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THE EMPLOYMENT SITUATION: AUGUST 1997

HEARING

before the

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED FIFTH CONGRESS

FIRST SESSION

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JOINT ECONOMIC COMMITTEE

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THE EMPLOYMENT SITUATION: AUGUST 1997

Friday, September 5, 1997

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

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

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

Staff Present: Christopher Frenze, Howard Rosen, Mary Hewitt, Juanita Morgan, Robert Keleher, Brenda Janowiak, and Kerry Sutten.

OPENING STATEMENT OF
REPRESENTATIVE JIM SAXTON, CHAIRMAN

Representative Saxton. Well, I was waiting for precisely 9:30 to begin the hearing, and, as you can hear, we have a vote, which occurs precisely at 9:30. Let me just begin the hearing by welcoming Dr. Abraham, Mr. Dalton and Mr. Rones again this month.

We are pleased to be here to continue to observe this business cycle expansion, which began in the second quarter of 1991, and it continues to produce economic and modest employment gains.

According to the household survey and the employment-population ratio, an important measure of the economy's ability to create enough new jobs remained at a historically high level. The unemployment rate was little changed at 4.9 percent. The employment gain posted in the payroll survey was affected, we believe dramatically, quite dramatically, by the UPS strike. Overall, labor market conditions appear to be solid, given the healthy pace of economic growth.

My main concern is continued stagnation of earnings for middle class workers reflected in the Bureau of Labor Statistics (BLS) data right up through the last quarter. This measure of real median weekly earnings has shown decline or stagnation for a number of years.

The overall strength of the economy and the labor market produced concerns about inflation among some economists. However, lower unemployment has been associated with lower, not higher, inflation during the last two business cycles. Market price indicators monitored by the Joint Economic Committee (JEC) do not show solid evidence of inflation. This lack of evidence of inflation validates recent Federal Reserve policy and suggests that an increase in interest rates is not appropriate in the near future.

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

Dr. Abraham, rather than to interrupt you in the middle of your statement and testimony, we may as well break at this point, and I will go vote and be back here as quickly as my legs will get me here.

Thank you.

Ms. Abraham. Thank you.

[Recess.]

Representative Saxton. Okay. Well, with that out of the way, we have been joined by Mr. Hinchey and Mr. Sessions. They have agreed that the most important thing we can do at this point, Commissioner, is to move right to your testimony. So you may proceed.

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 RONES, ASSISTANT COMMISSIONER OF CURRENT EMPLOYMENT ANALYSIS

Ms. Abraham. Thank you, Mr. Chairman, Members of the Committee. I appreciate the opportunity to be here to comment on the employment and unemployment data that we have released this morning.

Nonfarm payroll employment edged up in August. The over-the-month gain would have been larger but for the effect of the strike in the transportation industry. The unemployment rate was essentially unchanged in August at 4.9 percent.

The transportation strike involved 185,000 workers. The net impact of the strike on employment, however, was smaller, perhaps about 155,000, after accounting for hiring elsewhere in the transportation industry and at the Postal Service to help meet the demand for parcel delivery.

I might note that in the payroll survey, workers who are on strike for the whole reference period are not counted as employed because they are not being paid by their employers. So that is why we are getting the impact on the payroll employment numbers.

Offsetting the transportation industry decline were employment increases in a number of industries. Government employment rose for the third month in a row, with the gains, again, concentrated in local education.

As I have noted before, changes in school schedules make precise seasonal judgment for local education problematic. In 1996, most of the year's seasonally adjusted employment gains for local education were recorded in the June-to-August period, and then you didn't see much the rest of the year. And the same pattern seems to be emerging this year. An increase in Federal employment reflected postal workers hired on a temporary basis during the transportation strike. Excluding the Postal Service, Federal employment continued to decline.

The finance industry continued to add workers. Indeed, uninterrupted growth in that industry over the last 26 months has netted nearly 200,000 new jobs, with the largest gains among mortgage bankers and brokers and security and commodity brokers.

Services added only 32,000 jobs, following a much larger gain in July. The average for the two months, July and August, was 94,000 per month, about in line with the monthly average over the first half of the year.

A job loss of 16,000 in help supply services was the fourth decline in the last five months. Employment in both amusements and recreation and private education declined following substantial employment increases in recent months.

More than offsetting these losses were continued job gains in health services, computer services, social services, and engineering and management services. In addition, motion pictures recorded an unusually large gain.

Job growth in retail trade slowed following two stronger months. General merchandise stores and miscellaneous retail stores continued to add jobs, but employment in eating and drinking places edged down, following strong hiring in April to July. Employment in wholesale trade rose moderately, following an unusually large gain in July.

In the goods-producing sector, manufacturing employment advanced by 47,000, following a decline in July. The August gain reflected the return of 10,000 strikers in the auto and steel industries. In

several industries–fabricating metals, autos, rubber–August gains reversed July declines.

Three other industries continued a strong, more consistent growth pattern: Industrial machinery, which includes computers; electronic components; and aircraft. On the other hand, there was an unusually large decline in furniture and fixtures. And losses continued in food products, apparel and textiles. Construction employment increased for the first time since May, as heavy construction and special trade contractors added jobs.

Average hourly earnings of production of nonsupervisory workers rose by five cents in August after increasing just one cent in July. Over the year, hourly earnings rose by 3.6 percent. The average workweek was up by two-tenths of an hour in August after having declined by a tenth of an hour in July. Both the factory workweek and factory overtime rose by a tenth of an hour.

Turning to data from the household survey, the unemployment rate was about unchanged at 4.9 percent. It has remained between 4.8 and 5 percent since April.

Civilian employment also was little changed at 129.8 million. Since the end of 1996, civilian employment has risen by about 1.7 million, after making some judgments for new estimates of the size of the population that we introduced in January.

In summary, the large transportation strike held the over-the-month payroll employment gain to just 49,000. The unemployment rate was little changed in August at 4.9 percent.

My colleagues and I, of course, would be happy to answer any questions you might have.

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

Representative Saxton. Commissioner, thank you very much. We are glad the news is good.

Commissioner, you mentioned the increase in the unemployment rate from 4.8 to 4.9 percent. And if I heard you correctly, and, if I am assuming to understand what you are saying correctly, when you put this in the context of what has happened with unemployment over the last six months or so, this doesn't seem like a significant increase, statistically meaningful.

Ms. Abraham. No, the increase between July and August was not statistically meaningful. You have to have an increase that is more like

two-tenths of a percentage point before you can say that it really means anything. I characterize it as about unchanged.

Representative Saxton. Commissioner, the payroll employment increase this month was modest in comparison to the increase, the types of increases that we have seen in the recent past. How much of this softness do you believe is because special factors, particularly in the transportation area related to the UPS strike?

