.9 | 96.6 | 95.1 | 93.0 | 90.9 | 94.7 | 96.5 | 96.7 | -.2 |
| Furniture and related products | 92.3 | 91.9 | 92.1 | 89.4 | 93.2 | 91.3 | 91.0 | 90.5 | 91.0 | 90.2 | -.9 |
| Miscellaneous manufacturing | 91.5 | 91.2 | 90.9 | 93.6 | 91.1 | 90.5 | 89.7 | 91.1 | 91.1 | 92.8 | 1.9 |
| Nondurable goods | 93.4 | 91.6 | 92.5 | 92.2 | 92.6 | 96.6 | 90.8 | 90.5 | 90.9 | 91.0 | .1 |
| Food manufacturing | 96.7 | 95.4 | 96.0 | 97.6 | 96.6 | 96.0 | 96.5 | 96.7 | 96.1 | 96.1 | .0 |
| Beverages and tobacco products | 89.3 | 89.3 | 89.9 | 102.8 | 85.1 | 94.6 | 94.8 | 95.5 | 95.0 | 101.3 | 6.6 |
| Textile mills | 77.5 | 71.7 | 72.4 | 70.9 | 78.1 | 73.3 | 72.6 | 71.7 | 71.4 | 71.2 | -.3 |
| Textile product mills | 92.1 | 92.6 | 93.6 | 93.6 | 92.6 | 90.9 | 92.0 | 93.1 | 93.5 | 94.1 | .6 |
| Apparel | 72.7 | 65.6 | 66.2 | 63.4 | 72.4 | 65.4 | 65.8 | 64.7 | 64.4 | 63.1 | -2.0 |
| Leather and allied products | 87.1 | 86.9 | 87.6 | 87.6 | 86.4 | 85.3 | 87.8 | 86.6 | 86.9 | 86.6 | -.3 |
| Paper and paper products | 90.2 | 89.6 | 91.5 | 91.3 | 89.7 | 88.4 | 89.4 | 90.0 | 90.4 | 90.7 | -.3 |
| Printing and related support activities | 84.0 | 91.7 | 93.9 | 93.5 | 93.2 | 91.6 | 91.9 | 91.7 | 92.6 | 92.4 | -.2 |
| Petroleum and coal products | 108.0 | 106.5 | 112.6 | 107.6 | 108.3 | 107.0 | 105.5 | 104.7 | 106.1 | 106.0 | 1.9 |
| Chemicals | 96.2 | 94.8 | 95.1 | 96.8 | 99.3 | 96.2 | 95.9 | 95.1 | 96.9 | 97.2 | 1.4 |
| Plastics and rubber products | 94.1 | 91.6 | 94.0 | 93.5 | 93.6 | 91.2 | 91.1 | 91.6 | 92.8 | 92.7 | -.1 |
| Private service-providing | 102.6 | 106.4 | 104.5 | 105.3 | 102.1 | 103.9 | 104.2 | 104.2 | 104.2 | 104.2 | .0 |
| Trade, transportation, and utilities | 100.4 | 102.1 | 101.4 | 101.9 | 100.2 | 100.9 | 101.2 | 101.2 | 100.8 | 100.9 | .1 |
| Wholesale trade | 99.6 | 101.4 | 101.9 | 102.7 | 99.3 | 100.7 | 100.9 | 100.8 | 101.4 | 101.4 | .0 |
| Retail trade | 99.6 | 101.6 | 99.8 | 100.0 | 99.6 | 100.1 | 100.5 | 100.3 | 99.7 | 99.7 | .0 |
| Transportation and warehousing | 105.1 | 104.7 | 105.0 | 106.6 | 103.9 | 105.1 | 105.1 | 105.0 | 104.0 | 104.3 | .3 |
| Utilities | 94.9 | 97.7 | 98.9 | 98.3 | 94.5 | 96.9 | 97.0 | 97.3 | 96.1 | 98.0 | -.1 |
| Information | 99.8 | 103.7 | 103.0 | 103.7 | 100.3 | 102.6 | 103.3 | 103.0 | 104.0 | 103.4 | -.6 |
| Financial activities | 102.4 | 106.6 | 105.6 | 108.1 | 103.2 | 105.4 | 106.0 | 106.0 | 106.5 | 106.6 | .3 |
| Professional and business services | 105.0 | 106.5 | 106.4 | 106.3 | 103.9 | 106.7 | 106.7 | 106.6 | 107.3 | 107.3 | .0 |
| Education and health services | 105.0 | 104.4 | 106.2 | 106.1 | 104.3 | 108.2 | 106.6 | 106.3 | 107.1 | 106.8 | -.3 |
| Leisure and hospitality | 102.9 | 114.5 | 106.2 | 106.5 | 103.7 | 106.0 | 105.9 | 105.9 | 105.7 | 105.7 | .0 |
| Other services | 98.4 | 99.1 | 97.0 | 97.2 | 96.5 | 96.1 | 96.1 | 97.5 | 97.4 | 97.1 | -.3 |

¹ See footnote 1, table B-2.² Includes motor vehicles, motor vehicle bodies and trailers, and motor vehicle parts.

P= preliminary.

NOTE: The indexes of aggregate weekly hours are calculated by

dividing the current month's estimates of aggregate hours by the corresponding 2002 annual average levels. Aggregate hours estimates are the product of estimates of average weekly hours and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-4. Indexes of aggregate weekly payrolls of production or nonsupervisory workers¹ on private nonfarm payrolls by industry sector and selected industry detail

(2002=100)

| Industry | Not seasonally adjusted | | | | Seasonally adjusted | | | | | | Percent change from: Sept. 2005-Oct. 2005 ² |
|--|-------------------------|-----------|-------------------------|------------------------|---------------------|-----------|-----------|-----------|-------------------------|------------------------|--|
| | Oct. 2004 | Aug. 2005 | Sept. 2005 ² | Oct. 2005 ² | Oct. 2004 | June 2005 | July 2005 | Aug. 2005 | Sept. 2005 ² | Oct. 2005 ² | |
| Total private | 107.9 | 112.3 | 112.5 | 114.2 | 107.1 | 110.3 | 111.0 | 111.3 | 111.8 | 112.4 | 0.5 |
| Goods-producing | 105.7 | 110.1 | 110.7 | 111.3 | 103.1 | 105.8 | 105.7 | 106.4 | 106.3 | 106.3 | 1.9 |
| Natural resources and mining | 115.1 | 132.2 | 132.3 | 132.9 | 111.5 | 124.8 | 128.3 | 128.2 | 128.3 | 129.1 | .8 |
| Construction | 113.7 | 121.8 | 121.3 | 120.8 | 107.5 | 111.8 | 111.6 | 112.3 | 112.5 | 114.3 | 1.6 |
| Manufacturing | 100.9 | 102.7 | 103.7 | 104.9 | 100.5 | 101.2 | 101.4 | 102.1 | 101.9 | 103.9 | 2.0 |
| Durable goods | 101.5 | 104.7 | 105.7 | 107.7 | 101.2 | 103.0 | 103.3 | 104.6 | 104.1 | 106.6 | 2.4 |
| Nondurable goods | 99.7 | 99.6 | 100.4 | 99.9 | 99.1 | 99.1 | 97.9 | 97.9 | 99.2 | 99.6 | .8 |
| Private service-providing | 106.6 | 113.1 | 113.4 | 115.3 | 106.0 | 111.8 | 112.6 | 112.9 | 113.1 | 113.7 | .5 |
| Trade, transportation, and utilities | 105.2 | 106.9 | 106.7 | 109.8 | 105.1 | 107.4 | 108.6 | 106.4 | 107.9 | 108.4 | .5 |
| Wholesale trade | 104.1 | 106.5 | 109.9 | 111.8 | 104.0 | 107.5 | 108.5 | 108.3 | 109.4 | 109.8 | .4 |
| Retail trade | 104.1 | 107.6 | 105.7 | 106.2 | 104.0 | 106.0 | 107.4 | 106.6 | 105.3 | 105.9 | .8 |
| Transportation and warehousing | 110.8 | 111.7 | 113.2 | 114.0 | 109.5 | 111.2 | 111.8 | 112.0 | 111.0 | 111.4 | .4 |
| Utilities | 103.0 | 106.6 | 111.9 | 111.5 | 102.5 | 106.7 | 109.3 | 106.2 | 110.4 | 110.9 | .5 |
| Information | 107.1 | 113.7 | 114.6 | 117.1 | 107.2 | 112.2 | 113.4 | 113.5 | 115.3 | 115.6 | .4 |
| Financial activities | 112.0 | 116.1 | 116.0 | 122.0 | 113.0 | 116.7 | 117.9 | 117.7 | 119.0 | 118.7 | .8 |
| Professional and business services | 106.6 | 116.4 | 116.0 | 119.4 | 109.0 | 113.0 | 114.6 | 114.6 | 115.6 | 116.7 | 1.0 |
| Education and health services | 112.5 | 114.6 | 117.5 | 119.6 | 111.6 | 116.4 | 117.5 | 117.1 | 118.2 | 118.1 | -.1 |
| Leisure and hospitality | 108.2 | 120.9 | 114.1 | 113.9 | 108.7 | 112.5 | 112.8 | 113.1 | 113.6 | 113.6 | .1 |
| Other services | 98.7 | 102.5 | 101.0 | 101.5 | 99.0 | 101.6 | 101.9 | 101.4 | 101.3 | 101.3 | .0 |

¹ See footnote 1, table B-2.

P= preliminary.

NOTE: The indexes of aggregate weekly payrolls are calculated by dividing the current month's estimates of aggregate payrolls by

the corresponding 2002 annual average levels. Aggregate payroll estimates are the product of estimates of average hourly earnings, average weekly hours, and production or nonsupervisory worker employment.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-7. Diffusion indexes of employment change.

(Percent)

| Time span | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|------|------|------|------|------|------|------|------|--------|--------|------|------|
| Private nonfarm payrolls, 278 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 49.5 | 47.7 | 48.8 | 32.7 | 42.4 | 40.8 | 36.7 | 39.0 | 37.6 | 33.6 | 39.9 | 37.1 |
| 2002 | 41.0 | 36.6 | 39.7 | 39.2 | 40.5 | 47.7 | 42.8 | 43.0 | 42.1 | 39.0 | 41.5 | 35.1 |
| 2003 | 44.4 | 38.7 | 35.3 | 41.4 | 39.4 | 38.9 | 42.1 | 39.4 | 50.4 | 48.9 | 50.0 | 50.5 |
| 2004 | 50.9 | 53.4 | 66.0 | 67.3 | 64.6 | 69.7 | 55.4 | 53.8 | 57.6 | 58.6 | 54.7 | 54.3 |
| 2005 | 54.1 | 61.2 | 63.1 | 61.7 | 67.4 | 64.7 | 68.6 | 64.9 | P 62.2 | P 50.2 | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 53.2 | 49.8 | 49.8 | 42.3 | 39.1 | 34.2 | 37.8 | 37.9 | 34.7 | 35.4 | 30.6 | 32.0 |
| 2002 | 35.3 | 37.9 | 36.5 | 34.2 | 34.4 | 39.4 | 40.6 | 44.1 | 37.9 | 37.1 | 35.8 | 36.7 |
| 2003 | 38.3 | 36.4 | 33.3 | 33.6 | 36.5 | 41.7 | 37.8 | 37.4 | 43.2 | 49.4 | 49.6 | 50.2 |
| 2004 | 62.5 | 63.8 | 68.7 | 69.4 | 75.4 | 71.2 | 63.5 | 58.3 | 57.4 | 59.9 | 59.7 | 56.3 |
| 2005 | 68.5 | 60.3 | 63.7 | 62.4 | 69.4 | 64.2 | 61.3 | 60.4 | P 67.0 | P 48.6 | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 53.1 | 50.9 | 52.0 | 45.5 | 43.0 | 36.7 | 35.5 | 33.6 | 33.5 | 34.2 | 33.6 | 30.9 |
| 2002 | 29.5 | 29.9 | 32.0 | 31.7 | 30.9 | 37.4 | 37.1 | 38.7 | 35.3 | 36.0 | 37.9 | 35.1 |
| 2003 | 32.7 | 32.2 | 31.3 | 31.3 | 33.1 | 37.6 | 33.6 | 32.2 | 40.3 | 43.7 | 46.4 | 49.3 |
| 2004 | 47.3 | 50.4 | 54.9 | 62.6 | 64.4 | 69.6 | 67.3 | 69.9 | 64.6 | 62.2 | 69.7 | 55.9 |
| 2005 | 60.3 | 62.9 | 63.7 | 62.2 | 62.6 | 63.1 | 64.0 | 61.5 | P 61.0 | P 54.1 | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 59.5 | 59.5 | 53.4 | 49.3 | 48.6 | 45.0 | 43.3 | 43.9 | 39.9 | 37.6 | 37.1 | 34.0 |
| 2002 | 35.6 | 31.7 | 32.2 | 30.4 | 30.2 | 29.1 | 32.0 | 31.3 | 30.0 | 29.5 | 32.9 | 34.7 |
| 2003 | 34.6 | 31.5 | 32.8 | 33.6 | 34.2 | 36.1 | 32.7 | 33.1 | 37.1 | 38.7 | 37.2 | 39.2 |
| 2004 | 40.3 | 42.1 | 44.8 | 49.7 | 52.0 | 56.7 | 67.4 | 67.6 | 60.3 | 62.1 | 64.6 | 64.0 |
| 2005 | 61.2 | 64.7 | 64.2 | 65.8 | 63.8 | 60.4 | 63.8 | 67.3 | P 62.6 | P 50.0 | | |
| Manufacturing payrolls, 84 industries ¹ | | | | | | | | | | | | |
| Over 1-month span: | | | | | | | | | | | | |
| 2001 | 22.0 | 17.3 | 22.0 | 17.9 | 16.1 | 22.6 | 13.1 | 15.5 | 18.5 | 17.3 | 14.9 | 11.9 |
| 2002 | 19.0 | 19.6 | 22.0 | 32.1 | 26.2 | 31.0 | 35.7 | 23.2 | 29.6 | 15.5 | 18.5 | 16.7 |
| 2003 | 35.1 | 19.0 | 19.0 | 11.9 | 18.8 | 20.8 | 22.6 | 24.4 | 32.7 | 35.1 | 39.9 | 42.9 |
| 2004 | 39.3 | 49.4 | 60.0 | 65.5 | 60.1 | 61.8 | 60.7 | 48.8 | 42.9 | 42.3 | 46.4 | 44.6 |
| 2005 | 42.3 | 44.6 | 41.1 | 47.6 | 44.9 | 33.9 | 50.0 | 39.9 | P 44.6 | P 41.7 | | |
| Over 3-month span: | | | | | | | | | | | | |
| 2001 | 32.7 | 29.8 | 16.7 | 14.3 | 14.3 | 11.9 | 11.9 | 9.6 | 7.7 | 12.5 | 11.3 | 9.5 |
| 2002 | 19.7 | 11.9 | 11.3 | 17.6 | 14.9 | 20.2 | 25.6 | 23.8 | 20.2 | 13.7 | 8.9 | 8.5 |
| 2003 | 19.1 | 14.3 | 17.5 | 8.9 | 10.7 | 10.7 | 14.3 | 15.6 | 18.5 | 27.4 | 31.5 | 35.1 |
| 2004 | 42.3 | 43.5 | 42.9 | 59.3 | 69.0 | 69.6 | 62.5 | 63.6 | 52.4 | 44.6 | 45.2 | 35.7 |
| 2005 | 45.2 | 42.9 | 52.4 | 46.4 | 41.7 | 33.7 | 41.1 | 36.9 | P 42.9 | P 35.7 | | |
| Over 6-month span: | | | | | | | | | | | | |
| 2001 | 22.6 | 24.4 | 21.4 | 19.6 | 14.3 | 11.9 | 13.1 | 11.3 | 10.7 | 7.1 | 7.7 | 6.4 |
| 2002 | 6.0 | 6.3 | 6.3 | 6.5 | 7.1 | 13.1 | 12.8 | 11.3 | 14.3 | 6.3 | 6.3 | 7.1 |
| 2003 | 12.5 | 10.1 | 7.1 | 6.3 | 11.8 | 10.7 | 4.8 | 10.1 | 13.1 | 16.7 | 19.6 | 29.6 |
| 2004 | 27.4 | 29.8 | 33.3 | 47.0 | 52.4 | 57.1 | 60.1 | 59.9 | 58.9 | 50.9 | 45.2 | 42.9 |
| 2005 | 43.5 | 44.0 | 42.9 | 39.3 | 39.7 | 36.9 | 36.9 | 34.6 | P 33.7 | P 40.5 | | |
| Over 12-month span: | | | | | | | | | | | | |
| 2001 | 29.8 | 32.1 | 29.8 | 19.0 | 13.1 | 12.5 | 10.7 | 11.9 | 11.9 | 10.1 | 8.3 | 6.0 |
| 2002 | 7.1 | 6.0 | 6.0 | 6.5 | 7.1 | 3.6 | 4.9 | 6.0 | 4.8 | 7.1 | 4.6 | 6.3 |
| 2003 | 10.7 | 6.0 | 6.6 | 6.0 | 6.3 | 7.1 | 7.1 | 6.3 | 12.7 | 10.7 | 9.5 | 10.7 |
| 2004 | 13.1 | 14.3 | 13.1 | 19.0 | 25.8 | 34.5 | 43.5 | 40.5 | 45.8 | 48.2 | 49.4 | 46.4 |
| 2005 | 43.2 | 45.8 | 47.8 | 44.6 | 42.3 | 39.3 | 39.3 | 36.7 | P 31.5 | P 37.5 | | |

¹Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span.

^P preliminary.

NOTE: Figures are the percent of industries with employment

increasing plus one-half of the industries with unchanged employment, where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

U. S. Department of Labor

Commissioner
Bureau of Labor Statistics
Washington, D.C. 20212

NOV 30 2005

The Honorable Jim Saxton
U.S. House of Representatives
2217 Rayburn House Office Building
Washington, D.C. 20515

Dear Congressman Saxton:

At the November 4 hearing of the Joint Economic Committee, I was asked if the Bureau of Labor Statistics had any studies on earnings of women and men.

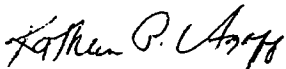
I am pleased to provide you with a copy of *Highlights of Women's Earnings in 2004* which was released on October 7. This annual report presents earnings for wage and salary workers from the Current Population Survey (CPS), a monthly survey of about 60,000 households.

In 2004, median weekly earnings for women who were full-time wage and salary workers were \$573, or 80 percent of the \$713 median for their male counterparts. This ratio was about the same in 2003. In 1979, the first year in which comparable data were collected, women's earnings were 63 percent of men's. The updated *Highlights of Women's Earnings* provides 2004 earnings for women and men by various characteristics, including age, race, educational attainment, occupation, marital status, and presence of children. In addition to the 2004 earnings data, the report includes inflation-adjusted median earnings back to 1979.

Highlights of Women's Earnings in 2004 is available on the Internet at www.bls.gov/cps/cpswom2004.pdf. In addition to this annual report, we also issue data on women's and men's earnings from the CPS in our quarterly news release, *Usual Weekly Earnings of Wage and Salary Workers*. A copy of the most recent release is enclosed for your information. The Bureau, of course, will continue to make these important data available in the future.

If you have any additional questions, you or your staff may contact Mr. Thomas Nardone, Assistant Commissioner for Current Employment Analysis at 202-691-6379.

Sincerely yours,

A handwritten signature in cursive script, reading "Kathleen P. Utgoff".

KATHLEEN P. UTGOFF
Commissioner

Enclosures

News

United States
Department
of Labor



Bureau of Labor Statistics

Washington, D.C. 20212

Technical information: (202) 691-6378
<http://www.bls.gov/cps/>

USDL 05-1977

Media contact: 691-5902

For release: 10:00 A.M. EDT
Thursday, October 20, 2005

USUAL WEEKLY EARNINGS OF WAGE AND SALARY WORKERS: THIRD QUARTER 2005

Median weekly earnings of the nation's 105.4 million full-time wage and salary workers were \$649 in the third quarter of 2005, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. This was 2.7 percent higher than a year earlier, compared with a gain of 3.8 percent in the Consumer Price Index for All Urban Consumers (CPI-U) over the same period.

Data on usual earnings are collected as part of the Current Population Survey, a nationwide sample survey of households in which respondents are asked, among other things, how much each wage and salary worker usually earns. (See the Explanatory Note.) Highlights from the third-quarter data are:

—Women who usually worked full time had median earnings of \$585 per week, or 81.7 percent of the \$716 median for men. The female-to-male earnings ratios were higher among blacks (95.5 percent) and Hispanics or Latinos (86.5 percent) than among whites (80.6 percent) or Asians (79.0 percent). (See table 1.)

—Median earnings for black men working at full-time jobs were \$533 per week, 72.3 percent of the median for white men (\$737). The difference was less among women, as black women's median earnings (\$509) were 85.7 percent of those for their white counterparts (\$594). Overall, median earnings of Hispanics or Latinos who worked full time (\$462) were lower than those of blacks (\$520), whites (\$667), and Asians (\$761). (See table 1.)

—Among men, those age 55 to 64 and age 45 to 54 had the highest median weekly earnings, \$858 and \$848, respectively. Among women, earnings were highest for 45- to 54-year-olds and 55- to 64-year-olds, \$640 and \$639, respectively. (See table 2.)

—Among the major occupational groups, persons employed full time in management, professional, and related occupations had the highest median weekly earnings—\$1,103 for men and \$812 for women. Men and women in service jobs earned the least. (See table 3.)

—Full-time workers age 25 and over without a high school diploma had median weekly earnings of \$413, compared with \$583 for high school graduates (no college) and \$1,014 for college graduates holding at least a bachelor's degree. Among college graduates with advanced degrees (professional or master's degree and above), the highest-earning 10 percent of male workers made \$2,729 or more per week, compared with \$1,858 or more for their female counterparts. (See table 4.)

Explanatory Note

The estimates in this release were obtained from the Current Population Survey (CPS), which provides the basic information on the labor force, employment, and unemployment. The survey is conducted monthly for the Bureau of Labor Statistics by the U.S. Census Bureau from a scientifically selected national sample of about 60,000 households, with coverage in all 50 states and the District of Columbia. The earnings data are collected from one-quarter of the CPS monthly sample and are limited to wages and salaries. The data, therefore, exclude self-employment income.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; TDD message referral phone number: 1-800-877-8339.

Reliability

Statistics based on the CPS are subject to both sampling and nonsampling error. When a sample, rather than the entire population, is surveyed, there is a chance that the sample estimates may differ from the "true" population values they represent. The exact difference, or *sampling error*, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses are generally conducted at the 90-percent level of confidence.

The CPS data also are affected by *nonsampling error*. Nonsampling error can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information, and errors made in the collection or processing of the data.

For a full discussion of the reliability of data from the CPS and information on estimating standard errors, see the "Explanatory Notes and Estimates of Error" section of *Employment and Earnings*.

Definitions

The principal definitions used in connection with the earnings series are described briefly below.

Usual weekly earnings. Data represent earnings before taxes and other deductions and include any overtime pay, commissions, or tips usually received (at the main job in the case of multiple jobholders.) Prior to 1994, respondents were asked how much they usually earned per week. Since January 1994, respondents have been asked to identify the easiest way for them to report earnings (hourly, weekly, biweekly, twice monthly, monthly, annually, other) and how much they usually earn in the reported time period. Earnings reported on a basis other than weekly are converted to a weekly equivalent. The term "usual" is as perceived by the respondent. If the respondent asks for a definition of usual,

interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months.

Medians (and other quantiles) of weekly earnings. The median (or upper limit of the second quartile) is the amount which divides a given earnings distribution into two equal groups, one having earnings above the median and the other having earnings below the median. Ten percent of a given distribution have earnings below the upper limit of the first decile (90 percent have higher earnings); 25 percent have earnings below the upper limit of the first quartile (75 percent have higher earnings); 75 percent have earnings below the upper limit of the third quartile (25 percent have higher earnings); and 90 percent have earnings below the upper limit of the ninth decile (10 percent have higher earnings).

The estimating procedure places each reported or calculated weekly earnings value into \$50-wide intervals which are centered around multiples of \$50. The actual value is estimated through the linear interpolation of the interval in which the quantile boundary lies.

Over-the-year changes in the medians (and other quantile boundaries) for specific groups may not necessarily be consistent with the movements estimated for the overall quantile boundary. The most common reasons for this possible anomaly are: (1) There could be a change in the relative weights of the subgroups. For example, the medians of both 16-to-24 year olds and those 25 years and over may rise; but if the lower-earning 16-to-24 group accounts for a greatly increased share of the total, the overall median could actually fall. (2) There could be a large change in the shape of the distribution of reported earnings, particularly near a quantile boundary. This could be caused by survey observations that are clustered at rounded values, e.g., \$250, \$300, \$400. An estimate lying in a \$50-wide centered interval containing such a cluster or "spike" tends to change more slowly than one in other intervals.

Wage and salary workers. Workers who receive wages, salaries, commissions, tips, payment in kind, or piece rates. The group includes employees in both the private and public sectors but, for the purposes of the earnings series, excludes all self-employed persons, regardless of whether or not their businesses are incorporated.

Full-time workers. Workers who usually work 35 hours or more per week at their sole or principal job.

Part-time workers. Workers who usually work fewer than 35 hours per week at their sole or principal job.

Constant dollars. The Consumer Price Index for All Urban Consumers (CPI-U) is used to convert current dollars to constant (1982) dollars.

Hispanic or Latino ethnicity. This refers to persons who identified themselves in the enumeration process as being Spanish, Hispanic, or Latino. Persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 1. Median usual weekly earnings of full-time wage and salary workers by selected characteristics, quarterly averages, not seasonally adjusted

| Characteristic | Number of workers (in thousands) | | Median weekly earnings | | | |
|--|-------------------------------------|------------|------------------------|------------|----------------------------|------------|
| | II 2004 | II 2005 | In current dollars | | In constant (1982) dollars | |
| | | | II 2004 | II 2005 | II 2004 | II 2005 |
| SEX AND AGE | | | | | | |
| Total, 16 years and over | 102,325 | 105,428 | \$632 | \$649 | \$322 | \$318 |
| Men, 16 years and over | 57,888 | 59,778 | 704 | 716 | 358 | 351 |
| 16 to 24 years | 6,885 | 7,017 | 400 | 407 | 204 | 200 |
| 25 years and over | 51,033 | 52,761 | 789 | 768 | 386 | 377 |
| Women, 16 years and over | 44,427 | 45,649 | 571 | 585 | 291 | 287 |
| 16 to 24 years | 5,063 | 5,022 | 371 | 379 | 189 | 186 |
| 25 years and over | 39,344 | 40,627 | 602 | 615 | 306 | 301 |
| RACE, HISPANIC OR LATINO ETHNICITY, AND SEX | | | | | | |
| White | 83,387 | 85,558 | 651 | 667 | 331 | 327 |
| Men | 48,172 | 49,557 | 721 | 737 | 367 | 361 |
| Women | 35,195 | 36,001 | 583 | 594 | 297 | 291 |
| Black or African American | 12,136 | 12,714 | 631 | 620 | 270 | 255 |
| Men | 5,757 | 6,159 | 570 | 533 | 250 | 261 |
| Women | 6,379 | 6,556 | 608 | 609 | 258 | 250 |
| Asian | 4,406 | 4,674 | 701 | 761 | 357 | 373 |
| Men | 2,581 | 2,865 | 801 | 834 | 408 | 409 |
| Women | 1,827 | 2,009 | 569 | 669 | 300 | 323 |
| Hispanic or Latino | 14,283 | 14,913 | 458 | 462 | 233 | 226 |
| Men | 9,155 | 8,581 | 477 | 483 | 243 | 237 |
| Women | 5,108 | 5,332 | 430 | 418 | 219 | 205 |

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table 2. Median usual weekly earnings of full-time wage and salary workers by age, race, Hispanic or Latino ethnicity, and sex, third quarter 2005 averages, not seasonally adjusted

| Age, race, and Hispanic or Latino ethnicity | Total | | Men | | Women | |
|---|----------------------------------|------------------------|----------------------------------|------------------------|----------------------------------|------------------------|
| | Number of workers (in thousands) | Median weekly earnings | Number of workers (in thousands) | Median weekly earnings | Number of workers (in thousands) | Median weekly earnings |
| TOTAL | | | | | | |
| 16 years and over | 105,428 | \$649 | 59,776 | \$716 | 45,649 | \$585 |
| 16 to 24 years | 12,039 | 395 | 7,017 | 407 | 5,022 | 379 |
| 16 to 19 years | 2,283 | 310 | 1,362 | 322 | 921 | 290 |
| 20 to 24 years | 9,756 | 415 | 5,655 | 427 | 4,101 | 401 |
| 25 years and over | 93,389 | 697 | 52,761 | 789 | 40,627 | 615 |
| 25 to 34 years | 78,744 | 691 | 44,605 | 760 | 34,139 | 613 |
| 35 to 44 years | 25,289 | 615 | 14,931 | 643 | 10,357 | 584 |
| 45 to 54 years | 27,582 | 730 | 15,697 | 822 | 11,886 | 622 |
| 55 years and over | 25,672 | 745 | 13,977 | 848 | 11,695 | 640 |
| 55 to 64 years | 14,645 | 726 | 8,150 | 837 | 6,495 | 621 |
| 65 years and over | 12,731 | 741 | 6,828 | 826 | 5,743 | 639 |
| | 1,914 | 582 | 1,167 | 650 | 746 | 500 |
| White | | | | | | |
| 16 years and over | 85,858 | 667 | 49,657 | 737 | 36,001 | 594 |
| 16 to 24 years | 9,920 | 398 | 5,906 | 411 | 4,015 | 379 |
| 25 years and over | 75,838 | 717 | 43,652 | 792 | 31,986 | 625 |
| 25 to 34 years | 63,356 | 712 | 36,708 | 782 | 26,650 | 622 |
| 55 years and over | 12,282 | 743 | 6,946 | 871 | 5,336 | 636 |
| Black or African American | | | | | | |
| 16 years and over | 12,714 | 520 | 6,159 | 533 | 6,555 | 509 |
| 16 to 24 years | 1,318 | 367 | 669 | 366 | 647 | 368 |
| 25 years and over | 11,396 | 551 | 5,490 | 571 | 5,906 | 531 |
| 25 to 34 years | 9,911 | 550 | 4,773 | 567 | 5,138 | 534 |
| 55 years and over | 1,487 | 555 | 717 | 603 | 770 | 509 |
| Asian | | | | | | |
| 16 years and over | 4,674 | 761 | 2,685 | 834 | 2,009 | 659 |
| 16 to 24 years | 349 | 408 | 194 | 405 | 155 | 412 |
| 25 years and over | 4,325 | 790 | 2,471 | 872 | 1,855 | 690 |
| 25 to 34 years | 3,722 | 795 | 2,125 | 871 | 1,597 | 692 |
| 55 years and over | 603 | 770 | 345 | 877 | 257 | 684 |
| Hispanic or Latino | | | | | | |
| 16 years and over | 14,913 | 462 | 9,581 | 483 | 5,332 | 418 |
| 16 to 24 years | 2,176 | 375 | 1,455 | 380 | 721 | 355 |
| 25 years and over | 12,736 | 484 | 8,126 | 502 | 4,611 | 434 |
| 25 to 34 years | 11,806 | 484 | 7,447 | 502 | 4,180 | 433 |
| 55 years and over | 1,131 | 488 | 679 | 489 | 452 | 455 |

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2005, data reflect revised population controls used in the household survey.

Table 3. Median usual weekly earnings of full-time wage and salary workers by occupation and sex, quarterly averages, not seasonally adjusted

| Occupation and sex | Number of workers (in thousands) | | Median weekly earnings | |
|--|-------------------------------------|-----------|------------------------|-----------|
| | ■ 2004 | ■ 2005 | ■ 2004 | ■ 2005 |
| TOTAL | | | | |
| Management, professional, and related occupations | 35,694 | 37,060 | \$916 | \$935 |
| Management, business, and financial operations occupations | 14,421 | 14,891 | 858 | 892 |
| Professional and related occupations | 21,263 | 22,168 | 686 | 697 |
| Service occupations | 14,188 | 14,648 | 411 | 410 |
| Sales and office occupations | 25,399 | 25,836 | 566 | 570 |
| Sales and related occupations | 10,056 | 10,352 | 698 | 696 |
| Office and administrative support occupations | 15,343 | 15,594 | 549 | 550 |
| Natural resources, construction, and maintenance occupations | 11,680 | 12,286 | 613 | 616 |
| Farming, fishing, and forestry occupations | 777 | 803 | 363 | 352 |
| Construction and extraction occupations | 6,635 | 7,031 | 602 | 604 |
| Installation, maintenance, and repair occupations | 4,268 | 4,354 | 693 | 705 |
| Production, transportation, and material moving occupations | 15,375 | 15,496 | 520 | 524 |
| Production occupations | 8,561 | 8,453 | 519 | 516 |
| Transportation and material moving occupations | 6,814 | 7,043 | 521 | 541 |
| Men | | | | |
| Management, professional, and related occupations | 17,719 | 18,305 | 1,111 | 1,103 |
| Management, business, and financial operations occupations | 7,928 | 8,188 | 1,169 | 1,147 |
| Professional and related occupations | 9,793 | 10,120 | 1,051 | 1,057 |
| Service occupations | 7,188 | 7,282 | 470 | 464 |
| Sales and office occupations | 9,691 | 10,153 | 668 | 662 |
| Sales and related occupations | 5,701 | 5,792 | 733 | 748 |
| Office and administrative support occupations | 3,980 | 4,361 | 606 | 616 |
| Natural resources, construction, and maintenance occupations | 11,247 | 11,734 | 618 | 622 |
| Farming, fishing, and forestry occupations | 655 | 719 | 366 | 361 |
| Construction and extraction occupations | 6,523 | 6,867 | 603 | 605 |
| Installation, maintenance, and repair occupations | 4,068 | 4,148 | 699 | 704 |
| Production, transportation, and material moving occupations | 12,054 | 12,254 | 575 | 577 |
| Production occupations | 6,058 | 6,090 | 591 | 594 |
| Transportation and material moving occupations | 5,995 | 6,234 | 548 | 556 |
| Women | | | | |
| Management, professional, and related occupations | 17,965 | 18,754 | 778 | 812 |
| Management, business, and financial operations occupations | 6,494 | 6,706 | 799 | 850 |
| Professional and related occupations | 11,470 | 12,049 | 767 | 785 |
| Service occupations | 7,001 | 7,365 | 382 | 383 |
| Sales and office occupations | 15,708 | 15,763 | 616 | 614 |
| Sales and related occupations | 4,355 | 4,559 | 456 | 457 |
| Office and administrative support occupations | 11,354 | 11,223 | 533 | 530 |
| Natural resources, construction, and maintenance occupations | 433 | 554 | 434 | 471 |
| Farming, fishing, and forestry occupations | 121 | 184 | 357 | 324 |
| Construction and extraction occupations | 112 | 184 | 569 | 459 |
| Installation, maintenance, and repair occupations | 199 | 207 | 526 | 720 |
| Production, transportation, and material moving occupations | 3,321 | 3,173 | 396 | 418 |
| Production occupations | 2,502 | 2,363 | 394 | 418 |
| Transportation and material moving occupations | 819 | 810 | 406 | 422 |

NOTE: Beginning in January 2005, data reflect revised population controls used in the household survey.

Table 4. Quartiles and selected deciles of usual weekly earnings of full-time wage and salary workers by selected characteristics, third quarter 2005 averages, not seasonally adjusted

| Characteristic | Number of workers (in thousands) | Upper limit of: | | | | |
|--|----------------------------------|-----------------|----------------|--------------------------|----------------|--------------|
| | | First decile | First quartile | Second quartile (median) | Third quartile | Ninth decile |
| SEX, RACE, AND HISPANIC OR LATINO ETHNICITY | | | | | | |
| Total, 16 years and over | 105,428 | \$308 | \$422 | \$549 | \$694 | \$1,494 |
| Men | 52,779 | 323 | 465 | 718 | 1,038 | 1,657 |
| Women | 45,640 | 289 | 392 | 595 | 862 | 1,245 |
| White | 85,558 | 311 | 435 | 667 | 1,016 | 1,524 |
| Men | 49,557 | 331 | 480 | 737 | 1,131 | 1,732 |
| Women | 36,001 | 290 | 398 | 594 | 873 | 1,284 |
| Black or African American | 12,714 | 281 | 368 | 520 | 783 | 1,129 |
| Men | 6,159 | 283 | 379 | 533 | 815 | 1,136 |
| Women | 6,555 | 279 | 359 | 509 | 760 | 1,123 |
| Asian | 4,874 | 335 | 488 | 761 | 1,172 | 1,762 |
| Men | 2,665 | 373 | 527 | 834 | 1,333 | 1,917 |
| Women | 2,009 | 304 | 433 | 659 | 993 | 1,440 |
| Hispanic or Latino | 14,913 | 269 | 329 | 462 | 674 | 1,018 |
| Men | 9,581 | 283 | 347 | 483 | 700 | 1,057 |
| Women | 5,332 | 244 | 307 | 418 | 628 | 919 |
| EDUCATIONAL ATTAINMENT | | | | | | |
| Total, 25 years and over | 93,388 | 327 | 464 | 697 | 1,048 | 1,547 |
| Less than a high school diploma | 9,302 | 257 | 311 | 413 | 585 | 782 |
| High school graduates, no college ¹ | 27,840 | 308 | 408 | 583 | 815 | 1,117 |
| Some college or associate degree | 25,655 | 345 | 476 | 678 | 950 | 1,280 |
| Bachelor's degree and higher ² | 30,791 | 490 | 705 | 1,014 | 1,504 | 2,082 |
| Bachelor's degree only | 19,876 | 457 | 650 | 941 | 1,384 | 1,918 |
| Advanced degree | 10,916 | 597 | 809 | 1,157 | 1,694 | 2,320 |
| Men, 25 years and over | 52,781 | 335 | 505 | 768 | 1,158 | 1,760 |
| Less than a high school diploma | 6,391 | 281 | 338 | 461 | 621 | 851 |
| High school graduates, no college ¹ | 18,128 | 341 | 465 | 650 | 908 | 1,210 |
| Some college or associate degree | 13,500 | 397 | 541 | 754 | 1,022 | 1,424 |
| Bachelor's degree and higher ² | 18,865 | 524 | 786 | 1,169 | 1,759 | 2,401 |
| Bachelor's degree only | 10,982 | 496 | 734 | 1,081 | 1,587 | 2,284 |
| Advanced degree | 5,883 | 625 | 923 | 1,382 | 1,912 | 2,729 |
| Women, 25 years and over | 40,627 | 304 | 415 | 615 | 905 | 1,290 |
| Less than a high school diploma | 2,922 | 227 | 281 | 343 | 446 | 577 |
| High-school graduates, no college ¹ | 11,514 | 281 | 366 | 491 | 669 | 919 |
| Some college or associate degree | 12,285 | 319 | 420 | 594 | 815 | 1,109 |
| Bachelor's degree and higher ² | 13,627 | 458 | 637 | 874 | 1,223 | 1,641 |
| Bachelor's degree only | 8,693 | 427 | 596 | 812 | 1,143 | 1,554 |
| Advanced degree | 5,033 | 580 | 744 | 962 | 1,350 | 1,858 |

¹ Includes persons with a high school diploma or equivalent.

² Includes persons with bachelor's, master's, professional, and doctoral degrees.

NOTE: Ten percent of all full-time wage and salary workers earn less than the upper limit of the first decile; 25 percent earn less than the upper limit of the first quartile; 50 percent earn less than the upper limit of the second quartile, or median; 75 percent earn less than the upper limit of the

third quartile; and 90 percent earn less than the upper limit of the ninth decile. Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2006, data reflect revised population controls used in the household survey.

Table 5. Median usual weekly earnings of part-time wage and salary workers by selected characteristics, quarterly averages, not seasonally adjusted

| Characteristic | Number of workers (in thousands) | | Median weekly earnings | |
|--|-------------------------------------|-------------|------------------------|-------------|
| | III 2004 | III 2005 | III 2004 | III 2005 |
| SEX AND AGE | | | | |
| Total, 18 years and over | 21,403 | 21,485 | \$199 | \$206 |
| Men, 18 years and over | 6,774 | 6,841 | 190 | 196 |
| 18 to 24 years | 3,407 | 3,348 | 159 | 163 |
| 25 years and over | 3,367 | 3,293 | 232 | 257 |
| Women, 18 years and over | 14,629 | 14,624 | 209 | 210 |
| 18 to 24 years | 4,423 | 4,800 | 152 | 159 |
| 25 years and over | 10,206 | 10,024 | 236 | 246 |
| RACE, HISPANIC OR LATINO ETHNICITY, AND SEX | | | | |
| White | 18,036 | 18,076 | 200 | 207 |
| Men | 5,623 | 5,546 | 186 | 199 |
| Women | 12,408 | 12,530 | 208 | 212 |
| Black or African American | 2,026 | 2,001 | 189 | 193 |
| Men | 702 | 651 | 191 | 185 |
| Women | 1,324 | 1,350 | 188 | 197 |
| Asian | 842 | 845 | 217 | 209 |
| Men | 275 | 275 | 231 | 183 |
| Women | 567 | 571 | 206 | 223 |
| Hispanic or Latino | 2,416 | 2,497 | 185 | 198 |
| Men | 808 | 833 | 192 | 211 |
| Women | 1,607 | 1,664 | 187 | 191 |

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Beginning in January 2005, data reflect revised population controls used in the household survey.



Highlights of Women's Earnings in 2004



U.S. Department of Labor
U.S. Bureau of Labor Statistics
September 2005
Report 987

In 2004, median weekly earnings for women who were full-time wage and salary workers were \$573, or 80 percent of the \$713 median for their male counterparts. This ratio was about the same in 2003. In 1979, the first year of comparable earnings data, women earned 63 percent as much as men did. (See chart 1.)

The women's-to-men's earnings ratio varies significantly by demographic group. The ratio was about 89 percent for blacks and 87 percent for Hispanics or Latinos in 2004. For whites, it was 80 percent, and for Asians it was 76 percent. Young women, those 16 to 24 years old, earned almost as much (94 percent) as young men did, while women 35 years and older earned about 75 percent as much as did their male peers.

This report presents earnings data from the Current Population Survey (CPS). The CPS is a national monthly survey of approximately 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics. Information on earnings is collected from one-fourth of the CPS sample each month. Users should note that the comparisons of earnings in this report are on a broad level and do not control for many factors that can be significant in explaining earnings differences. For a detailed description of the source of the data and an explanation of the concepts and definitions used, please see the Technical Note in this report.

Highlights

Following are some highlights of women's and men's earnings in 2004.

Full-time workers

- Among women, 45- to 54-year-olds had the highest median weekly earnings (\$625), followed closely by 55- to 64-year-olds (\$615), and 35- to 44-year-olds (\$608). Men's earnings also were highest among 45- to 54-year-olds (\$857) and 55- to 64-year-olds (\$843). The difference between women's and men's earnings was much larger among middle-aged and older workers than among younger workers. For instance, among workers aged 45 to 54, women earned 73 percent as much as men did. By comparison, among 16- to 24-year-olds, women earned 94 percent as much as their male

counterparts, and, among workers 25 to 34 years old, women earned 88 percent as much as did men. (See table 1.)

- Between 1979 and 2004, the earnings gap between women and men narrowed for most major age groups. The women's-to-men's earnings ratio among 35- to 44-year-olds, for example, rose from 58 percent in 1979 to 76 percent in 2004, and that for 45- to 54-year-olds rose from 57 percent in 1979 to 73 percent 25 years later. The earnings ratios for teenagers and for workers 65 years old and older, however, showed no consistent movement over the period. (See table 12.)

- Asian workers of both sexes earned more than their white, black, or Hispanic or Latino counterparts did. Asian women's median weekly earnings (\$613) were 5 percent higher than white women's earnings (\$584), 21 percent more than black women's earnings (\$505), and 46 percent higher than the earnings of Hispanic or Latino women (\$419). In comparison, Asian men's earnings (\$802) were 10 percent higher than the earnings of white men (\$732), 41 percent greater than the earnings of black men (\$569), and 67 percent higher than those of Hispanic or Latino men (\$480). (See tables 1 and 13 and chart 2.)

- Earnings differences between women and men in 2004 were widest for whites and Asians. White women earned 80 percent as much as white men did, and Asian women earned 76 percent as much as Asian men did. Both black women (89 percent) and Hispanic or Latino (87 percent) women had earnings that were much closer to those of their male counterparts. (See table 1.)

- Growth in earnings for white women has outpaced that for their black and Hispanic or Latino counterparts. Between 1979 and 2004, inflation-adjusted earnings for white women grew fairly steadily, rising by 32 percent. Earnings over the period grew by 24 percent for black women and by 11 percent for Hispanic or Latino women. In contrast, real earnings for white and for black men rose only slightly, while those for Hispanic or Latino men fell by 9 percent. (See table 13.)

- Median weekly earnings in 2004 varied significantly by level of education. Among women, those with less than a high school diploma earned \$334 per week, compared with \$860 for those with a college degree. Among men, high school dropouts earned \$446 a week, compared with \$1,143 for college graduates. (See table 6.)

- At all levels of education, women have fared better than men with respect to earnings growth. Although both women and men with less than a high school diploma have experienced a decline in inflation-adjusted earnings since 1979, the drop for women—9 percent—was significantly less than that for men—27 percent. Earnings for women with college degrees have increased by 35 percent since 1979 on an inflation-adjusted basis, while earnings for male college graduates have risen by 20 percent. (See table 14 and chart 3.)

- Women working full time in management, business, and financial operations occupations earned a median of \$812 per week in 2004. This was more than women earned in any other major occupational category. The second highest paying job group was professional and related occupations, in which women earned \$767 per week. Within management fields, the highest paying occupations for women were chief executives, computer and information systems managers, human resources managers, purchasing managers, medical and health services managers, and management analysts. Within professional occupations, women working as pharmacists, lawyers, computer software engineers, computer programmers, and physicians and surgeons had the highest median weekly earnings. (See table 2.)

- Within occupational groups, women and men tend to work in different occupations. In professional and related occupations, for example, women were much less likely than men to be employed in the highest paying occupations—engineers and computer and mathematical scientists. Women were more likely than men to work in lower paying education, training, and library occupations. (See table 2.)

- The ratio of female-to-male earnings varied by place of residence, from a high of 87 percent in California to a low of 66 percent in Wyoming. The differences among the States reflect, in part, variations in the occupations and industries found in each State and in the age composition of each State's labor force. In addition, sampling error for the State estimates is considerably larger than it is for the national estimates; thus, one should be especially careful when comparing State estimates. (See table 3.)

- Just 5 percent of women earned \$1,500 or more per week, compared with 13 percent of men. Not surprisingly, given their higher earnings overall, Asian women were more likely than other women to earn at least \$1,500 per week. (See table 7.)

- Median weekly earnings of married women with children under the age of 18 were 21 percent higher than the earnings of unmarried mothers. The difference was even greater for men: married fathers earned 33 percent more than unmarried fathers did. (See table 8.)

Part-time workers

- Women who worked part time—that is, less than 35 hours per week—accounted for 25 percent of all female wage and salary workers in 2004. In contrast, just 11 percent of men in wage and salary jobs worked part time. (See tables 4 and 5.)

- Median weekly earnings of female part-time workers were \$201, compared with \$183 for male part-time workers. The men have lower earnings than the women because male part-time workers are more highly concentrated in the youngest age groups, which typically have low earnings. Half of male part-time workers were 16 to 24 years old, compared with just under a third of female part-timers. (See table 4.)

Workers paid by the hour

- About 63 percent of women and 57 percent of men employed in wage and salary jobs were paid by the hour in 2004. Women in this category had median hourly earnings of \$10.17, or 85 percent of the median for men paid by the hour (\$12.02). (See tables 5, 9, 10, 15, and 16.)

- Among women who were paid hourly rates in 2004, about 4 percent reported hourly earnings at or below the prevailing Federal minimum wage of \$5.15 an hour. This share compared with 2 percent of men who were paid by the hour. (See tables 11 and 17 and chart 4. Also see the Technical Note for information about workers with earnings below the Federal minimum wage.)

- As would be expected, 16- to 19-year-old women and men paid by the hour were the most likely to have earnings at or below the minimum wage. Workers 25 years of age and older were very unlikely to earn the minimum wage or less, although for women aged 65 and older the incidence of minimum wage work rose. (See table 11 and chart 4.)

Chart 1. Median usual weekly earnings of full-time wage and salary workers in constant (2004) dollars by sex, 1979-2004 annual averages

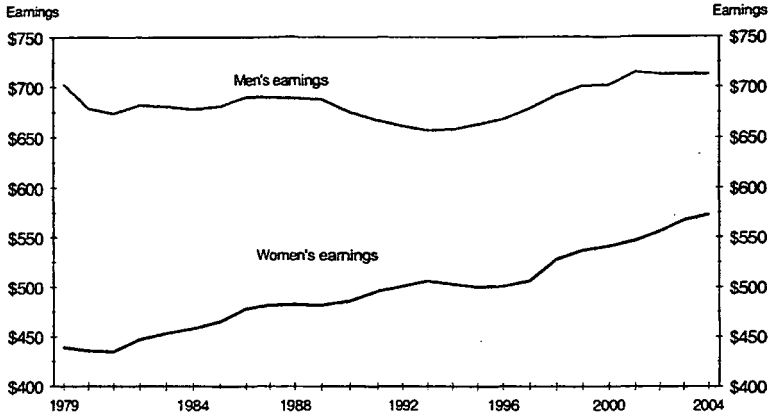


Chart 2. Median usual weekly earnings of full-time wage and salary workers by sex, race, and Hispanic or Latino ethnicity, 2004 annual averages

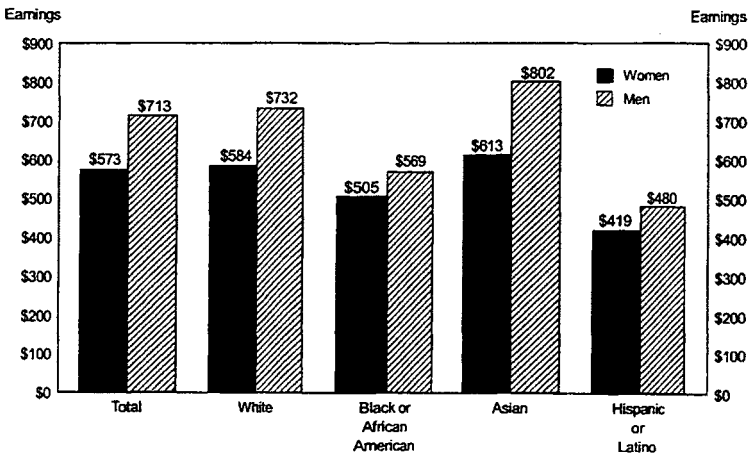
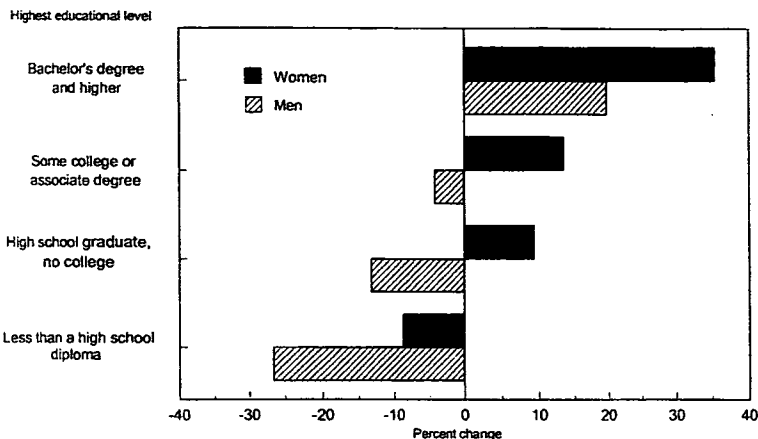
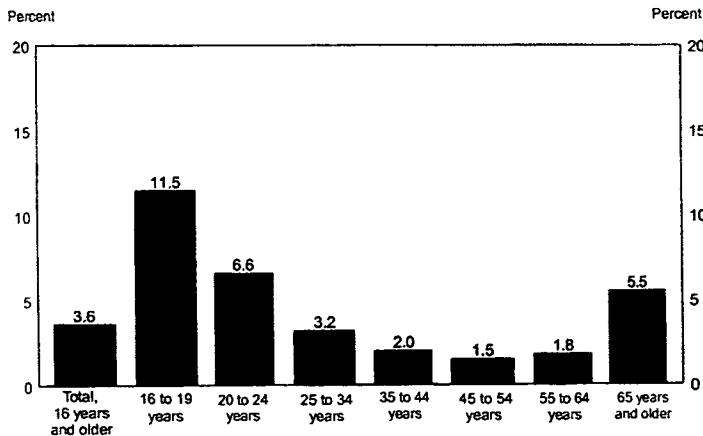


Chart 3. Change in constant-dollar median weekly earnings from 1979 to 2004 by educational attainment and sex



NOTE: Data relate to earnings of full-time wage and salary workers 25 years and older.

Chart 4. Women with earnings at or below the prevailing Federal minimum wage by age, 2004 annual averages



NOTE: Data relate to female wage and salary workers paid hourly rates.

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Table 1. Median usual weekly earnings of full-time wage and salary workers by selected characteristics, 2004 annual averages

| Characteristic | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| AGE | | | | | | | | | | |
| Total, 18 years and over | 101,224 | \$838 | \$2 | 44,223 | \$573 | \$2 | 57,001 | \$713 | \$2 | 80.3 |
| 16 to 24 years | 10,676 | 390 | 2 | 4,833 | 375 | 3 | 6,243 | 400 | 2 | 93.7 |
| 16 to 19 years | 1,550 | 309 | 3 | 630 | 293 | 4 | 1,020 | 318 | 3 | 92.2 |
| 20 to 24 years | 9,226 | 406 | 2 | 4,003 | 391 | 3 | 5,223 | 417 | 3 | 93.8 |
| 25 years and over | 90,348 | 683 | 2 | 39,590 | 599 | 2 | 50,758 | 782 | 2 | 78.7 |
| 25 to 34 years | 24,757 | 604 | 2 | 10,356 | 561 | 4 | 14,401 | 639 | 4 | 87.9 |
| 35 to 44 years | 25,681 | 713 | 3 | 11,459 | 620 | 3 | 15,402 | 804 | 6 | 75.6 |
| 45 to 54 years | 24,986 | 743 | 3 | 11,519 | 625 | 4 | 13,467 | 857 | 6 | 73.0 |
| 55 to 64 years | 11,932 | 725 | 5 | 5,403 | 615 | 5 | 6,469 | 843 | 9 | 70.0 |
| 65 years and over | 1,812 | 560 | 21 | 793 | 478 | 12 | 1,019 | 641 | 19 | 74.6 |
| RACE AND HISPANIC OR LATINO ETHNICITY | | | | | | | | | | |
| White | 82,468 | 657 | 2 | 34,972 | 584 | 2 | 47,495 | 732 | 3 | 79.8 |
| Black or African American | 12,032 | 525 | 4 | 6,326 | 505 | 3 | 5,706 | 569 | 7 | 88.9 |
| Asian | 4,457 | 708 | 10 | 1,363 | 613 | 9 | 2,504 | 802 | 17 | 78.4 |
| Hispanic or Latino | 14,061 | 456 | 4 | 5,065 | 419 | 4 | 8,996 | 480 | 3 | 87.1 |
| MARITAL STATUS | | | | | | | | | | |
| Never married | 25,682 | 510 | 2 | 11,071 | 500 | 3 | 14,611 | 518 | 3 | 96.5 |
| Married, spouse present | 58,590 | 719 | 2 | 23,164 | 604 | 2 | 35,426 | 811 | 4 | 74.5 |
| Other marital status | 16,952 | 606 | 3 | 9,088 | 564 | 5 | 6,064 | 690 | 7 | 82.9 |
| Divorced | 11,803 | 639 | 5 | 6,889 | 593 | 4 | 4,734 | 729 | 7 | 81.3 |
| Separated | 3,836 | 513 | 5 | 1,951 | 482 | 8 | 1,884 | 570 | 16 | 84.5 |
| Widowed | 1,513 | 532 | 15 | 1,168 | 515 | 8 | 345 | 615 | 22 | 63.7 |
| UNION AFFILIATION² | | | | | | | | | | |
| Members of unions ³ | 14,029 | 781 | 4 | 5,575 | 723 | 8 | 8,454 | 829 | 6 | 87.2 |
| Represented by unions ⁴ | 15,463 | 776 | 4 | 6,305 | 719 | 5 | 9,158 | 828 | 6 | 86.8 |
| Not represented by a union | 85,791 | 612 | 1 | 37,918 | 541 | 3 | 47,843 | 685 | 3 | 79.0 |
| EDUCATIONAL ATTAINMENT | | | | | | | | | | |
| Total, 25 years and over | 90,348 | 683 | 2 | 39,590 | 599 | 2 | 50,758 | 782 | 2 | 78.7 |
| Less than a high school diploma | 8,533 | 401 | 2 | 2,785 | 334 | 3 | 5,748 | 446 | 5 | 74.9 |
| High school graduates, no college ⁵ | 27,141 | 574 | 2 | 11,628 | 488 | 2 | 15,513 | 645 | 4 | 75.6 |
| Some college or associate degree | 24,348 | 661 | 3 | 11,848 | 577 | 3 | 12,986 | 761 | 4 | 75.8 |
| Bachelor's degree and higher ⁶ | 29,828 | 986 | 4 | 13,329 | 890 | 4 | 16,499 | 1,143 | 5 | 75.2 |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

² Differences in earnings levels between workers with and without union affiliation reflect a variety of factors in addition to coverage by a collective bargaining agreement, including the distribution of male and female employees by occupation, industry, firm size, or geographic region.

³ Data refer to members of a labor union or an employee association similar to a union.

⁴ Data refer to members of a labor union or an employee association

similar to a union as well as workers who report no union affiliation but whose jobs are covered by a union or an employee association contract.

⁵ Includes persons with a high school diploma or equivalent.

⁶ Includes persons with a bachelor's, master's, professional, and doctoral degree.

