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THE EMPLOYMENT SITUATION: SEPTEMBER 1998

HEARING

before the

JOINT ECONOMIC COMMITTEE
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THE EMPLOYMENT SITUATION:
SEPTEMBER 1998
October 2, 1998

HOUSE OF REPRESENTATIVES,
JOINT ECONOMIC COMMITTEE,
WASHINGTON, D.C.

The Committee met, pursuant to notice, at 9:30 a.m., in Room 1334, Longworth House Office Building, Hon. Jim Saxton, Chairman of the Committee, presiding.

Present: Representatives Saxton, McCrery, Ewing, Hinchey, and Maloney; Senator Sarbanes.

Staff Present: Christopher Frenze, Robert Keleher, Colleen Healy, Darryl Evans, Joseph Cwiklinski, Howard Rosen, and Tami Ohler.

OPENING STATEMENT OF
REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Good morning. I am pleased to once again welcome Commissioner Abraham before the Joint Economic Committee (JEC).

The employment data reported this morning suggests a slowdown in the economy may be underway. The meager 69,000 employment gain in the closely watched payroll survey is the clearest signal so far that the economy may be cooling off. Moreover, this weakness in payroll employment survey is not confined to just one particular industry, but is reflected in all sectors.

The slowdown in payroll employment growth is not a one-month aberration but has been under way for several months. The recent employment trends should be a concern to policy makers, but a review of other data is needed to determine its implications for the economy.

The Bureau of Labor Statistics's (BLS) price data continue to reflect a current pattern of disinflation, with no real evidence of inflation. The forward-looking market price indicators used by the Joint Economic Committee-bond yields, commodity prices, and the dollar exchange rate-continue to show that there is no sign of future inflation in the pipeline.

Let me just pause here for a minute, for those of who you are interested in this point. I think this is very important. I have passed out some briefing materials that you may want to take a look at. They are a set of graphs and charts which indicate, as I have just said, that our forward-looking indicators show no sign of inflation. This is a very important issue.

Chart number one shows the gross domestic product implicit price deflator, which is a very broad measure of inflation. And as you can see, that indicates that prices continue to deflate, or disinflate, I should say.

On page number two, the Consumer Price Index (CPI) and all items including food and energy, as well as the core CPI, continue to go down. The Producer Price Indexes (PPI) on the next chart show exactly the same sign.

And then we get over to the forward-looking indicators that we use. Commodity prices continue to decline or at least are at an historic low. The 30-year bond yield, as everyone knows from watching the news over the past few days, continues to be extremely low, as well as other forward-looking indicators.

So all in all, when it comes to our discussions that we have had over the past two years, at least of forward-looking indicators, it continues to show a picture of no inflation in the economy as a result of Fed policies, and gives us some additional options.

The price data have shown disinflation and a growing potential for deflation over the past year, and this has led me to call in the past for the Federal Reserve to cut interest rates. As a matter of fact, I started to suggest that last winter. I do support the Fed, therefore, the Federal Reserve decision to cut the federal funds rate last Tuesday.

Though the rate cut was long overdue, a review of its effects on market price indicators would be needed before having a firm basis to judge whether it went far enough. However, the sharp decline of the long bond yield over the past several days since the rate cut suggests a further rate reduction would be appropriate. Furthermore, the other market price signals also show no signs of inflation expectations, as I have just said.

The FOMC, as a matter of fact, does not have to wait until its next scheduled meeting on November 17 to act. An expeditious Federal Reserve cut in the federal funds rate as well as the discount rate could send an important signal to the U.S. and to the world. A Federal Reserve reduction in the discount rate could be interpreted as signaling the possibility of future easing of monetary policy.

In conclusion, I think the Federal Reserve should immediately consider a further reduction in interest rates. Over the last seven years the Federal Reserve has done a splendid job in gradually squeezing inflation out of our economic system and implementing a policy of price stability through informal inflation targeting. This has sustained the long economic expansion that has flooded the Treasury with revenue, balancing the budget.

But a policy of price stability precludes both inflation and deflation. At the moment, the growing potential of deflation appears to be more serious than the resurgence of inflation. The prudent course would be a careful easing of monetary policy in the months ahead.

Thank you very much.

And, Commissioner, we are anxious and look forward to hearing your testimony this morning.

[The prepared statement of Representative Saxton and accompanying briefing materials appear in the Submissions for the Record.]

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 very much, Mr. Chairman. As always, we appreciate the opportunity to be here and talk in a little bit more detail about the numbers that we have to report.

The unemployment rate was essentially unchanged in September at 4.6 percent, and as you noted, nonfarm payroll employment rose only slightly. Over the past three months, payroll employment gains have slowed markedly.

There is a complication in looking at recent months' numbers, in that there was the big auto strike in the summer, but adjusting for the direct effects of that strike and related plant shutdowns, payroll employment rose by about 270,000 in July and about 160,000 in August. The September increase was just 69,000.

The relatively weak September growth reflects an unusually small increase in services and job losses in manufacturing and construction. Manufacturing employment fell by 16,000 in September. Since its peak in March, employment in manufacturing has declined by 152,000. The

largest declines in September were in industrial machinery, which shed 8,000 jobs, and in electronic equipment, which lost 7,000 jobs. Together these two trade-sensitive industries accounted for nearly 40 percent of the total factory job loss since March.

In nondurable goods manufacturing, there was an increase of 15,000 jobs in food and kindred products, following losses totaling 20,000 in the prior three months. Apparel employment, which has been trending downward for several years now, showed little change in September following a large loss in August. Textiles gained 3,000 jobs, an unusual increase in an industry that has experienced slow but steady employment losses for some time.

Employment in construction fell by 20,000 over the month. Construction had added an average of 24,000 jobs per month over the year ending in August. The over-the-month declines in construction were widespread, but much of the loss occurred in heavy construction rather than residential construction.

Services payrolls grew by 24,000 in September, an unusually small increase. Prior to September, monthly gains during 1998 had averaged 112,000. Employment in help supply services, which is mainly temporary help, fell by 44,000 in September, bringing that industry's employment level back to where it had been in January.

Employment in computer services and in engineering and management services rose by 10,000 and 6,000 respectively, comparable to their gains in August. In contrast, from January to July those two industries together had generated about 40,000 jobs per month, so we are under that pace there.

Elsewhere in services, employment in amusements and recreation increased by 23,000, the third month in a row of strong gains for that industry. Health services gained 15,000 jobs, a bit above its pace of growth in 1998 but below the average monthly gains realized during 1997. Employment increased in doctors' offices and hospitals. Declines continued in home health care, which has lost 49,000 jobs over the past year.

Finance, insurance and real estate gained 23,000 payroll jobs in September after an unusually small increase the month before. Employment in finance increased, largely in security brokerages, and real estate employment also rose.

Employment in retail trade grew by 37,000, which is about in line with its average pace for the year to date. The gains occurred largely in general merchandise stores, food stores, and eating and drinking places.

The number of payroll jobs in transportation and public utilities rose by 6,000. A strike in communications held down growth for this industry in September. Workers affected by an airline strike, however, were on payrolls for at least part of the reference pay period and thus were counted as employed in the September survey, so that strike was not having an impact on our data.

Government employment was flat, reflecting some relatively small offsetting movements in its components.

Average hourly earnings for production or nonsupervisory workers rose by 1 cent in September, following a six-cent gain in August. Over the 12 months in September, hourly earnings were up by 4 percent. The average work week was down 0.2 hours to 34.4 hours. Manufacturing hours were unchanged, while factory overtime edged down by a tenth of an hour.

Turning to data from the household survey, the number of unemployed persons and the unemployment rate were little changed in September. Both measures have been about the same since June. The jobless rate has been at or below 5 percent since April of 1997. The unemployment rates for the major worker groups were also essentially unchanged in September.

The number of persons working part-time despite their preference for full-time work, what we call part-time for economic reasons, continued to decline in September. That measure is down to 3.4 million, which is about–a little over 560,000 below where it had been a year earlier.

In sum, then, the pace of payroll job growth continued to slow in September, reflecting declines in manufacturing and construction and slow growth in services. The unemployment rate, at 4.6 percent, is little changed over the month.

As always, we would be happy to talk more about these data or other related matters.

[The prepared statement of Commissioner Abraham and accompanying Press Release appear in the Submissions for the Record.]

Representative Saxton. Commissioner, thank you very much for a very articulate presentation. I am concerned about the general weakness or the seeming weakness of this month's payroll employment

numbers that you have brought to us today. How widespread is this throughout the various sectors of the economy? Is it confined to just a few sectors or is it a decline or weakness that we are seeing?

Ms. Abraham. There certainly is a number of different things going on. It is not a weakness in one sector that is driving this number. Manufacturing employment has been declining for some months now. That is continuing. The decline in construction employment this month is new. Services employment has been weak for a couple of months.

We are not seeing strong growth in a number of the industries that had been growing strongly up to this point, and we are seeing declines in manufacturing and then this new decline in construction.

Representative Saxton. From your experience, would you say that there is some economic reason for this, or is it a result of some kind of a fluke, or is there some economic factor that we ought to be concerned about?

Ms. Abraham. I think clearly a piece of what we are seeing, particularly in manufacturing, has to do with what is going on in Asia. If you look at the industries where we have seen the biggest declines, in the manufacturing industries where we have seen the biggest turnaround in the employment picture, it is industrial machinery, electrical equipment which had been growing fairly robustly up through the spring, through March, and since then have declined a good bit.

I think it is fairly easy to pin, you know, that specifically and probably some of the rest of what is going on in manufacturing on the Asian situation. As for the rest of what is going on, it is less easy to point to a specific factor, but I would not characterize it as a fluke. There is no anomaly in the data that is driving this.

Representative Saxton. Let me ask this: In your statement you were very careful to mention the weakness that you perceived in construction. We don't generally think of the construction employment factors as being closely related to Asia or foreign trade generally. What would you think may be causing this slowdown or the weakness in the construction industry?

Ms. Abraham. I don't know that I really have a specific explanation for that. It is noteworthy in the sense that over the year through August, construction employment had been growing so robustly. There were some funny things back in the spring that we thought were probably related to unusual seasonal movements rather than anything in trends. That is not the case this month.

Representative Saxton. That brings up a good point, and let me ask you about this. I for one have been very careful at these monthly meetings not to make too much of one month's numbers. Is this an aberration of September numbers, or is there a pattern which is reflected in September's data?

Ms. Abraham. I think you are still right not to make too much of one month's number. What we are seeing in manufacturing is not just a one-month thing. Manufacturing employment has been declining for several months now. Construction, I would say is a little bit less clear-cut, in that this is really the first month where we have seen a decline in construction employment, and we will want to wait and see what happens next month on that.

We have seen a couple of months now where growth in the services industries seems to be weaker. More additional data always helps to clarify what the picture is.

Representative Saxton. There is some trend here, there is a pattern here to these last several months; is that not true?

Ms. Abraham. If you look just at the top side numbers, employment growth was stronger in July, down in August, and then down again this month. It is not just one month in a string of months that are consistently strong.

Repi esentative Saxton. Let me ask you what to most people is probably an arcane question. I would like to ask you about the diffusion indices of employment change. For those who don't pay close attention to this index, it is a measure of those sectors of the economy where growth is taking place or where it is not taking place. And I noticed that in the September numbers, that over half, 51 percent to be exact, in terms of looking at this chart, 51 percent of the economy showed losses. Is that a fair statement?

Ms. Abraham. The way that this index is put together is by basically counting up the number of industries where you saw growth and number of industries where you saw decline. I have to say this is not my favorite measure so I don't usually look at it. What it does, it is somewhat of an artifact of how you happened to define your industries, though it is something that a lot of people look at and we do produce it.

Phil, you have got those figures, if you want to.

Mr. Rones. What we show over this year is a general decline in the diffusion index, and that would indicate—

Representative Saxton. Excuse me. I am sorry, I am not an economist, so would you try to say it so I can understand it?

Mr. Rones. I was going there. The decline in this diffusion index that you were talking about suggests that the ratio between industries that are gaining jobs and industries that are losing jobs is tilting a little more towards the losing jobs. Right now if you take the broader index which has a whole range of different industries, you are right at the 50-50 point. The September figure was 49 percent, which means there is an equal number of industries gaining and losing jobs. Earlier in the year it was closer to 60 percent, meaning that for every 60 industries that were gaining jobs, there were 40 that were losing.

Representative Saxton. Would it be fair to use the word "flatness" to describe that situation in the economy?

Mr. Rones. I would say that gains are less broad-based than they were earlier in the year.

Representative Saxton. Thank you.

Commissioner, the BLS compiles a number of price indices and a great deal of price information. I wanted to ask you about some of these indices and what they are showing.

First, is there any indication from the CPI that inflation is moving upward in any meaningful way?

Ms. Abraham. No, there is no indication of that at this point.

Representative Saxton. Second, is there any indication from the PPI, in data that you have, that inflation is moving upward in any meaningful way?

Ms. Abraham. I know Ken has more complete information on the PPI with him than I do. If you wouldn't mind, I would let him take that question.

Representative Saxton. Mr. Dalton.

Mr. Dalton. The finished goods component of the Producer Price Index fell at an annual rate of 1.4 percent through August. That compares to a decline of 1.2 percent in all of 1997. So those are actually declines. I hesitate to add this, but if you look at recent behavior of the core rate in the finished goods, which is finished goods excluding food and energy, through the first eight months it has risen at an annual rate of 1.2 percent and in '97 it was virtually flat. The reason I say I hesitate to add that is that there is some particular specific circumstances that help to explain that acceleration.

Representative Saxton. Thank you. Going on, is there any indication from the GDP deflator that inflation is moving upward in any meaningful way?

Ms. Abraham. That, as you know, is not a measure that we produce. I do have your handy chart here that shows what that has been doing, and the most recent data seem to show that that is down relative to where it had been.

Representative Saxton. Thank you. And what do your import and export price indices show?

Mr. Dalton. From August of last year to August of this year, import prices declined 6.4 percent. That follows a 2.2 percent decline in the 12 months ending in August '97.

Representative Saxton. Okay. Turning to commodity prices, by some measures it appears that they are at their lowest levels in years. What does your crude component of the PPI show?

Mr. Dalton. Through the first 8 months, the crude materials component is declining at an annual rate of almost 20 percent, with the various components being crude foodstuffs and feedstuffs down 12.1, crude energy materials down 31.8, and crude nonfood materials less energy down 12.4.

Representative Saxton. Thank you. Commissioner Abraham or Mr. Dalton, it would be fair for any casual observer to conclude that there is nothing in any of these indices that shows any significant danger of the reemergence of inflation. Is that a fair statement?

Ms. Abraham. It would certainly be fair to say there is nothing in these data that shows any signs of acceleration of inflation that has shown up to date.

Representative Saxton. Thank you. I am going to pass the mike over to my friend Mr. Hinchey here in just a minute, but I just want to say that the reason I asked this series of questions about inflation is-those of you who have followed the rationale that we have used here relative to watching Fed policy, and frankly we have been fairly supportive-that we have commended the Fed for targeting inflation and for basing monetary policy basically on keeping inflation in check. And obviously if their intention has been to do that, which I think it has, they have been fairly successful.

And given the two things that we have talked about here this morning, (A), the perceived weakness in the economy and, (B), the fact that there is little or no evidence of emerging inflation, it would certainly

be appropriate for the Fed, in my opinion, to cut interest rates further, as I said in my opening statement. And I am hopeful that we will see further cuts in the months ahead.

As a matter of fact, as I also said in my opening statement, the Fed does not have to wait till November 17 to do so, which is the next FOMC meeting. They can do so through their own standard procedures any time they wish to, and I am hopeful that is what we will see.

Mr. Hinchey?

OPENING STATEMENT OF
REPRESENTATIVE MAURICE D. HINCHEY

Representative Hinchey. Well, thank you very much, Mr. Chairman. And thank you, Commissioner.

Ms. Abraham. Good morning.

Representative Hinchey. Mr. Dalton, Mr. Rones, as well. I very much welcome you and we are happy to see you, as we always are.

I want to share some of the sentiments that were expressed by the chairman a moment ago. I think that it is a bit gratuitous perhaps in this particular context, but I think also the interest rates that the Fed has adhered to now for over the last two years, at least, are much too high. Interest rates are still at roughly about a nine year high. It is part of the one-quarter percent drop that we saw just recently.

I think it is quite clear that interest rates not only can but must go down, and that is increasingly clear in the context of the numbers that you have provided us with this morning. While we see that the unemployment rate according to your figures remains very low, in fact it has been below 5 percent now since sometime around early last year, I think, isn't it?

Ms. Abraham. Since April of last year.

Representative Hinchey. April of '97, below 5 percent, and it is now at what, 4.6, isn't it?

Ms. Abraham. Correct.

Representative Hinchey. It remains low. We have in essence a condition virtually of full employment, although I think there are some people out there who would like to work and may not have found jobs, and certainly there are people working part-time who haven't been able to–haven't been able to find full-time jobs.

But what is a little bit almost disturbing, I guess, about your numbers is that while we have seen increasing growth in a number of

areas, including even small growths in manufacturing, in the manufacturing sector over the last year or so, and while we have seen increases in average hourly employment over that period of time, over the last couple of years, those circumstances now seem to be reversing or in the process of being reversed.

Your numbers indicate that while hourly wages are up again, they are up by only a tiny fraction as opposed to the average rate of increase that we have enjoyed seeing over the last year or so, and also that growth in certain areas of the economy has begun to reverse.

Say average hourly earnings for production or nonsupervisory workers rose by one cent in September following a six cent gain in August and the employment rate was essentially unchanged, as we have indicated. You make the point that manufacturing employment fell by 16,000 in September since its peak in March. Employment in this industry has declined by 152,000, which is the largest decline in September–the largest decline in September, rather, were industrial machinery which shed 8,000 jobs, and electronic equipment which lost 7,000 jobs.

And then you go on to make the point that these areas of the economy are trade-sensitive, and that seems to me to indicate the confirmation of our belief that we are finally being impacted in palpable ways by the global economic crisis in East Asia and then in Russia and now expressing itself in Brazil. And indications are that we can continue –we can expect to continue to see the effects of the global economic downturn and the deflationary forces that are expressing themselves in certain parts of the global economy.

All of that causing me to agree very, very strongly as usual with the Chairman in saying that it is quite clear that the Fed is holding interest rates much too high, and that they are threatening to allow conditions to exist that are going to permit the economy to falter even more. And unless we see some reduction, serious reductions in interest rates, then I think we are in for some tough times over the course of the next several quarters.

I know that you do not deign to interpret these numbers in any particular way, perhaps least of all in the way that I am suggesting, but you do make the point that we are seeing declines in these trade-sensitive areas. Does that lead me to conclude that you also are observing that conditions in the world economy are affecting our economy and causing these declines to occur?

Ms. Abraham. I think it is clear, when you look at the manufacturing data in particular, that we are seeing some impacts of what is going on in Asia. I commented specifically on industrial machinery and electrical equipment in my statement. Those industries account for about 20 percent of manufacturing employment. They have accounted for about 40 percent of the decline in manufacturing employment since March.

There are industries that historically have exported a lot of their output to the Asian economies and industries that are subject to import competition from those economies. In the case of those two industries, I think the impact is clear. There are other manufacturing industries as well where there are indications that what is going on in Asia is having an impact, so I think you are drawing the correct conclusion.

Representative Hinchey. To what may we attribute the decline in the construction industry, which seems to have fallen off quite significantly in this latest period?

Ms. Abraham. The construction employment number is noteworthy in that, generally speaking, construction employment had been on an upward trend. There were a couple of months in the spring where it was down but those, I think, were related to unusual weather and different than expected seasonal patterns. This is a real decline. It is one month. I don't know that we have any particular explanation to offer as to what is going on this month.

Representative Hinchey. All right, Commissioner. I thank you. Chairman, thank you.

Representative Saxton. Mrs. Maloney, would you like to ask some questions at this point?

OPENING STATEMENT OF
REPRESENTATIVE CAROLYN B. MALONEY

Representative Maloney. Welcome. That is good news. What does that say, that no matter what happens in Asia or Russia, our economy—

Ms. Abraham. No, I think clearly what is going on in Asia and elsewhere in the world is having an adverse impact on our economy.

Representative Maloney. Okay. Commissioner Abraham, you have stated several times over the last few months that the unemployment rate is a lagging indicator, meaning that changes in the unemployment rate follow changes in most macroeconomic variables, like changes in

GDP growth and the CPI. Are any of the indicators for which you are relating data this morning considered to be leading indicators, that is, data which might suggest some changes in current trends? If so, I would appreciate it if you would please describe them and share with us what you might suggest about where the U.S. economy might be heading over the next few months.

Ms. Abraham. Well, we in fact aren't in the business of doing analyses of whether particular indicators are leading indicators or lagging indicators. That is something that used to be done at the Bureau of Economic Analysis and now is done by the Conference Board, so I can describe the Conference Board's characterization of some of these indicators and talk about what has been happening with them.

The unemployment rate is actually a little complicated in their scheme. They characterize it as in fact a leading indicator at business cycle peaks and a lagging indicator at business cycle troughs, so at this point it would be, in their characterization, considered a leading indicator. We have not seen much going on with that.

The Conference Board also has an index of leading indicators. They include manufacturing hours and unemployment insurance claims among those. Unemployment insurance claims are very low and remaining low. Manufacturing hours, I guess, have tipped down slightly but not much.

Representative Maloney. Are you aware that there is a bill currently before Congress? It was reported last week out of the Government Information and Technology Committee, and what this bill does is that it calls for the establishment of a Federal commission to develop policy recommendations aimed at consolidating the Bureau of Labor Statistics, the Bureau of the Census, and the Bureau of Economic Analysis into one single federal statistical service within the next two years. It is a bill that was authored by Congressman Horn from California.

And what are your ideas or thoughts about consolidating these three major statistical agencies? Do you believe that we need such a consolidation, such a superagency? Has the idea been floated before? What were some of the arguments made in favor and against such a consolidation, and what procedures are now in place so that we don't really duplicate data collection and reporting? And could you give the committee members a general overview of this legislation, this idea, this proposal?

Ms. Abraham. As you might imagine, given that such a bill would have a very direct effect on us, we are quite aware of it and have thought quite a lot about it. I in fact gave a lecture that has now been printed as a paper on this general subject, which I will be happy to share with members of the committee. But let me try very briefly to give you my thoughts about this legislation.

The legislation actually would do two things. It would, as you know, create a commission to study consolidating three economic statistics agencies. It also contains a second title, which is a bill that originally had been put forward by the Administration and that would allow the statistical agencies to share information with one another in ways that are not currently possible. And I think that that part of the bill is a very, very positive thing and something that would be enormously helpful to the statistical agencies, and that I hope will end up being passed in some form.

I personally am, from where I sit, not a fan of consolidating the statistical agencies. There are procedures in place to make sure that what we don't duplicate what other agencies are doing, and the main way that that happens is through the budget process.

Representative Maloney. What negative do you see in consolidation?

Ms. Abraham. The main negative that I see in consolidation is, I don't see big arguments for it. I don't see what it would gain us, and I fear that it would be enormously disruptive. So balancing something that I don't see a need for against the disruption that I am sure would be associated with trying to merge our organizational structures and so on, I am not enthusiastic about it.

Representative Maloney. Thank you. My time is up.

Representative Saxton. Mr. Ewing.

OPENING STATEMENT OF
REPRESENTATIVE THOMAS W. EWING

Representative Ewing. Thank you, Mr. Chairman, and thank you, Commissioner, for being here today. When I looked at the statistics and also the statement of the chairman, there was a comment that payroll employment growth, while not as great this month as we might have liked, had been on a downward trend; is that true?

Ms. Abraham. Well, payroll employment growth, after adjusting for the effects of the big auto strike, was stronger in July than in August

and stronger in August than in September, so the rate of increase has been falling over the past three months.

Representative Ewing. Though it was stronger than it had been, so the figures were up but the rate of increase was not?

Ms. Abraham. Employment was up but the increase in employment has fallen in August and then again in September.

Representative Ewing. And it hasn't been possible to pinpoint that it is happening in one industry or another industry, housing as compared to a service or manufacturing?

Ms. Abraham. Taking a bit longer perspective, there are two things going on. We are seeing now for some months declines in manufacturing; this month a decline in construction. And then at the same time industries in the service producing sector that had been strong job growth generators have been weaker in the last month or two. So it is the combination of those two things, declines in some industries and less strong growth in a set of others.

Representative Ewing. Does your gathering of information include such things as why an industry's growth might not be as strong, such as reduction in foreign trade or orders overseas?

Ms. Abraham. Not directly. I work principally in the business of producing the data. Others analyze it, obviously. I think in the case of manufacturing employment, however, particularly in the case of a couple of the big losers, it is clear that what is going on in Asia is having an effect on employment here.

Representative Ewing. This could be considered, then, certainly not a downturn but maybe a more leveling in the growth or in the momentum of the growth of the economy, a leveling of that?

Ms. Abraham. I don't really–I don't want to get into—

Representative Ewing. You don't use those words—

Ms. Abraham. Project forward, I guess. That sort of–using those words might convey an expectation about what is going to happen next.

Representative Ewing. Let me look back then. Have we had other periods of time in the last four to six years where we have had similar growth rates and growth in employment hasn't been quite as brisk and as high as we might have expected?

Ms. Abraham. I would have to say that this month's number is somewhat unusual viewed in that context. There were some months. In March growth was not much different, but there were special

circumstances there. We had a month of employment decline back in January of '96 but that was, as you may recall, that big blizzard that had a lot of impact on unemployment. You have to go back to, I would say, July of 1995 before you have a number that is similar.

Representative Ewing. Was that just a one month type of situation or was there a leveling period there?

Ms. Abraham. Well, in that case employment bounded back the next month and continued to be very robust for an extended period after that, partly why we are always saying keep looking at the data as it comes in.

Representative Ewing. And so we will be anxiously looking at the next month, but as we go into the winter months, doesn't that tend to be a period of time when employment growth wouldn't be as great?

Ms. Abraham. Well, these data are all, as best we can, seasonally adjusted, which means we try to take that kind of thing you would expect every winter, say, out of the numbers and present something that is more the underlying trend.

Representative Ewing. Do you feel that the median weekly earnings for middle-income range is stagnated, or can you tell what is happening in earning power?

Ms. Abraham. What we have got on that is quarterly numbers that we have not actually put out yet for this quarter on the median weekly earnings of wage and salary workers from our household survey. I am just looking through to see if I can find those. We had seen some increases in that, but I would rather get the actual numbers in front of me rather than misciting what they are saying.

The way that I would look at these is to take the numbers that are in constant dollars, that is, trying to net out the effects of inflation so that you are looking at something that is of constant purchasing power. In the second quarter, median weekly earnings, representing the person right in the middle of the distribution, was just a few dollars above where it had been a year earlier, so it had gone up a bit but not a whole, whole lot.

Representative Ewing. It would be a small percentage increase, then?

Ms. Abraham. Well, it would be under a 2 percent increase.

Representative Ewing. One final question: How much of cutbacks in defense-related industries affected the manufacturing jobs in recent years?

Ms. Abraham. We have got some information that attempts to get at that. I have not looked at it recently. Phil, do you have that on hand?

Mr. Rones. If we look at the data over the past year, what we call defense-dependent industries, and these are industries that have at least half of their output going into defense, we have an over-the-year change of slightly less than 1 percent in employment, and that would compare to an overall growth rate that is closer to 2.5 to 3 percent. So that would indicate that those sectors are growing slower than the total employment but they are still growing.

Representative Ewing. Thank you very much.

Ms. Abraham. Thank you.

Representative Saxton. Senator Sarbanes.

OPENING STATEMENT OF PAUL S. SARBANES

Senator Sarbanes. Thank you very much. It is a pleasure to welcome you this morning. You may have–I was late coming in so if I ask something you already covered, well, you can make short shrift of it.

In tracing your employment figures, have you been able to discern any impact of what is happening overseas on the employment situation in this country?

Ms. Abraham. Not so much on the unemployment side of the picture. Unemployment has been holding fairly steady, but on the employment side of the picture there is, I think, clear indication in the manufacturing numbers of an adverse impact of what is getting on in Asia on employment here.

Senator Sarbanes. And that would be export industries are not growing? Is that essentially—

Ms. Abraham. It is really two things. The industries where this is showing up most clearly are industrial machinery and electrical equipment. Those are industries that historically have exported a good share of their output to those Asian countries, but also industries that are vulnerable to import competition from lower-priced Asian imports. So it is both sides of the trade picture.

Senator Sarbanes. Of course, if this now extends into Latin America, we could expect an even more severe impact since we have a very heavy trade relationship there. Would you think that would be the case?

Ms. Abraham. Well, we will certainly be monitoring the data closely in the months ahead. We have been tending to focus to date on

possible impacts of the Asian situation, but you are right that we ought to be looking as well, going forward, at possible impacts of the Latin American situation.

Senator Sarbanes. The steel people are very concerned because they are being significantly undercut in price, although they have made the industry highly competitive, and it seems clear to most of us that significant dumping is taking place, and I gather the industry has now filed an action in that regard. Have you seen an impact on employment in the steel industry as yet?