Ms. Abraham. We have made an effort to try to assess what the impact of the strike was. There were about 185,000 workers who were out on strike. But that would be an overstatement of the impact of the strike on employment, because while those workers were out on strike, there was also some compensating hiring elsewhere, as other firms and the Postal Service sought to pick up the slack.

So taking all that into account, our point estimate is 153,000. So about 155,000 effect on employment due to the strike.

That doesn't take into account any effects on employment that might have occurred because folks in other industries couldn't get supplies and had to lay people off. It also doesn't take into account any hiring that individual firms may have done directly to get people to move their products. So it is a rough estimate, but about 155,000.

Representative Saxton. So would it be an oversimplification to assume that, all other things being equal when the expansion continues, that when we look at the numbers next month, we should expect to see a rather large gain in the numbers?

Ms. Abraham. Well, I wouldn't want to predict what might happen next month, but maybe to characterize the situation a little differently, very roughly, and with the caveats that I have mentioned, if the strike had not occurred, we might have been looking at employment growth in August of somewhere in the vicinity of 190,000 to 200,000 rather than the 49,000 that we actually observed.

Representative Saxton. You would rather characterize it in terms of what would have happened this month if the strike had not occurred rather than try to project?

Ms. Abraham. Since I, at this point, actually have some information that lets me do some back-of-the-envelope calculations anyway to get at that. But I would stress that is a rough estimate.

Representative Saxton. Thank you, Commissioner.

Obviously, the overall economic situation continues to be very positive. There is one aspect that I have been concerned about over the

past several years and that is the lack of earnings growth for workers in the middle income range. What does this month's data say about this issue?

Ms. Abraham. Well, what we have on a monthly basis, what we had to report today in the way of information on earnings, is data on the average hourly and the average weekly earnings of production and nonsupervisory workers from the payroll survey.

Over the year, in nominal terms, average hourly earnings for production or nonsupervisory workers were up by 3.6 percent. To get a sense of what is happening to real earnings, one can compare that to what is happening to the change in consumer prices.

We don't yet have consumer price information for August, but looking back to the July data, we do seem to be seeing earnings growth running a bit ahead of growth in consumer prices, so that we are seeing some modest increases in real earnings for the production or nonsupervisory group.

Representative Saxton. Well, let me ask the question in a slightly different way. Between the second quarter of 1996, as compared to the second quarter of 1997, did real median earnings increase, or were they level and stagnant?

Ms. Abraham. You are, I believe, referring to the different information that we publish on a little bit different schedule on the usual median weekly earnings of workers from the household survey. Looking at those data, between the second quarter of 1996 and the second quarter of 1997, median weekly earnings for full-time wage and salary workers were up by 2.7 percent compared with a gain in the Consumer Price Index of 2.3 percent. So they also were up modestly in real terms.

Representative Saxton. Less than a percent in real terms?

Ms. Abraham. Yes, by about .3 percent.

Representative Saxton. Less than half a percent?

Ms. Abraham. Yes.

Representative Saxton. How does this compare with other periods of expansion? Don't we find that wages historically have the tendency to increase during periods of expansion?

Ms. Abraham. I am afraid we don't have here the whole time series on these data, the real usual median weekly earnings. That is something I could get for you.

As a general comment, I might note that for quite some time, most of the various wage measures that we have, have been relatively stagnant

in real terms. And that goes back to the mid- to late-70s. Over a quite long period of time, we have not seen big increases in real earnings, taking the Consumer Price Index as the right deflator for converting nominal to real. But we could take a look at for you the history of this particular series and—

Representative Saxton. I would certainly appreciate that.

It just seems to me that when things are going well, when the employment numbers continue to show improvement, as they are currently, that one might expect to see some increase in wages. And whatever information you can help us with would certainly be helpful. Perhaps you can find the dollar level of real median weekly earnings in the second quarter of 1996 and the second quarter of 1997, just to give us a little further insight into this issue.

Ms. Abraham. Phil can find that more quickly in the press release than—

Mr. Rones. In current dollars, in 1996, it was 486. That was the median for full-time wage and salary workers. And it rose to 499 in the second quarter of 1997.

Representative Saxton. Can you help us adjust that for inflation?

Mr. Rones. In constant dollars, it is from 300 to 301.

Representative Saxton. Not much.

Mr. Rones. That is in 1982 dollars. So that is the small increase that the Commissioner referred to.

Representative Saxton. Right.

Mr. Rones. It calculates out to about three-tenths of 1 percent on a real basis.

Representative Saxton. I am just curious as to what is happening in the economy relative to wages and whether this is a historic trend. I don't believe it is. And whatever you can provide us in terms of historical perspective on this issue would be most helpful.

Thank you.

Representative Saxton. Mr. Hinchey.

OPENING STATEMENT OF

REPRESENTATIVE MAURICE D. HINCHEY

Representative Hinchey. Thank you very much, Mr. Chairman. And welcome again, Commissioner.

Ms. Abraham. Hello.

Representative Hinchey. Commissioner, as we all know, there was an increase in the Federal minimum wage that took place on Labor Day, increasing the minimum wage by 40 cents to $5.15 an hour. That followed upon a previous increase last October of 50 cents an hour.

I am curious to know, if you can tell us, now that we have had 10 months of experience with that initial increase, what the impact in trends in employment, unemployment and wages have been on those workers in the economy most affected by the increase in the minimum wage. I am thinking particularly of people in the service sector, some women, teenagers and minorities. Can you give us an idea as to what the impact has been?

Ms. Abraham. I know you had pulled together some information on this.

Mr. Rones. The first thing that I would look at would be the employment rates for teenagers. I know the Chairman likes to look at the employment-population ratios, and we did that. We don't have any kind of complete analysis of these specific effects of the changes in minimum wage.

From where we stand, we really can't disentangle those effects from other things going on in the labor market. But what we see with the employment-population ratio is that, indeed, there was no decline in the employment-population ratio of teenagers, the group most likely to be affected by the change of the minimum wage over the past year. Indeed, that is in slight contrast with the overall employment-population ratio, which was up, I believe, six-tenths of a percentage point over the year. So there doesn't appear to be much disemployment effect in the economy as a whole for teenagers.

Then we looked at the average hourly earnings for retail trade and services compared to the economy overall, and there you do see an increase in the average wages above what you get overall. And you would almost have to get that. Again, this is where the minimum wage is concentrated.

We knew there were several million people who would get a raise as a result of the change of the minimum wage that went into effect a year ago. And so what we see is a raise of perhaps 4 percent or slightly more in those industries and services and retail compared to the overall increase, which was more like 3 percent.

So there was obviously some wage effect. There was no obvious disemployment effect.