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Total, 16 years and over | 101,224 | \$638 | \$2 | 44,223 | \$573 | \$2 | 57,001 | \$713 | \$2 | 80.3 |
| Management, professional, and related occupations | 36,149 | 918 | 3 | 18,168 | 780 | 4 | 17,981 | 1,098 | 8 | 71.1 |
| Management, business, and financial operations occupations | 14,778 | 965 | 6 | 6,609 | 812 | 8 | 8,170 | 1,158 | 7 | 70.2 |
| Management occupations | 10,221 | 1,052 | 10 | 3,995 | 871 | 10 | 6,226 | 1,215 | 17 | 71.7 |
| Chief executives | 1,050 | 1,653 | 70 | 248 | 1,310 | 74 | 802 | 1,875 | 47 | 69.9 |
| General and operations managers | 727 | 1,129 | 30 | 175 | 872 | 49 | 552 | 1,156 | 18 | 74.8 |
| Advertising and promotions managers | 57 | 924 | 71 | 34 | (²) | (²) | 23 | (²) | (²) | (³) |
| Marketing and sales managers | 770 | 1,213 | 57 | 298 | 898 | 98 | 472 | 1,441 | 32 | 82.3 |
| Administrative services managers | 60 | 837 | 52 | 27 | (²) | (²) | 33 | 958 | 50 | (³) |
| Computer and information systems managers | 325 | 1,439 | 32 | 96 | 1,228 | 79 | 228 | 1,547 | 58 | 79.4 |
| Financial managers | 961 | 986 | 22 | 535 | 839 | 20 | 427 | 1,397 | 52 | 60.1 |
| Human resources managers | 261 | 1,051 | 51 | 171 | 958 | 42 | 90 | 1,259 | 50 | 76.1 |
| Industrial production managers | 299 | 1,107 | 43 | 49 | (²) | (²) | 220 | 1,172 | 84 | (³) |
| Purchasing managers | 163 | 1,082 | 49 | 59 | 948 | 53 | 104 | 1,153 | 48 | 82.0 |
| Transportation, storage, and distribution managers | 220 | 741 | 24 | 34 | (²) | (²) | 187 | 753 | 25 | (³) |
| Farm, ranch, and other agricultural managers | 103 | 821 | 30 | 18 | (²) | (²) | 86 | 812 | 24 | (³) |
| Construction managers | 425 | 1,027 | 27 | 23 | (²) | (²) | 402 | 1,036 | 25 | (³) |
| Education administrators | 651 | 1,019 | 31 | 405 | 905 | 33 | 246 | 1,172 | 59 | 77.2 |
| Engineering managers | 99 | 1,807 | 126 | 6 | (²) | (²) | 94 | 1,783 | 113 | (³) |
| Food service managers | 565 | 857 | 17 | 322 | 986 | 17 | 336 | 713 | 34 | 83.8 |
| Lodging managers | 102 | 733 | 31 | 60 | 859 | 34 | 52 | 778 | 41 | 84.7 |
| Medical and health services managers | 451 | 973 | 28 | 238 | 943 | 21 | 123 | 1,135 | 34 | 83.1 |
| Property, real estate, and community association managers | 304 | 681 | 32 | 186 | 623 | 23 | 118 | 767 | 62 | 81.3 |
| Social and community service managers | 241 | 819 | 32 | 156 | 768 | 20 | 85 | 1,014 | 170 | 75.8 |
| Business and financial operations occupations | 4,558 | 847 | 7 | 2,613 | 748 | 6 | 1,944 | 1,007 | 17 | 74.1 |
| Wholesale and retail buyers, except farm products | 148 | 808 | 45 | 71 | 609 | 42 | 75 | 935 | 39 | 63.1 |
| Purchasing agents, except wholesale, retail, and farm products | 267 | 782 | 38 | 141 | 694 | 34 | 125 | 883 | 69 | 78.6 |
| Claims adjusters, appraisers, examiners, and investigators | 257 | 762 | 32 | 171 | 677 | 27 | 85 | 952 | 44 | 71.1 |
| Compliance officers, except agriculture, construction, health and safety, and transportation | 116 | 922 | 66 | 62 | 835 | 179 | 54 | 1,070 | 247 | 78.1 |
| Cost estimators | 88 | 888 | 41 | 14 | (²) | (²) | 73 | 915 | 54 | (³) |
| Human resources, training, and labor relations specialists | 612 | 803 | 24 | 415 | 755 | 15 | 198 | 952 | 45 | 79.3 |
| Management analysts | 317 | 1,017 | 43 | 146 | 822 | 42 | 170 | 1,215 | 78 | 75.8 |
| Accountants and auditors | 1,385 | 851 | 10 | 842 | 757 | 10 | 543 | 1,018 | 31 | 74.5 |
| Appraisers and assessors of real estate | 78 | 883 | 98 | 29 | (²) | (²) | 50 | 1,021 | 142 | (³) |
| Personal financial advisors | 229 | 1,082 | 103 | 61 | 773 | 185 | 167 | 1,170 | 49 | 66.1 |
| Insurance underwriters | 89 | 859 | 38 | 65 | 772 | 47 | 24 | (²) | (²) | (³) |
| Loan counselors and officers | 381 | 799 | 40 | 218 | 695 | 35 | 165 | 1,001 | 51 | 69.5 |
| Tax examiners, collectors, and revenue agents | 77 | 818 | 71 | 49 | (²) | (²) | 28 | (²) | (²) | (³) |
| Professional and related occupations | 21,371 | 883 | 4 | 11,560 | 767 | 4 | 9,811 | 1,049 | 8 | 73.1 |
| Computer and mathematical occupations | 2,793 | 1,114 | 15 | 757 | 972 | 19 | 2,037 | 1,155 | 11 | 84.1 |
| Computer scientists and systems analysts | 604 | 1,027 | 29 | 186 | 902 | 44 | 418 | 1,092 | 38 | 82.6 |
| Computer programmers | 518 | 1,118 | 28 | 145 | 1,006 | 33 | 371 | 1,151 | 20 | 87.4 |
| Computer software engineers | 757 | 1,350 | 27 | 184 | 1,149 | 24 | 572 | 1,429 | 29 | 80.4 |
| Computer support specialists | 297 | 840 | 31 | 88 | 813 | 69 | 209 | 850 | 36 | 95.6 |
| Database administrators | 76 | 1,105 | 70 | 22 | (²) | (²) | 53 | 1,121 | 78 | (³) |
| Network and computer systems administrators | 178 | 1,038 | 57 | 33 | (²) | (²) | 145 | 1,064 | 60 | (³) |
| Network systems and data communications analysts | 233 | 1,027 | 57 | 44 | (²) | (²) | 189 | 1,097 | 56 | (³) |
| Operations research analysts | 84 | 1,083 | 62 | 41 | (²) | (²) | 43 | (²) | (²) | (³) |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|---|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Architecture and engineering occupations | 2,500 | \$1,098 | \$14 | 331 | \$890 | \$28 | 2,170 | \$1,139 | \$9 | 77.2 |
| Architects, except rural | 142 | 1,141 | 25 | 38 | (²) | (²) | 105 | 1,242 | 39 | (³) |
| Aerospace engineers | 105 | 1,347 | 51 | 10 | (²) | (²) | 94 | 1,369 | 68 | (³) |
| Chemical engineers | 65 | 1,221 | 54 | 10 | (²) | (²) | 55 | 1,242 | 55 | (³) |
| Civil engineers | 264 | 1,135 | 21 | 32 | (²) | (²) | 232 | 1,159 | 22 | (³) |
| Computer hardware engineers | 88 | 1,328 | 22 | 13 | (²) | (²) | 73 | 1,487 | 107 | (³) |
| Electrical and electronics engineers | 311 | 1,277 | 71 | 24 | (²) | (²) | 287 | 1,338 | 50 | (³) |
| Industrial engineers, including health and safety | 178 | 1,152 | 31 | 32 | (²) | (²) | 146 | 1,195 | 70 | (³) |
| Mechanical engineers | 292 | 1,187 | 65 | 16 | (²) | (²) | 278 | 1,201 | 76 | (³) |
| Drafters | 178 | 788 | 25 | 35 | (²) | (²) | 140 | 797 | 30 | (³) |
| drafters | 364 | 829 | 25 | 73 | 696 | 31 | 320 | 887 | 25 | 80.3 |
| Surveying and mapping technicians | 66 | 672 | 75 | 9 | (²) | (²) | 57 | 711 | 90 | (³) |
| Life, physical, and social science occupations | 1,673 | 957 | 15 | 426 | 884 | 26 | 647 | 1,012 | 24 | 87.3 |
| Biological scientists | 109 | 829 | 37 | 49 | (²) | (²) | 60 | 946 | 67 | (³) |
| Medical scientists | 83 | 1,025 | 158 | 45 | (²) | (²) | 38 | (²) | (³) | (³) |
| Chemists and materials scientists | 133 | 1,048 | 46 | 42 | (²) | (²) | 91 | 1,148 | 37 | (³) |
| Environmental scientists and geoscientists | 75 | 1,008 | 61 | 20 | (²) | (²) | 55 | 1,144 | 51 | (³) |
| Market and survey researchers | 90 | 937 | 74 | 43 | (²) | (²) | 47 | (²) | (²) | (³) |
| Psychologists | 75 | 1,012 | 40 | 47 | (²) | (²) | 28 | (²) | (²) | (³) |
| Chemical technicians | 89 | 827 | 45 | 27 | (²) | (²) | 62 | 869 | 49 | (³) |
| Community and social services occupations | 1,846 | 707 | 12 | 1,082 | 651 | 10 | 784 | 768 | 15 | 86.4 |
| Counselors | 513 | 735 | 16 | 338 | 689 | 28 | 175 | 832 | 32 | 82.9 |
| Social workers | 620 | 698 | 18 | 472 | 689 | 22 | 148 | 720 | 29 | 95.8 |
| Miscellaneous community and social service specialists | 261 | 639 | 25 | 168 | 598 | 30 | 95 | 747 | 29 | 79.8 |
| Clergy | 351 | 771 | 29 | 47 | (²) | (²) | 304 | 785 | 29 | (³) |
| Legal occupations | 1,111 | 1,070 | 37 | 603 | 845 | 18 | 508 | 1,561 | 54 | 54.1 |
| Lawyers | 621 | 1,561 | 42 | 206 | 1,255 | 33 | 412 | 1,710 | 87 | 73.4 |
| Judges, magistrates, and other judicial workers | 58 | 1,333 | 43 | 33 | (²) | (²) | 25 | (²) | (²) | (³) |
| Paralegals and legal assistants | 280 | 731 | 28 | 244 | 713 | 19 | 38 | (²) | (²) | (³) |
| Miscellaneous legal support workers | 152 | 707 | 28 | 117 | 685 | 37 | 34 | (²) | (²) | (³) |
| Education, training, and library occupations | 5,941 | 781 | 7 | 4,273 | 729 | 6 | 1,668 | 956 | 13 | 76.2 |
| Postsecondary teachers | 813 | 1,034 | 32 | 337 | 858 | 43 | 476 | 1,152 | 25 | 76.2 |
| Preschool and kindergarten teachers | 484 | 521 | 21 | 473 | 515 | 19 | 11 | (²) | (²) | (³) |
| Elementary and middle school teachers | 2,206 | 806 | 11 | 1,772 | 776 | 10 | 435 | 917 | 21 | 84.7 |
| Secondary school teachers | 1,013 | 885 | 16 | 555 | 824 | 19 | 458 | 955 | 22 | 86.3 |
| Special education teachers | 325 | 804 | 29 | 271 | 785 | 28 | 54 | 841 | 35 | 94.6 |
| Other teachers and instructors | 267 | 778 | 28 | 158 | 854 | 38 | 139 | 873 | 47 | 74.9 |
| Librarians | 159 | 834 | 28 | 138 | 823 | 32 | 23 | (²) | (²) | (³) |
| Teacher assistants | 545 | 377 | 10 | 500 | 373 | 10 | 45 | (²) | (²) | (³) |
| Arts, design, entertainment, sports, and media occupations | 1,428 | 768 | 13 | 618 | 688 | 17 | 808 | 882 | 23 | 79.9 |
| Artists and related workers | 65 | 665 | 79 | 24 | (²) | (²) | 41 | (²) | (²) | (³) |
| Designers | 480 | 714 | 20 | 230 | 648 | 22 | 250 | 818 | 36 | 70.0 |
| Producers and directors | 98 | 1,030 | 66 | 35 | (²) | (²) | 63 | 1,211 | 175 | (³) |
| Athletes, coaches, umpires, and related workers | 99 | 745 | 46 | 17 | (²) | (²) | 82 | 792 | 52 | (³) |
| News analysts, reporters and correspondents | 94 | 835 | 85 | 33 | (²) | (²) | 31 | (²) | (²) | (³) |
| Public relations specialists | 102 | 823 | 56 | 81 | 739 | 27 | 40 | (²) | (²) | (³) |
| Editors | 110 | 858 | 30 | 54 | 759 | 27 | 56 | 946 | 54 | 80.3 |
| Writers and authors | 88 | 780 | 47 | 44 | (²) | (²) | 42 | (²) | (²) | (³) |
| Broadcast and sound engineering technicians and radio operators | 75 | 857 | 104 | 8 | (²) | (²) | 67 | 871 | 75 | (³) |
| Photographers | 53 | 850 | 47 | 17 | (²) | (²) | 36 | (²) | (²) | (³) |
| Healthcare practitioner and technical occupations | 4,880 | 852 | 7 | 3,470 | 808 | 8 | 1,210 | 1,082 | 21 | 76.1 |
| Dietitians and nutritionists | 57 | 689 | 67 | 49 | (²) | (²) | 8 | (²) | (²) | (³) |
| Pharmacists | 162 | 1,578 | 57 | 72 | 1,432 | 109 | 90 | 1,884 | 167 | 85.1 |
| Physicians and surgeons | 555 | 1,860 | 100 | 173 | 978 | 65 | 382 | 1,874 | 115 | 52.2 |
| Physician assistants | 57 | 901 | 77 | 38 | (²) | (²) | 19 | (²) | (²) | (³) |
| Registered nurses | 1,800 | 904 | 9 | 1,651 | 895 | 9 | 148 | 1,031 | 52 | 86.8 |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Occupational therapists | 56 | \$923 | \$82 | 51 | \$906 | \$67 | 5 | (²) | (²) | (³) |
| Physical therapists | 121 | 925 | 53 | 70 | 900 | 69 | 50 | \$955 | \$90 | 94.2 |
| Respiratory therapists | 79 | 782 | 26 | 38 | (²) | (²) | 41 | (²) | (²) | (³) |
| Speech-language pathologists | 65 | 879 | 46 | 62 | 869 | 27 | 3 | (²) | (²) | (³) |
| Clinical laboratory technologists and technicians | 267 | 727 | 25 | 188 | 710 | 37 | 79 | 783 | 52 | 93.0 |
| Diagnostic related technologists and technicians | 225 | 854 | 24 | 150 | 836 | 42 | 75 | 961 | 55 | 87.0 |
| Emergency medical technicians and paramedics | 121 | 690 | 25 | 37 | (²) | (²) | 84 | 717 | 33 | (³) |
| Health diagnosing and treating practitioner support technicians | 280 | 518 | 13 | 238 | 508 | 14 | 44 | (²) | (²) | (³) |
| Licensed practical and licensed vocational nurses | 385 | 837 | 19 | 362 | 829 | 18 | 23 | (²) | (²) | (³) |
| Medical records and health information technicians | 81 | 501 | 21 | 71 | 513 | 23 | 10 | (²) | (²) | (³) |
| Service occupations | 13,763 | 411 | 2 | 6,773 | 374 | 2 | 6,889 | 476 | 5 | 78.6 |
| Healthcare support occupations | 1,985 | 407 | 4 | 1,755 | 402 | 4 | 230 | 453 | 24 | 88.8 |
| Nursing, psychiatric, and home health aides | 1,261 | 388 | 5 | 1,113 | 383 | 5 | 148 | 420 | 11 | 91.1 |
| Dental assistants | 144 | 474 | 24 | 139 | 469 | 26 | 5 | (²) | (²) | (³) |
| Protective service occupations | 2,509 | 700 | 11 | 471 | 557 | 23 | 2,038 | 733 | 12 | 76.1 |
| First-line supervisors/managers of police and detectives | 134 | 1,015 | 27 | 27 | (²) | (²) | 107 | 1,055 | 88 | (³) |
| Fire fighters | 283 | 935 | 28 | 13 | (²) | (²) | 250 | 942 | 25 | (³) |
| Bailiffs, correctional officers, and jailers | 370 | 622 | 18 | 107 | 558 | 22 | 263 | 654 | 26 | 85.4 |
| Detectives and criminal investigators | 114 | 995 | 104 | 26 | (²) | (²) | 88 | 1,048 | 198 | (³) |
| Police and sheriff's patrol officers | 654 | 644 | 23 | 83 | 841 | 36 | 571 | 845 | 28 | 99.5 |
| Private detectives and investigators | 63 | 812 | 133 | 21 | (²) | (²) | 41 | (²) | (²) | (³) |
| Security guards and gaming surveillance officers | 841 | 457 | 17 | 138 | 418 | 15 | 502 | 471 | 18 | 88.9 |
| Food preparation and serving related occupations | 3,863 | 360 | 4 | 1,908 | 339 | 5 | 1,955 | 384 | 5 | 88.2 |
| Chefs and head cooks | 286 | 508 | 15 | 51 | 418 | 23 | 218 | 524 | 21 | 79.4 |
| First-line supervisors/managers of food preparation and serving workers | 504 | 435 | 13 | 282 | 418 | 13 | 222 | 464 | 22 | 90.0 |
| Cooks | 1,167 | 341 | 6 | 443 | 319 | 5 | 723 | 356 | 8 | 89.6 |
| Food preparation workers | 278 | 321 | 7 | 158 | 323 | 10 | 120 | 319 | 8 | 101.3 |
| Barenders | 197 | 428 | 25 | 102 | 392 | 21 | 95 | 482 | 23 | 81.3 |
| Combined food preparation and serving workers, including fast food | 123 | 311 | 11 | 85 | 308 | 11 | 39 | (²) | (²) | (³) |
| Counter attendants, cafeteria, food concession, and coffee shop | 91 | 292 | 10 | 58 | 282 | 13 | 35 | (²) | (²) | (³) |
| Waiters and waitresses | 799 | 349 | 9 | 538 | 327 | 9 | 261 | 399 | 13 | 82.0 |
| Food servers, nonrestaurant | 94 | 363 | 22 | 60 | 333 | 27 | 34 | (²) | (²) | (³) |
| Dining room and cafeteria attendants and bartender helpers | 152 | 340 | 19 | 61 | 356 | 24 | 91 | 326 | 23 | 109.2 |
| Dishwashers | 141 | 306 | 8 | 30 | (²) | (²) | 111 | 311 | 10 | (³) |
| Building and grounds cleaning and maintenance occupations | 3,436 | 385 | 3 | 1,208 | 335 | 5 | 2,228 | 412 | 4 | 81.2 |
| First-line supervisors/managers of housekeeping and janitorial work | 139 | 479 | 23 | 50 | 410 | 32 | 89 | 531 | 36 | 77.2 |
| First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers | 106 | 641 | 35 | 6 | (²) | (²) | 99 | 661 | 34 | (³) |
| Janitors and building cleaners | 1,480 | 405 | 5 | 379 | 343 | 11 | 1,081 | 425 | 9 | 80.6 |
| Maid and housekeeping cleaners | 818 | 331 | 7 | 723 | 324 | 5 | 95 | 402 | 24 | 80.4 |
| Pest control workers | 65 | 478 | 36 | 4 | (²) | (²) | 61 | 489 | 31 | (³) |
| Grounds maintenance workers | 848 | 372 | 6 | 46 | (²) | (²) | 803 | 371 | 7 | (³) |
| Personal care and service occupations | 1,969 | 402 | 5 | 1,431 | 380 | 5 | 538 | 500 | 15 | 75.9 |
| First-line supervisors/managers of gaming workers | 88 | 600 | 40 | 33 | (²) | (²) | 55 | 673 | 61 | (³) |
| First-line supervisors/managers of personal service workers | 64 | 597 | 49 | 36 | (²) | (²) | 28 | (²) | (²) | (³) |
| Gaming services workers | 75 | 558 | 51 | 41 | (²) | (²) | 34 | (²) | (²) | (³) |
| Hairdressers, hairstylists, and cosmetologists | 291 | 398 | 10 | 287 | 394 | 10 | 24 | (²) | (²) | (³) |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|---|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Baggage porters, bellhops, and concierges | 60 | \$498 | \$22 | 11 | (²) | (²) | 50 | \$491 | \$20 | (³) |
| Transportation attendants | 76 | 575 | 61 | 24 | \$473 | \$58 | 22 | (²) | (²) | (³) |
| Child care workers | 413 | 334 | 10 | 337 | 334 | 9 | 26 | (²) | (²) | (³) |
| Personal and home care aides | 350 | 358 | 12 | 308 | 350 | 12 | 52 | 434 | 58 | 80.6 |
| Recreation and fitness workers | 153 | 498 | 21 | 69 | 473 | 24 | 65 | 585 | 30 | 80.9 |
| Sales and office occupations | 24,950 | 556 | 3 | 15,540 | 512 | 2 | 9,410 | 669 | 6 | 76.5 |
| Sales and related occupations | 9,984 | 604 | 4 | 4,422 | 464 | 7 | 5,562 | 747 | 6 | 62.1 |
| First-line supervisors/managers of retail sales workers | 2,246 | 613 | 7 | 965 | 505 | 8 | 1,280 | 737 | 12 | 68.5 |
| First-line supervisors/managers of non-retail sales workers | 938 | 860 | 21 | 284 | 678 | 36 | 652 | 927 | 21 | 73.2 |
| Cashiers | 1,355 | 322 | 3 | 1,018 | 313 | 3 | 338 | 380 | 19 | 62.6 |
| Counter and rental clerks | 97 | 429 | 43 | 46 | (²) | (²) | 51 | 514 | 43 | (³) |
| Parts salespersons | 120 | 530 | 32 | 13 | (²) | (²) | 107 | 554 | 30 | (³) |
| Retail salespersons | 1,865 | 498 | 8 | 788 | 386 | 9 | 1,100 | 597 | 10 | 64.7 |
| Advertising sales agents | 180 | 772 | 66 | 84 | 643 | 45 | 942 | 50 | (²) | 63.3 |
| Insurance sales agents | 360 | 726 | 28 | 190 | 615 | 19 | 170 | 970 | 49 | 83.4 |
| Securities, commodities, and financial services sales agents | 305 | 973 | 47 | 95 | 651 | 21 | 210 | 1,168 | 138 | 55.8 |
| Travel agents | 69 | 576 | 26 | 59 | 544 | 33 | 10 | (²) | (²) | (³) |
| Sales representatives, services, all other | 412 | 800 | 43 | 157 | 740 | 45 | 255 | 875 | 77 | 84.6 |
| Sales representatives, wholesale and manufacturing | 1,233 | 867 | 17 | 298 | 754 | 30 | 937 | 695 | 20 | 64.3 |
| Real estate brokers and sales agents | 431 | 747 | 27 | 223 | 563 | 46 | 197 | 534 | 31 | 79.5 |
| Telemarketers | 93 | 380 | 22 | 61 | 355 | 40 | 32 | (²) | (²) | (³) |
| Door-to-door sales workers, news and street vendors, and related workers | 61 | 442 | 62 | 23 | (²) | (²) | 38 | (²) | (²) | (³) |
| Office and administrative support occupations | 14,968 | 535 | 3 | 11,118 | 522 | 2 | 3,848 | 567 | 6 | 89.0 |
| First-line supervisors/managers of office and administrative support | 1,441 | 670 | 10 | 1,001 | 636 | 10 | 440 | 792 | 42 | 80.4 |
| Switchboard operators, including answering services | 55 | 450 | 36 | 50 | 458 | 33 | 4 | (²) | (²) | (³) |
| Bill and account collectors | 200 | 536 | 24 | 138 | 538 | 29 | 61 | 529 | 39 | 102.0 |
| Billing and posting clerks and machine operators | 363 | 518 | 10 | 330 | 510 | 9 | 32 | (²) | (²) | (³) |
| Bookkeeping, accounting, and auditing clerks | 1,204 | 543 | 9 | 918 | 542 | 8 | 66 | 563 | 51 | 96.3 |
| Payroll and timekeeping clerks | 136 | 554 | 31 | 123 | 541 | 36 | 13 | (²) | (²) | (³) |
| Tellers | 301 | 405 | 8 | 265 | 401 | 6 | 35 | (²) | (²) | (³) |
| Court, municipal, and license clerks | 82 | 526 | 37 | 76 | 518 | 39 | 6 | (²) | (²) | (³) |
| Credit authorizers, checkers, and clerks | 51 | 600 | 45 | 38 | (²) | (²) | 13 | (²) | (²) | (³) |
| Customer service representatives | 1,379 | 516 | 6 | 987 | 504 | 6 | 412 | 571 | 22 | 88.2 |
| Eligibility interviewers, government programs | 63 | 622 | 33 | 48 | (²) | (²) | 15 | (²) | (²) | (³) |
| File clerks | 264 | 528 | 18 | 205 | 525 | 20 | 58 | 543 | 42 | 96.7 |
| Hotel, motel, and resort desk clerks | 67 | 349 | 20 | 41 | (²) | (²) | 27 | (²) | (²) | (³) |
| Interviewers, except eligibility and loan | 102 | 497 | 15 | 89 | 498 | 14 | 12 | (²) | (²) | (³) |
| Library assistants, clerical | 51 | 468 | 21 | 47 | (²) | (²) | 4 | (²) | (²) | (³) |
| Loan interviewers and clerks | 170 | 536 | 26 | 143 | 522 | 19 | 28 | (²) | (²) | (³) |
| Order clerks | 90 | 529 | 23 | 67 | 512 | 15 | 23 | (²) | (²) | (³) |
| Human resources assistants, except payroll and timekeeping | 53 | 635 | 30 | 42 | (²) | (²) | 11 | (²) | (²) | (³) |
| Receptionists and information clerks | 847 | 462 | 8 | 795 | 463 | 8 | 52 | 454 | 21 | 102.1 |
| Reservation and transportation ticket agents and travel clerks | 125 | 502 | 20 | 85 | 489 | 19 | 40 | (²) | (²) | (³) |
| Couriers and messengers | 200 | 648 | 41 | 24 | (²) | (²) | 176 | 663 | 41 | (³) |
| Dispatchers | 232 | 588 | 24 | 122 | 516 | 13 | 109 | 701 | 50 | 73.6 |
| Postal service clerks | 182 | 788 | 20 | 73 | 778 | 23 | 89 | 781 | 23 | 102.2 |
| Postal service mail carriers | 314 | 791 | 20 | 112 | 743 | 16 | 203 | 834 | 17 | 89.0 |
| Postal service mail sorters, processors, and processing machine operators | 103 | 741 | 33 | 41 | (²) | (²) | 62 | 749 | 59 | (³) |
| Production, planning, and expediting clerks | 266 | 686 | 24 | 143 | 613 | 29 | 123 | 787 | 41 | 79.9 |
| Shipping, receiving, and traffic clerks | 537 | 501 | 9 | 144 | 469 | 15 | 393 | 512 | 10 | 91.5 |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|---|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Stock clerks and order fillers | 946 | \$429 | \$10 | 349 | \$420 | \$10 | 597 | \$435 | \$15 | 95.9 |
| Weighers, measurers, checkers, and samplers, recording | 55 | 543 | 126 | 23 | (²) | (²) | 31 | (²) | (²) | (³) |
| Secretaries and administrative assistants | 2,657 | 552 | 7 | 2,570 | 550 | 7 | 87 | 598 | 49 | 92.0 |
| Computer operators | 170 | 579 | 26 | 91 | 580 | 24 | 79 | 575 | 54 | 100.9 |
| Data entry keyers | 394 | 496 | 9 | 315 | 486 | 9 | 78 | 556 | 26 | 87.4 |
| Word processors and typists | 239 | 527 | 15 | 223 | 525 | 15 | 16 | (²) | (²) | (³) |
| Insurance claims and policy processing clerks | 252 | 536 | 16 | 216 | 534 | 15 | 36 | (²) | (²) | (³) |
| Mail clerks and mail machine operators, except postal service | 127 | 457 | 34 | 58 | 479 | 19 | 68 | 433 | 46 | 110.5 |
| Office clerks, general | 667 | 503 | 8 | 559 | 499 | 9 | 109 | 523 | 23 | 95.3 |
| Office machine operators, except computer | 51 | 433 | 21 | 31 | (²) | (²) | 20 | (²) | (²) | (³) |
| Natural resources, construction, and maintenance occupations | 11,280 | 621 | 4 | 445 | 453 | 18 | 10,835 | 626 | 4 | 72.3 |
| Farming, fishing, and forestry occupations | 718 | 356 | 8 | 133 | 322 | 9 | 585 | 367 | 9 | 87.8 |
| Graders and sorters, agricultural products | 81 | 359 | 22 | 46 | (²) | (²) | 15 | (²) | (²) | (³) |
| Logging workers | 81 | 465 | 31 | 2 | (²) | (²) | 59 | 470 | 42 | (³) |
| Construction and extraction occupations | 6,232 | 604 | 4 | 123 | 504 | 32 | 6,109 | 606 | 4 | 83.2 |
| First-line supervisors/managers of construction trades and extraction workers | 579 | 812 | 30 | 11 | (²) | (²) | 568 | 822 | 26 | (³) |
| Brickmasons, blockmasons, and stonemasons | 164 | 577 | 32 | - | - | - | 164 | 577 | 33 | (³) |
| Carpenters | 1,170 | 576 | 10 | 21 | (²) | (²) | 1,149 | 578 | 10 | (³) |
| Carpet, floor, and tile installers and finishers | 147 | 517 | 16 | - | - | - | 146 | 518 | 16 | - |
| Cement masons, bricklayers, and terrazzo workers | 95 | 556 | 102 | - | - | - | 95 | 556 | 102 | (³) |
| Construction laborers | 988 | 492 | 9 | 21 | (²) | (²) | 965 | 492 | 9 | (³) |
| Operating engineers and other construction equipment operators | 335 | 689 | 16 | 4 | (²) | (²) | 331 | 689 | 16 | (³) |
| Drywall installers, ceiling tile installers, and tapers | 156 | 529 | 21 | - | - | - | 156 | 529 | 21 | (³) |
| Electricians | 688 | 719 | 11 | 14 | (²) | (²) | 655 | 718 | 11 | (³) |
| Painters, construction and maintenance | 410 | 494 | 10 | 15 | (²) | (²) | 395 | 495 | 10 | (³) |
| Pipelayers, plumbers, pipefitters, and steamfitters | 483 | 690 | 14 | 2 | (²) | (²) | 480 | 690 | 14 | (³) |
| Roofers | 188 | 480 | 14 | 3 | (²) | (²) | 184 | 482 | 14 | (³) |
| Sheet metal workers | 132 | 606 | 40 | 8 | (²) | (²) | 128 | 614 | 42 | (³) |
| Structural iron and steel workers | 53 | 694 | 35 | - | - | - | 53 | 695 | 35 | - |
| Helpers, construction trades | 99 | 366 | 16 | 4 | (²) | (²) | 94 | 366 | 17 | (³) |
| Construction and building inspectors | 87 | 718 | 39 | 10 | (²) | (²) | 77 | 724 | 48 | (³) |
| Highway maintenance workers | 81 | 585 | 36 | 2 | (²) | (²) | 79 | 572 | 42 | (³) |
| Installation, maintenance, and repair occupations | 4,330 | 704 | 5 | 190 | 611 | 28 | 4,140 | 707 | 6 | 88.4 |
| First-line supervisors/managers of mechanics, installers, and repairers | 326 | 876 | 25 | 22 | (²) | (²) | 304 | 877 | 25 | (³) |
| Computer, automated teller, and office machine repairers | 309 | 723 | 26 | 38 | (²) | (²) | 271 | 735 | 20 | (³) |
| Radio and telecommunications equipment installers and repairers | 221 | 877 | 35 | 31 | (²) | (²) | 190 | 891 | 32 | (³) |
| Electronic home entertainment equipment installers and repairers | 52 | 666 | 125 | 2 | (²) | (²) | 50 | 678 | 121 | (³) |
| Security and fire alarm systems installers | 52 | 661 | 25 | 2 | (²) | (²) | 51 | 668 | 24 | (³) |
| Aircraft mechanics and service technicians | 116 | 856 | 30 | 3 | (²) | (²) | 113 | 856 | 29 | (³) |
| Automotive body and related repairers | 107 | 630 | 40 | 5 | (²) | (²) | 102 | 638 | 40 | (³) |
| Automotive service technicians and mechanics | 735 | 637 | 28 | 12 | (²) | (²) | 723 | 639 | 27 | (³) |
| Bus and truck mechanics and diesel engine specialists | 298 | 706 | 21 | 1 | (²) | (²) | 297 | 707 | 21 | (³) |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|---|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Heavy vehicle and mobile equipment service technicians and mechanics | 189 | \$708 | \$20 | 2 | (²) | (²) | 188 | \$708 | \$20 | (³) |
| Heating, air conditioning, and refrigeration mechanics and installers | 296 | 682 | 17 | 5 | (²) | (²) | 293 | 683 | 16 | (³) |
| Industrial and refractory machinery mechanics | 419 | 707 | 12 | 11 | (²) | (²) | 408 | 708 | 12 | (³) |
| Maintenance and repair workers, general | 281 | 665 | 28 | 10 | (²) | (²) | 270 | 668 | 26 | (³) |
| Millwrights | 59 | 839 | 53 | 1 | (²) | (²) | 58 | 844 | 53 | (³) |
| Electrical power-line installers and repairers | 112 | 804 | 60 | 2 | (²) | (²) | 111 | 813 | 59 | (³) |
| Telecommunications line installers and repairers | 134 | 755 | 54 | 7 | (²) | (²) | 127 | 771 | 63 | (³) |
| Production, transportation, and material moving occupations | 15,082 | 523 | 3 | 3,296 | \$406 | \$3 | 11,786 | 578 | 3 | 70.3 |
| Production occupations | 8,478 | 526 | 4 | 2,454 | 405 | 4 | 6,024 | 597 | 4 | 67.8 |
| First-line supervisors/managers of production and operating workers | 874 | 726 | 15 | 169 | 546 | 22 | 706 | 765 | 15 | 71.4 |
| Electrical, electronics, and electromechanical assemblers | 213 | 443 | 22 | 117 | 397 | 12 | 96 | 515 | 18 | 77.1 |
| Bakers | 126 | 410 | 14 | 53 | 384 | 18 | 73 | 454 | 38 | 80.3 |
| Butchers and other meat, poultry, and fish processing workers | 260 | 454 | 12 | 51 | 369 | 19 | 209 | 466 | 19 | 75.5 |
| Food batchmakers | 68 | 466 | 48 | 30 | (²) | (²) | 39 | (²) | (²) | (³) |
| Cutting, punching, and press machine setters, operators, and tenders | 139 | 517 | 24 | 42 | (²) | (²) | 97 | 557 | 27 | (³) |
| Grinding, lapping, polishing, and buffing machine tool setters, operators | 78 | 516 | 27 | 8 | (²) | (²) | 70 | 527 | 38 | (³) |
| Machinists | 408 | 670 | 17 | 16 | (²) | (²) | 392 | 679 | 15 | (³) |
| Molders and molding machine setters, operators, and tenders, metal | 69 | 459 | 28 | 19 | (²) | (²) | 50 | 489 | 25 | (³) |
| Tool and die makers | 80 | 764 | 68 | 2 | (²) | (²) | 78 | 769 | 59 | (³) |
| Welding, soldering, and brazing workers | 539 | 606 | 12 | 26 | (²) | (²) | 513 | 614 | 13 | (³) |
| Job printers | 54 | 563 | 35 | 12 | (²) | (²) | 42 | (²) | (²) | (³) |
| Printing machine operators | 174 | 592 | 23 | 32 | (²) | (²) | 142 | 622 | 25 | (³) |
| Laundry and dry-cleaning workers | 136 | 360 | 14 | 74 | 323 | 12 | 62 | 460 | 53 | 70.1 |
| Pressers, textile, garment, and related materials | 67 | 293 | 10 | 42 | (²) | (²) | 24 | (²) | (²) | (³) |
| Sewing machine operators | 242 | 327 | 11 | 186 | 319 | 7 | 56 | 381 | 34 | 83.7 |
| Tailors, dressmakers, and sewers | 50 | 376 | 22 | 33 | (²) | (²) | 17 | (²) | (²) | (³) |
| Cabinetmakers and bench carpenters | 61 | 498 | 21 | 3 | (²) | (²) | 58 | 503 | 22 | (³) |
| Stationary engineers and boiler operators | 102 | 704 | 25 | 1 | (²) | (²) | 101 | 701 | 24 | (³) |
| Chemical processing machine setters, operators, and tenders | 65 | 790 | 45 | 7 | (²) | (²) | 58 | 809 | 50 | (³) |
| Crushing, grinding, polishing, mixing, and blending workers | 107 | 587 | 26 | 20 | (²) | (²) | 87 | 600 | 31 | (³) |
| Cutting workers | 73 | 519 | 31 | 17 | (²) | (²) | 56 | 563 | 38 | (³) |
| Inspectors, testers, sorters, samplers, and weighers | 638 | 585 | 12 | 240 | 474 | 15 | 398 | 663 | 24 | 71.5 |
| Medical, dental, and ophthalmic laboratory technicians | 78 | 524 | 28 | 41 | (²) | (²) | 35 | (²) | (²) | (³) |
| Packaging and filling machine operators and tenders | 299 | 368 | 9 | 188 | 341 | 12 | 131 | 410 | 18 | 83.2 |
| Painting workers | 180 | 509 | 18 | 27 | (²) | (²) | 154 | 530 | 32 | (³) |
| Transportation and material moving occupations | 8,604 | 520 | 4 | 842 | 410 | 6 | 5,762 | 549 | 7 | 74.8 |
| Supervisors, transportation and material moving workers | 180 | 655 | 28 | 33 | (²) | (²) | 147 | 688 | 32 | (³) |
| Aircraft pilots and flight engineers | 95 | 1,418 | 219 | 5 | (²) | (²) | 90 | 1,472 | 159 | (³) |
| Bus drivers | 366 | 500 | 15 | 152 | 440 | 13 | 215 | 568 | 30 | 74.8 |
| Drivers/sales workers and truck drivers | 2,587 | 610 | 6 | 93 | 476 | 53 | 2,494 | 613 | 8 | 77.8 |
| Taxi drivers and chauffeurs | 165 | 466 | 17 | 22 | (²) | (²) | 143 | 494 | 20 | (³) |
| Railroad conductors and yardmasters | 57 | 881 | 265 | 5 | (²) | (²) | 52 | 903 | 87 | (³) |
| Parking lot attendants | 52 | 378 | 18 | 8 | (²) | (²) | 44 | (²) | (²) | (³) |
| Service station attendants | 78 | 319 | 9 | 2 | (²) | (²) | 76 | 319 | 9 | (³) |

See footnotes at end of table.

Table 2. Median usual weekly earnings of full-time wage and salary workers by detailed occupation and sex, 2004 annual averages — Continued

| Occupation | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Crane and tower operators | 66 | \$732 | \$63 | 2 | (²) | (²) | 64 | \$721 | \$69 | (³) |
| Dredge, excavating, and loading machine operators | 57 | 607 | 39 | - | - | - | 57 | 607 | 39 | - |
| Industrial truck and tractor operators | 525 | 486 | 9 | 40 | (²) | (²) | 485 | 487 | 9 | (³) |
| Cleaners of vehicles and equipment | 258 | 384 | 11 | 28 | (²) | (²) | 230 | 387 | 12 | (³) |
| Laborers and freight, stock, and material movers, hand | 1,342 | 443 | 9 | 196 | \$402 | \$10 | 1,148 | 457 | 11 | 87.8 |
| Packers and packagers, hand | 349 | 349 | 9 | 206 | 333 | 11 | 143 | 373 | 15 | 89.2 |
| Refuse and recyclable material collectors | 67 | 508 | 28 | 5 | (²) | (²) | 62 | 512 | 29 | (³) |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

² Data not shown where base is less than 50,000.

³ Data not shown where base for either the numerator or denominator is less than 50,000.

- Data not available.

Table 3. Median usual weekly earnings of full-time wage and salary workers by sex and State, 2004 annual averages

| State | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|----------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| UNITED STATES | 101,224 | \$638 | \$2 | 44,223 | \$573 | \$2 | 57,001 | \$713 | \$2 | 80.3 |
| Alabama | 1,586 | 585 | 9 | 687 | 502 | 11 | 879 | 650 | 15 | 77.2 |
| Alaska | 217 | 741 | 13 | 94 | 633 | 16 | 123 | 843 | 26 | 75.0 |
| Arizona | 1,950 | 604 | 8 | 604 | 555 | 14 | 1,147 | 681 | 18 | 84.0 |
| Arkansas | 899 | 509 | 8 | 359 | 445 | 12 | 600 | 580 | 12 | 76.7 |
| California | 11,818 | 701 | 8 | 4,943 | 650 | 8 | 6,875 | 747 | 11 | 87.1 |
| Colorado | 1,689 | 691 | 13 | 717 | 622 | 12 | 972 | 767 | 22 | 81.1 |
| Connecticut | 1,199 | 797 | 21 | 518 | 678 | 28 | 681 | 912 | 25 | 74.1 |
| Delaware | 318 | 688 | 15 | 147 | 609 | 10 | 171 | 741 | 17 | 82.1 |
| District of Columbia | 230 | 772 | 16 | 114 | 720 | 14 | 116 | 855 | 33 | 85.4 |
| Florida | 5,902 | 593 | 5 | 2,709 | 523 | 6 | 3,193 | 648 | 10 | 80.7 |
| Georgia | 3,300 | 616 | 8 | 1,471 | 571 | 11 | 1,828 | 688 | 14 | 85.4 |
| Hawaii | 442 | 616 | 11 | 201 | 540 | 18 | 241 | 701 | 18 | 77.1 |
| Idaho | 438 | 682 | 12 | 190 | 476 | 12 | 255 | 834 | 19 | 75.2 |
| Illinois | 4,440 | 670 | 9 | 1,922 | 583 | 7 | 2,518 | 768 | 13 | 75.9 |
| Indiana | 2,224 | 611 | 8 | 968 | 530 | 17 | 1,257 | 699 | 19 | 75.9 |
| Iowa | 1,058 | 610 | 8 | 487 | 522 | 13 | 591 | 683 | 18 | 76.4 |
| Kansas | 968 | 615 | 10 | 420 | 550 | 19 | 548 | 676 | 17 | 81.3 |
| Kentucky | 1,388 | 584 | 10 | 607 | 503 | 10 | 761 | 665 | 23 | 75.8 |
| Louisiana | 1,439 | 588 | 8 | 662 | 488 | 13 | 777 | 689 | 20 | 73.0 |
| Maine | 425 | 602 | 11 | 189 | 514 | 10 | 236 | 674 | 18 | 76.3 |
| Maryland | 2,141 | 740 | 11 | 982 | 653 | 18 | 1,159 | 802 | 32 | 81.4 |
| Massachusetts | 2,259 | 757 | 10 | 1,003 | 668 | 14 | 1,256 | 842 | 18 | 79.2 |
| Michigan | 3,403 | 715 | 9 | 1,455 | 602 | 10 | 1,948 | 800 | 11 | 75.2 |
| Minnesota | 1,880 | 737 | 12 | 822 | 636 | 12 | 1,059 | 836 | 19 | 78.1 |
| Mississippi | 942 | 555 | 12 | 438 | 483 | 13 | 505 | 617 | 11 | 75.0 |
| Missouri | 2,089 | 632 | 12 | 940 | 543 | 15 | 1,129 | 727 | 17 | 74.7 |
| Montana | 276 | 530 | 13 | 124 | 471 | 14 | 152 | 604 | 11 | 78.0 |
| Nebraska | 641 | 594 | 9 | 281 | 516 | 9 | 360 | 658 | 17 | 78.5 |
| Nevada | 668 | 595 | 8 | 362 | 518 | 10 | 305 | 660 | 17 | 78.5 |
| New Hampshire | 489 | 734 | 14 | 203 | 612 | 15 | 286 | 846 | 24 | 72.3 |
| New Jersey | 3,117 | 765 | 9 | 1,342 | 630 | 13 | 1,774 | 848 | 14 | 74.3 |
| New Mexico | 593 | 590 | 10 | 256 | 505 | 14 | 336 | 680 | 19 | 76.5 |
| New York | 6,450 | 672 | 7 | 2,850 | 614 | 7 | 3,599 | 738 | 9 | 83.2 |
| North Carolina | 2,932 | 594 | 7 | 1,296 | 537 | 14 | 1,636 | 637 | 14 | 84.3 |
| North Dakota | 229 | 541 | 14 | 105 | 487 | 10 | 124 | 622 | 13 | 75.1 |
| Ohio | 3,947 | 623 | 7 | 1,733 | 538 | 12 | 2,214 | 703 | 12 | 76.4 |
| Oklahoma | 1,151 | 559 | 15 | 509 | 483 | 10 | 643 | 637 | 18 | 75.9 |
| Oregon | 1,176 | 619 | 9 | 473 | 543 | 17 | 703 | 707 | 21 | 78.8 |
| Pennsylvania | 4,258 | 639 | 7 | 1,878 | 570 | 9 | 2,380 | 714 | 10 | 79.9 |
| Rhode Island | 377 | 648 | 14 | 171 | 581 | 16 | 205 | 717 | 21 | 81.1 |
| South Carolina | 1,449 | 595 | 9 | 651 | 531 | 15 | 798 | 679 | 23 | 78.2 |
| South Dakota | 269 | 541 | 13 | 125 | 480 | 10 | 145 | 608 | 12 | 78.9 |
| Tennessee | 2,100 | 584 | 10 | 984 | 517 | 11 | 1,135 | 635 | 16 | 81.5 |
| Texas | 7,674 | 577 | 8 | 3,272 | 517 | 7 | 4,402 | 614 | 7 | 84.2 |
| Utah | 743 | 616 | 9 | 297 | 497 | 12 | 446 | 716 | 15 | 69.4 |
| Vermont | 225 | 627 | 13 | 100 | 585 | 12 | 125 | 889 | 22 | 85.0 |
| Virginia | 2,791 | 678 | 14 | 1,256 | 603 | 15 | 1,535 | 742 | 18 | 81.3 |
| Washington | 2,091 | 702 | 14 | 857 | 607 | 16 | 1,224 | 780 | 25 | 77.9 |
| West Virginia | 581 | 585 | 10 | 296 | 488 | 15 | 325 | 658 | 17 | 74.3 |
| Wisconsin | 2,011 | 637 | 13 | 880 | 545 | 17 | 1,131 | 725 | 17 | 75.2 |
| Wyoming | 178 | 596 | 12 | 73 | 468 | 13 | 103 | 710 | 15 | 65.9 |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

NOTE: Data refer to persons 16 years and over.

Table 4. Median usual weekly earnings of part-time wage and salary workers by selected characteristics, 2004 annual averages

| Characteristic | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| AGE | | | | | | | | | | |
| Total, 18 years and over | 22,047 | \$195 | \$1 | 15,062 | \$201 | \$1 | 6,685 | \$183 | \$2 | 100.9 |
| 16 to 24 years | 8,194 | 146 | 1 | 4,623 | 145 | 2 | 3,572 | 148 | 2 | 97.5 |
| 16 to 19 years | 4,140 | 119 | 1 | 2,287 | 116 | 2 | 1,853 | 122 | 2 | 94.9 |
| 20 to 24 years | 4,054 | 179 | 2 | 2,336 | 177 | 3 | 1,719 | 181 | 3 | 97.7 |
| 25 years and over | 13,852 | 235 | 2 | 10,439 | 235 | 2 | 3,413 | 235 | 4 | 100.3 |
| 25 to 34 years | 3,353 | 233 | 4 | 2,430 | 232 | 4 | 953 | 236 | 6 | 98.2 |
| 35 to 44 years | 3,547 | 253 | 4 | 2,949 | 251 | 4 | 598 | 262 | 9 | 95.7 |
| 45 to 54 years | 2,982 | 287 | 5 | 2,482 | 286 | 5 | 520 | 274 | 15 | 96.9 |
| 55 to 64 years | 2,288 | 227 | 4 | 1,840 | 224 | 4 | 828 | 238 | 10 | 94.0 |
| 65 years and over | 1,673 | 177 | 4 | 958 | 168 | 5 | 715 | 190 | 7 | 88.1 |
| RACE AND HISPANIC OR LATINO ETHNICITY | | | | | | | | | | |
| White | 18,623 | 198 | 1 | 12,827 | 203 | 2 | 5,796 | 182 | 2 | 112.0 |
| Black or African American | 2,036 | 190 | 3 | 1,246 | 191 | 3 | 689 | 187 | 5 | 102.4 |
| Asian | 919 | 203 | 6 | 510 | 204 | 8 | 308 | 200 | 10 | 101.9 |
| Hispanic or Latino | 2,444 | 192 | 3 | 1,602 | 191 | 4 | 841 | 195 | 5 | 98.0 |
| MARITAL STATUS | | | | | | | | | | |
| Never married | 9,995 | 157 | 1 | 5,448 | 155 | 2 | 4,447 | 160 | 2 | 96.8 |
| Married, spouse present | 9,391 | 246 | 2 | 7,438 | 247 | 3 | 1,953 | 245 | 5 | 100.8 |
| Other marital status | 2,761 | 210 | 3 | 2,176 | 208 | 3 | 585 | 220 | 7 | 94.8 |
| Divorced | 1,499 | 226 | 5 | 1,156 | 225 | 5 | 344 | 226 | 11 | 99.7 |
| Separated | 589 | 201 | 6 | 440 | 195 | 6 | 149 | 220 | 13 | 85.8 |
| Widowed | 673 | 190 | 6 | 550 | 189 | 6 | 93 | 197 | 17 | 96.0 |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

NOTE: Estimates for the above race groups (white, black or African

by race.

Table 5. Median usual weekly earnings of employed (full- and part-time) wage and salary workers by hours usually worked and sex, 2004 annual averages

| Hours of work | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's |
|----------------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|--------------------------------------|
| | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | Number of workers (in thousands) | Median weekly earnings | Standard error of median | |
| Total, 18 years and over | 123,554 | \$591 | \$2 | 59,408 | \$475 | \$2 | 64,145 | \$653 | \$3 | 72.8 |
| 1 to 4 hours | 15,292 | 200 | 1 | 13,288 | 206 | 1 | 6,024 | 185 | 2 | 111.3 |
| 5 to 9 hours | 452 | 54 | 3 | 306 | 53 | 4 | 147 | 54 | 7 | 99.2 |
| 10 to 14 hours | 1,123 | 68 | 1 | 752 | 68 | 2 | 372 | 62 | 2 | 109.6 |
| 15 to 19 hours | 1,725 | 99 | 1 | 1,160 | 102 | 2 | 565 | 92 | 3 | 113.7 |
| 20 to 24 hours | 2,459 | 130 | 2 | 1,575 | 137 | 3 | 779 | 119 | 2 | 115.0 |
| 25 to 29 hours | 5,961 | 190 | 2 | 4,151 | 168 | 2 | 1,810 | 172 | 2 | 115.0 |
| 30 to 34 hours | 2,582 | 229 | 3 | 1,782 | 241 | 4 | 809 | 214 | 3 | 112.5 |
| 35 to 39 hours | 4,953 | 301 | 3 | 3,442 | 310 | 3 | 1,552 | 289 | 5 | 110.7 |
| 40 hours and over | 95,247 | 640 | 2 | 41,984 | 578 | 2 | 53,264 | 713 | 2 | 80.9 |
| 35 to 39 hours | 7,313 | 442 | 5 | 4,951 | 450 | 5 | 2,322 | 423 | 8 | 106.4 |
| 40 hours | 87,482 | 536 | 1 | 30,820 | 549 | 3 | 36,662 | 635 | 3 | 85.4 |
| 41 hours and over | 20,452 | 950 | 4 | 6,173 | 943 | 7 | 14,279 | 1,011 | 6 | 83.3 |
| 41 to 44 hours | 1,218 | 720 | 14 | 498 | 663 | 13 | 724 | 769 | 17 | 86.1 |
| 45 to 48 hours | 5,895 | 854 | 6 | 2,095 | 784 | 12 | 3,800 | 894 | 11 | 87.7 |
| 49 to 59 hours | 9,000 | 1,021 | 8 | 2,574 | 915 | 14 | 6,425 | 1,079 | 12 | 84.8 |
| 50 hours and over | 4,339 | 1,036 | 23 | 1,009 | 946 | 22 | 3,330 | 1,143 | 11 | 82.8 |
| Hours vary | 9,015 | 395 | 6 | 4,157 | 278 | 5 | 4,858 | 566 | 12 | 49.1 |
| Usually less than 35 hours | 2,755 | 152 | 3 | 1,794 | 160 | 4 | 961 | 166 | 5 | 96.5 |
| Usually 35 hours or more | 5,977 | 595 | 7 | 2,240 | 433 | 12 | 3,737 | 702 | 10 | 51.7 |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

Detail for the above "hours vary" groups will not sum to totals because data are not presented for a small number of multiple jobholders whose usual number of hours on the principal job is not identifiable.

NOTE: Data refer to the sole or principal job of full- and part-time workers.

Table 8. Quartiles and selected deciles of usual weekly earnings of full-time wage and salary workers by selected characteristics, 2004 annual averages

| Characteristic | Number of workers (in thousands) | Upper limit of: | | | | |
|--|----------------------------------|-----------------|----------------|--------------------------|----------------|--------------|
| | | First decile | First quartile | Second quartile (median) | Third quartile | Ninth decile |
| SEX, RACE, AND HISPANIC OR LATINO ETHNICITY | | | | | | |
| Total, 16 years and over | 101,224 | \$305 | \$421 | \$638 | \$972 | \$1,460 |
| Women | 44,223 | 289 | 388 | 573 | 836 | 1,190 |
| Men | 57,001 | 323 | 489 | 713 | 1,095 | 1,646 |
| White | 82,468 | 311 | 434 | 657 | 988 | 1,495 |
| Women | 34,972 | 293 | 396 | 584 | 851 | 1,212 |
| Men | 47,495 | 329 | 483 | 732 | 1,128 | 1,688 |
| Black or African American | 12,032 | 283 | 371 | 525 | 770 | 1,107 |
| Women | 6,326 | 274 | 351 | 505 | 728 | 1,034 |
| Men | 5,706 | 295 | 391 | 569 | 827 | 1,165 |
| Asian | 4,457 | 318 | 444 | 708 | 1,149 | 1,744 |
| Women | 1,953 | 292 | 400 | 613 | 960 | 1,443 |
| Men | 2,504 | 350 | 498 | 802 | 1,329 | 1,907 |
| Hispanic or Latino | 14,081 | 287 | 322 | 458 | 684 | 1,004 |
| Women | 5,085 | 246 | 306 | 419 | 624 | 938 |
| Men | 8,996 | 279 | 336 | 480 | 708 | 1,046 |
| EDUCATIONAL ATTAINMENT | | | | | | |
| Total, 25 years and over | 80,348 | 325 | 461 | 683 | 1,019 | 1,523 |
| Less than a high school diploma | 8,833 | 249 | 305 | 401 | 552 | 772 |
| High school graduates, no college ¹ | 27,141 | 308 | 406 | 574 | 791 | 1,074 |
| Some college or associate degree | 24,848 | 343 | 476 | 681 | 931 | 1,269 |
| Bachelor's degree and higher ² | 29,828 | 458 | 659 | 986 | 1,484 | 2,024 |
| Women, 25 years and over | 39,590 | 301 | 410 | 599 | 873 | 1,238 |
| Less than a high school diploma | 2,785 | 227 | 275 | 334 | 429 | 560 |
| High school graduates, no college ¹ | 11,828 | 282 | 361 | 498 | 656 | 878 |
| Some college or associate degree | 11,848 | 315 | 418 | 577 | 776 | 1,048 |
| Bachelor's degree and higher ² | 13,329 | 454 | 622 | 850 | 1,190 | 1,616 |
| Men, 25 years and over | 50,758 | 358 | 508 | 762 | 1,152 | 1,735 |
| Less than a high school diploma | 5,748 | 278 | 330 | 446 | 609 | 857 |
| High school graduates, no college ¹ | 15,513 | 341 | 468 | 645 | 897 | 1,198 |
| Some college or associate degree | 12,998 | 388 | 547 | 761 | 1,056 | 1,440 |
| Bachelor's degree and higher ² | 16,499 | 524 | 770 | 1,143 | 1,717 | 2,376 |

¹ Includes persons with a high school diploma or equivalent.

² Includes persons with a bachelor's, master's, professional, and doctoral degree.

NOTE: Ten percent of all full-time wage and salary workers earn less than the upper limit of the first decile; 25 percent earn less than the upper limit of the first quartile; 50 percent earn less than the upper limit of the second quartile, or median; 75 percent

earn less than the upper limit of the third quartile; and 90 percent earn less than the upper limit of the ninth decile. Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 7. Usual weekly earnings distribution of full-time wage and salary workers by selected characteristics, 2004 annual averages

(in thousands)

| Characteristic | Total employed | Usual weekly earnings distribution | | | | | | | |
|--|----------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|-------------------|
| | | Under \$150.00 | \$150.00 to \$249.99 | \$250.00 to \$349.99 | \$350.00 to \$499.99 | \$500.00 to \$749.99 | \$750.00 to \$999.99 | \$1000.00 to \$1499.99 | \$1500.00 or more |
| AGE AND SEX | | | | | | | | | |
| Total, 16 years and over | 101,224 | 927 | 3,095 | 10,857 | 19,355 | 25,608 | 18,782 | 14,969 | 9,851 |
| 16 to 24 years | 10,876 | 239 | 949 | 2,989 | 3,515 | 2,292 | 608 | 241 | 74 |
| 16 to 19 years | 1,850 | 82 | 315 | 630 | 434 | 140 | 19 | 11 | 8 |
| 20 to 24 years | 9,226 | 147 | 633 | 2,358 | 3,080 | 2,122 | 589 | 230 | 66 |
| 25 years and over | 90,348 | 688 | 2,146 | 7,869 | 15,840 | 23,346 | 16,153 | 14,728 | 9,578 |
| 25 to 34 years | 24,757 | 182 | 689 | 2,753 | 5,223 | 7,295 | 4,170 | 3,062 | 1,414 |
| 35 to 44 years | 26,681 | 179 | 638 | 2,156 | 4,399 | 6,721 | 4,940 | 4,640 | 3,188 |
| 45 to 54 years | 24,986 | 171 | 462 | 1,789 | 3,972 | 6,020 | 4,748 | 4,619 | 3,226 |
| 55 to 64 years | 11,932 | 102 | 259 | 919 | 1,885 | 2,956 | 2,052 | 2,193 | 1,567 |
| 65 years and over | 1,812 | 74 | 100 | 272 | 361 | 384 | 244 | 214 | 183 |
| Women, 16 years and over | 44,223 | 516 | 1,832 | 5,853 | 9,896 | 11,924 | 8,812 | 5,163 | 2,228 |
| 16 to 24 years | 4,833 | 128 | 500 | 1,310 | 1,513 | 884 | 210 | 75 | 13 |
| 16 to 19 years | 630 | 48 | 154 | 237 | 145 | 41 | 4 | — | 1 |
| 20 to 24 years | 4,003 | 80 | 346 | 1,073 | 1,369 | 843 | 207 | 74 | 11 |
| 25 years and over | 39,590 | 398 | 1,332 | 4,543 | 8,382 | 11,041 | 8,601 | 5,088 | 2,215 |
| 25 to 34 years | 10,356 | 72 | 399 | 1,384 | 2,387 | 3,171 | 1,608 | 965 | 371 |
| 35 to 44 years | 11,459 | 112 | 414 | 1,289 | 2,365 | 3,085 | 1,945 | 1,533 | 717 |
| 45 to 54 years | 11,519 | 99 | 305 | 1,144 | 2,352 | 3,092 | 2,049 | 1,714 | 765 |
| 55 to 64 years | 5,463 | 66 | 185 | 561 | 1,106 | 1,521 | 866 | 819 | 338 |
| 65 years and over | 793 | 39 | 48 | 184 | 173 | 172 | 113 | 58 | 24 |
| Men, 16 years and over | 57,001 | 411 | 1,263 | 5,004 | 9,459 | 13,684 | 9,950 | 9,807 | 7,423 |
| 16 to 24 years | 6,243 | 111 | 449 | 1,878 | 2,001 | 1,378 | 398 | 167 | 61 |
| 16 to 19 years | 1,020 | 44 | 161 | 383 | 290 | 99 | 16 | 11 | 7 |
| 20 to 24 years | 5,223 | 67 | 288 | 1,288 | 1,712 | 1,279 | 382 | 156 | 54 |
| 25 years and over | 50,758 | 300 | 814 | 3,326 | 7,458 | 12,305 | 9,552 | 9,640 | 7,362 |
| 25 to 34 years | 14,401 | 91 | 289 | 1,369 | 2,836 | 4,114 | 2,561 | 2,097 | 1,043 |
| 35 to 44 years | 15,402 | 87 | 224 | 868 | 2,054 | 3,837 | 2,993 | 3,107 | 2,471 |
| 45 to 54 years | 13,467 | 72 | 157 | 524 | 1,820 | 2,929 | 2,699 | 2,906 | 2,461 |
| 55 to 64 years | 8,469 | 36 | 93 | 358 | 779 | 1,435 | 1,166 | 1,374 | 1,229 |
| 65 years and over | 1,019 | 34 | 51 | 108 | 189 | 191 | 131 | 158 | 159 |
| RACE, SEX, AND HISPANIC OR LATINO ETHNICITY | | | | | | | | | |
| White, 16 years and over | 82,466 | 730 | 2,286 | 8,334 | 15,134 | 20,856 | 14,015 | 12,742 | 8,368 |
| Women | 34,972 | 405 | 1,338 | 4,374 | 7,686 | 9,521 | 5,587 | 4,211 | 1,850 |
| Men | 47,496 | 325 | 951 | 3,960 | 7,448 | 11,335 | 8,429 | 6,532 | 6,517 |
| Black or African American, 16 years and over | 12,032 | 127 | 587 | 1,789 | 2,826 | 3,238 | 1,895 | 1,197 | 474 |
| Women | 6,326 | 74 | 365 | 1,080 | 1,567 | 1,720 | 787 | 565 | 170 |
| Men | 5,706 | 54 | 222 | 709 | 1,358 | 1,518 | 908 | 632 | 304 |
| Asian, 16 years and over | 4,457 | 38 | 121 | 403 | 800 | 967 | 895 | 758 | 677 |
| Women | 1,953 | 24 | 70 | 237 | 411 | 453 | 287 | 292 | 179 |
| Men | 2,504 | 14 | 51 | 166 | 389 | 514 | 408 | 464 | 498 |
| Hispanic or Latino, 16 years and over | 14,061 | 152 | 799 | 3,087 | 3,891 | 3,148 | 1,497 | 1,039 | 451 |
| Women | 5,065 | 72 | 433 | 1,248 | 1,385 | 1,018 | 502 | 318 | 109 |
| Men | 8,996 | 80 | 365 | 1,839 | 2,526 | 2,128 | 995 | 721 | 342 |

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic

or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 8. Median usual weekly earnings of full-time wage and salary workers by sex, marital status, and presence and age of own children under 18 years old, 2004 annual averages

| Characteristic | Number of workers (in thousands) | Median weekly earnings | Standard error of median |
|--|----------------------------------|------------------------|--------------------------|
| WOMEN | | | |
| Total, all marital statuses | 44,223 | \$573 | \$2 |
| With children under 18 years old | 16,549 | 551 | 4 |
| With children 6 to 17, none younger | 10,530 | 568 | 5 |
| With children under 6 years old | 5,999 | 524 | 5 |
| With no children under 18 years old | 27,674 | 582 | 2 |
| Total, married, spouse present | 23,164 | 604 | 2 |
| With children under 18 years old | 11,010 | 592 | 3 |
| With children 6 to 17, none younger | 6,884 | 591 | 4 |
| With children under 6 years old | 4,125 | 592 | 6 |
| With no children under 18 years old | 12,154 | 615 | 3 |
| Total, other marital statuses ¹ | 21,059 | 523 | 3 |
| With children under 18 years old | 5,539 | 489 | 4 |
| With children 6 to 17, none younger | 3,666 | 519 | 5 |
| With children under 6 years old | 1,874 | 423 | 6 |
| With no children under 18 years old | 15,520 | 546 | 4 |
| MEN | | | |
| Total, all marital statuses | 57,001 | 713 | 2 |
| With children under 18 years old | 22,097 | 794 | 5 |
| With children 6 to 17, none younger | 11,964 | 827 | 6 |
| With children under 6 years old | 10,133 | 756 | 6 |
| With no children under 18 years old | 34,904 | 661 | 3 |
| Total, married, spouse present | 35,426 | 811 | 4 |
| With children under 18 years old | 20,502 | 813 | 5 |
| With children 6 to 17, none younger | 11,001 | 842 | 6 |
| With children under 6 years old | 9,501 | 775 | 7 |
| With no children under 18 years old | 14,924 | 807 | 6 |
| Total, other marital statuses ¹ | 21,575 | 574 | 3 |
| With children under 18 years old | 1,595 | 610 | 10 |
| With children 6 to 17, none younger | 962 | 695 | 15 |
| With children under 6 years old | 632 | 513 | 10 |
| With no children under 18 years old | 19,980 | 570 | 4 |

¹ Includes never-married, divorced, separated, and widowed persons.