Ms. Abraham. The industry we have is blast furnaces and basic steel products. Employment in the industry was 235,000 back in March. It was 231,000 in September. So there has been a decline of several thousand in employment over that period.

Senator Sarbanes. I went through your statement very quickly. I may have overlooked it, but I didn't see anything on the long-term unemployed. If you have not addressed that, I would be interested in sort of a quick review of the situation with respect to the long-term unemployed.

Ms. Abraham. I will have to confess to you that in this month my focus has been principally on the payroll employment numbers, since as a general thing there was so little change in the numbers from the household survey. But looking at those long-term unemployed over the month, the number of people who were unemployed 15 weeks or over was essentially unchanged. The number this month was almost identical to last month's.

Senator Sarbanes. What is that number?

Ms. Abraham. There were 1,651,000 people who had been unemployed for 15 weeks or more.

Senator Sarbanes. Now, has that number come down significantly over the course of this period where we have had a fairly sustained period of low unemployment?

Ms. Abraham. Yes, it has. A year ago in September of 1997, there were 2.1 million such people.

Senator Sarbanes. What is it now? 1.6?

Ms. Abraham. 1.65. So it has come down by nearly half a million.

Senator Sarbanes. About 25 percent.

Ms. Abraham. Yes.

Senator Sarbanes. Okay. Now, could I address the unemployment figures by race? In your broader statement on page –Table A-2, I guess, is a relevant table. Employment status of the civilian population by race, sex, age, and Hispanic origin?

Ms. Abraham. Correct.

Senator Sarbanes. I was intrigued by this figure on black unemployment rate, overall unemployment rate. It dropped from 9.6 in September of '97 to 9 in May of '98 to 8.2 in June, and then bounced back up to 9.7 in July, 9 in August, and 9.2 in September. What accounts for that I thought rather sharp drop? Or to put it another way which would express my concern, what accounts for the sharp rise from the lower level back up?

Ms. Abraham. I would have to say in all honesty that most of what accounts for those erratic month-to-month movements in the black unemployment rate is probably survey sampling error. Given the size of our survey and the number of black households where interviews are conducted, the change in the unemployment rate for blacks has to be eight-tenths of a percentage point before it is statistically significant, which means that movements of that magnitude, even of that fairly large magnitude are not statistically meaningful.

Senator Sarbanes. Well, is this table statistically meaningful?

Ms. Abraham. There is a lot of interest in the unemployment rate for these different groups, but–

Senator Sarbanes. I understand if your margin of error is so broad, what good does it—

Ms. Abraham. The margin of error is substantial. I think what that indicates to me is that you need to be looking at these numbers averaged over a longer period of time, and that month-to-month movements in the figures generally are not meaningful.

Senator Sarbanes. Mr. Chairman, I see the red light on. If I could ask one more question, I would appreciate it.

How are you doing on your budget?

Ms. Abraham. We are waiting to hear.

Senator Sarbanes. Does it look pretty good?

Ms. Abraham. I am happy to say that so far the House of Representatives has been extremely supportive of the requests that we have made. The Senate had proposed cutting our funding on the order of $8 or $9 million. We are waiting to see what happens in the conference.

That may not sound like a large reduction in our budget. The thing about our activities is, as you know, that they are not scalable. If we don't have money, then we have to cut out a discrete product. If we don't get the funding we have requested, there is going to be an impact on something that we are producing now, and I think everything that we are producing now is important.

Senator Sarbanes. Are you getting enough money to modernize and upgrade your surveys and so forth and bring these things up to date? I know we had a big focus on the CPI. I think you got extra money in order to do that. How are you making out on that?

Ms. Abraham. Generally speaking, Members of Congress have been quite positive about funding our work to improve the CPI.

Senator Sarbanes. Good.

Mr. Chairman, I wasn't here to hear your opening statement. I have had a chance to look it over and I want to commend you for it. I think it has obviously focused on a very important question, and I think your bringing attention to the potential problem of the downturn is important, and I particularly welcome these briefing materials that you have prepared that show the movements of bond yields and commodity prices and producer prices and so forth and so on.

Obviously we have inflation—the Fed cut its rates a quarter of a percent, but even if this notion that somehow they had been neutral, simply by leaving the rate where it was over this period of time when inflation has actually been dropping, the real rate has been going up quite significantly and is really on a historical basis are quite high now. The real interest rates are quite high, although the nominal rate is down. But you even have a situation where the long-term rates are below the short-term rates, as you point out in this last table in this collection of briefing materials. I welcome this work and thank you for it very much.

Representative Saxton. I thank you, Senator Sarbanes, for those comments.

OPENING STATEMENT OF
REPRESENTATIVE JIM MCCRERY

Representative McCrery. Thank you, Mr. Chairman. I am sorry I missed Commissioner Abraham's testimony, but I am reading it, and you seem to be bolstering the Chairman's remarks. And I have read his opening statement, and I too would like to commend the chairman for his opening statement.

I agree entirely that the Fed underplayed its hand. I think they could have done a lot more to strengthen financial markets, to give more confidence to the world markets by cutting the interest rates more than they did. So I join the chairman in calling for the Fed to, before their next meeting, go ahead and cut interest rates another quarter percent.

But you seem to be-and I know you are not prone to comment on the Fed policy, but you-certainly your testimony seems to bolster the chairman's conclusions that we are not in a period of inflation by any means, and in fact the employment figures could underscore the conclusion that we may be in a period of deflation. Can you comment on that?

Ms. Abraham. Well, what I can do is characterize the data, and putting it in perhaps slightly different words with respect to the employment picture, although unemployment remains very low, we have seen a slowing in the rate of employment growth over the past three months. Looking at the inflation data, there is no real indication in any of the data that we produce of an acceleration of inflation.

Representative McCrery. When you say there has been a slowdown, that is an underestimate, isn't it, when you look at the September employment gain? Compared to previous months, it is a rather dramatic slowdown?

Ms. Abraham. It is well below the average pace that we have been seeing over the prior year. You have to go back a ways to see a number that is comparably low in terms of over-the-month employment gain.

Representative McCrery. If you look back year to year, is it normal for employment gains in September to be dramatically other than employment gains in August?

Ms. Abraham. No, but I should explain that these numbers that we are focusing on, the numbers that we always focus on are numbers that are seasonally adjusted, which means we are trying to take out of the data anything that always happens at a particular time of year.

Representative McCrery. So this would be a true reflection of employment gain month to month. It would not be a seasonal thing. You couldn't account for this by saying that there is some seasonal adjustment that happens every year?

Ms. Abraham. No. Seasonal adjustment is part art and part science, but there is no quirk in the data that we are aware of that would lead us to explain this number that way.

Representative McCrery. Thank you.

Representative Saxton. Thank you very much. I had not intended to have another round of questioning. However, we can do that if you would like. Mr. Hinchey has indicated he has a short question, or maybe two, that he would like to ask. Why don't you proceed?

Representative Hinchey. Thank you very much, Mr. Chairman.

Madam Commissioner, over the last several months one of the members of our minority staff, Robert Gibbs, has been studying the distribution of unemployment. And while your report again indicates that unemployment remains low, on average about 4 and a half percent right now, nevertheless there are pockets of higher unemployment around the country. And the overall statistics, the general statistics camouflage the fact that we do have places where unemployment is in fact higher than the national average, in some cases considerably so.

Mr. Chairman, with your permission, I would like to enter this study into the record, if I may.

Representative Saxton. Without objection.

[The study by Robert Gibbs, Joint Economic Committee minority staff, appears in the Submissions for the Record.]

Representative Hinchey. The analysis suggests that based on data for the first quarter of 1998, one of every five counties in the country has an unemployment rate above 8 percent. And while these counties are mostly rural, they are not exclusively so.

For example, out of the five boroughs of New York City, three of those boroughs have unemployment rates consistently above 8 percent. And these pockets of high unemployment are scattered around the country. And they have also within them a high proportion of minorities and less well-educated people.

I would like to ask you, Commissioner, has the Bureau performed any analysis on the incidence of high employment during this recent period of low national unemployment?

Ms. Abraham. Particularly focused on this geographic dimension that you were talking about?

Representative Hinchey. Yes, precisely.

Ms. Abraham. No, unfortunately we have not. We, as you know, our principal business is producing the statistics. And where we can we also do analytic work, but that tends to be focused, given the limitations of our resources, principally on what is going on at the national level, and we just are not equipped to do a lot of analysis of these local area data.

So we were quite interested in the report the staff member had prepared, but we have not done nor do we really have plans to do our own analysis.

Representative Hinchey. So you are not really in a position to do any analysis of why these pockets of high unemployment continue to be there?

Ms. Abraham. No. That really is not something that we have in our plans to look at.

Representative Hinchey. I thank you very much for the information.

Mr. Chairman, if I may just suggest that perhaps you would like to consider helping us interpret some of these numbers. Maybe it might be an idea to have some people come in and help us look through these numbers and try to analyze why the circumstances are what they are, with a view of looking forward in addition to having a clear picture of what has been going on and what is going on at the moment.

Representative Saxton. Well, we certainly share your concern about higher rates of unemployment, particularly in certain areas, and that certainly is something that would deserve some extensive study. I would be happy to look at that.

Representative Hinchey. Thank you.

Representative Saxton. Unless there are further questions—

Representative Maloney. May I just ask one?

Representative Saxton. Mrs. Maloney, very quickly.

Representative Maloney. What is the unemployment rate for New York City?

Ms. Abraham. The most recent rate that we have for New York City would be the rate for August, and I am not sure whether we have got that here. Phil may be able to lay his hands on it. We will have to provide that for the record.

[The response of Commissioner Abraham to Representative Maloney is included in Commissioner Abraham's prepared statement. It is entitled, "Table 1: Civilian labor force and unemployment by state and metropolitan area."]

Representative Maloney. Thank you very much.

Thank you, Mr. Chairman.

Representative Saxton. Thank you, Mrs. Maloney.

Ms. Abraham, thank you very much. Mr. Dalton, Mr. Rones, thank you very much for being with us here today. We look forward to hearing from you again in the future. We are discussing the possibility, given the situation that appears to be developing, although we hope not, of the possibility of having a hearing in November. That would be the 6th of November, but we will get back to you on that.

So thank you for being with us. We appreciate very much your patience. And could you just indicate whether or not you are moving forward with a CPI study update that we discussed over the last year or so?

Ms. Abraham. We had sent you some information that was an update on our—

Representative Saxton. To update the study that you did, that is correct.

Ms. Abraham. We have submitted that. We should perhaps– if there is something that you are expecting from us that we have not given you, we should talk, because it was my understanding we had given you everything you were expecting.

Representative Saxton. If you have any further information on that, if you could incorporate it into future hearings, that would be very helpful.

Ms. Abraham. Okay.

Representative Saxton. We are also reminded that you may have some numbers on the welfare-to-work issues, and perhaps next month we can get into those as well. Thank you very much.

[Whereupon, at 10:35 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF
REPRESENTATIVE JIM SAXTON, CHAIRMAN

I am pleased to welcome Commissioner Abraham before the Joint Economic Committee this morning.

The employment data reported this morning suggest a slowdown in the economy is underway. The meager 69,000 employment gain in the closely watched payroll survey is the clearest signal so far that the economy may be cooling off. Moreover, this weakness in payroll employment is not confined to one particular industry, but is reflected in all major sectors. The slowdown in payroll employment growth is not a one-month aberration, but has been underway for several months. The recent employment trend should be a concern to policy makers, but a review of other data is needed to determine its implications for economic policy.

The BLS price data continue to reflect a current pattern of disinflation, with no real evidence of inflation. The forward-looking market price indicators used by the JEC–bond yields, commodity prices, and the dollar exchange rate–also continue to show that there is no sign of future inflation in the pipeline. The price data have shown disinflation and a growing potential for deflation over the past year, and this has led me to call for a Federal Reserve cut in interest rates since last winter.

I support the Federal Reserve's decision to cut the federal funds rate last Tuesday. Though a rate cut was long overdue, a review of its effects on market price indicators would be needed before having a firm basis to judge whether it went far enough. However, the sharp decline of the long bond yield in the days since the rate cut suggests that further rate reduction would be appropriate. Furthermore, the other market price signals also show no signs of increasing inflation expectations.

The FOMC does not have to wait until its next scheduled meeting on November 17 to act. An expeditious Federal Reserve cut in the federal funds rate as well as the discount rate could send an important signal to the U.S. and the world. A Federal Reserve reduction in the discount rate could be interpreted as signaling the possibility of future easing of monetary policy.

In conclusion, I think the Federal Reserve should immediately consider a further reduction in interest rates. Over the last seven years the Federal Reserve has done a splendid job of gradually squeezing

inflation out of our economic system and implementing a policy of price stability through informal inflation targeting. This has sustained the long economic expansion that flooded the Treasury with revenue, balancing the budget. But a policy of price stability precluded both inflation and deflation. At the moment, the growing potential of deflation appears to be more serious than a resurgence of inflation. The prudent course would be a careful easing of monetary policy in the months ahead.

Gross Domestic Product: Implicit Price Deflator

% Change - Year to Year   SA, 1992=100
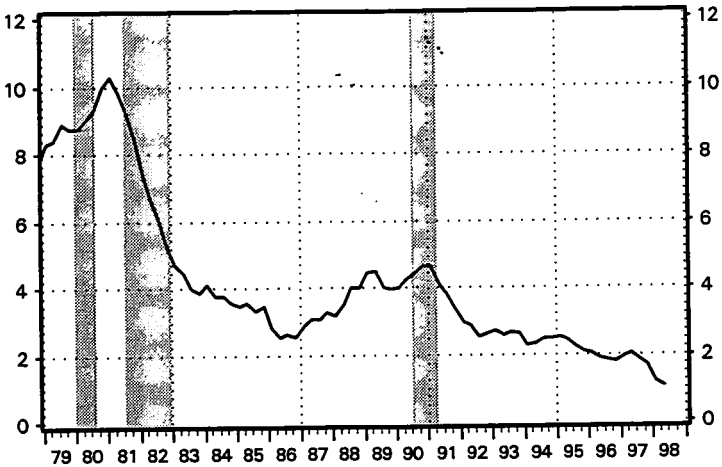
- <u>BRoad measures of inflation show
  No Signs of inflation danger</u>

  > continue to show disinflation

  > But Not deflation

CPI-U: All Items —

CPI-U: All Items Less Food and Energy - - -
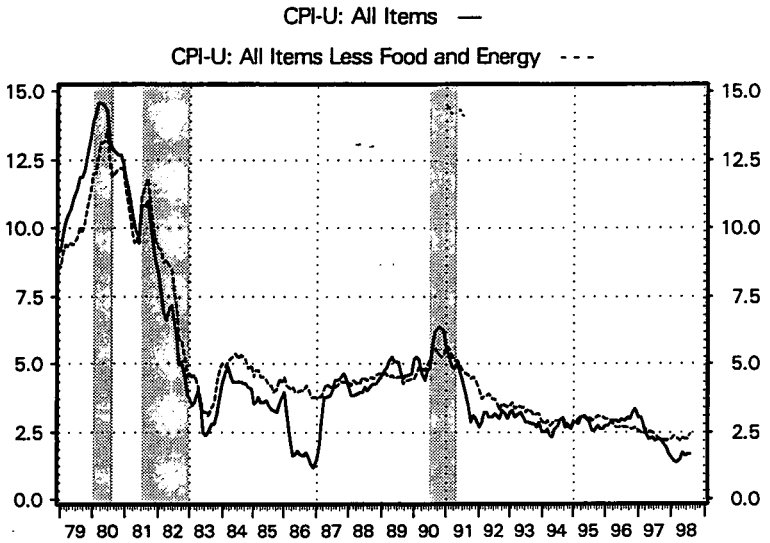
- Consumer price inflation also shows
  No sign of reaccelerating

  > shows continued disinflation
    (Both total and core)

  > But No deflation

Producer Prices

Finished Goods less Food and Energy —

Finished Goods - - -
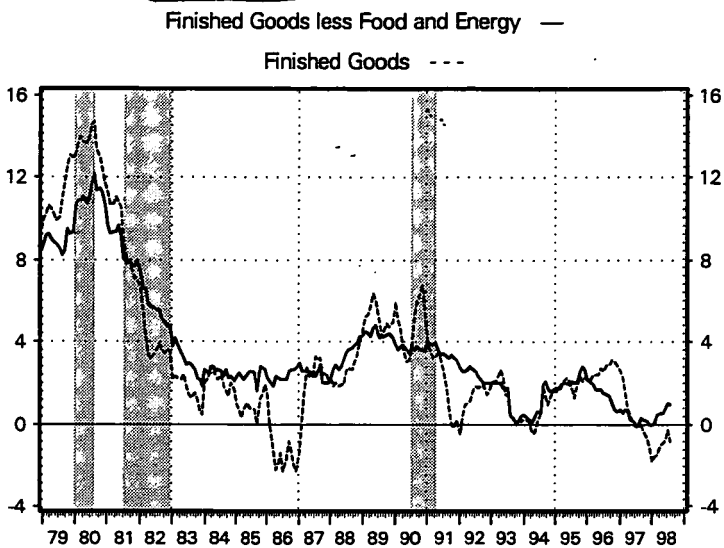
- The Producer Price index (PPI)

  > total PPI shows mild deflation

  > core (less food and energy) shows
    mild uptick in inflation

Commodity Prices

KR-CRB Futures Price Index: All Commodities —

JOC Industrial Materials Index: All Items - - -
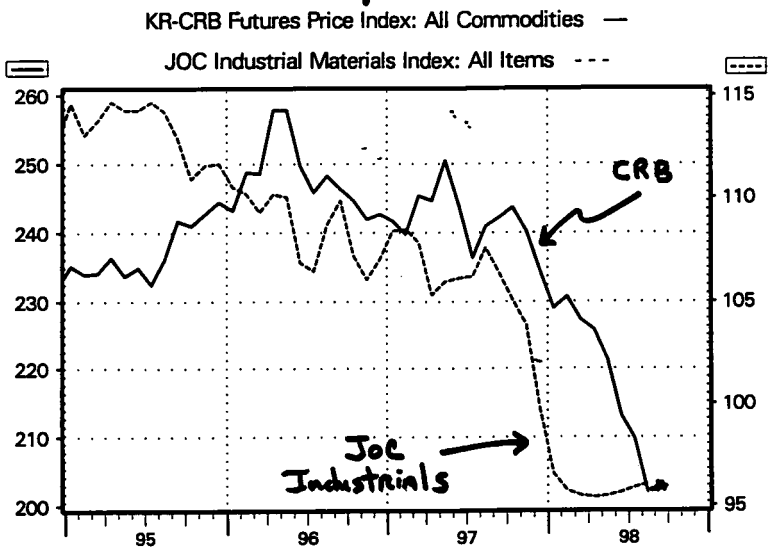
- Commodity prices still weak

- JOC Industrials index shows industrial commodity prices have stopped falling but remain at low levels with no sign of inflation

- CRB (commodity Research Bureau) index is heavily agriculture. It shows continued weakness.

30-Year Treasury Bond Yield at Constant Maturity
% p.a.
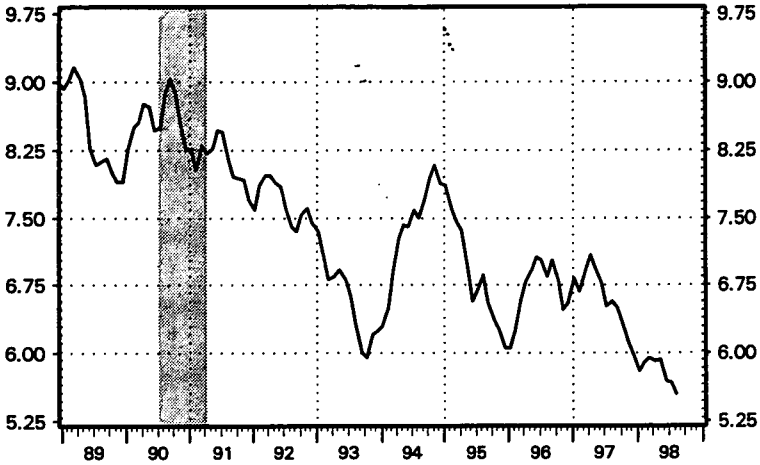
- Long bond yield has continued to fall

- Latest yield is below 5.0 % !

- yields continued to fall after The Fed Rate cut.

- This suggests There is NO expectation of a resurgence of inflation with Fed ease

PREPARED STATEMENT OF
KATHARINE G. ABRAHAM, COMMISSIONER

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 was essentially unchanged in September at 4.6 percent, and nonfarm payroll employment rose slightly. Over the past three months, payroll employment gains have slowed markedly. After adjusting for the direct effects of the auto strike and related plant shutdowns, payroll employment rose by about 270,000 in July and about 160,000 in August. The September increase was just 69,000. The relatively weak September growth reflects an unusually small increase in services and job losses in manufacturing and construction.

Manufacturing employment fell by 16,000 in September. Since its peak in March, employment in this industry has declined by 152,000. The largest declines in September were in industrial machinery, which shed 8,000 jobs, and in electronic equipment, which lost 7,000 jobs. Together, these two trade-sensitive industries accounted for nearly 40 percent of the total factory job loss since March. In nondurable goods manufacturing, there was an increase of 15,000 jobs in food and kindred products, following losses totaling 20,000 in the prior 3 months. Apparel employment, which has been trending downward for several years, showed little change in September following a large loss in August. Textiles gained 3,000 jobs, an unusual increase in an industry that has experienced slow but steady employment losses.

Employment in the construction industry fell by 20,000. The industry had added an average of 24,000 jobs per month over the year ending in August. The over-the-month declines were widespread, but much of the loss occurred in heavy construction.

Services payrolls grew by 24,000 in September, an unusually small increase. Prior to September, monthly gains during 1998 had averaged 112,000. Employment in help supply services fell by 44,000 in September and, at 2.8 million, was at the same level as in January. Employment in computer services and in engineering and management services rose by 10,000 and 6,000, respectively, comparable to their gains in August. In contrast, from January to July, these industries together had generated 40,000 jobs per month.

Elsewhere in services, employment in amusements and recreation increased by 23,000, the third month in a row of strong gains for this industry. Health services gained 15,000 jobs, a bit above its pace of

growth in 1998 but below the average monthly gains realized during 1997. Employment increased in doctors' offices and hospitals. Declines continued in home health care, which has lost 49,000 jobs in the past year.

Finance, insurance, and real estate gained 23,000 payroll jobs in September, after an unusually small increase the month before. Employment in finance increased by 8,000, largely in securities brokerages, and real estate employment rose by 9,000.

Employment in retail trade grew by 37,000, about in line with its average pace for 1998. The gains occurred largely in general merchandise stores, food stores, and eating and drinking places. Employment in miscellaneous retail trade establishments fell by 15,000 in September. In wholesale trade, payrolls grew by 14,000.

The number of payroll jobs in transportation and public utilities rose by 6,000. A strike in communications held down growth for this industry in September. Workers affected by an airline strike, however, were on payrolls for at least part of the reference pay period and thus were counted as employed in the September survey. Government employment was flat, reflecting some relatively small, offsetting movements in its components. Average hourly earnings for production or nonsupervisory workers rose by 1 cent in September, following a 6-cent gain in August. Over the 12 months ending in September, hourly earnings increased by 4.0 percent.

The average workweek was down 0.2 hour to 34.4 hours; manufacturing hours were unchanged while factory overtime edged down by 0.1 hour to 4.5 hours.

Turning to data from the household survey, the number of unemployed persons, 6.3 million, and the unemployment rate, 4.6 percent, were little changed in September. Both measures have been about the same since June. The jobless rate has been at or below 5 percent since April 1997. The unemployment rates for the major worker groups–adult men, adult women, teenagers, whites, blacks, and Hispanics–all were essentially unchanged in September. The number of persons working part time despite their preference for full-time work continued to decline. At 3.4 million in September, that measure has fallen 563,000 over the past year.

To summarize, the pace of payroll job growth continued to slow in September, reflecting declines in manufacturing and construction and slow growth in services. The unemployment rate, at 4.6 percent, remained little changed.

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

THE EMPLOYMENT SITUATION: SEPTEMBER 1998

Payroll employment rose slightly, and unemployment was virtually unchanged at 4.6 percent in September, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment was up by only 69,000. The number of manufacturing and construction jobs declined, and growth in the services industry was weak for the second month in a row.

Chart 1. Unemployment rate, seasonally adjusted, October 1995 - September 1998
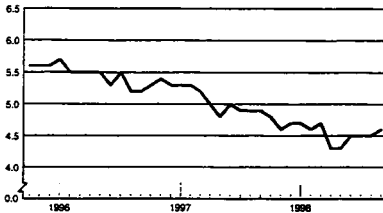
Chart 2. Nonfarm payroll employment, seasonally adjusted, October 1995 - September 1998
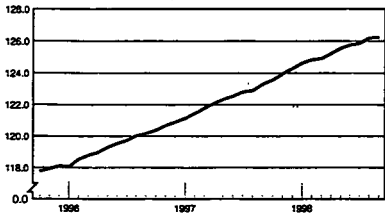
Unemployment (Household Survey Data)

Both the number of unemployed persons, 6.3 million, and the unemployment rate, 4.6 percent, remained essentially unchanged in September. The jobless rate has been at or below 5 percent since April 1997. Among the major worker groups, the unemployment rates for adult men (3.8 percent), adult women (4.0 percent), teenagers (15.4 percent), whites (3.9 percent), blacks (9.2 percent), and Hispanics (7.4 percent) showed little movement in September. (See tables A-1 and A-2.)

Total Employment and the Labor Force (Household Survey Data)

Total employment rose by 597,000 in September to 131.8 million, after seasonal adjustment. Over the year, employment has risen by 2.3 million, after adjusting for changes in the composite estimation procedure introduced with the January 1998 data. Over the month, the employment-population ratio— the proportion of the population age 16 and older with jobs—increased by 0.3 percentage point to 64.1 percent. (See table A-1.)

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

Category	Quarterly averages 1998[1]		Monthly data 1998[1]			Aug.-Sept. change
	II	III	July	Aug.	Sept.	
HOUSEHOLD DATA	Labor force status					
Civilian labor force..............................	137,351	137,596	137,296	137,415	138,075	660
Employment...................................	131,349	131,333	131,067	131,168	131,765	597
Unemployment............................	6,002	6,262	6,230	6,247	6,310	63
Not in labor force................................	67,554	67,887	67,973	68,064	67,624	-440
	Unemployment rates					
All workers..	4.4	4.6	4.5	4.5	4.6	0.1
Adult men...........	3.6	3.8	3.9	3.7	3.8	.1
Adult women.................................	4.0	4.0	4.0	4.1	4.0	-.1
Teenagers......................................	14.0	14.7	13.8	15.0	15.4	.4
White..:...	3.8	3.9	3.8	4.0	3.9	-.1
Black..	8.7	9.3	9.7	9.0	9.2	.2
Hispanic origin..............................	6.9	7.4	7.2	7.5	7.4	-.1
ESTABLISHMENT DATA[2]	Employment					
Nonfarm employment..........................	125,516	p126,098	125,869	p126,178	p126,247	p69
Goods-producing[2]...........................	25,315	p25,203	25,135	p25,255	p25,219	p-36
Construction............................	5,931	p5,977	5,970	p5,991	p5,971	p-20
Manufacturing..........................	18,804	p18,655	18,594	p18,693	p18,677	p-16
Service-producing[2].......................	100,201	p100,895	100,734	p100,923	p101,028	p105
Retail trade..............................	22,402	p22,553	22,547	p22,537	p22,574	p37
Services....................................	37,347	p37,675	37,614	p37,693	p37,717	p24
Government...............................	19,802	p19,886	19,826	p19,915	p19,916	p1
	Hours of work[3]					
Total private.......................................	34.6	p34.5	34.6	p34.6	p34.4	p-0.2
Manufacturing...............................	41.7	p41.7	41.7	p41.7	p41.7	p.0
Overtime.....................................	4.6	p4.6	4.6	p4.6	p4.5	p-.1
	Indexes of aggregate weekly hours (1982=100)[3]					
Total private.......................................	144.6	p145.0	145.2	p145.3	p144.6	p-0.7
	Earnings[3]					
Average hourly earnings, total private.................................	. $12.73	p$12.83	$12.79	p$12.85	p$12.86	p$0.01
Average weekly earnings, total private.................................	440.46	p443.17	442.53	p444.61	p442.38	p-2.23

[1] Beginning in January 1998, household data reflect new composite estimation procedures and revised population controls.
[2] Includes other industries, not shown separately.
[3] Data relate to private production or nonsupervisory workers.
p=preliminary.

About 7.9 million persons (not seasonally adjusted) held more than one job in September. These multiple jobholders comprised 6.0 percent of the total employed, the same as a year earlier. (See table A-10.)

The civilian labor force increased by 660,000 in September to 138.1 million (seasonally adjusted). Over the year, the labor force has grown by 1.9 million, after adjusting for the changes in the composite estimation procedure. In September, the labor force participation rate edged up to 67.1 percent. (See table A-1.)

Persons Not in the Labor Force (Household Survey Data)

About 1.4 million persons (not seasonally adjusted) were marginally attached to the labor force in September, little changed over the year. 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.