Representative Hinchey. And you said that about a million people were affected? I would just be curious to know how many people were affected by the first increase and then by the second.

Mr. Rones. For the first increase, you have to look at the group of people who were earning the old minimum wage and then add those earning between the old minimum and the new. And there, it was in the range of between three to four million people.

So as the new minimum wage comes into effect, we see fairly slowly in our data the compliance and the correct reporting by the households of the new minimum wage. And so it takes a while to see it all in our data, but originally there were about three and a half million hourly paid workers who we thought would be directly affected.

Representative Hinchey. Thank you.

There was an interesting study released earlier this week which showed that about 30 percent of the American workforce are now engaged in so-called nontraditional employment circumstances. Those would be part-time, contractual, day labor, and self-employed. Are you compiling any statistics in this particular area to see how the trends are moving in this part of the economy? Is this part growing, growing by how much, and in what particular sectors?

Ms. Abraham. This is something I personally have been interested in for a long time. And we, back in February of 1995, conducted for the first time a special survey to collect detailed information on so-called contingent workers, by which I mean workers who say that they can't count on their job lasting and also workers in some of these non-traditional employment arrangements.

So we have, at this point, data for February of 1995. We repeated the survey this February. So we will shortly, when we have gotten the data and had a chance to analyze them, have the beginnings of information that will let us look at the trend in all of these arrangements.

I might note that this group of people in nontraditional arrangements is a very disparate group. Some of the people who have done research on this have lumped together people who work part-time, people who work for temporary help firms, people who are independent contractors, people who are in on-call arrangements. And obviously, when you start taking all of these different groups, it is a very disparate set of people, and I think it is important to note that their circumstances are also likely to be quite different.

Representative Hinchey. But you expect that you will be compiling more comprehensive data in this area?

Ms. Abraham. Do you have a date by which you think we will have this report out?

Mr. Rones. I think by the end of the year we should have preliminary data from the second contingent worker survey available.

Representative Hinchey. I noticed–if I may, Mr. Chairman, I noticed that the Senate Appropriations Committee has recommended a reduction in your budget request of some $7 million.

Senator Bingaman, I think, just last month, was asking some questions about the trends in employment, people who are being employed in circumstances where there are no or reduced health care benefits and pensions, things of that nature. And I think that the Chairman has also been interested in this particular area, as many of the Members of the Committee have.

I just want to ask you this for the record, Commissioner. I can probably anticipate the answer. But how will this reduction in your funding, if it goes through, as proposed by the Senate Appropriations Committee, affect your ability to compile the kind of information that you just spoke of with regard to people in these nontraditional categories as well as compiling information on people who are employed but whose employment does not include what we have come to regard as traditional benefits, such as pensions, health care, things of that nature?

Ms. Abraham. Maybe I could just note by way of background, in terms of our budget, one of the things we collect information on, obviously, is compensation. We have a whole data collection program in that area. The emphasis in terms of our budget for collecting information on compensation historically has really been collecting information on pay by locality. That has been important for legal reasons, because it feeds into the Federal pay-setting process.

The budget that we have received explicitly for the purpose of collecting benefits information in particular has been relatively small compared to the budget that we have received for collecting this local area data.

We are taking some steps to integrate our compensation data collection programs in part, because we thought that by doing that and collecting the information in a different way, we could provide better information on benefits. But that is not something that we have received, given the–there has been growing interest in benefits, employer- provided benefits. That is not something that, historically, we have received a lot of funding for collecting.

In terms of the impact of a reduction in our budget on that information, we have had a large reduction in our budget back in fiscal year 1996, and we were forced to think through at that time what our priorities really were.

And I guess, as a general matter, our view has been that we are first and foremost an agency with responsibility for collecting national economic statistics and that, if push came to shove and we had to cut back, that we would cut back on data for state scenarios before we would cut back on national statistics, and we would cut back on things that were more special purpose information before we would cut back on important economic information.

So I think the kinds of things that we would probably look at cutting back are on our things that are more analytic products rather than basic data and also information on state scenarios rather than the national data.

One of the things that Senator Bingaman had been particularly interested in was better data on a state-by-state basis on the portion of workers who have health benefits and pension benefits. In the environment where our budget was being reduced, it would be extremely unlikely that that would be anything that we could look at moving to do.

Representative Saxton. Mr. McCrery.

OPENING STATEMENT OF

REPRESENTATIVE JIM MCCRERY

Representative McCrery. Thank you, Mr. Chairman.

Commissioner Abraham, I looked at the growth in the civilian labor force from August of 1996 to August of 1997, and it is a little over two million, seasonally adjusted.

Ms. Abraham. Right. I should note that that needs to be adjusted down by about 300,000 because of some new controls on the estimates that were introduced in January, but—

Representative McCrery. So we are looking at about two million growth in the civilian labor force from August of 1996 to August of 1997.

Ms. Abraham. The growth over the period is–your figure was 2.3?

Representative McCrery. Well, I am saying now adjusted by what you said, about two million.

Ms. Abraham. Yes.

Representative McCrery. Approximately two million.

Ms. Abraham. About 2.6 million.

Representative McCrery. Can you give me some historical perspective? Is that a normal rate of growth in the civilian labor force, or is it higher or lower over a year's period from August to August?

Ms. Abraham. Let me just get the figures out here.

I am just looking back over the time series on the civilian labor force, and that is a pretty healthy rate of growth over that period.

Representative McCrery. What about compared to, say, 1994 to 1995, 1995 to 1996? Do you have that handy?

Ms. Abraham. Yes, I do. Let me do this math in my head. Between 1994 and 1995, the civilian labor force growth was only about one million.

Representative McCrery. Yes.

Ms. Abraham. I am taking August-to-August numbers so we end up at the right point. From 1995 to 1996, the growth was about 1.7 million. And then over the past year, it was, as we were saying, over two million.

Representative McCrery. So for the last year and maybe the last couple of years, we have experienced a pretty healthy rate of growth in the civilian labor force.

Ms. Abraham. That is correct.

Representative McCrery. And yet unemployment has gone down over that period; is that correct?

Ms. Abraham. That is correct.

Representative McCrery. So the conclusion that I draw from that data, and you correct me if I am wrong, but it seems that the economy is producing enough jobs to accommodate the growth in the labor force. Is that an appropriate conclusion?

Ms. Abraham. Yes, that seems right.

Representative McCrery. Obviously, we still have some unemployment, but 4.9 ain't bad.

Ms. Abraham. Another figure that you might want to look at is just what is happening to the share of the population that is employed, and that has gone up over this period. So we are generating more than enough employment to keep up with the natural growth, if you will, in the size of the working age population.

Representative McCrery. So at least based on the data that we have before us today, there is no evidence that welfare reform and people going off the welfare rolls has caused any increase in unemployment.