NOTE: Children refer to "own" children and include sons, daughters, stepchildren, and adopted

children. Excluded are other related children such as grandchildren, nieces, nephews, and cousins, and unrelated children.

Table 9. Median hourly earnings of wage and salary workers paid hourly rates by selected characteristics, 2004 annual averages

| Characteristic | Both sexes | | | Women | | | Men | | | Women's earnings as percent of men's ¹ |
|--|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|----------------------------------|------------------------|--------------------------|---|
| | Number of workers (in thousands) | Median hourly earnings | Standard error of median | Number of workers (in thousands) | Median hourly earnings | Standard error of median | Number of workers (in thousands) | Median hourly earnings | Standard error of median | |
| AGE | | | | | | | | | | |
| Total, 16 years and over | 73,930 | \$11.00 | \$0.02 | 37,133 | \$10.17 | \$0.02 | 36,806 | \$12.02 | \$0.03 | 84.6 |
| 16 to 24 years | 18,174 | 7.98 | .02 | 7,869 | 7.71 | .03 | 8,305 | 8.21 | .03 | 93.9 |
| 16 to 19 years | 5,433 | 7.00 | .02 | 2,781 | 6.88 | .03 | 2,672 | 7.15 | .03 | 95.9 |
| 20 to 24 years | 10,741 | 8.78 | .03 | 5,108 | 8.32 | .06 | 5,633 | 9.07 | .04 | 91.7 |
| 25 years and over | 57,785 | 12.23 | .03 | 29,265 | 11.23 | .04 | 28,500 | 13.74 | .07 | 81.7 |
| 25 to 34 years | 16,574 | 11.37 | .09 | 7,645 | 10.62 | .10 | 8,929 | 12.03 | .05 | 88.3 |
| 35 to 44 years | 18,715 | 12.89 | .05 | 8,439 | 11.45 | .10 | 8,277 | 14.60 | .15 | 78.4 |
| 45 to 54 years | 14,796 | 13.23 | .08 | 7,868 | 11.95 | .05 | 6,928 | 15.11 | .05 | 79.1 |
| 55 to 64 years | 7,501 | 12.56 | .12 | 4,099 | 11.57 | .16 | 3,402 | 14.54 | .24 | 79.6 |
| 65 years and over | 2,177 | 9.62 | .18 | 1,213 | 9.16 | .10 | 964 | 9.90 | .09 | 92.5 |
| RACE AND HISPANIC OR LATINO ETHNICITY | | | | | | | | | | |
| White | 59,877 | 11.13 | .03 | 29,621 | 10.21 | .03 | 30,255 | 12.16 | .04 | 84.0 |
| Black or African American | 9,417 | 10.19 | .03 | 5,174 | 9.93 | .05 | 4,243 | 10.88 | .09 | 91.3 |
| Asian | 2,872 | 11.10 | .13 | 1,378 | 10.57 | .32 | 1,295 | 11.90 | .18 | 88.8 |
| Hispanic or Latino | 12,073 | 9.81 | .03 | 4,890 | 9.04 | .08 | 7,183 | 10.02 | .03 | 90.2 |
| MARITAL STATUS | | | | | | | | | | |
| Never married | 25,411 | 8.88 | .03 | 11,774 | 8.49 | .06 | 13,637 | 9.41 | .08 | 90.2 |
| Married, spouse present | 38,130 | 12.81 | .04 | 17,584 | 11.38 | .07 | 18,546 | 14.29 | .09 | 79.6 |
| Other marital status | 12,387 | 11.49 | .11 | 7,774 | 10.81 | .07 | 4,623 | 12.89 | .10 | 83.9 |
| Divorced | 7,932 | 12.19 | .06 | 4,922 | 11.48 | .14 | 3,010 | 13.93 | .14 | 82.4 |
| Separated | 2,982 | 10.10 | .06 | 1,556 | 9.84 | .07 | 1,338 | 10.99 | .18 | 89.5 |
| Widowed | 1,473 | 10.00 | .08 | 1,196 | 9.90 | .08 | 277 | 10.83 | .50 | 91.4 |
| UNION AFFILIATION² | | | | | | | | | | |
| Members of unions ³ | 9,784 | 16.00 | .09 | 3,502 | 13.86 | .11 | 8,282 | 17.30 | .17 | 80.1 |
| Represented by unions ⁴ | 10,884 | 15.88 | .09 | 3,942 | 13.85 | .11 | 6,721 | 17.18 | .12 | 80.8 |
| Not represented by a union | 63,275 | 10.24 | .03 | 33,191 | 9.98 | .02 | 30,084 | 11.06 | .04 | 90.3 |
| EDUCATIONAL ATTAINMENT | | | | | | | | | | |
| Total, 25 years and over | 57,785 | 12.23 | .03 | 29,265 | 11.23 | .04 | 28,500 | 13.74 | .07 | 81.7 |
| Less than a high school diploma | 7,946 | 9.23 | .06 | 3,079 | 8.00 | .04 | 4,868 | 10.11 | .04 | 79.7 |
| High school graduates, no college ⁵ | 22,423 | 11.93 | .03 | 10,875 | 10.44 | .07 | 11,548 | 13.79 | .08 | 75.7 |
| Some college or associate degree | 18,058 | 13.18 | .06 | 9,994 | 12.07 | .04 | 8,064 | 14.98 | .05 | 80.6 |
| Bachelor's degree and higher ⁶ | 9,338 | 16.24 | .19 | 5,317 | 16.12 | .19 | 4,021 | 16.63 | .30 | 96.9 |

¹ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

² Differences in earnings levels between workers with and without union affiliation reflect a variety of factors in addition to coverage by a collective bargaining agreement, including the distribution of male and female employees by occupation, industry, firm size, or geographic region.

³ Data refer to members of a labor union or an employee association similar to a union.

⁴ Data refer to members of a labor union or an employee association similar to a union as well as workers who report no union affiliation but whose

jobs are covered by a union or an employee association contract.

⁵ Includes persons with a high school diploma or equivalent.

⁶ Includes persons with a bachelor's, master's, professional, and doctoral degree.

NOTE: Hourly-paid workers account for approximately three-fifths of all wage and salary workers. Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 10. Hourly earnings distribution of wage and salary workers paid hourly rates by selected characteristics, 2004 annual averages
(In thousands)

| Characteristic | Total employed | Hourly earnings distribution | | | | | | | | | |
|--|----------------|------------------------------|------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|-----------------|--|
| | | Under \$4.00 | \$4.00 to \$4.99 | \$5.00 to \$5.99 | \$6.00 to \$7.99 | \$8.00 to \$9.99 | \$10.00 to \$11.99 | \$12.00 to \$14.99 | \$15.00 to \$19.99 | \$20.00 or more | |
| AGE AND SEX | | | | | | | | | | | |
| Total, 16 years and over | 73,939 | 983 | 144 | 2,320 | 12,115 | 13,077 | 11,661 | 11,724 | 11,265 | 10,849 | |
| 16 to 24 years | 16,174 | 489 | 64 | 1,374 | 5,517 | 4,073 | 2,388 | 1,428 | 617 | 225 | |
| 16 to 19 years | 5,433 | 177 | 27 | 689 | 2,665 | 1,110 | 391 | 133 | 40 | 21 | |
| 20 to 24 years | 10,741 | 311 | 38 | 525 | 2,852 | 2,963 | 1,996 | 1,295 | 577 | 203 | |
| 25 years and over | 57,765 | 495 | 80 | 946 | 6,598 | 9,004 | 9,274 | 10,296 | 10,648 | 10,424 | |
| 25 to 34 years | 16,574 | 237 | 32 | 292 | 2,223 | 2,950 | 2,896 | 3,134 | 2,781 | 1,999 | |
| 35 to 44 years | 16,715 | 116 | 23 | 244 | 1,728 | 2,362 | 2,635 | 2,976 | 3,272 | 3,358 | |
| 45 to 54 years | 14,796 | 62 | 14 | 174 | 1,328 | 2,033 | 2,232 | 2,608 | 2,975 | 3,349 | |
| 55 to 64 years | 7,501 | 39 | 4 | 121 | 813 | 1,154 | 1,156 | 1,319 | 1,387 | 1,508 | |
| 65 years and over | 2,177 | 20 | 8 | 115 | 505 | 474 | 354 | 259 | 232 | 210 | |
| Women, 16 years and over | 37,133 | 698 | 97 | 1,405 | 7,115 | 7,239 | 6,119 | 5,787 | 4,490 | 4,203 | |
| 16 to 24 years | 7,869 | 352 | 42 | 783 | 2,994 | 1,929 | 1,008 | 560 | 189 | 82 | |
| 16 to 19 years | 2,781 | 133 | 19 | 497 | 1,400 | 500 | 144 | 54 | 11 | 3 | |
| 20 to 24 years | 5,106 | 219 | 23 | 285 | 1,504 | 1,429 | 864 | 526 | 178 | 79 | |
| 25 years and over | 29,285 | 346 | 55 | 622 | 4,210 | 5,310 | 5,111 | 5,188 | 4,301 | 4,121 | |
| 25 to 34 years | 7,645 | 159 | 21 | 171 | 1,259 | 1,522 | 1,322 | 1,400 | 999 | 801 | |
| 35 to 44 years | 8,438 | 81 | 18 | 172 | 1,177 | 1,456 | 1,510 | 1,454 | 1,273 | 1,299 | |
| 45 to 54 years | 7,868 | 57 | 11 | 118 | 928 | 1,328 | 1,388 | 1,431 | 1,267 | 1,351 | |
| 55 to 64 years | 4,099 | 31 | 3 | 79 | 566 | 734 | 695 | 754 | 652 | 585 | |
| 65 years and over | 1,213 | 18 | 2 | 83 | 289 | 270 | 197 | 149 | 121 | 85 | |
| Men, 16 years and over | 36,806 | 286 | 47 | 915 | 5,000 | 5,838 | 5,543 | 5,956 | 6,775 | 6,446 | |
| 16 to 24 years | 8,305 | 137 | 22 | 591 | 2,513 | 2,144 | 1,380 | 848 | 428 | 143 | |
| 16 to 19 years | 2,672 | 45 | 8 | 371 | 1,264 | 609 | 247 | 79 | 30 | 16 | |
| 20 to 24 years | 5,633 | 92 | 15 | 220 | 1,248 | 1,535 | 1,132 | 769 | 396 | 124 | |
| 25 years and over | 26,500 | 149 | 25 | 324 | 2,387 | 3,694 | 4,163 | 5,108 | 6,347 | 6,303 | |
| 25 to 34 years | 8,929 | 79 | 10 | 121 | 972 | 1,458 | 1,574 | 1,734 | 1,782 | 1,198 | |
| 35 to 44 years | 8,277 | 35 | 5 | 73 | 562 | 907 | 1,125 | 1,523 | 1,999 | 2,059 | |
| 45 to 54 years | 6,928 | 25 | 3 | 57 | 400 | 705 | 844 | 1,178 | 1,718 | 1,998 | |
| 55 to 64 years | 3,402 | 8 | 1 | 41 | 247 | 420 | 462 | 564 | 738 | 923 | |
| 65 years and over | 964 | 2 | 6 | 33 | 216 | 204 | 157 | 110 | 112 | 125 | |
| RACE, SEX, AND HISPANIC OR LATINO ETHNICITY | | | | | | | | | | | |
| White, 16 years and over | 56,877 | 865 | 125 | 1,819 | 9,610 | 10,260 | 9,325 | 9,451 | 9,427 | 8,994 | |
| Women | 29,621 | 631 | 85 | 1,083 | 5,553 | 5,856 | 4,915 | 4,565 | 3,687 | 3,455 | |
| Men | 27,256 | 234 | 40 | 725 | 4,057 | 4,404 | 4,411 | 4,886 | 5,760 | 5,539 | |
| Black or African American, 16 years and over | 9,417 | 77 | 10 | 372 | 1,686 | 1,940 | 1,617 | 1,594 | 1,187 | 934 | |
| Women | 5,174 | 45 | 7 | 228 | 1,084 | 1,123 | 838 | 847 | 574 | 429 | |
| Men | 4,243 | 32 | 3 | 144 | 601 | 817 | 779 | 747 | 613 | 505 | |
| Asian, 16 years and over | 2,672 | 19 | 4 | 57 | 445 | 462 | 430 | 373 | 296 | 486 | |
| Women | 1,378 | 13 | 2 | 33 | 256 | 251 | 229 | 208 | 158 | 229 | |
| Men | 1,295 | 6 | 3 | 24 | 189 | 211 | 201 | 165 | 237 | 258 | |
| Hispanic or Latino, 16 years and over | 12,073 | 96 | 22 | 350 | 2,810 | 2,694 | 2,119 | 1,768 | 1,288 | 927 | |
| Women | 4,890 | 63 | 12 | 215 | 1,395 | 1,095 | 786 | 648 | 402 | 274 | |
| Men | 7,183 | 34 | 9 | 135 | 1,415 | 1,599 | 1,333 | 1,121 | 885 | 653 | |

NOTE: Hourly-paid workers account for approximately three-fifths of all wage and salary workers. Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not

presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 11. Wage and salary workers paid hourly rates with earnings at or below the prevailing Federal minimum wage by selected characteristics, 2004 annual averages

(Numbers in thousands)

| Characteristic | Workers paid hourly rates ¹ | | | | |
|---|--|---------------------------------------|------------------------------------|---|--------------------------------|
| | Total | Below prevailing Federal minimum wage | At prevailing Federal minimum wage | Total at or below prevailing Federal minimum wage | |
| | | | | Number | Percent of hourly-paid workers |
| AGE AND SEX | | | | | |
| Total, 16 years and over | 73,939 | 1,483 | 520 | 2,003 | 2.7 |
| 16 to 24 years | 16,174 | 750 | 272 | 1,021 | 6.3 |
| 16 to 19 years | 5,433 | 329 | 168 | 498 | 9.2 |
| 20 to 24 years | 10,741 | 420 | 103 | 523 | 4.9 |
| 25 years and over | 57,765 | 733 | 249 | 982 | 1.7 |
| 25 to 34 years | 16,574 | 320 | 64 | 384 | 2.3 |
| 35 to 44 years | 18,715 | 175 | 63 | 238 | 1.4 |
| 45 to 54 years | 14,796 | 125 | 48 | 173 | 1.2 |
| 55 to 64 years | 7,501 | 61 | 40 | 101 | 1.3 |
| 65 years and over | 2,177 | 53 | 33 | 87 | 4.0 |
| Women, 16 years and over | 37,133 | 1,013 | 310 | 1,323 | 3.6 |
| 16 to 24 years | 7,869 | 510 | 145 | 655 | 8.3 |
| 16 to 19 years | 2,781 | 229 | 90 | 319 | 11.5 |
| 20 to 24 years | 5,108 | 282 | 55 | 336 | 6.6 |
| 25 years and over | 29,265 | 502 | 166 | 668 | 2.3 |
| 25 to 34 years | 7,645 | 209 | 35 | 244 | 3.2 |
| 35 to 44 years | 8,439 | 122 | 46 | 168 | 2.0 |
| 45 to 54 years | 7,868 | 84 | 31 | 116 | 1.5 |
| 55 to 64 years | 4,099 | 47 | 27 | 74 | 1.8 |
| 65 years and over | 1,213 | 40 | 27 | 67 | 5.5 |
| Men, 16 years and over | 36,806 | 470 | 210 | 680 | 1.8 |
| 16 to 24 years | 8,305 | 239 | 127 | 366 | 4.4 |
| 16 to 19 years | 2,672 | 101 | 78 | 179 | 8.7 |
| 20 to 24 years | 5,633 | 138 | 49 | 187 | 3.3 |
| 25 years and over | 28,500 | 231 | 83 | 314 | 1.1 |
| 25 to 34 years | 8,929 | 111 | 30 | 140 | 1.6 |
| 35 to 44 years | 8,277 | 54 | 17 | 70 | 9 |
| 45 to 54 years | 6,926 | 40 | 17 | 57 | 8 |
| 55 to 64 years | 3,402 | 14 | 13 | 27 | 8 |
| 65 years and over | 964 | 13 | 7 | 19 | 2.0 |
| RACE, SEX, AND HISPANIC OR LATINO ETHNICITY | | | | | |
| White, 16 years and over | 59,877 | 1,266 | 395 | 1,661 | 2.8 |
| Women | 29,621 | 892 | 234 | 1,126 | 3.8 |
| Men | 30,255 | 393 | 161 | 555 | 1.8 |
| Black or African American, 16 years and over | 9,417 | 128 | 99 | 228 | 2.4 |
| Women | 5,174 | 79 | 59 | 138 | 2.7 |
| Men | 4,243 | 49 | 40 | 89 | 2.1 |
| Asian, 16 years and over | 2,672 | 30 | 8 | 38 | 1.4 |
| Women | 1,378 | 18 | 5 | 23 | 1.7 |
| Men | 1,295 | 12 | 3 | 15 | 1.2 |
| Hispanic or Latino, 16 years and over | 12,073 | 168 | 62 | 250 | 2.1 |
| Women | 4,890 | 102 | 49 | 151 | 3.1 |
| Men | 7,183 | 66 | 32 | 99 | 1.4 |
| FULL- AND PART-TIME STATUS AND SEX² | | | | | |
| Full-time workers | 55,739 | 563 | 177 | 760 | 1.4 |
| Women | 24,768 | 360 | 100 | 460 | 1.9 |
| Men | 30,951 | 223 | 77 | 300 | 1.0 |
| Part-time workers | 18,048 | 897 | 343 | 1,240 | 6.9 |
| Women | 12,276 | 651 | 210 | 661 | 7.0 |
| Men | 5,770 | 246 | 132 | 378 | 6.6 |

¹ Detail may not sum to totals due to rounding. Percents are based on unrounded data.² The distinction between full- and part-time workers is based on hours usually worked. These data will not sum to totals because full- or part-time status on the principal job is not identifiable for a small number of multiple jobholders.

NOTE: Estimates for the above race groups (white, black or African American, and Asian) do not sum to totals because data are not presented for all races. In addition, persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Table 12 Median usual weekly earnings of full-time wage and salary workers in constant (2004) dollars by sex and age, 1979-2004 annual averages

| Year and sex | Total, 16 years and over | 16 to 24 years | | | 25 years and over | | | | | |
|-------------------|--------------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|-------------------|
| | | Total | 16 to 19 years | 20 to 24 years | Total | 25 to 34 years | 35 to 44 years | 45 to 54 years | 55 to 64 years | 65 years and over |
| BOTH SEXES | | | | | | | | | | |
| 1979 | \$581 | \$415 | \$347 | \$448 | \$639 | \$616 | \$675 | \$668 | \$630 | \$477 |
| 1980 | 568 | 407 | 334 | 435 | 621 | 598 | 655 | 645 | 618 | 441 |
| 1981 | 583 | 398 | 320 | 423 | 612 | 588 | 648 | 636 | 613 | 441 |
| 1982 | 566 | 390 | 308 | 413 | 612 | 583 | 663 | 647 | 609 | 474 |
| 1983 | 583 | 379 | 294 | 400 | 618 | 578 | 665 | 660 | 623 | 469 |
| 1984 | 564 | 376 | 292 | 399 | 628 | 580 | 673 | 666 | 632 | 470 |
| 1985 | 576 | 375 | 291 | 402 | 634 | 585 | 679 | 671 | 638 | 497 |
| 1986 | 590 | 381 | 293 | 408 | 643 | 592 | 689 | 683 | 652 | 491 |
| 1987 | 595 | 386 | 295 | 411 | 641 | 594 | 692 | 682 | 645 | 493 |
| 1988 | 591 | 382 | 300 | 407 | 635 | 588 | 690 | 695 | 643 | 486 |
| 1989 | 587 | 381 | 300 | 406 | 629 | 579 | 694 | 694 | 634 | 491 |
| 1990 | 578 | 377 | 294 | 400 | 629 | 571 | 682 | 685 | 641 | 482 |
| 1991 | 576 | 375 | 288 | 394 | 632 | 562 | 673 | 686 | 635 | 515 |
| 1992 | 581 | 364 | 280 | 382 | 632 | 556 | 663 | 689 | 637 | 499 |
| 1993 | 590 | 363 | 275 | 382 | 632 | 562 | 686 | 697 | 633 | 506 |
| 1994 | 589 | 361 | 278 | 378 | 630 | 554 | 677 | 714 | 631 | 485 |
| 1995 | 590 | 360 | 284 | 378 | 628 | 555 | 677 | 717 | 633 | 479 |
| 1996 | 588 | 357 | 287 | 374 | 624 | 565 | 670 | 712 | 641 | 460 |
| 1997 | 591 | 360 | 296 | 377 | 634 | 565 | 679 | 712 | 655 | 482 |
| 1998 | 605 | 370 | 310 | 392 | 662 | 581 | 691 | 718 | 686 | 469 |
| 1999 | 622 | 387 | 319 | 411 | 671 | 587 | 692 | 739 | 685 | 458 |
| 2000 | 631 | 396 | 326 | 420 | 667 | 602 | 685 | 733 | 679 | 508 |
| 2001 | 636 | 401 | 325 | 421 | 672 | 615 | 701 | 740 | 680 | 521 |
| 2002 | 639 | 400 | 320 | 419 | 679 | 620 | 702 | 741 | 708 | 527 |
| 2003 | 636 | 397 | 320 | 412 | 679 | 610 | 706 | 742 | 727 | 529 |
| 2004 | 638 | 390 | 309 | 406 | 683 | 604 | 713 | 743 | 725 | 560 |
| WOMEN | | | | | | | | | | |
| 1979 | 439 | 371 | 318 | 389 | 470 | 480 | 471 | 463 | 455 | 410 |
| 1980 | 436 | 362 | 315 | 379 | 462 | 473 | 465 | 453 | 444 | 379 |
| 1981 | 435 | 358 | 306 | 380 | 462 | 474 | 472 | 447 | 441 | 375 |
| 1982 | 447 | 359 | 296 | 377 | 477 | 483 | 484 | 471 | 458 | 398 |
| 1983 | 453 | 356 | 284 | 373 | 481 | 488 | 489 | 475 | 463 | 381 |
| 1984 | 458 | 352 | 280 | 369 | 490 | 492 | 505 | 493 | 487 | 378 |
| 1985 | 465 | 353 | 278 | 370 | 496 | 495 | 514 | 489 | 477 | 406 |
| 1986 | 478 | 360 | 279 | 381 | 507 | 503 | 525 | 507 | 486 | 421 |
| 1987 | 482 | 360 | 273 | 385 | 511 | 503 | 536 | 515 | 490 | 415 |
| 1988 | 483 | 361 | 282 | 386 | 514 | 501 | 543 | 520 | 487 | 429 |
| 1989 | 482 | 362 | 289 | 383 | 516 | 500 | 543 | 525 | 489 | 429 |
| 1990 | 488 | 358 | 278 | 377 | 518 | 499 | 547 | 529 | 488 | 421 |
| 1991 | 496 | 360 | 277 | 380 | 524 | 501 | 551 | 538 | 491 | 432 |
| 1992 | 501 | 352 | 270 | 389 | 527 | 504 | 552 | 550 | 496 | 433 |
| 1993 | 506 | 352 | 284 | 372 | 534 | 508 | 560 | 566 | 508 | 431 |
| 1994 | 503 | 347 | 267 | 385 | 531 | 501 | 565 | 568 | 502 | 424 |
| 1995 | 500 | 339 | 264 | 358 | 527 | 497 | 558 | 572 | 496 | 434 |
| 1996 | 501 | 340 | 267 | 358 | 532 | 498 | 555 | 578 | 504 | 401 |
| 1997 | 506 | 343 | 282 | 359 | 542 | 501 | 565 | 581 | 508 | 408 |
| 1998 | 528 | 353 | 288 | 369 | 561 | 523 | 576 | 597 | 551 | 405 |
| 1999 | 537 | 367 | 302 | 389 | 563 | 533 | 571 | 606 | 558 | 419 |
| 2000 | 541 | 378 | 310 | 402 | 566 | 541 | 571 | 619 | 557 | 430 |
| 2001 | 547 | 377 | 308 | 400 | 579 | 547 | 584 | 627 | 572 | 417 |
| 2002 | 556 | 385 | 310 | 404 | 567 | 556 | 600 | 632 | 602 | 452 |
| 2003 | 567 | 381 | 307 | 398 | 600 | 581 | 606 | 625 | 617 | 447 |
| 2004 | 573 | 375 | 293 | 391 | 599 | 581 | 608 | 625 | 615 | 478 |

See footnotes at end of table.

Table 12. Median usual weekly earnings of full-time wage and salary workers in constant (2004) dollars by sex and age, 1979-2004 annual averages — Continued

| Year and sex | Total, 16 years and over | 16 to 24 years | | | 25 years and over | | | | | |
|--|--------------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|-------------------|
| | | Total | 16 to 19 years | 20 to 24 years | Total | 25 to 34 years | 35 to 44 years | 45 to 54 years | 55 to 64 years | 65 years and over |
| MEN | | | | | | | | | | |
| 1979 | \$703 | \$473 | \$373 | \$508 | \$757 | \$712 | \$809 | \$814 | \$753 | \$528 |
| 1980 | 679 | 452 | 351 | 486 | 736 | 682 | 797 | 795 | 747 | 496 |
| 1981 | 674 | 433 | 333 | 471 | 737 | 674 | 788 | 786 | 749 | 528 |
| 1982 | 682 | 421 | 318 | 457 | 736 | 670 | 790 | 784 | 747 | 562 |
| 1983 | 681 | 401 | 302 | 434 | 731 | 667 | 795 | 798 | 749 | 554 |
| 1984 | 678 | 400 | 302 | 433 | 731 | 661 | 815 | 813 | 760 | 567 |
| 1985 | 681 | 403 | 306 | 433 | 742 | 659 | 815 | 819 | 783 | 615 |
| 1986 ¹ | 690 | 405 | 305 | 434 | 761 | 661 | 820 | 832 | 797 | 589 |
| 1987 | 690 | 409 | 311 | 437 | 759 | 655 | 811 | 826 | 788 | 604 |
| 1988 | 689 | 401 | 314 | 429 | 748 | 645 | 793 | 842 | 780 | 606 |
| 1989 | 688 | 399 | 308 | 427 | 735 | 638 | 798 | 836 | 766 | 579 |
| 1990 | 675 | 395 | 305 | 418 | 718 | 630 | 786 | 829 | 765 | 565 |
| 1991 | 687 | 386 | 296 | 408 | 708 | 620 | 779 | 829 | 762 | 632 |
| 1992 | 681 | 374 | 288 | 392 | 707 | 615 | 767 | 836 | 783 | 555 |
| 1993 | 657 | 371 | 284 | 390 | 715 | 612 | 767 | 841 | 754 | 581 |
| 1994 | 658 | 371 | 284 | 387 | 727 | 604 | 779 | 846 | 760 | 596 |
| 1995 | 663 | 373 | 301 | 389 | 724 | 603 | 768 | 843 | 767 | 543 |
| 1996 | 668 | 368 | 301 | 385 | 719 | 592 | 758 | 837 | 770 | 572 |
| 1997 ¹ | 679 | 372 | 308 | 397 | 722 | 605 | 764 | 838 | 785 | 530 |
| 1998 ¹ | 692 | 386 | 326 | 413 | 740 | 630 | 784 | 847 | 809 | 558 |
| 1999 ¹ | 701 | 404 | 330 | 430 | 757 | 654 | 796 | 865 | 823 | 533 |
| 2000 ¹ | 702 | 411 | 336 | 433 | 760 | 656 | 798 | 846 | 806 | 573 |
| 2001 | 715 | 418 | 340 | 436 | 769 | 659 | 804 | 853 | 812 | 603 |
| 2002 | 713 | 411 | 328 | 430 | 769 | 659 | 798 | 848 | 842 | 612 |
| 2003 ¹ | 713 | 409 | 329 | 423 | 764 | 645 | 796 | 858 | 849 | 628 |
| 2004 ¹ | 713 | 400 | 318 | 417 | 762 | 639 | 804 | 857 | 843 | 641 |
| WOMEN'S EARNINGS AS PERCENT OF MEN'S ² | | | | | | | | | | |
| 1979 | 62.5 | 78.5 | 85.2 | 78.5 | 62.1 | 67.4 | 58.3 | 56.9 | 60.5 | 77.8 |
| 1980 | 64.3 | 80.1 | 89.5 | 78.0 | 62.7 | 69.4 | 58.4 | 56.9 | 59.4 | 76.5 |
| 1981 | 64.5 | 82.6 | 91.8 | 80.7 | 62.7 | 70.4 | 59.9 | 56.8 | 58.9 | 70.9 |
| 1982 | 65.5 | 85.3 | 92.8 | 82.5 | 64.7 | 72.1 | 61.2 | 60.1 | 61.3 | 70.4 |
| 1983 | 66.8 | 88.6 | 94.1 | 85.9 | 65.8 | 73.3 | 61.5 | 59.5 | 61.8 | 69.7 |
| 1984 | 67.6 | 87.9 | 92.7 | 85.3 | 67.0 | 74.5 | 61.9 | 59.4 | 61.4 | 66.8 |
| 1985 | 68.2 | 87.5 | 90.8 | 85.5 | 66.9 | 75.1 | 63.1 | 59.7 | 60.9 | 68.0 |
| 1986 ¹ | 69.3 | 88.9 | 91.5 | 87.7 | 66.7 | 76.2 | 64.0 | 61.0 | 61.0 | 71.4 |
| 1987 | 69.9 | 88.1 | 87.8 | 88.0 | 67.3 | 76.6 | 66.1 | 62.3 | 62.2 | 68.7 |
| 1988 | 70.1 | 90.0 | 89.8 | 90.1 | 68.7 | 77.7 | 68.4 | 61.8 | 62.4 | 70.8 |
| 1989 | 70.1 | 90.7 | 94.0 | 89.8 | 70.2 | 78.4 | 68.1 | 62.7 | 63.9 | 74.2 |
| 1990 | 71.9 | 90.1 | 91.0 | 90.2 | 72.1 | 79.2 | 69.7 | 63.8 | 63.7 | 74.5 |
| 1991 | 74.3 | 93.3 | 93.5 | 93.5 | 74.0 | 80.9 | 70.8 | 64.9 | 64.4 | 86.4 |
| 1992 | 75.8 | 94.0 | 93.8 | 94.2 | 74.6 | 82.0 | 71.9 | 65.8 | 64.9 | 78.1 |
| 1993 | 77.1 | 94.8 | 93.0 | 95.6 | 74.7 | 82.9 | 73.0 | 67.3 | 67.4 | 74.1 |
| 1994 ¹ | 76.4 | 93.7 | 92.7 | 94.5 | 73.1 | 82.9 | 72.5 | 67.1 | 66.1 | 76.3 |
| 1995 | 75.4 | 90.8 | 87.9 | 92.2 | 72.7 | 82.4 | 72.7 | 67.6 | 64.8 | 78.9 |
| 1996 | 75.0 | 92.4 | 88.9 | 92.8 | 74.1 | 83.2 | 73.2 | 68.9 | 65.4 | 70.0 |
| 1997 ¹ | 74.5 | 92.1 | 91.4 | 90.6 | 75.1 | 82.9 | 74.0 | 69.4 | 64.7 | 77.1 |
| 1998 ¹ | 76.3 | 91.3 | 88.5 | 89.4 | 75.9 | 83.0 | 73.5 | 70.5 | 68.2 | 72.8 |
| 1999 ¹ | 76.5 | 91.0 | 91.3 | 90.5 | 74.4 | 81.5 | 71.7 | 70.1 | 67.8 | 78.7 |
| 2000 ¹ | 77.0 | 92.0 | 92.3 | 92.8 | 74.5 | 82.5 | 71.5 | 73.2 | 69.2 | 75.1 |
| 2001 | 78.4 | 90.2 | 90.3 | 91.9 | 75.3 | 83.0 | 72.6 | 73.5 | 70.5 | 69.1 |
| 2002 | 77.9 | 93.7 | 94.5 | 93.9 | 77.6 | 84.4 | 75.2 | 74.5 | 71.5 | 73.8 |
| 2003 ¹ | 79.5 | 93.3 | 93.2 | 94.0 | 78.5 | 87.0 | 76.2 | 73.0 | 72.6 | 71.2 |
| 2004 ¹ | 80.3 | 93.7 | 92.2 | 93.8 | 78.7 | 87.9 | 75.6 | 73.0 | 73.0 | 74.6 |

¹ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of *Employment and Earnings*, a monthly BLS periodical.

² These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. See Technical Note.

Table 13. Median usual weekly earnings of full-time wage and salary workers in constant (2004) dollars by sex, race, and Hispanic or Latino ethnicity, 1979-2004 annual averages

| Year and sex | Total, 16 years and over | White | Black or African American | Asian | Hispanic or Latino |
|-------------------------|--------------------------|-------|---------------------------|-------|--------------------|
| BOTH SEXES | | | | | |
| 1979..... | \$581 | \$596 | \$479 | - | \$488 |
| 1980..... | 568 | 563 | 461 | - | 454 |
| 1981..... | 563 | 578 | 468 | - | 442 |
| 1982..... | 566 | 580 | 459 | - | 450 |
| 1983..... | 563 | 575 | 470 | - | 449 |
| 1984..... | 564 | 582 | 466 | - | 449 |
| 1985..... | 576 | 595 | 485 | - | 452 |
| 1986 ¹ | 590 | 610 | 479 | - | 456 |
| 1987..... | 595 | 610 | 479 | - | 453 |
| 1988..... | 591 | 605 | 482 | - | 445 |
| 1989..... | 587 | 602 | 470 | - | 438 |
| 1990 ¹ | 578 | 594 | 462 | - | 428 |
| 1991..... | 576 | 599 | 471 | - | 423 |
| 1992..... | 581 | 604 | 470 | - | 424 |
| 1993..... | 590 | 611 | 475 | - | 426 |
| 1994 ¹ | 599 | 610 | 468 | - | 409 |
| 1995..... | 590 | 609 | 471 | - | 405 |
| 1996..... | 588 | 606 | 464 | - | 406 |
| 1997 ¹ | 591 | 609 | 469 | - | 412 |
| 1998 ¹ | 605 | 631 | 493 | - | 429 |
| 1999 ¹ | 622 | 649 | 504 | - | 436 |
| 2000 ¹ | 631 | 647 | 520 | \$674 | 438 |
| 2001..... | 636 | 651 | 524 | 682 | 445 |
| 2002..... | 639 | 655 | 523 | 691 | 445 |
| 2003 ¹ | 636 | 653 | 528 | 712 | 452 |
| 2004 ¹ | 638 | 657 | 525 | 708 | 456 |
| WOMEN | | | | | |
| 1979..... | 439 | 444 | 408 | - | 379 |
| 1980..... | 436 | 440 | 402 | - | 374 |
| 1981..... | 435 | 438 | 409 | - | 377 |
| 1982..... | 447 | 453 | 407 | - | 381 |
| 1983..... | 453 | 458 | 417 | - | 386 |
| 1984..... | 458 | 464 | 417 | - | 388 |
| 1985..... | 465 | 471 | 423 | - | 384 |
| 1986 ¹ | 478 | 484 | 434 | - | 397 |
| 1987..... | 482 | 489 | 438 | - | 399 |
| 1988..... | 483 | 488 | 442 | - | 399 |
| 1989..... | 482 | 491 | 443 | - | 396 |
| 1990 ¹ | 486 | 496 | 432 | - | 390 |
| 1991..... | 496 | 505 | 437 | - | 395 |
| 1992..... | 501 | 510 | 442 | - | 398 |
| 1993..... | 506 | 516 | 448 | - | 402 |
| 1994 ¹ | 503 | 514 | 437 | - | 384 |
| 1995..... | 500 | 510 | 437 | - | 378 |
| 1996..... | 501 | 513 | 435 | - | 379 |
| 1997 ¹ | 508 | 521 | 440 | - | 373 |
| 1998 ¹ | 528 | 541 | 462 | - | 390 |
| 1999 ¹ | 537 | 548 | 463 | - | 394 |
| 2000 ¹ | 541 | 550 | 471 | 599 | 402 |
| 2001..... | 547 | 557 | 485 | 601 | 415 |
| 2002..... | 556 | 575 | 497 | 595 | 417 |
| 2003 ¹ | 567 | 583 | 504 | 614 | 421 |
| 2004 ¹ | 573 | 584 | 505 | 613 | 419 |

See footnotes at end of table.

Table 13. Median usual weekly earnings of full-time wage and salary workers in constant (2004) dollars by sex, race, and Hispanic or Latino ethnicity, 1979-2004 annual averages — Continued

| Year and sex | Total, 18 years and over | White | Black or African American | Asian | Hispanic or Latino |
|--|--------------------------|-------|---------------------------|-------|--------------------|
| MEN | | | | | |
| 1979 | \$703 | \$719 | \$548 | - | \$529 |
| 1980 | 679 | 694 | 530 | - | 508 |
| 1981 | 674 | 694 | 533 | - | 499 |
| 1982 | 682 | 703 | 521 | - | 503 |
| 1983 | 681 | 697 | 528 | - | 493 |
| 1984 | 678 | 693 | 524 | - | 496 |
| 1985 | 681 | 699 | 510 | - | 495 |
| 1986 ¹ | 690 | 713 | 524 | - | 492 |
| 1987 | 690 | 716 | 519 | - | 487 |
| 1988 | 689 | 713 | 533 | - | 472 |
| 1989 | 688 | 709 | 512 | - | 483 |
| 1990 | 675 | 693 | 506 | - | 446 |
| 1991 | 667 | 684 | 507 | - | 437 |
| 1992 | 661 | 678 | 502 | - | 447 |
| 1993 | 657 | 674 | 504 | - | 445 |
| 1994 ¹ | 658 | 690 | 505 | - | 433 |
| 1995 | 663 | 688 | 506 | - | 430 |
| 1996 | 668 | 698 | 493 | - | 426 |
| 1997 ¹ | 679 | 699 | 507 | - | 436 |
| 1998 ¹ | 692 | 711 | 541 | - | 451 |
| 1999 ¹ | 701 | 724 | 554 | - | 460 |
| 2000 ¹ | 702 | 726 | 559 | \$751 | 457 |
| 2001 | 715 | 736 | 565 | 782 | 470 |
| 2002 | 713 | 737 | 550 | 794 | 474 |
| 2003 ¹ | 713 | 734 | 569 | 793 | 476 |
| 2004 ¹ | 713 | 732 | 569 | 802 | 480 |
| WOMEN'S EARNINGS AS PERCENT OF MEN'S ² | | | | | |
| 1979 | 62.5 | 61.7 | 74.3 | - | 71.7 |
| 1980 | 64.3 | 63.5 | 75.8 | - | 73.6 |
| 1981 | 64.5 | 63.1 | 76.7 | - | 75.6 |
| 1982 | 65.5 | 64.4 | 78.0 | - | 75.7 |
| 1983 | 66.6 | 65.7 | 78.9 | - | 78.3 |
| 1984 | 67.6 | 67.0 | 79.6 | - | 77.8 |
| 1985 | 68.2 | 67.4 | 82.8 | - | 77.7 |
| 1986 ¹ | 69.3 | 67.9 | 82.7 | - | 80.7 |
| 1987 | 69.9 | 68.2 | 84.4 | - | 82.1 |
| 1988 | 70.1 | 68.5 | 83.0 | - | 84.6 |
| 1989 | 70.1 | 69.2 | 85.5 | - | 85.6 |
| 1990 ¹ | 71.9 | 71.5 | 85.5 | - | 87.6 |
| 1991 | 74.3 | 73.7 | 86.1 | - | 90.5 |
| 1992 | 75.6 | 75.2 | 88.1 | - | 89.1 |
| 1993 | 77.1 | 76.5 | 88.8 | - | 90.4 |
| 1994 ¹ | 76.4 | 74.5 | 85.5 | - | 88.8 |
| 1995 | 75.4 | 73.2 | 86.3 | - | 87.3 |
| 1996 | 75.0 | 73.8 | 88.1 | - | 89.0 |
| 1997 ¹ | 74.5 | 74.6 | 88.8 | - | 85.6 |
| 1998 ¹ | 76.3 | 76.1 | 85.4 | - | 86.5 |
| 1999 ¹ | 76.5 | 75.7 | 83.7 | - | 85.7 |
| 2000 ¹ | 77.0 | 75.8 | 84.2 | 79.9 | 88.0 |
| 2001 | 78.4 | 75.6 | 85.8 | 76.9 | 88.2 |
| 2002 | 77.9 | 78.0 | 90.4 | 74.9 | 88.1 |
| 2003 ¹ | 79.5 | 79.4 | 88.4 | 77.5 | 88.3 |
| 2004 ¹ | 80.3 | 79.8 | 88.9 | 76.4 | 87.1 |

¹ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of *Employment and Earnings*, a monthly BLS periodical.

² These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

-Data not available.

³ CPE. Beginning in 2003, estimates for the above race groups (White, Black or African American, and Asian) include persons who selected more than one race group only; persons who selected more than one race

group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race. Estimates for the race groups will not sum to total because data are not presented for all races. Persons whose ethnic origin is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Data for 2006-07 are for the category Asians and Pacific Islanders. Starting in 2003, Asians constitute a separate category. For more information, see the Explanatory Notes and Estimates of Error section of *Employment and Earnings*. Data for Asians were not tabulated prior to 2000. The Consumer Price Index research series using current methods (CPI-URSI) is used to convert current dollars to constant dollars. See Technical Note.

Table 14. Median usual weekly earnings of full-time wage and salary workers 25 years and over in constant (2004) dollars by sex and educational attainment, 1979-2004 annual averages

| Year and sex | Total, 25 years and over | Less than a high school diploma | High school graduates, no college ¹ | Some college or associate degree | Bachelor's degree and higher ² |
|-------------------|--------------------------------|---------------------------------------|--|-------------------------------------|---|
| BOTH SEXES | | | | | |
| 1979 | \$639 | \$506 | \$599 | \$679 | \$829 |
| 1980 | 621 | 482 | 578 | 659 | 816 |
| 1981 | 612 | 475 | 568 | 643 | 807 |
| 1982 | 612 | 464 | 565 | 637 | 818 |
| 1983 | 618 | 460 | 560 | 653 | 830 |
| 1984 | 626 | 456 | 558 | 661 | 840 |
| 1985 | 634 | 452 | 558 | 668 | 847 |
| 1986 ³ | 643 | 457 | 565 | 673 | 863 |
| 1987 | 641 | 451 | 567 | 669 | 856 |
| 1988 | 635 | 442 | 564 | 660 | 858 |
| 1989 | 629 | 437 | 552 | 665 | 856 |
| 1990 ³ | 629 | 425 | 541 | 667 | 895 |
| 1991 | 632 | 416 | 537 | 662 | 901 |
| 1992 | 632 | 410 | 532 | 639 | 918 |
| 1993 | 632 | 404 | 534 | 638 | 920 |
| 1994 ³ | 630 | 387 | 531 | 629 | 925 |
| 1995 | 628 | 381 | 532 | 625 | 920 |
| 1996 | 624 | 380 | 532 | 621 | 909 |
| 1997 ³ | 634 | 376 | 541 | 628 | 914 |
| 1998 ³ | 662 | 390 | 555 | 646 | 950 |
| 1999 ³ | 671 | 393 | 556 | 658 | 975 |
| 2000 ³ | 667 | 366 | 554 | 653 | 977 |
| 2001 | 672 | 408 | 555 | 659 | 983 |
| 2002 | 679 | 408 | 562 | 660 | 988 |
| 2003 ³ | 679 | 407 | 568 | 656 | 989 |
| 2004 ³ | 683 | 401 | 574 | 661 | 986 |
| WOMEN | | | | | |
| 1979 | 470 | 366 | 446 | 508 | 635 |
| 1980 | 462 | 355 | 435 | 501 | 629 |
| 1981 | 462 | 347 | 431 | 506 | 631 |
| 1982 | 477 | 345 | 442 | 514 | 649 |
| 1983 | 481 | 350 | 443 | 517 | 663 |
| 1984 | 490 | 345 | 448 | 527 | 675 |
| 1985 | 496 | 338 | 448 | 531 | 694 |
| 1986 ³ | 507 | 341 | 455 | 542 | 717 |
| 1987 | 511 | 341 | 457 | 552 | 740 |
| 1988 | 514 | 338 | 457 | 552 | 744 |
| 1989 | 516 | 340 | 448 | 557 | 746 |
| 1990 ³ | 518 | 337 | 441 | 554 | 751 |
| 1991 | 524 | 338 | 444 | 553 | 760 |
| 1992 | 527 | 337 | 444 | 537 | 763 |
| 1993 | 534 | 339 | 446 | 543 | 766 |
| 1994 ³ | 531 | 324 | 443 | 533 | 799 |
| 1995 | 527 | 322 | 439 | 525 | 793 |
| 1996 | 532 | 322 | 438 | 529 | 788 |
| 1997 ³ | 542 | 323 | 444 | 538 | 789 |
| 1998 ³ | 561 | 327 | 458 | 551 | 819 |
| 1999 ³ | 563 | 329 | 459 | 554 | 839 |
| 2000 ³ | 566 | 334 | 461 | 554 | 829 |
| 2001 | 579 | 337 | 472 | 555 | 839 |
| 2002 | 597 | 341 | 481 | 571 | 850 |
| 2003 ³ | 600 | 338 | 487 | 575 | 854 |
| 2004 ³ | 599 | 334 | 488 | 577 | 860 |

See footnotes at end of table.

Table 14. Median usual weekly earnings of full-time wage and salary workers 25 years and over in constant (2004) dollars by sex and educational attainment, 1979-2004 annual averages -- Continued

| Year and sex | Total, 25 years and over | Less than a high school diploma | High school graduates, no college ¹ | Some college or associate degree | Bachelor's degree and higher ² |
|---|--------------------------------|---------------------------------------|--|-------------------------------------|---|
| MEN | | | | | |
| 1979 | \$757 | \$608 | \$743 | \$794 | \$954 |
| 1980 | 736 | 580 | 710 | 777 | 927 |
| 1981 | 737 | 587 | 707 | 771 | 943 |
| 1982 | 738 | 549 | 700 | 770 | 942 |
| 1983 | 731 | 542 | 697 | 760 | 932 |
| 1984 | 731 | 533 | 690 | 771 | 972 |
| 1985 | 742 | 526 | 682 | 790 | 988 |
| 1986 ³ | 761 | 528 | 684 | 798 | 1,016 |
| 1987 | 759 | 515 | 672 | 790 | 1,038 |
| 1988 | 748 | 510 | 670 | 772 | 1,042 |
| 1989 | 735 | 509 | 662 | 760 | 1,037 |
| 1990 ³ | 718 | 490 | 643 | 761 | 1,039 |
| 1991 | 708 | 473 | 636 | 762 | 1,034 |
| 1992 | 707 | 483 | 631 | 732 | 1,044 |
| 1993 | 715 | 458 | 626 | 736 | 1,037 |
| 1994 ³ | 727 | 432 | 628 | 740 | 1,042 |
| 1995 | 724 | 427 | 625 | 734 | 1,040 |
| 1996 | 719 | 428 | 619 | 724 | 1,048 |
| 1997 ³ | 722 | 429 | 628 | 729 | 1,052 |
| 1998 ³ | 740 | 444 | 647 | 745 | 1,087 |
| 1999 ³ | 757 | 447 | 658 | 753 | 1,108 |
| 2000 ³ | 760 | 446 | 648 | 758 | 1,119 |
| 2001 | 769 | 447 | 650 | 772 | 1,138 |
| 2002 | 768 | 443 | 648 | 768 | 1,145 |
| 2003 ³ | 764 | 441 | 645 | 759 | 1,161 |
| 2004 ³ | 762 | 446 | 645 | 761 | 1,143 |
| WOMEN'S EARNINGS AS PERCENT OF MEN'S⁴ | | | | | |
| 1979 | 62.1 | 60.2 | 60.0 | 64.0 | 66.6 |
| 1980 | 62.7 | 61.3 | 61.3 | 64.5 | 67.8 |
| 1981 | 62.7 | 61.1 | 61.0 | 65.6 | 66.9 |
| 1982 | 64.7 | 62.8 | 63.1 | 66.7 | 68.9 |
| 1983 | 65.8 | 64.6 | 63.5 | 68.1 | 71.1 |
| 1984 | 67.0 | 64.8 | 64.9 | 68.4 | 69.5 |
| 1985 | 66.9 | 64.4 | 65.7 | 67.2 | 70.2 |
| 1986 ³ | 66.7 | 64.7 | 66.6 | 67.9 | 70.6 |
| 1987 | 67.3 | 66.1 | 68.0 | 69.9 | 71.3 |
| 1988 | 68.7 | 66.4 | 68.3 | 71.5 | 71.4 |
| 1989 | 70.2 | 66.8 | 67.6 | 73.3 | 71.9 |
| 1990 ³ | 72.1 | 68.8 | 68.6 | 72.8 | 72.2 |
| 1991 | 74.0 | 71.5 | 69.9 | 72.6 | 73.5 |
| 1992 | 74.6 | 72.8 | 70.3 | 73.4 | 75.0 |
| 1993 | 74.7 | 73.8 | 71.3 | 73.7 | 75.8 |
| 1994 ³ | 73.1 | 74.9 | 70.8 | 72.0 | 76.7 |
| 1995 | 72.7 | 75.4 | 70.2 | 71.6 | 78.2 |
| 1996 | 74.1 | 75.2 | 70.7 | 73.1 | 75.2 |
| 1997 ³ | 75.1 | 75.2 | 70.8 | 73.8 | 75.0 |
| 1998 ³ | 75.9 | 73.7 | 70.9 | 74.0 | 75.3 |
| 1999 ³ | 74.4 | 73.5 | 69.8 | 73.5 | 75.7 |
| 2000 ³ | 74.5 | 74.9 | 71.2 | 73.1 | 74.1 |
| 2001 | 75.3 | 75.4 | 72.7 | 71.9 | 74.7 |
| 2002 | 77.6 | 77.1 | 74.3 | 74.3 | 74.2 |
| 2003 ³ | 78.5 | 76.7 | 75.6 | 75.7 | 73.6 |
| 2004 ³ | 78.7 | 74.9 | 75.6 | 75.8 | 75.2 |

¹ Includes persons with a high school diploma or equivalent.² Includes persons with a bachelor's, master's, professional, and doctoral degree.³ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of*Employment and Earnings*, a monthly BLS periodical.⁴ These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. See Technical Note.

Table 15. Median hourly earnings of wage and salary workers paid hourly rates in constant (2004) dollars by sex and age, 1979-2004 annual averages

| Year and sex | Total, 16 years and over | 16 to 24 years | | | 25 years and over | | | | | |
|-------------------|--------------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|-------------------|
| | | Total | 16 to 19 years | 20 to 24 years | Total | 25 to 34 years | 35 to 44 years | 45 to 54 years | 55 to 64 years | 65 years and over |
| BOTH SEXES | | | | | | | | | | |
| 1979 | \$10.72 | \$8.43 | \$7.50 | \$9.72 | \$12.34 | \$12.56 | \$12.78 | \$12.46 | \$12.00 | \$7.80 |
| 1980 | 10.49 | 8.08 | 7.01 | 9.32 | 12.06 | 12.29 | 12.51 | 12.28 | 11.72 | 7.75 |
| 1981 | 10.24 | 7.90 | 7.12 | 9.18 | 11.91 | 12.11 | 12.33 | 11.95 | 11.55 | 7.79 |
| 1982 | 10.13 | 7.80 | 6.77 | 8.75 | 11.78 | 11.90 | 12.40 | 12.04 | 11.46 | 7.74 |
| 1983 | 10.08 | 7.35 | 6.51 | 8.45 | 11.79 | 11.70 | 12.45 | 12.12 | 11.54 | 7.92 |
| 1984 | 10.10 | 7.25 | 6.33 | 8.35 | 11.85 | 11.72 | 12.43 | 12.27 | 11.47 | 8.03 |
| 1985 | 10.12 | 7.15 | 6.17 | 8.30 | 11.82 | 11.61 | 12.57 | 12.37 | 11.59 | 7.95 |
| 1986 | 10.22 | 7.27 | 6.12 | 8.54 | 11.91 | 11.55 | 12.83 | 12.74 | 11.80 | 8.18 |
| 1987 | 10.30 | 7.31 | 6.07 | 8.30 | 11.87 | 11.45 | 12.63 | 12.52 | 11.80 | 8.05 |
| 1988 | 10.33 | 7.36 | 6.19 | 8.27 | 11.89 | 11.42 | 12.55 | 12.53 | 11.49 | 8.04 |
| 1989 | 10.30 | 7.29 | 6.22 | 8.33 | 11.70 | 11.25 | 12.60 | 12.40 | 11.52 | 7.98 |
| 1990 | 10.16 | 7.25 | 6.31 | 8.31 | 11.46 | 11.10 | 12.38 | 12.35 | 11.26 | 8.08 |
| 1991 | 10.17 | 7.14 | 6.36 | 8.14 | 11.49 | 10.89 | 12.42 | 12.34 | 11.09 | 8.05 |
| 1992 | 10.20 | 7.10 | 6.25 | 7.97 | 11.53 | 10.79 | 12.39 | 12.57 | 11.21 | 8.12 |
| 1993 | 10.14 | 7.10 | 6.18 | 7.83 | 11.53 | 10.86 | 12.38 | 12.71 | 11.47 | 8.24 |
| 1994 | 10.12 | 7.10 | 6.20 | 7.88 | 11.52 | 10.58 | 12.52 | 12.65 | 11.39 | 8.06 |
| 1995 | 10.07 | 7.16 | 6.21 | 7.92 | 11.54 | 10.74 | 12.36 | 12.49 | 11.34 | 8.20 |
| 1996 | 10.08 | 7.13 | 6.21 | 8.04 | 11.54 | 10.58 | 12.18 | 12.29 | 11.27 | 8.13 |
| 1997 | 10.28 | 7.23 | 6.47 | 8.12 | 11.59 | 10.63 | 12.17 | 12.45 | 11.44 | 8.10 |
| 1998 | 10.55 | 7.63 | 6.81 | 8.39 | 11.73 | 11.18 | 12.58 | 12.70 | 11.68 | 8.58 |
| 1999 | 10.82 | 7.81 | 6.91 | 8.79 | 11.89 | 11.32 | 12.51 | 12.86 | 11.78 | 8.74 |
| 2000 | 10.86 | 7.94 | 7.03 | 8.85 | 11.93 | 11.16 | 12.44 | 12.96 | 11.86 | 8.82 |
| 2001 | 10.87 | 8.21 | 7.21 | 8.94 | 12.17 | 11.38 | 12.78 | 12.99 | 12.14 | 9.11 |
| 2002 | 11.00 | 8.20 | 7.28 | 8.90 | 12.43 | 11.53 | 12.80 | 13.09 | 12.45 | 9.52 |
| 2003 | 11.14 | 8.11 | 7.11 | 8.89 | 12.58 | 11.55 | 12.79 | 13.52 | 12.51 | 9.44 |
| 2004 | 11.00 | 7.98 | 7.00 | 8.78 | 12.23 | 11.37 | 12.66 | 13.23 | 12.58 | 9.62 |
| WOMEN | | | | | | | | | | |
| 1979 | 8.74 | 7.70 | 7.32 | 8.49 | 9.41 | 9.76 | 9.59 | 9.28 | 9.07 | 7.55 |
| 1980 | 8.60 | 7.50 | 6.83 | 8.25 | 9.22 | 9.66 | 9.32 | 9.19 | 8.87 | 7.36 |
| 1981 | 8.50 | 7.37 | 7.00 | 8.14 | 9.33 | 9.72 | 9.49 | 9.13 | 8.80 | 7.39 |
| 1982 | 8.64 | 7.10 | 6.67 | 7.87 | 9.43 | 9.74 | 9.53 | 9.29 | 9.01 | 7.38 |
| 1983 | 8.66 | 6.86 | 6.41 | 7.67 | 9.42 | 9.60 | 9.56 | 9.35 | 9.14 | 7.50 |
| 1984 | 8.61 | 6.81 | 6.23 | 7.56 | 9.50 | 9.71 | 9.72 | 9.55 | 9.14 | 7.58 |
| 1985 | 8.62 | 6.73 | 6.06 | 7.66 | 9.62 | 9.71 | 9.91 | 9.66 | 9.16 | 7.44 |
| 1986 | 8.79 | 6.77 | 6.02 | 7.77 | 9.80 | 9.80 | 10.10 | 9.87 | 9.47 | 7.80 |
| 1987 | 8.91 | 6.72 | 5.91 | 7.79 | 9.81 | 9.78 | 10.11 | 9.89 | 9.60 | 7.73 |
| 1988 | 8.97 | 6.69 | 6.01 | 7.77 | 9.89 | 9.77 | 10.35 | 10.12 | 9.34 | 7.88 |
| 1989 | 9.00 | 6.91 | 6.04 | 7.70 | 9.99 | 9.84 | 10.45 | 10.17 | 9.39 | 7.57 |
| 1990 | 9.04 | 6.95 | 6.12 | 7.83 | 9.93 | 9.84 | 10.35 | 10.05 | 9.45 | 7.65 |
| 1991 | 9.15 | 6.89 | 6.29 | 7.73 | 9.95 | 9.74 | 10.48 | 10.31 | 9.42 | 7.80 |
| 1992 | 9.19 | 6.83 | 6.20 | 7.83 | 10.11 | 9.84 | 10.55 | 10.48 | 9.51 | 7.89 |
| 1993 | 9.18 | 6.79 | 6.10 | 7.89 | 10.14 | 9.81 | 10.51 | 10.54 | 9.74 | 7.97 |
| 1994 | 9.15 | 6.73 | 6.11 | 7.55 | 10.18 | 9.83 | 10.65 | 10.68 | 9.87 | 7.86 |
| 1995 | 9.19 | 6.77 | 6.09 | 7.52 | 10.08 | 9.76 | 10.64 | 10.76 | 9.78 | 7.95 |
| 1996 | 9.28 | 6.82 | 6.12 | 7.52 | 10.13 | 9.88 | 10.87 | 10.73 | 9.68 | 7.75 |
| 1997 | 9.33 | 7.00 | 6.37 | 7.70 | 10.29 | 9.64 | 10.75 | 10.88 | 9.76 | 8.02 |
| 1998 | 9.54 | 7.23 | 6.70 | 8.03 | 10.58 | 10.19 | 11.19 | 11.33 | 10.25 | 8.35 |
| 1999 | 9.81 | 7.50 | 6.79 | 8.19 | 10.62 | 10.33 | 11.15 | 11.30 | 10.59 | 8.52 |
| 2000 | 9.94 | 7.68 | 6.83 | 8.55 | 10.85 | 10.62 | 10.99 | 11.16 | 10.79 | 8.62 |
| 2001 | 10.28 | 7.73 | 7.06 | 8.53 | 10.89 | 10.81 | 11.14 | 11.58 | 11.08 | 8.69 |
| 2002 | 10.39 | 7.82 | 7.14 | 8.52 | 11.25 | 10.63 | 11.53 | 11.74 | 11.36 | 9.17 |
| 2003 | 10.35 | 7.79 | 7.03 | 8.41 | 11.31 | 10.79 | 11.47 | 12.10 | 11.34 | 9.08 |
| 2004 | 10.17 | 7.71 | 6.86 | 8.32 | 11.23 | 10.62 | 11.45 | 11.95 | 11.57 | 9.18 |

See footnotes at end of table.