The number of discouraged workers—a subset of the marginally attached who were not currently looking for work specifically because they believed no jobs were available for them—was 317,000 in September, about the same as a year earlier. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment, at 126.2 million, increased by only 69,000 in September, after seasonal adjustment. After adjusting for the direct impact of recent strikes and related shutdowns in automobile-related manufacturing (which affected about 150,000 jobs), the past 3 months show gains of about 270,000 in July, about 160,000 in August, and 69,000 in September. The September figure reflected an unusually small increase in services and declines in manufacturing and construction. (See table B-1.)

Manufacturing employment decreased by 16,000 in September; since March, it has fallen by 152,000. All of the loss in September was in durable goods (-29,000). The largest declines occurred in electronic equipment (-7,000) and industrial machinery (-8,000); these two industries have accounted for nearly two-fifths of all factory job losses since March. In nondurable goods, employment in food and kindred products increased by 15,000 in September; weak summer hiring resulted in fewer layoffs than usual, yielding a large employment gain after seasonal adjustment. Employment in textiles also grew (3,000), although employment in the industry has been on a downward trend for many years.

Construction employment decreased by 20,000 in September, with losses occurring throughout the industry. Despite this drop, construction has added 258,000 jobs over the year. Employment in mining was unchanged for the second straight month, but the industry has lost 23,000 jobs over the last 12 months.

The services industry added only 24,000 jobs in September, well below its monthly average through August of this year (112,000). Health services employment rose by 15,000, with gains in hospitals (9,000) and doctors' offices (8,000). In contrast, home health care services continued to decline and has lost 49,000 jobs over the year. Other industries that added workers in September were amusement and recreation services (23,000) and social services (13,000). Employment also increased in computer and data processing services (10,000) and in engineering and management services (6,000). In both industries, however, the gains in both August and September were well below the average for the first 7 months of the year. The gains in various service industries were largely offset by the loss of 44,000 jobs in help supply services, where employment returned to its January level.

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Finance, insurance, and real estate resumed its strong pace of job growth in September (23,000), following an unusually small increase in August. Employment in real estate increased by 9,000 in September, after decreasing by almost as much in August. Finance and insurance continued to grow, adding 8,000 and 6,000 jobs, respectively. Within finance, there were continued gains in mortgage brokerages, security brokerages, and other investment offices.

Employment in retail trade was up by 37,000 in September, following a decline in August. The largest growth occurred in eating and drinking places (27,000). Wholesale trade employment increased by 14,000 in September after only moderate growth in the prior 3 months.

Transportation and public utilities experienced only moderate growth in September (6,000) due to a strike in communications. Employment in transportation increased by 9,000, with most of this growth occurring in air transportation.

There was little change in government employment in September. Over the past 12 months, public-sector employment has risen by 309,000, with over half of the increase taking place in local education.

Weekly Hours (Establishment Survey Data)

The average-workweek for production or nonsupervisory workers on private nonfarm payrolls decreased by 0.2 hour in September to 34.4 hours, seasonally adjusted. The manufacturing workweek was unchanged at 41.7 hours. Factory overtime edged down over the month by 0.1 hour to 4.5 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls decreased by 0.5 percent to 144.6 (1982=100), seasonally adjusted. The manufacturing index was virtually unchanged in September at 108.0. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls edged up 1 cent in September to $12.86, seasonally adjusted. For the 3 months ending in September, the increase in average hourly earnings (10 cents) was less than the increase in each of the prior four quarters (13 cents). Average weekly earnings decreased by 0.5 percent over the month to $442.38. Over the year, average hourly and weekly earnings have risen by 4.0 and 3.4 percent, respectively. (See table B-3.)

The Employment Situation for October 1998 is scheduled to be released on Friday, November 6, at 8:30 A.M. (EST).

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 0.2 percent, ranging from zero to 0.6 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for $17.00 per issue or $35.00 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-G of that publication.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-606-STAT; TDD phone: 202-606-5897; TDD message referral phone: 1-800-326-2577.

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 Bureau of the Census 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 1998, 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

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. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
TOTAL									
Civilian noninstitutional population	203,570	205,479	205,699	203,570	204,899	205,085	205,270	205,479	205,699
Civilian labor force	136,375	138,379	137,903	136,439	137,364	137,447	137,296	137,415	138,075
Participation rate	67.0	67.3	67.0	67.0	67.0	67.0	66.9	66.9	67.1
Employed	129,972	132,206	131,864	129,761	131,453	131,209	131,067	131,168	131,765
Employment-population ratio	63.8	64.3	64.1	63.7	64.2	64.0	63.9	63.8	64.1
Agriculture	3,569	3,818	3,671	3,422	3,335	3,343	3,441	3,529	3,518
Nonagricultural industries	126,403	128,388	128,193	126,339	128,118	127,867	127,626	127,640	128,247
Unemployed	6,403	6,173	6,039	6,678	5,910	6,237	6,230	6,247	6,310
Unemployment rate	4.7	4.5	4.4	4.9	4.3	4.5	4.5	4.5	4.6
Not in labor force	67,195	67,100	67,796	67,131	67,535	67,639	67,973	68,064	67,624
Men, 16 years and over									
Civilian noninstitutional population	97,946	98,832	99,006	97,946	98,591	98,691	98,785	98,892	99,006
Civilian labor force	73,068	74,540	73,954	73,192	73,783	73,818	74,027	73,695	74,165
Participation rate	74.6	75.4	74.7	74.7	74.8	74.8	74.9	74.5	74.9
Employed	69,890	71,537	70,866	69,656	70,685	70,570	70,605	70,441	70,751
Employment-population ratio	71.4	72.3	71.6	71.1	71.7	71.5	71.5	71.2	71.5
Unemployed	3,178	3,003	3,088	3,536	3,098	3,249	3,422	3,253	3,414
Unemployment rate	4.3	4.0	4.2	4.8	4.2	4.4	4.6	4.4	4.6
Men, 20 years and over									
Civilian noninstitutional population	90,068	90,889	91,003	90,068	90,622	90,700	90,802	90,889	91,003
Civilian labor force	69,204	69,823	69,817	69,136	69,624	69,545	69,790	69,490	69,829
Participation rate	76.8	76.8	76.7	76.8	76.8	76.7	76.9	76.5	76.7
Employed	66,648	67,464	67,416	66,298	67,190	66,950	67,040	66,901	67,185
Employment-population ratio	74.0	74.2	74.1	73.6	74.1	73.8	73.8	73.6	73.8
Agriculture	2,474	2,556	2,526	2,383	2,324	2,333	2,394	2,443	2,424
Nonagricultural industries	64,174	64,908	64,890	63,915	64,866	64,617	64,646	64,457	64,761
Unemployed	2,556	2,359	2,401	2,838	2,434	2,595	2,750	2,589	2,645
Unemployment rate	3.7	3.4	3.4	4.1	3.5	3.7	3.9	3.7	3.8
Women, 16 years and over									
Civilian noninstitutional population	105,623	106,587	106,693	105,623	106,308	106,394	106,484	106,587	106,693
Civilian labor force	63,307	63,839	63,949	63,247	63,581	63,628	63,270	63,721	63,910
Participation rate	59.9	59.9	59.9	59.9	59.8	59.8	59.4	59.8	59.9
Employed	60,082	60,669	60,998	60,105	60,768	60,640	60,462	60,727	61,014
Employment-population ratio	56.9	56.9	57.2	56.9	57.2	57.0	56.8	57.0	57.2
Unemployed	3,225	3,170	2,951	3,142	2,813	2,989	2,808	2,994	2,896
Unemployment rate	5.1	5.0	4.6	5.0	4.4	4.7	4.4	4.7	4.5
Women, 20 years and over									
Civilian noninstitutional population	98,082	98,901	98,994	98,082	98,668	98,735	98,778	98,901	98,994
Civilian labor force	59,705	59,426	60,059	59,432	59,573	59,599	59,359	59,712	59,804
Participation rate	60.9	60.1	60.7	60.8	60.4	60.4	60.1	60.4	60.4
Employed	57,038	56,786	57,610	56,883	57,253	57,172	57,000	57,286	57,435
Employment-population ratio	58.2	57.4	58.2	58.0	58.0	57.9	57.7	57.9	58.0
Agriculture	886	683	834	826	755	747	793	819	773
Nonagricultural industries	56,153	55,903	56,776	56,057	56,499	56,424	56,207	56,468	56,663
Unemployed	2,666	2,639	2,449	2,549	2,320	2,427	2,359	2,426	2,368
Unemployment rate	4.5	4.4	4.1	4.3	3.9	4.1	4.0	4.1	4.0
Both sexes, 16 to 19 years									
Civilian noninstitutional population	15,420	15,689	15,702	15,420	15,609	15,651	15,690	15,689	15,702
Civilian labor force	7,466	9,130	8,027	7,871	8,166	8,302	8,147	8,213	8,442
Participation rate	48.4	58.2	51.1	51.0	52.3	53.0	51.9	52.4	53.8
Employed	6,285	7,955	6,838	6,580	7,010	7,088	7,027	6,981	7,145
Employment-population ratio	40.8	50.7	43.5	42.7	44.9	45.3	44.8	44.5	45.5
Agriculture	209	379	311	213	256	262	254	267	322
Nonagricultural industries	6,076	7,577	6,527	6,367	6,754	6,826	6,773	6,715	6,823
Unemployed	1,181	1,175	1,189	1,291	1,156	1,215	1,120	1,232	1,297
Unemployment rate	15.8	12.9	14.8	16.4	14.2	14.6	13.8	15.0	15.4

[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 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

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]					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
WHITE									
Civilian noninstitutional population	170,290	171,655	171,804	170,290	171,257	171,387	171,513	171,655	171,804
Civilian labor force	114,614	115,959	115,599	114,758	115,309	115,137	114,975	115,275	115,776
Participation rate	67.3	67.6	67.3	67.4	67.3	67.2	67.0	67.2	67.4
Employed	110,018	111,511	111,316	109,904	111,025	110,535	110,630	110,708	111,233
Employment-population ratio	64.6	65.0	64.8	64.5	64.8	64.5	64.5	64.5	64.7
Unemployed	4,596	4,448	4,284	4,854	4,284	4,602	4,345	4,567	4,543
Unemployment rate	4.0	3.8	3.7	4.2	3.7	4.0	3.8	4.0	3.9
Men, 20 years and over									
Civilian labor force	59,052	59,515	59,542	59,110	59,366	59,257	59,403	59,314	59,592
Participation rate	77.2	77.3	77.2	77.3	77.2	77.0	77.2	77.0	77.3
Employed	57,186	57,787	57,756	56,989	57,516	57,302	57,436	57,385	57,584
Employment-population ratio	74.8	75.0	74.9	74.5	74.8	74.5	74.6	74.5	74.7
Unemployed	1,867	1,728	1,785	2,121	1,850	1,955	1,967	1,929	2,008
Unemployment rate	3.2	2.9	3.0	3.6	3.1	3.3	3.3	3.3	3.4
Women, 20 years and over									
Civilian labor force	49,214	48,763	49,348	48,955	49,019	48,886	48,705	49,013	49,110
Participation rate	60.3	59.4	60.0	60.0	59.8	59.8	59.3	59.7	59.8
Employed	47,354	46,861	47,682	47,165	47,416	47,197	47,087	47,287	47,492
Employment-population ratio	58.0	57.1	58.0	57.8	57.8	57.5	57.4	57.6	57.8
Unemployed	1,861	1,902	1,667	1,790	1,603	1,688	1,618	1,726	1,618
Unemployment rate	3.8	3.9	3.4	3.7	3.3	3.5	3.3	3.5	3.3
Both sexes, 16 to 19 years									
Civilian labor force	6,347	7,681	6,709	6,693	6,824	6,994	6,857	6,949	7,074
Participation rate	51.9	61.5	53.6	54.8	55.8	56.2	55.1	55.6	56.5
Employed	5,479	6,863	5,878	5,750	6,093	6,036	6,107	6,036	6,158
Employment-population ratio	44.8	54.9	46.9	47.0	49.1	48.5	49.0	48.3	49.2
Unemployed	868	818	832	943	831	958	760	913	917
Unemployment rate	13.7	10.7	12.4	14.1	12.0	13.7	11.1	13.1	13.0
Men	13.7	11.4	14.1	14.4	14.0	14.7	13.1	14.3	15.0
Women	13.7	9.9	10.5	13.7	9.8	12.6	8.9	11.9	10.7
BLACK									
Civilian noninstitutional population	24,081	24,418	24,458	24,081	24,317	24,349	24,381	24,418	24,458
Civilian labor force	15,706	16,129	15,996	15,691	15,756	16,013	16,059	15,907	15,982
Participation rate	65.2	66.1	65.4	65.2	64.8	65.8	65.9	65.1	65.3
Employed	14,220	14,663	14,552	14,180	14,344	14,700	14,508	14,476	14,510
Employment-population ratio	59.1	60.1	59.5	58.9	59.0	60.4	59.5	59.3	59.3
Unemployed	1,487	1,466	1,444	1,511	1,412	1,313	1,551	1,431	1,472
Unemployment rate	9.5	9.1	9.0	9.6	9.0	8.2	9.7	9.0	9.2
Men, 20 years and over									
Civilian labor force	7,026	7,055	7,024	6,978	7,009	7,088	7,120	7,017	6,975
Participation rate	73.1	72.4	72.0	72.6	72.2	73.0	73.2	72.0	71.5
Employed	6,484	6,548	6,534	6,424	6,536	6,599	6,485	6,470	6,475
Employment-population ratio	67.4	67.2	66.9	66.8	67.4	67.9	66.7	66.4	66.3
Unemployed	542	507	490	554	473	489	635	547	499
Unemployment rate	7.7	7.2	7.0	7.9	6.7	6.9	8.9	7.8	7.2
Women, 20 years and over									
Civilian labor force	7,810	7,912	7,932	7,790	7,787	7,868	7,921	7,894	7,918
Participation rate	64.8	64.7	64.8	64.5	64.0	64.5	64.9	64.6	64.7
Employed	7,132	7,267	7,277	7,135	7,130	7,256	7,296	7,296	7,277
Employment-population ratio	59.2	59.5	59.4	59.2	58.6	59.5	59.8	59.7	59.4
Unemployed	678	645	655	655	657	609	625	597	641
Unemployment rate	8.7	8.2	8.3	8.4	8.4	7.7	7.9	7.6	8.1
Both sexes, 16 to 19 years									
Civilian labor force	870	1,161	1,040	923	960	1,060	1,018	996	1,089
Participation rate	36.1	47.3	42.3	38.3	39.4	43.4	41.5	40.6	44.3
Employed	603	848	742	621	678	846	727	709	758
Employment-population ratio	25.0	34.6	30.2	25.8	27.8	34.6	29.7	28.9	30.8
Unemployed	287	313	299	302	283	214	291	287	332
Unemployment rate	30.7	27.0	28.7	32.7	29.4	20.2	28.6	28.8	30.4
Men	33.0	28.8	30.5	37.6	30.2	20.4	30.6	29.7	34.1
Women	28.7	25.3	26.9	28.6	28.8	20.1	26.4	26.1	26.8

See footnotes at end of table.

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]					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
HISPANIC ORIGIN									
Civilian noninstitutional population	20,464	21,159	21,224	20,464	20,975	21,036	21,097	21,159	21,224
Civilian labor force	13,864	14,420	14,487	13,861	14,458	14,420	14,240	14,277	14,484
Participation rate	67.8	68.2	68.3	67.7	68.9	68.5	67.5	67.5	68.2
Employed	12,882	13,349	13,481	12,807	13,480	13,328	13,219	13,203	13,413
Employment-population ratio	62.9	63.1	63.5	62.6	64.3	63.4	62.7	62.4	63.2
Unemployed	982	1,071	1,007	1,054	978	1,092	1,022	1,074	1,071
Unemployment rate	7.1	7.4	6.9	7.5	6.8	7.6	7.2	7.5	7.4

[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 1998, data reflect new composite estimation procedures and 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]					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
Less than a high school diploma									
Civilian noninstitutional population	29,350	29,204	29,290	29,350	29,931	30,064	29,027	29,204	29,290
Civilian labor force	12,583	12,402	12,642	12,555	12,690	12,888	12,548	12,450	12,597
Percent of population	42.9	42.5	43.2	42.8	42.4	42.9	43.2	42.6	43.0
Employed	11,663	11,602	11,845	11,548	11,839	11,963	11,648	11,567	11,728
Employment-population ratio	39.7	39.7	40.4	39.3	39.6	39.8	40.1	39.6	40.0
Unemployed	921	800	797	1,007	851	925	901	883	869
Unemployment rate	7.3	6.5	6.3	8.0	6.7	7.2	7.2	7.1	6.9
High school graduates, no college [2]									
Civilian noninstitutional population	57,483	57,729	57,589	57,483	57,705	57,446	57,374	57,729	57,589
Civilian labor force	37,873	37,305	37,468	37,585	37,496	37,096	37,219	37,381	37,218
Percent of population	65.9	64.6	65.1	65.4	65.0	64.6	64.9	64.8	64.6
Employed	36,405	35,898	36,050	36,003	36,114	35,602	35,694	35,898	35,693
Employment-population ratio	63.3	62.2	62.6	62.6	62.6	62.0	62.2	62.2	62.0
Unemployed	1,468	1,407	1,418	1,582	1,383	1,494	1,525	1,483	1,525
Unemployment rate	3.9	3.8	3.8	4.2	3.7	4.0	4.1	4.0	4.1
Less than a bachelor's degree [3]									
Civilian noninstitutional population	42,075	41,842	41,769	42,075	42,024	41,880	42,293	41,842	41,769
Civilian labor force	31,431	31,106	31,184	31,401	31,406	31,227	31,174	30,863	31,152
Percent of population	74.7	74.3	74.7	74.6	74.7	74.6	73.7	73.8	74.6
Employed	30,439	30,227	30,276	30,382	30,437	30,333	30,224	29,987	30,216
Employment-population ratio	72.3	72.2	72.5	72.2	72.4	72.4	71.5	71.7	72.3
Unemployed	991	879	907	1,019	971	894	950	876	937
Unemployment rate	3.2	2.8	2.9	3.2	3.1	2.9	3.0	2.8	3.0
College graduates									
Civilian noninstitutional population	41,769	43,431	43,669	41,769	42,090	42,464	43,309	43,431	43,669
Civilian labor force	33,627	34,504	35,059	33,577	33,920	34,274	34,721	34,847	35,015
Percent of population	80.5	79.4	80.3	80.4	80.6	80.7	80.2	80.2	80.2
Employed	32,887	33,757	34,453	32,891	33,364	33,674	34,146	34,236	34,453
Employment-population ratio	78.7	77.7	78.9	78.7	79.3	79.3	78.8	78.8	78.9
Unemployed	740	747	606	686	556	600	575	611	562
Unemployment rate	2.2	2.2	1.7	2.0	1.6	1.7	1.7	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 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

HOUSEHOLD DATA

Table A-4. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
CHARACTERISTIC					.	.			
Total employed, 16 years and over	129,972	132,206	131,864	129,761	131,453	131,209	131,067	131,168	131,765
Married men, spouse present	42,825	42,875	43,385	42,648	42,471	42,539	42,837	42,833	43,255
Married women, spouse present	33,007	32,238	33,067	32,846	32,805	32,805	32,658	32,597	32,870
Women who maintain families	7,899	7,900	8,042	7,876	7,848	7,922	7,846	7,932	8,002
OCCUPATION									
Managerial and professional specialty	37,833	38,558	39,572	37,860	38,641	38,732	39,011	38,916	39,607
Technical, sales, and administrative support	38,523	39,045	38,485	38,535	38,401	38,567	38,500	38,859	38,485
Service occupations	17,595	18,081	17,835	17,746	17,749	17,873	17,584	17,727	17,961
Precision production, craft, and repair	13,988	14,360	14,060	13,859	14,853	14,509	14,312	14,079	13,963
Operators, fabricators, and laborers	18,345	18,138	18,073	18,302	18,322	18,120	18,145	17,866	18,047
Farming, forestry, and fishing	3,688	4,023	3,838	3,483	3,479	3,503	3,503	3,618	3,621
CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,940	2,315	2,260	1,889	1,871	1,841	2,018	2,165	2,213
Self-employed workers	1,586	1,466	1,368	1,495	1,395	1,470	1,383	1,345	1,280
Unpaid family workers	43	37	43	44	51	48	30	28	43
Nonagricultural industries:									
Wage and salary workers	117,380	119,366	118,974	117,303	119,013	118,654	118,543	118,676	118,978
Government	17,979	17,782	18,268	18,109	18,034	18,497	18,364	18,257	18,415
Private industries	99,401	101,584	100,706	99,194	100,979	100,157	100,179	100,419	100,563
Private households	869	914	887	877	1,015	961	974	853	900
Other industries	98,532	100,670	99,818	98,317	99,964	99,195	99,205	99,586	99,663
Self-employed workers	8,935	8,938	9,131	8,949	9,023	8,969	9,094	8,947	9,159
Unpaid family workers	87	84	88	83	97	100	91	83	85
PERSONS AT WORK PART TIME									
All industries:									
Part time for economic reasons	3,638	3,509	3,112	3,928	3,772	3,837	3,783	3,463	3,365
Slack work or business conditions	1,986	1,908	1,721	2,187	2,104	2,230	2,372	1,989	1,897
Could only find part-time work	1,405	1,201	1,113	1,455	1,344	1,248	1,192	1,175	1,152
Part time for noneconomic reasons	18,097	15,851	18,989	17,901	18,662	18,665	18,584	18,648	18,857
Nonagricultural industries:									
Part time for economic reasons	3,475	3,350	2,928	3,739	3,630	3,676	3,632	3,307	3,152
Slack work or business conditions	1,881	1,813	1,619	2,067	2,024	2,151	2,251	1,900	1,779
Could only find part-time work	1,363	1,164	1,072	1,417	1,315	1,199	1,162	1,143	1,113
Part time for noneconomic reasons	17,506	15,229	18,378	17,381	18,057	18,019	17,972	18,001	18,305

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 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

Table A-5. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
CHARACTERISTIC									
Total, 16 years and over	6,678	6,247	6,310	4.9	4.3	4.5	4.5	4.5	4.6
Men, 20 years and over	2,838	2,589	2,645	4.1	3.5	3.7	3.9	3.7	3.8
Women, 20 years and over	2,549	2,426	2,368	4.3	3.9	4.1	4.0	4.1	4.0
Both sexes, 16 to 19 years	1,291	1,232	1,297	16.4	14.2	14.6	13.8	15.0	15.4
Married men, spouse present	1,139	1,038	1,004	2.6	2.4	2.2	2.3	2.4	2.3
Married women, spouse present	1,034	1,070	884	3.1	2.8	2.9	2.8	3.2	2.6
Women who maintain families	666	575	660	7.8	7.7	6.9	6.8	6.8	7.6
Full-time workers	5,309	4,941	4,963	4.7	4.2	4.4	4.4	4.4	4.4
Part-time workers	1,328	1,301	1,305	5.5	4.7	5.2	5.3	5.4	5.3
OCCUPATION[2]									
Managerial and professional specialty	765	745	710	2.0	1.7	1.7	1.7	1.9	1.8
Technical, sales, and administrative support	1,591	1,497	1,557	4.0	3.9	3.9	3.8	3.7	3.9
Precision production, craft, and repair	696	680	626	4.8	4.4	4.3	4.4	4.6	4.3
Operators, fabricators, and laborers	1,558	1,286	1,401	7.8	6.5	6.9	6.9	6.7	7.2
Farming, forestry, and fishing	249	212	295	6.7	6.4	6.5	7.0	5.5	7.5
INDUSTRY									
Nonagricultural private wage and salary workers	5,232	4,991	5,052	5.0	4.5	4.7	4.6	4.7	4.8
Goods-producing industries	1,485	1,380	1,516	5.2	4.6	4.7	4.9	4.8	5.3
Mining	23	24	18	3.4	1.3	3.9	3.7	3.9	3.0
Construction	591	520	625	8.7	8.0	8.0	6.7	7.4	9.0
Manufacturing	871	835	873	4.1	3.6	3.6	4.4	3.9	4.1
Durable goods	407	470	492	3.3	3.0	2.9	4.3	3.7	3.8
Nondurable goods	464	365	381	5.3	4.6	4.6	4.5	4.4	4.6
Service-producing industries	3,747	3,611	3,537	4.9	4.5	4.7	4.5	4.7	4.6
Transportation and public utilities	284	269	266	3.8	3.0	3.6	3.4	3.7	3.6
Wholesale and retail trade	1,655	1,503	1,572	6.2	5.1	5.7	5.6	5.6	5.8
Finance, insurance, and real estate	231	213	186	3.0	2.0	2.1	2.0	2.7	2.3
Services	1,577	1,627	1,513	4.6	4.8	4.7	4.5	4.7	4.4
Government workers	478	408	431	2.6	2.4	2.0	2.5	2.2	2.3
Agricultural wage and salary workers	186	164	189	9.0	7.9	8.1	8.2	7.0	7.9

[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.

NOTE: Beginning in January 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

Table A-6. Duration of unemployment

(Numbers in thousands)

Duration	Not seasonally adjusted			Seasonally adjusted					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
NUMBER OF UNEMPLOYED									
Less than 5 weeks	2,525	2,509	2,665	2,494	2,634	2,519	2,625	2,675	2,639
5 to 14 weeks	1,896	2,150	1,793	2,115	1,954	2,084	1,983	1,980	1,989
15 weeks and over	1,982	1,514	1,581	2,109	1,462	1,521	1,600	1,647	1,651
15 to 26 weeks	933	679	686	1,031	636	652	793	820	733
27 weeks and over	1,049	835	896	1,078	806	769	807	827	918
Average (mean) duration, in weeks	16.0	13.7	14.5	15.9	14.6	13.8	14.3	13.5	14.3
Median duration, in weeks	8.3	7.0	6.8	8.1	5.9	6.6	6.6	6.9	6.6
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	38.4	40.6	44.1	37.0	43.5	40.5	42.3	42.6	42.0
5 to 14 weeks	28.6	34.8	29.7	31.5	32.3	33.5	31.9	31.2	31.8
15 weeks and over	31.0	24.5	26.2	31.4	24.2	26.0	25.8	26.2	26.2
15 to 26 weeks	14.8	11.0	11.4	15.4	10.5	13.7	12.8	13.0	11.7
27 weeks and over	16.4	13.5	14.8	16.1	13.3	12.4	13.0	13.2	14.6

NOTE: Beginning in January 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

Table A-7. Reason for unemployment

(Numbers in thousands)

Reason	Not seasonally adjusted			Seasonally adjusted					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
NUMBER OF UNEMPLOYED									
Job losers and persons who completed temporary jobs	2,616	2,715	2,534	3,007	2,772	2,819	2,908	2,852	2,902
On temporary layoff	595	782	628	893	786	841	968	978	939
Not on temporary layoff	2,021	1,932	1,905	2,114	1,986	1,978	1,941	1,874	1,963
Permanent job losers	1,384	1,342	1,237	(1)	(1)	(1)	(1)	(1)	(1)
Persons who completed temporary jobs	637	590	668	(1)	(1)	(1)	(1)	(1)	(1)
Job leavers	980	795	854	853	748	766	799	740	724
Reentrants	2,307	2,157	2,223	2,263	2,033	2,096	2,042	2,132	2,195
New entrants	501	506	428	560	493	532	463	503	487
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	40.9	44.0	42.0	45.0	45.8	45.4	46.8	45.8	46.0
On temporary layoff	9.3	12.7	10.4	13.4	13.0	13.5	15.6	15.7	14.9
Not on temporary layoff	31.6	31.3	31.5	31.6	32.8	31.8	31.3	30.1	31.1
Job leavers	15.3	12.9	14.1	12.8	12.4	12.3	12.9	11.9	11.5
Reentrants	36.0	34.9	36.8	33.9	33.6	33.7	32.9	34.2	34.6
New entrants	7.8	8.2	7.1	8.4	8.2	8.6	7.5	8.1	7.7
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers and persons who completed temporary jobs	1.9	2.0	1.8	2.2	2.0	2.1	2.1	2.1	2.1
Job leavers	.7	.6	.6	.6	.5	.6	.6	.5	.5
Reentrants	1.7	1.6	1.6	1.7	1.5	1.5	1.5	1.6	1.6
New entrants	.4	.4	.3	.4	.4	.4	.3	.4	.4

[1] Not available.
NOTE: Beginning in January 1998, data reflect new composite estimation procedures and 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					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	1.5	1.1	1.1	1.5	1.1	1.2	1.2	1.2	1.2
U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	1.9	2.0	1.8	2.2	2.0	2.1	2.1	2.1	2.1
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate)	4.7	4.5	4.4	4.9	4.3	4.5	4.5	4.5	4.6
U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	4.9	4.7	4.6	(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	5.6	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	8.3	7.8	7.6	(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. Beginning in January 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

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

Age and sex	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Sept. 1997	Aug. 1998	Sept. 1998	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998	Sept. 1998
Total, 16 years and over	6,678	6,247	6,310	4.9	4.3	4.5	4.5	4.5	4.6
16 to 24 years	2,408	2,417	2,438	11.2	10.0	10.6	10.3	11.1	11.0
16 to 19 years	1,291	1,232	1,297	16.4	14.2	14.6	13.8	15.0	15.4
16 to 17 years	631	557	611	19.3	15.8	18.2	15.2	17.1	17.9
18 to 19 years	669	678	696	14.5	13.2	12.3	12.9	13.8	13.8
20 to 24 years	1,117	1,185	1,141	8.2	7.6	8.1	8.2	8.7	8.3
25 years and over	4,304	3,853	3,888	3.7	3.3	3.4	3.4	3.3	3.4
25 to 54 years	3,791	3,391	3,421	3.8	3.4	3.5	3.5	3.4	3.5
55 years and over	512	450	471	3.1	2.4	2.5	2.8	2.6	2.7
Men, 16 years and over	3,536	3,253	3,414	4.8	4.2	4.4	4.6	4.4	4.6
16 to 24 years	1,347	1,301	1,403	12.0	11.0	10.8	11.4	11.4	12.1
16 to 19 years	698	664	769	17.2	16.0	15.3	15.9	15.8	17.7
16 to 17 years	314	311	365	18.8	17.9	21.0	17.3	18.6	20.7
18 to 19 years	381	357	401	16.1	14.8	11.8	14.6	14.2	15.7
20 to 24 years	649	637	634	9.1	8.1	8.2	8.7	8.9	8.7
25 years and over	2,182	1,979	2,002	3.5	3.0	3.2	3.4	3.2	3.2
25 to 54 years	1,901	1,729	1,715	3.6	3.1	3.3	3.4	3.3	3.2
55 years and over	276	241	296	3.0	2.4	2.5	2.9	2.5	3.1
Women, 16 years and over	3,142	2,994	2,896	5.0	4.4	4.7	4.4	4.7	4.5
16 to 24 years	1,061	1,116	1,036	10.4	9.0	10.3	9.1	10.7	9.8
16 to 19 years	593	568	528	15.5	12.3	13.9	11.5	14.2	12.9
16 to 17 years	317	246	246	19.8	13.5	15.1	12.9	15.5	14.8
18 to 19 years	288	322	295	12.8	11.4	12.7	11.2	13.3	11.9
20 to 24 years	468	548	508	7.3	6.9	8.0	7.7	8.6	7.9
25 years and over	2,122	1,874	1,886	4.0	3.5	3.6	3.5	3.5	3.5
25 to 54 years	1,890	1,663	1,706	4.1	3.8	3.8	3.6	3.6	3.7
55 years and over	236	209	175	3.2	2.4	2.6	2.6	2.8	2.3

[1] Unemployment as a percent of the civilian labor force.