There is no indication that the economy is not able to produce jobs for those folks going off the welfare rolls. Would that be—

Ms. Abraham. There is obviously a lot going on in the economy that underlies these numbers, and I wouldn't want to try to draw any type causal relationships between any one particular set of developments and what we are seeing in the aggregate data.

Representative McCrery. But at least globally, there is no indication that the economy is yet, at least at this time, unable to produce enough jobs to accommodate whatever is happening in the civilian labor force.

Ms. Abraham. Job growth over the recent past has been more than adequate to accommodate the natural growth in the available labor force related to the growth and the population.

Representative McCrery. Okay. Thank you.

Thank you, Mr. Chairman.

Representative Saxton. Thank you.

Mrs. Maloney.

OPENING STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY

Representative Maloney. Thank you all.

May I have my opening statement entered for the record?

Representative Saxton. Yes.

Representative Maloney. The Senate Committee on Labor and Human Resources is currently considering the Workforce Investment Partnership Act. One of the provisions of the Act aims at improving communication between the States and the Federal Government in the collection and administration of labor market information. To what extent does the Bureau currently engage in discussions with State Employment Agencies?

Ms. Abraham. We more than engage in discussions with the State Employment Agencies. We work quite intimately with the State Employment Agencies.

Representative Maloney. Are these meetings or discussions on a regular basis?

Ms. Abraham. We operate our data collection programs jointly with the State Employment Security Agencies. Our monthly payroll survey is done jointly with the States. They are actually out there collecting data and feeding it in to us.

Our local area unemployment estimates are actually produced for us in the States. So in the labor market area, with the notable exception of the Current Population Survey, which is the household survey that produces the unemployment rate and is done for us by the Census Bureau, all of our programs are operated jointly with the State Employment Security Agencies, and that obviously involves a lot of communication.

Representative Maloney. Do you have any ideas on ways to improve the dialogue? Do you think it would be helpful if you had regular monthly meetings, an advisory council with groups from the State, not just bureaucrats and agencies, that you are talking to? Are there ways that you can improve the dialogue, or do you think it is fine the way it is?

Ms. Abraham. I think the dialogue is very good. We meet once a year with–we have a big meeting to get together to talk about global issues related to the data that we are producing. I count on the folks in the States to have good ties with their State community, the users of the data, and my sense is that they do.

Representative Maloney. Is a meeting once a year adequate?

Ms. Abraham. Once a year we have a global meeting to talk about the big picture, and then, in each of the program areas, there would be other meetings held regularly over the course of the year. So because we are doing this work jointly, we have to be working closely with these folks.

Representative Maloney. What do you think about having your Bureau report annually on its efforts in working with States to improve labor market information? There is no room for improvement, you don't think?

Ms. Abraham. It certainly couldn't hurt.

Representative Maloney. It seems that in many urban areas–and I represent an urban area, New York City–the level of employment has been running at twice the national average. Unemployment in New York City is now, what, 8 percent? What are your numbers showing for New York City?

Ms. Abraham. That sounds right. But let me see if I have the most current—

Ms. Maloney. And is it not true—

Ms. Abraham. It was 8.8 for calendar year 1996.

Representative Maloney. So 8.8 percent. And is it not true that in most of the urban areas it is roughly at twice the national average? Is that correct?

Ms. Abraham. I have a list here. Again, this is data for 1996 for the 20 largest cities. And it is true that in quite a number of them, though far from all of them, there are unemployment rates that are substantially above the national average. That is true in New York, Los Angeles.

Representative Maloney. Would you comment on why you believe this is happening. Are there any groups within urban areas which appear to be particularly vulnerable to being unemployed? What should cities and States be doing to address this problem? Are there any comments that you could make on that? I mean, 4.9 percent nationally is wonderful. But if our urban areas are running at twice that, it is a problem that needs to be addressed.

Ms. Abraham. In answer to the first part of your question, which was whether there are any particular groups that stand out as having higher rates in the urban areas than elsewhere, they are higher for men. They are higher for women. They are higher for teens.

Representative Maloney. Is there any category or age group that stands out in urban areas? Are there any—

Ms. Abraham. I am looking at data for New York City in particular. I don't have comparable data for any of the other cities.

Representative Maloney. Any particular characteristics that you can comment on?

Ms. Abraham. There may be one thing that we have not looked at: Whether there are differences in the composition of the workforce in terms of the educational level or that sort of thing that might be a factor. We could try to take a look at that.

Representative Maloney. Great.

Ms. Abraham. Our data are somewhat–when it comes to looking at, for example, New York City in particular, our data are, unfortunately, somewhat limited by the size of the survey sample we have to work with. But we can take a look at that, which we have not done.

Representative Maloney. Okay. My time is up.

[The prepared statement of Representative Maloney appears in the Submissions for the Record.]

Representative Saxton. Thank you, Mrs. Maloney.

Commissioner, in just a few week–in fact on September 30–the Fed will again assess its policy and make decisions relative to interest rates and whether there is evidence of inflation in the economy.

Last March, as a matter of fact, the Fed did increase interest rates based on what I think it loosely described as fears of inflation.

We looked for evidence of inflation here. Of course, we looked at all the common indicators, including the Consumer Price Index (CPI) and the Producer Price Index (PPI), et cetera, et cetera. We also looked at long bond prices. We looked at commodity prices. We looked at the value of a dollar. And we were unable to find any evidence of inflation or even anything that would create fears of inflation at time. But Chairman Greenspan, at one point during our discussions, indicated that the Fed was concerned about inflation in the cost of labor.

Do you have any figures that you can share with us or any numbers? Do you see any trends? How would you assess the hourly earnings data in this report relative to the situation I just described? And does it suggest inflation on the wage front in any way?

Ms. Abraham. Well, we have, as you know, two sources of information on earnings on a reasonably regular basis. We have information on production and nonsupervisory workers, average hourly and average weekly earnings. That series, as we talked about, is up over the last year by about 3.6 percent. That is actually a little bit less of an increase in nominal terms than we had seen last year.

We also recently, within the last six weeks or so, released our Employment Cost Index for the second quarter. That also seemed to be pretty much in line with what we had been seeing.

So in neither of those two series are we seeing an acceleration in the rate of growth of nominal wages or nominal labor costs.

Representative Saxton. I think the point that Chairman Greenspan and others were trying to make–and perhaps legitimately so–was that as we move in a period of long growth and long expansion and, as the interest rate ticks down, there can be shortages in the labor force. And, of course, the supply of labor reacts. The cost of labor reacts to the lost supply and demand, and, as the supply becomes tighter, then we would expect the cost of labor to go up.

From what you just said, I think we are not seeing any evidence of that.