Table 15. Median hourly earnings of wage and salary workers paid hourly rates in constant (2004) dollars by sex and age. 1979-2004 annual averages — Continued

| Year and sex | Total, 16 years and over | 16 to 24 years | | | 25 years and over | | | | | |
|--|--------------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|----------------|-------------------|
| | | Total | 16 to 19 years | 20 to 24 years | Total | 25 to 34 years | 35 to 44 years | 45 to 54 years | 55 to 64 years | 65 years and over |
| MEN | | | | | | | | | | |
| 1979 | \$13.64 | \$9.43 | \$7.71 | \$11.21 | \$16.15 | \$15.39 | \$17.18 | \$17.13 | \$15.89 | \$8.61 |
| 1980 | 13.24 | 8.92 | 7.34 | 10.69 | 15.68 | 15.04 | 16.96 | 16.91 | 15.72 | 8.24 |
| 1981 | 13.05 | 8.58 | 7.25 | 10.16 | 15.46 | 14.57 | 16.48 | 16.87 | 15.66 | 8.38 |
| 1982 | 12.85 | 8.21 | 6.87 | 9.61 | 15.15 | 14.37 | 16.66 | 16.65 | 15.27 | 8.38 |
| 1983 | 12.46 | 7.90 | 6.61 | 9.09 | 14.97 | 13.94 | 16.59 | 16.49 | 15.74 | 8.56 |
| 1984 | 12.34 | 7.92 | 6.45 | 8.95 | 14.90 | 13.66 | 16.47 | 16.78 | 15.35 | 8.51 |
| 1985 | 12.30 | 7.86 | 6.31 | 8.79 | 14.84 | 13.41 | 16.44 | 16.72 | 15.16 | 8.37 |
| 1986 ¹ | 12.50 | 7.90 | 6.30 | 8.94 | 14.65 | 13.23 | 16.45 | 16.70 | 15.70 | 8.54 |
| 1987 | 12.37 | 7.82 | 6.30 | 9.04 | 14.59 | 13.15 | 16.07 | 16.29 | 15.46 | 8.47 |
| 1988 | 12.15 | 7.73 | 6.36 | 8.90 | 14.40 | 12.61 | 15.69 | 16.42 | 14.96 | 8.49 |
| 1989 | 11.92 | 7.62 | 6.47 | 8.87 | 14.29 | 12.61 | 15.59 | 16.02 | 14.72 | 8.69 |
| 1990 ¹ | 11.61 | 7.64 | 6.52 | 8.68 | 13.82 | 12.40 | 15.07 | 15.63 | 14.28 | 8.54 |
| 1991 | 11.84 | 7.56 | 6.43 | 8.45 | 13.51 | 12.12 | 14.88 | 15.65 | 13.65 | 8.42 |
| 1992 | 11.45 | 7.46 | 6.34 | 8.25 | 13.28 | 11.91 | 14.44 | 15.87 | 13.71 | 8.53 |
| 1993 | 11.42 | 7.41 | 6.28 | 8.17 | 13.11 | 11.72 | 14.38 | 15.65 | 14.12 | 8.65 |
| 1994 ¹ | 11.36 | 7.42 | 6.30 | 8.29 | 12.99 | 11.49 | 14.52 | 15.27 | 13.96 | 8.38 |
| 1995 | 11.38 | 7.45 | 6.35 | 8.41 | 13.22 | 11.67 | 14.65 | 15.18 | 13.70 | 8.45 |
| 1996 | 11.43 | 7.41 | 6.31 | 8.40 | 12.94 | 11.64 | 14.29 | 14.88 | 13.38 | 8.45 |
| 1997 ¹ | 11.55 | 7.58 | 6.60 | 8.44 | 13.04 | 11.86 | 14.18 | 15.03 | 13.88 | 8.18 |
| 1998 ¹ | 11.65 | 8.01 | 6.93 | 9.01 | 13.58 | 11.84 | 14.45 | 15.10 | 14.16 | 8.97 |
| 1999 ¹ | 11.70 | 8.08 | 7.02 | 9.12 | 13.62 | 12.30 | 14.50 | 15.52 | 13.88 | 8.93 |
| 2000 ¹ | 11.85 | 8.37 | 7.29 | 9.20 | 13.42 | 12.03 | 14.41 | 15.24 | 14.05 | 9.11 |
| 2001 | 12.08 | 8.55 | 7.37 | 9.52 | 13.75 | 12.35 | 14.86 | 15.21 | 13.82 | 9.01 |
| 2002 | 12.23 | 8.48 | 7.38 | 9.32 | 13.71 | 12.49 | 14.86 | 15.13 | 14.05 | 10.27 |
| 2003 ¹ | 12.21 | 8.36 | 7.21 | 9.24 | 13.90 | 12.53 | 14.51 | 15.33 | 14.48 | 10.05 |
| 2004 ¹ | 12.02 | 8.21 | 7.15 | 9.07 | 13.74 | 12.03 | 14.60 | 15.11 | 14.54 | 9.90 |
| WOMEN'S EARNINGS AS PERCENT OF MEN'S ² | | | | | | | | | | |
| 1979 | 84.0 | 81.7 | 94.9 | 75.8 | 58.3 | 83.4 | 56.8 | 54.1 | 57.0 | 67.7 |
| 1980 | 84.9 | 84.1 | 93.1 | 77.2 | 58.8 | 84.2 | 54.9 | 54.4 | 56.4 | 69.3 |
| 1981 | 85.2 | 85.0 | 96.6 | 80.2 | 60.3 | 86.7 | 57.6 | 54.1 | 56.2 | 88.1 |
| 1982 | 87.3 | 86.5 | 97.1 | 81.8 | 62.2 | 87.8 | 57.2 | 55.8 | 59.0 | 88.1 |
| 1983 | 89.5 | 87.1 | 96.9 | 84.4 | 63.0 | 70.3 | 57.6 | 56.7 | 58.0 | 87.6 |
| 1984 | 89.8 | 86.0 | 96.6 | 84.5 | 63.8 | 71.1 | 59.0 | 56.9 | 59.5 | 89.1 |
| 1985 | 70.1 | 85.7 | 96.1 | 87.2 | 64.8 | 72.4 | 60.3 | 57.8 | 60.4 | 88.9 |
| 1986 ¹ | 70.3 | 85.8 | 95.5 | 86.9 | 66.0 | 74.1 | 61.4 | 59.1 | 60.3 | 91.3 |
| 1987 | 72.0 | 86.0 | 93.7 | 83.2 | 67.3 | 74.4 | 62.9 | 61.4 | 62.1 | 91.2 |
| 1988 | 73.9 | 89.1 | 94.4 | 87.3 | 68.7 | 75.7 | 66.2 | 61.8 | 62.5 | 92.8 |
| 1989 | 75.5 | 90.8 | 93.4 | 86.9 | 69.9 | 78.1 | 67.0 | 63.5 | 63.8 | 87.2 |
| 1990 ¹ | 77.9 | 91.0 | 93.8 | 90.2 | 71.9 | 79.4 | 68.7 | 64.3 | 66.2 | 89.6 |
| 1991 | 78.6 | 91.2 | 97.8 | 91.6 | 73.6 | 80.4 | 70.4 | 65.0 | 66.0 | 92.6 |
| 1992 | 80.2 | 91.4 | 97.7 | 92.5 | 76.1 | 82.6 | 73.1 | 66.0 | 69.4 | 92.5 |
| 1993 | 80.4 | 91.6 | 97.2 | 94.1 | 77.3 | 83.7 | 73.1 | 67.3 | 69.0 | 92.2 |
| 1994 ¹ | 80.5 | 90.6 | 97.0 | 91.1 | 78.2 | 85.5 | 73.4 | 69.9 | 70.7 | 94.0 |
| 1995 | 80.8 | 90.9 | 96.0 | 89.4 | 76.2 | 83.7 | 72.6 | 70.9 | 71.4 | 94.1 |
| 1996 | 81.2 | 92.0 | 96.9 | 89.5 | 78.3 | 83.1 | 74.7 | 72.1 | 72.4 | 91.7 |
| 1997 ¹ | 80.8 | 92.3 | 96.6 | 91.3 | 78.9 | 82.7 | 75.8 | 72.4 | 70.5 | 98.1 |
| 1998 ¹ | 81.8 | 90.3 | 96.7 | 89.1 | 77.9 | 86.1 | 77.4 | 75.0 | 72.4 | 93.1 |
| 1999 ¹ | 83.8 | 92.7 | 96.7 | 89.8 | 79.4 | 84.0 | 76.9 | 72.8 | 78.4 | 95.4 |
| 2000 ¹ | 83.9 | 91.8 | 93.8 | 92.9 | 80.8 | 88.3 | 76.3 | 73.2 | 76.8 | 94.6 |
| 2001 | 85.1 | 90.5 | 95.8 | 89.6 | 79.2 | 85.9 | 75.0 | 76.2 | 80.2 | 90.4 |
| 2002 | 85.0 | 92.5 | 96.8 | 91.4 | 82.1 | 85.1 | 78.6 | 77.6 | 80.8 | 89.2 |
| 2003 ¹ | 84.8 | 93.2 | 97.6 | 91.1 | 83.1 | 87.6 | 79.0 | 79.0 | 78.4 | 90.4 |
| 2004 ¹ | 84.6 | 93.9 | 95.9 | 91.7 | 81.7 | 88.3 | 78.4 | 79.1 | 79.8 | 92.5 |

¹ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of Employment and Earnings, a monthly BLS periodical.

² These figures are computed using unrounded medians and may differ

slightly from percenta computed using the rounded medians displayed in this table.

NOTE: The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. See Technical Note.

Table 16 Median hourly earnings of wage and salary workers paid hourly rates in constant (2004) dollars by sex, race, and Hispanic or Latino ethnicity, 1979-2004 annual averages

| Year and sex | Total, 16 years and over | White | Black or African American | Asian | Hispanic or Latino |
|-------------------|--------------------------|---------|---------------------------|---------|--------------------|
| BOTH SEXES | | | | | |
| 1979 | \$10.72 | \$10.88 | \$9.92 | - | \$9.85 |
| 1980 | 10.48 | 10.60 | 9.68 | - | 9.65 |
| 1981 | 10.24 | 10.31 | 9.75 | - | 9.56 |
| 1982 | 10.13 | 10.26 | 9.50 | - | 9.40 |
| 1983 | 10.08 | 10.21 | 9.27 | - | 9.17 |
| 1984 | 10.10 | 10.22 | 9.30 | - | 9.14 |
| 1985 | 10.12 | 10.24 | 9.23 | - | 9.18 |
| 1986 | 10.22 | 10.34 | 9.56 | - | 9.31 |
| 1987 | 10.30 | 10.45 | 9.54 | - | 9.27 |
| 1988 | 10.33 | 10.46 | 9.45 | - | 9.14 |
| 1989 | 10.30 | 10.43 | 9.46 | - | 8.95 |
| 1990 ¹ | 10.16 | 10.30 | 9.56 | - | 8.82 |
| 1991 | 10.17 | 10.31 | 9.48 | - | 8.76 |
| 1992 | 10.20 | 10.33 | 9.33 | - | 8.78 |
| 1993 | 10.14 | 10.27 | 9.25 | - | 8.60 |
| 1994 ¹ | 10.12 | 10.24 | 9.21 | - | 8.75 |
| 1995 | 10.07 | 10.25 | 9.45 | - | 8.64 |
| 1996 | 10.08 | 10.29 | 9.31 | - | 8.61 |
| 1997 ¹ | 10.28 | 10.44 | 9.41 | - | 8.69 |
| 1998 ¹ | 10.55 | 10.68 | 9.72 | - | 9.18 |
| 1999 ¹ | 10.82 | 11.05 | 10.04 | - | 9.17 |
| 2000 ¹ | 10.86 | 10.92 | 10.24 | \$11.04 | 9.36 |
| 2001 | 10.87 | 10.94 | 10.44 | 11.47 | 9.67 |
| 2002 | 11.00 | 11.25 | 10.43 | 10.88 | 9.69 |
| 2003 ¹ | 11.14 | 11.26 | 10.42 | 11.41 | 10.02 |
| 2004 ¹ | 11.00 | 11.13 | 10.19 | 11.10 | 9.81 |
| WOMEN | | | | | |
| 1979 | 8.74 | 8.75 | 8.57 | - | 8.31 |
| 1980 | 8.60 | 8.61 | 8.44 | - | 8.22 |
| 1981 | 8.50 | 8.52 | 8.34 | - | 8.16 |
| 1982 | 8.64 | 8.66 | 8.43 | - | 8.14 |
| 1983 | 8.66 | 8.66 | 8.50 | - | 7.97 |
| 1984 | 8.61 | 8.63 | 8.45 | - | 8.07 |
| 1985 | 8.62 | 8.63 | 8.46 | - | 8.10 |
| 1986 ¹ | 8.79 | 8.82 | 8.52 | - | 8.24 |
| 1987 | 8.91 | 8.94 | 8.61 | - | 8.14 |
| 1988 | 8.97 | 9.01 | 8.63 | - | 8.11 |
| 1989 | 9.00 | 9.03 | 8.66 | - | 8.15 |
| 1990 ¹ | 9.04 | 9.08 | 8.75 | - | 8.15 |
| 1991 | 9.15 | 9.17 | 8.88 | - | 8.11 |
| 1992 | 9.19 | 9.24 | 8.77 | - | 8.16 |
| 1993 | 9.18 | 9.22 | 8.86 | - | 8.14 |
| 1994 ¹ | 9.15 | 9.27 | 8.75 | - | 8.09 |
| 1995 | 9.19 | 9.30 | 8.78 | - | 8.14 |
| 1996 | 9.28 | 9.35 | 8.64 | - | 8.13 |
| 1997 | 9.33 | 9.40 | 8.91 | - | 8.01 |
| 1998 ¹ | 9.54 | 9.66 | 9.15 | - | 8.36 |
| 1999 ¹ | 9.81 | 9.91 | 9.23 | - | 8.47 |
| 2000 ¹ | 9.94 | 9.97 | 9.71 | 10.72 | 8.66 |
| 2001 | 10.28 | 10.39 | 9.77 | 10.74 | 8.84 |
| 2002 | 10.39 | 10.44 | 9.93 | 10.61 | 8.97 |
| 2003 ¹ | 10.35 | 10.38 | 10.17 | 10.97 | 9.12 |
| 2004 ¹ | 10.17 | 10.21 | 9.93 | 10.57 | 9.04 |

See footnotes at end of table.

Table 16. Median hourly earnings of wage and salary workers paid hourly rates in constant (2004) dollars by sex, race, and Hispanic or Latino ethnicity, 1979-2004 annual averages—Continued

| Year and sex | Total, 16 years and over | White | Black or African American | Asian | Hispanic or Latino |
|--|--------------------------|---------|---------------------------|---------|--------------------|
| MEN | | | | | |
| 1979 | \$13.64 | \$13.98 | \$11.80 | — | \$11.57 |
| 1980 | 13.24 | 13.53 | 11.26 | — | 10.93 |
| 1981 | 13.05 | 13.34 | 11.54 | — | 10.67 |
| 1982 | 12.85 | 13.09 | 11.21 | — | 10.75 |
| 1983 | 12.46 | 12.73 | 10.73 | — | 10.47 |
| 1984 | 12.34 | 12.58 | 10.67 | — | 10.48 |
| 1985 | 12.30 | 12.72 | 10.31 | — | 10.18 |
| 1986 ¹ | 12.50 | 12.62 | 10.92 | — | 10.20 |
| 1987 | 12.37 | 11.63 | 10.73 | — | 10.14 |
| 1988 | 12.15 | 12.37 | 10.66 | — | 9.99 |
| 1989 | 11.92 | 12.20 | 10.42 | — | 9.81 |
| 1990 ¹ | 11.61 | 12.01 | 10.35 | — | 9.47 |
| 1991 | 11.64 | 11.95 | 10.26 | — | 9.33 |
| 1992 | 11.45 | 11.74 | 10.07 | — | 9.23 |
| 1993 | 11.42 | 11.69 | 9.88 | — | 9.18 |
| 1994 ¹ | 11.36 | 11.62 | 10.00 | — | 9.05 |
| 1995 | 11.38 | 11.66 | 10.06 | — | 8.95 |
| 1996 | 11.43 | 11.75 | 9.82 | — | 9.15 |
| 1997 ¹ | 11.55 | 11.70 | 10.19 | — | 8.28 |
| 1998 ¹ | 11.65 | 11.79 | 10.83 | — | 9.55 |
| 1999 ¹ | 11.70 | 12.05 | 11.09 | — | 9.78 |
| 2000 ¹ | 11.85 | 12.01 | 10.94 | \$11.83 | 9.91 |
| 2001 | 12.08 | 12.39 | 10.66 | 12.64 | 10.32 |
| 2002 | 12.23 | 12.46 | 10.75 | 11.58 | 10.42 |
| 2003 ¹ | 12.21 | 12.35 | 11.10 | 12.21 | 10.30 |
| 2004 ¹ | 12.02 | 12.16 | 10.88 | 11.90 | 10.02 |
| WOMEN'S EARNINGS AS PERCENT OF MEN'S ² | | | | | |
| 1979 | 84.0 | 62.6 | 72.6 | — | 71.8 |
| 1980 | 84.9 | 63.6 | 75.0 | — | 75.2 |
| 1981 | 85.2 | 63.9 | 72.2 | — | 76.4 |
| 1982 | 87.3 | 66.1 | 75.3 | — | 75.7 |
| 1983 | 89.5 | 68.1 | 79.3 | — | 76.1 |
| 1984 | 89.8 | 68.6 | 79.2 | — | 77.1 |
| 1985 | 70.1 | 67.8 | 82.0 | — | 79.5 |
| 1986 ¹ | 70.3 | 66.8 | 78.8 | — | 80.8 |
| 1987 | 72.0 | 70.8 | 80.2 | — | 80.3 |
| 1988 | 73.9 | 72.6 | 80.9 | — | 81.2 |
| 1989 | 75.5 | 74.1 | 83.2 | — | 83.1 |
| 1990 ¹ | 77.9 | 75.6 | 84.5 | — | 86.1 |
| 1991 | 78.6 | 76.7 | 86.6 | — | 86.9 |
| 1992 | 80.2 | 78.7 | 87.2 | — | 88.4 |
| 1993 | 80.4 | 79.9 | 89.6 | — | 88.7 |
| 1994 ¹ | 80.6 | 79.7 | 87.5 | — | 89.3 |
| 1995 | 80.8 | 78.4 | 87.3 | — | 90.9 |
| 1996 | 81.2 | 79.6 | 88.0 | — | 88.9 |
| 1997 ¹ | 80.8 | 80.3 | 87.5 | — | 86.3 |
| 1998 ¹ | 81.8 | 81.9 | 86.9 | — | 87.5 |
| 1999 ¹ | 83.8 | 82.3 | 83.2 | — | 86.7 |
| 2000 ¹ | 83.9 | 83.0 | 88.7 | 90.6 | 87.4 |
| 2001 | 85.1 | 83.9 | 89.9 | 85.0 | 85.7 |
| 2002 | 85.0 | 83.8 | 92.3 | 91.7 | 86.1 |
| 2003 ¹ | 84.8 | 84.1 | 91.6 | 89.8 | 88.6 |
| 2004 ¹ | 84.6 | 84.0 | 91.3 | 88.8 | 90.2 |

¹ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of *Employment and Earnings*, a monthly BLS periodical.

² These figures are computed using unrounded medians and may differ slightly from percents computed using the rounded medians displayed in this table.

³ Data not available.

NOTE: Beginning in 2003, estimates for the above race groups (white, black or African American, and Asian) include persons who selected this race group only; persons who selected more than one race

group are not included. Prior to 2003, persons who reported more than one race were included in the group they identified as the main race. Estimates for the race groups will not sum to totals because data are not presented for all races. Persons whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race. Data for 2000-02 are for the category Asians and Pacific Islanders. Starting in 2003, Asians constitute a separate category. For more information, see the Explanatory Notes and Estimates of Error section of *Employment and Earnings*. Data for Asians were not tabulated prior to 2000. The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. See Technical Note.

Table 17. Wage and salary workers paid hourly rates with earnings at or below the prevailing Federal minimum wage by sex, 1979-2004 annual averages

(Numbers in thousands)

| Year and sex | Total wage and salary workers | Workers paid hourly rates | | | | Total at or below prevailing Federal minimum wage | |
|-------------------|-------------------------------|---------------------------|--|---------------------------------------|------------------------------------|---|--------------------------------|
| | | Total | Percent of total wage and salary workers | Below prevailing Federal minimum wage | At prevailing Federal minimum wage | Number | Percent of hourly paid workers |
| | | | | | | | |
| BOTH SEXES | | | | | | | |
| 1979 | 87,529 | 51,721 | 59.1 | 2,916 | 3,997 | 6,912 | 13.4 |
| 1980 | 87,644 | 51,335 | 58.6 | 3,087 | 4,588 | 7,773 | 15.1 |
| 1981 | 88,516 | 51,869 | 58.6 | 3,513 | 4,311 | 7,824 | 15.1 |
| 1982 | 87,358 | 50,846 | 58.2 | 2,348 | 4,148 | 6,496 | 12.8 |
| 1983 | 88,290 | 51,820 | 58.7 | 2,077 | 4,261 | 6,338 | 12.2 |
| 1984 | 92,194 | 54,143 | 58.7 | 1,838 | 4,125 | 5,963 | 11.0 |
| 1985 | 94,521 | 55,762 | 59.0 | 1,859 | 3,899 | 5,538 | 9.9 |
| 1986 | 95,903 | 57,529 | 59.4 | 1,599 | 3,461 | 5,060 | 8.6 |
| 1987 | 99,303 | 59,552 | 60.0 | 1,468 | 3,229 | 4,899 | 7.9 |
| 1988 | 101,407 | 60,878 | 60.0 | 1,319 | 2,808 | 3,927 | 6.5 |
| 1989 | 103,480 | 62,389 | 60.3 | 1,372 | 1,790 | 3,162 | 5.1 |
| 1990 ¹ | 104,876 | 63,172 | 60.2 | ² 1,332 | ² 1,096 | ² 3,228 | ² 5.1 |
| 1991 | 103,723 | 62,627 | 60.4 | ² 2,377 | ² 2,906 | ² 5,283 | ² 8.4 |
| 1992 | 104,668 | 63,610 | 60.8 | 1,939 | 2,982 | 4,921 | 7.7 |
| 1993 | 106,101 | 64,274 | 60.6 | 1,707 | 2,825 | 4,332 | 6.7 |
| 1994 ¹ | 107,889 | 66,549 | 61.6 | 1,995 | 2,132 | 4,128 | 6.2 |
| 1995 | 110,038 | 68,354 | 62.1 | 1,929 | 1,956 | 3,656 | 5.3 |
| 1996 | 111,960 | 68,255 | 61.0 | ² 1,663 | ² 1,861 | ² 3,724 | ² 5.4 |
| 1997 ¹ | 114,533 | 70,735 | 61.8 | ² 2,690 | ² 1,784 | ² 4,754 | ² 6.7 |
| 1998 ¹ | 118,730 | 71,440 | 61.2 | 2,834 | 1,559 | 4,427 | 6.2 |
| 1999 ¹ | 118,953 | 72,306 | 60.8 | 2,194 | 1,146 | 3,340 | 4.6 |
| 2000 ¹ | 122,089 | 73,486 | 60.2 | 1,752 | 898 | 2,650 | 3.6 |
| 2001 | 122,229 | 73,392 | 60.0 | 1,518 | 656 | 2,174 | 3.0 |
| 2002 | 121,826 | 72,505 | 59.5 | 1,579 | 587 | 2,146 | 3.0 |
| 2003 ¹ | 122,358 | 72,948 | 59.6 | 1,555 | 545 | 2,100 | 2.9 |
| 2004 ¹ | 123,554 | 73,939 | 59.8 | 1,463 | 520 | 2,003 | 2.7 |
| WOMEN | | | | | | | |
| 1979 | 38,129 | 23,329 | 61.2 | 2,070 | 2,644 | 4,714 | 20.2 |
| 1980 | 38,944 | 23,626 | 60.7 | 2,104 | 2,990 | 5,095 | 21.6 |
| 1981 | 39,872 | 24,294 | 61.2 | 2,394 | 2,776 | 5,172 | 21.3 |
| 1982 | 39,777 | 24,365 | 61.3 | 1,651 | 2,561 | 4,212 | 17.3 |
| 1983 | 40,433 | 24,989 | 61.8 | 1,492 | 2,603 | 4,095 | 16.4 |
| 1984 | 42,172 | 26,003 | 61.7 | 1,348 | 2,499 | 3,847 | 14.8 |
| 1985 | 43,506 | 26,869 | 61.8 | 1,198 | 2,356 | 3,554 | 13.2 |
| 1986 ¹ | 44,961 | 27,853 | 62.0 | 1,192 | 2,125 | 3,317 | 11.9 |
| 1987 | 46,365 | 28,078 | 62.7 | 1,105 | 1,948 | 3,051 | 10.5 |
| 1988 | 47,495 | 28,820 | 62.8 | 1,008 | 1,542 | 2,550 | 8.6 |
| 1989 | 48,691 | 30,702 | 63.1 | 994 | 1,056 | 2,050 | 6.7 |
| 1990 ¹ | 49,323 | 31,069 | 63.0 | ² 1,420 | ² 1,711 | ² 2,131 | ² 6.9 |
| 1991 | 49,105 | 30,968 | 63.1 | ² 1,582 | ² 1,792 | ² 3,374 | ² 10.9 |
| 1992 | 49,842 | 31,454 | 63.1 | 1,288 | 1,751 | 3,036 | 9.7 |
| 1993 | 50,626 | 31,937 | 63.1 | 1,133 | 1,534 | 2,667 | 8.4 |
| 1994 ¹ | 51,419 | 33,021 | 64.2 | 1,322 | 1,241 | 2,563 | 7.8 |
| 1995 | 52,369 | 33,934 | 64.8 | 1,157 | 1,181 | 2,318 | 6.8 |
| 1996 | 53,468 | 34,418 | 64.3 | ² 1,244 | ² 1,106 | ² 2,350 | ² 6.8 |
| 1997 ¹ | 54,708 | 35,214 | 64.4 | ² 1,843 | ² 1,092 | ² 2,935 | ² 8.3 |
| 1998 ¹ | 55,757 | 35,880 | 64.0 | 1,794 | 965 | 2,760 | 7.7 |
| 1999 ¹ | 57,090 | 36,233 | 63.5 | 1,426 | 700 | 2,126 | 5.9 |
| 2000 ¹ | 58,427 | 38,777 | 62.9 | 1,170 | 579 | 1,748 | 4.8 |
| 2001 | 58,582 | 38,848 | 62.9 | 1,021 | 409 | 1,430 | 3.9 |
| 2002 | 58,555 | 38,506 | 62.3 | 997 | 350 | 1,347 | 3.7 |
| 2003 ¹ | 59,122 | 37,093 | 62.7 | 1,062 | 332 | 1,394 | 3.8 |
| 2004 ¹ | 59,408 | 37,133 | 62.5 | 1,013 | 310 | 1,323 | 3.6 |

See footnotes at end of table.

Table 17 Wage and salary workers paid hourly rates with earnings at or below the prevailing Federal minimum wage by sex, 1979-2004 annual averages— Continued

(Numbers in thousands)

| Year and sex | Total wage and salary workers | Workers paid hourly rates | | | | | Total at or below prevailing Federal minimum wage | |
|-------------------|-------------------------------|---------------------------|--|---------------------------------------|------------------------------------|---|---|--|
| | | Total | Percent of total wage and salary workers | Below prevailing Federal minimum wage | At prevailing Federal minimum wage | Total at or below prevailing Federal minimum wage | | |
| | | | | | | Number | Percent of hourly paid workers | |
| MEN | | | | | | | | |
| 1979 | 49,400 | 28,392 | 57.5 | 846 | 1,353 | 2,199 | 7.7 | |
| 1980 | 48,700 | 27,709 | 56.9 | 983 | 1,696 | 2,678 | 9.7 | |
| 1981 | 48,844 | 27,576 | 56.5 | 1,119 | 1,533 | 2,652 | 9.8 | |
| 1982 | 47,591 | 26,481 | 55.8 | 607 | 1,587 | 2,284 | 8.6 | |
| 1983 | 47,856 | 26,831 | 56.1 | 585 | 1,658 | 2,243 | 8.4 | |
| 1984 | 50,022 | 28,140 | 56.3 | 490 | 1,628 | 2,118 | 7.5 | |
| 1985 | 51,015 | 28,893 | 56.6 | 440 | 1,544 | 1,984 | 6.9 | |
| 1986 | 51,942 | 29,668 | 57.1 | 408 | 1,336 | 1,743 | 6.9 | |
| 1987 | 52,938 | 30,474 | 57.6 | 364 | 1,283 | 1,647 | 5.4 | |
| 1988 | 53,912 | 31,058 | 57.6 | 311 | 1,066 | 1,377 | 4.4 | |
| 1989 | 54,789 | 31,687 | 57.8 | 379 | 733 | 1,112 | 3.5 | |
| 1990 ¹ | 55,553 | 32,104 | 57.8 | ² 712 | ² 385 | ² 1,097 | ² 3.4 | |
| 1991 | 54,618 | 31,639 | 57.9 | ² 795 | ² 1,114 | ² 1,909 | ² 6.0 | |
| 1992 | 54,826 | 32,155 | 58.6 | 653 | 1,231 | 1,885 | 5.9 | |
| 1993 | 55,475 | 32,337 | 58.3 | 573 | 1,091 | 1,664 | 5.1 | |
| 1994 | 56,570 | 33,528 | 59.3 | 674 | 891 | 1,565 | 4.7 | |
| 1995 | 57,669 | 34,420 | 59.7 | 542 | 796 | 1,338 | 3.9 | |
| 1996 | 58,473 | 34,838 | 59.6 | ² 619 | ² 755 | ² 1,374 | ² 3.9 | |
| 1997 | 59,825 | 35,521 | 59.4 | ² 1,147 | ² 673 | ² 1,820 | ² 5.1 | |
| 1998 | 60,973 | 35,761 | 58.7 | 1,039 | 628 | 1,667 | 4.7 | |
| 1999 | 61,914 | 36,073 | 58.3 | 768 | 448 | 1,214 | 3.4 | |
| 2000 | 63,662 | 36,720 | 57.7 | 582 | 319 | 901 | 2.5 | |
| 2001 | 63,847 | 38,544 | 57.4 | 497 | 247 | 745 | 2.0 | |
| 2002 | 63,272 | 36,000 | 56.9 | 532 | 217 | 799 | 2.2 | |
| 2003 | 63,226 | 35,853 | 56.7 | 493 | 213 | 706 | 2.0 | |
| 2004 | 64,145 | 36,806 | 57.4 | 470 | 210 | 680 | 1.8 | |

¹ The comparability of historical labor force data has been affected at various times by methodological and conceptual changes in the Current Population Survey (CPS). For an explanation, see the Explanatory Notes and Estimates of Error section of the February 2005 and subsequent issues of *Employment and Earnings*, a monthly BLS periodical.

² Data for 1990-91 and 1996-97 reflect changes in the minimum wage that

took place in those years.

NOTE: The prevailing Federal minimum wage was \$2.00 in 1979, \$3.10 in 1980, and \$3.35 in 1981-89. The minimum wage rose to \$3.80 in April 1990, to \$4.25 in April 1991, to \$4.75 in October 1996, and to \$5.15 in September 1997. See Technical Note for more information about minimum wage workers.

Technical Note

The estimates in this report were obtained from the Current Population Survey (CPS), which provides a wide range of information on the labor force, employment, and unemployment. The survey is conducted monthly for the Bureau of Labor Statistics (BLS) by the U.S. Census Bureau using a national sample of about 60,000 households, with coverage in all 50 States and the District of Columbia. The earnings data are collected from one-fourth of the CPS monthly sample.

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Concepts and definitions

The principal concepts and definitions used in connection with the earnings data in this report are described below.

Usual weekly earnings. Data are collected on wages and salaries before taxes and other deductions and include any overtime pay, commissions, or tips usually received (at the principal job in the case of multiple jobholders). Self-employed workers are excluded, regardless of whether their businesses are incorporated. Prior to 1994, respondents were asked how much they usually earned per week. Since January 1994, respondents have been asked to identify the easiest way for them to report earnings (hourly, weekly, biweekly, twice monthly, monthly, annually, other) and how much they usually earn in the reported period. Earnings reported on a basis other than weekly are converted to a weekly equivalent. The term "usual" is as perceived by the respondent. If the respondent asks for a definition of usual, interviewers are instructed to define the term as more than half of the weeks worked during the past 4 or 5 months.

Medians (and quantiles) of weekly earnings. Most of the earnings estimates shown in this report are medians. The median (or upper limit of the second quartile) is the amount that divides a given earnings distribution into two equal groups, one having earnings above the median, and the other having earnings below the median. Ten percent of workers in a given distribution have earnings below the upper limit of the first decile (90 percent have higher earnings); 25 percent have earnings below the upper limit of the first quartile (75 percent have higher earnings); 75 percent have earnings below the upper limit of the third quartile (25 percent have higher earnings); and 90 percent have earnings below the upper limit of the ninth decile (10 percent have higher earnings).

The BLS estimating procedure for determining the median of an earnings distribution places each reported or cal-

culated weekly earnings value into a \$50-wide interval that is centered on a multiple of \$50. The actual value of the median is estimated through the linear interpolation of the interval in which the median lies.

Over-the-year changes in the medians (and quantile boundaries) for specific groups may not necessarily be consistent with the movements estimated for the overall quantile boundary. The most common reasons for this possible anomaly are:

- There could be a change in the relative weights of the subgroups. For example, the medians of both 16- to 24-year-olds and those 25 years and older may rise, but if the lower earning 16-to-24 age group accounts for a greatly increased share of the total, the overall median could actually fall.

- There could be a large change in the shape of the distribution of reported earnings, particularly near a quantile boundary. This could be caused by survey observations that are clustered at rounded values, for example, \$250, \$300, or \$400. An estimate lying in a \$50-wide centered interval containing such a cluster, or "spike," tends to change more slowly than one in other intervals. For example, medians measure the central tendency of a multip peaked distribution that shifts over time. As the distribution shifts, the median does not necessarily move at the same rate. Specifically, the median takes relatively more time to move through a frequently reported interval but, once above the upper limit of such an interval, it can move relatively quickly to the next frequently reported earnings interval. BLS procedures for estimating medians (and other quantile boundaries) mitigate such irregular movements of the measures; however, users should be cautious of these effects when evaluating short-term changes in the medians and in ratios of the medians.

Constant dollars. The Consumer Price Index research series using current methods (CPI-U-RS) is used to convert current dollars to constant dollars. BLS has made numerous improvements to the Consumer Price Index (CPI) over the past quarter-century. Although these improvements make the CPI more accurate, historical price index series are not adjusted to reflect the improvements. For a historical series that measures price change consistently over the entire period, the CPI-U-RS provides an estimate of the CPI incorporating most of the methodological improvements made since 1978 into the entire series. For more information, see "CPI research series using current methods, 1978-98" by Kenneth J. Stewart and Stephen B. Reed, *Monthly Labor Review*, June 1999, pp. 29-38; and "Questions and Answers: Consumer Price Index Research Series Using Current Methods" on the Web at www.bls.gov/cpi/cpirsdc.htm.

This report uses the most recent version of the CPI-U-RS available at the time of production. Users should note, however, that the CPI-U-RS is subject to periodic revision. As a result, the rate of inflation incorporated into the constant-dollar earnings estimates in this report may differ from that in previous reports in this series or in other publications.

Wage and salary workers. These are workers who receive wages, salaries, commissions, tips, payment in kind, or piece rates. The group includes employees in both private and public sectors but, for purposes of the earnings series, excludes all self-employed persons, whether or not their businesses are incorporated.

Full-time workers. Workers who usually work 35 hours or more per week at their sole or principal job are defined as working full time for estimates of earnings.

Part-time workers. Workers who usually work fewer than 35 hours per week at their sole or principal job are defined as working part time for estimates of earnings.

Workers paid by the hour. Workers who are paid an hourly wage make up approximately three-fifths of all wage and salary workers. Workers paid by the hour are, therefore, included in the full- and part-time worker tables in this report, along with salaried workers and other workers not paid by the hour. (Data for workers paid at hourly rates are presented separately in tables 9 to 11 and 15 to 17.)

Workers paid at or below the Federal minimum wage. The estimates of the number of workers with reported earnings at or below the Federal minimum wage in tables 11 and 17 pertain only to workers who are paid hourly rates. Salaried workers and other workers who are not paid by the hour are not included, even though some have earnings that, when converted to hourly rates, are at or below the minimum wage. Consequently, the estimates presented in this report likely understate the actual number of workers with hourly earnings at or below the minimum wage. Research has shown, however, that the degree of understatement is small. BLS does not routinely estimate hourly earnings for workers not paid by the hour because of data quality concerns associated with such an estimation process.

The prevailing Federal minimum wage was \$2.90 effective January 1979, \$3.10 effective January 1980, \$3.35 effective January 1981, \$3.80 effective April 1990, \$4.25 effective April 1991, \$4.75 effective October 1996, and \$5.15 effective September 1997. Data for 1990-91 and 1996-97 in table 17 reflect changes in the minimum wage during those years.

The presence of workers with hourly earnings below the minimum wage does not necessarily indicate violations of the Fair Labor Standards Act, as there are exemptions to the minimum wage provisions of the law. In addition, some workers might have rounded their hourly earnings to the nearest dollar in response to survey questions. As a result, some might have been reported with hourly earnings below the minimum wage when, in fact, they earned the minimum wage or higher. This may be more likely to occur in years during which the minimum wage level is just above a whole dollar value, as has been the case since September 1997 (\$5.15).

Reliability

Statistics based on the CPS are subject to both sampling and nonsampling error. When a sample, rather than an entire population, is surveyed, the sample estimates may differ from the "true" population values they represent. The exact difference, or sampling error, varies depending on the particular sample selected, and this variability is measured by the standard error of the estimate. There is about a 90-percent chance, or level of confidence, that an estimate based on a sample will differ by no more than 1.6 standard errors from the "true" population value because of sampling error. BLS analyses generally are conducted at the 90-percent level of confidence. Estimates of earnings and their standard errors can be used to construct approximate confidence intervals, or ranges of values that include the true population value with known probabilities.

The CPS data also are affected by nonsampling error. Nonsampling error can occur for many reasons, including the failure to sample a segment of the population, inability to obtain information for all respondents in the sample, inability or unwillingness of respondents to provide correct information, and errors made in data collection or processing.

For a full discussion of the reliability of data from the CPS and information on estimating standard errors, see the "Explanatory Notes and Estimates of Error" section of *Employment and Earnings*, on the BLS Web site at www.bls.gov/cps/eetech_methods.pdf.

1795

109TH CONGRESS }
1ST Session

HOUSE OF REPRESENTATIVES

{ REPORT
109-353

**THE 2005 JOINT ECONOMIC
REPORT**

R E P O R T

OF THE

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ON THE

**2005 ECONOMIC REPORT
OF THE PRESIDENT**

TOGETHER WITH

MINORITY VIEWS



JOINT ECONOMIC COMMITTEE

[Created pursuant to Sec. 5(a) of Public Law 304, 79th Congress]

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LETTER OF TRANSMITTAL

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC, December 16, 2005.

HON. J. DENNIS HASTERT,
Speaker of the House, House of Representatives,
Washington, DC.

DEAR MR. SPEAKER: Pursuant to the requirements of the Employment Act of 1946, as amended, I hereby transmit the 2005 Joint Economic Report. The analyses and conclusions of this Report are to assist the several Committees of the Congress and its Members as they deal with economic issues and legislation pertaining thereto:

Sincerely,

Jim Saxton,
Chairman.

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THE 2005 JOINT ECONOMIC REPORT

December 16, 2005.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

**MR. SAXTON, from the Joint Economic Committee,
submitted the following**

REPORT

together with

MINORITY VIEWS

Report of the Joint Economic Committee on the 2005 Economic Report of the President

U.S. Macroeconomic Performance

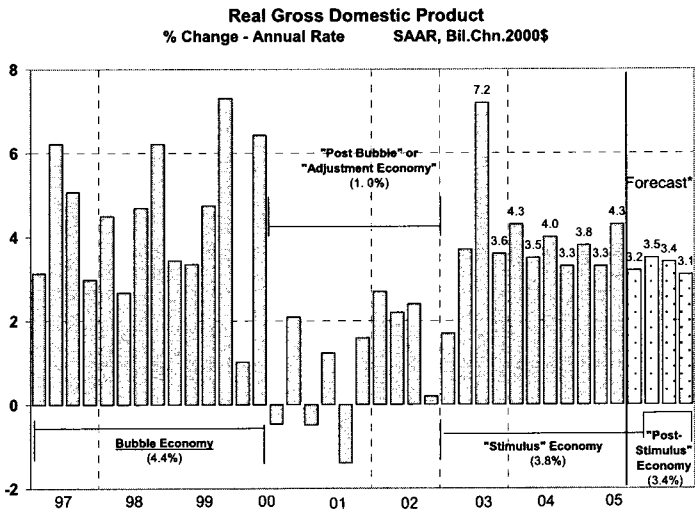
• **Introduction and Background:**

This introduction provides a broad economic overview of the performance of the U.S. economy since about 2003. Beginning in about 2003, the macroeconomy finally began to shake off the throes or burdens of the adjustments required by bursting stock market and investment bubbles. When an asset price (or stock market) bubble bursts, banks necessarily have to contract their lending and consolidate their portfolios. Such adjustment is tantamount to a slowdown in investment: i.e., such a stock market adjustment is associated with a downward movement in investment. The stock market peak occurred in the spring of 2000. The Dow and Nasdaq stock price indices, for example, peaked in January and March 2000, respectively. Overall, then, stock market prices began to fall sharply in the spring of 2000. Notably, most of the Nasdaq's large decline took place prior to January 2001, and consequently, had nothing to do with the Administration's economic policy. As stock prices fell, the financial cost of investment

increased and various measures of investment growth declined: i.e., declines in investment led to declines in economic activity. The investment sector, then, played a very important role in influencing recent cyclical economic activity. The seeds of this unsustainable stock market bubble, however, were sown in the period prior to the spring of 2000, since the stock market bubble burst beginning in the first quarter of 2000.

Many economists have noted that the economic weakness of 2000-2001 (or the “Post Bubble” or “Adjustment Economy”) was **inherited from earlier periods** involving an asset-price contraction in the late 1990s. (See Figure 1).

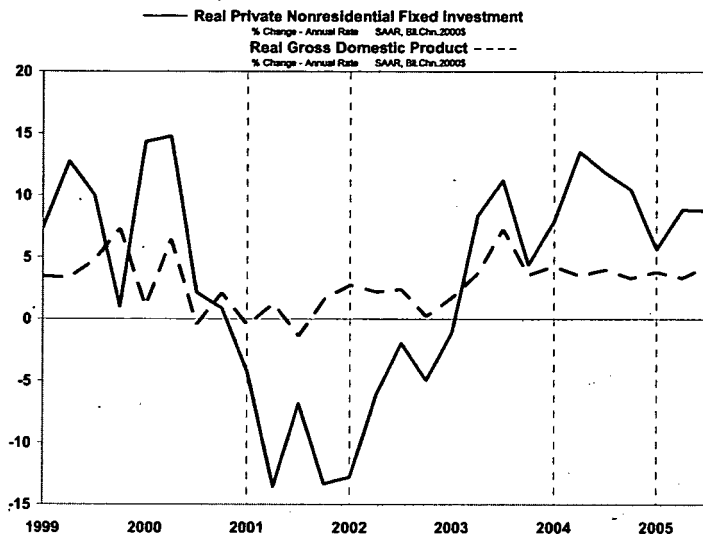
Figure 1



Furthermore, the economic and financial strength of the late 1990s was unsustainable, with some of that strength borrowed heavily from the “irrational exuberance” of sharp stock market and balance sheet gains.

In sum, changes in the investment sector have been much larger and more prominent than changes in most other sectors, including real GDP. The investment sector, for example, was significantly weaker than real GDP during downturns and significantly stronger than real GDP during recoveries (see Figure 2).

Figure 2



- **Brief Overview:**

A **brief overview** of recent macroeconomic activity indicates that the economy is expanding robustly with little sign of any meaningful inflation. In the third quarter, for example, the most recent data indicate that real GDP growth was robust at 4.3%. Real GDP has grown at positive rates for 16 quarters in a row and at rates above 3.0% for 10 quarters in a row. Consensus forecasts have real GDP increasing by 3.5% to 4.0% for the next few years. Figure 2 highlights some of these facts.

Components of real GDP suggest that expansions of real nonresidential **fixed investment** should continue at a healthy pace. The equipment and software component of real nonresidential fixed investment, for example, has been growing on average at a double digit rate (11.7%) since the third quarter of 2003. Its leading indicator, capital good orders, continues to trend upward.

Another interesting observation relates to academic research relevant to U.S. economic growth. Recent research has thoroughly established that the volatility of U.S. GDP has consistently fallen for a number of years. This reduction of volatility means that the economy is not only growing robustly, but that growth is more stable than in the past. This fosters a reduction in risk premiums and lower interest rates.

Significant improvement can be seen in other sectors. For example, 4.5 million **jobs** have been added to the existing payrolls since May of 2003. The U.S. has gained many more jobs than key European economies. Similarly, the **unemployment rate**, now at

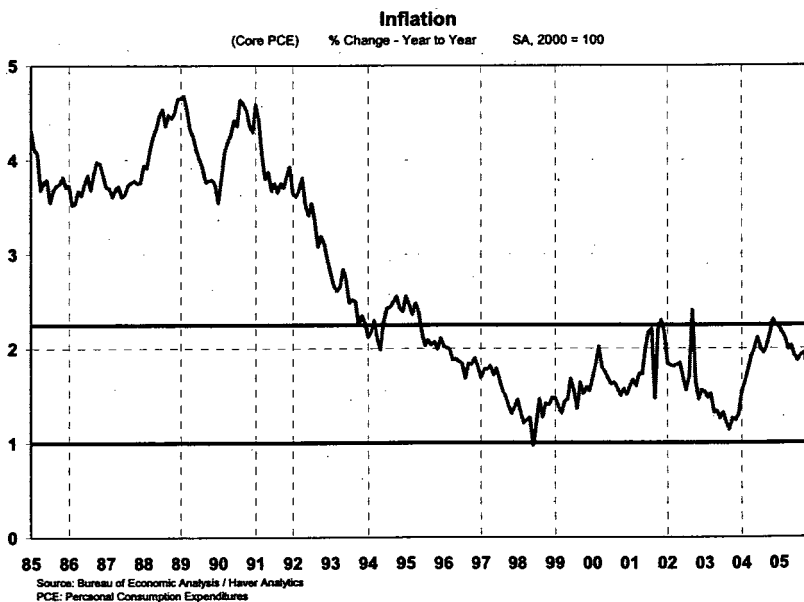
5.0%, is historically low and below the average U.S. unemployment rate for the 1970s, 1980s, and 1990s. Further, the U.S. unemployment rate is lower than most European rates.

The housing sector has performed much better than most analysts predicted. Housing sales have remained strong and residential investment elevated.

Another prominent feature of the recent U.S. economy is the **lower and more stable rate of inflation** we have experienced. While most broad measures of inflation provide similar information, we nonetheless use the core PCE on a year-over-year basis, depicted in the accompanying figure (see Figure 3). The persistently lower rate of inflation depicted there has helped to calm financial markets and reduce risk premiums. This persistently lower rate of inflation has in turn fostered lower expectations of future inflation and, consequently helped to lower interest rates.

In short, the macroeconomy has established a remarkably solid record with measures of aggregate economic activity registering not only relatively rapid growth figures, but exceptionally stable non-inflationary growth. These surprisingly strong results, it will be remembered, occurred in the face of a literal barrage of supply side shocks (discussed below) that were readily absorbed by this exceptionally resilient economy.

Figure 3



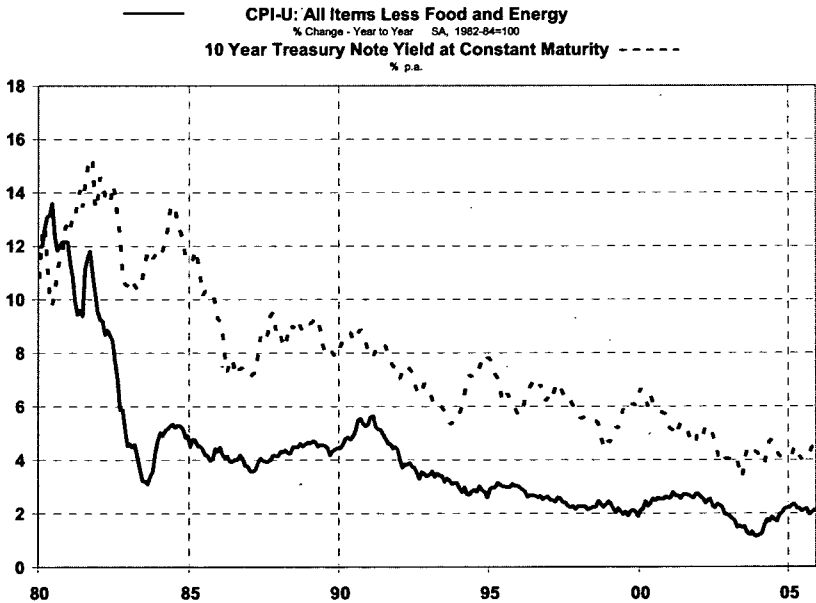
- **Policy Contribution**

With this impressive record as a backdrop – particularly in the face of the many negative shocks absorbed by the economy – a question facing policymakers is: Why has the economy performed so well? Put bluntly, the economy has advanced at a healthy, stable pace with little sign of meaningful inflation because of the economic policies that have been adopted. These policies will be briefly summarized.

- **Monetary Policy:**

In adopting a flexible, implicit inflation targeting strategy, the Federal Reserve's monetary policy contributes to minimizing inflation, reducing the volatility of inflation, and anchoring the price system. Over time, the credible implementation of this strategy works to calm and stabilize markets, such as the money, capital, and foreign exchange markets. Some argue that this strategy also works to reduce macroeconomic volatility. This more stable set of markets works to promote economic growth. Recent monetary policy, then, has likely made a number of contributions to the workings of the macro economy. In particular, this credible, implicit inflation targeting approach works to lower inflation, lower the volatility of inflation, lower the volatility of economic activity, and promote economic growth (see Figure 4).

Figure 4



- **Tax Policy**

Whereas the Federal Reserve's current monetary policy performs a number of important functions, tax policy can play a major role in promoting investment or capital formation and consequently, economic growth. Accordingly, the tax-policy endorsed by the Administration is, for the most part, focused on a limited number of key objectives that often relate to economic growth.

In assessing initial economic conditions during the current expansion, it became obvious that investment and capital formation were weaker than desirable. The argument that with an entrenched income tax in place, saving, investment, and capital formation were over-taxed and further, taxed multiple times, seemed to be underscored by the data. Accordingly, a tax program was proposed which lowered the tax rates on dividends and capital gains, and expanded expensing for business investment. More specifically, the "Jobs and Growth Tax Relief Act of 2003" was passed and contained a number of provisions, most notably, a reduction in both dividend and capital gains tax rates.¹

There were a number of reasons to lower these tax rates on capital:

- Removing some of the bias toward the multiple taxation of capital and investment.
- Lowering tax rates so as to affect behavior and promote additional incentives to save and invest.
- Removing some of tax burden's dead-weight loss.
- Maintaining the U.S. as an attractive investment outlet for international investors.
- And, most importantly, fostering capital formation so as to promote economic growth.

As the data in Figure 2 suggest, these tax cuts are associated with higher trend growth in business investment spending and increases in the value of stock market. The NIPA data, for example, suggest that after the 2003 tax cuts, various categories of non-residential fixed investment began trending up at more rapid rates. Similarly, most common measures of stock market value (e.g., Dow Jones, Nasdaq, or S&P) began advancing at a faster pace. In addition, since the tax cuts were implemented, the country has experienced higher economic growth, increases in payroll employment, lower unemployment, and more tax revenue. In short, the timing of investment and stock market activity appear to be consistent with the case made by proponents of the tax cuts.

¹ The highest capital gains rate of 20 percent was lowered to 15 percent while the highest rate on dividend income was reduced from 35 percent to 15 percent. See Alan Auerbach and Kevin Hassett, "The 2003 Dividend Tax Cuts and the Value of the Firm: An Event Study," NBER working paper 11449, June 2005, p.1.

Furthermore, a number of studies (and empirical evidence) support this conclusion.

The findings of several studies tend to support the view that changes in the tax law have significant impacts on economic activity and economic growth.

A review of the problems caused by high dividend taxes shows that the U.S. had the second highest dividend tax rate in the OECD. In light of this finding, lowering the dividend tax rate in the US may be more potent than if undertaken elsewhere.

Furthermore, Auerbach and Hassett (2005) find strong evidence that the 2003 change in the dividend tax law had a significant impact on US equity markets. It could be, therefore, that by reducing those forms of taxation that work to tax capital in multiple ways a more rational system can result.

A similar view was outlined by Ben Bernanke (then CEA Chairman):

“...tax legislation passed in 2003 provided incentives for businesses to expand their capital investments and reduce the cost of capital by lowering tax rates on dividends and capital gains...the effects are evident in the investment and employment data. From its trough in the first quarter of 2003, business fixed investment has increased over 21 percent, with the biggest gains coming in equipment and software.”²

In sum, the macroeconomy has advanced sharply in recent years in part because of the contribution of a tax relief effort that lowered taxation on capital, promoted economic growth, and provided potent tax relief.

• Conclusion

Recent economic data indicate that the economy is quite robust and advancing at a healthy pace. Our economy has weathered a barrage of negative supply shocks (including a stock market bubble-bursting, a terrorist attack, a severe hurricane followed by a severe flood, two wars, corporate scandals, and a sharp increase in the price of oil). Given this array of significant hurdles, the economy's performance is remarkable. Part of the reason for this performance relates to the contributions of monetary policy's focus on price stability, which leads to a lowering of inflation, the volatility of inflation, and the volatility of economic activity, thereby fostering economic growth. Another reason

² Ben S. Bernanke, “The Economic Outlook,” Chairman, President's Council of Economic Advisors, Testimony before the Joint Economic Committee, October 20, 2005, pp.3-4.

for this remarkable performance is the pro-growth tax policy that has been embraced and allowed to lower the cost of capital. A further contribution relates to our flexible price system, which has enhanced the economic resiliency we enjoy.

Consequently, the economic outlook remains positive. According to Federal Reserve and private economic forecasts, the economy is expected to grow at a healthy pace through 2006.

Jim Saxton
Chairman
Joint Economic Committee

Robert F. Bennett
Vice Chairman
Joint Economic Committee

MAJORITY STAFF REPORTS

Economic Effects of Inflation Targeting

Introduction

The theoretical case for inflation targeting (IT) has been spelled out during the course of the last 15 years in a number of publications, including several JEC studies. The case for IT is a strong one, supported by a number of compelling arguments. According to proponents, adopting IT certainly does make a difference by improving the performance of the economy, the financial system, and the inflation rate. The arguments supporting this approach, however, will not be repeated here; these arguments have been amply described elsewhere. Instead, one component of the arguments supporting the adoption of IT will be reviewed and assessed.

In particular, IT proponents contend that its adoption will help to calm and stabilize financial markets. More precisely, the adoption of credible IT will provide an anchor to the financial system and to financial markets. In so doing, financial markets will stabilize as inflation is driven from the price system. Temporary deviation of inflation will be ignored. This credibly-reduced inflation is associated with less volatile financial markets, smaller risk premiums, and lower inflationary expectations. In this view, then, IT is associated with more stable financial markets.

On the other hand, some economists contend that IT is associated with asset price bubbles, and thus, asset price volatility. In particular, as credible IT works to stabilize conventional measured inflation, to reduce risk premiums, and to tame economic fluctuations, economies experience more risk taking and more risky investment. Economies will also experience increased stock price volatility and associated asset price bubbles. According to this view, there is a kind of “moral hazard” of economic policymaking: the more stable/predictable the economic environment, the more risk taking and risky investment take place. Proponents of this view point to several classic episodes in which asset price bubbles followed periods of price stability; e.g., the U.S. during the 1920s as well as more recent episodes in Japan and the U.S. In this view, then, IT is associated with more volatile asset prices and financial markets, the opposite contention of the above, more conventional view.

This paper briefly describes these alternative views, reviews relevant empirical evidence, and attempts to reconcile these seemingly conflicting positions.

An Unconventional View: Inflation Targeting (IT) and Asset Price Volatility

Recently, a few economists have broken rank with the conventional view supporting IT. These economists contend that low inflation environments tend not to be associated with asset price stability. Instead, they argue that IT or low inflation environments tend to be associated with asset price movements and bubbles (or financial fragility) and asset price volatility. Fildaro, for example, states that:

“...The achievement of a low, stable inflation environment has not simultaneously brought about a more stable asset price environment. The record over the last decade, in fact, has raised the prospect of asset price booms and busts as a permanent feature of the monetary policy landscape.”¹

Similarly, Borio and Lowe (2002) argue that:

“...financial imbalances can build up in a low inflation environment...while low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices... We stress that financial imbalances can and do build up in periods of disinflation or in a low inflation environment.”²

Furthermore, in reviewing the economic environment of the past 30 years or so, Borio and White (2004) maintain that this environment can be characterized as improving in price stability while at the same time experiencing more financial instability.³

Some endorsing this alternative view include some economists sympathetic to the Austrian School and several economists affiliated with at the Bank for International Settlements (BIS).⁴

This alternative view embodies some important implications. Notably, proponents of this view contend that price stability or IT

¹ Fildaro, Andrew, “Monetary Policy and Asset Price Bubbles: Calibrating the Monetary policy trade-offs,” BIS Working Paper No. 155, June (2004), p.

² Borio Claudio, and Philip Lowe, “Asset Prices Financial and Monetary Stability: Exploring the Nexus,”

BIS Working Paper No. 114, (July 2002), Abstract, p.1.

³ Borio, Claudio and William White, “Whither Monetary and Financial Stability? The Implications of Evolving Policy Regimes,” BIS Working Paper No. 147 (February 2004).

⁴ These authors, include, for example, Charles Bean, Claudio Borio, Philip Lowe, William White, Andrew Filadaro, Andrew Crockett, and others.

causes sharp movements in asset prices; i.e., price stability or IT is associated with asset price bubbles.

According to proponents of this view, IT central banks themselves increasingly (but unwittingly) work to create the environment conducive to the formation of asset price bubbles or instabilities. Specifically, as modern central banks learn to control inflation and tame economic fluctuation, thereby stabilizing economic activity, these economies will experience more risk taking, more innovation, more investment and sometimes stronger advances in productivity. They will experience increased stock market volatility and associated asset price bubbles. Credible IT policies, therefore, stabilize conventionally measured price indices while at the same time create new incentives to take risk.

In this view, there is a kind of “moral hazard” of economic policymaking: the more stable/predictable the economic environment, the more risk taking, investment, and innovation take place. In sum, low inflation environments are increasingly associated with financial imbalances and asset price volatility.

The Conventional View: Inflation Targeting Calms and Stabilizes Financial Market Prices

There are several theoretical explanations of how financial markets are affected by the existing monetary regime. In particular, different explanations exist as to how movements in financial market prices are shaped by the adoption of IT and its associated consequent price stabilization. One of the direct benefits of IT, for example, is the calming, stabilizing effect it has on financial market prices and on the market price system itself. In short, IT stabilizes prices and serves as an anchor to the price system.

According to Levin et.al., for example;

“...under an inflation-targeting regime, expectations about inflation, particularly at longer horizons, should be “anchored” by the target, and thus should be less affected by changes in actual inflation...Having inflation expectations that are well anchored – that is, unresponsive to short-run changes in inflation – is of significant benefit to a country’s economy.....Keeping inflation expectations anchored helps to keep inflation itself low and stable.”⁵

⁵ Jeremy Piger, “Does Inflation Targeting Make a Difference?”, Monetary Trends, Federal Reserve Bank of St. Louis, April 2004, p.1. See also Levin, Andrew T., Natalucci, Fabio M. and Piger, Jeremy M., “The Macroeconomic

More specifically, as inflation rates are credibly lowered and as stable prices eventually emerge, inflation and inflationary expectations will have less of a disturbing effect on price movements. Price reactions to both economic policy announcements and economic data releases will be tempered. This reduction in inflation and inflationary expectations will lower the variability of relative and nominal prices. And this reduction of inflation and inflationary expectations will also reduce uncertainty and thereby lower risk spreads.

Furthermore, distorting interactions of inflation with the tax code will gradually be minimized. In short, the operation and working of the price system will be improved as adopting IT will reduce market volatility.

These factors will contribute to calming and stabilizing a number of important markets including the short-term money market, long-term bond market, foreign exchange market, sensitive commodity markets, as well as equity markets.

All of these improvements will work to better enable to function, improve market efficiency, and inevitably to improve economic growth and performance.

Indirect Approaches to Stabilize Markets

There are additional indirect, but important ways in which IT can work further to calm and stabilize movements in market prices. More specifically, IT necessarily involves an increase in central bank transparency, which can work to further stabilize markets.⁶ The benefits of monetary policy transparency cited in the literature include a reduction in both the level of and variability of inflation as well as output.⁷

IT, after all, involves the announcement of and explicit public identification of policy goals or policy rules. This involves providing more information to the market. Markets work better with more information; more specifically, they absorb new information and use it.

Effects of Inflation Targeting.” Federal Reserve Bank of St. Louis Review, July/August 2004, 86 (4).

⁶ Transparency has several dimensions. These involve explicit identification of policy objectives, issuing inflation reports, policy announcements, and testimony, i.e., providing much more information to the market. See for example, Seth B. Carpenter, “Transparency and Monetary Policy: What Does the Literature tell policymakers?” Working Paper, Board of Governors of the Federal Reserve System, April 2004. p.1.