NOTE: Beginning in January 1998, data reflect new composite estimation procedures and 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	
	Sept. 1997	Sept. 1998	Sept. 1997	Sept. 1998	Sept. 1997	Sept. 1998
NOT IN THE LABOR FORCE						
Total not in the labor force	67,195	67,796	24,878	25,051	42,317	42,744
Persons who currently want a job	4,705	4,753	1,888	1,951	2,816	2,801
Searched for work and available to work now[1]	1,363	1,377	667	634	696	743
Reason not currently looking:						
Discouragement over job prospects[2]	328	317	213	188	115	129
Reasons other than discouragement[3]	1,035	1,060	454	446	581	614
MULTIPLE JOBHOLDERS						
Total multiple jobholders[4]	7,838	7,906	4,220	4,156	3,618	3,750
Percent of total employed	6.0	6.0	6.0	5.9	6.0	6.1
Primary job full time, secondary job part time	4,438	4,442	2,611	2,550	1,827	1,892
Primary and secondary jobs both part time	1,601	1,635	514	534	1,087	1,101
Primary and secondary jobs both full time	238	310	183	228	55	82
Hours vary on primary or secondary job	1,528	1,461	894	827	634	634

[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 thinks no work available, could not find work, lacks 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.

NOTE: Beginning in January 1998, data reflect new composite estimation procedures and revised population controls used in the household survey.

Table B-1. Employees on nonfarm payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Sept. 1997	July 1998	Aug. 1998p	Sept. 1998p	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998p	Sept. 1998p
Total	123,688	125,841	125,991	126,676	123,280	125,562	125,751	125,869	126,178	126,247
Total private	104,294	107,040	107,273	106,970	103,673	105,734	105,938	106,043	106,263	106,331
Goods-producing	25,379	25,451	25,720	25,611	24,993	25,301	25,304	25,135	25,255	25,219
Mining	600	583	582	576	594	579	578	571	571	571
Metal mining	53.9	51.4	51.2	50.3	53	51	51	50	50	50
Coal mining	95.2	89.6	90.4	90.1	95	92	90	89	90	90
Oil and gas extraction	339.4	330.5	328.3	324.4	338	329	330	325	323	323
Nonmetallic minerals, except fuels	111.4	111.5	112.0	111.6	108	107	107	107	108	108
Construction	5,995	6,305	6,343	6,262	5,713	5,917	5,946	5,970	5,991	5,971
General building contractors	1,359.7	1,475.0	1,479.4	1,449.5	1,320	1,388	1,401	1,410	1,414	1,408
Heavy construction, except building	873.4	895.6	905.7	901.2	792	819	821	828	830	818
Special trade contractors	3,761.4	3,934.4	3,958.3	3,911.0	3,601	3,710	3,724	3,732	3,747	3,745
Manufacturing	18,784	18,563	18,795	18,773	18,686	18,805	18,780	18,594	18,693	18,677
Production workers	13,012	12,690	12,926	12,950	12,915	12,971	12,943	12,746	12,841	12,856
Durable goods	11,048	10,942	11,117	11,100	11,030	11,156	11,144	10,989	11,109	11,080
Production workers	7,591	7,409	7,582	7,599	7,573	7,642	7,626	7,468	7,584	7,580
Lumber and wood products	805.4	814.5	819.1	816.3	794	803	801	802	804	805
Furniture and fixtures	509.4	519.3	522.7	523.2	510	526	524	528	525	523
Stone, clay, and glass products	562.7	569.1	574.7	572.4	553	559	562	561	564	562
Primary metal industries	712.3	697.5	711.8	711.2	714	716	717	706	715	713
Blast furnaces and basic steel products	235.5	233.8	232.8	231.3	(1)	(1)	(1)	(1)	(1)	(1)
Fabricated metal products	1,482.1	1,462.6	1,488.9	1,491.8	1,480	1,495	1,490	1,477	1,491	1,490
Industrial machinery and equipment	2,166.7	2,187.1	2,178.7	2,172.0	2,175	2,201	2,202	2,193	2,189	2,181
Computer and office equipment	377.7	376.6	372.2	368.4	379	376	375	375	371	369
Electronic and other electrical equipment	1,698.5	1,697.1	1,693.9	1,688.8	1,698	1,716	1,714	1,701	1,695	1,688
Electronic components and accessories	662.8	668.0	662.4	658.9	664	677	672	667	661	660
Transportation equipment	1,855.0	1,748.0	1,881.9	1,882.1	1,852	1,886	1,882	1,772	1,884	1,879
Motor vehicles and equipment	990.4	858.2	996.3	996.3	986	998	993	878	997	992
Aircraft and parts	509.6	524.2	522.7	524.0	510	524	524	526	526	524
Instruments and related products	864.9	861.5	858.8	854.0	865	866	864	861	857	854
Miscellaneous manufacturing	391.4	384.8	386.2	387.8	389	388	388	388	385	385
Nondurable goods	7,736	7,621	7,678	7,673	7,656	7,649	7,636	7,605	7,584	7,597
Production workers	5,421	5,281	5,344	5,351	5,342	5,329	5,317	5,278	5,257	5,276
Food and kindred products	1,754.7	1,727.4	1,764.0	1,770.9	1,688	1,710	1,706	1,696	1,690	1,705
Tobacco products	42.5	36.5	40.0	40.8	40	41	40	40	40	39
Textile mill products	614.8	591.7	593.2	596.5	613	603	599	594	592	595
Apparel and other textile products	823.6	759.3	765.1	764.8	817	780	776	772	759	758
Paper and allied products	686.9	682.5	682.6	681.9	685	685	682	680	680	680
Printing and publishing	1,550.9	1,570.2	1,566.2	1,558.2	1,556	1,566	1,570	1,571	1,567	1,564
Chemicals and allied products	1,033.1	1,042.7	1,041.6	1,035.2	1,033	1,039	1,037	1,038	1,036	1,035
Petroleum and coal products	141.5	138.3	137.7	136.8	139	136	137	135	134	135
Rubber and misc. plastics products	998.5	993.1	1,007.0	1,008.5	997	1,006	1,006	998	1,005	1,007
Leather and leather products	89.0	79.0	80.5	79.6	88	83	83	81	80	79
Service-producing	98,309	100,390	100,271	101,065	98,287	100,261	100,447	100,734	100,923	101,028
Transportation and public utilities	6,476	6,541	6,559	6,622	6,435	6,534	6,538	6,550	6,572	6,578
Transportation	4,177	4,163	4,206	4,284	4,141	4,191	4,196	4,208	4,236	4,245
Railroad transportation	228.0	234.2	235.4	234.8	227	232	232	231	233	234
Local and interurban passenger transit	463.1	403.0	405.0	483.7	451	459	458	466	470	471
Trucking and warehousing	1,707.1	1,731.7	1,745.1	1,747.8	1,680	1,703	1,709	1,709	1,719	1,719
Water transportation	183.4	197.7	198.9	194.9	180	185	183	188	192	191
Transportation by air	1,139.2	1,153.7	1,156.4	1,158.8	1,147	1,151	1,154	1,154	1,160	1,167
Pipelines, except natural gas	14.3	14.6	14.5	14.4	14	14	14	14	14	14
Transportation services	442.3	447.9	450.3	450.0	442	447	446	446	448	449
Communications and public utilities	2,299	2,358	2,353	2,338	2,294	2,343	2,342	2,342	2,336	2,333
Communications	1,436.4	1,495.6	1,493.3	1,487.5	1,432	1,486	1,488	1,488	1,484	1,483
Electric, gas, and sanitary services	862.6	862.7	859.4	850.1	862	857	854	854	852	850
Wholesale trade	6,687	6,877	6,866	6,856	6,679	6,815	6,821	6,827	6,834	6,848
Durable goods	3,958	4,102	4,094	4,080	3,964	4,059	4,067	4,072	4,080	4,087
Nondurable goods	2,729	2,775	2,772	2,776	2,715	2,756	2,754	2,755	2,754	2,761

See footnotes at end of table.

Table B-1. Employees on nonfarm payrolls by industry – Continued

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Sept. 1997	July 1998	Aug. 1998P	Sept. 1998P	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998P	Sept. 1998P
Retail trade	22,126	22,662	22,690	22,621	22,078	22,423	22,448	22,547	22,537	22,574
Building materials and garden supplies	943.8	1,014.1	1,001.1	983.2	939	972	975	977	979	979
General merchandise stores	2,692.2	2,734.0	2,745.1	2,756.6	2,726	2,788	2,784	2,790	2,781	2,793
Department stores	2,367.6	2,411.2	2,420.7	2,427.0	2,397	2,462	2,457	2,454	2,456	2,459
Food stores	3,501.8	3,574.3	3,569.0	3,556.0	3,506	3,542	3,538	3,552	3,553	3,560
Automotive dealers and service stations	2,336.6	2,385.3	2,382.5	2,371.4	2,321	2,345	2,351	2,355	2,353	2,355
New and used car dealers	1,056.6	1,069.3	1,067.3	1,068.8	1,053	1,060	1,064	1,066	1,063	1,066
Apparel and accessory stores	1,080.3	1,102.2	1,112.6	1,096.7	1,100	1,106	1,108	1,111	1,113	1,118
Furniture and home furnishings stores	1,009.2	1,054.6	1,059.4	1,060.0	1,019	1,055	1,058	1,063	1,071	1,070
Eating and drinking places	7,761.9	7,940.2	7,949.8	7,915.7	7,641	7,714	7,726	7,781	7,766	7,793
Miscellaneous retail establishments	2,800.3	2,857.7	2,870.7	2,879.8	2,826	2,901	2,908	2,918	2,921	2,908
Finance, insurance, and real estate	7,131	7,457	7,454	7,402	7,125	7,311	7,333	7,370	7,372	7,395
Finance	3,429	3,591	3,592	3,575	3,434	3,536	3,547	3,565	3,572	3,580
Depository institutions	2,024.2	2,058.7	2,054.0	2,038.2	2,027	2,044	2,042	2,042	2,042	2,041
Commercial banks	1,457.1	1,471.1	1,467.2	1,455.7	1,459	1,463	1,459	1,459	1,458	1,457
Savings institutions	260.0	266.6	265.1	262.4	261	264	264	265	264	264
Nondepository institutions	576.2	626.2	630.3	628.6	576	611	616	624	628	629
Mortgage bankers and brokers	256.2	292.0	296.6	296.4	256	281	284	289	295	297
Security and commodity brokers	605.6	660.6	662.2	661.3	605	641	648	655	657	662
Holding and other investment offices	223.4	245.5	245.5	246.5	225	240	241	244	245	248
Insurance	2,263	2,346	2,347	2,341	2,267	2,320	2,328	2,337	2,339	2,345
Insurance carriers	1,538.5	1,601.0	1,601.7	1,597.1	1,540	1,579	1,586	1,594	1,595	1,599
Insurance agents, brokers, and service	724.8	745.4	745.4	743.5	727	741	742	743	744	746
Real estate	1,439	1,520	1,515	1,486	1,424	1,455	1,458	1,468	1,461	1,470
Services[2]	36,495	38,052	37,984	37,858	36,363	37,350	37,494	37,614	37,693	37,717
Agricultural services	729.1	792.1	786.4	760.3	690	700	706	713	718	719
Hotels and other lodging places	1,792.8	1,921.5	1,914.9	1,826.0	1,745	1,769	1,773	1,781	1,785	1,779
Personal services	1,147.4	1,142.0	1,141.0	1,143.5	1,180	1,190	1,186	1,184	1,184	1,176
Business services	8,221.2	8,607.8	8,707.3	8,700.1	8,112	8,491	8,556	8,565	8,619	8,588
Services to buildings	949.0	987.2	968.4	984.4	947	975	975	980	978	982
Personnel supply services	3,120.8	3,168.0	3,256.0	3,251.0	3,013	3,156	3,189	3,151	3,176	3,139
Help supply services	2,790.5	2,833.2	2,915.1	2,912.1	2,686	2,818	2,853	2,815	2,848	2,804
Computer and data processing services ..	1,445.3	1,620.8	1,633.3	1,640.0	1,448	1,153	1,159	1,162	1,166	1,167
Auto repair, services, and parking	1,132.6	1,170.2	1,172.7	1,168.6	1,131	1,153	1,159	1,162	1,166	1,167
Miscellaneous repair services	380.1	391.0	390.3	390.1	378	385	387	385	386	388
Motion pictures	547.5	573.8	575.7	559.4	556	557	554	564	565	567
Amusement and recreation services	1,689.4	2,014.3	1,982.6	1,813.1	1,593	1,662	1,670	1,694	1,707	1,730
Health services	9,755.0	9,940.4	9,934.9	9,921.3	9,766	9,887	9,905	9,902	9,917	9,932
Offices and clinics of medical doctors	1,752.5	1,826.0	1,832.6	1,832.3	1,754	1,808	1,813	1,817	1,828	1,834
Nursing and personal care facilities	1,757.6	1,763.0	1,761.3	1,757.7	1,757	1,762	1,761	1,756	1,755	1,758
Hospitals	3,878.1	3,974.7	3,972.0	3,968.0	3,885	3,945	3,953	3,960	3,966	3,975
Home health care services	717.6	673.3	667.0	668.4	716	684	683	673	668	657
Legal services	946.0	1,000.6	993.2	982.2	953	977	980	984	986	989
Educational services	2,093.5	1,926.3	1,896.4	2,165.4	2,136	2,195	2,200	2,205	2,203	2,210
Social services	2,526.2	2,654.0	2,605.8	2,632.6	2,541	2,609	2,627	2,657	2,632	2,645
Child day care services	576.1	532.7	535.3	580.1	572	575	581	583	585	576
Residential care	722.9	757.4	758.3	758.5	726	749	747	749	752	760
Museums and botanical and zoological gardens	91.5	100.0	98.9	94.1	90	91	91	91	92	93
Membership organizations	2,229.9	2,342.3	2,312.1	2,247.5	2,250	2,266	2,270	2,272	2,273	2,268
Engineering and management services	3,037.2	3,279.2	3,275.1	3,257.8	3,048	3,212	3,234	3,259	3,264	3,270
Engineering and architectural services	880.0	937.7	940.3	928.3	876	913	921	925	928	924
Management and public relations	963.0	1,060.4	1,060.0	1,061.4	962	1,029	1,037	1,052	1,054	1,060
Services, nec	50.1	53.0	52.6	52.6	(1)	(1)	(1)	(1)	(1)	(1)
Government	19,394	18,801	18,716	19,706	19,607	19,828	19,813	19,826	19,915	19,918
Federal	2,679	2,689	2,695	2,678	2,684	2,671	2,674	2,672	2,683	2,682
Federal, except Postal Service	1,830.1	1,833.9	1,834.0	1,814.1	1,827	1,810	1,813	1,810	1,816	1,811
State	4,556	4,424	4,409	4,615	4,604	4,637	4,632	4,645	4,659	4,661
Education	1,866.8	1,657.1	1,659.1	1,890.9	1,921	1,932	1,933	1,938	1,947	1,944
Other State government	2,689.0	2,766.5	2,750.3	2,723.7	2,683	2,705	2,699	2,707	2,712	2,717
Local	12,159	11,688	11,614	12,413	12,319	12,520	12,507	12,509	12,573	12,573
Education	6,790.0	5,936.8	5,934.3	6,960.7	6,941	7,053	7,045	7,078	7,123	7,111
Other local government	5,369.2	5,750.9	5,679.4	5,452.4	5,378	5,457	5,462	5,431	5,450	5,462

[1] 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.

[2] Includes other industries, not shown separately.

p = preliminary.

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Table B-2. Average weekly hours of production or nonsupervisory workers[1] on private nonfarm payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	Sept. 1997	July 1998	Aug. 1998p	Sept. 1998p	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998p	Sept. 1998p
Total private	34.8	34.8	35.2	34.3	34.6	34.7	34.6	34.6	34.6	34.4
Goods-producing	41.9	40.9	41.3	40.5	41.3	41.1	41.0	41.1	41.1	40.7
Mining	45.5	44.0	44.0	42.3	45.1	44.6	43.8	44.8	43.8	42.2
Construction	40.1	40.1	40.1	37.4	39.1	38.6	38.4	39.2	39.1	38.0
Manufacturing	42.4	41.1	41.7	41.5	41.9	41.8	41.8	41.7	41.7	41.7
Overtime hours	5.2	4.4	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.5
Durable goods	43.1	41.5	42.2	41.8	42.7	42.4	42.3	42.2	42.3	42.3
Overtime hours	5.5	4.4	4.8	4.6	5.0	4.8	4.8	4.8	4.8	4.7
Lumber and wood products	41.5	41.2	41.8	40.5	40.9	41.2	41.3	41.2	41.4	40.8
Furniture and fixtures	41.1	40.3	41.0	39.9	40.4	40.7	41.0	40.7	40.7	40.1
Stone, clay, and glass products	44.2	43.7	44.1	43.9	43.2	43.5	43.2	43.5	43.6	43.0
Primary metal industries	45.3	43.1	43.7	43.8	45.0	44.5	44.4	43.6	44.0	43.8
Blast furnaces and basic steel products ...	45.2	43.9	44.2	44.2	45.0	45.6	45.1	43.8	44.5	44.1
Fabricated metal products	43.0	41.6	42.2	41.7	42.5	42.6	42.5	42.4	42.3	42.3
Industrial machinery and equipment	43.7	42.3	42.6	42.4	43.5	43.0	43.2	43.0	43.1	43.2
Electronic and other electrical equipment	42.1	40.6	41.4	40.9	41.8	41.4	41.4	41.3	41.6	41.2
Transportation equipment	44.3	41.0	42.7	42.9	44.0	43.3	42.7	42.6	42.6	43.7
Motor vehicles and equipment	44.6	39.6	42.3	43.3	44.3	43.3	42.4	41.7	42.1	44.3
Instruments and related products	42.1	40.6	41.1	40.5	42.0	41.4	41.3	41.3	41.4	40.8
Miscellaneous manufacturing	40.8	39.2	39.9	39.4	40.3	40.0	40.0	40.0	40.1	40.0
Nondurable goods	41.4	40.6	41.0	41.1	40.8	41.0	40.9	41.0	40.9	40.8
Overtime hours	4.9	4.3	4.5	4.7	4.3	4.4	4.4	4.4	4.3	4.3
Food and kindred products	42.3	41.6	42.0	42.7	41.2	41.8	41.7	42.0	41.6	41.8
Tobacco products	39.4	39.3	39.3	37.9	38.2	39.3	39.0	40.6	39.6	37.5
Textile mill products	42.0	40.4	41.2	41.1	41.5	41.3	41.1	41.0	41.0	40.6
Apparel and other textile products	37.5	37.0	37.6	37.1	37.3	37.4	37.4	37.4	37.5	37.5
Paper and allied products	44.1	43.0	43.3	43.6	43.6	43.5	43.6	43.5	43.3	43.2
Printing and publishing	39.2	38.1	38.5	38.6	38.6	38.4	38.2	38.4	38.5	38.1
Chemicals and allied products	43.5	42.7	43.0	43.1	43.3	43.1	43.2	43.0	43.3	43.0
Petroleum and coal products	43.3	44.8	43.9	44.0	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products	42.0	41.1	41.4	41.3	41.7	42.1	42.0	42.1	41.6	41.3
Leather and leather products	39.0	36.9	38.5	38.3	38.4	37.3	37.6	37.0	38.3	38.4
Service-producing	32.8	33.2	33.5	32.7	32.8	33.0	32.9	32.9	32.9	32.8
Transportation and public utilities	40.3	39.7	40.0	39.2	39.9	39.8	39.5	39.6	39.4	39.0
Wholesale trade	38.4	38.3	38.7	38.1	38.4	38.5	38.2	38.3	38.4	38.2
Retail trade	29.0	29.8	29.9	29.2	28.9	29.1	29.0	29.1	29.0	29.1
Finance, insurance, and real estate	35.8	36.1	36.9	35.9	(2)	(2)	(2)	(2)	(2)	(2)
Services	32.5	32.9	33.2	32.3	32.6	32.7	32.7	32.7	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] 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.

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	Sept. 1997	July 1998	Aug. 1998P	Sept. 1998P	Sept. 1997	July 1998	Aug. 1998P	Sept. 1998P
Total private	$12.40	$12.66	$12.74	$12.87	$431.52	$440.57	$448.45	$441.44
Seasonally adjusted	12.37	12.79	12.85	12.86	428.00	442.53	444.61	442.38
Goods-producing	14.07	14.33	14.40	14.43	589.53	586.10	594.72	584.42
Mining	16.26	16.81	16.90	16.91	739.83	739.84	743.60	715.29
Construction	16.30	16.63	16.74	16.75	653.63	666.86	671.27	626.45
Manufacturing	13.23	13.37	13.45	13.56	560.95	549.51	560.87	562.74
Durable goods	13.80	13.77	13.94	14.04	594.78	571.46	588.27	586.87
Lumber and wood products	10.87	11.18	11.20	11.22	451.11	460.62	468.16	454.41
Furniture and fixtures	10.70	10.90	10.95	11.03	439.77	439.27	448.95	440.10
Stone, clay, and glass products	13.27	13.60	13.61	13.72	586.53	594.32	600.20	602.31
Primary metal industries	15.27	15.56	15.44	15.57	691.73	670.64	674.73	681.97
Blast furnaces and basic steel products	18.30	18.49	18.41	18.44	827.16	811.71	813.72	815.05
Fabricated metal products	12.81	12.89	13.08	13.14	550.83	536.22	551.98	547.94
Industrial machinery and equipment	14.19	14.42	14.44	14.47	620.10	609.97	615.14	613.53
Electronic and other electrical equipment	12.85	13.15	13.16	13.23	540.99	533.89	544.62	541.11
Transportation equipment	17.57	16.88	17.32	17.46	778.35	692.08	739.56	749.03
Motor vehicles and equipment	18.02	16.87	17.61	17.75	803.69	668.05	744.90	768.58
Instruments and related products	13.62	13.74	13.76	13.88	573.40	557.84	565.54	582.14
Miscellaneous manufacturing	10.64	10.84	10.83	10.94	434.11	424.93	432.12	431.04
Nondurable goods	12.40	12.79	12.73	12.88	513.36	519.27	521.93	529.37
Food and kindred products	11.51	11.80	11.76	11.95	486.87	490.88	493.92	510.27
Tobacco products	18.32	20.66	19.10	18.15	721.81	811.94	750.63	687.89
Textile mill products	10.10	10.36	10.38	10.42	424.20	418.54	427.66	428.26
Apparel and other textile products	8.32	8.48	8.52	8.53	312.00	313.76	320.35	318.46
Paper and allied products	15.17	15.63	15.53	15.89	669.00	672.09	669.34	692.80
Printing and publishing	13.21	13.43	13.46	13.64	517.83	511.68	518.21	526.50
Chemicals and allied products	16.53	17.19	17.14	17.32	723.41	734.01	737.02	746.49
Petroleum and coal products	20.24	20.81	20.77	20.83	876.39	932.29	911.80	916.52
Rubber and misc. plastics products	11.54	11.91	11.83	11.92	488.88	489.50	489.76	492.30
Leather and leather products	9.11	9.18	9.29	9.29	355.29	338.00	357.67	355.81
Service-producing	11.83	12.13	12.21	12.36	388.02	402.72	409.04	404.17
Transportation and public utilities	15.06	15.31	15.36	15.42	608.92	607.81	614.40	604.46
Wholesale trade	13.53	13.99	14.12	14.11	519.55	535.82	546.44	537.59
Retail trade	8.45	8.71	8.73	8.90	245.05	259.56	261.03	259.88
Finance, insurance, and real estate	13.48	13.94	14.10	14.05	482.58	503.23	520.29	504.40
Services	12.36	12.67	12.75	12.98	401.70	416.84	423.30	419.25

[1] See footnote 1, table B-2.
P = preliminary.
NOTE: Average hourly and weekly earnings, respectively, have been corrected as follows: in June 1998, manufacturing, $13.44 and $561.79; fabricated metal products, $13.02 and $554.65 in June, and $13.04 and $554.20 in May.