Ms. Abraham. We are not seeing any evidence of that in the aggregate statistics. It may well be, if you go look at particular

occupations or particular local areas, that there might be things that people could see that were going on. But there is nothing showing up in our aggregate statistics at this time.

Representative Saxton. Okay. Commissioner, the BLS produces two major data series related to inflation, CPI and the PPI. Does the overall PPI show any broad or building inflationary pressures that you can tell us about?

Ms. Abraham. Ken, you may have more complete figures on the PPI with you than I do.

Mr. Dalton. I guess, in general, you would have to say no, it doesn't, keeping in mind that we are talking about the past here and not the future.

Through the first seven months of this year, the Finished Goods Index and Producer Price Index—

Representative Saxton. Sir, could you pull the microphone a little closer. Thank you.

Mr. Dalton. Sure. Through the first seven months of 1997, the finished goods component of the PPI has actually declined at a 3.1 percent seasonally adjusted annual rate. And each of the principal components–that is, finished consumer foods, finished energy goods, and then the rest, excluding food and energy–all are in the negative range.

So on the producer side, there is obviously no inflation. There is something akin or what might be called deflation. Those are actually dropping.

Representative Saxton. Okay. Thank you.

Mr. Dalton, does the CPI show any significant evidence of increases of inflation over the past several months?

Mr. Dalton. Well, using the same span–that is, through July of this year–the seasonally adjusted annual rate for the all–item CPI is 1.5 percent. That compares with an increase of 3.3 percent in all of last year. So it shows a deceleration rather than acceleration.

Representative Saxton. Once again, we see no evidence that would tend to concern us relative to inflationary pressures building over the last several months.

Mr. Dalton. I am not sure you can say that. As I said, this information tells you what has happened. It doesn't tell you–it doesn't necessarily suggest what is going to happen.

Representative Saxton. Mr. Dalton, the answer of any solid evidence of inflation I believe we could say validates the Federal Reserve

policy in holding interest rates steady during the past recent months. It would also support the continuation of that policy at the September 30 FOMC meeting. Would you agree with that?

Mr. Dalton. I wouldn't comment on that, I don't think.

Ms. Abraham. That sounded more like a statement than a question.

Representative Saxton. Why am I not surprised?

Several months ago, you prepared a study at my request on issues related to the CPI and the Boskin Commission report. Can you tell us how the BLS progress on revising the CPI is coming?

Ms. Abraham. Well, we are on track with, as has long been planned, introducing a new updated market basket effective with the publication of data for January 1998, which will be mid-February.

The other thing that is immediately ahead that we are on track doing is making a decision concerning for which components of the index we will adopt an alternative method of calculation that addresses the so-called substitution bias problem at the elementary level of detail. And we plan to make an announcement about that in December and are on track to doing that as well, although whatever we decide to do won't take effect until we publish data for January 1999.

So those are the two things we are working on most immediately. We, of course, have a full plate in terms of a further agenda of things to look at and so on.

Representative Saxton. You have an ongoing program of looking at the market basket, what you measure, how it is measured, the accuracy of the measurements, and you continue to attempt to make adjustments to gain greater accuracy.

Ms. Abraham. Yes, as we have done for some time.

Representative Saxton. Yes, right.

Returning for just a minute to the subject of the Federal Reserve. Obviously, it is carefully monitoring inflation numbers, including your CPI and PPI numbers. What special factors should analysts be wary of in the near term with regard to inflation?

Ms. Abraham. I don't have anything particular in mind.

Do you have any, Ken?

Mr. Dalton. No, nothing unusual. I mean, this is coming on a time of the year, for example, when the new model automobiles are introduced, and that sometimes will show up as a price increase. But no,

nothing–this is a little bit sensitive area for us, because it gets very close to forecasting, which means—

Representative Saxton. I understand.

Mr. Dalton. —which we assiduously stay away from.

Representative Saxton. That is not your business. I understand that.

If I may just conclude–and if you disagree with this, please say so –there is no evidence in the PPI that there are inflationary pressures building. The same is true of the CPI. And your answer to my last question indicates that you are unable–and I think correctly so–to point to any special areas of measure that we ought to be concerned about. And, therefore, it leads to the conclusion–and a happy one, I believe–that inflationary pressures do not seem to be evident anywhere in these numbers.

And I know it is not your job to speculate, but when asked if there is anything that we ought to be wary of, you mentioned automobile prices. But other than that, there is nothing that we ought to be concerned about as far as the evidence that you have available to you can show? Is that fair?

Ms. Abraham. I think what we probably would feel comfortable agreeing with is a simpler statement that there is no evidence to date of acceleration in the rate of growth of either the PPI or the CPI.

Representative Saxton. Thank you.

Mr. Hinchey.

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

I thought that was a very interesting line of questioning. I would just like to ask this one question to follow up on the Chairman's line. Isn't it true that the PPI, which, as you describe it, is actually deflationary rather than inflationary–isn't it true that it leads the CPI, generally speaking? Isn't it true that the PPI is an early indicator, much earlier than the CPI, because it indicates the cost to producers rather than the cost the consumers are paying?

Mr. Dalton. In general, I would have to say no, it is not strictly the leader. The composition of the two Indexes is quite different. The Producer Price Index covers only mining and manufacturing. The Consumer Price Index covers all consumer spending, which includes services. So there are big differences in definition.

Now that is not to say that there aren't transmission effects you can see from the Producer Price Index to the Consumer Price Index, and they

generally show up in components like energy and in food, where the transmission is nearly immediate. But in general, I don't think–well, I am repeating myself here. But the relationship between the PPI and the CPI–PPI, finished goods, versus CPI, all items–is not as straightforward as a leading indicator, for example.

Representative Hinchey. No. I understand the distinction, obviously. The PPI represents the costs to producers.

Ms. Abraham. For a very narrow segment of the economy.

Representative Hinchey. Manufacturing and mining, yes.

Mr. Dalton. Right.

Representative Hinchey. But in the manufacturing sector, of course, that is, the prices paid by producers are passed on to consumers. If producers are finding that their costs are actually decreasing, they are much less likely to pass on costs to consumers, because the increased costs are negligible or nonexistent.

Ms. Abraham. Let me put what Ken said maybe another way. There are various people, including folks that we have brought in, who have tried to take a look at these transmission mechanisms, and it doesn't seem to be particularly straightforward or clear-cut that a particular change in the PPI is going to show up in the aggregate CPI at all.

Mr. Dalton. With the exception, I think, of things like energy and food.

Ms. Abraham. Where there is a more one-to-one relationship.

Mr. Dalton. Right. And they get transmitted very, very quickly and almost at once.

Representative Hinchey. Okay. Let me just ask you one more question specifically. You indicated that the increases in the public sector employment were largely confined to the local level of government and there more specifically to education.