⁷ See Carpenter, *op. cit.*, p. 1.

to form common, concentrated expectations about the future.⁸ As markets begin to anticipate policy changes, the initial steps of the monetary transmission mechanism between policy action and economic activity begin to work more efficiently.⁹ Policy surprises affecting markets become smaller and fewer in number. Central bank credibility begins to build and to anchor inflationary expectations, thereby helping to stabilize financial markets. As one proponent put it:

“the strength of inflation targeting, vis-à-vis other monetary regimes lies precisely in how transparency enhances monetary credibility and anchors private expectations.”¹⁰

In short, increased transparency changes behavior so that markets function better and in a more stable, predictable manner that works to stabilize markets.

Empirical Evidence

In sum, alternative views as to the effects IT might have on financial markets suggest that, **the adoption of IT could result in these markets becoming more volatile, less volatile, or unaffected by IT. Existing evidence sheds some light on validity of these alternative views.**

Does IT result in more Volatile Financial Markets?

Hard empirical evidence supporting the view that IT causes financial market volatility appears difficult to muster. Much of the literature sympathetic to this view is not focused directly on such empirical evidence. Rather, it often deals with broader issues of monetary policy and the policy role played by asset price “bubbles”. Borio and Lowe, for example, make such a connection:

“While low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices. Accordingly, in some situations, a monetary response to credit and asset markets may

⁸ See, for example, Gavin, William, “Inflation Targeting,” Business Economics, April 2004, pp 30, 36.

⁹ See, Charles Freedman, “Panel Discussion: Transparency in the Practice of Monetary Policy,” Review, Federal Reserve Bank of St. Louis, July/August, 2002, p.155.

¹⁰ Klaus Schmidt-Hebbel and Matias Tapia, “Statement” (2002), p.11)

be appropriate to preserve both financial and monetary stability.”¹¹

But the argument that price stability or IT itself fosters asset price bubbles, asset price volatility, or financial instability has been neither adequately nor convincingly established. And the case that financial imbalances develop because of stable price environments, has not been demonstrated; it has not been shown that price stability causes financial instability. In short, no direct “hard core” or formal statistical or econometric evidence supports this view. Instead, anecdotal compilations of “stylized facts” are used to assess historical episodes in support of the view. Additionally, only a few episodes appear to have the characteristics (low inflation, credit growth, asset price bubbles, etc) consistent with this view. Instead of such evidence, proponents rely on assumptions relating to the credibility of policymakers, investment activity, technological advances, or productivity gains that can serve to constrain the price increases of goods and services. In sum, little hard empirical evidence supporting the view that price stability or IT contributes to or causes volatile financial markets exists.

Empirical Evidence: Does IT matter? Is IT unrelated to economic performance or to market volatility?

A number of studies have examined whether the adoption of IT improves economic performance (as measured by movements in inflation, output, and/or interest rates) or affects the volatility of market variables. In short, they have tested to see if IT matters.

Several researchers have addressed this question. Despite a good deal of effort, however, some of their empirical results have been mixed. As a result, this research in turn has raised a number of methodological questions. More specifically, in assessing these questions in recent years, researchers have often used a common methodology. The reason for this is that recently both IT and non-IT countries experienced improvement in economic performance as measured, for example, by inflation or the level of interest rates. Focusing on any one IT country in isolation might lead researchers to falsely conclude that IT caused the improvement. But non-IT countries may have experienced similar affects. Some researchers contend, therefore, that to test for the effects of IT, improvements in IT countries must be made relative to improvements in non-IT countries.

¹¹ Borio Claudio and Philip Loew, “Asset Prices, Financial and Monetary Stability: Exploring the Nexus,” BIS Working Paper No. 114, July 2002, Abstract.

Examples of research results: Implying IT doesn't matter include the following:

- Ammer and Freeman (1995) surveyed three IT countries, New Zealand, Canada, and the United Kingdom. They found that although each reached its inflation goal, bond yields suggested that long-term inflationary expectations exceeded targets as did short-term measures of inflationary expectations. This suggests that these countries did not attain the credibility necessary to properly anchor other prices and stabilize the price system. Moreover, there is no evidence that announcement of an explicit IT policy would reduce inflationary expectations.¹²
- Johnson (2002) employed data from eleven countries. He adopted a methodology which divided up his sample into inflation targeting and non-inflation targeting countries. His results are mixed. Specifically, he found that while the level of inflationary expectations falls after announcing explicit inflation targets, the variability of expected inflation does not. In describing his results, Johnson contended that "inflation targets allowed a larger disinflation with smaller forecast errors to take place in targeting countries."¹³
- Recent research by Ball and Sheridan (2003) is perhaps the most forceful example of empirical work concluding that IT does not matter. These authors, for example, conclude that:

"...on average, there is no evidence that inflation targeting improves performance as measured by the behavior of inflation, output, or interest rates....overall it appears that targeting does not matter. Inflation targeting has no effect on the level of long-term interest rates, contrary to what one would expect if targeting reduces inflation expectations...targeting does not affect the variability of the short-term interest rates controlled by policymakers...we find

¹² John Ammer and Richard T. Freeman, "Inflation Targeting in the 1990s. The Experiences of New Zealand, Canada, and the United Kingdom," Journal of Economics and Business, 1995, 47:165-192, pp.165,189.

¹³ David R. Johnson, "The Effect of Inflation Targeting on the Behavior of Expected Inflation: Evidence from an 11 country panel," Journal of Monetary Economics, 49 (2002) 1521-1538, p., 1537.

no evidence that inflation targeting improves a country's economic performance.”¹⁴

In short, some research clearly concludes that IT does not matter.

Some Questions and Critique:

There are, however, a number of fundamental reasons why this research and its conclusions are both questionable and in conflict with the results of other research. For example, many economists question the methodology employed in these studies. The selection and identification of “non-IT countries,” for example, is one of these issues. Several economists, analysts, and even Federal Reserve officials have pointed out that a number of key countries; including the U.S., are identified as non IT countries in the studies because they do not have explicit inflation targets. But many of these countries consistently pursued an implicit inflation targeting strategy. **So the label may be misleading and inappropriate for several countries.** This misspecification also applies to countries pegging their currencies to a currency whose central bank is following ITs; (i.e., some countries in Europe and Asia). These observations were made by, Gertler, Mankiw, Federal Reserve officials and others.¹⁵ These contentions draw into question the validity of the methodology and results of these empirical studies.

Furthermore, recent IMF research surveys and delineates the many dimensions to and ways of classifying and categorizing IT. This research underscores the large number of variables that can be used to select and define IT. It is a reminder that there may be no easy, simple way of neatly identifying an IT central bank.

Because of the multi-dimensional character of IT regimes, it is difficult to clearly and neatly dichotomize existing central banks into IT and non-IT categories. Definitions of IT, for example, should be adjusted to reflect the realities of “flexible” IT. The clean dichotomization maintained by theoretical researchers may not be nearly as clean as suggested by the authors. Consequently, the

¹⁴ Ball, Laurence and Niamh Sheridan, “Does Inflation Targeting Matter?,” Paper presented at NBER Inflation Targeting Conference, January 2003 (March 2003), pp. 2,3,4,29.

¹⁵ See Gertler, Mark, “Comments on Ball and Sheridan,” Prepared for the NBER Conference on Inflation Targeting, January 2003. (June 2003), pp 1,3-5; Mankiw N. Gregory, (2001), “U.S. Monetary Policy During the 1990s. NBER Working Paper No. 8471, Cambridge, Mass Sept 2003; and Marvin Goodfriend, “Inflation Targeting in the United States?,” (2003) Paper prepared for the NBER Conference on Inflation Targeting, January 2003.

empirical results may not be as clean as suggested by some of the results of these papers.

Additionally, several statistical or econometric issues and critiques were identified in much of this literature. In his comments on Ball and Sheridan, for example, Gertler notes that “existing evidence in favor of inflation targeting is open to identification problems.”¹⁶ Ball and Sheridan themselves assert that their empirical results are often not strictly comparable to the results of other studies because of unusual techniques that were employed.¹⁷

Empirical Evidence: IT is related to macroeconomic performance and to financial market volatility: IT does make a difference.

Despite the widespread practical support accorded IT in recent years, not much hard empirical support was found favoring IT in early, initial research.¹⁸ As time passed and more historical data has come to the fore, however, researchers have uncovered a number of important empirical regularities tending to support IT. Some of the evidence comes from single-country case studies suggesting that IT tends to stabilize markets. Other evidence is cross-section support. For example, a number of recent empirical studies examined the relationship between IT and macroeconomic performance as well as between IT and financial market behavior: i.e., these studies attempted to assess whether IT matters. While mixed, the bulk of the new evidence indicates that IT matters; IT has a positive significant impact on economic and financial market performance.

The following “bullet points” supply an abbreviated summary of the recent key empirical studies relevant to this topic:

- In a (1996) report to the FOMC, David Stockton surveyed existing literature related to price objectives for monetary policy.¹⁹ In that survey, Stockton identified several well-known established empirical relationships pertinent to this topic. They included the following:

¹⁶ Gertler, Mark, “Comments on Ball and Sheridan,” June 2003, Paper prepared for the NBER Conference on Inflation Targeting, January 2003, p.1.

¹⁷ Ball and Sheridan, op. cit., p.28. (The unusual technique was regression to the mean.)

¹⁸ See Neumann and Von Hagen, p.127.

¹⁹ David J. Stockton, “The Price Objective for Monetary Policy: An Outline of the Issues,” A Report to the FOMC Board of Governors, June 1996.

- Both cross-country and time-series evidence supports the notion that inflation reduces the growth of real output (or productivity).
- Inflation is positively related to the variability of relative prices.
- Inflation is positively related to inflation uncertainty.
- In general, relative price variability and inflation uncertainty adversely affect real output.

- In his recent book Inflation Targeting (2003), Truman summarizes the principal conclusions of the empirical literature on inflation targeting.²⁰

In particular, IT generally:

- Has had a favorable effect on inflation, inflation variability, inflation expectations, and the persistence of inflation.
- Has not had a negative effect on economic growth, the variability of growth, or unemployment.
- Has had mixed effects on both the level and variability of real, nominal, short-term, and long-term interest rates.
- Has had positive effects on exchange rate stability.
- Has affected the reaction functions of the central banks that have adopted the framework.²¹

- For the most part, economists have established empirically a negative relationship between inflation uncertainty and real economic activity. Elder (2004), for example, relates that:

“Our main empirical result is that uncertainty about inflation has significantly reduced real economic activity over the post-1982 period... Our findings suggest that ...macroeconomic policies that reduce volatility in the inflation process are likely to contribute to greater overall growth.”²²

- In an early study, Ammer and Freeman (AF) (1995) examined three IT countries. This study provided mixed results for IT. On the one hand, inflation did not exceed the targets and this result

²⁰ Edwin M. Truman, Inflation Targeting in the World Economy, Institute for International Economics, Washington, D.C. October 2003, p 72.

²¹ Ibid. p 72. (The points outlined were taken from Truman, p. 72.)

²² John Elder, “Another Perspective on the Effects of Inflation Uncertainty”

occurred without sharp increases in short-term rates. These researchers found that “inflation fell by more than was predicted by the models in the early 1990s, an indication of the effect of the new regime.”²³ However, “longer term interest rates suggest that none of these countries rapidly achieved complete long-term credibility for their announced long-run inflation intentions.”²⁴

- Some of the earlier (pre-2000) literature was summarized by Neuman and von Hagen (NvH) and included the following observations:

- Some authors find that “IT might ...serve to lock in gains from disinflation rather than to facilitate disinflation.”²⁵ After introducing IT, inflation and interest rates remained below values predicted by existing models.
- Other authors found that the “volatility of official central bank interest rates...declined substantially after the introduction of IT.”²⁶

- Neumann and von Hagen (NvH) (2002) reviewed earlier studies of inflation targeting episodes. They presented “evidence on the performance of IT central banks.”²⁷ In particular, NvH showed that “... IT has reduced short-term variability in central bank interest rates and in headline inflation...”²⁸ (The NvH paper) “suggests that IT has indeed changed central bank behavior...” (NvH) “looked at different types of evidence in order to validate” (the claim that inflation targeting) “is a superior concept for monetary policy.” “Taken together, the evidence confirms that IT matters. Adopting this policy has permitted IT countries to reduce inflation to low levels and to curb the volatility of inflation and interest rates....”²⁹ In discussing this paper, Mishkin reminds us

²³ Neumann and von Hagen, op.cit., p.128.

²⁴ John Ammer and Richard T. Freeman, “Inflation Targeting in the 1990s: The Experiences of New Zealand, Canada, and the United Kingdom,” Journal of Economics and Business, 1995; 47: 165-192, p. 189.

²⁵ Neumann and von Hagen, op.cit., p.128.

²⁶ Ibid., p.129.

²⁷ Manfred J.M. Neumann and Jurgen Von Hagen, “Does Inflation Targeting Matter?”, Federal Reserve Bank of St. Louis, Review, July/August 2002, p. 130.

²⁸ Ibid., p.127.

²⁹ Ibid., pp. 128, 144 (parenthesis added)

that NvH “produce several pieces of evidence quite favorable to inflation targeting.”³⁰

- Johnson (2002) shows that inflation “targets reduced the level of expected inflation in targeting countries”³¹ ... “The evidence is very strong that the period after the announcement of inflation targets is associated with a large reduction in the level of expected inflation...that (significant) reduction took place in all 5 countries with inflation targets. This is an important success of inflation targets.”... “inflation targets allowed a larger disinflation with smaller forecast errors to take place in targeting countries.”³² In sum, inflation targeting presumably favorably affected the bond and other markets by influencing inflationary expectations and reducing uncertainty premiums.

- Levin, Natalucci and Piger (LNP) (2004) find “evidence that IT plays a significant role in anchoring long-term inflationary expectations and in reducing the...persistence of inflation”³³ The evidence suggests that IT practitioners can more readily delink their inflationary expectations from realized inflation.³⁴ In short, IT plays a significant role in anchoring long-term inflation expectations and long-term interest rates themselves..³⁵

➤ LNP find that “inflation targeting affects the public’s expectations about inflation”... “under an inflation targeting regime, expectations about inflation, particularly at longer horizons, should be ‘anchored’ by the target, and thus should be less affected by changes in actual inflation.” “Keeping inflation expectations anchored helps to keep inflation itself low and stable.”³⁶

³⁰ Frederick Mishkin, “Commentary,” FRB St. Louis Review, July/August, 2002, p.144.

³¹ David R. Johnson, “The Effect of Inflation Targeting on the Behavior of Expected Inflation: Evidence from an 11 country panel”

³² Journal of Monetary Economics 49 (2002), p. 1522. *ibid*, pp/1537.

(parenthesis added).

³³ Andrew T. Levin, Fabio M. Natalucci, and Jeremy M. Piger, “The Macroeconomic Effects of Inflation Targeting,” Federal Reserve Bank of St. Louis, Jan. 23, 2004. Abstract.

³⁴ *Op.cit.*, Abstract

³⁵ *Op. cit.*, p.2

³⁶ Jeremy Piger, “Does Inflation Targeting Make a Difference?” Monetary Trends, April, 2004

➤ In commenting on this paper, Uhlig (2004)... “concludes that these figures seem to suggest that an environment of low and stable inflation helps to reduce output volatility and support economic activity.”³⁷

- Recent empirical research at the Federal Reserve by Gurkaynak, Sack and Swanson (GSS) (2003) shows that the Fed could boost the economy by being more transparent about its long-term inflation objectives.³⁸ GSS “show that the long-term interest rates (of non-IT countries) react excessively to macroeconomic data releases and to news about monetary policy. This over-reaction is caused by changes in the market’s long-term inflation expectations.”³⁹

IT, however, works to anchor (or prevent excess volatility in) long-term market’s. Consequently, in IT countries (like the UK), markets do not overreact or display over-sensitivity. The empirical results of the paper suggest “that the central bank can help stabilize long-term forward rates and inflation expectations by credibly committing to an explicit inflation target.”⁴⁰ Commitment to an explicit target will help stabilize both long rates and inflation expectations.

- Other research conducted at the Federal Reserve also relates to this evidence. Carpenter (2004), for example, surveyed empirical studies of transparency.⁴¹ The summarized results are mixed, but suggest there is evidence of a relationship between IT and both transparency and lower inflation. Moreover, it is emphasized by several authors that there is no evidence that IT causes any harm. Swanson (2004) showed that increased central bank transparency acts to reduce financial market surprises and uncertainties. This

³⁷ Jeremy M. Piger and Daniel L. Thornton, “Editor’s Introduction,” Federal Reserve of St. Louis Review, July/August 2004, Volume 86, Number 4, p.5.

³⁸ See Refet S. Gurkaynak, Brian Sack, and Eric Swanson, “The Excess Sensitivity of Long-Term Interest Rates, Evidence and Implications for Macroeconomic Models,” Finance and Economic Discussion Series, Federal Reserve Board, November 17, 2003; William Gavin, “Inflation Targeting, Why It Works and How to Make it Work Better,” Business Economics, Vol XXXIX April, 2004, p. 32.

³⁹ See Gavin, op.cit. pp. 32, 36 (parenthesis added)

⁴⁰ GSS, op.cit. p.28.

⁴¹ Seth Carpenter, “Transparency and Monetary Policy: What Does the Academic Literature Tell Policymakers?,” “Working Paper, Board of Governors of the Federal Reserve System, April 2004, pp 11-13.

suggests that IT – which is tantamount to increased transparency of policy goals – may aid in reducing financial market volatility and stabilizing financial markets.⁴²

- Several studies establish that additional central bank transparency in the form of announced inflation target, works to lower inflation and stabilizes output. Recently Fatas, Mihov, and Rose (FMR), for example, found “that both having and hitting quantitative targets (like IT) for monetary policy is systematically and robustly associated with lower inflation...Successfully achieving a quantitative monetary goal (like ITs) is also associated with less volatile output.”⁴³ These authors find that “... countries with transparent targets for monetary policy achieve lower inflation.”⁴⁴ They found “that having a quantitative de jure target for the monetary authority tends to lower inflation and smooth business cycles; hitting that target de facto has further positive effects. These effects are economically large, typically statistically significant and reasonably insensitive to perturbations in (their) econometric methodology.”⁴⁵

- Siklos (2004) found that “inflation-targeting countries have been able to reduce the nominal interest rate to a greater extent than have non-inflation targeting countries....It is also found that central banks with the clearest policy objectives have a relatively lower nominal interest rates.”⁴⁶

This abbreviated review of some of the recent literature suggests that overall, there is a good deal of evidence supporting the case for IT. This review suggests that inflation targeting does matter. More specifically, credible commitment to an explicit IT likely will work to help lower and stabilize the level and variability of inflation. This result occurs in part because of the reduction and stabilization of

⁴² Eric T. Swanson, “Federal Reserve Transparency and Financial Market Forecasts of Short-Term Interest Rates,” Working Paper, Board of Governors of the Federal Reserve System, February 9, 2004.

⁴³ Antonio Fatas, Ilian Mihov, and Andrew K. Rose, “Quantitative Goals for Monetary Policy,” NBER Working Paper No. W 10846, October 2004, Abstract (parenthesis added.)

⁴⁴ Ibid, p. 1

⁴⁵ Ibid. p.21. (parenthesis added)

⁴⁶ Pierre L. Siklos, “Central Bank Behavior, The Institutional Framework, and Policy Regimes: Inflation Versus Non-Inflation Targeting Countries,” Contemporary Economic Policy, vol 22, no. 3, July 2004, 331-343, pp 331, 332.

inflationary expectations. Hence, it will likely lower both the level and variability of the long bond rate. IT will anchor the price system and help to stabilize short-term interest rates, long-term interest rates, the foreign exchange and stock markets. Some research suggests IT also helps to dampen the business cycle and stabilize movements in output. Additionally there is a body of evidence indicating that transparency helps to stabilize markets and fosters central bank credibility.

Summary and Conclusions

After decades of debate, the case for inflation targeting is well established. This paper focuses on one key ingredient of the argument supporting inflation targeting. Namely, it examines the proposition that a credible implementation of inflation targeting will calm and stabilize various financial markets, anchor the price system, and limit inflation as well as its variability and persistence. Other competing views – i.e., (a) that inflation targeting has no impact on financial markets and (b) that Inflation Targeting leads to asset price bubbles and hence to financial market volatility – are briefly outlined.

These alternative views are presented and briefly contrasted with existing empirical evidence. Some key findings include the following:

- There is little or no evidence that inflation targeting has adverse effects on financial markets.

- Research finding that inflation targeting does not matter has problems, in part related to the selection and definition of inflation targeting countries.

- The weight of the existing empirical evidence appears to support the case for inflation targeting; i.e. overall, it supports the view that inflation targeting matters and will work to calm and limit the variability of financial markets as well as the persistence of inflation. It will serve to anchor the price system. As the empirical literature suggests, this will likely foster healthier economic growth.

There is little evidence that inflation targeting has adverse effects on or hurts financial markets or the economy.⁴⁷ Accordingly, adopting inflation targeting once price stability is attained likely will make it easier to maintain.⁴⁸ As emphasized by Gertler, “the case

⁴⁷ Ball and Sheridan, *op.cit.*, p. 29.

⁴⁸ See Anthony M. Santomero, “Monetary Policy and Inflation Targeting in the United States,” *Business Review*, Federal Reserve Bank of Philadelphia, Fourth Quarter 2004, p.1.

made for adopting formal targets in the U.S. is not that this system would have improved past performance, but rather that it would help future performance by preserving gains in credibility for Greenspan's successor."⁴⁹

⁴⁹ Mark Gertler, "Comments on Ball and Sheridan." A Paper presented to the NBER conference on Inflation Targeting, January 2003, p.5. The point was also made by Ball and Sheridan, *op. cit.*, p. 30

Individuals and the Compliance Costs of Taxation

It will be of little avail to the people that the laws are made by men of their own choice, if the laws be so voluminous that they cannot be read, or so incoherent that they cannot be understood; ... or undergo such incessant changes that no man who knows what the law is today can guess what it will be tomorrow. Law is defined to be a rule of action; but how can that be a rule, which is little known, and less fixed?

Alexander Hamilton or James Madison, *The Federalist Papers*, No. 62.

Introduction

Taxes impose many costs. It would be easy to view the costs as simply the amount of money a person gives to the tax collector. However, the economic effects go beyond simply transferring money from one party to another. Since Adam Smith, economists have been concerned with the costs of taxation and have developed several different measurements of the economic costs.

First, as Smith pointed out, taxes can change or alter behavior. This may or may not be intentional. For example, taxes on cigarettes have the stated purpose of reducing smoking. Likewise, tax incentives to attend school may lead to an increase in the demand for schooling. However, there are other costs that are not intentional. In the modern economic literature, these costs are known as the excess burden (or deadweight loss of taxation.) The excess burden is a loss of welfare above and beyond the tax revenues collected.

Additionally, we should consider what Slemrod (2005) terms the resource costs of taxation. These consist of two parts:

Compliance costs: the cost (usually thought of as time, but can also be monetary) that is borne by individuals as a result of paying their income taxes.* This includes record keeping, learning about specific laws and forms, preparation time, remittal time, and any monetary costs such as seeking assistance from a certified public accountant, tax lawyer, or tax preparer (such as H&R Block) or buying computer programs

* Compliance costs also fall on businesses, however the focus here will only be on the cost to individuals.

or books. It is a measure of the opportunity cost of complying with the tax code.*

Enforcement costs: the costs associated with the administrative operation of the Internal Revenue Service (IRS).

Empirical work on the deadweight loss of taxation has resulted in a vast literature.[†] The purpose of the present study, however, is to examine only one aspect of the resource costs: the compliance costs associated with taxation. Compliance costs are a primary result of the complexity in the tax system.[‡] It is commonly believed that complexity reduces levels of voluntary compliance, either through avoidance or evasion, likely increases the difficulty in administering the tax law, and may reduce the perceived level of fairness in the Federal tax system.

While the tax system is obviously complex, it may not be that complex for everyone. Some individuals (those with lower incomes) qualify to fill out the 1040EZ, which is a comparatively easy document. Others may fill out the 1040A, which, while not as easy as the 1040EZ, is still not as complex as the 1040 basic form (see Table 1 for time estimates). Some people though, will use complex forms simply due to financial transactions. Others will try to minimize taxes by pursuing aggressive avoidance strategies. Ultimately, it is important to understand whether complexity is a result of the underlying transactions into which the taxpayer has chosen to enter, or whether the complexity is embedded in the tax code.

This study will focus on these questions and how individuals react when presented with complexity. The study will begin with a review of the estimated costs of compliance across time periods and will then examine the economic response of individuals to complexity.

* Some of the literature on compliance costs includes the administrative costs borne by the government, although here they are considered separately.

[†] See Vedder and Gallaway (1999). JEC (2005) provides a brief overview of the topic.

[‡] Complexity can have different effects, depending on the type of complexity. For example, in some instances complex laws may lead to uncertainty in the correct application of the law to particular facts. Or it may require complex numerical calculations that, while potentially beneficial, may intimidate the tax filer.

Cost Estimates*

The modern literature on compliance costs begins with the work of Wicks (1965, 1966) who conducted the first study based on survey information. Wicks handed out questionnaires to 380 students with the request they mail the questionnaire to their parents. Adjusting for bias, Wicks estimated compliance costs amounting to 11.5 percent of the revenue raised.[†]

Slemrod and Sorum conducted the next survey (1984), this time of Minnesota households. They found that on average a taxpayer spent 21.7 hours on tax matters, or close to 2 billion hours for society. They estimated compliance costs as 5-7 percent of income tax revenue.

Blumenthal and Slemrod repeated the survey in 1990 and found that time requirements for 1989 returns had increased to 3 billion hours. In this study, individuals, on average, spent 27.4 hours on tax matters, despite the intervening Tax Reform Act of 1986, which was intended to simplify the tax code.[‡]

The largest survey, conducted by the consulting firm Arthur D. Little, Inc. (ADL) and commissioned by the IRS, was a mail questionnaire sampling approximately 6,200 individuals. ADL also conducted a diary study of time spent in 1983 by 750 individuals. The results were broadly consistent with those of Slemrod (1984), although there were important differences in the measurement of business compliance costs, which are not discussed here. ADL estimated that individual taxpayers spent 1.6 billion hours for tax year 1983 and 1.8 billion hours on 1985 returns.

The IRS now uses the ADL study as the basis for their estimates of time compliance. These estimates are published in the instruction booklets for the respective tax forms as part of the "Paperwork Reduction Act Notice." For example, for tax year 2004, the IRS

* The works cited here refer only to the compliance costs associated with the U.S. federal income tax system. Scholars have surveyed the costs faced in other countries, most notably with respect to Australia and the U.K. See Slemrod and Sorum, (1984) and Blumenthal and Slemrod (1992) for a review of this literature.

† Wicks (1966).

‡ The previous study (Slemrod and Sorum) did not include a category on the time spent arranging financial affairs to minimize taxes, which the latter study (Blumenthal and Slemrod) does include. For this reason, the 1982 survey might have been biased downward slightly, although respondents may have included the time estimates included in this category implicitly elsewhere. Thus, the time estimates are roughly comparable, though the categories are not. See Blumenthal and Slemrod (1992) for a discussion.

estimates the compliance burden for the standard 1040 at nearly 13.5 hours, on average (see Table 1 below).*

Table 1, Estimated Preparation Time

| Form | Record keeping | Learning about the law or the form | Preparing the form | Copying, assembling, and sending the form to the IRS | Totals |
|-------------|-----------------------|---|---------------------------|---|-----------------|
| 2004 1040 | 2 hr., 46 min. | 3 hr., 58 min. | 6 hr., 17 min. | 34 min. | 13 hr., 35 min. |
| 1992 1040 | 3 hr., 8 min. | 2 hr., 42 min. | 3 hr., 37 min. | 49 min. | 10 hr., 26 min. |
| 2004 1040A | 1 hr., 10 min. | 3 hr., 28 min. | 5 hr. 13 min. | 34 min. | 10 hr. 25 min. |
| 1992 1040A | 1 hr., 3 min. | 2 hr., 8 min. | 2 hr., 47 min. | 35 min. | 6 hr., 33 min. |
| 2004 1040EZ | 4 min. | 1 hr., 41 min. | 1 hr., 41 min. | 20 min. | 3 hr., 46 min. |
| 1992 1040EZ | 5 min. | 33 min. | 39 min. | 34 min. | 1 hr., 51 min. |

Source: Selected IRS instruction booklets, various years.

Two recent studies by Payne (1993) and Moody (2002) base their estimates on the ADL/IRS time estimates. Payne uses data from the ADL survey while Moody considers the number of forms returned by type and simply adds the estimated totals per form to reach a cumulative total. Payne estimates that time spent complying equals 1.8 billion hours (for 1985) and Moody places the time at 2.8 billion hours (for 2002).

Because the ADL survey is over 20 years old, the IRS wishes to update its compliance estimates, which are derived from the survey. To accomplish this task, the IRS turned to IBM. IBM has now completed its Individual Taxpayer Burden Model (ITBM) and the results have been published in Guyton (2003.) The model is still being tested for reliability, but its compliance estimates are consistent with other studies. For tax year 2000, the ITBM model estimates a compliance burden of 3.21 billion hours. Guyton, et al., apply three different wage rates, \$15, \$20, and \$25 respectively, yielding a compliance cost of between \$48 and \$80 billion. If we add in the cost of paid preparers,

* The time estimates only reflect the time to complete one specific form. It is entirely possible, and if time estimates are to be believed, necessary, that other forms, with their own time requirements will also be completed. The IRS estimates preparation time for all of their forms, even though only a few are listed in Table 1.

tax software, and related expenses, which the authors estimate at \$18.8 billion, we can estimate a compliance cost between \$67 and \$99 billion.

Slemrod (2004) estimates taxpayers spent 3.5 billion hours complying with the tax code for tax year 2004. He follows the same methodology as Guyton, et. al. but estimates the compliance cost using the middle of the three wage rates (\$20). Slemrod estimates a cost of \$70 billion.

A conservative estimate would be to use the Guyton study methodology and estimate the cost at \$20 per hour and then add the costs for additional services, \$18.8 billion, which yields a total cost of \$83 billion.

A recent Government Accountability Office (GAO) report reached a similar conclusion. For individuals, GAO estimates compliance costs between \$67 billion to a little over \$100 billion.* At the low end was the aforementioned IBM/IRS study and Moody's estimates (2002) were at the high end. It is important to remember that we are not dealing with absolutes and that even at the low end, the compliance costs are massive and are likely underestimated. They present a real cost to society because every dollar that is lost to inefficiency represents a dollar society could have used for productive purposes.

Individual Responses to Complexity

Economics is ultimately interested in how individuals behave given certain constraints and how incentives influence behavior. Given high compliance costs, it is important to understand what economic responses people exhibit.

Substitution Effect. Because people have some understanding of the time costs of preparing their taxes, many will choose to forgo the process entirely and have someone else do the work. About half of all taxpayers purchase assistance from an accountant or other tax professional.† Those who purchased assistance spent about \$158 (1995 dollars) on average, although the amounts varied widely depending on the complexity of the return.‡

Because leisure time is valuable, it is not surprising that so many people seek assistance. Indeed, even some people with comparatively simple returns, such as those who file the 1040EZ, seek assistance.§

* GAO (2005) p. 12.

† Slemrod (2000).

‡ Slemrod (2000).

§ The 1040EZ constitutes 75% of all forms H&R Block files per year. Indeed, the fact that anyone would pay to have the form completed is a little surprising. A much higher number of people seek help to complete form 1040A, which, though it is still complex, is not as time intensive as the 1040.

While seeking assistance will reduce the time costs of taxation, records still need to be kept, and the individual must invest some level of time and effort. Nevertheless, because tax preparers have developed a high level of expertise, they will be more efficient and will lower the time requirements, but not necessarily the monetary costs, to comply with the Code.

Taxpayer Confusion. For those who file themselves, complexity can create confusion. People may intentionally take conservative filing positions when faced with a complex area of the tax code that seems to offer no clear answers. Alternatively, some people may want to “roll the dice” and try a more aggressive approach in the hope that complexity may protect them in case of an audit.*

In other cases, complexity may induce changes in behavior even when the tax law is clear and there is little chance of confusion. The tax law may be clear in some cases but involve a large number of steps or calculations that could be intimidating. This would not result in confusion or uncertainty, but might still alter behavior. For example, the Government Accounting Office (GAO) estimated that in tax year 1998, approximately 510,000 individuals did not itemize their deductions and may have overpaid their taxes by \$311 million.†

One possible reason for this apparently irrational behavior is that the GAO only considers the accounting costs involved. Itemizing may save a taxpayer money, but the economic costs, such as the lost time, may not be worth the accounting profit. Again, faced with a work-leisure constraint, people may simply decide to take the standard deduction in order to save themselves time and potential headaches.

As would be expected, individuals seek the easiest methods to complete the unpleasant process of filing taxes. Over the past 20 years, as technology has improved (especially computers), people have more and easier options to assist them. Now, approximately half of all returns are filed electronically.‡ IRS forms can be downloaded online, saving individuals the time and effort of waiting in lines and traveling for the proper forms. Also, programs like TurboTax and Quicken can further simplify the process by making complex calculations that

* Those that choose to pursue a more aggressive approach are also more likely to seek ways that avoid or evade taxation, usually with the assistance of a tax preparer. Comprehensive studies of tax evasion, though older (1992), suggest that noncompliance of both individual and corporate income tax cost the U.S. Treasury \$128.4 billion in that year (Slemrod, 2000).

† GAO (2001). In tax year 1999 31.7% of filers itemized their returns. Similar numbers hold across time periods (Campbell, 2001).

‡ Balkovic (2005).

would have previously been done by hand. These programs do have a monetary cost though.*

Lack of Transparency. Complexity in the tax laws obscures the actual tax base and increases the tendency for people to “free ride” on the contributions of others because each citizen’s individual contribution is just a drop in the bucket and doesn’t affect what benefits one receives from the government. This added effect of complexity can, over time, increase the tendency of people to feel that the tax system is not fair. People may call for marginal tax rates to increase, so a higher percentage of the burden of taxation will fall on the wealthier individuals in society.[†] Or, it can breed cynicism among taxpayers, which can ultimately lead to intentional noncompliance. Over time, this could make the collection duties of the IRS increasingly difficult.

Complexity Creep. One lesson of economics is that legislation can have unintended consequences. In tax law, one problem is that complexity does not become evident until many years after a change in the tax law. Consider the alternative minimum tax (AMT). In tax year 1990, only 132,000 people paid the AMT for individuals (there is also an AMT for corporations). In 2000 that number rose to 1.3 million and by 2010 the number is projected to rise to nearly 35 million, unless the current law is changed.[‡]

Ultimately, in order for a “voluntary” tax system to work, people must believe in the inherent goodness of paying taxes and providing for the public goods that all enjoy, even if the act itself is still painful. Complexity undermines this process through many of the processes mentioned above.

Conclusion

The Internal Revenue Code now consists of more than 1.4 million words and the result is complexity and taxpayer confusion.[§] The combination of compliance, administrative and welfare costs lead to very large economic costs and create strong disincentives to complying with the tax system. Tax reform is necessary and worthwhile. However, for tax reform to be successful, legislators should keep filing

* Some filers — those with incomes below a certain income threshold — can now use certain tax programs for free if they file online. This has the added bonus of providing sound assistance while reducing time costs.

[†] Several surveys, summarized in Slemrod (2000), suggest that people have a hard time identifying the true burden of taxation and frequently believe that the wealthier classes bear a smaller share of the burden than is actually the case.

[‡] See Schuler (2001) for an overview of the AMT. For the data on future AMT filers, see National Taxpayer Advocate (2004), p. 3.

[§] National Taxpayer Advocate (2004).

and administrative costs to a minimum and they should apply low marginal tax rates to a broad economic base. These simple guidelines should ensure that tax reform reduces disincentives to work, save, and invest.

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OPEC and the High Price of Oil

I. Introduction

This paper explores the reasons for high crude oil prices. It finds that the world is not running out of crude oil, on the contrary, it exists in great abundance. Crude oil also is not very expensive to produce. The cost of producing crude oil in the Middle East is less than \$5 per barrel and even in higher cost producing areas is nowhere near today's price.

The reason for the high price of oil is an artificial scarcity imposed on the market by the Organization of the Petroleum Exporting Countries (OPEC). The flow of oil to the market is restricted through collusion and the underdevelopment of the vast oil resources controlled by the OPEC cartel. The cartel controls 70 percent of the world's known oil reserves but contributes only 40 percent to world oil production.

Since the oil embargo of 1973, the price of crude oil also has been subject to wide swings. The reason is that OPEC has difficulty manipulating its output to fit changing market conditions and compounds the problem with secretiveness. Independent producers are left guessing what OPEC will do next and what market share it will claim. In the capital intensive oil industry this added uncertainty hinders investment decisions and lengthens the lead time of supply responses to a higher price.

Increases in world oil consumption have been driven principally by developing countries in Asia. Asian crude oil consumption has more than doubled since 1985. U.S. crude oil consumption, by comparison, increased just 12 percent in 25 years while the size of the economy more than doubled. Non-OECD countries now account for 40 percent of world crude oil consumption.

OPEC used the increase in oil demand to build up its market share until 1998. Since the oil price collapse in 1998 that followed the Asian currency crisis, the cartel has redoubled its efforts to preempt price declines and allowed increases in oil demand to push up the price. OPEC today barely produces more crude oil than it did in 1977. It has been sitting on spare capacity while the price has soared and is expected to collect an increase in oil revenue of \$92 billion for 2005 alone.

Part II of this paper cites geological estimates of the oil resource on earth and presents data on the amount of proven oil reserves; the concern over an eventual world oil shortage is addressed; and the cost of producing crude oil in different parts of the world is examined. Part III reviews the size of OPEC's oil reserves, its rate of production, the

price volatility it has caused since the oil embargo of 1973, the manner in which it manipulates output, and its secretiveness. Part IV addresses non-OPEC production and the effect that OPEC has on it. Part V examines trends in oil consumption in developed and developing countries over time. Part VI analyzes oil price developments since 1998 in detail and discusses secondary market factors often blamed for oil price shocks. Part VII considers the long-run outlook, and Part VIII presents the conclusions.

II. Supply of Oil

The oil resource. Oil exists on earth in different forms and in enormous quantity. The Energy Information Administration (EIA) estimates the world's recoverable conventional oil endowment at 3.3 trillion barrels, i.e., liquid oil in underground reservoirs, of which only 950 billion barrels have been removed in 145 years of production as of 2004. Annual oil consumption in 2004 was 30 billion barrels. At that rate the remaining conventional oil would last another 78 years. In addition, there are more than 4 trillion barrels of oil in the form of so-called oil sands and extra heavy oil, and at least another 2.6 trillion barrels in the form of oil shale.¹

All this oil is not available for immediate consumption. The availability of oil for consumption follows a hierarchy of cost related to the difficulty of finding it, making it accessible and extracting it from the ground. The economic concept of oil supply thus is different from the physical concept of how much oil exists. As an illustration, roughly two-thirds of the conventional oil known to exist in reservoirs traditionally has been abandoned as uneconomic, although that share is shrinking.² How much is recovered varies with the price of oil. If the

¹ This estimate was generated by the Energy Information Administration (EIA) from the U.S. Geological Survey (USGS) estimates and other federal government sources; see Guy Caruso, "When Will World Oil Production Peak?" 10th Annual Asia Oil and Gas Conference, June 13, 2005, EIA, <http://www.eia.doe.gov/neic/speeches/main2005.html#June>; Pete McCabe, senior USGS geologist, "USGS Official Upbeat About Oil Reserves Outlook," *Oil & Gas Journal*, 103, 16 (4/25/2005): 32; Sam Fletcher, "Industry, U.S. Government Take New Look at Oil Shale," *Oil & Gas Journal*, 103, 15 (4/18/2005): 26.

² The amount of oil abandoned is not included in the 3.3 trillion barrel estimate. For a schematic on recoverable oil estimation with a hypothetical conventional 6 trillion barrel oil-in-place resource base, see John H. Wood, Gary R. Long, and David F. Morehouse, "Long Term World Oil Supply Scenarios," posted August 18, 2004, p.3; http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2004/worldoilsupply/oilsupply04.html; see also Edward D. Porter, "Are We Running Out of Oil," American Petroleum Institute (API), Discussion Paper #081, December

price falls, oil field development will be curtailed. If the price rises, progressively more costly oil will be developed and produced. In addition to price, technology has a major impact on oil supply. Improved survey and recovery methods can increase knowledge about the location and size of oil deposits and reduce the cost of extraction.³ Geological estimates of the physical oil resource itself have grown over time as technology advanced. U.S. Geological Survey (USGS) estimates have a history of upward revision.

Known reserves. In order to produce oil, detailed knowledge about its location and the structure of deposits must be gathered, wells drilled and pipes laid for collecting the oil lifted from the ground. This activity is referred to as oil field development. The amount of oil that can be produced as a result of a given investment in oil field development is considered a “known” or “proven” oil reserve. The standard for proven reserve estimation is virtual certainty that the oil can be produced economically under existing technical conditions. “Known” reserves can be viewed as a producer’s oil inventory in the ground that is drawn down by ongoing production and restocked through incremental oil field development. Known reserves can be bought and sold in-ground. Figure 1 shows the size of world’s known oil reserves since 1980.

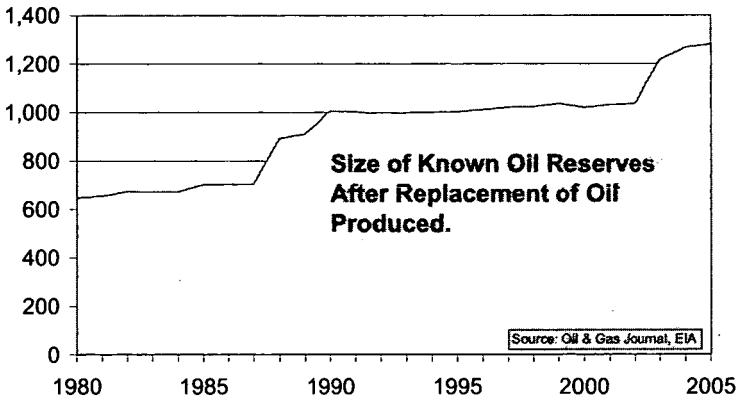
1995, which refers to an original conventional oil-in-place resource base between 6 and 8 trillion barrels and provides information on increasing recovery percentages.

³ To those who waive off blind faith in technology, a recent graphic in the *Wall Street Journal* may be instructive. It shows a survey ship atop the ocean sending seismic signals below to explore for oil beneath the ocean floor. The ocean is about 2 1/3 miles deep; the signals reach to a depth another five miles below the ocean floor. In October 2003, Unocal announced finding oil after drilling a well in the Gulf of Mexico through water and rock to a depth of 35,966 feet. That distance is the cruising altitude of jet aircraft. “Deep Drilling in the Gulf,” *Wall Street Journal*, June 23, 2005.

Figure 1

KNOWN OIL RESERVES

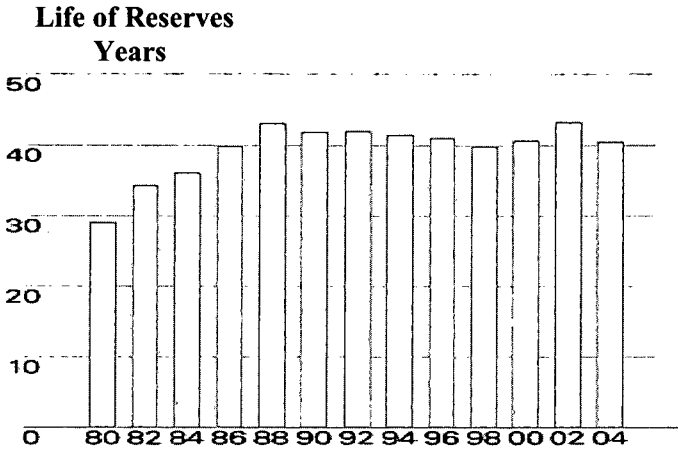
Billions of Barrels



One approach to measuring whether the supply of oil is keeping up with demand is to track the size of the world's in-ground oil inventory and compare it to the rate of production. In 1980 known oil reserves stood at 645 billion barrels; today they stand at 1.278 trillion barrels. **This means that enough new oil was developed to replace all the oil produced in 25 years *and* nearly double the reserves.** In 1980, the rate of production was 60 million barrels per day (b/d). The known reserves would have lasted for 29 years at that rate, if no new oil had been developed. Much was said at the time about the world running out of oil, because the price was at an all-time high. But, in 2004 the rate of production was 82.5 million b/d and at that rate today's reserves would last more than 40 years. Figure 2 shows the history of reserve life expectancy over time; also called the reserves-to-production ratio.

Figure 2

WORLD OIL RESERVES-TO-PRODUCTION RATIO



Source: The BP Statistical Review of World Energy, June 2005.

World oil shortage. Predictions of a world oil shortage are based on the notion of the oil supply as fixed. They miss the fact that the rate at which the physical oil resource enters the world's economic oil supply inventory depends on the price and development costs, which in turn depend on the state of technology. Proponents of the so-called peak production theory warn that an increasing rate of production will eventually reach an unsustainable level from which it must decline. They foresee a growing shortage arising after the peak has been reached.⁴ In the first place, this prediction fails to acknowledge that the price system will reallocate consumption among alternative resources long before any one of them run short. The occurrence of a peak in the rate of oil production at some point is to be expected and does not necessarily represent an adverse market event. Production profiles for minerals, commodities, and manufactured products typically increase at first and eventually decline as they are overtaken

⁴ This view draws on the bell-shaped production profile made famous by M. King Hubbert, a geologist who predicted the production peak for the continental U.S. The profile derives from the declining flow rate of producing oil fields due to diminishing natural underground pressure. Hubbert's model underestimated U.S. production in total, mainly because it fails to account for secondary and tertiary recovery methods. The peak production theory as such is a truism. Given the assumption of a fixed quantity of recoverable oil, an increasing rate of production must lead to a peak and a subsequent decline, more or less abrupt depending on the steepness of the upswing.

by substitutes. In the case of crude oil, that may be natural gas. Rather than experiencing a shortage, the world likely will leave a surplus of oil in the ground.

Secondly, the theory denies that there is any elasticity to the supply of oil, that the price mechanism can provide any inducement for increased oil development. Instead, the prediction is premised on a fixed quantity of oil reserves. Yet, while ongoing production obviously reduces the physical quantity of oil in existence, oil reserves have been increasing as shown. **The premise of a fixed oil supply has been proved wrong time and again by experience, as reserve estimates and the timing of production peaks have been surpassed.** Daniel Yergin, chairman of Cambridge Energy Research Associates (CERA), has ventured a guess that the world has “run out” of oil five times already. He also points out that the share of “unconventional oil,” such as oil sands and extra heavy oil, will rise from 10 percent of total capacity in 1990 to 30 percent by 2010.⁵ In other words, **oil considered “unconventional” today will become “conventional” in the future.** The EIA shows a history of steadily increasing world oil resource estimates since 1942 when no more than 600 billion barrels of oil were thought to exist on earth.⁶ That is less than one-fifth of the current USGS estimate of conventional oil deposits alone. The peak will keep moving to the right for some time to come.

Costs. “Lifting” costs refer to costs incurred in operating existing wells to extract oil from developed oil reserves. Persian Gulf wells have the highest flow rates and the lowest lifting cost. Saudi Arabia’s oil minister stated in October 1999, that its cost is less than \$1.50 per barrel.⁷ In the North Sea, one of the higher cost producing areas, operating costs have been estimated between \$3 and \$6 per barrel.⁸ The EIA shows average direct oil and gas lifting-costs worldwide of \$3.87 per barrel in 2003.⁹

The cost measure of greatest significance for the future oil supply is incremental reserve development cost. It represents the cost of

⁵ Daniel Yergin, “It’s Not the End of the Oil Age,” editorial, *Washington Post*, July 31, 2005.

⁶ Guy Caruso, “When Will World Oil Production Peak?” 10th Annual Asia Oil and Gas Conference, June 13, 2005, EIA, <http://www.eia.doe.gov/neic/speeches/main2005>.

⁷ “Saudi Oil Policy Combines Stability with Strength, Looks for Diversity,” *Oil & Gas Journal* 98, 3 (January 17, 2000): 17. The statement refers to “full” cost, but the context indicates operating cost.

⁸ Thomas R. Stauffer, “Trends in Oil Production Costs in the Middle East, Elsewhere,” *Oil & Gas Journal*, 92, 12 (March 21, 1994): 107

⁹ Performance Profiles of Major Energy Producers 2003; <http://www.eia.doe.gov/emeu/perfpro/ch1sec5.html>.

creating additional oil reserves and can be thought of as an inventory replacement cost. The “Big Four” Persian Gulf producers Iran, Iraq, Kuwait, and Saudi Arabia, have by far the lowest replacement cost; it has been estimated between \$1 and \$2 per barrel.¹⁰ The U.S., being the most intensely developed oil producing area in the world, faces some of the highest costs among major producers, upwards of \$25 per barrel in the lower 48 states. Figure 3 shows incremental cost ranges for major oil producing countries throughout the world.¹¹

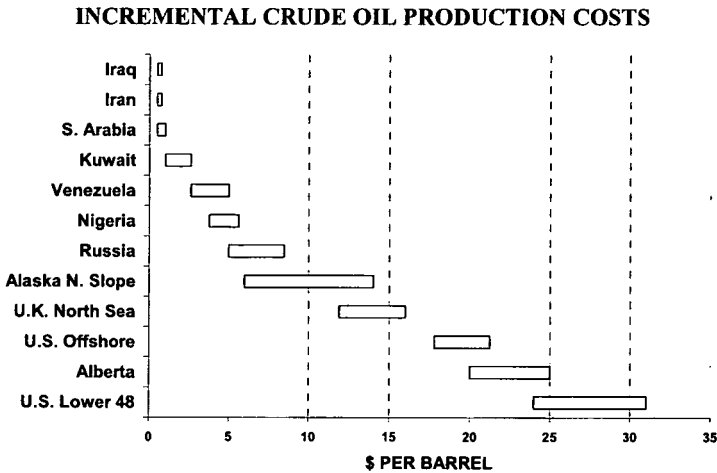
The sum of lifting and development costs in much of the Middle East thus falls in a likely range of \$2.50 to \$3.50 per barrel and certainly is below \$5 per barrel. The OECD cites costs in the Middle East of less than \$5 per barrel of oil as does the EIA.¹² The costs cited in this paper do not include taxes, which can be substantial.

¹⁰ Thomas R. Stauffer, “The Economic Cost of Oil and Gas Production: A Generalized Methodology,” *The OPEC Review* 28, 2 (June 1999): 192.

¹¹ Worldwide cost studies of more recent vintage have not been found, but the EIA’s data on foreign finding costs per barrel of oil equivalent (boe) show that costs have remained stable since 1994. Finding costs are the exploration, development, and property acquisition costs of replacing oil and gas reserves removed through production. The three-year average foreign cost computed by the EIA, in real terms, has moved between \$5 and \$6 per barrel from 1994 to 2003, except in 1996 when it was \$4.73. Prior to 1994 finding costs had been higher. In the U.S. costs rose in the past two three-year periods; <http://www.eia.doe.gov/emeu/perfpro/fig16.gif>. However, as an absolute measure finding costs are problematic, because the data comes only from U.S. companies subject to the EIA’s Financial Reporting System (FRS) and for the reasons given in note 13 following.

¹² OECD Economic Outlook, Vol. No. 76, December, 2004/2, p.123; “Oil Production Expansion Costs For The Persian Gulf, 1994-2010,” *EIA*, January 1996, Table 6 and author’s calculations.

Figure 3



Source: Thomas R. Stauffer, "Trends in Oil Production Costs in the Middle East, Elsewhere," *Oil & Gas Journal*, 92, 12 (March 21, 1994): 105-107.

Technological advances have made unconventional oil development economical. In 2004, Canada's oil sands production exceeded 1 million barrels per day. Canada's oil sands projects are reported to require a price of oil around \$25 per barrel to be profitable, implying development plus operating costs in that range.¹³ **This means that world oil reserves can be replenished and produced at a cost of less than \$5 per barrel by the world's low-cost producers, and a cost in the vicinity of \$25 per barrel by high-cost producers in existing oil producing areas.**¹⁴ However, development investments are large in absolute terms and essentially irreversible. This exposes

¹³ Canadian Association of Petroleum Producers, "Canadian Crude Oil Production and Supply Forecast, 2004-2015," p.5; Sam Fletcher, "N. American Unconventional Oil a Potential Energy Bridge," *Oil & Gas Journal*, April 11, 2005; 103, 14, p.22; Tamsin Carlisle, "A Black-Gold Rush in Alberta," *Wall Street Journal*, September 15, 2005.

¹⁴ Exploration costs per barrel of oil are difficult to isolate and assign appropriately because (a) most new oil is found through incremental development of existing oil fields, (b) time lags in oil discovery and development complicate exploration cost assignment to production volume, and (c) oil and gas tend to occur together but not in fixed proportion. Oil sands development requires no exploration. The cost of exploration per boe thus is not a useful concept. See M.A. Adelman, *The Genie out of the Bottle, World Oil since 1970*, (MIT Press, 1995), 20 and 37, for a critique of this measure. In any event, according to its oil minister, Saudi Arabia's cost of finding new reserves is less than 10 cents per barrel (op. cit.).

high-cost producers to added risk, especially in a market that is subject to manipulation (see discussion of non-OPEC producers in Part IV.)

III. The OPEC Cartel

Low cost producers collude openly. Established in 1960, the Organization of the Petroleum Exporting Countries (OPEC) is an intergovernmental cartel. The member nations own different oil fields and operate production facilities through state-owned oil companies in the Persian Gulf, Africa, South-East Asia and South America. The membership includes Iran, Iraq, Kuwait, Saudi Arabia (“The Big Four”), Qatar, the United Arab Emirates (U.A.E.), Algeria, Libya, Nigeria, Indonesia, and Venezuela. OPEC conducts formal meetings to discuss oil prices and output, share information, and coordinate the market activity of its member countries for the purpose of increasing their oil revenue. In 1982, OPEC started to assign explicit crude oil production quotas to each individual member country (Iraq has not been part of the production agreements since 1998). Previously, the OPEC members had coordinated the offer prices they posted for their crude oil. Professor M.A. Adelman, whose studies of the oil industry span decades, has described the cartel as follows:

OPEC is a forum whose members meet from time to time to reach decisions on price or on output. Fixing either one determines the other. ... They refrain from expanding output in order to raise prices and profits. Because each member’s cost is far below the price, output could expand many fold if each producer followed his own interest to expand output, which would lower prices and revenues. Only group action can restrain each one from expanding output.¹⁵

Needless to say, if U.S. companies engaged in price fixing and concerted output restriction they would be in *per se* violation of anti-trust laws.

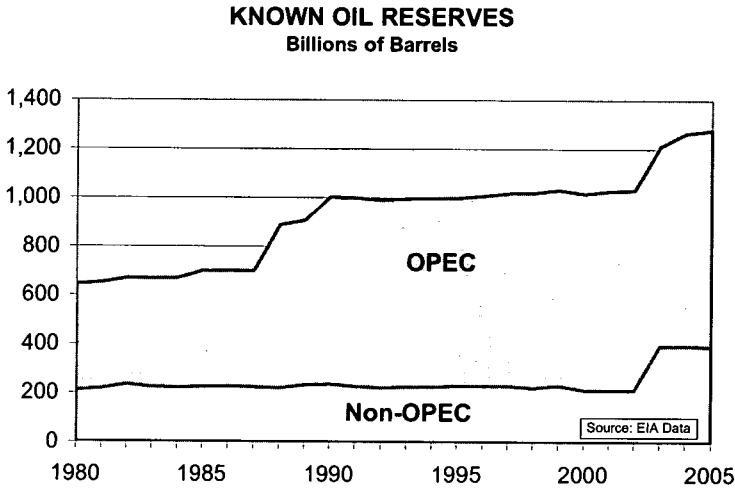
Holding back the flow of oil. OPEC has huge known oil reserves. Its reserves are currently estimated at 885 billion barrels versus 393 billion barrels for non-OPEC producers (Figure 4).¹⁶ Yet OPEC releases its oil to the market at an artificially low rate. **OPEC today barely produces more than it did in 1977** when world oil consumption was 61.8 million b/d whereas consumption is now approaching 85 million b/d. In 2004 OPEC’s daily production was

¹⁵ M.A. Adelman, “The Real Oil Problem,” *Regulation* (Spring 2004): 20. M.A. Adelman is professor of economics emeritus at the Massachusetts Institute of Technology.

¹⁶ “Annual Special World Wide Report,” *Oil & Gas Journal*, 102, 47 (December 20, 2004); EIA presents but does not certify foreign reserve estimates.

32.9 million barrels compared to 50 million barrels for non-OPEC countries (Figure 5). Non-OPEC production, which was about the same as OPEC's in 1977, has increased by two-thirds since 1977 and today far exceeds OPEC's rate of production. Professor Adelman has observed that **“for lower-cost output to fall or stagnate, while higher-cost output rises, is like water flowing uphill. Some special explanation is needed....”**

Figure 4

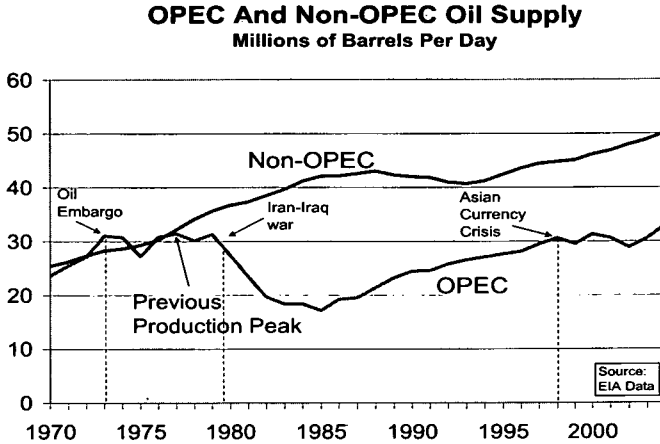


The special explanation is that OPEC holds back output to support the price, whereas producers acting independently sell what they can when the market price exceeds their cost. The OECD concurs, stating that, “OPEC and the reserve-rich producers in the Middle East have incentives to exploit [their] cost advantage by trading off market share for a higher price.”¹⁷ Given the large size of its known reserves, OPEC definitely has the ability to increase production substantially. Even OPEC delegates reportedly have indicated that the cartel is capable of raising production by one-third to 44 million b/d by 2009.¹⁸

¹⁷ M.A. Adelman, “World Oil Production and Prices 1947-2000,” *The Quarterly Review of Economics and Finance* 42 (2002): 169. Professor Adelman provides a thorough discussion of the OPEC cartel, its output manipulation and its effect on price in this article. OECD Economic Outlook, Vol. No. 76, December, 2004/2, p.123.

¹⁸ Carola Hoyos, “West Told Oil Demand is Too Much for OPEC,” *Financial Times (FT)*, July 7, 2005.

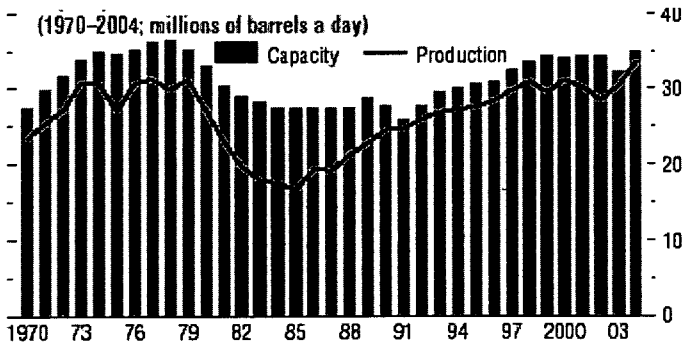
Figure 5



Spare capacity. Moreover, OPEC has had substantial excess short-run production capacity. Figure 6, reproduced from the IMF’s April 2005 World Economic Outlook, shows OPEC idle production capacity over time.

Figure 6

OPEC’S SPARE PRODUCTION CAPACITY



Source: IMF World Economic Outlook, April 2005.