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Table B-4. Average hourly earnings of production or nonsupervisory workers[1] on private nonfarm payrolls by industry, seasonally adjusted

Industry	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998p	Sept. 1998p	Percent change from: Aug. 1998- Sept. 1998
Total private:							
Current dollars	$12.37	$12.73	$12.76	$12.79	$12.85	$12.86	0.1
Constant (1982) dollars[2]	7.58	7.73	7.75	7.75	7.78	N.A.	. (3)
Goods-producing	13.98	14.27	14.28	14.31	14.39	14.35	-.3
Mining	16.24	16.77	16.73	16.88	17.06	16.89	-1.0
Construction	16.10	16.46	16.51	16.64	16.67	16.55	-.7
Manufacturing	13.22	13.47	13.47	13.42	13.53	13.55	.1
Excluding overtime[4]	12.50	12.78	12.76	12.71	12.82	12.84	.2
Service-producing	11.83	12.23	12.26	12.30	12.35	12.38	.2
Transportation and public utilities	15.01	15.31	15.29	15.33	15.38	15.37	-.1
Wholesale trade	13.54	14.00	13.98	14.07	14.15	14.12	-.2
Retail trade	8.42	8.72	8.73	8.78	8.82	8.87	.6
Finance, insurance, and real estate	13.53	14.03	14.07	14.10	14.15	14.11	-.3
Services	12.38	12.81	12.87	12.90	12.95	13.01	.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 .4 percent from July 1998 to August 1998, 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.
NOTE: Average hourly earnings for manufacturing in June have been corrected.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers[1] on private nonfarm payrolls by industry

(1982=100)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Sept. 1997	July 1998	Aug. 1998P	Sept. 1998P	Sept. 1997	May 1998	June 1998	July 1998	Aug. 1998P	Sept. 1998P
Total private	143.7	147.5	149.3	145.1	142.1	144.9	144.8	145.2	145.3	144.8
Goods-producing	118.6	115.2	118.2	115.3	114.6	115.3	114.9	114.2	114.8	113.6
Mining	59.1	55.7	55.6	52.9	57.6	56.0	54.7	55.5	54.0	52.0
Construction	170.9	179.5	180.9	165.8	157.1	160.5	160.5	164.6	164.5	158.7
Manufacturing	111.2	105.2	108.7	108.5	109.2	109.4	109.0	107.2	108.1	108.0
Durable goods	114.2	107.2	111.7	110.9	112.8	113.1	112.7	109.9	111.9	111.8
Lumber and wood products	146.0	146.2	149.1	143.9	141.2	143.8	143.7	144.0	144.7	142.4
Furniture and fixtures	131.0	130.6	134.1	130.5	128.6	134.0	134.4	134.3	133.7	131.1
Stone, clay, and glass products	117.8	117.4	120.0	119.0	112.6	114.7	114.4	115.2	115.7	114.1
Primary metal industries	95.8	88.9	92.2	92.5	95.4	94.6	94.4	91.1	93.2	92.6
Blast furnaces and basic steel products	73.6	71.4	71.3	70.8	73.5	74.5	73.7	71.2	71.9	70.9
Fabricated metal products	119.5	113.1	117.3	116.3	117.9	119.2	-118.4	117.0	117.6	117.8
Industrial machinery and equipment	109.8	107.0	107.6	107.1	109.9	110.1	110.9	109.8	110.0	109.9
Electronic and other electrical equipment	112.1	106.1	108.5	107.3	111.3	110.7	110.3	108.7	109.3	108.2
Transportation equipment	130.0	105.9	122.7	124.3	128.7	127.0	124.7	112.2	122.9	126.2
Motor vehicles and equipment	169.0	118.9	153.6	158.0	167.6	161.8	157.2	129.0	153.2	161.6
Instruments and related products	76.8	74.7	75.4	74.5	76.7	76.6	76.1	76.1	75.9	75.0
Miscellaneous manufacturing	105.4	98.8	100.9	100.8	103.2	102.0	101.6	102.0	101.5	101.3
Nondurable goods	107.2	102.4	104.7	105.2	104.3	104.4	104.0	103.5	102.8	102.8
Food and kindred products	125.5	120.2	125.0	127.8	116.4	119.9	119.3	118.9	117.1	119.2
Tobacco products	65.8	52.6	59.8	60.6	58.6	62.3	59.9	60.3	58.8	55.7
Textile mill products	90.9	83.8	85.7	86.2	89.5	87.7	86.9	85.7	85.2	85.0
Apparel and other textile products	74.0	66.0	67.6	67.0	72.8	68.8	68.5	68.3	67.0	67.0
Paper and allied products	112.5	108.9	109.2	110.8	110.8	110.7	110.5	109.4	109.1	109.3
Printing and publishing	127.6	124.2	125.4	124.8	126.2	125.6	125.0	125.4	125.4	123.7
Chemicals and allied products	101.9	101.9	102.6	102.0	101.4	102.8	103.1	102.6	102.8	101.7
Petroleum and coal products	77.2	78.0	76.4	75.9	75.0	73.9	73.1	75.5	73.8	73.9
Rubber and misc. plastics products	147.4	142.6	146.4	146.2	146.0	148.9	148.4	147.0	146.8	145.9
Leather and leather products	40.3	33.4	35.9	35.3	39.5	36.1	35.8	34.7	35.3	35.4
Service-producing	154.9	162.0	163.2	158.5	154.5	158.2	158.2	159.1	159.0	158.5
Transportation and public utilities	133.3	131.5	133.2	132.0	131.2	131.5	130.5	131.4	131.6	130.3
Wholesale trade	126.7	129.7	130.4	128.0	126.4	128.8	127.9	128.6	128.7	128.1
Retail trade	138.9	146.3	146.8	142.4	138.1	141.1	140.7	141.9	141.2	141.7
Finance, insurance, and real estate	128.6	137.2	140.1	134.6	129.3	134.9	134.8	136.1	136.1	135.5
Services	188.5	198.7	200.0	193.5	188.4	193.7	194.5	195.2	195.2	194.2

[1] See footnote 1, table B-2.

P = preliminary.

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:												
1994	59.3	60.5	67.0	64.5	58.6	63.3	63.8	61.7	61.5	60.4	64.0	61.7
1995	62.5	60.0	54.9	55.6	47.8	55.6	54.8	59.0	58.0	55.8	54.5	58.8
1996	50.8	64.6	59.6	56.6	62.8	61.0	57.3	61.5	56.0	62.5	62.2	60.7
1997	58.0	61.4	59.8	63.6	60.1	54.6	61.1	59.1	60.0	64.3	62.4	64.9
1998	63.8	58.7	59.6	56.9	56.6	59.0	55.1	P53.2	P49.0			
Over 3-month span:												
1994	64.5	69.2	69.9	68.4	66.6	67.1	69.0	69.5	66.2	65.6	66.6	66.3
1995	63.6	61.4	59.4	53.1	55.2	53.2	59.7	60.1	59.1	58.0	56.6	54.6
1996	61.9	62.8	64.0	63.8	63.5	64.9	64.2	61.5	63.9	64.2	67.0	66.6
1997	64.9	63.3	65.6	66.2	63.9	61.2	60.1	65.9	67.4	68.1	70.8	71.9
1998	68.4	67.3	64.2	61.7	60.4	58.4	P57.6	P53.4				
Over 6-month span:												
1994	70.9	69.9	69.7	71.2	70.2	69.8	69.8	70.2	68.7	67.4	66.7	65.4
1995	66.4	60.1	59.1	57.3	59.0	60.1	57.6	60.4	59.7	59.3	61.1	63.2
1996	62.8	65.4	64.7	65.7	66.2	65.0	66.4	66.0	66.2	67.6	66.9	66.3
1997	67.6	67.0	65.3	64.9	65.6	67.3	68.0	67.3	70.6	72.3	73.3	72.6
1998	72.1	70.9	69.4	63.5	P63.8	P59.1						
Over 12-month span:												
1994	70.2	71.6	71.8	71.8	72.1	71.8	71.5	72.1	70.1	69.5	66.6	65.0
1995	63.6	62.4	62.6	63.3	61.7	61.9	69.8	62.2	62.2	61.5	63.5	65.4
1996	64.5	66.7	64.5	65.6	68.5	67.3	67.7	66.4	68.0	69.9	69.1	68.3
1997	69.8	67.6	69.2	70.1	69.8	69.8	71.2	71.2	71.1	73.0	72.9	72.3
1998	71.2	P69.8	P69.5									
Manufacturing payrolls, 139 industries[1]												
Over 1-month span:												
1994	56.8	56.5	60.1	59.0	53.6	58.3	59.0	55.8	53.6	56.5	58.3	56.8
1995	54.7	54.3	46.4	53.2	42.4	44.2	46.4	49.6	48.6	52.2	45.3	48.2
1996	42.8	54.7	48.2	42.1	55.4	50.7	47.1	55.4	47.8	52.9	54.3	55.4
1997	49.3	54.3	50.0	56.8	51.4	52.2	50.4	48.9	56.5	57.2	56.1	60.8
1998	55.8	51.8	52.5	48.6	45.0	47.8	39.6	P47.5	P38.8			
Over 3-month span:												
1994	60.4	63.7	63.7	60.4	57.6	59.7	61.9	56.8	54.3	55.4	60.8	59.0
1995	56.8	50.0	47.8	42.1	43.2	38.8	40.6	43.5	48.2	47.1	45.3	39.9
1996	43.9	46.8	46.0	47.5	46.4	49.3	51.4	50.0	53.6	51.1	57.6	54.7
1997	54.3	49.3	54.3	54.0	55.4	50.4	47.5	52.2	57.9	62.6	64.7	65.5
1998	60.1	59.0	50.7	46.4	43.2	38.8	P37.8	P33.1				
Over 6-month span:												
1994	60.4	62.9	61.2	62.6	59.4	57.2	57.6	58.6	58.6	54.7	57.2	55.0
1995	55.4	46.4	42.8	40.3	41.4	42.4	41.0	41.0	43.9	43.2	43.2	45.3
1996	42.1	45.3	46.4	47.1	48.2	48.6	51.1	50.4	52.9	52.9	53.2	52.2
1997	54.3	54.3	51.4	52.9	51.4	55.0	56.8	57.6	60.4	64.4	67.6	65.8
1998	61.5	56.8	52.2	39.2	P40.6	P34.5						
Over 12-month span:												
1994	57.9	58.6	60.8	60.8	60.8	63.3	59.4	60.1	57.2	56.5	50.4	49.6
1995	46.0	44.2	46.0	47.8	41.0	41.7	38.5	38.8	36.3	38.5	39.9	44.6
1996	43.5	47.5	45.3	45.3	50.4	49.6	50.4	48.6	51.1	55.0	54.0	51.8
1997	57.2	52.5	54.7	56.5	57.9	57.6	58.6	58.6	60.4	60.4	59.4	58.3
1998	50.7	P51.8	P51.1									

[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.

Table 1. Civilian labor force and unemployment by state and metropolitan area

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
					Number				Percent of labor force			
	July		August		July		August		July		August	
	1997	1998	1997	1998P	1997	1998	1997	1998P	1997	1998	1997	1998P
Alabama	2,202.9	2,160.4	2,180.5	2,143.0	127.7	90.5	118.5	87.0	5.8	4.2	5.4	4.1
Anniston	56.2	54.2	55.2	53.8	3.8	2.5	3.0	2.3	6.8	4.6	5.4	4.4
Birmingham	477.1	473.7	473.8	472.6	17.7	13.4	18.1	13.6	3.7	2.8	3.8	2.9
Decatur	73.4	73.4	72.5	71.5	4.7	4.0	4.0	2.6	6.4	5.4	5.5	3.6
Dothan	68.1	67.1	67.8	66.9	3.6	2.2	3.8	2.2	5.3	3.2	5.5	3.2
Florence	72.9	71.0	72.3	70.5	5.1	4.7	5.2	4.4	7.0	6.6	7.2	6.2
Gadsden	51.2	50.6	50.5	51.2	2.8	2.3	2.6	2.3	5.5	4.5	5.1	4.6
Huntsville	173.2	170.4	171.6	169.5	8.5	5.5	5.3	4.7	4.9	3.2	3.1	2.8
Mobile	275.0	271.3	272.0	269.5	14.5	10.2	14.4	10.1	5.3	3.8	5.3	3.8
Montgomery	163.9	159.6	161.8	159.1	7.7	5.0	7.5	5.1	4.7	3.1	4.7	3.2
Tuscaloosa	83.3	84.1	83.3	84.0	3.2	2.5	3.1	2.3	3.8	3.0	3.7	2.7
Alaska	328.9	332.0	322.7	327.4	21.9	17.3	19.3	14.7	6.7	5.2	6.0	4.5
Anchorage	138.3	141.9	137.0	140.6	7.2	5.8	6.7	4.9	5.2	4.1	4.9	3.5
Arizona	2,170.6	2,289.4	2,170.1	2,297.5	114.2	103.1	108.4	109.6	5.3	4.5	5.0	4.8
Flagstaff	60.2	59.0	58.4	60.4	5.8	4.8	4.4	4.1	9.7	8.1	7.6	6.7
Phoenix-Mesa	1,425.2	1,514.8	1,420.8	1,511.9	45.7	41.6	43.2	44.1	3.2	2.7	3.0	2.9
Tucson	350.0	365.6	353.3	368.5	12.6	10.1	11.9	10.5	3.6	2.8	3.4	2.9
Yuma	66.4	71.0	69.0	76.1	24.1	24.2	25.4	27.7	36.3	34.1	36.9	36.4
Arkansas	1,230.3	1,263.9	1,227.0	1,256.9	72.8	64.5	68.0	60.0	5.9	5.1	5.5	4.8
Fayetteville-Springdale-Rogers	139.2	144.2	138.7	144.0	5.0	4.9	4.8	4.4	3.6	3.4	3.5	3.1
Fort Smith	97.2	98.2	96.7	97.8	5.4	4.5	5.2	4.3	5.6	4.6	5.3	4.4
Jonesboro	40.7	42.7	41.2	42.5	2.0	1.7	1.9	1.6	4.9	4.1	4.6	3.7
Little Rock-North Little Rock	299.0	306.5	299.4	306.0	13.3	11.6	12.9	10.8	4.5	3.8	4.3	3.5
Pine Bluff	36.8	37.3	38.3	36.9	3.4	3.1	3.2	2.8	9.3	8.2	8.7	7.6
California	16,185.3	16,494.6	16,215.9	16,439.1	1,076.3	1,005.7	989.5	935.1	6.6	6.1	6.1	5.7
Bakersfield	296.2	295.0	287.6	285.8	32.6	35.3	28.9	28.4	11.0	12.0	10.0	9.9
Chico-Paradise	86.5	87.5	87.2	88.3	7.8	7.4	6.5	6.7	9.0	8.4	7.5	7.6
Fresno	443.7	451.8	447.9	455.3	53.6	57.7	44.6	49.9	12.1	12.8	10.0	10.9
Los Angeles-Long Beach	4,548.8	4,660.8	4,578.5	4,648.9	339.0	326.6	318.7	300.8	7.5	7.0	7.0	6.5
Merced	86.9	85.1	84.4	84.9	11.8	12.0	8.9	10.0	13.6	14.1	10.5	11.8
Modesto	212.4	212.1	212.1	213.0	25.7	24.7	20.1	19.7	12.1	11.6	9.5	9.2
Oakland	1,188.8	1,204.5	1,189.3	1,202.2	57.7	50.3	53.8	48.8	4.9	4.2	4.5	4.1
Orange County	1,394.2	1,435.0	1,392.1	1,427.5	51.3	44.9	47.8	43.7	3.7	3.1	3.4	3.1
Redding	73.3	72.4	73.8	71.5	6.5	6.0	6.0	5.4	8.8	8.3	8.1	7.6
Riverside-San Bernardino	1,366.0	1,409.3	1,358.1	1,402.2	111.0	95.0	104.7	94.6	8.1	6.7	7.7	6.7
Sacramento	750.3	757.9	751.0	756.5	43.1	38.7	39.4	35.3	5.7	5.1	5.3	4.7
Salinas	187.2	186.2	186.7	185.8	13.5	12.9	12.1	11.5	7.2	6.9	6.5	6.2
San Diego	1,292.7	1,312.0	1,295.2	1,308.8	60.4	50.4	57.9	49.6	4.7	3.8	4.5	3.8
San Francisco	944.8	959.7	947.4	952.7	36.1	31.1	34.2	30.3	3.8	3.2	3.6	3.2
San Jose	957.2	978.0	957.7	974.6	31.8	32.8	28.9	33.4	3.3	3.4	3.0	3.4
San Luis Obispo-Atascadero-Paso Robles	105.8	109.1	107.6	107.7	5.2	4.6	4.9	4.5	4.9	4.2	4.6	4.1
Santa Barbara-Santa Maria-Lompoc	197.3	196.0	196.0	195.3	9.0	7.2	8.4	7.5	4.6	3.7	4.3	3.8
Santa Cruz-Watsonville	148.2	149.7	145.0	147.8	8.8	7.8	7.5	7.1	6.1	5.2	5.2	4.8
Santa Rosa	237.9	244.1	239.8	243.9	9.9	8.3	9.3	7.9	4.1	3.4	3.9	3.3
Stockton-Lodi	249.2	249.9	251.7	252.5	25.5	26.4	21.5	22.1	10.2	10.6	8.5	8.8
Vallejo-Fairfield-Napa	244.8	249.0	244.3	247.8	15.8	12.6	14.3	11.7	6.4	5.1	5.8	4.7
Ventura	383.3	392.3	386.1	390.8	29.4	22.3	29.2	25.2	7.7	5.7	7.6	6.5
Visalia-Tulare-Porterville	162.9	168.2	163.4	166.3	23.5	27.2	21.3	22.2	14.4	16.2	13.0	13.3
Yolo	86.8	88.4	87.7	88.3	4.4	4.1	3.9	3.5	5.1	4.6	4.4	4.0
Yuba City	57.8	59.9	58.9	60.0	7.1	7.6	5.7	6.2	12.3	12.8	9.8	10.4
Colorado	2,195.1	2,279.6	2,201.7	2,286.2	69.0	76.2	69.5	75.5	3.1	3.3	3.2	3.3
Boulder-Longmont	169.2	173.1	169.2	173.2	4.9	5.3	4.8	5.3	2.9	3.1	2.8	3.1
Colorado Springs	249.4	258.4	248.8	255.5	9.4	10.4	9.1	10.1	3.8	4.0	3.7	3.9
Denver	1,106.4	1,153.2	1,112.9	1,154.5	29.8	32.2	30.7	31.7	2.7	2.8	2.8	2.7
Fort Collins-Loveland	136.8	140.2	137.5	141.5	4.1	4.6	4.3	4.7	3.0	3.3	3.1	3.3
Grand Junction	57.3	60.4	57.7	60.7	2.4	2.6	2.2	2.4	4.1	4.3	3.9	4.0
Greeley	82.4	85.7	82.3	87.3	3.1	3.4	3.1	3.6	3.8	4.0	3.7	4.1
Pueblo	61.1	64.7	60.7	65.2	2.8	4.1	2.7	4.1	4.6	6.3	4.5	6.3
Connecticut	1,774.8	1,763.1	1,754.3	1,747.6	97.6	69.9	88.0	61.1	5.5	4.0	4.9	3.5
Bridgeport	224.4	220.8	222.3	219.0	14.5	10.7	12.9	9.8	6.5	4.9	5.8	4.5
Danbury	111.8	112.5	111.1	111.9	4.5	3.2	3.9	2.9	4.0	2.9	3.5	2.6
Hartford	601.1	595.7	594.0	587.6	34.8	24.1	30.5	21.2	5.8	4.0	5.1	3.6
New Haven-Meriden	280.6	274.7	278.2	273.0	16.0	11.1	14.1	9.6	5.7	4.0	5.1	3.5
New London-Norwich	162.6	161.6	160.3	160.7	9.3	7.1	8.5	6.1	5.7	4.4	5.3	3.8
Stamford-Norwalk	202.4	204.3	198.4	203.0	6.8	5.2	6.1	4.5	3.3	2.5	3.0	2.2
Waterbury	121.8	122.6	120.9	122.0	7.6	5.6	6.6	4.8	6.3	4.6	5.4	3.9
Delaware	384.0	400.8	384.0	397.4	15.6	18.5	15.8	15.3	4.1	4.1	4.1	3.8
Dover	66.0	70.6	66.3	70.4	3.1	2.6	3.1	3.1	4.7	3.9	4.7	4.4
Wilmington-Newark	287.6	298.1	287.5	294.2	13.5	15.9	13.4	12.3	4.7	5.3	4.7	4.2

See footnotes at end of table.

Table 1. Civilian labor force and unemployment by state and metropolitan area—Continued

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
					Number				Percent of labor force			
	July		August		July		August		July		August	
	1997	1998	1997	1998P	1997	1998	1997	1998P	1997	1998	1997	1998P
District of Columbia	266.4	272.8	258.1	266.1	22.9	24.4	20.9	23.4	8.6	8.9	8.1	8.8
Washington	2,579.8	2,656.7	2,546.6	2,627.9	95.4	84.9	92.9	83.0	3.7	3.2	3.6	3.2
Florida	7,198.8	7,418.0	7,186.6	7,393.3	359.6	342.0	350.6	330.7	5.0	4.6	4.9	4.5
Daytona Beach	189.9	193.6	186.7	192.1	7.2	6.5	7.0	6.0	3.8	3.4	3.7	3.1
Fort Lauderdale	758.2	778.2	758.6	778.5	36.0	35.1	36.2	34.0	4.7	4.5	4.8	4.4
Fort Myers-Cape Coral	170.1	173.4	169.3	172.3	5.9	5.6	5.8	5.4	3.4	3.2	3.4	3.1
Fort Pierce-Port St. Lucie	121.7	126.6	121.3	125.5	13.7	14.7	14.3	14.8	11.3	11.6	11.8	11.8
Fort Walton Beach	81.5	84.6	80.9	83.8	2.8	2.5	2.5	2.2	3.2	2.9	3.1	2.7
Gainesville	101.5	104.8	102.8	104.4	3.0	2.8	2.8	2.5	3.0	2.7	2.7	2.4
Jacksonville	543.1	561.4	540.1	558.9	19.7	18.1	18.5	16.8	3.6	3.2	3.4	3.0
Lakeland-Winter Haven	197.7	201.5	197.0	200.6	16.7	15.6	16.6	15.3	8.5	7.8	8.4	7.6
Melbourne-Titusville-Palm Bay	207.5	212.0	207.5	212.1	9.1	8.8	8.8	8.6	4.4	4.2	4.2	4.1
Miami	1,059.3	1,067.1	1,050.6	1,061.2	75.8	68.9	72.2	66.7	7.2	6.5	6.9	6.3
Naples	85.1	88.6	85.3	88.5	5.6	5.4	6.2	5.7	6.6	6.1	7.3	6.4
Ocala	94.4	97.2	94.0	96.2	4.3	4.5	4.1	4.0	4.6	4.7	4.3	4.2
Orlando	827.9	864.4	830.2	862.2	29.7	27.6	29.0	26.0	3.6	3.2	3.5	3.0
Panama City	69.4	69.6	67.9	70.2	3.7	3.2	3.3	4.3	5.4	4.6	4.9	6.1
Pensacola	172.2	178.6	171.2	177.7	7.0	7.1	6.1	6.5	4.1	4.0	3.6	3.7
Punta Gorda	45.4	45.7	45.4	45.3	1.8	1.6	1.7	1.4	3.9	3.6	3.8	3.1
Sarasota-Bradenton	266.1	284.8	268.0	288.7	7.8	7.3	7.4	6.7	2.9	2.6	2.8	2.3
Tallahassee	143.4	143.9	142.3	144.5	4.6	4.7	4.3	4.4	3.2	3.2	3.0	3.1
Tampa-St. Petersburg-Clearwater	1,146.5	1,189.5	1,147.6	1,187.3	40.3	37.7	39.0	36.0	3.5	3.2	3.4	3.0
West Palm Beach-Boca Raton	484.3	502.6	488.6	502.4	33.9	33.7	34.9	33.2	7.0	6.7	7.2	6.6
Georgia	3,948.5	3,997.2	3,924.7	3,970.1	198.5	178.6	180.1	164.9	5.0	4.5	4.6	4.2
Albany	58.7	58.8	58.0	58.3	4.1	4.7	3.9	5.0	7.0	8.0	6.8	8.6
Athens	71.9	73.7	71.4	73.5	2.5	2.2	2.4	2.2	3.5	3.0	3.3	2.9
Atlanta	2,092.8	2,107.6	2,072.5	2,088.6	64.1	77.8	77.0	68.5	4.0	3.7	3.7	3.3
Augusta-Aiken	208.1	206.8	206.2	204.6	14.6	11.9	13.4	10.0	7.0	5.8	6.5	5.3
Columbus	123.6	123.3	122.8	123.5	6.8	6.2	6.0	6.3	5.5	5.0	4.9	5.1
Macon	153.5	154.2	152.3	153.8	7.8	7.8	7.5	7.9	5.1	5.0	4.9	5.1
Savannah	133.9	132.5	132.8	132.8	7.2	6.0	6.2	6.1	5.3	4.5	4.7	4.6
Hawaii	599.7	603.2	594.6	599.6	41.8	37.9	40.2	38.4	7.0	6.3	6.8	6.1
Honolulu	428.5	429.1	425.9	427.9	24.3	23.0	23.9	22.4	5.7	5.3	5.6	5.2
Idaho	647.0	659.0	641.0	658.0	30.2	28.0	31.1	29.0	4.7	4.2	4.9	4.4
Boise City	213.1	219.6	213.5	222.3	7.9	7.5	7.6	7.5	3.7	3.4	3.6	3.4
Pocatello	38.3	39.1	39.0	40.1	2.1	1.7	2.2	1.8	5.5	4.3	5.6	4.4
Illinois	6,217.2	6,260.9	6,178.7	6,178.1	294.5	276.2	279.9	256.4	4.6	4.4	4.5	4.1
Bloomington-Normal	80.0	82.4	80.7	81.5	1.9	1.9	2.0	1.7	2.4	2.3	2.5	2.1
Champaign-Urbana	92.1	92.9	91.2	90.7	2.1	3.0	2.7	2.4	3.3	3.2	2.9	2.6
Chicago	4,147.7	4,185.6	4,128.3	4,132.6	178.3	176.0	178.8	166.7	4.3	4.2	4.3	4.0
Davenport-Moline-Rock Island	187.4	188.1	185.2	186.7	6.4	5.3	6.3	5.8	3.4	2.8	3.4	3.1
Decatur	59.8	59.1	59.1	57.9	4.3	3.4	4.3	3.2	7.3	5.8	7.2	5.5
Kankakee	52.6	53.4	52.1	52.6	2.7	3.0	2.6	2.8	5.2	5.6	5.0	5.3
Peoria-Pekin	184.7	185.4	184.6	183.0	7.3	6.4	7.7	6.0	4.0	3.4	4.2	3.3
Rockford	198.1	199.0	197.8	194.0	11.7	11.4	8.3	7.2	5.9	5.7	4.2	3.7
Springfield	107.3	107.2	112.6	110.3	4.4	4.0	4.7	3.9	4.1	3.7	4.2	3.5
Indiana	3,153.2	3,128.9	3,114.5	3,087.7	113.3	83.6	107.3	78.3	3.6	2.7	3.4	2.5
Bloomington	59.8	58.2	58.4	57.3	1.4	1.3	1.7	1.5	2.4	2.3	2.8	2.6
Elkhart-Goshen	96.4	94.5	95.7	94.1	3.1	1.6	3.0	2.0	3.2	1.7	3.2	2.1
Evansville-Henderson	163.0	157.8	159.3	155.9	8.3	4.8	6.5	5.3	5.1	3.0	4.1	3.4
Fort Wayne	272.1	268.5	268.2	263.2	8.4	7.8	7.9	5.6	3.1	2.9	2.9	2.1
Gary	308.5	303.2	304.1	300.4	12.7	8.0	12.6	9.5	4.1	2.6	4.1	3.2
Indianapolis	846.6	845.0	838.7	837.3	23.8	20.5	23.1	17.8	2.8	2.4	2.7	2.1
Kokomo	52.0	53.2	51.2	52.3	1.7	3.2	1.8	1.1	3.4	6.1	3.5	2.1
Lafayette	87.4	88.7	85.3	88.2	2.0	1.4	2.2	1.5	2.3	1.6	2.6	1.8
Muncie	60.5	60.4	60.3	59.1	2.5	2.4	2.9	2.2	4.2	4.0	4.8	3.7
South Bend	140.0	138.6	138.9	135.8	4.4	3.2	4.6	3.0	3.1	2.3	3.4	2.3
Terre Haute	71.6	68.9	70.3	68.1	4.1	2.2	4.0	2.5	5.7	3.3	5.7	3.7
Iowa	1,580.4	1,594.3	1,572.1	1,578.4	44.0	35.3	45.1	36.6	2.8	2.2	2.9	2.3
Cedar Rapids	108.2	108.9	107.5	108.6	2.3	1.7	2.4	1.9	2.1	1.5	2.2	1.8
Des Moines	258.8	253.7	254.3	254.5	5.8	4.0	8.9	4.7	2.2	1.6	3.5	1.9
Dubuque	49.9	48.4	49.0	49.2	1.5	1.2	1.6	1.3	3.0	2.3	3.3	2.6
Iowa City	62.6	63.5	62.6	63.3	1.6	1.6	1.7	1.5	2.6	2.5	2.7	2.3
Sioux City	66.3	66.9	66.1	65.4	2.2	1.7	2.0	1.8	3.3	2.5	3.1	2.6
Waterloo-Cedar Falls	68.2	68.6	67.5	68.5	2.4	1.9	2.4	2.1	3.5	2.8	3.6	3.1

See footnotes at end of table.