I am wondering if you have more discrete figures with regard to the increase in the education area. Are we seeing more teachers being employed? Or is the employment growth in the service sector of education–auxiliary personnel, maintenance people, janitors, things of that nature–or administrators, principals, people in that category?

Ms. Abraham. Just one comment. I think you are aware of this already. In terms of the growth that we have seen over the last few months in local education employment, that is almost surely exaggerated as an indication of what the trend growth and employment in that sector is because of some seasonal adjustment difficulties we have. But it is

also true that, taking a longer perspective, local education employment is growing.

Do you have any breakout, Phil, on faculty versus nonfaculty, or is that something we could provide?

Mr. Rones. We don't make separate estimates—

Ms. Abraham. Okay.

Mr. Rones. —for that. But it is the case that enrollments in general are trending upwards right now. And so if you just maintain a staff-to-student ratio, you will see trend growth in this industry. And, indeed, if you look at the over-the-year change, it is best to compare the similar months. When you are running into some seasonal adjustment problems, in this case, we are better off looking August to August. And you have an increase of about 170,000 in local education. And so that is a better indication of the trend growth, 170,000; perhaps 15,000 or so a month.

Representative Hinchey. Thanks very much.

Representative Saxton. Mr. McCrery.

Representative McCrery. It has been a long time since I have had junior high math, so I need a little help. On the front page, on the first page of your news release, you say that, at the bottom of the page, both the mean and median duration of unemployment, which had risen in July, declined to 15.9 and 7.8 weeks, respectively. So as I read that, the average length or the average duration of unemployment is 15.9 weeks.

Ms. Abraham. Right.

Representative McCrery. But the median is 7.8 weeks.

Ms. Abraham. Right.

Representative McCrery. I am just having a hard time reconciling that.

Ms. Abraham. What is going on with that—

Representative McCrery. No, no. I am having a hard time doing the math here.

Ms. Abraham. Maybe—

Representative McCrery. How do you get the median, which I recall is kind of the midpoint between the highest and the lowest?

Ms. Abraham. Exactly.

Representative McCrery. And if you multiply the median times two, you should get the approximately—

Ms. Abraham. No.

Representative McCrery. That is not the middle?

Ms. Abraham. No. The average is just–if you add up all the durations and divide them by the total number of people.

Representative McCrery. Of people, right.

Ms. Abraham. If you have a nice bell-curved-shape distribution where you have got the same number of people–in other words, it is a nice symmetric thing–then the mean and the median are going to be the same.

Representative McCrery. Yes.

Ms. Abraham. But if you have a distribution where you have got –I will try to do this. If you have got sort of a peak and then you have got a long tail out here of people who have, some of them, very, very long durations, the mean, the average, because you are weighting in those people with very long durations, is going to tend to be above the median, and that is what you have got here.

Representative McCrery. Okay. So—

Ms. Abraham. I would be happy to give you a little picture that maybe makes it clearer.

Representative McCrery. Yes. Pictures help me.

Ms. Abraham. I don't think waving my hands in the air is going to do it on that. Why don't I send you—

Representative McCrery. Basically, you are telling me there are a lot more people at the lower end of the duration scale.

Ms. Abraham. They are more pumped up at the lower end of the duration scale.

Mr. Rones. There are a million people, 1.1 million people, with what you call very long durations of unemployment, at least a half a year or more of looking for work. And that has a big impact on the mean or the average, the way the Commissioner described that as being calculated. Whether those people's duration was 26 weeks or a year or two years would have no effect on the median at all, because no matter how long they have been looking for work, we know this is to the right of the median point, the median being the person where there is–you know, if you have seven million unemployed people, there are three and a half million who have less and three and a half million who have more.

Ms. Abraham. Does that—

Representative McCrery. Yes, that helps. Thanks.

Do you ever do any surveys of employers to determine jobs gone wanting? In other words, jobs—

Ms. Abraham. Surveys of vacancies they are trying to fill?

Representative McCrery. That they have a very difficult time filling. Dairy farmers, for example, in my District just tell me that they can't get people to work, they can't get people to do the jobs. Some other folks in the inner cities, maybe they have jobs that they advertise and advertise and they can't get anybody to fill the jobs.

Do you ever do any surveys like that to determine maybe categories of jobs that go wanting or the number of jobs that go wanting and how they are distributed geographically?

Ms. Abraham. We have, from time to time, done tests of collecting that kind of information. We did one in the mid-60s; we did one in the late-70s; we did another in the late-80s, surveys of the number of job vacancies that employers had, and collected information on the occupations and some information on how long the jobs have been open.

There was also a short period of time when manufacturing information on job vacancies was collected. That was from 1969 to 1973. So I think we have established that it is possible to collect that kind of information. But it is not something that, in the recent past, has ever been a part of our ongoing data collection activities.

It would be a relatively expensive endeavor to conduct a job vacancy survey, particularly if you were interested in having geographic detail, occupational detail, information on the wages of the jobs that were offered. The more detail you want, which obviously would help in providing a picture of the situation, unfortunately, the more expensive the information is to collect.

Representative McCrery. So you are telling me that at one time BLS did what I am suggesting—

Ms. Abraham. No.

Representative McCrery. —but now you don't.

Ms. Abraham. There were some tests and, for a short period of time, a sort of limited ongoing survey. But we have never had a comprehensive ongoing survey.

Representative McCrery. I can see where that might be of some value to policy makers, and maybe even ordinary people, if we knew where the jobs were and what they were.

Ms. Abraham. Yes. There is also a point I should–given the comment you just made, I should probably make–what we are in a

position to provide is statistics on the kinds of jobs that are out there. What we are not in a position to provide is information to individual citizens on, you know, where specifically the vacancies are and thus where they should target their job search activities.

So depending on the purpose for which one is interested in this information, it might be–if what you really want is statistics, something that we would do, could do, or that State agencies could do might be appropriate. If what you really want is a data bank that tells people where specific openings are, that obviously wouldn't be us.

Representative McCrery. We have about 150 Federal jobs programs that try to do that. But I am more interested in the statistics so we can know if there are jobs wanting out there or if this is just an anecdotal thing that I have picked up in walking around. And maybe with statistics, we could see some distributional picture of where the jobs are, what regions of the country. It just seems to me that might be helpful.

Representative Saxton. Thank you.

Mrs. Maloney.

Representative Maloney. Thank you, Mr. Chairman.

I believe my colleague raised a very important point. I think such a study of statistics would be incredibly helpful.

Recently, as you know, after the Boskin Commission report, there was a great deal of discussion, debate, in Congress about possibly setting up a commission to come forward with the CPI numbers. Many of us did not support that proposal, and, in fact, one of my resolutions bills actually passed the Congress, along with my Republican colleague, John Fox, calling for the Bureau of Labor Statistics to only come forward with any changes in the CPI.