OPEC’s spare short-run production capacity has been viewed as a “safety margin” that can be tapped quickly—within 30 days according to the EIA’s definition—in case of supply disruptions or demand surges, and its reported decline as a reason for higher prices. This logic is inverted. **OPEC does not hold excess production capacity for the benefit of oil buyers.** Significant, persistent excess production capacity is an indication of strategic output curtailment. At an average worldwide lifting cost of less than \$4 per barrel, a price of, say, \$20 per

barrel would yield more than \$16 in gross margin. Producers who forgo this size margin on any appreciable volume of sales have a strategic motivation. Non-OPEC producers do not hold excess capacity. From the beginning of 2002 to the first quarter of 2004, the worldwide average crude oil price rose from less than \$20 to \$30 per barrel and also exhibited short-term swings close to ten dollars in magnitude. Several OPEC members were sitting on excess short-run capacity during this time that could have been activated within a month's time. As the price rose above \$30 per barrel, more of the excess capacity was activated (the gross margin exceeding \$26 per barrel), but to this day Saudi Arabia is reported to have surplus production capacity of 0.9 to 1.4 million b/d.¹⁹

This surplus is not being used to lower the price. In the wake of Hurricane Katrina, OPEC declared its willingness to produce as much oil as needed. As Hurricane Rita gained strength in the Gulf of Mexico, OPEC even announced suspension of its output quotas. But when asked about discounting oil Saudi Oil Minister Ali Naimi said: "Absolutely not. I don't want to bring it on the market unless the consumer wants it at the commercial rate."²⁰ The commercial rate was near \$70 per barrel at the time. Katrina, though more devastating than anticipated, had no adverse effect on the price of crude oil after the fact; the price actually fell because *buyers'* stocks from the strategic petroleum reserves were released to the market. **Thus the price of crude oil will be lower and more stable if spare capacity is held by oil buyers (in the form of oil stocks), not if it is held by oil sellers with monopoly power.**

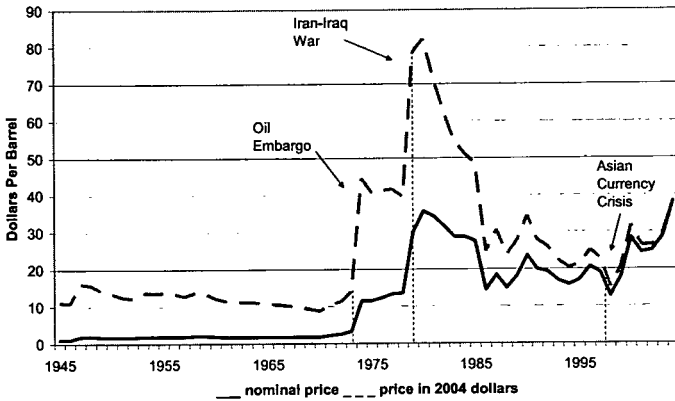
Price volatility. The price of oil used to be low and stable. The price per barrel fluctuated over months, not years and by cents or ten cents, not tens of dollars, notwithstanding increasing oil consumption, threatening political events and severe weather conditions. From the end of World War II until the oil embargo of 1973, Arabian Light crude oil sold for less than \$2.50 (about \$10 in 2004 dollars) per barrel in Ras Tanura, Saudi Arabia's Persian Gulf oil terminal. Then OPEC imposed the oil embargo; the price shot up and started to gyrate. Figure 7 shows the history.

¹⁹ EIA, Table 3a, OPEC Oil Production; Reuters reports OPEC's president stated that OPEC has spare capacity of 2 million b/d. "Oil Prices Near 'Acceptable' Levels: OPEC," October 29, 2005.

²⁰ Bhushan Bahree, "OPEC Suspends its Output Quotas," *Wall Street Journal*, September 21, 2005, p. A5.

Figure 7

CRUDE OIL PRICES SINCE 1945



Source: BP Statistical Review of World Energy, June 2005

Output manipulation. OPEC's effectiveness as a cartel has been questioned because an unstable price could suggest a lack of control over the market. Furthermore, prices had fallen below \$20 for many years which seemed low compared to the price peaks of the 1970's and 1980's. However, under changing market conditions it is far more difficult to maintain price or profit targets with compensating output adjustments that are timed correctly than it is to simply push the price above cost. In a dynamic market OPEC cannot go through an output adjustment process only once to get the margin it wants. It has to keep manipulating output and will know only after the fact if it could have driven the price higher or if it caused the price to rise too much. To maximize its profit over time, OPEC must take into account that a price level achieved in the short-run may not be sustainable in the long-run, because demand is more price sensitive (elastic) in the long-run as is the output of alternative suppliers. Once customers and competitors have had time to react to a higher price, OPEC may have to cut output, accept a lower price or a combination of both. **Large price swings reveal errors in forecasting and execution, not a lack of power to move the price.**

In the 1970's OPEC misjudged the industrialized world's ability to conserve and find substitutes for oil and drove the price too high. Consumption fell by 6.4 million barrels per day from 1979 to 1983. At the same time, OPEC underestimated non-OPEC supply. Oil fields in Alaska's North Slope, Mexico, and the North Sea had been discovered

and committed to development before the 1973 OPEC oil embargo.²¹ OPEC reduced its production up to 14 million barrels per day from 1977 to 1985—a reduction of 45 percent—and managed to hold the market price in a range between \$15 and \$21 per barrel for the most part from 1986 to 1999.²² World output continued growing, because the price remained above the incremental cost of non-OPEC producers. Had there been no cartel action to prevent it, the price would have fallen back down to OPEC members' cost.

OPEC's internal management problems further complicate the execution of joint output plans. Holding back output cooperatively is difficult, because each producer's incentive individually is to expand output when the price exceeds cost. Professor James L. Smith of the Southern Methodist University provides a most apt description of the cartel: "OPEC acts as a bureaucratic syndicate; i.e., a cartel weighed down by the cost of forging and enforcing consensus among its members, and therefore partially impaired in pursuit of [its] common good."²³ Professor Adelman is blunter: "Since cooperation is usually difficult, reluctant and slow, members' output overshoots or undershoots the demand. Prices are volatile not because of methods of production or consumption, but because of the clumsy cartel."²⁴

A study released in June 2005 by the Federal Trade Commission (FTC) confirms that OPEC has tried to cut or increase production to enforce a per barrel price band of \$22 to \$28 per barrel. The FTC concludes that while these efforts were only sporadically effective, OPEC "has been successful in exercising a significant degree of market power and in obtaining prices above competitive levels." *The Economist* reports that OPEC cleverly reduced its quotas to stop prices from softening whenever oil stocks in OECD countries started rising.²⁵

²¹ M.A. Adelman, *The Genie out of the Bottle, World Oil since 1970*, (MIT Press, 1995), pp. 150-153.

²² In over 30 years, the world-wide weighted average crude oil price computed by the EIA fell to a low between \$9 and \$10 for just eight weeks. Data supplied by EIA.

²³ James L. Smith, "Inscrutable OPEC? Behavioral Tests of the Cartel Hypothesis," *The Energy Journal*; 2005, 1.

Professor Smith presents quantitative evidence of the cartel's output manipulation. He also discusses reasons why several other studies had failed to do so. Professor Smith is Cary M. Maguire Chair in Oil and Gas Management.

²⁴ M.A. Adelman, "World Oil Production and Prices 1947-2000," *The Quarterly Review of Economics and Finance* 42 (2002): 171.

²⁵ "Gasoline Price Changes: The Dynamic of Supply, Demand, and Competition," Federal Trade Commission, June 2005, p.23; "Oil in Troubled Waters--A Survey of Oil," *Economist*, (April 30, 2005), p.4.

Indeed, OPEC has collected enormous monopoly rents since 1973. *The Economist* cited an estimate in 2003 that over \$7 trillion dollars in wealth has been transferred from American consumers alone to oil producers since the 1973 oil embargo by keeping the oil price above its true market-clearing level.²⁶ The EIA estimates that OPEC will collect \$430 billion in net oil export revenues in 2005; that is \$92 billion more than in 2004.²⁷ **Stable or not, high oil prices are hugely profitable for OPEC and they are kept high only by collusion.** Addressing the Houston Forum in October 1999, Ali I. al-Naimi, Saudi Arabia Minister of Petroleum and Mineral Resources, stated that “one thing is for sure: Saudi Arabia cannot accept a low oil price. Yet it cannot defend the world oil price all by itself, it can do so only in cooperation with other producers. We have tried doing it alone in the past and it did not work.”²⁸

Secretiveness. Among the troubling characteristics of OPEC is its lack of transparency. It does not permit outside inspection of its reserves or production facilities; does not release timely, accurate output data and does not reveal its future output plans or price targets. Inadequate information from OPEC renders industry data incomplete and forecasts highly unreliable.²⁹ This adds unnecessary uncertainty that can misdirect investment decisions and set off or exacerbate speculative forces in the oil market. Born from internal posturing and cheating relative to the cartel’s quota allocations, the OPEC member’s aversion to transparency serves no positive purpose. **Secretiveness fosters duplicity in the members’ dealing with each other and with the outside world.** Transparency International’s Corruption Perceptions Index 2005, surveyed 159 countries and rated them on a corruption scale from 0 (most) to 10 (least). It shows seven OPEC countries with a score of less than 3.³⁰

IV. Non-OPEC Producers

Crude oil is sold in standardized grades on a world market. Individual oil producers typically do not account for enough supply to move the market price to their advantage. They are price takers. Hence they operate close to their short-run pumping capacity. With the

²⁶ “The End of the Oil Age,” *Economist*, October 25, 2003, p.11.

²⁷ “OPEC Revenue Fact Sheet,” EIA, June 2005.

²⁸ “Saudi Oil Policy Combines Stability with Strength, Looks for Diversity,” *Oil & Gas Journal* (January 17, 2000): 98, 3, p.18.

²⁹ Bhushan Bahree, “Oil Forecasts Are a Roll of the Dice,” *Wall Street Journal*, August 2, 2005.

³⁰ “Transparency International Corruption Perceptions Index 2005,” Transparency International, The Coalition Against Corruption; <http://www.transparency.org/surveys/index.html#cpi>.

upper bound of operating costs estimated at \$6 per barrel, producers who take the market price as given would leave highly valuable output in the ground, if they do not operate their wells at capacity. Each well is subject to a declining flow rate which steadily raises a well's operating cost per barrel of oil produced. When a well's operating or lifting cost exceeds the market price, it is capped. Short-run output flexibility is provided by the rate at which aging wells are shut down, which depends on the market price.

Non-OPEC producers will respond to a rising oil price by keeping older wells operating longer and by drilling new ones. But **upfront investment in new production is essentially irreversible**. Since investors know that OPEC can move the price up as well as down but do not know what its plan is, they are more hesitant to invest than they would be if the market were not subject to manipulation. **The heightened uncertainty can delay an adequate supply response to a rising price**. By the same token, once new supply capacity is in place it takes an exceedingly low price (below operating cost) to shut it down. According to Adelman, "Oil prices fluctuate more because betting on price must include calculations about not just supply and demand, but also about OPEC's quota decisions, plus the members' fidelity to their promises. Hence, the world oil market is less predictable, more volatile, and more herky-jerky."³¹ The IMF World Economic Outlook concludes: "The unpredictability and volatility of oil prices also has deleterious effects on investment in the oil sector. ... The impact of price volatility on investment could generate a vicious cycle whereby low or delayed investment activity could in turn add to price volatility."³² Claude Mandil, Executive Director of the International Energy Administration (IEA), in a statement dated June 29, 2005 and posted on the IEA website, has called for OPEC governments to announce clearly their programs and schedules for new capacities. They have not done so.

V. Demand for Oil

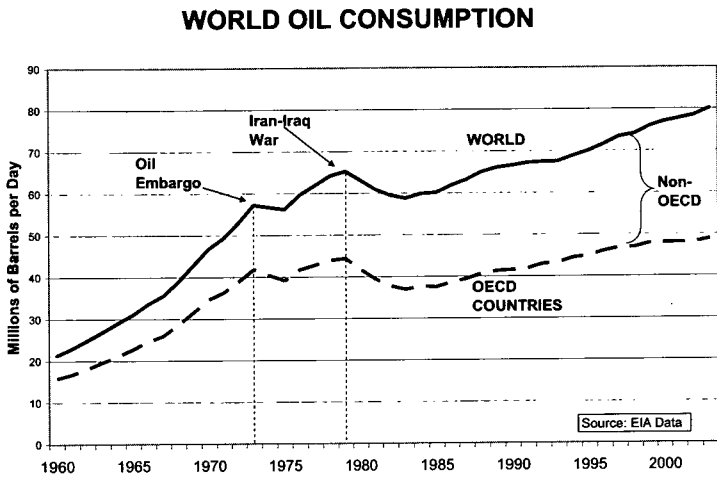
Economic growth. Oil is needed for industrial production, electric power generation, and transportation. In the developed countries, oil demand from all three was increasing rapidly prior to 1973. But the oil price spikes of the 1970's and 1980's caused the OECD countries to curtail their demand for oil through input substitution and conservation. Industry and utilities in substantial measure have shifted to other energy sources (e.g., natural gas). The transportation sector was forced to conserve fuel through minimum mileage requirements for cars in the

³¹ M.A. Adelman, "The Real Oil Problem," *Regulation*, Spring 2004, 20.

³² IMF World Economic Outlook, April 2005, Chapter IV, p.160.

U.S. and high gasoline taxes in other countries. World oil consumption fell as a result and even substantial economic growth in OECD countries thereafter caused it to rise only gradually. **Since 1979, U.S. oil consumption increased by 12 percent in which time the nation's real GDP more than doubled.** Figure 8 shows the much lower trajectory of OECD oil consumption since the 1980's compared to the period prior to the embargo. In non-OECD countries meanwhile, economic growth has led to greater increases in oil consumption. **In 1973 non-OECD countries accounted for 27 percent of world oil consumption; in 2003 they accounted for 40 percent.** Developing

Figure 8



economies are much less energy and oil efficient than the more developed economies and their growth is more oil dependent.

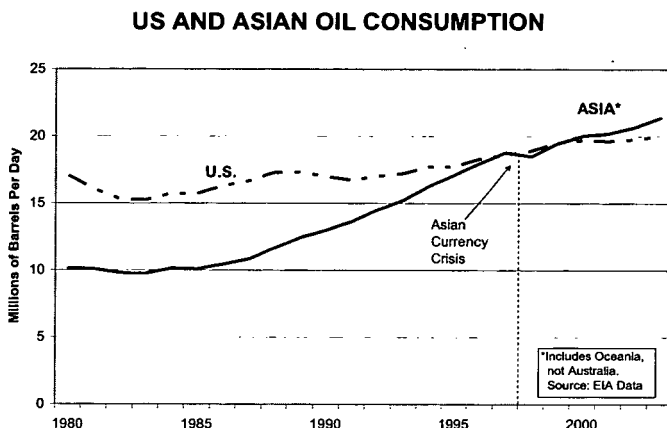
The People's Republic of China (PRC) for example is less than half as efficient in the use of oil per unit of GDP as the OECD average.³³ Some countries, such as the PRC and Indonesia, actually subsidize the use of oil domestically to mitigate the adverse impact of high oil prices on their economy.³⁴

Asian demand. Economic development in Asia is a major new force in the world, and its oil consumption accounts for most of the increase. Figure 9 shows the steep rise in Asian consumption. It overtook U.S. oil consumption first in 1997 and, after the Asian currency crisis had set it back temporarily, again in 2000.

³³ James Hookway, "Thailand Tries to Prop Up Economy," *Wall Street Journal*, August 30, 2005.

³⁴ Paul Blustein and Craig Timberg, "High Oil Prices Met With Anger Worldwide," *Washington Post*, October 3, 2005.

Figure 9



Of the 4.8 million barrel increase in daily world oil consumption from 2001 to 2004, 3.29 million (69 percent) came from non-OECD countries and 2.32 million (48 percent) came from non-OECD countries in Asia. The new demand has been coming primarily from the PRC and India. From 1990 to 2003 the shares of oil consumption by the three largest oil consuming nations in Asia changed dramatically: The PRC's share rose from 18 percent to 26 percent, India's share rose from 8.5 percent to 10.5 percent, and Japan's share of oil consumption fell from 38 percent to 25 percent. The PRC is now the largest oil consuming nation in Asia.

VI. Analysis of Oil Price Developments Since 1998

OPEC reclaims market share. Growing Asian demand helped OPEC to boost its oil production and market share from their 1985 levels without causing the price to decline further. The steep rise in Asian oil demand starting in 1986 (Figure 8) coincides with the recovery of OPEC's rate of production (Figure 4) and market share, which increased from 29 percent in 1985 to 40 percent by 1994. In 1997, OPEC committed a miscalculation, however, and suffered a severe setback. It raised its production ceiling substantially by 2.5 million b/d in anticipation of further demand growth from Asia, but it guessed wrong.³⁵ The currency crisis of late 1997, instead, caused Asian demand to fall. The result was a market price that dipped below \$10 per barrel for the first time since 1973, and a \$51 billion year-over-year reduction in oil revenue.

³⁵ For a more extensive discussion of this event and OPEC's subsequent actions, see Wilfrid L. Kohl, OPEC behavior, 1998-2001, *The Quarterly Review of Economics and Finance* 42 (2002), 210-213.

Price rises as OPEC restrains output. OPEC quickly lowered its output quotas and kept them below the level adopted in December 1997 for the next seven years. This despite the fact that world oil consumption recovered and in 1998 was higher than in 1997. The attacks of September 11, 2001 caused oil demand to fall, but world oil consumption was still 4.4 million b/d higher in 2002 (78.5 million b/d) than it had been in 1998 (74.1 million b/d). Yet OPEC cut its quotas for all of 2002 to a level 5.8 million b/d below that of December 1997 (21.7 vs. 27.5 million b/d). Its market share fell to 37.6 percent. World oil consumption subsequently accelerated, increasing by 1.53 million b/d from 2002 to 2003 (to 79.9 million b/d), and by 2.57 million b/d from 2003 to 2004 (to 82.5 million b/d). OPEC finally raised its quotas in 2003 and regained market share, but it subsequently lowered its quotas again, while the price was rising. As late as April 2004, it reduced its quotas to 23.5 million b/d. In December 2004, it resolved to cut back member output that was exceeding its quotas.³⁶ Prices had been in the mid-\$30s per barrel in December 2004; by the last week of January 2005, they exceeded \$40 per barrel and continued to climb. Only in April of this year did OPEC bring the quotas back up to the level in effect at the beginning of 1998. It finally raised its output ceiling by another 0.5 million b/d effective July 1, 2005. On June 25 of this year OPEC's president was quoted by *The Wall Street Journal* as saying that there was a need to observe price further before raising the production ceiling again. The price for West Texas Intermediate crude oil had just reached \$60 per barrel.³⁷

³⁶ OPEC's 133rd meeting on December 10, 2004; EIA, Country Analysis Briefs, "OPEC," June 7, 2005.

³⁷ "OPEC President Will Wait Before Making Output Hike," *The Wall Street Journal*, June 25, 2005.

Figure 10

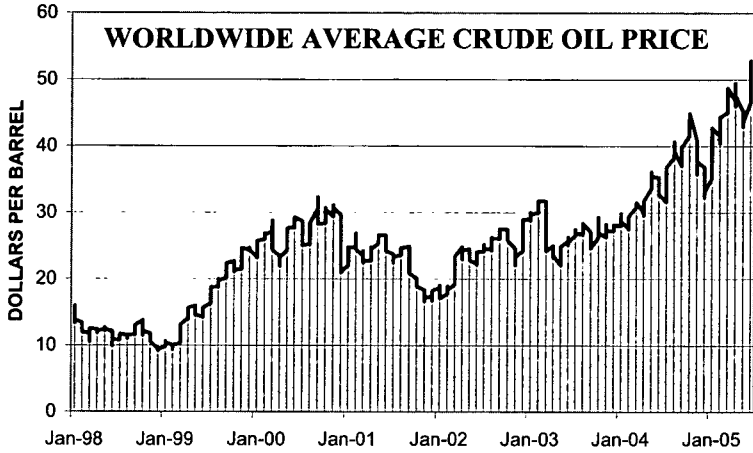
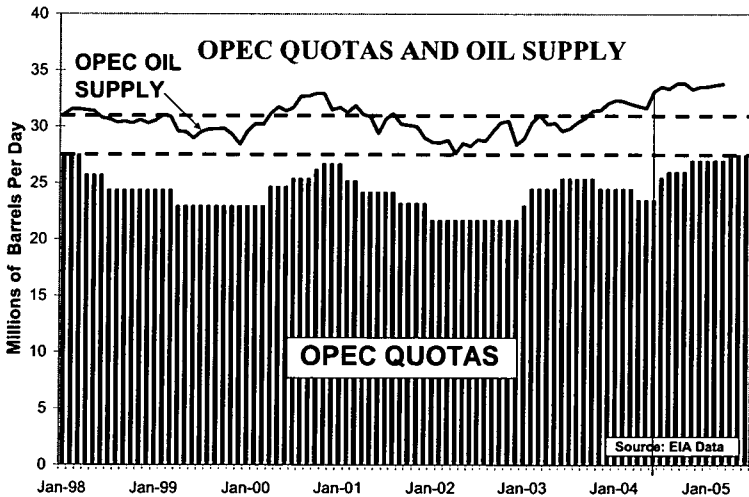


Figure 11



OPEC's quotas are set for crude oil only. Total oil supply consists of lease condensate, natural gas plant liquids, and refinery processing gain in addition to crude oil. Because of these additional components

and deliberate overproduction by some members, OPEC's total oil supply exceeds its quotas. As Figure 11 shows, total OPEC supply nevertheless correlates to the crude oil quotas and was held below or close to its 1998 level until 2004 when it moved modestly higher. In 2004, world oil consumption had grown to 82.5 million b/d and the price had been rising almost continuously since early 2003.

When demand increases and sufficient additional oil is not offered to fully accommodate the increment, buyers will allocate among themselves what quantity is available by bidding the price up. Since 1998, OPEC has managed its rate of oil production so that when demand increased it would not be fully accommodated and the price was bid up. There were brief phases when demand declined, and OPEC may have been concerned that Asian demand would recede again. It may have been overly restrictive in its production and also slow to invest in capacity expansion for this reason. OPEC shrouds its oil industry in secrecy. It is not known to what extent its conduct has been shaped by an overly cautious strategy to prevent another price collapse or by a deliberate plan to bring about a higher price. **The fact is that the price of oil did not have to rise. OPEC members hold more than enough oil reserves to satisfy increases in demand, and in the Middle East it costs less than \$5 per barrel to produce more oil. Yet despite facing increases in world oil consumption year after year, OPEC did not raise its output quotas above the level of early 1998 until April of 2005.**

Other explanations for high oil prices. An inadequate supply side response to increasing demand magnifies the price impact of any occurrence that lessens, even minimally, the amount of oil available for purchase. In the short-run input substitution typically is a very limited option, which makes oil buyers willing to bid the crude oil price up disproportionately to try to meet their requirements (demand is inelastic). This heightens concerns over events that normally would not move the price of oil on the world market, such as accidents or labor strikes somewhere in the oil supply chain. Natural disasters, terrorist attacks or production problems in a major oil producing country certainly can have an effect on the price of oil, but these events also are usually compensated for in short order in an unfettered market. **Supply shocks of this kind occurred prior to the oil embargo of 1973 as well, but they were absorbed so quickly that annualized price data shows no variations** (see the nominal price line in Figure 7). It is also useful to recall the complaint by Mr. Ali I. al-Naimi that Saudi Arabia—the largest oil producer in the world—cannot hold up the market price of oil by itself, which strongly suggests that no other country can either, whatever the nature of the supply problem. The reason for high oil

prices is the ongoing, collective restriction of the oil supply by the cartel members.

Refinery “bottlenecks.” OPEC has claimed that insufficient refinery capacity is linked that to high crude oil prices.³⁸ This is not logical. Refineries process crude oil. If they are operating at full capacity, then the rate at which they can use unprocessed crude oil has reached a limit and they will not bid the price up to buy more. On the other hand, if OPEC were to bring more crude oil on the market, that would lower the price.

Different grades of crude oil require different types of refining capacity. In the short-run, imbalances can arise that may cause price differentials among different crude oil grades to widen temporarily. This has occurred with respect to lower sulfur (sweet) and higher sulfur (sour) crude oil grades. But refiners in time adapt their facilities to changing price differentials for different quality grades. The dramatic upward price trend in all crude oil grades cannot be explained by limitations in all or some types of refining capacity.

OPEC’s output restriction expected to continue. When an increase in oil scarcity is perceived to be temporary, the spot price of crude will rise but oil futures prices for long term delivery will not. Crude oil delivery prices exceeding \$60 per barrel extend to 2011. This timeframe is longer than it takes to drill more wells and increase production capacity. Saudi Arabia earlier this year embarked on a \$50 billion program to expand its petroleum industry over the next five years to 2010.³⁹ OPEC has indicated that it could increase production by 11 million b/d by 2009. Daniel Yergin of Cambridge Energy Research Associates (CERA) recently stated that “between 2004 and 2010, capacity to produce oil (not actual production) could grow by 16 million barrels per day—from 85 million barrels per day to 101 million barrels a day—a 20 percent increase. Such growth over the next few years would relieve the current pressure on supply and demand.”⁴⁰ The CERA forecast is based largely on projects already under development that had been approved in the 2001-2003 timeframe with lower price expectations than current prices. The forecast implies a 3 percent average annual compound growth rate of capacity. Since 2001, world oil consumption has been increasing at an average annual compound growth rate of 2 percent. How can oil futures prices remain

³⁸ Acting for the OPEC Secretary General, Dr. Adnan Shihab-Eldin delivered a speech at an OPEC/IEA luncheon on September 28, 2005, “OPEC-IEA Cooperation and the International Oil Market Outlook;” <http://www.opec.org/opecna/Speeches/2005/OPECIEA.htm>.

³⁹ *Wall Street Journal*, June 6, 2005.

⁴⁰ Daniel Yergin, “It’s Not the End of the Oil Age,” editorial, *Washington Post*, July 31, 2005.

so high then? Yergin goes on to say that the capacity growth is “pretty evenly divided between OPEC and non-OPEC.” Therein lays the answer. If OPEC does not fully utilize its capacity, then incremental production could be as much as halved and prices would stay high. OPEC has a history of holding back production to support the market price and it could continue to do so, compensating for non-OPEC supply increases. As Phil Verleger of the Institute for International Economics and *The Economist* put it: **“Investors [in oil futures] believe the OPEC cartel will cut output to stop prices falling.”**⁴¹ If demand continues to grow sufficiently, OPEC may even have room to raise its production at a controlled pace while prices remain high or are pushed higher. The OECD puts it this way: “The less elastic global oil demand and non-OPEC supply are in the long-run, the greater are OPEC’s incentives to restrict output and thus raise prices in the face of rising world demand.”⁴²

VII. The Long-Run

Oil futures prices over \$60 per barrel for delivery as late as six years hence (2011) point to a scenario in which strong demand growth from developing economies compensates for countervailing market forces and strengthens OPEC’s pricing power. However, the longer the timeframe considered, the greater the elasticity of global oil demand and of non-OPEC supply is likely to be. **Six years was the timeframe from the oil embargo (1973) to the oil price peak (1979). Thereafter the price plummeted.** Oil sands production today is at a beginning stage, just as Alaskan and North Sea production had been in the 1970’s. The use of oil in developing nations is relatively inefficient and also may experience improvements similar to those in more mature economies. Moreover, new technologies in the oil intensive transportation sector, for example hybrid electric vehicles, are gaining acceptance and could be deployed throughout the globe, not only in developed countries.⁴³

Since the Asian currency crisis, OPEC has taken pains to reduce output at any sign of softening demand. It has increased output only gradually when demand has risen. This strategy indicates preoccupation with price in the near term, not with long-run forces mobilized by large margins over incremental development cost. The market price has moved far beyond the \$22 to \$28 per barrel price

⁴¹ “Oil in Troubled Waters, A Survey of Oil,” *Economist*, April 30, 2005, p. 4. At the time the price was \$40 per barrel. Both spot and futures prices are now over \$60 per barrel.

⁴² OECD Economic Outlook, Vol. No. 76, December, 2004/2, p.123

⁴³ See, for example, Jathon Sapsford, “General Motors Joins Rush to Make Hybrids in China,” *Wall Street Journal*, October 31, 2005

band OPEC once sought to maintain. It appears that OPEC's members have been adjusting upward their view of what the long-run sustainable crude oil price is along with the upward movement of the market price. In June of this year, OPEC's ministers reportedly indicated that they would "like to see" a price below \$50 per barrel, but there was no consensus on how much lower, though not below \$30.⁴⁴ More recently OPEC officials are said to believe that the market may support a price well above \$50 per barrel.⁴⁵ The enormous revenue increases for OPEC brought on by the price surge—from \$338 billion in 2004 to an estimated \$430 billion in 2005 alone—provide a powerful inducement for members to regard a high price as the "right" price. It will be difficult for OPEC's members to change their bias toward underproduction when it has resulted in growing riches. **This could portend continuation of high prices for the next several years and a subsequent recurrence of the price decline seen after 1979.**

VIII. Conclusion

The world is not running out of oil. Crude oil is an abundant resource. The rate at which it enters the world's economic oil supply inventory depends on the price, development costs, and technology. The supply of oil therefore is not fixed, and known oil reserves, in fact, have been increasing, not decreasing.

Unfortunately, the price of oil bears no relation to the scarcity of oil in the ground or to the cost of getting it out of the ground. The OPEC cartel controls 70 percent of the world's known oil reserves and manipulates how much oil reaches consumers. It imposes an artificial scarcity on the market that elevates the price manyfold above Middle East production cost of less than \$5 per barrel and far above the cost of other producing areas as well.

The market price of oil is also highly unstable, because the cartel is not able to accurately anticipate market changes and administer compensating output adjustments. In the short-run, OPEC commits errors in timing and sizing its output changes that set off price gyrations. In the long-run, it has underestimated the elasticity of oil demand and of non-OPEC oil supply. In the 1970's it drove the price up over several years but then had to accept years of price declines. As

⁴⁴ Bhushan Bahree, "OPEC Lifts Quota But Urges Increase In Refining Capacity," *Wall Street Journal*, June 16, 2005.

⁴⁵ Michael Williams, "Why OPEC's Over a Barrel," *Wall Street Journal*, June 16, 2005; September 17-18, 2005, *Wall Street Journal*, August 30, 2005. Reuters reported OPEC's president stating that "... Oil prices were approaching a level acceptable to both consumers and producers after recent decreases," "Oil Prices Near 'Acceptable' Levels: OPEC," October 29, 2005.

a result, price trends do not even convey *changes* in the true scarcity of oil.

The effect of the price distortion is worsened by OPEC's secretiveness. The lack of transparency has no benefit to the cartel as a whole and is associated with cheating and corruption. Other market participants lack crucial market information including what price OPEC intends to support and what market share will be left for them. Especially in a capital intensive industry this delays appropriate supply responses from non-OPEC suppliers and aggravates price volatility.

Most of the increases in oil demand since the late 1980's have come from developing countries in Asia. Currently 40 percent of world oil production is consumed and paid for by non-OECD countries, up from 27 percent in 1973. One aspect of this shift in demand is that developing countries increasingly are paying for OPEC's enormous profits. The EIA estimates that from 2004 to 2005 alone OPEC's net oil revenue will increase by \$92 billion.

Rising demand, on the whole, allowed OPEC to sell more crude oil without lowering the price prior to 1998, and after the Asian currency crisis, to raise the price while maintaining its sales volume. OPEC's output quotas were the same in March 2005 as they were in early 1998. Going forward, if demand continues to grow, OPEC may be able to keep the price high. Oil futures prices are above \$60 per barrel for delivery dates to 2011, which is beyond the timeframe it would take to bring substantial production increases online. OPEC is hinting that it may support prices far above the \$22 to \$28 per barrel range it tried to maintain in years past.

However, significant developments on the demand and the supply side of the oil market are taking hold and could gain momentum (among them hybrid electric vehicles and oil sands production). The inflation adjusted historical crude oil price peak occurred in 1979. That was six years after the oil embargo of 1973 when OPEC first imposed dramatic price increases. After the peak, the price commenced a long, steep decline as input substitution, conservation measures, and increased non-OPEC production lessened OPEC's pricing power. The world may be in the first phase of another such cycle.

Of course, the world could pressure OPEC to produce more oil and provide more information about its oil fields and production plans, if not to dismantle the cartel. The first step is to dispense with misleading representations of oil resource depletion and to place short-run disturbance to the oil supply outside the cartel in proper perspective. Secondly, as a cause for high prices, less emphasis should be placed on increases in oil demand, which, after all, emanate from

long awaited economic development in poor countries. Instead, OPEC's restrictive output policy, large reserves, low costs, and surging revenues should make the most headlines: "OPEC's output barely higher than in 1977;" "Mid-East production costs less than \$5 per barrel;" "OPEC to collect \$430 billion in 2005." The Third World will need more oil in order to grow economically. It would benefit from more responsible policies on the part of the world's oil producers with the lowest cost and the largest reserves.

**RANKING MINORITY MEMBER'S
VIEWS AND LINKS TO MINORITY
REPORTS**

RANKING MINORITY MEMBER'S VIEWS AND LINKS TO MINORITY REPORTS

I. OVERVIEW

The economy grew in 2005, but the benefits of that growth continued to show up in the bottom lines of companies rather than in the paychecks of workers. In the recovery from the 2001 recession, working families have been left behind from the start, and they continued to be left behind in 2005.

The signature policies of the Bush Administration and the Republican Congress have not addressed the problems facing ordinary American families. Successive rounds of tax cuts were poorly designed to stimulate job creation and produced a legacy of large budget deficits. Those large and persistent budget deficits contributed to an ever-widening trade deficit and massive borrowing from abroad. Most of the benefits of the tax cuts accrued to very high-income taxpayers, while cuts in programs that benefit middle- and lower-income families were viewed as the best way to pay for those tax cuts.

Policymakers faced a challenge in 2005 from the devastation to the Gulf coast from Hurricanes Katrina and Rita. The economy suffered a blow to employment and economic activity; and a budget that was already under strain had to absorb additional funding for emergency relief and planned reconstruction. In addition, the hurricanes focused attention on problems that had been ignored, such as the lack of emergency preparedness, inadequate investment in critical infrastructure, and, most sadly, neglect of our most disadvantaged citizens.

Many economists predicted that the economy would be resilient in the face of the hurricanes (see the JEC Democrats' report *Potential Economic Impacts of Hurricane Katrina*), and they appear to have been correct. However, the challenges facing policymakers remain (see *Meeting America's Economic Challenges in the Wake of Hurricane Katrina*, a forum sponsored by the JEC Democrats and the Democratic Policy Committee).

Unfortunately, there has been no change in the priorities or policies of the Bush Administration and the Republican Congress to address the problems facing the country's most disadvantaged citizens or to help ordinary working families deal better with job and retirement insecurity and the rising costs of energy, health care, and education for

their children. The Congress ended the first session of the 109th Congress debating budget reconciliation bills that would cut spending on programs that benefit middle- and lower- income families in order to partially fund the extension of tax cuts that mostly benefit very high-income taxpayers. The rest of the tax cuts would be financed by adding still more to the budget deficit.

The JEC Democrats' report, *Potential Economic Impacts of Hurricane Katrina* can be found at:

http://www.jec.senate.gov/democrats/Documents/Reports/katrinareport_sep05.pdf

Materials from the JEC Democrats/Democratic Policy Committee forum, *Meeting America's Economic Challenges in the Wake of Hurricane Katrina*, can be found at:

<http://www.jec.senate.gov/democrats/hearings.htm>

II. The Economy in 2005

The U.S. economy grew at an average annual rate of 3.8 percent over the first three quarters of 2005 despite the destruction caused by the Gulf hurricanes in late August and September. That growth rate is somewhat faster than the economy's long-term trend rate of growth, which is generally thought to be in the range of 3¼ to 3½ percent per year.

Above-trend growth was possible because productivity growth was strong and there was still slack in the labor market from the protracted jobs slump that began with the 2001 recession. A growing economy led to a pick-up in job creation and a modest reduction in the unemployment rate in 2005, but other indicators continued to point to softness in the labor market.

The Labor Market

Over the first eight months of the year and prior to Hurricane Katrina, employers added an average of 196,000 jobs per month to their payrolls. Hurricane-related job losses contributed to a sharp slowdown in aggregate job growth in September and October, but national payroll employment picked up again in November when over 200,000 jobs were created. The unemployment rate, which was 5.4 percent at the end of 2004, came down in early 2005 and settled into a narrow range around 5 percent for the rest of the year.

For an economy going through the most prolonged jobs slump in the postwar period, any improvement in the labor market was welcome. Nevertheless, many Americans remained unemployed and the official unemployment rate did not reflect hidden unemployment associated with depressed labor force participation. For those people with jobs, wage growth lagged far behind growth in output and productivity. Rising energy prices caused consumer prices to grow substantially faster than wages. Moreover, wage growth was uneven, with low-earning workers hit hardest by sluggish wage gains and more recently by declining real wages.

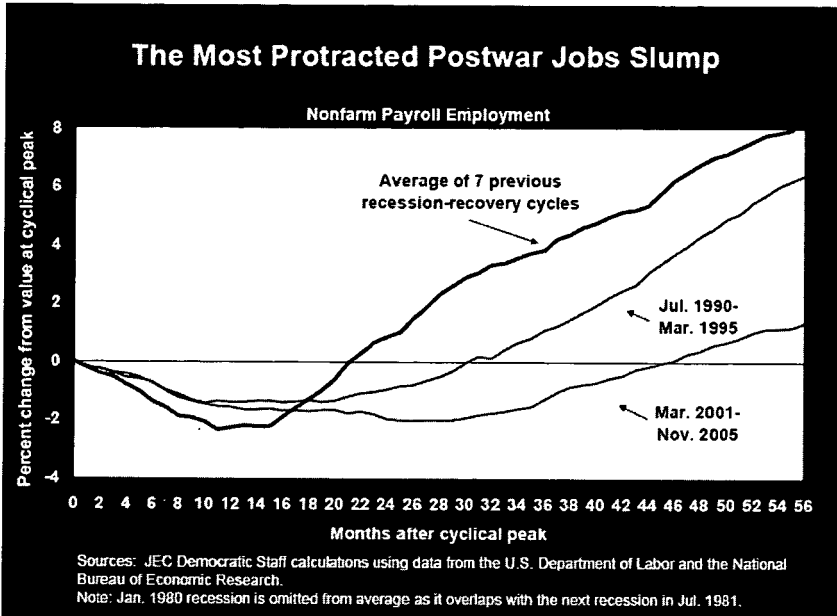
A protracted jobs slump. The jobs slump associated with the recession that began in March 2001 was the most protracted jobs slump since at least the end of World War II (the period over which we have comparable data). In fact, one would have to go back to the 1930s to find a worse jobs slump.

On average in the postwar period, job losses have stopped about a year after the onset of a recession and employment has begun to increase after about 15 months. Within two years, employment has surpassed its pre-recession peak and is expanding at a healthy pace. The most recent jobs slump was dramatically different from that pattern and even more protracted than the so-called “jobless recovery” following the 1990-91 recession (**Chart 1**).

The 2001 recession began in March and ended in November, according to the National Bureau of Economic Research, the widely recognized arbiter of business cycle dating. However, job losses continued until May 2003—more than two years after the start of the recession. It was not until January 2005, nearly four years after the start of the recession, that payroll employment climbed above its March 2001 level. Payroll employment increased in every month from June 2003 through November 2005. However, the pace of job creation over that period was just 149,000 jobs per month—only a little faster than the pace needed to keep up with normal growth in the labor force.

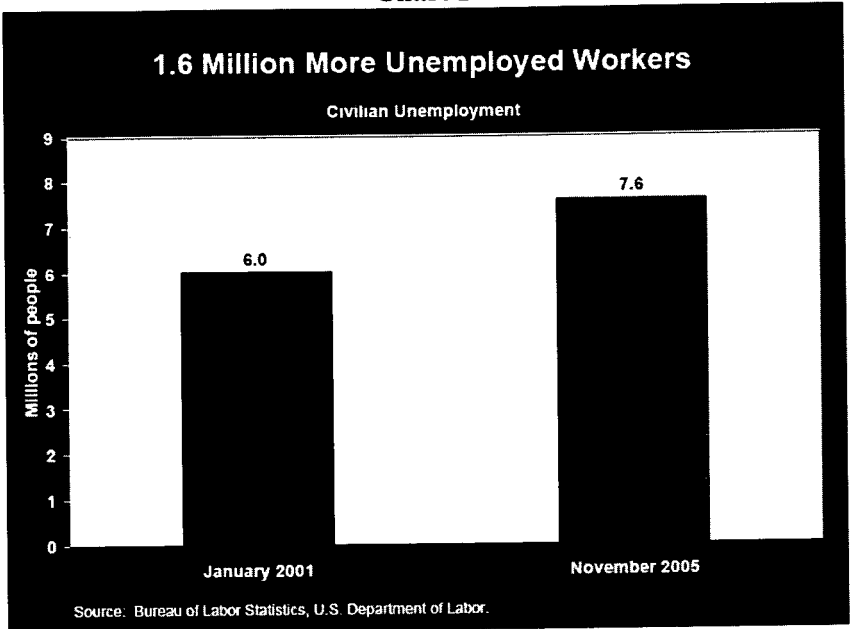
Whereas it was common to see job gains of 200,000 to 300,000 and sometimes 400,000 jobs per month in the 1990s expansion, gains of that magnitude were rare in the recovery from the 2001 recession. The economy created 3.4 million jobs between the end of the recession in November 2001 and November 2005. That is 4.9 million fewer jobs than were created over a comparable period in the recovery from the 1990-91 recession.

Chart 1



Indicators of labor market weakness. Millions of Americans who want to work do not have jobs. Although the unemployment rate has come down from its peak of 6.3 percent (reached in June 2003), the rate of 5.0 percent in November 2005 was still 0.8 percentage point higher than it was in January 2001 when President Bush took office and a full percentage point higher than it was in 2000.

In November 2005, 7.6 million people were officially counted as unemployed—1.6 million more people than were unemployed when President Bush took office in January 2001 (**Chart 2**). To be counted as unemployed, a person must be actively looking for work, but in a weak labor market there can be considerable hidden unemployment and underemployment if people who want to work have been discouraged from looking for work and if people who want to work full-time can only find a part-time job.



In a typical business cycle recovery, people come back into the labor force as the prospects of finding a job improve, but in the most recent jobs slump labor force participation has remained depressed compared with what it was at the start of the recession. In November 2005 the labor force participation rate (the proportion of the population working or actively looking for work) was 1.1 percentage points lower than it was at the start of the recession in March 2001. As a result of sluggish job creation and the depressed labor force participation rate, the proportion of the population with a job (the employment-to-population ratio) was 1.5 percentage points lower than it was at the start of the recession.

In November 2005, 4.8 million people who were not in the labor force said they wanted a job; about 1.4 million of these are considered “marginally attached” to the labor force because they have searched for work in the past year and are available for work. At the same time, 4.2 million people were working part-time because of the weak economy but wanted to be working full-time. The Bureau of Labor Statistics estimates that if marginally attached workers were included, the unemployment rate would have been 5.9 percent in November 2005, and if those working part-time for economic reasons were also included it would have been 8.7 percent.

A final indicator of labor market weakness is the fact that the number of people unemployed for more than 26 weeks is twice as high

as it was when President Bush took office. Twenty-six weeks is the cut-off for regular state unemployment benefits, and the President and the Republican-controlled Congress failed to renew the Temporary Extended Unemployment Compensation program when it expired in December 2003. As a result, those who subsequently exhausted their regular state benefits did not receive any additional federal benefits, even though it was difficult to find a new job in a labor market that remained relatively weak.

The number of long-term unemployed as a fraction of total unemployment fell below 20 percent in June 2005 for the first time in 32 months—the longest stretch on record in which that fraction exceeded 20 percent. In November 2005, a still-large 18.4 percent of the unemployed had been without a job for more than 26 weeks.

Sluggish wage growth. For those workers who are employed, wage gains have been swamped by increases in the cost of living. Over the first 11 months of 2005, real (inflation-adjusted) average hourly earnings of production and other nonsupervisory workers in private nonfarm establishments fell at an annual rate of 0.7 percent. While the most recent declines in real earnings have been especially sharp because of the rise in energy prices, wages have been growing relatively slowly for some time.

Since the economic recovery began in late 2001, output per hour in the nonfarm business sector has grown at a 3.4 percent average annual rate, but the average hourly pay and benefits of the workers producing that output has grown at an average annual rate of just 1.5 percent after inflation.

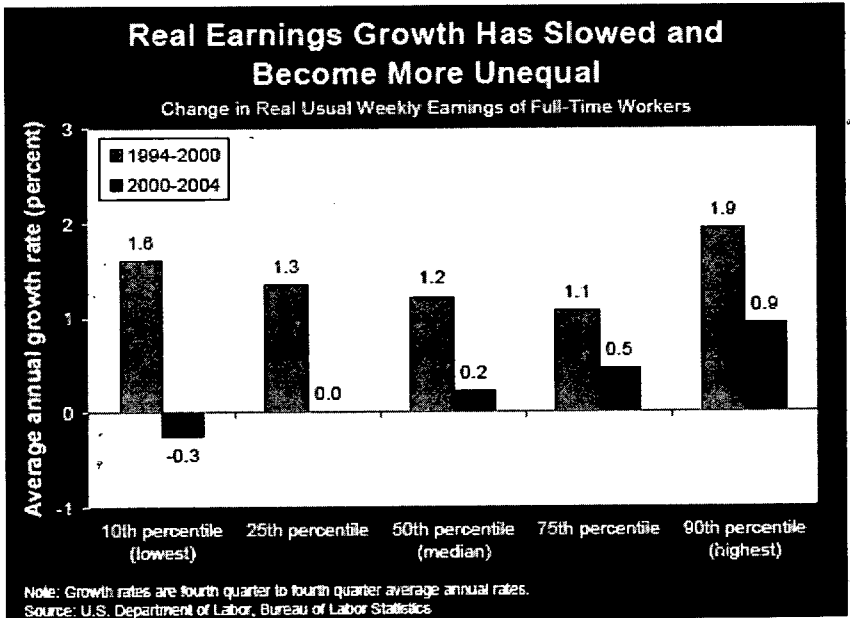
Over most of that period non-wage benefits grew more rapidly than wages, but that is because employers were absorbing higher costs for the health insurance and other benefits they were providing. The take-home pay of workers was stagnating. In the second and third quarters of 2005, total pay (wages plus benefits) did not keep up with inflation.

Strong productivity growth has boosted national income and profits, but wages have lagged. From the end of the recession in the fourth quarter of 2001 until the third quarter of 2005, aggregate compensation (wages and salaries plus benefits) rose 20.4 percent, while corporate profits rose 64.2 percent—more than three times as fast. Aggregate wages and salaries rose just 16.6 percent. As a

percentage of national income, wages and salaries reached an all-time low in 2004 and remained near historically low levels in 2005.

Unequal wage growth. Real wages at the top of the distribution have grown, while wages at the bottom have fallen. For example, from the end of 2000 to the end of 2004, the usual weekly earnings of full-time wage and salary workers in the middle of the earnings distribution grew by just 0.2 percent per year after inflation (**Chart 3**). Earnings near the top (the 90th percentile) rose by almost 1 percent per year after inflation, while earnings near the bottom (the 10th percentile) fell by 0.3 percent per year, on average. That sluggish and unequal growth in earnings contrasts sharply with the experience from the end of 1994 to the end of 2000, when real wage gains were substantial throughout the earnings distribution.

Chart 3



Most recently, real wages have fallen and some of the largest declines have been at the bottom of the distribution. For example, from the third quarter of 2004 to the third quarter of 2005, the real usual weekly earnings of workers fell throughout the distribution, with declines of 3.0 percent at the 25th percentile and 2.7 percent at the 10th percentile. Real earnings at the 90th percentile fell by 2.2 percent. In the third quarter of 2005, median usual weekly earnings of full-time

workers were \$649. Earnings at the 90th percentile of the distribution were \$1,484, while those at the 10th percentile were \$306.

Energy Prices, Inflation, and Monetary Policy

Energy prices were already rising before the Gulf hurricanes hit, and, although prices abated somewhat from their storm-related spikes, energy prices in November 2005 were considerably higher than they were a year earlier. Prior to hurricane Katrina, the Energy Information Agency (EIA) expected the average retail price of regular gasoline to be \$2.21 per gallon in the fourth quarter of this year, and to decline to \$2.18 by the end of next year. In its December 2005 forecast, the EIA is expecting average gasoline prices in the fourth quarter to be \$2.38 per gallon, with the same price expected to prevail at the end of next year. Natural gas prices rose sharply as well, and home heating costs are expected to be significantly higher in the winter of 2005-2006 than they were the previous year.

As a result of rising energy prices in 2005, the consumer price index (CPI) in November was 3.5 percent above its level a year earlier. However, the underlying rate of inflation—a measure that is more significant to the Federal Reserve's monetary policy decisions than the overall CPI—appeared to be little affected by the acceleration in energy costs. The core CPI (which excludes volatile food and energy prices) grew a moderate 0.2 percent in each of the last two months. In November, the core CPI was only 2.1 percent above its level a year earlier. That suggests that little if any of the rise in energy prices had so far translated into higher prices for non-energy consumer goods.

A stable underlying rate of inflation is a good thing for macroeconomic stability, but households must still pay their energy and food bills. The EIA currently expects that consumers will have to spend over 25 percent more to heat their homes this winter than they did last year. For those consumers whose homes are heated solely by natural gas (nearly 58 percent of U.S. households), the increase in winter heating expenditures is expected to be close to 40 percent.

Although core inflation has been tame, the Fed has been raising its target for the federal funds rate—the short-term interest rate it controls—since June 2004. For much of that period the Fed described its actions as “removing policy accommodation.” In other words, concern over the weakness of the recovery in 2003 and early 2004 had led the Fed to keep short term interest rates very low, but once the economy began to show stronger growth, the Fed began to

raise rates at what it called “a pace that is likely to be measured.” The policy announcement accompanying the 13th rate hike in December 2005 changed that language. The Fed no longer described monetary policy as accommodative but it continued to signal the possibility of further rate hikes “to keep the risks to the attainment of both sustainable economic growth and price stability roughly in balance.”

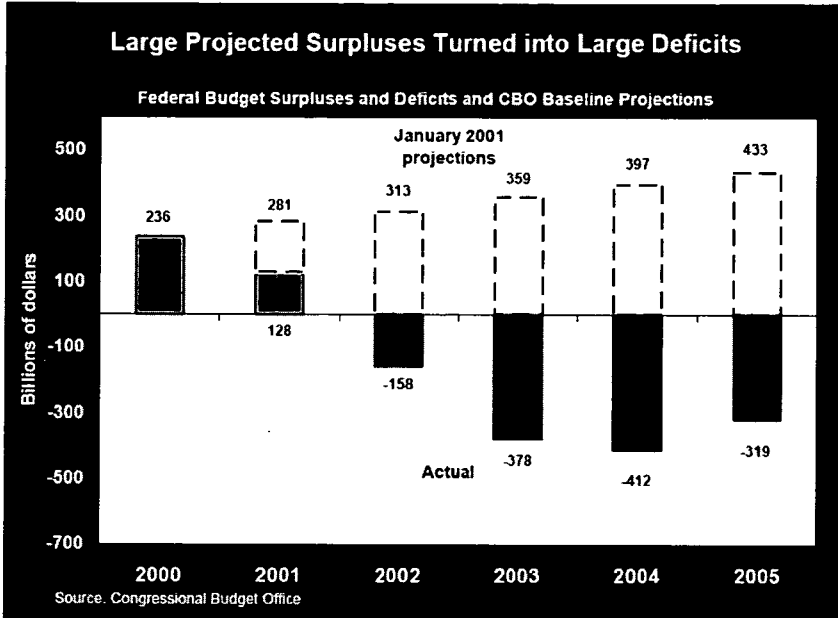
Rising energy prices could create a dilemma for the Fed if those increases begin to feed into core inflation while at the same time contributing to weaker household spending. In such a “supply-shock” scenario, the Fed would have to choose between tightening monetary policy (raising interest rates more than they otherwise would have) in order to keep inflation contained or loosening monetary policy (cutting interest rates or at least ceasing to raise them) in order to strengthen demand and keep unemployment from rising. To date, however, core inflation and inflationary expectations have remained contained.

III. The Consequences of Irresponsible Fiscal Policy

When President Bush took office in January 2001, the Congressional Budget Office projected large and growing federal budget surpluses under existing laws and policies (the so-called baseline projection). Those surpluses were projected to cumulate to \$5.6 trillion over the 10 years from 2002 to 2011. In fact, of course, the surplus was smaller than projected in 2001 and by 2004 a projected \$400 billion surplus had turned into a deficit of over \$400 billion (Chart 4).

The fiscal year 2005 budget deficit was \$319 billion, which is much lower than was originally estimated in January of this year. While the improvement in the 2005 budget is welcome, a deficit of \$319 billion is still very large and stands in marked contrast to the surplus of \$433 billion that CBO was projecting in January 2001 when President Bush took office. Moreover, many analysts believe that the improvement in the 2005 budget reflects temporary factors that have boosted revenue this year but that the long-term budget outlook is little changed and continues to show persistent large structural deficits.

Chart 4



Many factors have contributed to the return of large structural budget deficits after a strong economy and the fiscal discipline of the 1990s had restored the budget to surplus. For example, the 2001 recession caused a temporary cyclical increase in the budget deficit. But one of the main reasons for the re-emergence of large structural deficits is the tax cuts enacted over the past four years.

Defenders of the tax cuts argue that they were necessary to pull the economy out of the recession and that they will contribute to long-term growth. Some even argue that the tax cuts generate enough revenue to pay for themselves.

In fact, however, the tax cuts were poorly designed to generate short-term job-creating stimulus without adding to the long-term budget deficit. A wide range of economists recognizes that tax cuts increase the budget deficit. Dynamic analyses of the tax cuts by both the Congressional Budget Office and the Joint Committee on Taxation conclude that the negative effects of budget deficits tend to outweigh any positive benefits from the tax cuts on economic growth. A Congressional Research Service analysis of the dividend tax cut reached the same conclusion.

Tax cuts and economic growth

Proponents of extending the 2001-2003 tax cuts argue that those tax cuts are responsible for the current economic recovery and that they need to be extended beyond their statutory expiration date in order to promote continued economic growth. While the immediate, one-time tax rebates that were part of the 2001 tax package provided needed economic stimulus in the short-term, extending the tax cuts beyond their scheduled expiration will do little to promote the saving and investment needed for sustained long-term growth. Rather, extending the tax cuts will increase the deficit, reduce national saving, and ultimately result in lower national income.

Effects of the tax cuts so far. Despite over \$800 billion in cumulative tax cuts since 2001, economic growth in the period following the 2001 recession was not particularly strong, lagging behind the growth experienced in the recoveries following previous recessions. In the recovery following the 1990-91 recession, growth was more rapid than in the current recovery, even with the tax increases enacted in 1990 and 1993.

The 2003 tax cuts, which lowered the tax rate on dividends and capital gains and increased the amount of investment expense that businesses could deduct in the first year, were intended to promote saving and investment. Proponents of extending those tax cuts point to the increase in business investment that followed enactment of the tax cuts as evidence of their success. However, the increase in business investment that started in the second quarter of 2003 was not unexpected given the sharp drop in investment during the 2001 recession.

The increase in business investment in this recovery is not particularly strong when measured against previous business cycles. Business investment was only 5.8 percent higher in the third quarter of 2005 than it was in the first quarter of 2001. In contrast, business investment was almost 26 percent higher at a similar point in the recovery following the recession in 1990-1991.

Tax cuts do not “pay for themselves.” Supporters of the Administration’s economic policies claim that deficit-financed tax cuts are not a problem because tax cuts lead to increased federal revenues. Some suggest that the rapid growth in revenues in 2005 is evidence that “tax cuts can pay for themselves.”

While revenues were higher than expected in 2005, the Congressional Budget Office (CBO) attributes little of the additional revenues to higher-than-expected economic growth. Real economic growth in 2005 was not stronger than projected by CBO or the Office of Management and Budget at the beginning of the year. Much of the recent revenue surprise is the result of strong corporate income tax receipts following the expiration of the enhanced investment expensing provisions enacted in 2002 and 2003. As CBO noted in its August 2005 update to its Budget and Economic Outlook:

“CBO now expects that when all revenues for 2005 are tabulated, corporate tax receipts will exceed its March projection by \$53 billion. [Note: Receipts were actually \$62 billion higher than the March projection.] Only \$1 billion of that difference can be attributed to the revised economic outlook.

“...[T]he sources of the current strength in corporate tax receipts will not be known until information from tax returns becomes available in future years, but CBO anticipates that most of that strength will be temporary.”

A comparison of actual revenues with revenue projections done in January 2001 prior to enactment of the tax cuts does not support the claim that tax cuts pay for themselves (Table 1). The revenue shortfall in 2003 through 2005 is almost \$900 billion more than the projected cost of the enacted tax cuts.

It is important to keep in mind that even with the rapid growth in revenues in 2005, federal revenue expressed as a share of GDP was 17.5 percent in 2005, well below an average revenue share of 18.2 percent since 1960. Federal revenues fell to 16.3 percent of GDP in 2004, the lowest level relative to the economy since 1959. It is not surprising that the revenue share of GDP would grow as the economy recovers. However, if the 2001-2003 tax cuts are extended, the revenue share of GDP will drop below its current level after 2006.

Table 1

A Comparison of CBO Revenue Projections with Actual Revenues,
2003-2005

(Billions of dollars)

| | 2003 | 2004 | 2005 | 2003- 2005 |
|--|--------------|--------------|--------------|---------------|
| CBO revenue projection (January 2001) | 2,343 | 2,453 | 2,570 | 7,366 |
| Actual revenues | <u>1,782</u> | <u>1,880</u> | <u>2,154</u> | <u>5,816</u> |
| Revenue shortfall | 561 | 573 | 416 | 1,550 |
| | | | | |
| CBO projected revenue loss from the 2001-2004 tax cuts | 179 | 265 | 211 | 655 |

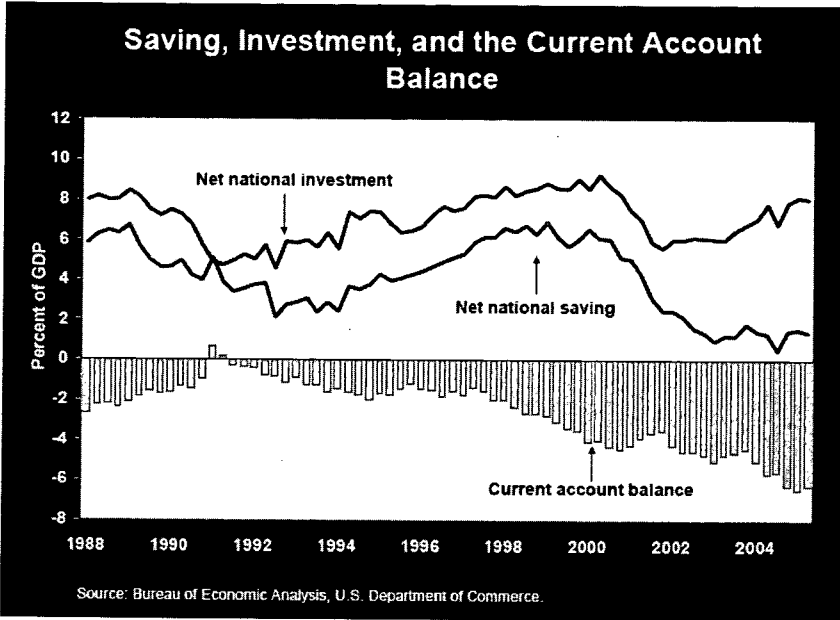
Budget Deficits, Trade Deficits, and Economic Growth

Large and persistent budget deficits have contributed to producing an ever-widening trade deficit that forces the United States to borrow vast amounts from abroad and puts the economy at risk of a major financial collapse if foreign lenders suddenly stop accepting U.S. IOUs. Even if an international financial crisis is avoided, continued budget and trade deficits will be a drag on growth in living standards.

Reduced national saving means lower national income. Large federal budget deficits have caused U.S. national saving to plummet since 2000. That decline in national saving has not translated into a similar decline in national investment, but only because the United States has run a large international trade deficit (**Chart 5**). Without the substantial purchases of U.S. Treasury securities by foreign central banks and others that have helped finance that deficit, U.S. interest rates would almost certainly be much higher than they are now and national investment would be much lower.

The relationship since 2000 among saving, investment, and the current account deficit contrasts sharply with the situation in the 1990s expansion. In the 1990s, U.S. net national investment exceeded net national saving, but both were growing as the improvement in the federal budget contributed to higher net national saving. An increasing fraction of net national investment was being financed by U.S. saving and a diminishing fraction by foreign borrowing. After 2000, a growing fraction of U.S. net national investment was financed by foreign borrowing rather than U.S. saving.

Chart 5



If the United States continues to rely on foreign borrowing rather than its own national saving to finance investment, growth in national income will be curtailed. Maintaining investment through foreign borrowing contributes to higher productivity growth in the United States. However, the income from investment financed by foreign borrowing accrues mostly to the foreign lenders. As long as a high fraction of U.S. national investment is being financed by foreign borrowing, future U.S. national income will be reduced by the costs of financing and repaying those loans.

The trade and current account deficits are at record levels. The deficit in goods and services (the difference between U.S. imports of goods and services and U.S. exports of goods and services) rose to a monthly record of \$68.9 billion in October. Both in dollar terms and as a share of GDP, the trade deficit will set another record in 2005. The broader current account deficit, which includes income flows as well as goods and services, was 6.3 percent of GDP in the second quarter of 2005 (the latest data available) and is on track to set a record in 2005.

The United States had to borrow nearly \$670 billion to finance its international payments imbalance in 2004. It is on track to have to borrow nearly \$800 billion in 2005.

A depreciation of the dollar will not restore balance any time soon. After nearly three years of decline, the dollar rose in value against the currencies of its trading partners in 2005. However, many analysts believe that the rise in 2005 is temporary. More importantly, notwithstanding the recent increase, the value of the dollar in November 2005 was 11 percent lower than it was at its peak in February 2002 (based on the broadest trade-weighted exchange rate index, adjusted for differences in inflation among the various countries).

In principle, a fall in the dollar can improve the trade deficit by encouraging exports and discouraging imports. However, changes to imports and exports resulting from changes in the exchange rate can take some time to play out, and the trade deficit may initially worsen when the dollar depreciates (because the price of imports has gone up but the quantity purchased has not yet gone down).