Table 1. Civilian labor force and unemployment by state and metropolitan area—Continued

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
					Number				Percent of labor force			
	July		August		July		August		July		August	
	1997	1998	1997	1998P	1997	1998	1997	1998P	1997	1998	1997	1998P
Kansas	1,388.9	1,442.1	1,371.4	1,420.0	48.2	51.0	47.8	48.6	3.5	3.5	3.5	3.4
Lawrence	51.4	54.1	50.8	54.0	2.2	2.4	2.1	2.3	4.2	4.5	4.1	4.2
Topeka	90.3	92.7	90.0	91.2	3.8	3.3	4.2	3.6	4.2	3.6	4.7	4.0
Wichita	279.8	290.1	276.5	286.4	9.2	8.2	8.8	8.6	3.3	2.8	3.2	3.1
Kentucky	1,974.3	1,976.3	1,948.9	1,964.6	105.7	83.1	92.5	78.4	5.4	4.2	4.7	4.0
Lexington	255.8	260.6	254.7	260.6	6.4	5.1	6.8	5.2	2.5	1.9	2.7	2.0
Louisville	567.8	573.8	560.3	570.1	25.3	18.4	20.9	16.2	4.5	2.9	3.7	2.8
Owensboro	51.5	51.1	50.8	51.2	3.4	2.1	2.6	2.2	6.6	4.1	5.1	4.3
Louisiana	2,066.2	2,119.3	2,038.7	2,098.5	137.8	138.1	125.3	130.4	6.7	6.4	6.1	6.2
Alexandria	60.0	61.8	58.9	61.1	4.4	4.0	3.7	3.8	7.4	6.5	6.3	6.2
Baton Rouge	294.4	303.4	289.2	300.0	18.3	15.6	16.2	15.5	6.2	5.1	5.6	5.2
Houma	91.7	96.5	90.2	95.3	3.5	3.3	3.0	3.4	3.8	3.4	3.4	3.6
Lafayette	177.7	184.5	178.1	184.5	9.5	10.4	9.2	10.7	5.4	5.6	5.1	5.8
Lake Charles	91.7	93.7	90.4	93.1	6.4	5.3	5.3	5.7	6.9	5.7	5.9	6.1
Monroe	70.7	72.3	70.1	71.6	5.0	5.1	4.6	4.3	7.0	7.0	6.6	6.1
New Orleans	632.2	639.8	622.6	633.2	38.7	34.2	34.9	34.7	6.1	5.3	5.6	5.5
Shreveport-Bossier City	190.0	198.3	188.7	193.2	13.5	18.7	14.6	12.5	7.1	9.4	7.8	6.4
Maine	675.2	671.4	672.9	671.1	29.2	23.8	29.0	22.5	4.3	3.5	4.3	3.4
Bangor	49.9	50.5	49.3	51.0	1.6	1.2	1.7	1.2	3.3	2.4	3.5	2.3
Lewiston-Auburn	51.4	51.6	51.0	52.0	2.8	2.3	2.5	1.9	5.4	4.4	4.8	3.7
Portland	133.9	133.7	132.8	131.1	3.2	2.4	3.4	2.4	2.4	1.8	2.6	1.9
Maryland	2,656.1	2,659.9	2,615.8	2,623.0	146.2	135.5	139.1	128.3	5.1	4.7	4.9	4.5
Baltimore	1,348.6	1,349.7	1,328.6	1,334.5	79.6	78.3	75.1	73.7	5.9	5.7	5.7	5.5
Cumberland	46.6	46.7	45.7	46.7	4.0	3.8	3.7	4.4	8.6	8.1	8.2	9.4
Hagerstown	71.7	72.6	71.9	72.4	3.2	2.6	3.3	3.1	4.5	3.6	4.6	4.3
Massachusetts	3,323.7	3,309.6	3,318.1	3,298.7	134.8	105.4	130.2	92.4	4.1	3.2	3.9	2.8
Barnstable-Yarmouth	83.6	82.8	82.6	81.7	2.8	2.2	2.7	1.9	3.4	2.7	3.3	2.3
Boston	1,838.0	1,840.8	1,836.8	1,837.3	64.6	49.0	63.5	43.9	3.5	2.7	3.5	2.4
Brockton	132.9	131.8	133.1	130.7	6.7	5.1	6.3	4.2	5.0	3.9	4.7	3.2
Fitchburg-Leominster	71.9	69.9	71.2	69.6	3.9	2.8	3.7	2.5	5.4	4.1	5.3	3.6
Lawrence	199.7	197.8	199.9	197.5	10.3	8.4	10.4	8.6	5.2	4.2	5.2	4.4
Lowell	164.7	165.8	164.4	168.0	6.7	5.5	7.0	5.1	4.0	3.3	4.3	3.1
New Bedford	83.4	82.1	82.8	80.7	6.5	5.0	5.7	4.1	7.8	6.1	6.8	5.1
Pittsfield	41.8	41.2	41.5	41.1	1.9	1.5	1.9	1.3	4.5	3.7	4.5	3.2
Springfield	283.8	282.1	283.5	280.2	12.0	10.2	12.0	9.1	4.2	3.6	4.2	3.2
Worcester	251.6	250.2	251.9	249.9	9.5	8.3	9.2	7.3	3.8	3.3	3.7	2.9
Michigan	5,072.6	5,095.1	5,030.8	5,096.6	250.1	244.8	184.8	164.3	4.9	4.8	3.7	3.2
Ann Arbor	292.0	295.1	289.3	294.0	9.5	9.4	6.6	5.6	3.2	3.2	2.3	1.9
Benton Harbor	84.8	83.9	85.3	84.8	4.2	3.5	3.8	3.4	5.0	4.2	4.5	4.0
Detroit	2,283.0	2,277.7	2,248.2	2,283.5	121.3	103.8	81.0	71.1	5.3	4.6	3.6	3.1
Flint	206.3	209.2	204.0	205.0	14.8	25.7	10.6	10.4	7.2	12.3	5.2	5.1
Grand Rapids-Muskegon-Holland	594.2	602.5	591.9	607.9	22.5	21.1	18.4	16.8	3.8	3.5	3.1	2.8
Jackson	77.5	77.9	78.1	78.3	3.4	2.8	3.2	2.7	4.4	3.6	4.1	3.4
Kalamazoo-Battle Creek	233.2	232.4	233.7	232.5	10.1	8.4	7.8	6.7	4.3	3.6	3.4	2.9
Lansing-East Lansing	240.5	239.6	240.5	239.7	7.6	14.7	6.8	5.6	3.2	6.1	2.8	2.3
Saginaw-Bay City-Midland	203.9	203.0	202.4	203.9	8.6	12.3	7.2	7.0	4.2	6.1	3.5	3.4
Minnesota	2,657.0	2,731.6	2,657.3	2,718.2	79.7	57.3	75.7	49.0	3.0	2.1	2.8	1.8
Duluth-Superior	125.5	128.9	124.0	127.3	5.7	4.4	5.5	3.8	4.5	3.4	4.4	3.0
Minneapolis-St.Paul	1,663.7	1,714.6	1,658.5	1,710.3	40.5	29.1	39.1	25.6	2.4	1.7	2.4	1.5
Rochester	67.9	71.1	68.2	71.3	1.4	1.0	1.3	0.9	2.0	1.4	1.9	1.2
St. Cloud	91.4	93.5	91.2	92.1	3.0	2.2	3.0	1.9	3.3	2.4	3.3	2.0
Mississippi	1,280.3	1,292.7	1,271.8	1,281.2	77.7	68.9	81.9	71.8	6.1	5.2	6.4	5.6
Biloxi-Gulfport-Pascagoula	161.7	163.7	160.3	163.5	7.8	6.3	6.8	6.6	4.8	3.8	5.4	4.1
Hattiesburg	51.7	51.9	51.4	51.1	1.9	1.8	1.8	1.8	3.7	3.5	3.5	3.5
Jackson	225.5	233.4	225.7	231.5	8.6	7.7	8.7	8.6	3.8	3.3	3.9	3.7
Missouri	2,925.7	2,954.5	2,886.8	2,917.3	126.6	130.5	121.6	122.5	4.3	4.4	4.2	4.2
Columbia	79.3	78.4	78.5	79.0	1.2	1.3	1.5	1.3	1.5	1.6	1.7	1.7
Joplin	79.8	80.2	78.9	80.1	3.0	3.2	3.6	3.9	3.8	4.0	4.5	4.9
Kansas City	983.8	1,018.1	988.0	999.4	35.3	43.1	35.0	38.8	3.6	4.2	3.6	3.7
St. Joseph	48.4	49.0	47.9	48.6	2.1	1.9	2.2	2.2	4.3	3.9	4.7	4.5
St. Louis LMA	1,373.3	1,383.6	1,355.2	1,365.0	63.5	67.6	57.7	60.5	4.6	4.9	4.3	4.4
Springfield	167.8	169.9	166.2	168.4	5.0	4.5	5.6	5.3	3.0	2.6	3.4	3.2
Montana	466.5	477.1	463.6	472.5	23.2	22.4	20.7	19.5	5.0	4.7	4.5	4.1
Billings	70.5	72.3	69.3	70.9	3.3	3.0	3.0	2.6	4.7	4.1	4.4	3.6
Great Falls	38.7	38.7	38.0	37.8	1.9	1.9	1.7	1.6	4.9	4.8	4.5	4.3

See footnotes at end of table.

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Table 1. Civilian labor force and unemployment by state and metropolitan area—Continued

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
					Number				Percent of labor force			
	July		August		July		August		July		August	
	1997	1998	1997	1998P	1997	1998	1997	1998P	1997	1998	1997	1998P
Nebraska	922.2	949.8	913.1	937.0	26.7	23.0	21.5	19.2	2.9	2.4	2.4	2.1
Lincoln	142.0	145.0	142.0	144.5	3.7	2.4	2.9	2.2	2.6	1.7	2.0	1.5
Omaha	366.8	406.3	367.0	400.4	11.5	8.7	10.0	7.8	2.9	2.1	2.6	2.0
Nevada	899.0	937.7	895.8	933.4	39.4	43.1	35.8	39.5	4.4	4.6	4.0	4.2
Las Vegas	675.3	710.8	672.8	707.5	30.5	32.9	27.5	30.4	4.5	4.6	4.1	4.3
Reno	174.2	178.0	173.7	177.3	6.1	6.4	5.9	6.0	3.5	3.6	3.4	3.4
New Hampshire	664.5	666.9	660.6	659.9	19.2	14.5	19.2	13.3	2.9	2.2	2.9	2.0
Manchester	102.4	101.2	102.1	98.2	2.7	2.0	2.7	2.0	2.6	2.0	2.6	2.0
Nashua	107.0	104.8	104.3	104.4	2.9	2.1	3.0	2.2	2.7	2.0	2.9	2.1
Portsmouth-Rochester	127.9	126.6	125.7	124.7	3.8	3.0	3.2	2.0	3.0	2.3	2.5	1.6
New Jersey	4,274.7	4,259.7	4,227.5	4,210.7	235.5	228.3	206.7	198.0	5.5	5.3	4.9	4.7
Atlantic-Cape May	191.5	191.0	188.9	188.4	13.3	14.6	11.3	12.5	7.0	7.6	6.0	6.6
Bergen-Passaic	685.0	679.6	679.1	674.9	39.1	34.9	34.3	31.0	5.7	5.1	5.1	4.6
Jersey City	288.9	288.2	285.5	281.7	24.4	23.9	21.2	20.7	8.4	8.3	7.4	7.3
Middlesex-Somerset-Hunterdon	645.0	653.1	639.2	647.5	26.8	25.8	24.0	22.1	4.2	4.0	3.8	3.4
Monmouth-Ocean	547.4	542.5	541.0	533.3	27.0	28.1	23.5	22.3	4.9	4.8	4.4	4.2
Newark	1,038.7	1,029.9	1,025.9	1,020.6	58.5	54.6	51.9	46.8	5.6	5.3	5.1	4.6
Trenton	170.5	168.3	168.6	165.5	8.6	8.4	7.8	7.3	5.1	5.0	4.7	4.4
Vineland-Millville-Bridgeton	65.8	67.3	64.7	66.0	5.5	6.6	4.5	5.4	8.4	9.8	7.0	8.2
New Mexico	830.5	855.5	824.4	846.5	53.2	57.8	48.3	54.8	6.4	6.8	5.9	6.4
Albuquerque	363.6	373.5	359.3	368.5	17.0	19.8	18.2	18.7	4.7	5.3	4.6	5.3
Las Cruces	66.1	68.8	66.7	68.6	5.5	6.1	4.6	5.2	8.3	8.8	7.1	7.6
Santa Fe	76.3	79.0	75.7	77.7	2.9	2.8	2.7	2.7	3.7	3.5	3.6	3.4
New York	9,032.0	8,959.1	8,940.9	8,874.6	597.1	501.9	558.1	453.9	6.6	5.6	6.2	5.1
Albany-Schenectady-Troy	460.7	456.1	458.8	458.3	18.7	14.5	17.9	15.2	4.1	3.2	3.9	3.3
Binghamton	126.7	126.4	125.7	125.9	5.0	4.3	4.7	4.2	4.0	3.4	3.7	3.3
Buffalo-Niagara Falls	590.3	592.9	593.1	586.2	33.8	42.2	31.6	29.3	5.6	7.1	5.3	5.0
Dutchess County	121.3	121.3	119.8	120.7	4.9	3.7	4.5	3.6	4.0	3.0	3.7	2.9
Elmira	45.4	44.7	45.0	44.5	2.3	1.7	1.9	1.9	5.0	3.9	4.3	4.1
Glens Falls	67.6	66.6	66.8	65.8	3.3	2.4	3.0	2.4	4.9	3.6	4.5	3.6
Jamestown	70.0	69.1	69.2	68.3	3.8	3.2	3.5	3.1	5.4	4.7	5.1	4.5
Nassau-Suffolk	1,436.1	1,431.0	1,423.9	1,425.9	63.9	47.1	61.1	48.1	4.5	3.3	4.3	3.4
New York	4,066.8	4,072.2	4,051.9	4,018.4	364.6	297.3	341.9	267.9	8.9	7.3	8.4	6.7
New York City	3,431.3	3,404.7	3,393.4	3,353.4	337.0	275.1	315.5	245.0	9.8	8.1	9.3	7.3
Newburgh	181.3	177.6	177.9	175.4	8.5	6.2	7.7	5.9	4.7	3.5	4.3	3.4
Rochester	592.9	578.8	585.9	575.7	24.6	25.8	22.4	20.8	4.1	4.5	3.8	3.6
Syracuse	375.9	368.5	370.3	366.1	16.7	13.5	15.3	13.3	4.4	3.7	4.1	3.6
Utica-Rome	149.6	147.8	146.9	146.5	7.2	5.6	6.7	5.5	4.9	3.7	4.6	3.8
North Carolina	3,937.4	3,873.5	3,864.2	3,828.2	154.0	135.7	140.1	133.7	3.9	3.5	3.6	3.5
Asheville	113.7	111.9	111.5	109.5	2.9	3.0	2.9	2.8	2.6	2.7	2.6	2.6
Charlotte-Gastonia-Rock Hill	799.9	758.4	798.6	745.0	20.1	21.8	24.0	20.8	3.4	2.9	3.2	2.8
Fayetteville	117.6	114.9	116.3	113.3	5.3	4.9	5.1	4.7	4.5	4.3	4.4	4.2
Goldsboro	49.8	49.0	48.3	48.7	3.0	2.2	2.0	2.2	5.9	4.5	4.1	4.6
Greensboro—Winston-Salem—High Point	653.0	636.2	641.0	629.3	20.1	17.3	18.8	19.5	3.1	2.7	2.9	3.1
Greenville	65.6	63.8	65.5	63.3	3.5	3.5	3.5	3.2	5.3	5.4	5.3	5.0
Hickory-Morganton-Lenoir	181.6	173.2	176.7	172.5	10.0	4.3	6.6	4.2	5.5	2.5	3.7	2.4
Jacksonville	46.7	46.7	45.4	46.8	1.4	1.6	1.5	1.5	3.2	3.3	3.2	3.1
Raleigh-Durham-Chapel Hill	621.9	625.7	615.1	615.1	12.4	11.7	12.3	11.0	2.0	1.9	2.0	1.8
Rocky Mount	75.1	68.9	74.6	68.7	5.8	5.0	5.2	4.4	7.7	7.3	6.9	6.4
Wilmington	113.0	109.7	111.3	108.5	5.0	4.3	4.5	4.2	4.5	3.9	4.0	3.9
North Dakota	359.2	358.6	357.8	357.1	8.2	7.4	7.5	7.3	2.3	2.1	2.1	2.1
Bismarck	55.5	55.7	55.7	55.1	1.1	1.0	1.1	0.9	2.0	1.7	1.9	1.7
Fargo-Moorhead	103.5	105.0	103.6	105.1	1.9	1.2	1.5	1.4	1.7	1.2	1.4	1.3
Grand Forks	54.3	53.0	54.2	54.3	2.3	1.3	1.9	1.1	4.0	2.4	3.6	2.1
Ohio	5,798.7	5,917.0	5,785.1	5,861.9	253.2	275.9	232.4	230.1	4.4	4.7	4.0	3.9
Akron	365.0	372.9	365.3	370.7	14.3	13.5	13.2	12.3	3.9	3.6	3.6	3.3
Canton-Massillon	208.3	211.0	208.0	210.9	8.6	7.3	8.4	8.2	4.2	3.5	4.1	3.9
Cincinnati	854.4	878.5	854.9	878.4	28.1	25.6	29.2	27.0	3.4	2.9	3.4	3.2
Cleveland-Lorain-Elyria	1,133.7	1,162.6	1,133.1	1,156.4	48.6	49.9	48.4	47.6	4.3	4.3	4.1	4.1
Columbus	832.6	844.6	834.2	843.6	21.2	19.8	21.5	21.2	2.6	2.3	2.6	2.5
Dayton-Springfield	480.0	490.5	482.0	483.4	19.1	29.7	18.2	17.3	4.0	6.1	3.8	3.6
Hamilton-Middletown	172.0	176.7	173.9	175.8	5.5	5.4	5.4	5.5	3.2	3.1	3.1	3.2
Lima	77.0	77.5	76.6	77.8	4.0	3.4	3.7	3.4	5.2	4.4	4.8	4.4
Mansfield	65.9	87.5	65.4	65.6	4.8	7.7	4.7	5.3	5.6	8.8	5.5	6.2
Steubenville-Weirton	57.9	58.2	56.8	57.9	6.2	3.1	5.5	3.3	10.7	5.4	9.6	5.7
Toledo	317.7	322.4	317.1	317.7	19.8	24.1	13.9	15.0	6.2	7.5	4.4	4.7
Youngstown-Warren	290.6	300.2	291.6	294.6	16.4	30.0	15.4	15.3	8.6	10.0	5.3	5.2

See footnotes at end of table.

LABOR FORCE DATA
NOT SEASONALLY ADJUSTED

Table 1. Civilian labor force and unemployment by state and metropolitan area—Continued

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
	July		August		Number				Percent of labor force			
					July		August		July		August	
	1997	1998	1997	1998p	1997	1998	1997	1998p	1997	1998	1997	1998p
Oklahoma	1,620.8	1,645.1	1,602.8	1,522.1	65.7	70.9	60.4	63.5	4.1	4.3	3.8	3.9
Enid	28.9	29.4	28.4	28.5	1.0	1.0	0.9	0.9	3.3	3.3	3.1	3.3
Lawton	41.0	40.6	40.3	40.4	2.1	1.7	1.9	1.7	5.2	4.2	4.7	4.3
Oklahoma City	532.3	545.6	527.5	530.3	17.2	24.9	16.8	17.1	3.2	4.6	3.2	3.2
Tulsa	411.1	419.5	404.2	409.5	13.9	12.1	12.9	12.3	3.4	2.9	3.2	3.0
Oregon	1,748.0	1,791.2	1,761.3	1,786.4	95.7	91.2	90.6	92.3	5.5	5.1	5.1	5.2
Eugene-Springfield	155.4	158.9	157.4	160.1	8.3	8.0	8.0	8.1	5.4	5.0	5.1	5.0
Medford-Ashland	85.8	87.6	88.1	88.6	5.6	5.7	6.1	5.6	7.7	6.5	6.9	6.4
Portland-Vancouver	1,038.5	1,053.9	1,041.9	1,058.8	43.5	44.7	42.6	45.3	4.2	4.2	4.1	4.3
Salem	168.0	170.6	171.1	168.8	8.3	8.5	8.4	8.5	5.5	5.0	4.9	5.0
Pennsylvania	6,093.1	6,089.9	6,051.9	6,047.6	332.0	284.8	304.7	256.7	5.4	4.7	5.0	4.2
Allentown-Bethlehem-Easton	316.2	311.0	314.1	309.1	17.0	14.9	15.6	13.5	5.4	4.8	5.0	4.4
Altoona	64.6	65.2	65.0	65.3	3.6	3.2	3.2	2.9	5.6	5.0	4.9	4.5
Erie	142.8	142.7	141.9	141.1	8.4	7.6	7.7	6.4	5.9	5.3	5.4	4.5
Harrisburg-Lebanon-Carlisle	357.0	361.5	357.7	359.4	12.8	10.6	11.8	9.8	3.6	2.9	3.3	2.7
Johnstown	108.9	107.9	108.0	106.1	8.3	6.8	7.3	5.9	7.7	6.3	6.8	5.5
Lancaster	248.3	252.6	249.1	250.1	7.8	7.3	7.9	6.7	3.2	2.9	3.2	2.7
Philadelphia	2,536.7	2,541.0	2,521.9	2,523.4	133.7	118.9	123.5	108.6	5.3	4.7	4.9	4.3
Pittsburgh	1,179.9	1,170.5	1,168.2	1,158.3	60.7	52.2	55.7	48.3	5.1	4.5	4.8	4.2
Reading	187.5	187.1	187.3	186.7	9.0	9.2	7.6	7.8	4.8	4.9	4.0	4.2
Scranton—Wilkes-Barre—Hazleton	321.3	318.1	319.1	316.5	24.8	19.2	21.8	16.9	7.7	6.0	6.8	5.3
Sharon	57.6	58.1	57.1	57.5	3.4	2.8	2.8	2.1	5.9	4.8	5.0	3.7
State College	65.8	68.5	66.4	66.2	2.2	1.8	1.9	1.6	3.3	2.7	2.8	2.4
Williamsport	55.8	58.2	58.9	58.5	3.6	3.0	3.1	2.7	6.1	5.1	5.3	4.6
York	197.5	197.4	197.4	198.0	8.7	7.6	7.7	6.9	4.4	3.8	3.9	3.5
Rhode Island	508.7	502.9	513.0	505.9	25.8	20.7	24.9	22.1	5.1	4.1	4.9	4.4
Providence-Fall River-Warwick	578.0	568.7	583.0	572.1	32.2	24.4	30.0	24.5	5.6	4.3	5.1	4.3
South Carolina	1,970.2	1,953.9	1,948.7	1,955.2	98.1	86.9	86.9	71.8	5.0	4.4	4.5	3.7
Charleston-North Charleston	263.1	271.5	261.3	268.3	11.4	10.1	11.0	7.5	4.3	3.7	4.2	2.8
Columbia	277.3	283.3	274.7	280.4	7.7	6.7	7.5	5.3	2.8	2.4	2.7	1.9
Florence	64.3	63.0	63.6	61.9	4.1	3.3	3.7	2.7	6.4	5.2	5.8	4.3
Greenville-Spartanburg-Anderson	498.0	504.7	491.1	499.5	18.1	16.5	15.9	14.1	3.6	3.3	3.2	2.8
Myrtle Beach	105.6	106.5	105.8	103.6	3.1	2.8	3.0	2.1	3.0	2.7	2.8	2.0
Sumter	46.9	46.9	46.5	45.7	3.0	2.5	2.6	2.0	6.4	5.3	5.6	4.3
South Dakota	404.2	413.9	401.5	407.4	10.9	10.5	12.1	9.2	2.7	2.5	3.0	2.3
Rapid City	48.4	48.8	48.0	49.1	1.2	0.9	1.2	0.8	2.4	1.9	2.5	1.6
Sioux Falls	98.5	104.0	98.2	104.6	1.6	1.4	1.7	1.2	1.6	1.3	1.8	1.2
Tennessee	2,736.7	2,806.6	2,725.8	2,799.4	168.8	122.3	149.0	117.7	6.2	4.4	5.5	4.2
Chattanooga	224.5	228.2	224.0	227.6	11.9	8.7	11.7	8.7	5.3	3.8	5.2	3.8
Clarksville-Hopkinsville	83.2	85.4	82.3	85.1	4.9	3.4	4.4	3.2	5.9	4.0	5.4	3.8
Jackson	55.2	57.8	56.0	57.4	2.7	2.1	2.6	2.0	4.9	3.6	4.7	3.5
Johnson City-Kingsport-Bristol	232.4	235.2	229.3	233.7	14.3	10.6	12.0	9.6	6.1	4.5	5.2	4.1
Knoxville	341.3	350.8	339.2	347.6	14.8	12.1	13.4	12.1	4.3	3.5	3.9	3.5
Memphis	532.7	549.9	536.4	548.2	25.3	21.0	26.7	21.4	4.8	3.8	5.0	3.9
Nashville	622.3	650.4	625.6	649.5	24.0	18.1	24.0	18.5	3.8	2.8	3.8	2.8
Texas	10,035.6	10,310.8	9,951.0	10,221.2	582.6	543.1	532.9	512.2	5.8	5.3	5.4	5.0
Abilene	60.2	61.9	59.4	61.3	2.7	2.4	2.4	2.3	4.4	3.9	4.0	3.8
Amarillo	111.6	114.7	111.0	113.4	4.6	4.8	4.3	4.5	4.2	4.2	3.9	4.0
Austin-San Marcos	655.2	678.5	654.6	676.7	21.4	19.6	20.7	19.1	3.3	2.9	3.2	2.8
Beaumont-Port Arthur	183.2	185.4	181.2	183.9	15.3	14.4	13.9	13.9	8.4	7.7	7.7	7.6
Brazoria	108.3	107.3	106.1	107.2	8.6	7.4	8.2	6.9	8.1	6.9	7.7	6.4
Brownsville-Harlingen-San Benito	130.5	131.4	127.1	129.5	18.7	18.1	15.5	16.0	14.3	13.8	12.2	12.4
Bryan-College Station	69.7	70.6	69.3	69.9	1.7	1.4	1.6	1.3	2.5	2.0	2.3	1.9
Corpus Christi	180.3	182.0	177.3	179.9	15.3	13.6	13.6	13.1	8.5	7.5	7.7	7.3
Dallas	1,849.4	1,911.9	1,841.6	1,901.8	74.7	67.7	70.5	65.4	4.0	3.5	3.8	3.4
El Paso	298.3	302.8	294.6	300.1	35.0	33.4	34.0	31.5	11.8	11.0	11.5	10.5
Fort Worth-Arlington	881.9	889.4	855.3	878.3	34.1	35.6	31.7	29.7	4.0	4.1	3.7	3.4
Galveston-Texas City	128.1	128.1	126.7	127.2	11.4	9.1	10.4	8.6	8.9	7.1	8.2	6.8
Houston	2,086.3	2,160.7	2,073.3	2,141.5	113.3	97.4	104.2	93.8	5.4	4.5	5.0	4.4
Killeen-Temple	115.7	117.0	114.1	115.7	8.4	5.4	6.0	5.1	5.6	4.6	5.2	4.4
Laredo	71.2	71.4	69.5	70.0	7.9	7.0	6.7	6.4	11.1	9.8	9.7	9.1
Longview-Marshall	105.8	106.7	103.6	105.4	8.5	8.1	7.8	8.0	8.0	7.5	7.5	7.6
Lubbock	124.0	127.2	123.1	126.6	6.3	5.8	4.9	4.6	5.1	4.4	4.0	3.7
McAllen-Edinburg-Mission	190.1	193.5	183.8	189.5	35.0	32.9	31.7	33.2	18.4	17.0	17.2	17.5
Odessa-Midland	125.1	129.7	123.8	128.7	6.9	7.8	6.2	7.5	5.6	5.8	5.0	5.8
San Angelo	52.4	52.9	51.6	52.6	3.1	2.8	1.8	2.7	5.9	5.4	3.5	5.1
San Antonio	755.6	781.2	751.2	774.7	34.8	32.5	32.6	29.9	4.6	4.2	4.3	3.9
Sherman-Denison	50.7	51.0	50.0	50.5	2.6	3.2	2.4	2.6	5.2	6.3	4.7	5.1

See footnotes at end of table.