There was some discussion about whether or not the Bureau of Labor Statistics had the staff necessary to support this work. So my question is: Do you have enough resources to get the job done? I know there are some proposals to cut your budget, and I would like to know if you have sufficient staff to come forward with the CPI statistics and the other important data that you are required to come forward with.

Ms. Abraham. We currently are funded to produce the Consumer Price Index. But we have also put forward, as part of the President's budget, a request for funds to carry out what I think we called in the proposal a CPI improvement initiative that would allow us to do

everything that, as of the point in time we put that together, we knew how to improve the Consumer Price Index.

So I obviously am very much hoping that we will receive the funding that we have requested for that purpose.

Representative Maloney. And what is that funding that you have requested?

Ms. Abraham. We have requested, what was it, $2.1 million this year–although that is the first-year funding–for a program of activity in further out years would end up being about roughly $10 million per year.

Representative Maloney. And to add an additional job, really, as my colleague pointed out, that of gaining statistics on where the jobs are in the country, possibly you could come forward with a proposal on how you could accomplish that and what that would cost. I think you raised an important point.

Ms. Abraham. We have done some thinking in response to earlier requests on that subject. And I would be happy to share with both of you the very preliminary sort of rough proposal: This is what we could do if we had additional resources for that purpose.

Representative Maloney. That would be very helpful.

In the past, you have been kind enough to answer questions concerning the earning ratio between women and men. And you informed us that from 1994 to 1996, the women to men's earning ratio actually dropped.

In this light, what are the characteristics of unemployed women in urban areas, and how does that compare with the makeup of women who are unemployed in other areas of the country? Are you seeing any data on what groups or characteristics of women are being affected in this ratio drop?

Ms. Abraham. Well, people who are–if you are looking at the median earnings figures, they only are reflecting people who are working. So it is—

Representative Maloney. So you don't—

Ms. Abraham. There is an argument that it is also illuminating to look at the data, including the people who aren't working, because they couldn't find jobs, who have zero earnings. But they, in these statistics, are not reflected.

We can try to see what we do know on the question of the characteristics of unemployed women in urban areas versus other areas.

I am afraid our database is going to be somewhat limited, but we could take a look at it.

Representative Maloney. Okay. That would be helpful. I would appreciate it.

And if you don't, as you know, we are trying very hard to balance the budget, and many agencies are suffering cutbacks. I believe there was a proposal to cut your budget by $7 million, yet you are telling us today you need 10 additional million to adequately conduct the CPI survey and data. Is that correct?

Ms. Abraham. Not this year, but in subsequent years.

Representative Maloney. In subsequent years.

Ms. Abraham. Yes.

Representative Maloney. Thank you very much.

Representative Saxton. Well, thank you, Commissioner. I have no further questions, and I believe that is common with all of us here. So I thank you for being here this month, and we will look forward to seeing you again in the first part of October.

Thank you very much.

Ms. Abraham. Thank you.

[Whereupon, at 10:50 a.m., the hearing was concluded.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

I am pleased to welcome Commissioner Abraham and her associates before the Committee this morning.

The business cycle that began in the second quarter of 1991 continues to produce economic and modest employment gains. According to the household survey, the employment-population ratio, an important measure of the economy's ability to create enough new jobs, remained at an historically high level. The unemployment rate was little changed at 4.9 percent.

The employment gain posted in the payroll survey was affected by the UPS strike. Overall, labor market conditions appear to be solid given the healthy pace of economic growth. My main area of concern is the continued stagnation of earnings for the middle class workers reflected in BLS data right up through the last quarter. This measure of real median weekly earnings has shown decline or stagnation for a number of years.

The overall strength of the economy and labor market has produced concerns about inflation among some economists. However, lower unemployment has been associated with lower, not higher, inflation during the last two business cycles. Market price indicators monitored by the JEC do not show solid evidence of inflation. This lack of evidence of inflation validates recent Federal Reserve policy and suggests that an increase in interest rates is not appropriate in the near future.

PREPARED STATEMENT OF
COMMISSIONER KATHARINE G. ABRAHAM

Mr. Chairman and Members of the Committee:

Good morning. I would like to thank you for this opportunity to comment on the employment and unemployment data that were released this morning.

Nonfarm payroll employment edged up in August; the over-the-month gain would have been larger but for the effect of the strike in the transportation industry. The unemployment rate was essentially unchanged at 4.9 percent.

The transportation strike directly involved 185,000 workers. The net impact of the strike on employment, however, was smaller, perhaps about 155,000 after accounting for hiring elsewhere in the transportation industry and at the U.S. Postal Service to help meet the demand for parcel delivery. (In the payroll survey, workers on strike for the entire reference period are not counted as employed because they are not being paid by their employers.)

Offsetting the transportation industry decline were employment increases in a number of industries. Government employment rose for the third month in a row, with the gains again concentrated in local education. As I have said before, changes in school schedules make precise seasonal adjustment for local education problematic. In 1996, most of the year's seasonally adjusted employment gains for local education were recorded in the June-August period; the same pattern appears to be emerging this year. An increase in Federal employment reflected postal workers hired on a temporary basis during the transportation strike. Excluding the Postal Service, Federal employment continued to decline.

The finance industry continued to add workers. Indeed, uninterrupted growth in that industry over the last 26 months has netted nearly 200,000 new jobs, with the largest gains among mortgage bankers and brokers and security and commodity brokers.

Services added only 32,000 jobs following a much larger gain in July. The average for the two months was 94,000, about in line with the monthly average over the first half of the year. A job loss of 16,000 in help supply services was the fourth decline in the past five months. Employment in both amusements and recreation and private education declined following substantial employment increases in recent months.

More than offsetting these losses were continued job gains in health services, computer services, social services, and engineering and management services. In addition, motion pictures recorded an unusually large gain.

Job growth in retail trade (31,000) slowed following two stronger months. General merchandise stores and miscellaneous retail stores continued to add jobs, but employment in eating and drinking places edged down following strong hiring from April to July. Employment in wholesale trade rose moderately following a unusually large trade gain in July.

In the goods-producing sector, manufacturing employment advanced by 47,000, following a decline in July. The August gain reflected the return of 10,000 strikers in the auto and steel industries. In several industries (fabricated metals, autos, and rubber and miscellaneous plastics), August gains reversed July declines. Three other industries continued a strong growth pattern: industrial machinery (including computers), electronic components, and aircraft. On the other hand, there was an unusually large decline in furniture and fixtures, and losses continued in food products, apparel, and textiles. Construction employment increased for the first time since May, as heavy construction and special trade contractors added jobs.