Moreover, the central banks of some Asian economies where exports are viewed as an important source of economic growth have been resisting the appreciation of their currency (which would hurt their exports) by buying dollars. In recent years, for example, China has intervened heavily in the foreign exchange market by purchasing U.S. Treasury securities and other dollar-denominated assets to keep its currency from rising beyond its target exchange rate. In effect, governments that intervene to support their currency are helping to finance the U.S. trade deficit and limiting adjustment through the exchange rate.

Restoring fiscal discipline is one of the best ways to reduce the trade deficit and avoid problems from a weak dollar. Thus far, there has not been a flight from the dollar among foreign holders. However, private investors and foreign governments may suddenly decide that the benefits of holding dollars no longer justify the risks. A widespread dumping of dollar-denominated assets could precipitate an international financial crisis. But even an orderly further depreciation of the dollar and reduction in foreign capital inflows is likely to be accompanied by inflationary pressures from rising import prices and a further tightening of monetary policy by the Fed.

Without an increase in national saving, any reduction in the current account deficit would also entail reduced national investment that would harm future growth. Private saving may rise some from its very depressed levels, but it would be imprudent to count on that. As many experts, including Federal Reserve Chairman Greenspan, have

said, the best way to increase national saving is to reduce the federal budget deficit. That is also one of the best ways to reduce the trade deficit and to promote U.S. national investment and a rising standard of living.

Distorted Budget Priorities

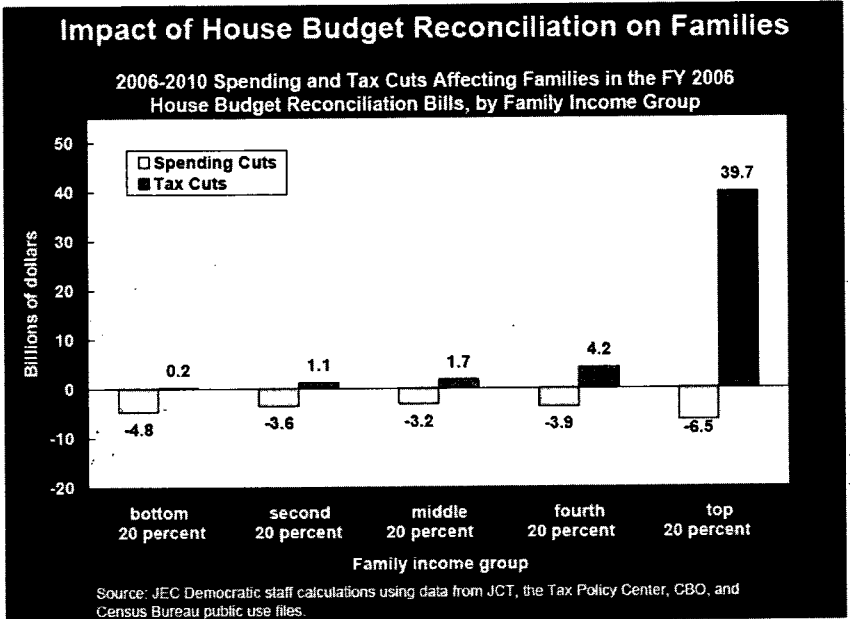
No matter what the budget situation, the challenge of dealing with the effects of Hurricanes Katrina and Rita would have put short-term strains on the federal budget. However, those strains would have been easy to absorb if U.S. budget and economic policies were sound.

Unfortunately, instead of sound budget policies aimed at preparing for the imminent retirement of the baby-boom generation, the Bush Administration and the Republican Congress have refused to adopt the kinds of budget enforcement rules that helped achieve fiscal discipline in the 1990s; have pursued an open-ended commitment to rebuilding Iraq that relies on supplemental appropriations rather than the normal budget process; and have remained committed to extending tax cuts that will add further to the budget deficit.

The end result is that policy priorities are distorted and programs that help ordinary Americans cope in a difficult economy become candidates for budget cutting in order to fund tax cuts. The budget reconciliation process this year illustrates these misplaced priorities. Congress was having difficulty completing the reconciliation process at the time this JEC annual report was completed, but the JEC Democrats' study, *The Impact on Families of the House and Senate Spending and Tax Reconciliation Provisions: A Preliminary Analysis*, shows how families in different parts of the income distribution would be affected by the plans under consideration.

The report compares the dollar value of the loss in benefits from cuts in spending that affect people directly with the gain in after-tax income from the tax cuts for families in each fifth of the income distribution. Using the House bills as a model, the analysis shows that families in the poorest fifth of the income distribution, which receive only 3 percent of total family income, would bear 22 percent of the cuts in spending directly affecting families and receive almost no benefit from the tax cuts. In contrast, families in the richest fifth of the income distribution would receive most of the benefits of the tax cuts, and those benefits would far outweigh any loss from the spending cuts (Chart 6).

Chart 6



The JEC Democrats' report, *The Impact on Families of the House and Senate Spending and Tax Reconciliation Provisions: A Preliminary Analysis*, can be found at:

<http://www.jec.senate.gov/democrats/Documents/Reports/budgetreconciliationdec2005.pdf>

IV. Meeting America's Economic Challenges

The Joint Economic Committee Democrats issued several reports in 2005 analyzing America's economic challenges. In addition, they co-sponsored a forum at which distinguished policy experts discussed those challenges in the wake of Hurricane Katrina. This section summarizes those reports and provides web links to them.

Democratic Economic Forum: Meeting America's Economic Challenges in the Wake of Hurricane Katrina

The JEC Democrats and the Democratic Policy Committee co-hosted a forum with distinguished economic policy experts Robert Rubin, Alan Blinder, Alice Rivlin, Roger Altman, Cecilia Rouse, and Bruce Bartlett to discuss the economic challenges posed by Hurricane Katrina and how working families are paying the price for misplaced budget priorities and other structural economic problems that existed

before the hurricane and which remain unaddressed by the Bush Administration.

The panel generally agreed that the devastating impact of Hurricane Katrina will put short term strains on the federal budget, but a long-term economic disaster looms if the Bush Administration does not change course on economic policy. The panelists focused their remarks on the historically large budget and trade deficits; growing income disparities and the economic insecurity felt by the middle class; and providing adequate education and training. The panel assessed the economic challenges we face, evaluated current policies and how they differ from those implemented in the 1990s, and discussed policies we should pursue in the future.

Materials from the JEC Democrats/Democratic Policy Committee forum, *Meeting America's Economic Challenges in the Wake of Hurricane Katrina*, can be found at:
<http://www.jec.senate.gov/democrats/hearings.htm>.

Poverty, Family Income, and Health Insurance

Annual data released in 2005 by the Census Bureau show that the Bush administration's economic policies have not benefited most working families. During the first term of the Bush administration, income for the typical American household fell by \$1,670, 5.4 million more people slipped into poverty, and 6 million more joined the ranks of those without health insurance.

The proportion of Americans living in poverty rose to 12.7 percent in 2004, up from 11.3 percent in 2000. Inflation-adjusted median household income was \$44,389 in 2004, down from \$46,058 in 2000. The number of Americans without health insurance increased to 45.8 million in 2004, up from 39.8 million in 2000.

Key findings from the reports can be found in the following three JEC Democratic studies:

Poverty Rate Increases for Fourth Consecutive Year

<http://www.jec.senate.gov/democrats/Documents/Reports/poverty7sep2005.pdf>

Household Income Unchanged in 2004, but Down Since 2000

<http://www.jec.senate.gov/democrats/Documents/Reports/income7sep2005.pdf>

The Number of Americans without Health Insurance Grew by 860,000 in 2004, Increasing for the Fourth Year in a Row
<http://www.jec.senate.gov/democrats/Documents/Reports/healthinsurance7sep2005.pdf>

Social Security Reform

Three reports by the JEC Democrats examined the negative impacts of the President's plan to replace part of Social Security with private accounts.

The Negative Impacts of Private Accounts on Federal Debt, Social Security Solvency, and the Economy finds that President Bush's plan to replace part of Social Security with private accounts would lead to a massive increase in federal debt, weaken the solvency of Social Security, and fail to increase national saving in preparation for the retirement of the baby boom generation. Furthermore, if the benefit cutbacks President Bush seems to favor were added to the plan, future generations would face the double burden of large cuts in their guaranteed Social Security benefits and paying down the higher federal debt.

What if President Bush's Plan for Cuts in Social Security Benefits Were Already in Place? finds that if President Bush's proposal for price indexing Social Security benefits had gone into effect in 1979 instead of the current method, middle-class workers retiring this year would receive a benefit 9 percent smaller than they would get under current law. Benefit cuts would grow larger over time, and Social Security would replace an ever smaller share of workers' pre-retirement earnings. Indexing would hit middle-income workers much harder than upper-income workers, because middle-income workers rely on Social Security for a much larger fraction of their retirement income than do upper-income workers.

How the President's Social Security Proposals Would Affect Late Baby Boomers finds that the President's proposals for price indexing and the privatization tax accompanying private accounts would significantly cut guaranteed Social Security benefits for 40- to 50-year-olds. The guaranteed Social Security benefit after both price-indexing and the privatization tax would be 27 percent less than under current law for a 40-year-old worker who makes about \$36,000 annually.

These three studies can be found at the following links:

The Negative Impacts of Private Accounts on Federal Debt, Social Security Solvency, and the Economy

<http://jec.senate.gov/democrats/Documents/Reports/ssprivateaccountsapr05.pdf>

What if President Bush's Plan for Cuts in Social Security Benefits Were Already in Place?

<http://jec.senate.gov/democrats/Documents/Reports/ssprogindexingmay05.pdf>

How the President's Social Security Proposals Would Affect Late Baby Boomers

<http://jec.senate.gov/democrats/Documents/Reports/babyboomersreportmay05.pdf>

Pension Reform

Two reports examined ways to improve defined contribution pensions for workers and reform the excesses of executive retirement packages.

Two-Tiered Pension System Protects Executives, But Not Average Workers argues that executives should have a stake in the fate of their companies' pension plans in order to improve corporate governance. Too often, the executives of companies that default on their pension obligations escape with padded executive retirement packages while the average worker is left with little or nothing. Companies that underfund or default on their pension obligations should be prohibited from funding and paying out benefits from special executive pension plans.

Improving Defined Contribution Pension Plans examines the risks associated with the shift from traditional employer-provided pensions to defined contribution plans, where workers manage their own retirement savings. Despite some of the advantages to employees of defined contribution plans, most workers lack the experience and financial expertise to manage the risks and responsibilities of these plans. Low participation rates, low contribution rates, ill-informed investment decisions, and early withdrawals of funds all contribute to the increased retirement security risks associated with defined contribution plans.

These pension studies can be found at the following links:

Two-Tiered Pension System Protects Executives, But Not Average Workers

<http://www.jec.senate.gov/democrats/Documents/Reports/twotieredpensions06oct2005.pdf>

Improving Defined Contribution Pension Plans

<http://www.jec.senate.gov/democrats/Documents/Reports/dcpensionplans06oct2005.pdf>

Welfare Reform

Despite net increases in spending in both the House and Senate welfare reauthorization bills, those measures still fall well short of the amount needed to offset inflation and simply extend current welfare policy. The funding shortfalls are even greater after accounting for the significantly higher child care funding needs that would result from the increased work requirements under both bills.

The JEC Democrats' report, *Getting Real about Welfare Funding: The Costs of Sustaining Current Policy Are Not Program Expansions*, finds that this year the real value of the basic Temporary Assistance for needy Families (TANF) block grant was only 85 percent of its fiscal year (FY) 1997 level. If funding remains fixed in nominal terms, the purchasing power of the TANF block grant will continue to erode, falling to just 75 percent of its original value by FY 2010. Furthermore, from FY 2006 through FY 2010, the increase in child care funding needed to offset inflation and higher work requirements would total between \$5.4 billion and \$8.3 billion, according to CBO data.

Getting Real about Welfare Funding: The Costs of Sustaining Current Policy Are Not Program Expansions can be found at the following link:

<http://www.jec.senate.gov/democrats/Documents/Reports/tanfreportjune2005.pdf>

V. Conclusion

Despite solid economic growth and some improvement in the labor market, 2005 was another disappointing year for American families. Real wages fell in the face of rising energy prices and the economic recovery continued to benefit mainly those who were already well-off. Although the Gulf hurricanes focused attention on the many challenges, new and old, facing policymakers, it was business-as-usual for the President and the Republican Congress. Instead of focusing on issues of concern to working families, they continued to devote their energy to extending tax cuts for the rich. Meanwhile the problems of large budget and trade deficits and the economic insecurity felt by many American families remained unaddressed.

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S. HRG. 109-596

THE ECONOMIC OUTLOOK

HEARING
BEFORE THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES
ONE HUNDRED NINTH CONGRESS
SECOND SESSION

APRIL 27, 2006

Printed for the use of the Joint Economic Committee



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THE ECONOMIC OUTLOOK

APRIL 27, 2006

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met at 10:02 a.m., in room 216 of the Hart Senate Office Building, the Honorable Jim Saxton (Chairman of the Committee) presiding.

Representatives present: Saxton, Ryan, English, Paul, Brady, Maloney, Hinchey, and Cummings.

Senators present: Bennett, Sununu, Sessions, Reed, and Sarbanes.

Staff present: Chris Frenze, Robert Keleher, Brian Higginbotham, Colleen Healy, Katie Jones, Jeff Schlagenhauf, Jeff Wrase, Chad Stone, Matt Salomon, and Pamela Wilson.

OPENING STATEMENT OF HON. JIM SAXTON, CHAIRMAN, A U.S. REPRESENTATIVE FROM NEW JERSEY

Representative Saxton. Good morning. Chairman Bernanke, it's a pleasure to welcome you here this morning. We appreciate your appearance today and we look forward to hearing your views on the economic outlook.

According to the official data, a healthy economic expansion has been underway for several years. The U.S. economy advanced 4.2 percent in 2004, and 3.5 percent in 2005.

As I have noted many times, the pickup in economic growth since the middle of 2003 is mostly due to a rebound in investment activity, which had been weak prior to that. This rebound was fostered by a mix of Federal monetary policy and the 2003 tax legislation and its incentives for investment.

The continued economic expansion has created 5.2 million payroll jobs since 2003. The unemployment rate, at 4.7 percent, is below the averages of the 1970s, the 1980s, and the 1990s.

The Federal Reserve and private economists forecast that business investment and the overall economy will continue to grow this year.

As the Fed noted in a policy report last February, "The U.S. delivered a solid performance in 2005." The Fed also stated that "the U.S. economy should continue to perform well in 2006 and 2007."

Recent data indicate that the economic growth rate for the first quarter of this year will be quite robust when it is released tomorrow.

According to a broad array of economic data, the outlook remains positive. Consumer spending is expected to be solid in 2006; home

ownership has reached record highs; household net worth is also at record levels; the trend in productivity growth remains strong.

Although oil prices have raised business costs and imposed hardships on many consumers, these prices have not derailed the expansion.

Meanwhile, long-term inflation pressures are contained. As a result, long-term interest rates such as mortgage rates, are still relatively low, although these rates have edged up in recent weeks.

According to the Fed's preferred price index, inflation is well under control.

One point that I would like to mention, however, is that it's important to examine the price of energy, the causes for increased prices, the relationship between supply and demand, the relationship between the pump price of gasoline and oil companies' profits, and the effect of these items on the economy as we go forward.

In sum, current economic conditions are strong. While economic growth is expected to exceed 3 percent this year, the economic outlook remains positive.

Mr. Chairman, at this point, we would normally hear from the Ranking Member, Senator Reed, however, he's tied up on the floor, and so we're going to turn to you now for your testimony, and then we'll get into questions.

[The prepared statement of Representative Jim Saxton appears in the Submissions for the Record on page 35.]

STATEMENT OF HON. BEN BERNANKE, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Chairman Bernanke. Thank you. Mr. Chairman and Members of the Committee, I am pleased to appear before the Joint Economic Committee to offer my views on the outlook for the U.S. economy, and on some of the major economic challenges that the Nation faces.

Partly because of last year's devastating hurricanes and partly because of some temporary or special factors, economic activity decelerated noticeably late last year. The growth of the real gross domestic product, or GDP, slowed from an annual average rate of nearly 4 percent over the first three quarters of 2005, to less than 2 percent in the fourth quarter.

Since then, however, with some rebound in activity underway in the Gulf Coast region and continuing expansion in most other parts of the country, the national economy appears to have grown briskly. Among the key economic indicators, growth in non-farm payroll employment picked up in November and December, and job gains averaged about 200,000 per month between January and March. Consumer spending and business investment, as inferred from data on motor vehicle sales, retail sales, and shipments of capital goods, are also on track to post sizable first-quarter increases.

In light of these signs of strength, most private sector forecasters such as those included in the latest Blue Chip survey, estimate that real GDP grew between 4 and 5 percent at an annual rate in the first quarter.

If we smooth through the recent quarter-to-quarter variations, we see that the pace of economic growth has been strong for the

past 3 years, averaging nearly 4 percent at an annual rate since the middle of 2003.

Much of this growth can be attributed to a substantial expansion in the productive capacity of the U.S. economy, which, in turn, is largely the result of impressive gains in productivity, that is, in output-per-hour-worked.

However, a portion of the recent growth reflects the taking up of economic slack that had developed during the period of economic weakness earlier in the decade. Over the past year, for example, the unemployment rate has fallen nearly one-half percentage point, the number of people working part-time for economic reasons, has declined to its lowest level since August of 2001, and the rate of capacity utilization in the industrial sector has moved up 1.5 percentage points.

As the utilization rates of labor and capital approach their maximum sustainable levels, continued growth in output, if it is to be sustainable and non-inflationary, should be at a rate consistent with the growth in the productive capacity of the economy.

Admittedly, determining the rates of capital and labor utilization consistent with stable long-term growth is fraught with difficulty, not least because they tend to vary with economic circumstances.

Nevertheless, to allow the expansion to continue in a healthy fashion and to avoid the risk of higher inflation, policymakers must do their best to help to ensure that the aggregate demand for goods and services does not persistently exceed the economy's underlying productive capacity.

Based on the information in hand, it seems reasonable to expect that economic growth will moderate toward a more sustainable pace as the year progresses. In particular, one sector that is showing signs of softening is the residential housing market. Both new and existing home sales have dropped back, on net, from their peaks of last Summer and early Fall, and while unusually mild weather gave a lift to new housing starts earlier this year, the reading for March points to a slowing in the pace of homebuilding as well.

House prices, which have increased rapidly during the past several years, appear to be in the process of decelerating, which will imply slower additions to household wealth, and, thereby, less impetus to consumer spending.

At this point, the available data on the housing market, together with ongoing support for housing demand from factors such as strong job creation and still-low mortgage rates, suggests that this sector will most likely experience a gradual cooling, rather than a sharp slowdown. However, significant uncertainty attends the outlook for housing, and the risk exists that a slowdown more pronounced than we currently expect could prove a drag on growth this year and next. The Federal Reserve will continue monitoring housing markets closely.

More broadly, the prospects for maintaining economic growth at solid pace in the period ahead, appear good, although growth rates may well vary, quarter-to-quarter, as the economy downshifts from the first-quarter spurt.

Productivity growth, job creation, and capital spending are all strong, and continued expansion on the economies of our trading partners, seems likely to boost our export sector.

That said, energy prices remain a concern. The nominal price of crude oil has risen recently to new highs, and gasoline prices are also up sharply. Rising energy prices pose a risk to both economic activity and inflation. If energy prices stabilize this year, even at a high level, their adverse effects on both growth and inflation should diminish somewhat over time. However, as the world has little spare oil production capacity, periodic spikes in oil prices remain a possibility.

The outlook for inflation is reasonably favorable, but carries some risks. Increases in energy prices have pushed up overall consumer price inflation over the past year or so. However, inflation in core price indexes, which, in the past has been a better indicator of long-term inflation trends, has remained roughly stable over the past year.

Among the factors restraining core inflation, are ongoing gains in productivity, which have helped to hold unit labor costs in check, and strong domestic and international competition in product markets, which have restrained the ability of firms to pass cost increases on to consumers.

The stability of core inflation is also enhanced by the fact that long-term inflation expectations, as measured by surveys and by comparing yields on nominal and indexed Treasury securities, appear to remain well anchored.

Inflation expectations will remain low only so long as the Federal Reserve demonstrates its commitment to price stability. As to inflation risks, I have already noted that continuing growth in aggregate demand in excess of increases in the economy's underlying productive capacity would likely lead to increased inflationary pressures. In addition, although pass-through from energy and commodity price increases to core inflation has thus far been limited, the risk exists that strengthening demand for final products could allow firms to pass on a greater portion of their cost increases in the future.

With regard to monetary policy, the Federal Open Market Committee, or FOMC, has raised the Federal Funds rate in increments of 25-basis points at each of its past 15 meetings, bringing it to its current level to 4.75 percent.

This sequence of rate increases was necessary to remove the unusual monetary accommodation put in place in response to the soft economic conditions earlier in this decade. Future policy actions will be increasingly dependent on the evolution of the economic outlook, as reflected in the incoming data. Specifically, policy will respond to arriving information that affects the Committee's assessment of the medium-term risk to its objectives of price stability and maximum sustainable employment. Focusing on the medium-term forecast horizon is necessary because of the lags with which monetary policy affects the economy.

In the statement issued after its March meeting, the FOMC noted that economic growth had rebounded strongly in the first quarter, but appeared likely to moderate to a more sustainable

pace. It further noted that a number of factors have contributed to the stability in core inflation.

However, the Committee also viewed the possibility that core inflation might rise as a risk to the achievement of its mandated objectives, and it judged that some further policy firming may be needed to keep the risk of attainment of both sustainable economic growth and price stability, roughly in balance.

In my view, data arriving since the meeting, have not materially changed that assessment of the risks. To support continued healthy growth of the economy, vigilance in regards to inflation, is essential. The FOMC will continue to monitor the incoming data closely, to assess the prospects for both growth and inflation. In particular, even if, in the Committee's judgment, the risks to its objectives are not entirely balanced, at some point in the future, the Committee may decide to take no action at one or more meetings, in the interest of allowing more time to receive information relevant to the outlook. Of course, a decision to take no action at a particular meeting does not preclude actions at subsequent meetings, and the Committee will not hesitate to act when it determines that doing so is needed to foster the achievement of the Federal Reserve's mandated objectives.

Mr. Chairman, the remainder of my testimony, which I submit for the record, discusses two longer-term challenges to the U.S. economy: The first is the long-run sustainability of the Federal budget deficit. Given the aging of our population, we're going to see increasing stress on transfer programs as a share of GDP, and I argue that Congress needs to make difficult choices about what share of the GDP is to be devoted to Federal programs, and to set taxes accordingly to match that share of GDP.

The second issue that I discuss—and I'm simply summarizing—is the U.S. current account deficit, which is now at about 6.5 percent of GDP, and which cannot be sustained indefinitely at that level.

Recent discussions with the G7 have made the important point that the U.S. current account deficit is not a U.S. problem alone, but is a global problem, and one which requires action and response, not only by the United States, but by our trading partners, as well. There are a number of steps that both we and our trading partners can take to improve the current account situation over a period of time. On our side, again, improved fiscal balance would be helpful, but, in addition, other countries need to take action, as well.

In conclusion, Mr. Chairman, the economy is performing well, and the near-term prospects look good, although, as always, there are risk to the outlook. Monetary policy will continue to pursue its objectives of helping the economy to grow at a strong, sustainable pace, while keeping inflation firmly under control.

And while many of the fundamental factors that determine long-term economic growth appear favorable, actions to move the Federal budget toward a more sustainable position will do a great deal to help ensure the future prosperity of our economy.

Thank you, and I'd be happy to take any questions you might have.

[The prepared statement of Hon. Ben Bernanke appears in the Submissions for the Record on page 37.]

Representative Saxton. Mr. Chairman, normally we would begin our questions at this point, but let me just ask Senator Reed, who was tied up on the floor previously, if he has an opening statement.

**OPENING STATEMENT OF HON. JACK REED, RANKING
MINORITY, A U.S. SENATOR FROM RHODE ISLAND**

Senator Reed. Well, thank you very much, Chairman Saxton, and welcome, Chairman Bernanke, and thank you for your testimony today and for your service.

All eyes are on you as you embark on a very delicate balance in terms of allowing the economy to grow and employment to reach its full potential, while you remain mindful of the risks of inflation.

For some time, the Fed's job has been easier. It had room to raise interest rates from very low levels, with little risk of derailing the economic recovery, while inflation and other lurking economic problems were at bay.

Today, soaring energy prices, record budget and trade deficits, negative household savings rates, and a disappointing labor market recovery, all pose tremendous challenges to setting monetary policy.

The Fed has raised its target for the Federal Funds rate by 25 basis points at each of the last 15 FOMC meetings, and, according to the minutes of the March meeting, most members of the FOMC thought that the end of the tightening process was near. The question on everyone's mind is, are we there yet?

The phrase we are hearing is that interest rate changes will now be data-driven, so I hope that means, Chairman Bernanke, that the Fed will look hard at the full range of data on economic growth, employment, and inflation, to determine the best course for monetary policy.

GDP is growing, but the typical American worker has been left out of the economic gains of this recovery. Strong productivity growth has shown up in the bottom lines of shareholders, but not in the paychecks of workers.

Too many Americans are being squeezed by stagnant incomes and rising costs for gasoline, healthcare, and education. It seems to me that there is still room for real wages to catch up with productivity, before the Fed needs to worry about inflationary pressures from the labor market.

However, there are many other downside risks to the economy on the horizon. You have mentioned some of them.

Energy prices have been pushing up overall inflation for some time, but last month, we saw an uptick in core inflation, which might be an early sign that businesses are starting to pass on their higher energy costs to customers.

Rising oil prices and interest rates, coupled with a weakening housing sector, could take their toll on consumers and businesses alike, and slow down the economy.

Your task in setting the right course for monetary policy is complicated by fiscal policy and international imbalances, which you

discuss in the bulk of your statement, which you put into the record.

We no longer have the fiscal discipline that we had in the 1990s, which allowed for monetary policy that encouraged investment and long-term growth. The President's large and persistent budget deficits have led to an ever-widening trade deficit that forces us to borrow vast amounts from abroad, and puts us at risk of a major financial collapse if foreign lenders suddenly stop accepting our IOUs.

Even assuming we can avoid an international financial crisis, continued budget and trade deficits will be a drag on the growth of our standard of living, and leave us ill prepared to deal with the effects of the retirement of the Baby Boom generation.

Strong investment financed by our own national saving, not foreign borrowing, is the foundation for strong, sustained economic growth and rising living standards.

There is final issue that I'd like to raise, and that is the growing inequality of income, earnings, and wealth in the U.S. economy. Your predecessor, Chairman Greenspan, regularly raised that issue as one of the concerns for our political economy. It is not good for a democracy to have widening inequality.

I know you share those concerns. Recently the Federal Reserve published the results of the 2004 Survey of Consumer Finances. They show that the growth in median income and wealth have slowed substantially, and the top 1 percent of families hold more wealth than the bottom 90 percent of families.

Mr. Chairman, I hope you can concentrate on that issue as you continue to develop policy, and, I again encourage and welcome your presentation here today. Thank you, Mr. Chairman.

[The prepared statement of Hon. Jack Reed appears in the Submissions for the Record on page 36.]

Representative Saxton. Thank you very much, Senator Reed.

Mr. Chairman, let me begin with a question that I think is central to the subject that we're discussing here, and that is the Fed's role in managing our Nation's monetary policy.

In both your statement and in Senator Reed's statement, the subject of inflation was mentioned prominently. As a matter of fact, the Fed's monetary policy for many years has focused on price stability and trying to control inflation.

Under such policy, inflation and interest rates are kept low. As this low inflation persists, the central bank's policy becomes increasingly credible in the eyes of investors, as well as in the eyes of savers.

As a consequence, inflationary expectations recede and interest rates decline. These movements, in turn, encourage economic growth and lower unemployment, and just better economic outcomes for everyone.

My question is this: If the United States were to move toward explicit inflation targeting, would this be largely a movement for greater transparency, or mostly a significant change in the substance of Fed monetary policy?

Chairman Bernanke. Thank you, Mr. Chairman. Let me first address the point on inflation. The Federal Reserve has a three-

part mandate: Price stability; moderate long-term interest rates; and maximum employment.

Clearly, keeping inflation low and stable addresses directly the first two of those, in particular, since long-term interest rates can only be low if investors expect inflation to remain low. I would argue, in addition, that there's very strong evidence that low and stable inflation and well-anchored inflation expectations also contribute mightily to the third objective, which is strong and stable employment growth.

For example, we have seen since the mid-1980s, what economists refer to as the great moderation, the fact that recessions have been somewhat less frequent and milder, that quarter-to-quarter variation in output and employment has been lower. Many scholars attribute that to the fact that inflation in that last 20-year period, has been low and stable.

Therefore, it is very much in the interest of all of the objectives, including the employment objectives of the Federal Reserve, to keep inflation low and stable. So, then, the question is, how to do that?

The Federal Reserve already has established strong credibility for keeping inflation low and stable, and I anticipate we will retain that credibility.

I have discussed, and will be discussing with the Federal Open Market Committee, ways in which we can continue Chairman Greenspan's movement toward greater transparency and better communication, to further anchor inflation expectations and reduce uncertainty in financial markets.

One of the ideas that's been discussed in that context, is the idea of defining, quantitatively, what the optimal long-term inflation rate might be. In doing so, the hope would be to reduce uncertainty and to help anchor inflation expectations more tightly.

Clearly—and I'd like to emphasize this point—taking this step would in no way repudiate the employment part of the dual mandate; to the contrary, it would provide the Fed with a stronger tool and better ability to meet this very important objective.

So, to answer your question most directly, I don't see, and I don't desire, any change in the basic operating procedures of the Fed, nor in its objectives; rather, I think that we need to work on our communication, broadly speaking, to make sure that inflation expectations remain low and stable, as a tool for meeting all three of the Federal Reserve's mandated objectives.

Representative Saxton. Mr. Chairman, thank you. Some worry about Fed policy, which has focused on price stability over the last couple of decades. Recently, under this policy we have seen a relatively long period of Fed tightening, which resulted in higher overnight interest rates.

Some would worry that this translates into higher interest rates in the economy, particularly in long-term interest rates, and, most recently, that has not happened. As a matter of fact, we have seen stable long-term interest rates, in spite of the fact that short-term rates have increased rather significantly.

Why is it that long-term rates have remained stable and even come down during this period of time, on occasions, when Fed pol-

icy has been to tighten and the net result of that is short-term rate increases?

Chairman Bernanke. Mr. Chairman, first I'd like to reiterate the point that increasing short-term rates to control inflation has the effect actually, in the long run certainly, of keeping long-term rates lower, rather than higher.

I can only draw the contrast between the 1970s and the early 1980s when people paid 18 percent for mortgages, vis-à-vis today where they are paying 6 percent-plus, in an environment where inflation is low and stable and under control, and in that respect, meeting our objective of low to moderate long-term interest rates is best achieved by keeping inflation low and stable.

With respect to the recent behavior of long-term interest rates, it's useful to think about the long-term interest rate as consisting of a series of short-term rates, the rates for the next few years and then the rates that investors expect to be maintained further out into the future.

Over the last almost 2 years, as the Fed has been tightening, the short-term component of that has been rising, as the policy rate has risen, but the further-out short-term rates, at the far end of the yield curve, have been declining and offsetting that effect and leaving the overall 10-year rate more or less stable.

The declines in the far-out yields, further out in the term structure, seem to result from both an increase of saving in the global economy, which has been looking for returns—and some of that has come to the United States and to other industrial countries, driving down returns—and also some reduction in term premiums, reflecting the reduced sense of risk that investors feel about the general economy, about inflation, and about the bond market, specifically.

Now, recently, we have seen a turnaround, in that the far-out short-term rates, the rates that investors expect to be maintained, 5 or 10 years from now, have risen fairly significantly, leading to an overall increase in long-term interest rates.

I think there are basically two reasons for that: First, there has been some return of the term premium back to more normal levels, after a period of unusually low levels.

But, second, and, I think, importantly for our economy, it appears that the world economy is growing this year at a very healthy pace. We're seeing strength in Japan; we're seeing some incipient strength in Europe; China continues very strong, as well as Southeast Asia; emerging markets are doing well, so general strength in the world economy is providing some increased upward pressure on long-term interest rates, and that, I think, explains what's been happening in the last couple of months.

Representative Saxton. Thank you. Let me just change the subject for just a moment.

The price of oil has reached a price in excess of \$70 a barrel. Just let me ask quickly before we turn to the next Member, how does the oil price increase affect your outlook on the economy? Are you worried or extremely worried? What is your general outlook on this subject?

Chairman Bernanke. Yes, Mr. Chairman, higher oil prices do create problems for monetary policy. On the one hand, they directly affect the cost of living, inflation, on the other hand, by taking pur-

chasing power away from consumers, they tend to slow economic activity, and so they do produce a difficult problem.

For the Federal Reserve, one issue we will be looking at very carefully is whether the increases in energy prices that we have already seen and that we may see in the future pass through into core inflation—that is, whether they go beyond the energy sector itself and begin to be seen in higher prices for other goods and services. If that were to happen and if expectations of inflation were thereby to rise, that would be very deleterious to the long-term growth of the economy.

By contrast, if inflation expectations remain stable and core inflation is not infected, so to speak, by high energy prices, that gives the Fed considerably more leeway to respond to any changes that may happen in the real economy related to the higher oil prices.

In particular, we do expect to see a slight slowing in growth, perhaps a couple of tenths, this year and next associated with the higher oil prices and their effects on consumer spending. And we are very aware of that and are paying attention to those developments.

Representative Saxton. Thank you, Mr. Chairman.

Senator Reed.

Senator Reed. Thank you, Mr. Chairman. Because Senator Sarbanes has to leave, I would yield him 5 minutes for questions.

Senator Sarbanes. Thank you very much, Senator Reed. I will be very brief and I apologize to Chairman Bernanke that I cannot stay. I have been looking forward to this hearing, but I have another commitment.

I am drawn to the sentence at the bottom of page 3 of your statement: “Of course, inflation expectations will remain low only so long as the Federal Reserve demonstrates its commitment to price stability.” And the question I want to raise to you is that in order for the Federal Reserve to demonstrate its commitment to price stability, is it necessary for the Open Market Committee to raise interest rates 25 basis points every time they meet?

Chairman Bernanke. No, Senator.

Senator Sarbanes. Well that is fine. All I need is an answer, just so I—

Chairman Bernanke. If that satisfies—

Senator Sarbanes [continuing]. Just so I know that we are not on an irreversible treadmill here, since we have seen 15 meetings in a row in which the Open Market Committee has taken the interest rates up. But it has not built itself in so that you have to do that at every meeting in order to show that you’re inflation fighters, is that correct?

Chairman Bernanke. Yes, Senator. Our assessment currently is that the risks to inflation are perhaps the most significant at the moment and we need to address that. But as I emphasized in my statement—I make two points: first is that now that we have taken away most of the extraordinary accommodation that we had in the system back from 2003, we are much more data-driven, we need to continually reevaluate our forecasts and think about the prospects for the economy and make our decisions based on the information that is coming into our hands.

And second, as I noted in my written testimony, there is always the possibility that if there is sufficient uncertainty that we may choose to pause simply to gain more information to learn better what the true risks are and how the economy is actually evolving.

Senator Sarbanes. Well, I see that the minutes of your most recent meeting on March 28th did say, "Most members thought that the end of the tightening process was likely to be near and some expressed concerns about the dangers of tightening too much, given the lags in the effects of policy." I very much share that concern, and so I welcome that statement and I hope the Open Market Committee will, in effect, act off of that statement in the upcoming meetings.

The other point I would like to raise to you is I want to again urge you, as we did when we held your confirmation hearing, on the issue of Federal statistics and the importance of having appropriate and accurate Federal statistics. A number of us in the Congress—71 Members, 29 Senators and 42 House Members—have written to the President about the elimination of the Survey of Income and Program Participation series, and we urge the Administration to try to find money with which to continue that particular program.

I think if the Chairman of the Fed would take a keen interest in Federal statistics, it would be very helpful in assuring ourselves that we have accurate and reliable data upon which to make some of these decisions. Major decisions are being made that have vast economic implications, and yet the amount of money going into the methodologies is very, very limited. We were never able to get Chairman Greenspan to agree to any spending program except Federal statistics. He did on one occasion say that he thought we ought to do more. So I would just leave that idea with you. Thank you very much.

And thank you, Senator Reed.

Representative Saxton. Thank you very much, Senator Sarbanes.

Senator Bennett.

Senator Bennett. Thank you very much, Mr. Chairman.

I would note your comment with respect to rate hikes. Everybody wants to read into what you are saying to get an advance understanding of what is going to happen tomorrow. My own sense is that the economic information tomorrow is going to be very strong with respect to GDP growth in the first quarter; you indicated your assumption that that will be the case. My market watchers say that could be really bad for the market, because when the GDP numbers come out very strong, that means the Fed is going to raise interest rates and they are all going to sell off in anticipation of that.

I recognize that there is no way you or I can anticipate what you are going to do at the next FOMC meeting but, following up on Senator Sarbanes, I would just reassure the people who were concerned about this, Chairman Bernanke has said that even if in the Committee's judgment the risk to its objectives are not entirely balanced, at some point in the future the Committee may decide to take no action at one or more meetings in the interest of allowing more time to receive information relevant to the outlook.

That is a very Greenspan-type statement, sufficiently tipped in both directions, but I take it as a signal that what you have said to Senator Sarbanes here is correct, that we are getting to the point where this almost automatic increase is not going to occur. And Chairman Greenspan made it very clear in his statements that there was going to be an automatic increase every single time they met when the rate was 1 percent. And he tried to be as clear as he ever could be that that was going to happen, and I welcome this statement and I think in this conversation we have had, we ought to highlight it one more time, as I have done.

Now, let's talk about the global savings glut. You have made mention of that, suggesting that one of the explanations for the persistence of relatively low long-term interest rates has come from a global savings glut. And as long as we are looking into crystal balls and trying to predict what is going to happen, let's get out of the FOMC crystal ball and look around the world. Do you think there is still a global savings glut and what is your sense as to how long it is going to continue? Because that has a great deal to do with the current account deficit and people investing in the United States and so on.

Chairman Bernanke. Thank you, Senator. Just to provide a little bit of background, I have argued in the past that there is an excess of saving over investment in our trading partners around the world and that extra saving has come to the United States, has driven down world real interest rates, and has been part of the reason for our current account deficit. And I do believe that is part of the explanation for why the current account deficit of the United States has risen and part of the reason why, as I argued earlier, it is really a global issue and not just a United States issue to deal with this deficit.

In terms of whether the savings glut still exists, there is a short-term and a long-term answer to that question. Relevant to my earlier comment, I think we are seeing a bit of a decline in that glut in that interest rates—global interest rates, not just those in the United States—long-term rates have risen in the last couple of months, suggesting some reduction in the excess of savings over investment outside of the United States, and I think that is perhaps a small step in the direction toward the moderation of the savings glut.

Longer-term, though, I think there is still a long way to go. And, in particular, what is needed is for our trading partners, including those in southeast Asia, and also oil producers, emerging markets generally, to rely more heavily on their own domestic demand as a source of growth rather than on exports to the United States.

To take one example, I do see some encouragement that the Chinese are at least talking about these issues, that they have recognized that it is not in their interest to run their economy as an export-led economy indefinitely, and that they are at least discussing some approaches to increase domestic consumption in order to reduce the amount of saving that they put into the world capital markets.

So these are steps that are promising. It is still very early; there is not much to be seen from it yet. But that is the kind of development that, over a number of years, will help rebalance the world

economy so that the U.S. is not importing goods and capital at such a high rate and other countries are growing more from their domestic demand and less from exports.

Senator Bennett. So if I can summarize without putting words into your mouth, the solution to the current account deficit given the scenario you have outlined, could very well come in slowly over time rather than dropping off a cliff, and we could see this thing resolve itself in the next, say, within the next decade or so.

Chairman Bernanke. I would not expect it to resolve in a short period. It is going to take quite a few years for these balances to readjust internationally.

Senator Bennett. But you do not see it dropping off a cliff.

Chairman Bernanke. I do not expect any such change.

Senator Bennett. Good. Thank you.

Representative Saxton. Thank you very much, Senator.

We are going to go now to Mrs. Maloney, the gentle lady from New York.

Representative Maloney. Thank you.

Welcome, Mr. Bernanke, and thank you for your testimony. Democrats are concerned not only about price stability and maintaining and controlling inflation, but also jobs, wages, and continuing to grow our economy. We are very concerned that in the recovery the economic positive impact has not shown up in the wages of the average worker and there has been a decline in the past 2 years, and we hope you will take that into consideration as you develop monetary policy.

My constituents are very concerned, I would say even nervous about this continued clip or pace in the increase in interest rates—it has been raised 15 times since June of 2004, and there is a feeling that maybe we should step back a few steps and just assess where we are. And there is a deep concern about it and I wanted to relay that to you. My question is can we continue to increase interest rates without having a negative impact on our economic growth?

Chairman Bernanke. Thank you for the question. Let me just address a few parts of it, if I might.

On wages, real wages have not grown at the pace we would like to see. There are a number of reasons: energy prices have clearly sapped consumer buying power. There has been a spread between real wages and compensation reflecting increased health costs, health insurance costs, for example, and, most puzzling, real wages have not apparently caught up with the productivity boom that we have seen going on in the economy.

My suspicion is that as the economy continues to strengthen and labor markets continue to strengthen, we will see further increases in real wages and that will be very desirable. I would also add that I do not believe that higher real wages are inflationary. Higher real wages can be offset by higher productivity and they can be offset by lower margins between costs and selling prices. And so I do hope to see higher real wages going forward.

With respect to the Fed's mission, as I argued before, it is like the seventies when inflation was out of control and those were not good times for workers either. I think we all benefit from price stability. The Fed has a very important objective in maintaining price

stability and credibility that is going to keep prices at a stable point. And I believe that doing so supports strong and stable employment growth, and that is the other part of our mandate, to which we are going to pay very serious attention.

Representative Maloney. Do you believe we can continue to raise interest rates without having a negative impact on our economy?

Chairman Bernanke. I think we will try to raise rates, if we do, in a way that maximizes the attainment of our objectives, which are price stability and maximum sustainable employment growth. Employment growth that is not sustainable and which leads to—

Representative Maloney. Mr. Chairman, are we not near full employment now, so—

Chairman Bernanke. But the underlying growth of the economy, which is being determined by a very robust productivity increases, is still going to be quite healthy, and so my anticipation is that for example, in 2006 we are still going to see growth in the range between 3 and 4 percent, a very healthy pace of growth, and I believe that would be consistent with our attempts to keep inflation well anchored.

Representative Maloney. In your testimony you said our accounts deficit, our trade deficit, was 6–6½ percent of GDP and that this was unsustainable and that our world partners, our global partners, are saying the same thing. Right now we have very low national savings and also this large trade deficit. What role does fiscal discipline have in addressing these problems and, second, what will happen if we do not get control of the Federal budget? What will happen?

Chairman Bernanke. Well first of all, it is very important that we get control of the fiscal situation, particularly over the longer term. As my testimony elaborates, in particular as our society ages, the share of GDP going to the three major transfer programs is going to go from about 8 percent of GDP today to about 16 percent in 2040. And if that were to transpire as forecast, we would be faced either with essentially cutting all other types of spending or raising taxes quite substantially. So there are some very hard choices to be made if our Federal budget is going to be sustainable into the next few decades. That is very important, and we need to be thinking about that soon. The sooner we make these hard choices, the better the economy will be able to adjust whatever changes we make.

With respect to the current account, there is a link, a somewhat weak link, between fiscal and current account deficits. To the extent that fiscal deficits reduce national saving, that in turn contributes to the need to borrow abroad, which a part of what the current account deficit is about. Unfortunately, most of the research suggests that fiscal consolidation by the United States on its own will only have modest impacts on the current account deficit. Every dollar or so by which the fiscal deficit is reduced by most estimates would only reduce the current account deficit by 20 or 30 cents for various reasons that I could get into.

But the implication is that the United States really cannot solve the current account deficit problem by itself. It is a global issue.

We need the cooperation of our trading partners. And all together, by taking actions which are in our own individual interest, we can also help create a better balance in terms of trade flows as well.

Representative Maloney. My time is up. I did want to ask what we could do about this growing inequality, but maybe the next round.

Chairman Bernanke. Sure.

Representative Saxton. We are going to go to Mr. Ryan next, but I cannot help but talk a little bit here just for a minute about a real-life experience that I had relative to interest rates and inflation expectations. In 1965, I graduated from college and in 1966, I became a real estate salesman. And I remember for quite a few years whether I went to Bank A, B, or C, the interest rate on home mortgages was 6 percent. And as we got to the late 1970s all of a sudden inflation became an issue. And by the end of the seventies, 1978, 1979, inflation had reached double digits. And when we went to the bank with the person who wanted to buy the house, they were told the interest rate was 18, 19 or 20 percent. And when I asked the bankers why that was, they said because we don't know what inflation is going to be next year. Our expectation is that we don't know, and therefore we have to hedge against even higher inflation than 10 or 11 percent.

Today's interest rates are back where they were essentially in 1966, when I was a young guy and a real estate salesman. And today home mortgage interest rates are at 6 percent because the expectations of inflation going forward are that inflation is under control. And I credit the policy of the Fed over the past couple of decades for bringing us back to 1966 levels of mortgage interest rates.

I wanted to note that because everyone in the public should have the opportunity to understand what it is that the Fed has been successful in doing over these years. And I don't know whether you would like to comment further on that, but this is an extremely important element going forward with respect to economic growth.

Chairman Bernanke. I would just add that it's often neglected that the third part of our legal mandate is to maintain low to moderate long-term interest rates and that is, of course, best achieved by keeping inflation not only low, but keeping a high degree of confidence among bond traders and the like that it will stay low.

Representative Saxton. We have a chart over here that shows the path of inflation during the decades of the 1980s and 1990s and into 2000. It very clearly shows that during the early 1990s inflation peaked out at a very moderate 4.5 to 5 percent and today we are down to a rate that appears to be under 2 percent. And so these are what creates the environment in which long-term rates are set. And so to the extent that we thank you and your predecessor for helping us to understand this, it has been a very, very healthy process.

[The chart entitled "Inflation" appears in the Submissions for the Record on page 41.]

Mr. Ryan.

Representative Ryan. Thank you, Chairman. We have belabored monetary policy so I am going to switch to fiscal policy, but I want to just make one point. Chairman Bernanke, I am very

pleased and encouraged with what you had to say about inflation targeting. To the extent that the Fed can institutionalize expectations and smooth out the investment horizons and remove further uncertainty by being more transparent with inflation targeting, I think that is a fantastic contribution you can bring to the Federal Reserve, so I am very encouraged with your statements on that.

On fiscal policy, we are in the midst of considering tax legislation right now as to whether or not to extend the tax cuts that passed in 2003. Many of us are concerned that large tax increases at this time, during our economic recovery, would be a bad idea. I just want to go through a few statistics, because we have seen people make points to the contrary which don't necessarily add up.

Since the 2003 tax cuts—first of all, our unemployment rate was 6.3 percent at that time. Now it is at 4.7 percent. Since the 2003 tax cuts, we have gained net in the employment survey 5.2 million new jobs. Our economic growth rate, the 10 quarters preceding the tax cuts was 1.3 percent, the 9 quarters since then it has been 3.9 percent; so we have seen a remarkable turnaround I would say due in large part to the fiscal policy of our country. But now is the time to talk about whether or not to extend these things. And people have been talking about revenues.

When we passed it—I serve on the Ways and Means Committee, and we looked at these revenue projections quite a bit. And we thought, according to our estimates, that we would increase the deficit or that we would actually see a reduction in revenues. And what actually ended up turning out was that our revenue projections by the Joint Committee on Taxation didn't materialize; actually revenues increased at these lower tax rates. Economic revenues from the individual side in 2004 were up 1.9 percent at the lower tax rates and the corporate income tax receipts were up 43.7 percent in 1904. In 1905, revenues were up 14.6 percent on the individual side and 47 percent on the corporate side.

At this moment, we are debating tax legislation as to whether or not to extend the 2008 deadline on capital gains and dividends. And that is where some people are saying the dividends—the capital gains tax cuts cost us money.

The Joint Committee on Taxation at the time, in 2003, told us that we would lose \$27 billion in revenue in lower receipts over the years 2004–2005. What actually materialized, the actual revenues were, realization surged and receipts went up. The receipts increased by \$26 billion. So we went from a projection of a \$27 billion loss over 2004 and 2005 to actually increasing tax receipts from capital gains at the lower tax rate by \$26 billion over that, so an enormous difference.

The question I basically have is do you agree that the tax cuts have been helpful to economic growth, and do you see a benefit in providing predictability to investors on tax rates? I clearly can tell that you believe there is a benefit to providing certainty with respect to monetary policy, thus the discussion on inflation targeting. Do you believe that there is a benefit to the economy and to investors by providing certainty on tax rates given the fact that virtually every corner of the Tax Code is up for grabs in either 2008 or 2010?

Chairman Bernanke. Mr. Ryan, I highly value the nonpartisan nature of the Federal Reserve, and for that reason I have decided

that I will not be advising on specific individual tax and spending programs. I will make a couple of comments, though, which I hope will be useful.

One is that I do agree that fiscal policy, along with monetary policy, was an important factor in helping to restart the economic engine in this latest episode, and some of the statistics you quoted suggest that we did go from a very weak situation early in 2003 to a much stronger growth path after that.

The other comment I would make on your issues with respect to revenues I have addressed in a recent letter, and that concerns the issue of dynamic versus static scoring. To the extent that tax cuts, for example, promote economic activity, the loss in revenues arising from the tax cut will be less than implied by purely static analysis which holds economic activity constant.

There is currently an important and interesting debate going on to the extent to which so-called dynamic scoring should be used in the Congress. I don't want to come down with a definite recommendation. One issue is that any dynamic scoring model requires some assumptions about what theory, what model, you are going to use to make the assessment, and, therefore, you are going to have to look at different alternatives in coming up with an outcome. But I do think it is worth considering an alternative range of scoring mechanisms to give Congress a sense of what the possible outcomes would be on the revenue side from different tax changes.

Representative Saxton. And as to promoting certainty in the investment markets and in households and businesses to the tax climate in the future?

Chairman Bernanke. Well again, I don't want to make a definite recommendation. The specifics of the dividend tax extension, for example, would involve not only considerations of efficiency, but also considerations of equity and revenues. But looking strictly at the efficiency side, clearly more certainty about the tax code—and I think this applies to any tax regulation—when people know the tax rules are going to be stable, they are going to have stronger effects and more positive effects than if they are worried that they are going to be changing from year to year.

Representative Saxton. Thank you.

Senator Bennett. Senator Reed.

Senator Reed. Thank you, Mr. Chairman. Thank you for your testimony today. And just in line with the question about the effect of tax cuts, the former chairman of the Council of Economic Advisors, Greg Mankiw, wrote in his macroeconomic textbook that there is no credible evidence that tax cuts pay for themselves and that an economist who makes such a claim is—quote—“a snake oil salesman who is trying to sell a miracle cure.” Do you agree with that?

Chairman Bernanke. I don't think that as a general rule tax cuts pay for themselves. What I have argued instead is that to the extent the tax cuts produce greater efficiency or greater growth, they will partially offset the losses in revenues. The degree to which that offset occurs depends on how well-designed the tax cut is.

Senator Reed. If you will let me—this goes out of the realm, I think, of macroeconomics to simple arithmetic. We are running a huge deficit, so over time if the tax cut doesn't pay for itself and we cut taxes again, we are not likely to help the deficit. Is that a fair judgment?

Chairman Bernanke. Well, the issue as always is whether the deficit should be adjusted on the spending side or on the tax side, and I have to leave that to Congress, those are very difficult value judgments.

Senator Reed. Well you are very clear in that statement, but I can assume that those tough choices that must be made include choices on the revenue side as well as the spending side, is that your view?

Chairman Bernanke. I would say that if you are one of those who supports low taxes that you also have to accept the implication that spending also has to be controlled in a commensurate way, whereas if you are in favor of a larger government, then you have to accept the corollary that taxes have to be higher. So, I think the specific law I am arguing for here is the law of arithmetic, which says—

Senator Reed. Well so am I, but right now the arithmetic is not running favorably in terms of those people who want fiscal discipline.

Chairman Bernanke. And I am agreeing that people need to be consistent in their choices.

Senator Reed. Thank you.

One of the issues that Congresswoman Maloney mentioned and I am concerned about also is this growing inequality.

Your recent survey of consumer finances has some very disturbing data. According to the statistics, the top 1 percent of families hold more wealth than the bottom 90 percent of families combined. And that is accurate, I presume?

Chairman Bernanke. Yes.

Senator Reed. It suggests that in most families wage is the main source of income. Is that true also?

Chairman Bernanke. Yes.

Senator Reed. These figures on wages are not encouraging. After accounting for inflation, the median usual weekly earnings of full-time wage and salary workers fell by 0.9 percent between the end of 2000 and the end of 2004, and the earnings at the 10th percentile fell by 2.1 percent. But meanwhile, earnings for the 90th percentile, the upscale workers, were up 4 percent.

We are seeing a divergence between low-income/moderate-income Americans, who are losing ground, and very wealthy Americans, who are gaining ground. And that has not only economic consequences, it has social and moral consequences in many respects.

What do we do about this? What policies can we adopt to, as you indicated in your statement, not only increase wages, but make sure that those benefits are more equally distributed?

Chairman Bernanke. Senator, first of all, I agree that the increasing inequality in wages is an important social problem, first, because we care about our fellow citizens and want to be sure that they are living in a decent way, but second, from a political point of view our society is based on opportunity, it is based on flexibility

in labor markets and product markets, it is based on open and fair trade, and all of those things are at risk if a growing portion of the population feels they are not sharing in the benefits from those changes.

So, I am very concerned about rising inequality. It is a very difficult problem. I think it should be made clear that the growing inequality in wages which we are seeing is not a new phenomenon. It has been going on for about 25 years or so. And indeed a good bit of it occurred in the early 1980s.

There are a number of arguments and analyses about why these increases are taking place. My own view, and I think that of most economists, is that the dominant factor is the increase in the return to skills; the fact that as our society becomes more technologically oriented, people who have not necessarily formal education, but other kinds of skills, on-the-job kinds of training, will get a higher return, get a higher wage.

So, for a given distribution of education, these changes, this skill-biased technical change, is going to cause the wage distribution to widen.

In addition, it has been pointed out in some recent research that there is a phenomenon at the very top, the so-called "super stars phenomenon," which suggests that, given the size of our markets and the interconnectedness of our world economy, those people who have extraordinary skills can command tremendous premiums for their work.

Consider what a star baseball player receives today versus 20 years ago, the fact that that player can now play before much larger markets and through an international market; that affects their wages, as well.

So again, my main explanation for this phenomenon is the higher return to education, the higher return to skills. What can we do about it?

Well first of all, the Federal Reserve will do what it can, which is primarily to try to maintain strong and stable employment growth, and that is going to keep providing opportunities for people and give them on-the-job experience that will allow them to have higher wages.

But more broadly, the only really sustainable response to this problem is to alleviate the skills deficit. Sometimes that is taken as a counsel of despair because it takes such a long time to improve our school system and to bring a whole new generation through the system, but I would like to point out that skills can be acquired through a whole variety of programs and mechanisms, including on-the-job occupational training, community colleges, technical schools, and all kinds of other vehicles which would allow people to upgrade their skills relatively quickly.

In our current labor market, people with skills like commercial drivers' licenses, or practical nursing degrees, are at a premium. They have sufficient skills that they are in high demand. So, I do think that it is feasible within a medium-run period of time to upgrade our skill base sufficiently to make a noticeable dent in this inequality.

I agree it is a very difficult problem, and I hope that we will address it because it does pose issues for our political economy, as well as for our society.

Senator Reed. Just a final point. Do you believe it should be the conscious policy, for all the reasons you espoused, of this Government to raise wages and distribute them more equally in terms of our economic performance?

Chairman Bernanke. Well, in the current Administration?

Senator Reed. Well, in any Administration.

Chairman Bernanke. Well, administration after administration have tackled the educational issues. This Administration has its own program. Others have had others. There is a significant amount of money being put into job training programs and there have been suggestions for reform about how to make that more effective and more efficient.

There has been a lot of support for community colleges. Your colleague, Senator Dole, for example, has often talked about the benefits of community colleges.

I make just one additional comment, which is that one area where we are quite deficient is in financial literacy. Many people who earn even a moderate income are not able to save and to build wealth in part because they may not understand enough about banking and financial markets to allow them to do that.

So, I am very much in favor of activities through the Congress, the Federal Reserve, and through the financial sector itself to help train people to understand better how to save, how to budget, and how to build wealth for themselves and for their children.

Senator Reed. Thank you.

Thank you, Mr. Chairman.

Senator Bennett. Thank you very much.

Senator Sununu.

Senator Sununu. Thank you.

Chairman Bernanke, a number of economists and regulators, including members of the Fed, have testified to Congress on a number of occasions that the business models of Fannie Mae and Freddie Mac effectively amount to privatized profits coupled with socialized risk that stems from the implied guarantee behind their securities.

Your predecessor spoke clearly of the need for Congress to anchor the companies more firmly in their housing mission—which we all agree is very important but from which they have strayed at times—and he noted the danger and the risks that are presented to our financial system and the economy by Fannie and Freddie's very large, maybe more fairly put, massive investment portfolios.

I have a letter from Chairman Greenspan, Chairman Bennett, that I would like to be included in the record—

Senator Bennett. Without objection.

Senator Sununu. [continuing]. Which addresses the relationship between these portfolios and the housing mission.

[The letter from Chairman Alan Greenspan to Senator John Sununu appears in the Submissions for the Record on page 47.]

Senator Sununu. But in short, the research done by Fed economists has shown that their investment portfolios simply act as investment vehicles whereby they can arbitrage their low borrowing

rates against higher yields for mortgage-backed securities. As a result, they earn great profits, but they do so in a way that does not result in better accessibility for 30-year mortgages, and lower interest rates for consumers.

That is a very profitable arbitrage operation and, as a result, we should not be surprised that Fannie and Freddie do not support provisions in our GSE legislation that passed the Senate Banking Committee that would give a regulator power to set limits on those portfolios consistent with their mission.

Now in the coming months, as they square away the many financial and accounting irregularities that have delayed their issuing of financial statements, OFAO, their current regulator, will lift its requirement that they put aside additional capital.

For Fannie Mae, for example, that is going to result in a release of \$5 to \$6 billion. When that capital is leveraged by what is typical for these institutions 30 or 40 times, that means that they could potentially grow their portfolios dramatically—\$250 billion or more.

This causes me great concern given the very significant systemic risks that exist, but I think, fortunately for the taxpayers, the Treasury does have some power to limit the size of the portfolios, and in particular the statutes governing Fannie and Freddie state that the corporation is authorized to issue, upon the approval of the Secretary of the Treasury, and have outstanding, at any one time, obligations having such maturities and bearing such rate or rates of interest as may be determined by the corporation—again, with the approval of the Secretary of the Treasury.

So obviously the Secretary has the power in statute to clearly limit the issuance of GSE debt.

My question is that, given the nature of the implied guarantee, is this power that has been given to the Secretary in statute an important power to have, given the structure of these corporations? And under what circumstances should the power be exercised?

Chairman Bernanke. Thank you, Senator.

I would like first just to comment on the S. 190 legislation on portfolios. There is a misperception, I believe, that the legislation calls for hard caps, or for specific numbers, and that is absolutely not the case, as you well know.

What the legislation tries to do is specifically to anchor the size of the portfolio in the housing mission so that it serves the mission and not other purposes.

In particular, the portfolio would be allowed to hold affordable housing mortgages that are not otherwise securitizable. They would be allowed to hold as much liquidity as they wished in order to intervene perhaps in the housing markets during periods of stress, but it would be limited in securitizable MBS which, beyond a moderate amount for inventory purposes and the like, is really not a direct or obvious affordable housing reason for those holdings.

You are correct, as far as I understand, that the Treasury does have the power to limit the debt issued by the GSEs, and perhaps some power even over the terms or maturities, as you suggested.

My preference, in terms of making sure that this is done right would be to ask the Congress to, or hope the Congress could, make clear to the regulator what the expectations of the Congress were

and what the powers of the regulator were. That would be, I think from a political economy point of view, the right first step.

If we were unable to achieve progress through Congress, I don't think Treasury should abandon that power. I think it should consider using it if it believes that the systemic risks being generated by the portfolios greatly outweigh the benefits that are mandated by the affordable housing mandate.

Senator Sununu. So in structuring the language in the legislation—and you have spoken about the legislation I think in past hearings—one, to reiterate, you would not recommend a hard cap, and we have no such hard cap in the legislation; are certainly comfortable with maintaining portfolios in the kinds of securities that you describe; and feel that the portfolio should be consistent with the housing mission, as everything that they do should be consistent with their mission as chartered by Congress.

One, is that a fair representation of the key elements that we consider in the legislation?

And is there anything else that you think would be important to maintaining an appropriate level of flexibility?

Chairman Bernanke. No, I think that is a fair characterization and I agree with that characterization. I would just add that the S. 190 bill also has some important provisions relating to capital and receivership which are part of making the GSE regulator more like a bank regulator with adequate supervisory powers.

Senator Sununu. Thank you.

Thank you, Mr. Chairman.

Senator Bennett. Thank you.

Mr. Hinchey.

Representative Hinchey. Thank you, Senator.