Table 1. Civilian labor force and unemployment by state and metropolitan area—Continued

(Numbers in thousands)

State and area	Civilian labor force				Unemployed							
					Number				Percent of labor force			
	July		August		July		August		July		August	
	1997	1998	1997	1998P	1997	1998	1997	1998P	1997	1998	1997	1998P
Texas—Continued												
Texarkana	57.8	58.6	57.2	58.3	4.3	4.3	4.2	4.2	7.5	7.3	7.3	7.2
Tyler	90.9	92.2	89.1	91.6	5.6	5.2	5.6	4.7	6.4	5.6	6.3	5.1
Victoria	44.0	45.0	43.6	44.8	2.4	2.3	2.2	2.1	5.5	5.1	5.0	4.6
Waco	101.5	102.8	100.3	101.5	5.6	5.1	5.1	4.7	5.5	4.9	5.0	4.6
Wichita Falls	66.2	67.5	65.3	66.6	3.6	3.6	2.9	3.3	5.4	5.3	4.4	5.0
Utah	1,051.4	1,097.0	1,059.5	1,099.9	31.5	38.4	35.6	39.5	3.0	3.5	3.4	3.6
Provo-Orem	151.6	158.3	155.1	160.9	3.9	4.5	4.3	4.7	2.5	2.8	2.8	2.9
Salt Lake City-Ogden	680.7	710.2	683.8	710.1	19.5	23.9	22.3	24.8	2.9	3.4	3.3	3.5
Vermont	326.8	334.5	326.9	333.8	11.4	10.6	11.5	8.9	3.5	3.2	3.5	2.7
Burlington	97.3	100.3	97.3	100.6	2.4	2.3	2.4	2.1	2.5	2.3	2.5	2.0
Virginia	3,463.6	3,626.6	3,453.4	3,605.7	144.4	112.2	135.9	112.4	4.2	3.1	3.9	3.1
Charlottesville	72.5	77.0	72.0	76.1	1.5	1.1	1.6	1.3	2.0	1.4	2.2	1.8
Danville	56.9	58.2	56.7	58.6	4.9	3.9	3.5	3.7	8.6	6.7	6.2	6.4
Lynchburg	101.0	104.1	101.7	103.6	3.7	3.3	4.0	3.2	3.7	3.2	3.9	3.1
Norfolk-Virginia Beach-Newport News	736.2	761.5	735.1	760.8	38.3	27.8	36.7	28.5	5.2	3.6	5.0	3.8
Richmond-Petersburg	500.8	528.3	500.9	524.6	17.4	14.7	17.9	14.9	3.5	2.8	3.6	2.8
Roanoke	126.3	131.2	127.2	129.6	4.3	3.2	4.4	3.2	3.4	2.5	3.5	2.4
Washington	3,065.1	3,085.8	3,023.2	3,037.5	135.0	138.2	123.9	127.6	4.4	4.5	4.1	4.2
Bellingham	82.3	82.4	80.2	80.0	4.4	4.4	4.3	4.1	5.3	5.4	5.3	5.1
Bremerton	94.4	91.4	93.4	90.1	4.9	4.7	4.7	4.4	5.2	5.1	5.0	4.9
Olympia	98.4	100.1	97.3	98.6	5.0	5.0	4.7	4.4	5.0	4.9	4.8	4.5
Richland-Kennewick-Pasco	97.5	97.0	93.7	93.6	6.2	6.5	5.6	5.9	6.4	6.7	6.0	6.3
Seattle-Bellevue-Everett	1,388.8	1,383.1	1,363.3	1,383.0	44.4	42.3	41.6	39.1	3.2	3.0	3.1	2.8
Spokane	207.2	204.3	207.4	201.5	8.5	8.9	7.8	8.2	4.1	4.4	3.8	4.0
Tacoma	332.4	335.6	329.0	333.1	14.7	15.0	13.7	13.7	4.4	4.5	4.2	4.1
Yakima	124.9	122.9	117.1	117.4	9.9	10.6	8.2	10.0	7.9	8.6	7.0	8.5
West Virginia	818.9	823.3	809.6	811.0	53.9	54.1	51.1	51.6	6.6	6.6	6.3	6.4
Charleston	134.2	137.7	133.2	135.5	6.1	6.1	6.1	5.7	4.5	4.4	4.6	4.2
Huntington-Ashland	139.3	137.2	136.8	135.4	9.1	7.6	8.2	8.1	6.5	5.6	6.0	6.0
Parkersburg-Marietta	78.7	79.1	78.2	79.0	3.8	4.4	3.8	4.6	4.9	5.5	4.9	5.8
Wheeling	76.2	78.6	75.2	75.5	4.5	3.5	3.9	3.3	5.9	4.5	5.2	4.4
Wisconsin	2,996.2	3,037.0	2,963.0	2,998.1	110.3	101.6	98.4	87.2	3.7	3.3	3.3	2.9
Appleton-Oshkosh-Neenah	226.8	232.2	224.1	229.0	6.6	5.3	6.0	5.2	2.9	2.3	2.7	2.3
Eau Claire	83.4	84.2	82.8	83.2	2.7	2.2	2.4	2.2	3.2	2.6	2.9	2.6
Green Bay	133.7	134.2	132.4	133.0	4.3	3.4	3.9	3.1	3.2	2.5	2.9	2.4
Janesville-Beloit	83.1	83.4	80.6	80.1	4.3	10.4	3.0	2.8	5.2	12.5	3.7	3.5
Kenosha	78.9	80.1	76.9	78.8	4.8	4.2	2.7	2.5	6.1	5.2	3.5	3.1
La Crosse	70.7	71.3	70.3	70.7	2.0	1.7	1.8	1.7	2.9	2.4	2.6	2.4
Madison	262.4	267.1	258.7	264.2	4.4	4.0	4.1	3.6	1.7	1.5	1.6	1.4
Milwaukee-Waukesha	821.9	835.9	811.3	829.3	33.1	28.7	30.5	28.1	4.0	3.4	3.8	3.4
Racine	97.4	98.5	95.6	97.4	5.4	4.6	4.2	3.7	5.5	4.7	4.3	3.8
Sheboygan	62.8	61.9	61.8	60.8	1.8	1.9	1.5	1.3	2.9	3.0	2.5	2.1
Wausau	74.5	75.0	74.3	74.7	2.4	2.2	2.3	2.1	3.2	2.9	3.1	2.9
Wyoming	254.8	263.9	253.0	261.4	11.5	10.6	10.6	9.9	4.5	4.0	4.2	3.8
Casper	32.3	34.0	31.8	33.6	1.9	1.6	1.7	1.5	5.8	4.7	5.3	4.5
Cheyenne	38.8	40.6	37.9	39.6	1.3	1.2	1.2	1.2	3.4	3.0	3.3	2.9
Puerto Rico	1,322.5	1,316.9	1,315.1	1,291.6	192.2	178.3	179.9	170.8	14.5	13.5	13.7	13.2
Aguadilla	52.7	51.9	51.9	50.2	11.5	9.9	10.2	9.4	21.8	19.1	19.7	18.7
Arecibo	54.3	52.1	54.2	52.4	9.0	8.6	8.4	8.1	16.6	16.5	15.6	15.5
Caguas	114.8	116.9	114.0	114.9	15.6	15.0	14.7	14.3	13.6	12.9	12.9	12.4
Mayaguez	96.4	93.3	93.5	91.8	18.8	14.2	15.5	13.9	19.5	15.2	16.5	15.2
Ponce	113.0	115.0	111.7	109.5	20.9	18.9	19.7	17.8	18.5	16.5	17.7	16.3
San Juan-Bayamon	713.8	718.8	712.3	705.9	80.9	78.9	78.2	75.6	11.3	11.0	11.0	10.7

P = preliminary.
NOTE: Data refer to place of residence. Data for Puerto Rico are derived from a monthly household survey similar to the Current Population Survey. All estimates are provisional and will be revised when new benchmark and population information becomes available. Area definitions are published annually in the May issue of *Employment and Earnings*.

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Pockets of High Unemployment in a
Low Unemployment Economy

Robert Gibbs
October 1998
preliminary draft

This series of papers, offered to the
Democratic members of the Joint Economic Committee,
addresses the major economic issues related to raising
living standards for American workers and their families.

Pockets of High Unemployment in a
Low Unemployment Economy

Robert Gibbs[1]

I.   Introduction

The U.S. unemployment rate stood at 4.5 percent in June, 1998, one of its lowest points in 28 years. The decline in the national rate since 1992, coupled with reports of scattered labor shortages in occupations ranging from computer programmers to sales clerks, has dampened debate about workforce preparation and local mismatches between worker skills and job requirements. Implicit in the current complacency about unemployment is the assumption that a low national rate translates into low rates across the country.

In fact, the national rate masks considerable variation in local unemployment rates. Wheeler and Sioux counties in Nebraska experienced a 1.0 percent rate in the first quarter of 1998, while the rate in Luna county, New Mexico, topped 35 percent. Almost 100 counties nationwide had rates below 2 percent and roughly one-third were below 4 percent, a reflection of extremely tight labor markets for workers in those areas.

At the other end of the spectrum, some 320 counties in the first quarter of 1998 had rates above 10 percent. That means that 1 in every 10 U.S. counties was experiencing severe unemployment at a time when the national unemployment situation was being watched suspiciously for signs of an overheating economy. If the net is cast just slightly more widely to include counties with unemployment rates above 8 percent, the number of counties jumps to 617, or about 1 in 5 U.S. counties. These counties all had 1st quarter-1998 rates above the peak national unemployment rate following the 1990-91 recession, and so comprise an "unrecovered" group.[2] Most of these high unemployment counties are experiencing unemployment rates at least *twice* as high as the current national average.

But does it matter that a certain number of counties lie at the upper end of the unemployment rate distribution? Are these counties really important to the national economy? Although many counties with unemployment rates above 8 percent (henceforth called "high unemployment

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[2] This threshold is based on the national 1990-91 recession high of 7.6 percent. Because the quarterly county employment statistics provided by BLS are not seasonally adjusted, however, using 7.6 as a threshold would probably overstate the number of counties above the threshold. On average, unadjusted 1st-Quarter national unemployment rates are .4 percentage points higher than the seasonally adjusted rates.

Table 1. U.S. County Unemployment Rates, 1998-Q1

Unemployment rate	Number of counties	Percent of counties
2 percent or lower	97	3.1
2.1 - 4 percent	904	28.8
4.1 - 6 percent	955	30.4
6.1 - 8 percent	567	18.1
8.1 - 10 percent	297	9.5
10.1 - 15 percent	238	7.6
Higher than 15 percent	82	2.6
	3140	100.0

counties") have small populations, a sizable number are major population centers, such as 4 of the 5 New York boroughs.[3] Collectively, high unemployment counties had a population of 30 million and a workforce of over 13 million in 1997, about 11 percent of the national total. These counties are therefore not merely small, isolated pockets impervious to economic prosperity, but include some of the great employment centers of the United States. Nor are these counties found in only a few regions: 43 states have at least 1 county with high unemployment. In 8 states, more than 20 percent of the workforce resides in high unemployment counties. In West Virginia and New York, more than a third live in high unemployment areas.[4]

By definition, unemployment is the loss of *unrecoverable* human resources. The portion of a worker's life spent unemployed cannot be regained and the idle skills and abilities are lost permanently. Unemployment represents a double jeopardy for the economy, because it not only involves the loss of productive capacity, but it also requires the increased disbursement of public funds to those unemployed. National effects aside, high unemployment counties face depressed demand for local private goods and services, additional demands on public services, and possibly increased social pathology. Furthermore, few of them are likely to realize the goal of providing self-sustaining work to all who need it, as embodied in current welfare reform policy. For these places, a low national unemployment rate is an irrelevant statistic that says little about the experiences of local residents.

This paper explores the possibilities for improving conditions in high unemployment counties by identifying local and regional characteristics that affect the unemployment rate. The character of high unemployment counties is diverse in terms of location, population, and economic base. But they also share a number of important characteristics, many of which are sensitive to direct or indirect public policy. In brief, high unemployment counties generally have *higher* levels of the following attributes than other counties: employment in agriculture and retail trade, state unionization rates, share of residents who belong to a racial or ethnic minority, share of adults without a high school diploma, average AFDC payments prior to 1996 welfare reform legislation, remoteness from cities, physical amenities, and location in the West. These same counties have lower levels of manufacturing and wholesale trade employment, lower employment growth, smaller shares of college graduates, smaller urban populations, and are less likely to be located in the South, once other attributes have been controlled for.

It is important to keep in mind that for most of the 617 counties under discussion, unusually high rates are persistent, indicative of a much larger problem of long-term economic and social stress. Temporarily high unemployment resulting from a plant closing, for instance, affects a significant number of counties each year, and most U.S. counties are subject to this type of event at some time or another. For the majority of high unemployment counties, however, such short-term

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[3] Manhattan's unemployment rate in the first quarter of 1998 was 7.5 percent.

[4] The eight states and the percentage of workers living in high unemployment counties are as follows: West Virginia (36.4), New York (35.3), Alaska (27.9), Montana (26.1), New Mexico (25.8), Idaho (23.5), Mississippi (23.4), and Oregon (22.5).

events are an *additional* stress, and most likely a reflection of underlying conditions, such as overreliance on a declining industry. Thus, this analysis of unemployment can be read more generally as an analysis of long-term economic distress. The bad news, then, is that there are few, if any, quick fixes to persistent local problems. The good news is that the geographic stability of these problems provides an identifiable, stationary target for long-term interventions.

II.   What Causes Geographical Variation in Unemployment Rates?

To understand why some counties have very high unemployment levels, it is helpful to understand why unemployment occurs in the first place, and how local unemployment rates are only partly related to national economic trends. In the simplest of economic models, unemployment occurs when the supply of workers exceeds the demand for those workers (the number of jobs available), and it persists until wages fall enough to restore supply and demand equilibrium. At the national level, this *insufficient demand* for workers, which can be traced back to a weak demand for goods and services, drives the changes in unemployment rates observed during economic downturns. Contrarily, periods of economic expansion are characterized by rising labor demand brought on by growth in the national quantity of goods and services purchased.

But sustained economic expansion alone can never drive the unemployment rate to zero. Inevitably, there is a *structural* mismatch between the requirements of vacant jobs and the skills of available workers in a particular location, due to shifts in product demand and production technology. Furthermore, even if overall skills and job requirements in the economy were equal, *frictional* unemployment would occur because individual workers and employers need time to find the most productive match.

Each of these types of unemployment--demand-deficient, structural, and frictional-- has a geographic dimension that helps to explain unemployment differences across local labor markets. Local unemployment rates may react very differently to a national economic slowdown or expansion based on their particular mix of industries, with some areas leading a national trend, and others lagging. As noted in the introduction, the industry mix will accordingly affect the persistence of unemployment. Moreover, at any point in time, demand-deficient unemployment will persist where wage rates are higher than the long-run sustainable level, given the productivity of the workforce.

It is likely, however, that much of the geographic variation in unemployment can be attributed either to rigidities in the local economic and demographic *structure*, or to the frictional forces that prevent instantaneous matching of workers and firms, and that are also affected by local characteristics. Structural mismatch will be more severe where the local industry mix is changing rapidly, or where changes in an industry's product demand leads to sudden job creation or loss.

In addition, some areas have populations that have suffered historically from chronic unemployment, weak labor force attachment, and/or limited job skills. In standard economic models, migration eliminates such structural unemployment in the long-run. But these models typically fail to consider the costs of gathering information about job opportunities in other places, the complex labor supply decisions of dual-earner households, and the psychic costs of leaving local kinship and friendship networks, all of which diminish the likelihood of employment-equalizing migration.

Frictional unemployment is a function of job turnover, the difficulty and method of job search, and the ability to hold out for the best possible offer. These, in turn, depend on the skills and education required by the job, or held by the worker. In areas with a large proportion of high-skill jobs/workers, relatively low turnover and brief periods between jobs pushes down the frictional component of unemployment.

III. How Large is the Problem of High Unemployment Areas?

The seriousness of locally high unemployment can be described by considering its magnitude and geographical distribution. That is, how many people and areas are affected by locally high unemployment, and how widespread is the phenomenon?

The 617 high unemployment counties combined had a labor force of 13.4 million people, about 11 percent of the national total in the first quarter of 1998. Some 1.5 million workers in these counties were unemployed, representing 29 percent of total unemployment in the United States. High unemployment counties can have large or small populations: 35 counties have populations of more than 100,000, and 184 counties, about a third, have populations of fewer than 20,000. The 25 largest high unemployment counties are shown in Table 2. At the top of the list are 3 of the 5 New York City boroughs, the only counties with populations exceeding one million. Scattered throughout are central counties of large urban areas, mostly along the East Coast or California. Small and medium-size high unemployment counties are distributed relatively evenly across the nation.

High unemployment counties are found in all 4 Census regions of the country. The largest number are in the South, with 281 counties, but the largest proportions of high unemployment counties within a region are the West (35 percent) and the Northeast (24 percent), while they are relatively sparse in the Midwest (12 percent) (table 3). The uneven regional distribution is particularly apparent when examined across the 9 Census divisions. Among these, the Pacific division has the highest percentage of high unemployment counties--55 percent, or 91 of 164 counties. At the other extreme, the Great Plains states have just 33 high unemployment counties, 5 percent of their total, and New England has 9 high unemployment counties, 13 percent of all counties in the census division.

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Table 2. Twenty-five largest High Unemployment Counties

County	Population (1997 Est.)	Unemployment Rate
1. Kings, NY	2,240,384	10.5
2. Queens, NY	1,975,676	8.1
3. Bronx, NY	1,187,984	11.1
4. Fresno, CA	754,396	16.8
5. El Paso, TX	701,576	10.1
6. Baltimore (city), MD	657,256	9.1
7. Kern, CA	628,605	14.2
8. Hudson, NJ	551,451	8.1
9. San Joaquin, CA	542,504	12.8
10. District of Columbia	528,964	9
11. Hidalgo, TX	510,922	19.2
12. Stanislaus, CA	421,818	14.5
13. Richmond, NY	402,372	8.1
14. Monterey, CA	361,907	17.2
15. Tulare, CA	353,175	18.3
16. Cameron, TX	320,801	12.8
17. Santa Cruz, CA	240,488	10.4
18. Atlantic, NJ	236,569	8.7
19. Yakima, WA	218,318	13.1
20. Barnstable, MA	205,128	8.5
21. Merced, CA	196,123	19.7
22. Butte, CA	194,160	10.2
23. Webb, TX	183,219	9.7
24. St. Lucie, FL	179,559	8.2
25. Dona Ana, NM	168,470	9.9

Table 3. Regional distribution of High Unemployment Counties (HUCs)

Region/Division	No. of HUCs	Pct. of all HUCs	Pct. of total in region
Northeast	52	8	24
Midwest	127	21	12
South	281	46	20
West	157	25	35
Total	617	100	20
New England	9	1	13
Middle Atlantic	43	7	29
East North Central	106	17	18
West North Central	93	15	26
South Atlantic	82	13	17
East South Central	94	15	22
West South Central	33	5	5
Mountain	66	11	24
Pacific	91	15	55
Total	**617**	**100**	**20**

Although found in all regions, high unemployment counties are nonetheless notable for their marked geographic clustering, as the map in Figure 1 illustrates. In the West, for instance, large portions of the Pacific Northwest, the Central Valley of California, and the Colorado Plateau are high unemployment areas. The South's high unemployment counties lie primarily in the Rio Grande Valley, the lower Mississippi Valley, especially in the Delta region, and the Appalachian Highlands. Unemployment in the Northeast and Midwest is clustered in the northern tier counties of Minnesota, Michigan, New York, and Maine. Note, too, that high unemployment is unusual in the broad central section of the country, and relatively infrequent along the Atlantic coast.

The fact that these clusters are geographically well-defined suggests strongly that regional characteristics are key determinants of differences in unemployment rates. High unemployment counties are a fairly stable group--the counties they comprise tend to experience high unemployment over an extended period. The next section examines in more detail the persistence of unemployment in these 617 counties.

IV.   How Persistent are High Unemployment Rates?

One line of thinking on unemployment is that there will always be a group of counties with high unemployment, but because local economies are dynamic in the long-run, the distribution of unemployment across the nation will change over time as local characteristics change. Economic hardship, in other words, gets spread around, much as many households move into and out of poverty.

But in fact, the economies of places with distressed labor markets are not particularly dynamic. One way to see this is to compare the high-unemployment counties' rates with average unemployment rates over a number of years. Unfortunately, this comparison is not straightforward, because the variation of county rates around the average can be expected to differ during years of economic expansion and contraction. If for example, the threshold for high unemployment is 8 percent when the U.S. average is 5 percent, what would the relevant threshold be if the national average of county unemployment is 8 percent? Merely holding the difference between the average and the threshold constant (at 3 percentage points) could be inappropriate if the variance of rates around the 8 percent average changes.

One solution is to convert county unemployment rates into standardized rates that measure how many standard deviations a given unemployment rate is from the average. A threshold of 0.6 standard deviations above the mean is used to be consistent with the 8 percent high unemployment threshold in 1998. By this measure, most of the counties classified as "high unemployment" in 1998 were high unemployment counties as far back as 1979. During the 1980's, an average of 58 percent of the current high unemployment counties fell above the standardized threshold in a given year; in the early 1990's, two-thirds of more of these counties did so. Furthermore, two-thirds of the 617 high unemployment counties in 1998 were above the

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high-unemployment threshold in a majority of the 19 years available for this study, and 135 (22 percent) of these were high unemployment counties *every year* since 1979.

V.   Characteristics Associated with High Unemployment Counties

Geographic variation in the three types of unemployment discussed above arise from the economic, demographic, and natural resource characteristics of local areas. Although they are not linked in a one-to-one correspondence, the theoretical types are useful for describing expected relationships between local attributes and unemployment rates. In this section, these relationships are outlined and preliminary evidence of their presence is marshaled. The key local factors to be considered can be grouped into market-related, locational, demographic, and human capital characteristics.

Market-related characteristics

The most obvious association between unemployment and other attributes of the local area is the ability of the economy to generate a sufficient number of new jobs to match the labor supply. Where employment growth is high, unemployment should be lower unless there is an unusually strong influx of migrants. Labor supply growth could indeed outstrip growth in demand for a number of reasons. High wages, for example, have consistently been found in the social science literature to attract working-age migrants into a region. Their impact on job growth is less clear. If local wages are not reflected in a commensurate level of productivity, job growth (and therefore labor demand) will suffer.

Even where wages are not especially high, migrants may be attracted to non-economic aspects of the local area, such as its climate and topography. Many migrants are willing to accept a lower wage and a greater uncertainty of employment in exchange for an enhanced quality of life, thus raising supply relative to demand. The attraction of physical amenities has increased relative to economic incentives for interregional migrants during the 1990's, suggesting that the association between amenities and unemployment may have increased as well (Cromartie and Nord, 1996).[5]

County unemployment rates necessarily reflect patterns of growth and decline among local industries. Counties where employment is concentrated in "old" industries, or industries with rapidly changing labor requirements may experience high unemployment. In addition, there is evidence that a diversified economy, particularly one based on services, cushions workers against cyclical downturns and allows quicker transitions to new jobs. A comparison of major industry distributions by unemployment rate, however, reveals that although high unemployment counties

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[5] Physical amenities are measured later in this report as a standardized index that combines attributes related to climate, elevation, topography, and proximity to water. The amenity index is scaled to a normal distribution with mean equal to zero and a unit variance.

have slightly higher employment shares in agriculture, mining, and government, there are no sharp differences in the mix of industries between high unemployment counties and all other counties (table 4).

For nonmetropolitan counties, an alternative measure of industry-specific influence in the local economy exists that uses income as well as employment share. A comparison of county types by industry "dependence" developed at the U.S. Department of Agriculture's Economic Research Service (ERS) shows that high unemployment counties are more likely to be dependent on the employment and income derived from government services and mining than counties with lower unemployment rates. This is not surprising. Government-generated income and employment tends to dominate only when basic industrial activity is weak, or other kinds of economic stress such as low income exist. Mining-dependent counties face chronic sharp boom-and-bust cycles. At any given time, a substantial number of these counties will exhibit the effects of depressed world demand for their particular mineral.
Nonmetropolitan counties with high unemployment are much less likely, however, to be farm-dependent, a finding seemingly at odds with the lack of impact shown by simple employment share above. The fact that the economic typology is not applied to metropolitan counties, where farming-related unemployment rates are higher, may explain the apparent discrepancy. This relationship will be discussed in more detail below.

Locational

One of the most striking features of high unemployment counties is their strongly nonmetropolitan character. Just 9 percent of the counties lie in metro areas, compared with 30 percent of non-high unemployment counties (table 5). The 56 metropolitan high unemployment counties are evenly spread among the Northeast, the South, and the West; only 2 are found in the Midwest. High unemployment counties are particularly unusual among counties in metropolitan areas of one million people or more (3 percent, or 11 out of 311 counties), but their incidence rises among smaller metropolitan counties (table 6). For nonmetropolitan counties, the highest incidence of high unemployment counties is among counties with urban populations of less than 20,000 that are not adjacent to a metropolitan area. Adjacency to a metropolitan area appears to matter, in part because adjacent nonmetro counties are more diversified economically, and in part because their commuting links with urban centers increase workers' abilities to search for new jobs.

Human capital

The probability of being unemployed rises sharply for lower levels of education. Adults without a high school diploma face unemployment rates more than four times as high as college graduates. Many of the least-educated adults are in insecure, low-quality jobs, leading to higher rates of turnover and greater vulnerability to occupational and industrial change. Areas where a large proportion of adults have low educational attainment often have trouble attracting prospective employers, or for that matter, keeping those whose main motivation for staying is the low local wage level. For these reasons, both structural and frictional unemployment tends to be

Table 4. Industry mix of HUCs and non-HUCs

Industry	HUCs		non-HUCs	
	(percent of total employment)			
Agri., Forestry, Fishing	2.1		1.6	
Mining	1.5		1.2	
Construction	5.2		5.6	
Manufacturing	13.5		13.7	
Trans., Comm., Utilities	4.1		3.9	
Wholesale Trade	2.4		3.3	
Retail Trade	16.2		16.1	
FIRE	4.1		4.8	
Services	21.3		22.3	
Government	17.8		16.1	
Total	100.0		100.0	
County Typology (nonmetro only)	#	%	#	%
Farm-dependent	90	17	466	27
Mining-dependent	56	10	91	5
Manufacturing-dep	125	23	390	22
Services-dependent	67	12	256	15
Government-dep	90	17	165	9
Nonspecialized	117	21	371	21
Total	545	100	1738	100

Table 5. Urbanicity of High Unemployment Counties

Metropolitan Status	No. of HUCs	Pct of all HUCs	Pct of all counties in status
Metro	56	9	7
Nonmetro	561	91	24
Total	**617**	**100**	**20**
Rural-urban Continuum			
Large core metro	9	1	5
Large fringe metro	2	<1	2
Medium metro	23	4	7
Small metro	22	4	11
High urban, adjacent	22	4	16
High urban, nonadjacent	28	5	25
Low urban, adjacent	119	19	19
Low urban, nonadjacent	183	30	28
No urban, adjacent	60	10	24
No urban, nonadjacent	149	24	28
Total	**617**	**100**	**20**

Table 6. Metro status by region, High Unemployment Counties

Status		Northeast	Midwest	South	West	Total
Metro	#	18	2	19	17	56
	%	32	4	34	30	100
Nonmetro	#	34	125	22	140	561
	%	6	22	47	25	100

elevated in counties with lower average education levels. Average years of schooling in high unemployment counties is 10.6 years vs. 10.9 years in other counties.[6]

A more telling comparison between high unemployment counties and other counties is the share of adults at very high and very low levels of educational attainment. For instance, 13 percent of all counties have a high proportion of college graduates (15 percent or more of the adult population) but less than 3 percent of high unemployment counties do. Similarly while 1 in 5 counties nationally have a high proportion of high school dropouts (20 percent or more), the rate for high unemployment counties is greater than 1 in 3.

Demographics

Worker demographics also vary greatly from place to place. These often operate at the individual level, but affect aggregate unemployment as well. Worker characteristics that affect entry and exit from the labor force, such as age, are associated especially closely with geographic differences in frictional unemployment. Very young workers (teenagers and young adults) move into and out of jobs with greater frequency than older workers because they are less likely to assume the financial responsibility of maintaining a household, and because they are still in the job-sampling phase of their work lives. Hence counties with a greater share of young workers in the labor force should see higher unemployment rates. A similar argument could once be made for women's labor force participation, but their employment dynamics have changed dramatically since the 1970's.

The legacy of institutionalized discrimination and separation that marks the landscape in many parts of the United States is evident in the strong association between high unemployment rates and the geographic concentration of racial and ethnic minorities. Blacks, Hispanics, and/or American Indians make up a significant share of the population (at least 25 percent) in 31 percent (192) of high unemployment counties, compared with 19 percent of all other counties (table 7). Similarly, 32 percent of all counties with significant minority populations are also high unemployment counties. The strongest association is for American Indians -- 57 percent of counties where they form a significant presence experience high unemployment.

In some cases, however, the persistent association of racial or ethnic minorities with specific types of work creates a specious connection between minority presence and unemployment. A clear example of this can be found in the West, where Hispanics are disproportionately employed in agriculture, and where agriculture often depends heavily on seasonal labor. Of the region's 446 counties, 45 percent of the 60 counties with a large proportion of Hispanics are high unemployment counties, compared with 34 percent of other western counties. But of the 425 western counties where agriculture employs less than a tenth of the workforce, there is no

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[6] The average educational attainment in low-unemployment counties is 11.5 years.

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Table 7. Racial and Ethnicity Characteristics in HUCs and non-HUCs

County type	No. of HUCs	Pct of all HUCs	Pct of non-HUCs	Pct of low unempl. counties	HUCs as pct of all counties
Black	118	19	11	7	29
Hispanic	50	8	4	3	33
Native American	26	4	1	<1	57
All minorities	192	31	16	10	32
All HUCs	617	100	---	---	19

difference in the incidence of high unemployment between counties with a large Hispanic population and those without.[7]

VI.   Relative Importance of County Characteristics

Although unemployment rates are the outcome of many factors working simultaneously, some of these factors can be expected to play a large role in explaining geographical difference in unemployment, while others will have a more marginal influence. Furthermore, many of these factors are difficult to disentangle. Rural counties, for example, tend to have fewer college graduates, and both rurality and lower education levels are likely to be associated with higher unemployment rates. In some cases, seemingly important factors may derive most of their explanatory power from their linkage with other factors--rurality's apparent effect on unemployment may work mostly through education and industrial structure. To separate and compare the marginal contribution of each variable, the characteristics are included together in a series of regression analyses of county unemployment rates.

The findings reported here are based on two models of unemployment. First, local characteristics are related to simple county unemployment rates, which allows a quantifiable relationship to be established between specific rates and each characteristic. Next, these same characteristics are related to each county's presence in, or absence from, the high unemployment group. The first analysis, then, uses local attributes to help explain a county's unemployment rate and the second uses them to "predict" whether a county falls into the high unemployment category.

All of the characteristics discussed so far are considered simultaneously in the analysis. A few additional variables that have been found to influence unemployment rates in other studies are also included. These are the average union membership rate for the state and the state's average AFDC payments in 1995. High unionization rates have historically been associated with slower economic growth and more rigid local wage scales. Both of these conditions are expected to increase unemployment. It has also been hypothesized that high AFDC payments might increase frictional unemployment by raising the lowest wage rate that job seekers are willing to accept (known as the "reservation wage").