Thank you very much. Mr. Chairman. Thank you for your testimony here today and for your service. I very much appreciated listening to you. It has been very instructive.

We have heard a lot about the positive aspects of the economy, including things like low interest rates, and it may have been mentioned also that the productivity rate is now I think more than 3 percent. There are a lot of positive aspects to that.

But there are also a conflux of circumstances that need to be addressed, I think, as well. We live in a demand economy. I think every successful entrepreneur, at least since Henry Ford, has understood that. But we are not doing much to deal with that end of our economy.

As you pointed out just a few moments ago, for the last 25 years or so the median household income of American families has been stagnant or declining during that period of time. But it has dramatically dropped in the last few years.

In the last few years, that median household income has gone down by almost 4 percent.

So we are facing a number of circumstances that we are not really addressing. Rising income inequality has been mentioned on a number of occasions here. We also have very low and declining personal savings rates. We have a huge and growing debt. And the current account deficit, which you talked about a moment ago, is also placing a heavy burden on our economy.

These rising imbalances are seemingly at the moment peculiar to America. You have no other industrial country that has this conflux of circumstances in the way that we do. And it seems to me that they are essentially impracticable and unsustainable.

So I just would like to hear your opinion on what we ought to be doing to deal with these circumstances on the demand side. We have this huge tax cut, the benefits of which have flown to people who are already very secure, and these benefits have made them even more so.

The primary beneficiaries of that tax cut are the richest 1 percent and those just a few percentage points below that group. But it has little or no effect, obviously, based upon these statistics, on the average working family.

What should we be doing to deal with those economic circumstances?

Chairman Bernanke. Thank you, Congressman. The United States is unique in some respects and not in others. We do have an unusually large current account deficit. There are some smaller countries with large deficits, Japan and Germany have surpluses, and I have discussed some of the ways in which we can address that particular problem.

On the long-term issues of the fiscal deficit, one of the main drivers there is the aging of the population. In that regard, we are perhaps no worse off than some of the other major industrial countries which are aging quickly. Even China, surprisingly, because of their one-child policy, will become as old as the United States by the middle of this century.

So the aging and the demographic transition and the implications that that has for fiscal policy is a broader issue, a difficult one, but one that we share with others.

I have already addressed to some extent the inequality issue. We are not the most unequal country in the world by any means, but this trend is a disturbing one and it has I think unfortunate consequences for our political economy.

I am not quite sure what you mean by "demand policies." I think that if you mean fiscal and monetary policies to bring the economy to full employment, I think we have worked hard on that and the economy is approaching a sustainable growth path consistent with maximum sustainable employment.

But I do think that if we are going to address wages, and in particular inequality in wages, we have to do that I would say on the supply side. That is, by addressing the skills gaps that exist among different groups of people in our society.

Senator Reed. Well if that is the case, then we are going in the opposite direction because we are cutting back on education and training, and we are cutting back on various ways in which we can enhance the skill sets of our personnel. We are doing that in the context of the Federal budget.

We are also seeing a decline in pensions as we move away from defined benefit to defined contribution benefit pension programs. These are going to reduce the economic circumstances of people who are working today and those who are about to retire.

So I think the point is that while the emphasis of this particular Government, this Congress and this Administration, has been on

tax cuts and enormous amounts of spending, it is not in ways that are going to enhance the economy.

We are not doing anything, for example, to increase the amount of goods that we produce that are marketable both here in America and around the world. In fact, the amount of goods that we produce that fall into both of those categories is declining, and that of course is a major contributor to the current account deficit that we are experiencing.

So are there not other things that we could be doing, and should be doing, to deal with those aspects of this economy?

And although you mentioned that there are other countries that have similar circumstances discretely in one or two of those categories, I do not think there is any other country in the industrial world—no other advanced country—that is confronting this confluence of circumstances. And I do not know how this economy is going to continue to prosper unless we begin to deal with those circumstances which are unique in the industrial world.

Chairman Bernanke. A point on which I am very much in agreement is that in thinking about the budget, it is not enough just to say what is the total amount that we are spending; it is really how well are we spending it?

The programs we are spending it on, are they effective? Are they delivering results? So I would urge Congress to look very hard at the mix of programs that you authorize to make sure that they are producing returns for the dollar.

So in particular looking at education, are there ways to increase accountability? To increase flexibility? To allow schools to do a better job?

With regard to job training programs: We spend on the order of \$15 to \$20 billion a year on job training programs. Is that money being well used? I think it is enormously important for us to review those programs on a regular basis to make sure that the benefits are flowing to the people who need them and not just being lost in the bureaucracy.

Senator Reed. Thank you.

Senator Bennett. Mr. English.

Representative English. Thank you, Mr. Chairman.

Mr. Chairman, your testimony here has been actually a source of not only interest to me today but also a source of great encouragement. But I would like to pursue a couple of the specific issues that you have brought up in your testimony.

I first of all found it refreshing that you focused as heavily in your printed remarks as you did on the challenge of the U.S. current account deficit.

On that point, you specifically mentioned that you think it is appropriate for some of our trading partners to pursue exchange rate flexibility.

In your view, given that China now has massive currency reserves, is China in a position to move seamlessly toward a position of exchange rate flexibility to benefit themselves, as well as presumably to stop dictating for their goods an artificial price advantage?

Chairman Bernanke. China certainly could and should do more toward increasing the flexibility of its foreign exchange re-

gime. A point I think that is worth emphasizing and that we have tried in our bilateral discussions to make with the Chinese, and Treasury of course takes the lead on this, is that increased currency flexibility is in China's interest.

It is a very large country. They need to have an independent monetary policy. They cannot really run an independent monetary policy without a flexible exchange rate.

Moreover, their current policies are distorting prices domestically as well as internationally. And in particular that means that their economy is becoming devoted toward export production and not toward the production of domestic goods and services.

Finally, as an emerging power in the world trading system, China has an interest in global stability, as do we, and by reducing its overall trade surplus, by increasing its focus on domestic demand, and by increasing the flexibility of its currency, it can help improve global stability.

So for all those reasons, I think they should move further. There are technical issues that they are trying to address, but they are quite conservative, let's say, in terms of their willingness to move further on this issue.

Representative English. And a remark that you made that I found particularly intriguing had to do with your comment about the fact that simply reducing the fiscal deficit will have a limited impact on the reduction of the current account deficit.

You know, I know there has been a great deal of political rhetoric linking the two deficits together. Could you explore for us why there is a limited interaction where a reduction in the budget deficit has only a limited impact on the trade deficit?

Chairman Bernanke. Yes, I would be glad to.

I would first point out that, just looking around the world, there is no obvious correlation between trade deficits and budget deficits.

Japan and Germany have budget deficits which are equal to or larger than ours and they have large trade surpluses. The U.S. trade deficit began to expand in the 1990s at a time when we had a budget surplus. And so there is not an obvious 1 to 1 correlation.

The issue in this case is: If the United States were to reduce its own deficit, if no other action is taken by any other country, that would tend to slow down economic activity by reducing aggregate demand. The Fed, following its mandate for full employment, would lower interest rates, stimulating investment spending in the United States.

And so the investment/savings imbalance would not be much changed if that were the only action being taken. And the estimates that have been made by not only the Federal Reserve, but by the OECD and others, are that a dollar reduction in the U.S. budget deficit only would by itself lead to about a 20 to 30 cent reduction in the current account deficit.

By contrast, if the U.S. budget deficit reduction were accompanied by increased demand abroad so that the Fed would not have to respond—that is, exports would take the place so to speak of Government spending—then you could get a much bigger pass-through from deficit reduction into current account deficit reduction.

Representative English. That is an excellent analysis.

Mr. Chairman, I had not planned to bring up this final point, but in response to some of the strawmen that have been brought up earlier in previous questions, I wanted to explore the issue of whether tax cuts can actually promote enough economic growth to pay for themselves.

I note that in 2003, before the reduced rates of tax on capital gains were passed, the CBO estimated the total capital gains liabilities in 2004 and 2005 would be \$125 billion.

Following the passage of the new tax rates, CBO revised its estimates and at that point their estimate for capital gains tax liabilities in '04 and '05 had fallen to \$98 billion, a drop of \$27 billion.

Earlier this year, however, CBO reported on actual capital gains liabilities in '04 and '05. Rather than falling by the projected \$27 billion, they actually rose by \$26 billion to a total of \$151 billion.

Mr. Chairman, I recognize that many factors influence capital gains realizations, including the strength of the economy, but as many experts have speculated the lower rates clearly are partially responsible for improving the economic outlook and rising stock prices.

You know, accordingly, can we look at these actual revenue numbers and not conclude that, at least at some level, these tax rate reductions have actually produced added revenue for the Treasury?

And, accordingly, slapping on a tax increase because it is a tax increase, that some on the other side have suggested in this area, might actually generate—might actually not generate the revenue that we need in order to deal with the deficit?

Chairman Bernanke. As you point out, Congressman, this is a complex issue. There are a lot of factors affecting both the increase in the stock market and realizations. And one of the issues here is the question whether or not some realization is taking place today which otherwise might have taken place in the future.

And so in that sense the increase in tax revenue is reflecting a one-time gain as opposed to a permanent gain. So that is one of the issues that you would have to address in analyzing the revenue effect.

But I go back to what I said before, which is that well-designed tax cuts which stimulate economic activity will at least partially offset the revenue losses by stimulating the tax base.

Representative English. Thank you, Mr. Chairman.

And thank you, Mr. Chairman.

Senator Bennett. Thank you.

Mr. Paul.

Representative Paul. Thank you, Mr. Chairman. I would ask for unanimous consent to submit some written questions, if I don't get through this.

Senator Bennett. Without objection.

Representative Paul. Thank you, and welcome. Mr. Chairman. I have a question dealing with inflation targeting, but I wanted to make a few assumptions first and have you comment on these assumptions, as well.

You state that inflation is under reasonable control at the moment. I have a lot of constituents that would disagree with you, and would disagree with the chart because if you look at energy

and medicine and education and taxes, there's a lot of price inflation out there that they are concerned about.

I think there is a discrepancy in who suffers the most from higher prices. Sometimes the wealthy suffer less than the poor and the middle class because of the way they spend their money. So, one index is not a perfect answer to how people respond to inflation.

One assumption I would have, I think it was Milton Friedman who said that inflation is first and foremost a monetary phenomenon, and I sort of ascribe to that. And many other economists, you know—there's a consensus among many economists that would go along with that.

Another assumption that I would make is that the role of the Fed in dealing with the money supply has to do with increasing or decreasing the money supply, and yet we mostly talk about interest rates, we're raising interest rates or we're lowering interest rates. But my assumption is that we're manipulating increases or decreases in the money supply in order to secondarily affect interest rates.

Assuming that we did not have an Open Market Committee and they ceased purchasing securities, my assumption would be that interest rates would go a lot higher, but we don't know exactly how high. So the Fed's job, generally speaking, is to keep interest rates lower than the market and that the point is there's only one way they can do that and that is increasing the money supply so, therefore, the money supply is the most direct measurement that we need to look at to find out what to anticipate with price increases, also recognizing that productivity obviously influences that.

Traditionally we've always measured our dollar in terms of gold. The dollar was worth \$20—gold was worth \$20 an ounce when the Fed came into existence. Today that dollar, pre-Fed dollar is worth 4 cents. We've had tremendous depreciation and devaluation and a lot higher prices since then.

We had major events throughout history that were monetary events. During the Roosevelt era, gold going from \$20 to \$35, and this was considered a devaluation. And then twice under Nixon, an 8 percent devaluation and then a 10 percent devaluation. And then of course when gold was put into the marketplace we had again a lot of devaluation. Gold settled down after that, around \$250 an ounce, and that's what the price of gold was in the early—in 2001. Since that time, gold has gone from \$250 up to \$630, plus or minus. That represents more than a 60 percent devaluation of the currency.

Now in your job in looking at inflation and targeting inflation and looking at prices, how important is this? We do know that central banks around the world—and our central bank is still very much aware of the fact that gold is an important monetary element, it is not like we've thrown it away or sold it. We hold more gold than anybody else. So it is a monetary issue.

But how do you look at this price? Does this concern you? Is it meaningless? What if gold would go to a thousand dollars an ounce, how would that affect your thinking about what to do with interest rates and the money supply?

Chairman Bernanke. Thank you, Congressman. You raise a lot of interesting questions there. I can address a few of them.

It's true that we look at core inflation, which leaves out, for example, energy and food and the question, as you know, is whether that really is representative of the consumer basket that the average person is facing. The answer is no. And we are interested in maintaining stability of overall inflation.

Our focus on core inflation is mostly a technical thing, because generally speaking energy and food prices are more volatile and tend to stabilize more quickly than other parts of the inflation basket. That hasn't been true lately, as you know, and we really need to pay attention I think to the overall inflation rate as well as the core inflation rate.

You're also quite correct that our interest rate policy is closely linked to our control of the money supply, and during periods like the recent one where interest rates have been rising, you also expect to see slower money growth and that in fact has been generally the case, and those two things do go together.

I don't think it's really the case that we keep the interest rate lower than the market. If we were doing that, then financial conditions would be excessively easy and we would probably see more inflation. In fact, although we're obviously not perfect at controlling inflation, not only the Fed, but other central banks around the world have done a much better job in the last few decades at targeting and managing inflation and that at least is positive.

You raise the question of gold, and if your question is do I look at the gold price, it's on my screen, I look at it every day. I think there is information in gold prices, as there is in other commodity prices. But there are also other indicators of inflation. For example, there is the spread between indexed and nominal bonds—the so-called break even inflation compensation, which suggests that inflation expectations are relatively well controlled.

So the puzzle is why are gold prices rising so fast? There is probably some fear of inflation; there certainly is some speculation about commodity price increases in general, which is being driven by world economic growth. But clearly a factor in the gold price has got to be global geopolitical uncertainty and the view of some investors that, given what's going on in the world today, that gold is a safe haven investment and for that reason they purchase it.

So to summarize in trying to forecast inflation, I strongly believe that you need to look at lots of different things. The commodity and gold prices and oil prices, energy prices, are all part of the matrix of things that a good central banker has to pay attention to. But no single variable I think is going to be adequate for judging the inflation situation.

Representative Paul. Thank you.

Senator Bennett. Mr. Brady.

Representative Brady. Thank you, Chairman Bennett.

Mr. Chairman, I'm Kevin Brady, a five-term Member from the Texas area, east Texas and part of the Houston region. International trade is a big job creator for our State and obviously helps stretch families' budgets by giving them lower prices and more choices when they shop. As a Nation we are a fairly open market. How important is it economically that we continue to pursue more open markets overseas, more trade agreements that lower those

barriers and continue to offer more consumer choices here at home? How important is it that we continue to follow that policy?

Chairman Bernanke. Congressman, it's extremely important, and for more reasons than the textbook will tell you, I think. The textbook tells us about comparative advantage, the idea that some countries can produce some things cheaper than others and therefore it pays them to trade to take advantage of that. And that's certainly going on in the world today, we're getting specialization across different countries.

But I think also that an open trading system increases competition, it increases the flow of ideas, increases the flow of capital, and makes the world overall a more dynamic and effective economic environment. And so I think it's a terrible mistake to try to shut out the world, to embrace economic isolationism and, even though it's not always popular, economists and I hope Congress will try to keep trade open.

There is an issue which is an important one, not to be neglected, that while trade provides broad benefits to our society and to our economy, there are sometimes people who are made worse off by trade, workers who lose their jobs because a certain factory goes overseas or because the competition from imports is reducing their market. We need to pay attention to that concern.

But rather than attempting to freeze their jobs in place by preventing any change in the economy, we're much better off allowing the change to take place, but helping people retrain or otherwise provide for themselves so that they can join the global economy rather than be isolated by it. So I certainly agree with your proposition with the proviso that we need to pay attention to those who are adversely affected by trade as well as those who benefit.

Representative Brady. I agree. People oftentimes look at the trade deficit and proclaim it a failure of our trade policy, but your testimony, written testimony, makes the point it's much more complex than just how much we buy and how much we sell. America is a key investment target overseas. But, it is also our failure to save as a Nation is—a factor we can control as a solution on current accounts and the trade deficit. Is it your view that our best solution or approach is increase our savings and increase our sales abroad, which also requires other countries to boost their spending and lower their barriers? Is that the solution to how we approach this problem? It's not to stop free trade, it is to increase our savings and our sales.

Chairman Bernanke. Absolutely. And I think one of the reasons to be concerned about the current account deficit is that it may promote protectionist impulses which would be very counterproductive to our economy.

Representative Brady. Mr. Chairman, let me finish with this thought. I was not going to ask this question, but in the last week we've seen a spate of ideas on how to deal with current energy prices, from a windfall profits tax to today where I read about \$100 rebates and gas tax holidays. I won't ask you if these are political gimmicks, but I will ask you are these substantive? Do these substantively, positively impact the fundamental drivers of our energy prices?

Chairman Bernanke. Congressman, unfortunately the high prices we're seeing are due to a multitude of factors, but they're driven primarily by supply and demand conditions in the world today. We have substantial economic growth which generates increased demand, and supply has been very insecure for a variety of reasons. And unfortunately there's nothing really that can be done that's going to affect energy prices or gasoline prices in the very short run. This situation has been building up for a long time.

And what we need to do is think about whether there are actions we can take that, over a number of years, will put us on a more secure footing and allow for either increased supply or reduced demand that will help keep prices down. Unfortunately, after many years of not really doing as much as we should on the energy front, this situation has arisen and I don't see any way to make a marked impact on it in the very short run.

Representative Brady. Does a windfall profits tax increase production or in any way lower our gas prices?

Chairman Bernanke. I don't think it would. Profits taxes have the adverse effect of removing one of the major incentives of our market system. If people think that their profits are going to be taxed away, that reduces their incentive to engage in certain activities.

So I would like to let the market system work as much as possible to generate new supplies, both of oil but also of alternatives, and for the prices, as painful as they may be, to help generate more conservation and alternative uses of energy on the demand side.

Representative Brady. Thank you, Chairman. Thank you, Chairman Bennett.

Senator Bennett. Thank you, Mr. Chairman. This has been a most illuminating morning.

Representative Hinchey. Mr. Chairman, are you concluding?

Senator Bennett. Did you want a second round?

Representative Hinchey. If you don't mind. It's not quite 20 of.

Senator Bennett. All right. Well, in that case, I'll use my prerogative to comment and then yield to you.

I'm on my way tonight to Brussels, where I will be addressing, with some other Members of both the House and the Senate, economic issues with members of the European Union. As your testimony makes clear, the United States would not trade its place economically with any other country in the world. If you look at the level of unemployment, if you look at the level of deficit computed as a percentage of GDP—rather than in total dollars—and if you look at the aging populations and the demographic projections in other developed countries of the world, and every other country would like to be where we are, which is not to say we don't have serious problems.

But I think we should put it in that perspective, and that's going to be, I think, some of the conversations we will have in Brussels.

With your predecessor, Chairman Greenspan and I used to have a kabuki dance that we went through every time he appeared before this Committee, and I had not planned to do it here, but it keeps coming up. I would always ask him, stroking my chin in a thoughtful fashion, as if it has just occurred to me, Mr. Chairman, what is the ideal capital gains rate?

And he would stroke his chin and say, Senator, the ideal capital gains rate is zero. And I would say, thank you, and, you know, we would do that every time he came, because capital gains means if there's a capital gains tax rate, it locks the capital to the degree that the rate is high, in its current investment.

And it may well be that the entrepreneur or the venture capitalist who has built, by his investment, Business A, now wants to sell Business A to the pension fund that's perfectly happy with the mature investment, and move that venture capital to Business B, that creates an opportunity for more entrepreneurial activity, and, thereby, more wealth.

But there is a barrier to making that movement from a mature business to an entrepreneurial activity, in the form of a tax. As we lower that tax barrier from 28 percent to 20 percent, we see more capital flowing over the wall, if you will.

And when we lowered it again to 15 percent, we saw more capital flowing over the wall, and I would like to see the barrier disappear altogether, because the two things that are essential to create wealth, are accumulated capital and risk-taking.

And if the accumulated capital is held in one place where the risk-taking—it can't join with the risk-taking in another place, the economy, as a whole, doesn't get the benefit of the growth.

Now, that's my non-professional economic analysis, and having done that dance with Chairman Greenspan, I now give you an opportunity to comment on it one way or the other, and disagree with your predecessor, if you will, but let's at least discuss that, because I think that is the major issue with respect to capital gains.

It has to do with the movement of capital to the place where it can produce within the economy, ultimately the most wealth.

And I would add this comment: When we asked Chairman Greenspan, during the great expansion of the late 1990s, who is benefiting the most, even though the statistics were showing the great growth at the top, he very instantly said, the people who benefited the most from this booming economy, is the bottom quintile, because they have jobs.

And the difference in lifestyle for Bill Gates, by this growth, is really nothing, but the difference in lifestyle by people who can't get jobs who now can, because there's a booming economy, is night and day.

So, regardless of the statistics, the people who benefit the most from a growing economy and the creation of wealth are the people at the bottom. And that's what we all need to be concerned about, so I'd be interested in your responses.

Chairman Bernanke. Well, Senator, I think most public finance economists would agree that, on an efficiency basis, the zero tax rate on capital gains is the optimal one. You can see that, for example, in the President's Tax Panel, which tried to push our system toward a consumption-based tax; that is, one which exempts from taxation returns to savings, including dividends and capital gains, the idea being that by exempting savings from taxation, you create more rapid capital accumulation and that does generate broader economic growth.

So, as a theoretical matter, I think that's correct. Again, I want to be very careful not to make an unambiguous recommendation,

and I would just point out that people may differ about the equity implications in terms of who benefits the most from a cut in capital gains taxes, and that to the extent that there are revenue effects—and we just had some discussion about how big they might be and whether they are temporary or permanent—issues of the deficit and funding and government spending, would also arise.

So, the final policy decision is a complex one, but I think that purely from an efficiency perspective, it's a fairly broad view among public finance economists, that capital income should be taxed at a low rate.

Senator Bennett. Thank you.

Mr. Hinchey.

Representative Hinchey. Thank you very much, Mr. Chairman, and, thank you, Mr. Chairman. I have a number—actually, I think, a large number of constituents who take the position that the optimum tax rate on wages should be zero percent. That's a slightly different point of view, from a different perspective.

I want to—

Senator Bennett. I'll be happy to join them—

(Laughter.)

Senator Bennett [continuing]. If we find another way to finance the government. I don't think wages is the most efficient way to do it.

Representative Hinchey. Let's talk, Mr. Chairman, let's talk.

I very much appreciate your solid and straight answers to the questions that were delivered today, including the one about the payback on tax cuts. Your predecessor said something very similar in testimony before the House Budget Committee. He said: "It's very rare and few economists believe that you can cut taxes and you will get an equal amount of revenues. When you cut taxes, you gain some revenue back. We don't know exactly what this amount is, but it's not small, but it's also not 70 percent or anything like that."

And we have similar statements from the Congressional Budget Office and the Congressional Research Service. The one that I liked the best was the one from the former Chairman of the Council of Economic Advisors, Greg Mankiw, who wrote in his macroeconomic textbook, and he says and I quote, "There is no credible evidence that tax cuts pay for themselves and an economist who makes such a claim, is a snake oil salesman who is trying to sell a miracle cure."

So we have some interesting points of view on this particular issue.

I wanted to just ask you about the dollar. We have a national debt now which is about \$8.33 trillion. Congress just raised the debt ceiling a couple of weeks ago—3 weeks ago, to just below \$9 trillion.

Projections are now that within the next 5 years, that the national debt is going to exceed \$11 trillion, based upon the circumstances that are prevailing currently. This year, we're anticipating a budget deficit of \$379 billion.

The circumstances here have got to be putting enormous pressure on the value of the dollar. We've seen the value of the dollar decline recently, and I'm wondering what you would say about the

potential for the strength of the dollar, given these economic circumstances of huge growing debt and these huge annual budget deficits that are fueling that growing debt, and the current accounts deficit, which—I'm not sure what that number is, but I think it's something in excess of, what—what is the current accounts deficit?

Chairman Bernanke. Eight hundred billion dollars.

Representative Hinchey. Eight hundred billion, yes, a little over \$800 billion.

What does this mean for the value of the dollar? Is the value of the dollar going to go down?

We have the situation and an interesting report from the IMF. They report that the internal purchasing parity of the Chinese currency is more than five times its external value. Given the outcome of the recent visit of the President of China, there doesn't seem to be any indication that those circumstances are likely to change.

What do we have to anticipate with regard to the pressure on the value of our dollar?

Chairman Bernanke. Well, Congressman, I just wanted to say a word about the Federal debt, which you mentioned, first of all. There are different ways of measuring it, and you get somewhat different answers.

The debt limit includes a lot of debt with the government, like the Social Security Trust Fund, for example, and if you look at the debt held by the public, including the Federal Reserve, you find that it's something on the order of 40 percent of GDP, which is lower than a number of other industrial countries.

From that perspective our current deficit last year was 2.6 percent of GDP, so in a short-term sense, we are in a comparable situation with other industrial countries.

I think we have a much larger problem, if you take an unfunded liability approach and say, well, what is it that we really owe to our senior citizens, based on the promises we've made in Social Security and Medicare, and there you get a much larger number, so that that's an issue.

I don't think the Federal debt has a great deal to do with the dollar. The usual arguments have to do with the current account deficit and the dollar, and here, I'd like to, I guess, make a clarification.

There was some media report that the discussions of the G7 over the weekend, had discussed some kind of depreciation of the dollar or managed depreciation of the dollar as part of the strategy for addressing the U.S. current account.

That is not correct. The G7 supports a market-determined dollar, not a managed dollar.

In terms of making forecasts, as I think Chairman Greenspan often said in this context, you can forecast the dollar and half the time, you're going to be right.

The experience is that forecasting the dollar is very difficult, and we want to just leave it to market forces to determine where the dollar is going to be.

Representative Hinchey. Thank you.

Senator Bennett. Thank you very much, Mr. Chairman. We appreciate your being here, and look forward to continued meetings with you, with the JEC.

This Committee was created by the Humphrey-Hawkins Act, as Senator Humphrey wanted to increase the connection between the Fed and the Congress, and established these regular reports.

We know you have other things to do, but we're grateful for your willingness to come spend the morning with us on the Hill. The hearing is adjourned.

Chairman Bernanke. Thank you, Senator.

(Whereupon, at 11:55 a.m., the hearing was adjourned.)

Submissions for the Record

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

Chairman Bernanke, it is my pleasure to welcome you this morning before the Joint Economic Committee (JEC). We appreciate your testimony on the economic outlook.

According to the official data, a healthy economic expansion has been underway for several years. The U.S. economy advanced 4.2 percent in 2004, and 3.5 percent in 2005. As I have noted many times, the pick-up in economic growth since the middle of 2003 is mostly due to a rebound in investment activity, which had been weak. This rebound was fostered by a mix of Fed monetary policy and the 2003 tax legislation and its incentives for investment.

The continued economic expansion has created 5.2 million payroll jobs since August of 2003. The unemployment rate, at 4.7 percent, is below its average levels of the 1970s, 1980s, and 1990s. Federal Reserve and private economists forecast that business investment and the overall economy will continue to grow this year.

As the Fed noted in a policy report last February, "the U.S. delivered a solid performance in 2005." The Fed also stated that the "U.S. economy should continue to perform well in 2006 and 2007." Recent data indicate that the economic growth rate for the first quarter of this year will be quite robust when it is released tomorrow.

According to a broad array of economic data, the outlook remains positive. Consumer spending is expected to be solid in 2006. Homeownership has reached record highs. Household net worth is also at a record level. The trend in productivity growth remains strong. Although high oil prices have raised business costs and imposed hardship on many consumers, these prices have not derailed the expansion.

Meanwhile, long-term inflation pressures are contained. As a result, long-term interest rates, such as mortgage rates, are still relatively low, although these rates have edged up in recent weeks. According to the Fed's preferred price index, inflation is well under control.

In sum, current economic conditions are strong. With economic growth expected to exceed 3 percent this year, the economic outlook remains positive.

PREPARED STATEMENT OF SENATOR ROBERT BENNETT, VICE CHAIRMAN

It is a pleasure to welcome the Honorable Ben Bernanke, Chairman of the Board of Governors of Federal Reserve System, before the Committee this morning. We view your testimony on the economic outlook as a continuation of the longstanding productive exchange between the Federal Reserve and the Joint Economic Committee.

A wide range of economic data confirms that the U.S. economic expansion remains on a solid foundation. Growth in the inflation-adjusted, or "real," gross domestic product increased 3.5% during 2005, on the heels of over-4% growth in 2004. Real GDP has now been growing for 17 consecutive quarters. Most private forecasters believe that growth for the first quarter of this year will be a sizeable acceleration from the temporary lull in the final quarter of 2005 and growth is then expected to return to more trend-like, yet still healthy, rates through the remainder of the year.

The unemployment rate has fallen to 4.7 percent, the lowest level in five years and stands below the averages of the 1960s, 1970s, 1980s, and 1990s. In 31 consecutive months of job creation, payroll employment in the Nation has expanded by over 5.1 million new jobs. Last year alone, 2 million new jobs were added to business payrolls.

While long-term interest rates, including mortgage rates, have edged up recently, they remain low by historical standards and financial conditions of households and

businesses seem to be in reasonably good shape. Activity in housing markets has recently been showing signs of cooling, but levels of activity remain strong.

Although headline consumer price inflation has been boosted by another round of increased energy prices, so-called "core" consumer price inflation remains relatively steady and measures of inflation expectations remain stable.

Nevertheless, last year was the third consecutive year of rising and volatile energy prices, and we all feel how energy price increases have cut into households' purchasing power and the profitability of non-energy producing businesses. The economy has remained resilient in the face of escalating energy prices, but further increases pose a risk to future growth and inflation.

As I mentioned, the economic expansion remains on a solid foundation. And I believe that one important ingredient that helped generate the robust economic growth over the past few years is the enactment of pro-growth tax relief in 2003.

We look forward to your review of recent economic developments and your outlook for the U.S. economy.

Welcome, again, Chairman Bernanke.

PREPARED STATEMENT OF SENATOR JACK REED, RANKING MINORITY

Thank you, Chairman Saxton. I want to welcome Chairman Bernanke and thank him for testifying here today.

All eyes are on you, Chairman Bernanke, as you embark on a tricky high-wire act in which you allow the economy to grow and employment to reach its full potential, while you remain mindful of the risks of inflation. For some time, the Fed's job had been easier—it had room to raise interest rates from very low levels with little risk of derailing the economic recovery, while inflation and other lurking economic problems were at bay. Today, soaring energy prices, record budget and trade deficits, a negative household saving rate, and a disappointing labor market recovery all pose tremendous challenges to setting monetary policy.

The Fed has raised its target for the federal funds rate by 25 basis points at each of the last 15 FOMC meetings. According to the minutes of the March meeting, most members of the FOMC thought that the end of the tightening process was near. The question on everyone's mind is: are we there yet? The phrase we are hearing is that interest rate changes will now be "data driven." So I hope that means, Chairman Bernanke, that the Fed will look hard at the full range of data on economic growth, employment, and inflation to determine the best course for monetary policy.

GDP is growing, but the typical American worker has been left out of the economic gains of this recovery. Strong productivity growth has shown up in the bottom lines of shareholders but not in the paychecks of workers. Too many Americans are being squeezed by stagnant incomes and rising costs for gasoline, health care, and education. It seems to me that there is still room for real wages to catch up with productivity before the Fed needs to worry about inflationary pressures from the labor market.

However, there are many other downside risks to the economy on the horizon. Energy prices have been pushing up overall inflation for some time. But last month, we saw an uptick in core inflation, which might be an early sign that businesses are starting to pass on their higher energy costs to customers. Rising oil prices and interest rates coupled with a weakening housing sector could take their toll on consumers and businesses alike and slow down the economy too much.

Your task in setting the right course for monetary policy is complicated by fiscal policy and international imbalances. We no longer have the fiscal discipline that we had in the 1990s, which allowed for a monetary policy that encouraged investment and long-term growth. The President's large and persistent budget deficits have led to an ever-widening trade deficit that forces us to borrow vast amounts from abroad and puts us at risk of a major financial collapse if foreign lenders suddenly stop accepting our IOU's.

Even assuming we can avoid an international financial crisis, continued budget and trade deficits will be a drag on the growth of our standard of living and leave us ill-prepared to deal with the effects of the retirement of the baby-boom generation. Strong investment financed by our own national saving—not foreign borrowing—is the foundation for strong and sustained economic growth and rising living standards.

One final issue that I would like to raise is the growing inequality of income, earnings, and wealth in the U.S. economy. Your predecessor, Chairman Greenspan, regularly raised that issue as one of concern for our political economy—it is not good for democracy to have widening inequality. I know you share these concerns. Recently, the Federal Reserve published the results from the 2004 Survey of Consumer

Finances. They show that growth in median income and wealth have slowed substantially and the top 1 percent of families hold more wealth than the bottom 90 percent of families.

In this environment, it is hard to understand why the Administration is continuing to pursue policies that add to the budget deficit by providing tax breaks to those who are already well-off, including the permanent elimination of the estate tax. Meanwhile, they continue to propose budgets that cut programs for those who are struggling to make ends meet. Mr. Chairman, I know you don't want to get into the specifics of particular policies, but I hope you can offer us some insights about the kinds of policies that are likely to be effective in addressing the real challenges we face in this economy and offering real opportunities for growth that provides widespread benefits to the American people.

I look forward to your testimony on the economic outlook and to a discussion of these issues.

PREPARED STATEMENT OF HON. BEN BERNANKE, CHAIRMAN, BOARD OF GOVERNORS
OF THE FEDERAL RESERVE SYSTEM

Mr. Chairman and members of the Committee, I am pleased to appear before the Joint Economic Committee to offer my views on the outlook for the U.S. economy and on some of the major economic challenges that the Nation faces.

Partly because of last year's devastating hurricanes, and partly because of some temporary or special factors, economic activity decelerated noticeably late last year. The growth of the real gross domestic product (GDP) slowed from an average annual rate of nearly 4 percent over the first three quarters of 2005 to less than 2 percent in the fourth quarter. Since then, however, with some rebound in activity under way in the Gulf Coast region and continuing expansion in most other parts of the country, the national economy appears to have grown briskly. Among the key economic indicators, growth in nonfarm payroll employment picked up in November and December, and job gains averaged about 200,000 per month between January and March. Consumer spending and business investment, as inferred from data on motor vehicle sales, retail sales, and shipments of capital goods, are also on track to post sizable first-quarter increases. In light of these signs of strength, most private-sector forecasters, such as those included in the latest Blue Chip survey, estimate that real GDP grew between 4 and 5 percent at an annual rate in the first quarter.

If we smooth through the recent quarter-to-quarter variations, we see that the pace of economic growth has been strong for the past 3 years, averaging nearly 4 percent at an annual rate since the middle of 2003. Much of this growth can be attributed to a substantial expansion in the productive capacity of the U.S. economy, which in turn is largely the result of impressive gains in productivity—that is, in output per hour worked. However, a portion of the recent growth reflects the taking up of economic slack that had developed during the period of economic weakness earlier in the decade. Over the past year, for example, the unemployment rate has fallen nearly ½ percentage point, the number of people working part time for economic reasons has declined to its lowest level since August 2001, and the rate of capacity utilization in the industrial sector has moved up 1½ percentage points. As the utilization rates of labor and capital approach their maximum sustainable levels, continued growth in output—if it is to be sustainable and non-inflationary—should be at a rate consistent with the growth in the productive capacity of the economy. Admittedly, determining the rates of capital and labor utilization consistent with stable long-term growth is fraught with difficulty, not least because they tend to vary with economic circumstances. Nevertheless, to allow the expansion to continue in a healthy fashion and to avoid the risk of higher inflation, policy-makers must do their best to help to ensure that the aggregate demand for goods and services does not persistently exceed the economy's underlying productive capacity.

Based on the information in hand, it seems reasonable to expect that economic growth will moderate toward a more sustainable pace as the year progresses. In particular, one sector that is showing signs of softening is the residential housing market. Both new and existing home sales have dropped back, on net, from their peaks of last summer and early fall. And, while unusually mild weather gave a lift to new housing starts earlier this year, the reading for March points to a slowing in the pace of homebuilding as well. House prices, which have increased rapidly during the past several years, appear to be in the process of decelerating, which will imply slower additions to household wealth and, thereby, less impetus to consumer spending. At this point, the available data on the housing market, together with on-

going support for housing demand from factors such as strong job creation and still-low mortgage rates, suggest that this sector will most likely experience a gradual cooling rather than a sharp slowdown. However, significant uncertainty attends the outlook for housing, and the risk exists that a slowdown more pronounced than we currently expect could prove a drag on growth this year and next. The Federal Reserve will continue to monitor housing markets closely.

More broadly, the prospects for maintaining economic growth at a solid pace in the period ahead appear good, although growth rates may well vary quarter to quarter as the economy downshifts from the first-quarter spurt. Productivity growth, job creation, and capital spending are all strong, and continued expansion in the economies of our trading partners seems likely to boost our export sector. That said, energy prices remain a concern: The nominal price of crude oil has risen recently to new highs, and gasoline prices are also up sharply. Rising energy prices pose risks to both economic activity and inflation. If energy prices stabilize this year, even at a high level, their adverse effects on both growth and inflation should diminish somewhat over time. However, as the world has little spare oil production capacity, periodic spikes in oil prices remain a possibility.

The outlook for inflation is reasonably favorable but carries some risks. Increases in energy prices have pushed up overall consumer price inflation over the past year or so. However, inflation in core price indexes, which in the past has been a better indicator of longer-term inflation trends, has remained roughly stable over the past year. Among the factors restraining core inflation are ongoing gains in productivity, which have helped to hold unit labor costs in check, and strong domestic and international competition in product markets, which have restrained the ability of firms to pass cost increases on to consumers. The stability of core inflation is also enhanced by the fact that long-term inflation expectations—as measured by surveys and by comparing yields on nominal and indexed Treasury securities—appear to remain well-anchored. Of course, inflation expectations will remain low only so long as the Federal Reserve demonstrates its commitment to price stability. As to inflation risks, I have already noted that continuing growth in aggregate demand in excess of increases in the economy's underlying productive capacity would likely lead to increased inflationary pressures. In addition, although pass-through from energy and commodity price increases to core inflation has thus far been limited, the risk exists that strengthening demand for final products could allow firms to pass on a greater portion of their cost increases in the future.

With regard to monetary policy, the Federal Open Market Committee (FOMC) has raised the Federal funds rate, in increments of 25 basis points, at each of its past fifteen meetings, bringing its current level to 4.75 percent. This sequence of rate increases was necessary to remove the unusual monetary accommodation put in place in response to the soft economic conditions earlier in this decade. Future policy actions will be increasingly dependent on the evolution of the economic outlook, as reflected in the incoming data. Specifically, policy will respond to arriving information that affects the Committee's assessment of the medium-term risks to its objectives of price stability and maximum sustainable employment. Focusing on the medium-term forecast horizon is necessary because of the lags with which monetary policy affects the economy.

In the statement issued after its March meeting, the FOMC noted that economic growth had rebounded strongly in the first quarter but appeared likely to moderate to a more sustainable pace. It further noted that a number of factors have contributed to the stability in core inflation. However, the Committee also viewed the possibility that core inflation might rise as a risk to the achievement of its mandated objectives, and it judged that some further policy firming may be needed to keep the risks to the attainment of both sustainable economic growth and price stability roughly in balance. In my view, data arriving since the meeting have not materially changed that assessment of the risks. To support continued healthy growth of the economy, vigilance in regard to inflation is essential.

The FOMC will continue to monitor the incoming data closely to assess the prospects for both growth and inflation. In particular, even if in the Committee's judgment the risks to its objectives are not entirely balanced, at some point in the future the Committee may decide to take no action at one or more meetings in the interest of allowing more time to receive information relevant to the outlook. Of course, a decision to take no action at a particular meeting does not preclude actions at subsequent meetings, and the Committee will not hesitate to act when it determines that doing so is needed to foster the achievement of the Federal Reserve's mandated objectives.

Although recent economic developments have been positive, the Nation still faces some significant longer-term economic challenges. One such challenge is putting the Federal budget on a trajectory that will be sustainable as our society ages. Under

current law, Federal spending for retirement and health programs will grow substantially in coming decades—both as a share of overall Federal spending and relative to the size of the economy—especially if health costs continue to climb rapidly. Slower growth of the workforce may also reduce growth in economic activity and thus in tax revenues.

The broad dimensions of the problem are well-known. In fiscal year 2005, Federal outlays for Social Security, Medicare, and Medicaid totaled about 8 percent of GDP. According to the projections of the Congressional Budget Office (CBO), by the year 2020 that share will increase by more than 3 percentage points of GDP, an amount about equal in size to the current Federal deficit. By 2040, according to the CBO, the share of GDP devoted to those three programs (excluding contributions by the states) will double from current levels, to about 16 percent of GDP. Were these projections to materialize, the Congress would find itself in the position of having to eliminate essentially all other non-interest spending, raising Federal taxes to levels well above their long-term average of about 18 percent of GDP, or choosing some combination of the two. Absent such actions, we would see widening and eventually unsustainable budget deficits, which would impede capital accumulation, slow economic growth, threaten financial stability, and put a heavy burden of debt on our children and grandchildren.

The resolution of the nation's long-run fiscal challenge will require hard choices. Fundamentally, the decision confronting the Congress and the American people is how large a share of the nation's economic resources should be devoted to Federal Government programs, including transfer programs like Social Security, Medicare, and Medicaid. In making that decision, the full range of benefits and costs associated with each program should be taken into account. Crucially, however, whatever size of government is chosen, tax rates will ultimately have to be set at a level sufficient to achieve a reasonable balance of spending and revenues in the long run. Members of the Congress who want to extend tax cuts and keep tax rates low must accept that low rates will be sustainable over time only if outlays can be held down sufficiently to avoid large deficits. Likewise, members who favor a more expansive role of the government must balance the benefits of government programs with the burden imposed by the additional taxes needed to pay for them, a burden that includes not only the resources transferred from the private sector but also the reductions in the efficiency and growth potential of the economy associated with higher tax rates.

Another important challenge is the large and widening deficit in the U.S. current account. This deficit has increased from a little more than \$100 billion in 1995 to roughly \$800 billion last year, or 6½ percent of nominal GDP. The causes of this deficit are complex and include both domestic and international factors. Fundamentally, the current account deficit reflects the fact that capital investment in the United States, including residential construction, substantially exceeds U.S. national saving. The opposite situation exists abroad, in that the saving of our trading partners exceeds their own capital investment. The excess of domestic investment over domestic saving in the United States, which by definition is the same as the current account deficit, must be financed by net inflows of funds from investors abroad. To date, the United States has had little difficulty in financing its current account deficit, as foreign savers have found U.S. investments attractive and foreign official institutions have added to their stocks of dollar-denominated international reserves. However, the cumulative effect of years of current account deficits have caused the United States to switch from being an international creditor to an international debtor, with a net foreign debt position of more than \$3 trillion, roughly 25 percent of a year's GDP. This trend cannot continue forever, as it would imply an evergrowing interest burden owed to foreign creditors. Moreover, as foreign holdings of U.S. assets increase, at some point foreigners may become less willing to add these assets to their portfolios. While it is likely that current account imbalances will be resolved gradually over time, there is a small risk of a sudden shift in sentiment that could lead to disruptive changes in the value of the dollar and in other asset prices.

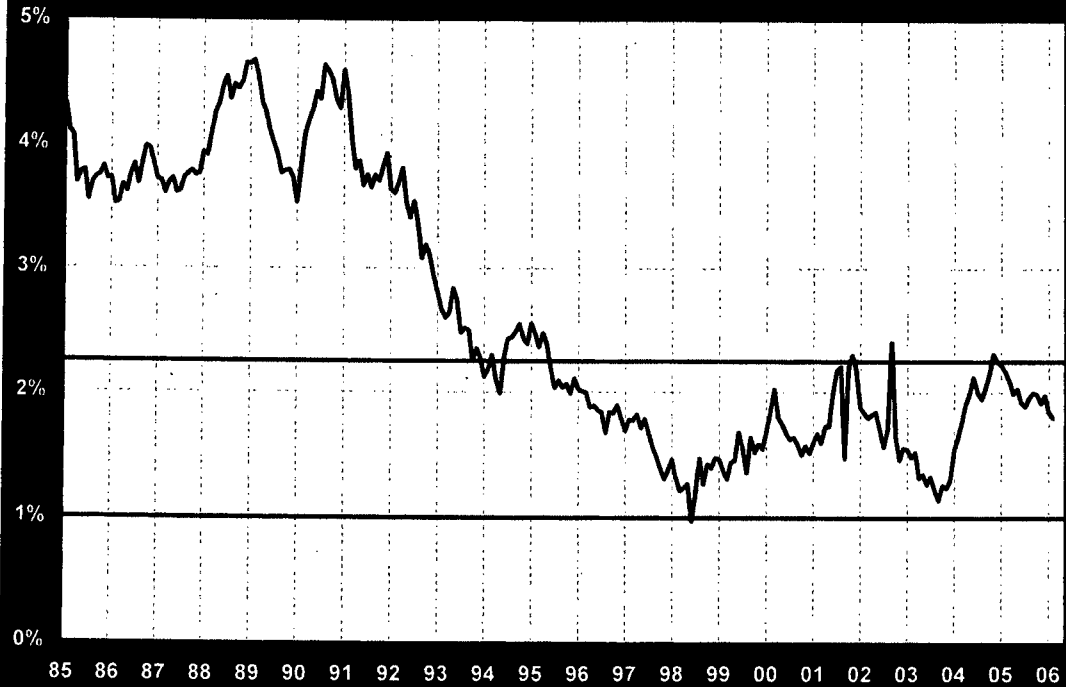
Actions both here and abroad would contribute to a gradual reduction in the U.S. current account deficit and in its mirror image, the current account surpluses of our trading partners. To reduce its dependence on foreign capital, the United States should take action to increase its national saving rate. The most direct way to accomplish this objective would be by putting Federal government finances on a more sustainable path. Our trading partners can help to mitigate the global imbalance by relying less on exports as a source of growth, and instead boosting domestic spending relative to their production. In this regard, some policymakers in developing Asia, including China, appear to have recognized the importance of giving domestic demand a greater role in their development strategies and are seeking to in-

crease domestic spending through fiscal measures, financial reforms, and other initiatives. Such actions should be encouraged. For these countries, allowing greater flexibility in exchange rates would be an important additional step toward helping to restore greater balance both in global capital flows and in their own economies. Structural reforms to enhance growth in our industrial trading partners could also be helpful. Each of these actions would be in the long-term interests of the countries involved, regardless of their effects on external imbalances. On the other hand, raising barriers to trade or flows of capital is not a constructive approach for addressing the current account deficit because such barriers would have significant deleterious effects on both the U.S. and global economies.

In conclusion, Mr. Chairman, the economy has been performing well and the near-term prospects look good, although as always there are risks to the outlook. Monetary policy will continue to pursue its objectives of helping the economy to grow at a strong, sustainable pace while seeking to keep inflation firmly under control. And, while many of the fundamental factors that determine longer-term economic growth appear favorable, actions to move the Federal budget toward a more sustainable position would do a great deal to help ensure the future prosperity of our country.

Inflation

(Core PCE) % Change - Year to Year SA, 2000 = 100



Source: Bureau of Economic Analysis / Haver Analytics
PCE: Personal Consumption Expenditures

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May 8, 2006

The Honorable Ben S. Bernanke
 Chairman
 Board of Governors of the Federal Reserve System
 20th Street and Constitution Avenue NW
 Washington, DC 20551

Dear Chairman Bernanke:

I would like to thank you for your recent testimony on the Economic Outlook before the Joint Economic Committee. Your testimony addressed a number of compelling and timely issues, and the printed record of the hearing will be an invaluable resource.

I would appreciate your addressing the attached four questions for the record.

A copy of the April 27, 2006, hearing transcript is enclosed. Please have a member of your staff return the corrected transcript, together with your answers to the submitted questions, to the Executive Director of the Joint Economic Committee, Christopher Frenze, 433 Cannon House Office Building, Washington, DC 20515. Should your staff have any questions, please call Chris on (202) 225-3953.

Thank you and I look forward to your response.

Sincerely,


 Jim Saxton
 Chairman

WRITTEN QUESTIONS SUBMITTED BY HON. JIM SAXTON TO HON. BEN BERNANKE

Question 1. Your testimony regarding the stance of monetary policy indicated that the Fed is not locked into a rigid, predetermined schedule of increases in the federal funds rate. Rather, future decisions will be data dependent, i.e., made on the basis of the most recent economic and financial information available. Your statement did not rule out any future increases in the federal funds rate. Is this a fair summary of the point you were making?

Question 2. As you know, there are a number of reasons why inflation targeting allows for a good deal of operational flexibility. Yet critics of inflation targeting often contend that adopting this procedure removes much of monetary policymaker's discretionary powers and flexibility.

This criticism appears questionable given the host of adjustments and exceptions used in inflation targeting. For example, numerical bands rather than point estimates are usually used as policy targets by those countries successfully implementing inflation targeting. Similarly, multi-year targets are often employed. The inflation indices normally used are adjusted for volatile components as well as for other factors. In practice, countries adopting inflation targeting have all used a flexible approach in implementing monetary policy. Doesn't this suggest that inflation targeting is quite flexible?

Question 3. What is the role of asset prices in a monetary policy focused on price stability? Should the central bank respond to asset price "bubbles" or disturbances such as a bubble in the stock market or a bubble in the real estate market? Or should it ignore such movements in asset prices?

Are there "moral hazard" problems associated with highly predictable central bank attempts to respond to asset price bubbles?

Question 4. Federal Reserve officials often refer to the PCE (personal consumption expenditure) deflator in addressing measures of price changes. What are the advantages of the PCE deflator over the CPI? Does the CPI overstate inflation to some extent?

What does the core PCE deflator currently tell us about the degree to which inflationary forces are being contained at present?



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

May 24, 2006

The Honorable Jim Saxton
Chairman
Joint Economic Committee
Washington, D.C. 20510

Dear Mr. Chairman:

I am pleased to enclose my responses to the questions you submitted for the record following the hearing of April 27, 2006, concerning the economic outlook.

Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to be "Ben S. Bernanke".

Enclosure

RESPONSE FROM CHAIRMAN BEN BERNANKE TO WRITTEN QUESTIONS SUBMITTED BY
CHAIRMAN JIM SAXTON

Chairman Bernanke subsequently submitted the following in response to written questions received from Chairman Saxton in connection with the Joint Economic Committee hearing on April 27, 2006:

Question 1. Your testimony regarding the stance of monetary policy indicated that the Fed is not locked into a rigid, predetermined schedule of increases in the Federal funds rate. Rather, future decisions will be data dependent, i.e., made on the basis of the most recent economic and financial information available. Your statement did not rule out any future increases in the Federal funds rate. Is this a fair summary of the point you were making?

Answer. Yes. As conveyed in my testimony, monetary policy must be forward looking and depend on the Federal Reserve's best assessment of the economic outlook as inferred from economic and financial information. Indeed, the Federal Open Market Committee was quite explicit on this point in the statement issued after its meeting on May 10. The statement explained that "the Committee judges that some further policy firming may yet be needed to address inflation risks but emphasizes that the extent and timing of any such firming will depend importantly on the evolution of the economic outlook as implied by incoming information."

Question 2. As you know, there are a number of reasons why inflation targeting allows for a good deal of operational flexibility. Yet critics of inflation targeting often contend that adopting this procedure removes much of monetary policymaker's discretionary powers and flexibility.

This criticism appears questionable given the host of adjustments and exceptions used in inflation targeting. For example, numerical bands rather than point estimates are usually used as policy targets by those countries successfully implementing inflation targeting. Similarly, multi-year targets are often employed. The inflation indices normally used are adjusted for volatile components as well as for other factors. In practice, countries adopting inflation targeting have all used a flexible approach in implementing monetary policy. Doesn't this suggest that inflation targeting is quite flexible?

Answer. By definition, an inflation targeting framework focuses on keeping inflation low and stable, and on clearly communicating to the public both the objectives of monetary policy and the strategy for achieving those objectives. The key advantage of such a framework is that it can help anchor inflation expectations more firmly and therefore promote greater stability in both inflation outcomes and resource utilization. As you point out, however, inflation targeting frameworks can be quite flexible. For example, in practice, all inflation-targeting central banks pay important attention in their policy decisionmaking not only to inflation but also to output and employment. Objectives generally are set for some date in the future, in recognition of the fact that monetary policy affects the economy only with a considerable lag. Some inflation-targeting central banks set multi-year targets, while others set policy so as to keep their inflation projection at a certain horizon close to its target; yet others aim to keep inflation close to its target on average over the business cycle. Specifying the inflation objective as a band may help convey the reality that inflation cannot be controlled perfectly at every instant, though a band may also increase the challenges around the communication of objectives and strategies to the public. These are a few of the key design features that can be used to build flexibility into the overall policy framework.

Question 3. What is the role of asset prices in a monetary policy focused on price stability? Should the central bank respond to asset price "bubbles" or disturbances such as a bubble in the stock market or a bubble in the real estate market? Or should it ignore such movements in asset prices?

Are there "moral hazard" problems associated with highly predictable central bank attempts to respond to asset price bubbles?

Answer. In setting monetary policy to achieve price stability, a central bank should take account of all factors influencing the economic outlook. Accordingly, a central bank cannot ignore movements in stock prices, home values, and other asset prices, but should respond to them only to the extent that they have implications for future output and inflation. Some observers have argued that a central bank should respond more aggressively to asset-price booms thought to have an important speculative component. In so doing, so the argument goes, a central bank can limit the future expansion of the bubble, thereby mitigating the fallout from its eventual bursting. However, the validity of this argument rests on several conditions for which there is little or no empirical evidence, including the presumptions that the central bank is better able than the market to identify speculative bubbles and that it can successfully "deflate" such bubbles without harming the broader economy.

Given our limited knowledge of the forces driving speculative bubbles, the more prudent approach is to respond only as the overall outlook for output and inflation merits. Such a limited approach should also mitigate potential moral hazard problems that might arise were a central bank to, in effect, take responsibility for the appropriateness of asset prices.

Question 4. Federal Reserve officials often refer to the PCE (personal consumption expenditures) deflator in addressing measures of price changes. What are the advantages of the PCE deflator over the CPI? Does the CPI overstate inflation to some extent?

What does the core PCE deflator currently tell us about the degree to which inflationary forces are being contained at present?

Answer. While the PCE price index generally moves roughly in line with the CPI—and indeed is derived largely from CPI source data—it does have some advantages relative to the CPI as a measure of inflation. The PCE chain-type index is constructed from a formula that reflects the changing composition of spending and thereby avoids some of the upward bias associated with the fixed-weight nature of the CPI. In addition, there is some evidence that the PCE weights are measured more accurately than the CPI weights. The PCE price measure also has some disadvantages relative to the CPI; most important, its broader scope necessitates the inclusion of some prices that are not derived from market transactions and so may add some noise to the overall index as a proxy for the cost of living.

Most analysts believe that changes in the CPI overstate changes in the cost of living to some extent. In 1996, the Senate Advisory Commission to Study the CPI (The Boskin Commission) assessed the bias in CPI inflation as centering on 1.1 percentage points per year, with a range of 0.8 to 1.6 percentage points per year. This result was similar to the findings of other analysts. Since the time of these studies, the BLS has made several improvements to the CPI that have, on balance, served to reduce that bias. In part for this reason, more recent estimates of bias in CPI inflation have generally been a little smaller than estimated by the Boskin Commission. For example, a recent study by Federal Reserve economists judged the bias in CPI inflation currently to center around 0.9 percentage point per year. The PCE price index likely is also biased upward, though probably by less than the CPI in light of the PCE measure's advantages cited above.

Although increases in energy prices have pushed up overall consumer price inflation over the past couple of years, core inflation has been more stable. The core PCE price index increased 2 percent over the twelve months to March of this year, about the same as the increase over the preceding twelve months. Similarly, the core CPI has increased 21 percent over each of the past 2 years. The stability of core inflation, even as many firms have faced substantial cost increases for energy products, has been enhanced by the fact that long-term inflation expectations appear to remain well contained. Of course, inflation expectations will remain low only so long as the Federal Reserve demonstrates its commitment to price stability.



BOARD OF GOVERNORS
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FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

ALAN GREENSPAN
CHAIRMAN

January 3, 2006

The Honorable John E. Sununu
United States Senate
Washington, D.C. 20510

Dear Senator:

Thank you for inquiring about my views concerning supervision and regulation of government-sponsored enterprises (GSEs) and about how best to focus the GSEs on their public mission without destabilizing the economy. I also appreciate your kind words about my public service on the Federal Reserve Board.

Fannie Mae (Fannie) and Freddie Mac (Freddie) essentially run two lines of business: securitization of mortgage credit and holding of mortgage and other assets for investment purposes. The first line of business provides substantial benefits for affordable housing through the process of using credit guarantees to turn mortgages into marketable securities that trade in public debt markets. This process creates a wide variety of liquidity benefits, some of which flow to homeowners and mortgage originators. Moreover, creating securities from the mortgages extended to nontraditional homeowners is an important step to making mortgage credit more widely available. Focusing Fannie and Freddie on this type of securitization activity can promote affordable housing without creating significant risks to the financial system.

In contrast, once a mortgage has been securitized and sold into the public markets, Fannie's and Freddie's purchases of their own (or each other's) mortgage-backed securities (MBS) for their investment portfolios creates substantial systemic risk while yielding negligible additional benefit for homeowners, renters, or mortgage originators.¹ Under normal circumstances, GSEs are able to easily maintain and grow their large portfolios of mortgage and non-mortgage assets without the significant market checks or balances faced by other publicly traded financial institutions. These large portfolios, while enriching GSE shareholders, do not meaningfully benefit homeowners and do not facilitate secondary market liquidity. They do add systemic risk to our financial system, which normal market forces are unable to resolve.

¹ For further details, please see my April 2005 testimony before the Senate Committee on Banking, Housing and Urban Affairs, my May 2005 speech under the auspices of the Federal Reserve Bank of Atlanta, and my letters to Senators Bennett and Sununu during the summer of 2005.

The Honorable John E. Sununu

In the current system of mortgage financing, the prepayment and interest rate risks associated with mortgages are concentrated in Fannie's and Freddie's large portfolios rather than being more widely dispersed across a broad range of market participants, including the overwhelming number of financial institutions that are significantly less leveraged than the GSEs (such as commercial banks and insurance companies). As Fannie and Freddie increase in size relative to the counterparties for their hedging transactions, their ability to quickly respond to changing market conditions and correct the inevitable misjudgments inherent in their complex hedging strategies becomes more difficult, especially when vast reversal transactions backed by their thin capital holdings are required to rebalance portfolio risks.² Furthermore, the success of interest-rate-risk management, especially the exceptionally rapid timing necessitated by dynamic risk adjustments, requires that the ultimate counterparties to the GSEs' transactions provide sufficient liquidity to finance an interest-rate-risk transfer that counters the risk. Otherwise, large and rapid destabilizing adjustments will result in sharp changes in the interest rates required to rebalance and hedge the GSEs' mortgage portfolio.

Also, as I have testified earlier, the GSEs and their government regulator need specific and unambiguous Congressional guidance about the intended purpose and functions of Fannie's and Freddie's investment portfolios. Often, this proposal is referred to as "portfolio limits." The purpose of this guidance, however, is not just to limit the GSEs' portfolios, but to firmly anchor the GSEs' investment portfolios to their public purpose. Strong portfolio guidance by Congress is needed because GSEs are an unusual government intervention in private markets; such institutions lack the typical financial market discipline that is commonplace for other publicly traded firms.

The bill approved by the Senate Banking Committee in July 2005 (S. 190) provides this much-needed anchor and would refocus Fannie and Freddie on their important public policy mission. In addition, S. 190 appropriately strengthens the capital authority of the regulator and establishes a clear and credible receivership process for handling a failed or failing GSE.

In contrast, as I observed during my July 2005 appearances before Congress on monetary policy, the bill that passed the House of Representatives in October 2005 neither takes the steps needed to create an effective GSE regulator nor addresses the systemic risks posed by Fannie's and Freddie's investment portfolios. In the first instance, the House bill fails to sufficiently strengthen the capital authority of the regulator and does not establish a clear and credible receivership process for handling a failed or failing GSE. But, more importantly, the House bill fails to comprehensively address the problem of

² For mortgage portfolios in particular, misjudgments are inevitable mainly because of the inherent difficulties in forecasting households' prepayment behavior.

The Honorable John E. Sununu

systemic risks presented by the GSEs' investment portfolios. Improved regulation by itself may be insufficient and could exacerbate the potential systemic problems associated with the GSEs' large portfolios if financial markets infer from such regulation that the government is more strongly backing GSE debt.

Moreover, the Federal Reserve Board believes that any legislative approach that relies mainly on the future regulator to oversee the GSEs' investment portfolios without providing that regulator with specific and unambiguous Congressional guidance is unlikely to succeed in directing these portfolios toward their important public purposes. Faced with trillions of dollars of assets and the large profits and capital gains created by the perception of government backing, the current GSE regulators have proved unable in recent years to thwart expansionary behavior and focus the GSEs on their important housing mission. The new GSE regulator needs a precise and clear statement from the Congress about the purpose of the GSEs' portfolios in order to assure these portfolios achieve their public mission in a manner that does not run the risk of destabilizing the housing finance markets or the financial system more generally.

Sincerely,