Finally, two measures of the surrounding local labor market area have been added to capture nearby effects -- the unemployment rate and the average earnings per job for all counties in the commuting zone other than the county of interest. In many small counties, where out-

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[7] Among the 384 western counties in which agricultural constitutes less than 5 percent of total employment, Hispanic counties are *less* likely to be high unemployment counties (26%) than are non-Hispanic counties (31%).

commuting is common, the job market in adjoining counties may be of equal or greater significance to local residents.

How well do local characteristics explain county unemployment rates?

As shown in table 8, local characteristics explain a little more than half the variation in unemployment rates across counties.[8] In the discussion that follows, the impacts of individual characteristics on the unemployment rates of *all* counties in the United States are described. A partial estimate of the contribution each type of characteristic makes toward explaining geographical variation is also provided.[9]

Market-related characteristics

A number of the market-related local characteristics are strong predictors of unemployment rates, particularly **employment growth** in the previous year and the state's **union membership** rate. Nationally, the unemployment rate in a county with employment which grew one standard deviation above the mean (about 4 percent) was 0.4 percentage points lower than a county with average growth. A 10-percentage-point higher unionization rate translates into a 1 percentage point higher unemployment rate. For example, if a county in a state with a 10 percent union membership rate has 6 percent unemployment, an otherwise identical county in a state with a 20 percent union membership rate could expect to have 7 percent unemployment.

At the national level, **earnings per job** in the *county* is not a significant predictor of unemployment, although earnings in the entire *commuting zone* is significant, indicating that commuting tends to even out unemployment across counties within the local area. The earnings effect is relatively small, however -- a difference of $5,000 in average earnings per job yields a 0.2 percentage-point lower unemployment rate. In other words, to reduce unemployment in a county by a percentage point (say, from 8 to 7 percent), average earnings per job would have to fall $25,000, more than the earnings difference between the richest and the poorest counties in the nation in 1996.

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[8] The remaining variation is due to several causes, including the inevitable omission of other factors that may influence unemployment rates, which is many cases are unquantifiable or difficult to measure. Additionally, the factors that are included in the model are subject to measurement error, which always reduces the explanatory power of those factors.

[9] Technically, the absolute impact described in this paper is measured by the regression coefficient associated with each independent variable. Since variables are measured in different units, however, and/or have different variances, direct comparisons using the regression coefficients can be misleading. We therefore use a standardized estimate (the regression coefficient divided by its standard deviation) as a broad, though still imperfect, measure of relative importance.

Table 8. Relationship between Local Characteristics and Unemployment Rates

Characteristic	Significant? (Direction)	Standardized effect of additional unit on
Market-related		
Employment growth, 1996-97	Yes (-)	-0.12
Earnings per job, 1996	No	
State unionization rate	Yes (+)	0.18
Average state AFDC payment	Yes (+)	0.06
Percent employed in:		
Agriculture	Yes (+)	0.03
Manufacturing	Yes (-)	-0.04
Mining	No	
Government	No	
Wholesale Trade	Yes (-)	-0.10
Retail Trade	Yes (+)	0.11
Transport., Commun., and Utilities	No	
Finance, Insurance, Real Estate	No	
Construction	No	
Commuting shed's Unemployment	Yes (+)	0.42
Commuting shed's Earnings per job	Yes (+)	0.07
Locational		
Midwest (compared with Northeast)	No	
South	Yes (-)	-0.08
West	Yes (+)	0.09
Small, remote (compared with large	Yes (+)	0.15
Amenity index	Yes (+)	0.07
Demographic		
Percent black	Yes (+)	0.13
Percent Hispanic	Yes (+)	0.09
Percent ages 16-19	No	
Human capital		
Percent with college degree	Yes (-)	-0.13
Percent with less than high school	Yes (+)	0.27

Key industries affecting unemployment include **agriculture** and **retail trade** (greater employment *boosts* unemployment), and **manufacturing** and **wholesale trade** (greater employment *decreases* unemployment).[10] In addition to the seasonal effects of agriculture and retail trade, the workforce in these industries tends to have lower average education levels and lower occupational status for a given level of education. Retail trade tends to employ younger workers who have higher-than-average turnover rates.

The **unemployment rate in the rest of the commuting zone** was added to control for external factors that may nonetheless affect workers in the county. As one would expect, a county's unemployment rate correlates reasonably well with unemployment rates elsewhere in the commuting zone, each percentage point increase in the rest of the zone raising the county's rate by half a percentage point.

Locational characteristics

Overall, the locational factors discussed earlier continue to affect local unemployment rates even after controlling for confounding influences. **Rural** and **western** locations are associated with higher unemployment, as are **high-amenity** locations. The **South** continues to exert a negative influence on unemployment rates, although its effect is dampened after controlling for demographic factors and union membership rates. The effects of being a small remote county are particularly notable, increasing unemployment by more than 1 percentage point relative to the core counties of large metropolitan areas.

Demographic characteristics

The proportion of the population that is **black** or **Hispanic** is strongly, positively associated with unemployment rates. Controlling for all other factors, a county in which one-third of the population is black will have an unemployment rate 1-percentage point higher than a county with no black residents. The impact of the proportion of Hispanic residents is slightly smaller. The proportion of the population that is 16-19 years old, the teenage cohort, appears to have no effect on geographic differences in unemployment. This may be because there is relatively little variation in the proportion of the population composed of teenagers.

Human capital characteristics

The educational composition of the adult population emerges as one of the key determinants of differences in local unemployment rates. A one-standard-deviation increase in **college**

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[10] The lack of seasonal adjustment in the unemployment data may play a role in the prominence of some industries. Agriculture's impact is likely to be greater during the first quarter of the calendar year, when labor demand is lowest. Likewise, retail employment typically falls following the December holidays. However, the impact of both agriculture and retail employment is significant (although smaller) even in models of average annual unemployment.

completion rates (about 6 percentage points) shaves nearly half a percentage point off the county unemployment rate. A similar increase in the proportion with **less than a high school diploma** would raise the rate by over half a point.

The relative importance of local characteristics varies by region

Stephen Marston (1985) first observed that conclusions about the relationship between unemployment rates and local characteristics are unlikely to hold in all places. That is, not only do characteristics vary from region to region, but the fundamental relationship between characteristics such as employment growth and unemployment rates can vary as well due to a variety of structural forces.[11] Thus, otherwise well-targeted policies designed to alter a single risk factor (say, education levels) may have much greater impacts on unemployment in some regions than others.

A separate analysis of each of the four Census regions confirms that the structure of unemployment is quite different from place to place (table 9). In the Northeast, the size of the college-educated population is a dominating influence on unemployment rates. The size of the manufacturing and trade sectors are also of much greater importance. Surprisingly unimportant are several characteristics that are key at the national level--commuting zone effects, employment growth, demographic characteristics, and the proportion of adults who do not have a high school diploma.

Another case of regional differences is the role of agriculture, which is sensitive to its production context. In the Midwest, greater agricultural employment is strongly associated with lower unemployment rates, the reverse of both the national results and of those in the West. The discrepancy in the findings for agriculture is largely explained by regional differences in the kinds of crops grown and in the way that agricultural production is integrated into the local economy. In the West, counties with substantial agricultural employment are often metropolitan. These counties rely on labor-intensive production, typically requiring large numbers of migrant or seasonal workers who are officially unemployed part of the year. Great Plains agriculture is relatively capital intensive, employing far less seasonal labor, and generating very low rates of unemployment.

Also more important in the Midwest is the role of natural amenities -- again, contrary to the West, where amenity differences are of no significance. Meanwhile, the West is different from the Northeast in that college completion is insignificant, but having a higher proportion of the adult population without a high school diploma is very much related to higher unemployment.

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[11] A good example of this is the relative openness of the local economy. Local employment growth may have a greater impact on the unemployment rate if there are structural barriers to in-migration. Another example is the strength of internal transactional relationships between establishments in the area. Where these relationships are strong, factor productivity (including labor) is likely to be higher due to agglomeration forces, and a higher wage level is sustainable without depressing labor demand and raising unemployment.

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Table 9. Regional divergence from the national model

Characteristic	Northeast	Midwest	South	West
Market-related				
Employment growth, 1996-97	NS			
Earnings per job, 1996				
State unionization rate	NS			NS
Average state AFDC payment	NS	NS	NS	L
Percent employed in:				
Agriculture	NS	(-)	NS	L
Manufacturing	L			(+)
Mining			Sign. (-)	
Government				
Wholesale Trade	L			
Retail Trade	.			
Transport., Commun., and Utilities				
Finance, Insurance, Real Estate				
Construction		Sign. (+)		
Commuting shed's Unemployment Rate	S			S
Commuting shed's Earnings per job	NS			
Locational				
Small, remote (compared with large urban)				L
Amenity index	NS			NS
Demographic				
Percent black	NS			NS
Percent Hispanic		NS		NS
Percent ages 16-19		.		
Human capital				
Percent with college degree	L			NS
Percent with less than high school	NS	S		

NS=Not significant at .05 level; L=Standardized estimate > by at least .1; S=Standardized estimate < by at least .1; Sign.=Now significant at .05 level; ( ) indicates change of sign.

Perhaps most intriguing, greater manufacturing employment is associated with higher unemployment rates in the West, possibly due to the specific type of manufacturing occurring there, or perhaps a result of the lingering effects of the severe 1990-91 recession in California, and Boeing's recent woes in Washington State.

The South most closely mirrors the United States as a whole in the relative importance of local characteristics. Its chief differences are in the effect of local earnings and employment growth, both having somewhat greater influence on the region's unemployment rates than is the case nationally.

VII.   Characteristics that Distinguish High Unemployment Counties

As expected, most of the local attributes that figure prominently in determining county unemployment rates in general are also key in predicting high unemployment counties (table 9). The salient differences between the two models are that agricultural employment, manufacturing employment, and location in the South no longer significantly affect a county's chances of being classified as "high unemployment". The apparent contradiction between models suggests that these attributes may be important in predicting unemployment rates *within* categories (i.e., "high-unemployment" or "other"), but not *between* categories.

Other characteristics do appear to make a difference between categories. A Midwestern location now decreases the likelihood of being a high unemployment county, and higher proportions of young adults increase that likelihood.

VIII.   Summary and Policy Implications

High unemployment, defined as a rate exceeding 8 percent, afflicted some 617 counties containing over 13 million workers during the first quarter of 1998. Although these high unemployment counties are found in every region of the nation, they tend to be grouped into geographic clusters. Despite their wide distribution across the country, they often share a number of economic, demographic, and locational features that distinguish them from the more prosperous areas of the United States.

High unemployment counties overall have *higher* levels of the following attributes than other counties: employment in agriculture and retail trade, state unionization rates, share of residents who belong to a racial or ethnic minority; share of adults without a high school diploma, average AFDC payments prior to 1996 welfare reform legislation, remoteness from cities, physical amenities, and location in the West. These same counties have lower levels of manufacturing and wholesale trade employment, lower employment growth, smaller shares of college graduates,

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smaller urban populations, and are less likely to be located in the South, once other attributes have been controlled for.

Two-thirds of counties with high unemployment have suffered from insufficient labor demand for most of the last two decades, with unemployment rates well above the national average. This stability in *relative* unemployment rates is not surprising because many of the most important characteristics associated with high unemployment change very slowly over time. For example, the racial and ethnic mix of the local population may change rapidly in urban areas, but in rural areas, where high unemployment counties are concentrated, such changes are gradual if apparent at all. Likewise the education mix of the workforce responds primarily to changing skill requirements. But most of the recent industrial change occurring in high unemployment counties, as in most other places, is from manufacturing to services, which changes the skills requirements of local employers in unpredictable ways, depending on the particular types of services where employment growth is concentrated.

The relationship between particular local characteristics and the unemployment rate can strengthen or weaken over time as well, and be a potential source of movement into and out of high-unemployment status. A good example is the changing effect of women's labor force participation. In the 1970's, women were more likely to be unemployed than men due to their more frequent entry and exit from the workforce, as well as to the nature of jobs deemed to be "woman's work." The gender gap in unemployment had all but disappeared by the 1990's, and the share of the labor force composed of women is no longer an important source of geographic variation in unemployment (although this share still varies considerably from place to place).

Regressions of unemployment rates on data from each year of the 1990's confirm that these relationships do change. Over the course of the decade, counties with large proportions of minorities became more likely to have high unemployment, as did agricultural counties. Other associations with unemployment are weaker now than was true a decade ago, including the links between unemployment and the proportion of local workers engaged in manufacturing, retail trade, and government; state union membership rates, and the proportion of the working-age population who are teenagers.

What does this mean for policy interventions? First, these findings help explain why the neoclassical solution of redistributing labor from areas of low demand to areas of high demand through migration is simplistic. First regions where high unemployment has persisted for twenty years (and often many more) obviously retain their populations for other reasons. Kinship and friendship networks are often important parts of individual and family survival strategies in these places. Workers with very low human capital, limited proficiency in English, or other severe barriers to employment may see little reason to incur the enormous economic and social costs of breaking these sustaining ties and moving to a low-unemployment area. Remember, too, that many individual attributes found disproportionately in high-unemployment counties are "risk factors" for unemployment regardless of residence. Blacks and those with less than a high school diploma, for instance, suffer unemployment rates higher than the local average in Atlanta just as they do in Sunflower County, Mississippi. Long distance migration exposes them to new and unknown labor market risk while curtailing their previous support network.

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Even for workers without employment barriers or other labor market disadvantages, community and family ties, and the attachment to place, may be strong enough to prevent them from seeking higher education or better employment opportunities elsewhere. Perhaps the question ultimately becomes whether the current geographic distribution of jobs should be taken as a given, whether the current mapping of employment across the landscape should always be given primacy over the non-job-related preferences of the Nation's citizens. If not, then local and regional economic development policies assume an equal role with workforce development policies as a means of combating persistent and severe spatial inequities.

What then? One must distinguish policies focused on changing local attributes from policies designed to change the relationship between unemployment and the attribute. The effect of women's labor force participation is a case of the latter; policies that removed barriers to working women, such as child care tax credits and stronger Federal enforcement of anti-bias and sexual harassment laws reduced turnover and encouraged job ladder promotion, which in turn played a role in weakening the link between gender and unemployment. Most policies related to demographic associations with unemployment would necessarily be of this nature. For example, as national standardized test scores reveal, counties with large minority populations would benefit from a variety of policies intended to promote the quality of education and training for disadvantaged groups.

Other policies would need to be developed to change the local characteristic itself if local unemployment rates are to be reduced. In most cases this requires a commitment to long-term, comprehensive (not piecemeal) economic development that is rarely possible if carried out by local stakeholders alone. A recent series of reports based on the Rural Manufacturing Survey, designed by the Economic Research Service (USDA), concludes that technological change requiring a more highly-skilled workforce is as evident in rural areas as in cities. Perhaps more establishments, including those in high unemployment counties, could be encouraged to adopt these advanced production technologies and management practices if the proper investment incentives were more widely available, or if these incentives were better targeted to areas with high unemployment. Such incentives would also attack persistent unemployment from several angles because they would help alter the industry mix as well as the education and skill mix of the area.

Policies designed to raise local educational attainment without simultaneously creating high-skill work would prove less effective, but may still be useful in communities where intercounty commuting is a feasible alternative to local employment. At least one previous study has demonstrated that college graduates from disadvantaged areas will often return because of social and family ties, even when job prospects are inferior to those of other destinations (Gibbs, 1998). Although they may not work in their county of residence, they create income for local consumption, and are unlikely to experience the job instability of their less-educated peers. Hence raising "locally-grown" college graduates can be a good investment for non-remote counties afflicted with persistently high unemployment.

One of the messages emerging from the analysis is that Federal anti-unemployment policies may well be limited in what they can achieve. Few such policies could be applied across high

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unemployment areas with uniform results. Recall, for example, that the association between agricultural employment and unemployment was negative in the Midwest, but strongly positive in the West. Thus a policy that attempted to ameliorate unemployment by encouraging the transfer of workers from farming to other jobs would have no impact in the former region, but may make a real difference in the latter. Likewise tax incentives aimed at promoting advanced production technologies in rural manufacturing establishments would both encourage manufacturing and the presence of college graduates. Yet northeastern counties would find this strategy far more compelling than those in the West as a way of reducing unemployment. Thus it should be considered carefully whether a proposed policy is more sensibly implemented at a state, or even local, level rather than nationally.

Another potential problem with "one-size-fits-all" policies is that not all high unemployment counties exhibit most of the local attributes associated with high unemployment. For example, 239 high unemployment counties have adult educational attainment levels *above* the average for all counties. The 617 high unemployment counties also include 302 that are *not* in remote, sparsely settled areas and 353 with *below-average* shares of Black and Hispanic residents. Diversity of conditions should not be a stumbling block to creating local unemployment solutions, but again, a call to consider the proper source of public intervention (federal, state, local), and to target assistance according to local needs rather than a broad-brush approach. Note, too, that while many of these counties a number of the critical ingredients for high unemployment, nearly all of them possess at least major risk factor. To illustrate, if educational attainment levels, presence of racial/ethnic minorities, employment growth, and urbanization/remoteness are considered simultaneously, only 22 of the 617 are atypical high unemployment counties in *all* of these attributes.

It must be acknowledged that effective and sensible remedies may not exist in all cases. Clearly a policy to reduce the physical amenities of a county for the sake of reducing unemployment would encounter stiff opposition. Neither would it improve the welfare of workers in the long run to enact policies to discourage unionization efforts. Even where remedies do exist, the ability to change a characteristic or its association with unemployment may be limited by deeply-embedded historical or economic realities. Counties with large proportions of Blacks and Hispanics have legacies of underinvestment in human and physical capital, and of low-paying, unstable jobs, which affect their attractiveness for prospective new employers as well as their ability to generate new entrepreneurial activity internally. Without a fundamental shift in the mix of jobs, policies aimed at equality in hiring and promotion can only work at the margins of unemployment reduction.

Finally policies designed to reduce unemployment without considering other measures of workers' well being create more problems than they solve. Local economic development initiatives aimed at attracting *any* industry, for instance, may well increase employment. Yet if average new job quality is low, areas that pursue this strategy also increase the risks associated with a high-turnover labor force and employers who view the county as a convenient source for cheap labor, at least until a better location can be found. For some counties, this may be the only feasible approach, but it should always be a last resort.

The preferable anti-unemployment strategy, from both a local and a national prospective, is really very much an economic growth strategy as well. Such a strategy should proceed along two broad lines: aggressive human capital investments in school quality, college enrollment, and job training; and concurrent assistance and encouragement of advanced technology employers, who demand a higher-skill workforce and are less exposed to the threat of competition from cheaper labor elsewhere. Recall that earnings and unemployment were found in this analysis to be very weakly associated. A county need not fear being saddled with a "high-wage/high-unemployment" labor mix if high wages flow from a well-prepared workforce engaged in advanced production processes. On the contrary, as the global economy becomes increasingly integrated, high wages *and* employment levels are likely to form a necessary partnership to ensure local prosperity in the next century.

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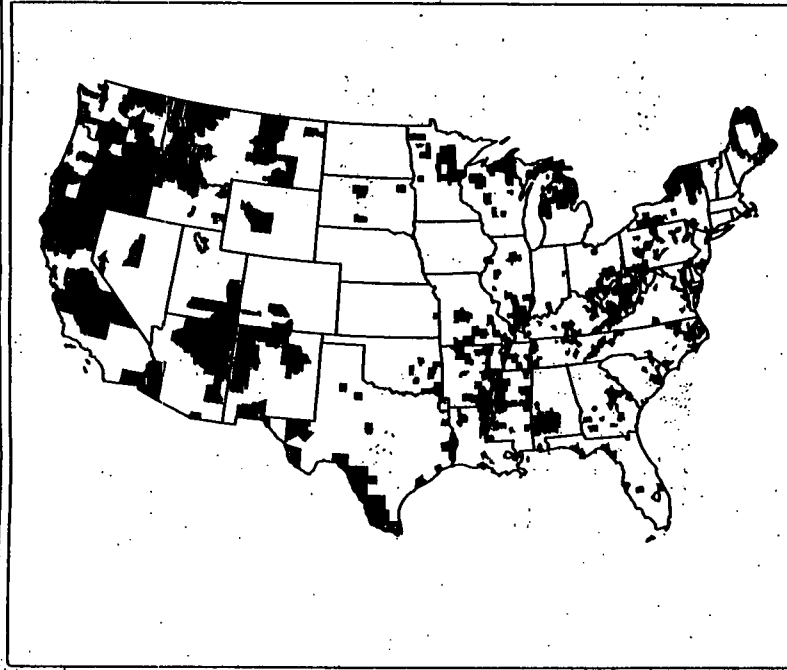
Distribution of County Unemployment Rates
1st Quarter, 1998
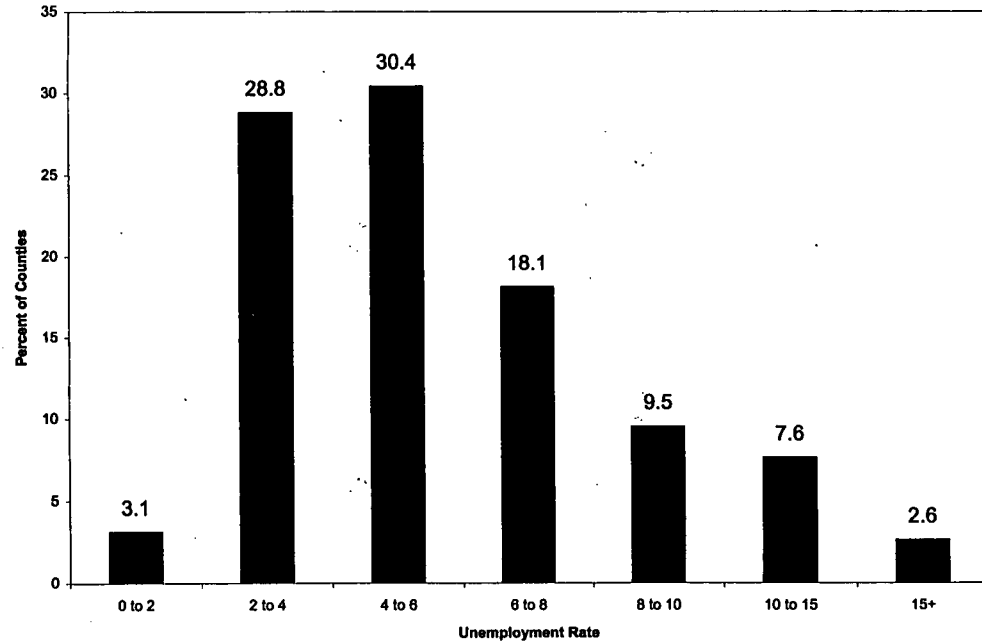
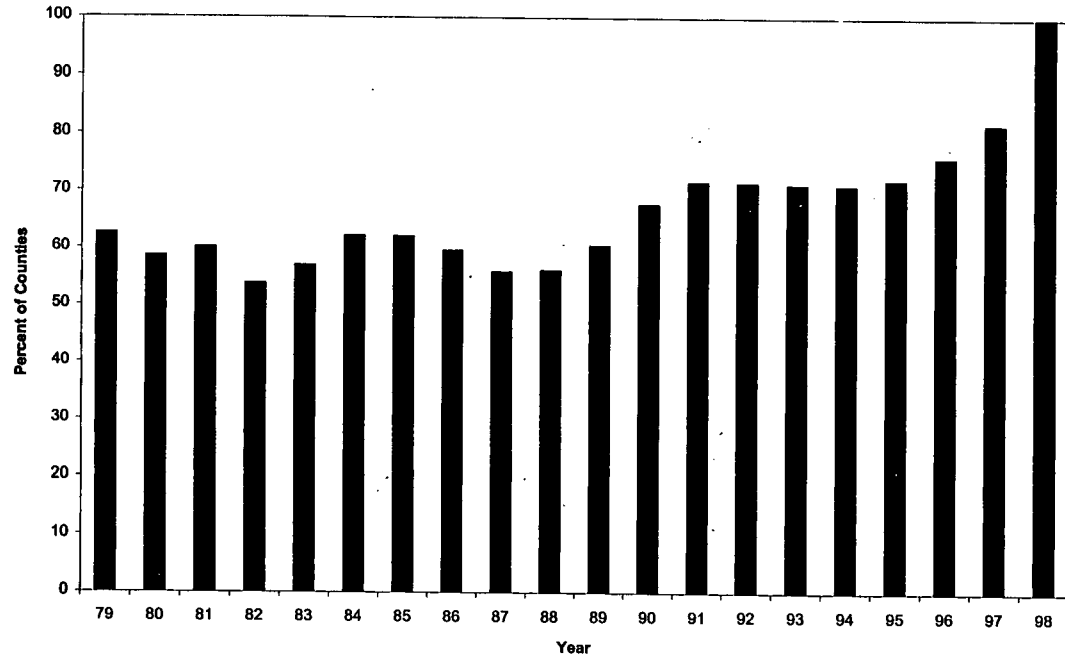**High Unemployment Counties in the U.S.**

Rates greater than 8 percent in 1998-1Q shown in gray

Twenty-five Largest High Unemployment Counties
Ranked by 1997 Population

County	Population (1997 Est.)	Unemployment Rate
1. Kings, NY	2,240,384	10.5
2. Queens, NY	1,975,676	8.1
3. Bronx, NY	1,187,984	11.1
4. Fresno, CA	754,396	16.8
5. El Paso, TX	701,576	10.1
6. Baltimore (city), MD	657,256	9.1
7. Kern, CA	628,605	14.2
8. Hudson, NJ	551,451	8.1
9. San Joaquin, CA	542,504	12.8
10. District of Columbia	528,964	9
11. Hidalgo, TX	510,922	19.2
12. Stanislaus, CA	421,818	14.5
13. Richmond, NY	402,372	8.1
14. Monterey, CA	361,907	17.2
15. Tulare, CA	353,175	18.3
16. Cameron, TX	320,801	12.8
17. Santa Cruz, CA	240,488	10.4
18. Atlantic, NJ	236,569	8.7
19. Yakima, WA	218,318	13.1
20. Barnstable, MA	205,128	8.5
21. Merced, CA	196,123	19.7
22. Butte, CA	194,160	10.2
23. Webb, TX	183,219	9.7
24. St. Lucie, FL	179,559	8.2
25. Dona Ana, NM	168,470	9.9

Persistence of High Unemployment in High Unemployment Counties
1979 to 1998

Source: Joint Economic Committee, Minority Staff

Characteristics of Low and High Unemployment Counties
Based on unemployment rates for the 1st quarter of 1998

	Important	Low Unemployment (<= 8 %)	High Unemployment (>8 %)	Very High Unemployment (>10 %)
County Group Characteristic				
Total number		2525	617	320
(percent with characteristic)				
Employment Loss, 1996-97	*	35	45	47
High Earnings (>30K per job)	*	23	13	13
"Large" Black Pop (>25%)	*	11	19	21
"Large" Hispanic Pop (>25%)	*	4	8	12
"Large" Indian Pop (>25%)		1	4	4
"Large" Minority Pop (>25%)	*	16	31	36
"Large" College Pop (>20%)	*	15	3	2
"Large" Dropout Pop (>40%)	*	16	36	41
Northeast		7	8	4
Midwest		30	32	33
South	*	52	34	29
West	*	11	25	33
Metro	*	31	9	8
Nonmetro	*	69	91	92
Characteristics of nonmetro				
Farming-dependent	*	27	16	16
Services-dependent		15	12	12
Nonspecialized		21	21	18
Manufacturing-dep		22	22	18
Govt.-dependent	*	9	16	21
Mining-dependent	*	5	10	10

Relationship Between County Characteristics and Unemployment Rates

An increase in	employment growth, 1996-97,	lowers the unemployment rate by **0.41** percentage points
An increase in	**local earnings per job**	raises the unemployment rate by **0.24** percentage points
An increase in	**state's unionization rate**	raises the unemployment rate by **0.64** percentage points
An increase in	**average state AFDC payment (1995)**	raises the unemployment rate by **0.22** percentage points
An increase in	**employment share in agriculture**	raises the unemployment rate by **0.12** percentage points
An increase in	**employment share in manufacturing**	lowers the unemployment rate by **0.13** percentage points
An increase in	**employment share in wholesale trade**	lowers the unemployment rate by **0.36** percentage points
An increase in	**employment share in retail trade**	raises the unemployment rate by **0.39** percentage points
An increase in	**percent Black**	raises the unemployment rate by **0.47** percentage points
An increase in	**percent Hispanic**	raises the unemployment rate by **0.30** percentage points
An increase in	**share of adults with college degree**	lowers the unemployment rate by **0.46** percentage points
An increase in	**share of adults without a HS diploma**	raises the unemployment rate by **0.95** percentage points
An increase in	**the value of the amenity index**	raises the unemployment rate by **0.23** percentage points
Residence in	**the South**	lowers the unemployment rate by **0.27** percentage points compared with residence in the North
Residence in	**the West**	raises the unemployment rate by **0.33** percentage points compared with residence in the North
Residence in	**a small, remote county**	raises the unemployment rate by **0.51** percentage points compared with residence in a large city.