Average hourly earnings of production or nonsupervisory workers rose by 5 cents in August after increasing just once cent in July. Over the year, hourly earnings rose by 3.6 percent. The average workweek was up by 0.2 hour in August after declining by 0.1 hour in July. Both the factory workweek and factory overtime rose by 0.1 hour.

Turning to data from the household survey, the unemployment rate was about unchanged at 4.9 percent. It has remained between 4.8 percent and 5.0 percent since April. Civilian employment also was little changed at 129.8 million; since the end of 1996, it has risen by about 1.7 million, after adjusting for new estimates f the size of the working-age population introduced in January. (Unlike the payroll survey, the household survey counts strikers as temporarily absent form a job, and, thus, employed.)

In summary, the large transportation strike held on the over-the-month payroll employment gain to adjust 49,000. The unemployment rate was little changed in August at 4.9 percent.

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

News United States Department of Labor
Bureau of Labor Statistics Washington, D.C. 20212

Internet address: http://stats.bls.gov:80/newsrels.htm
Technical information: USDL 97-309
Household data: (202) 606-6378
Establishment data: 606-6555
Media contact: 606-5902

Transmission of material in this release is embargoed until 8:30 A.M. (EDT), Friday, September 5, 1997.

THE EMPLOYMENT SITUATION: AUGUST 1997

Employment and unemployment were little changed in August, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The jobless rate was 4.9 percent in August; it had been 4.8 percent in July and has shown little movement over the past several months.

Nonfarm payroll employment edged up by 49,000 in August to 122.5 million. This gain would have been closer to the recent growth trend if not for the effects of strike activity during the survey reference period. Workers on strike for the entire reference period are not counted as employed in the survey of establishments because they are not being paid by their employers. In contrast, in the household survey, striking workers and others with unpaid absences are counted as employed.

Chart 1. Unemployment rate, seasonally adjusted, September 1994 - August 1997

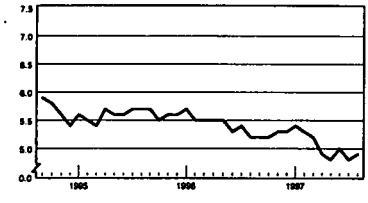
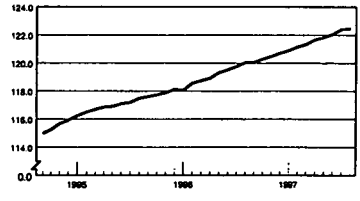


Chart 2. Nonfarm payroll employment, seasonally adjusted, September 1994 - August 1997



Unemployment (Household Survey Data)

The number of unemployed persons, 6.7 million, and the unemployment rate, 4.9 percent, were essentially unchanged in August. From April through August, the unemployment rate remained in a narrow range of 4.8 to 5.0 percent. The rates for the major worker groups—adult men (4.1 percent), adult women (4.4 percent), teenagers (16.4 percent), whites (4.2 percent), blacks (9.3 percent), and Hispanics (7.2 percent)—showed little or no change from July. (See tables A-1 and A-2.)

The number of persons unemployed for less than 5 weeks increased in August, reversing July's decline, while the number who were jobless for 15 to 26 weeks decreased. Both the mean and median duration of unemployment, which had risen in July, declined to 15.9 and 7.8 weeks, respectively. (See table A-5.)

Table A. Major indicators of labor market activity, seasonally adjusted

(Numbers in thousands)

Category	Quarterly averages 1997[1] I	Quarterly averages 1997[1] II	Monthly data 1997[1] June	Monthly data 1997[1] July	Monthly data 1997[1] Aug.	July-Aug. change
HOUSEHOLD DATA	Labor force status					
Civilian labor force	135,934	136,157	136,200	136,290	136,480	190
Employment	128,728	129,462	129,364	129,708	129,804	96
Unemployment	7,206	6,695	6,836	6,583	6,677	94
Not in labor force	66,462	66,678	66,800	66,876	66,884	8
	Unemployment rates					
All workers	5.3	4.9	5.0	4.8	4.9	0.1
Adult men	4.5	4.1	4.2	4.0	4.1	.1
Adult women	4.7	4.4	4.4	4.2	4.4	.2
Teenagers	17.0	15.9	16.8	16.4	16.4	.0
White	4.5	4.1	4.2	4.2	4.2	.0
Black	10.9	10.2	10.4	9.4	9.3	-.1
Hispanic origin	8.3	7.7	7.6	7.9	7.2	-.7
ESTABLISHMENT DATA	Employment					
Nonfarm employment	121,138	121,854	122,056	p122,421	p122,470	p49
Goods-producing[2]	24,635	24,694	24,714	p24,696	p24,751	p55
Construction	5,585	5,616	5,622	p5,622	p5,632	p10
Manufacturing	18,476	18,504	18,518	p18,501	p18,548	p47
Service-producing[2]	96,504	97,159	97,342	p97,725	p97,719	p-6
Retail trade	21,928	22,045	22,079	p22,150	p22,181	p31
Services	35,086	35,436	35,522	p35,677	p35,709	p32
Government	19,540	19,594	19,639	p19,727	p19,799	p72
	Hours of work[3]					
Total private	34.7	34.5	34.6	p34.5	p34.7	p0.2
Manufacturing	41.9	42.0	41.8	p41.8	p41.9	p.1
Overtime	4.8	4.8	4.6	p4.7	p4.8	p.1
	Earnings[3]					
Average hourly earnings, total private	$12.10	$12.19	$12.23	p$12.24	p$12.29	p$0.05
Average weekly earnings, total private	419.36	420.85	423.16	p422.28	p426.46	p4.18

[1] Beginning in January 1997, household data reflect revised population controls used in the survey.

[2] Includes other industries, not shown separately.

[3] Data relate to private production or nonsupervisory workers.

p=preliminary.

Total Employment and the Labor Force (Household Survey Data)

Total employment was essentially unchanged from July at a seasonally adjusted level of 129.8 million. The proportion of the population that was employed (the employment-to-population ratio) remained at 63.8 percent, about the same as it has been since March. (See table A-1.)

About 7.6 million persons (not seasonally adjusted) held more than one job in August. They accounted for 5.8 percent of all employed persons. Both the number of multiple jobholders and their percentage of the total employed were about the same as a year earlier. (See table A-9.)

The civilian labor force, 136.5 million, was about unchanged in August, and the labor force participation rate remained at 67.1 percent. There has been little change in either measure since March. (See table A-1.)

Persons Not in the Labor Force (Household Survey Data)

About 1.3 million persons (not seasonally adjusted) were marginally attached to the labor force in August—that is, they wanted and were available for work and had looked for jobs sometime in the prior 12 months.

The number of discouraged workers—a subset of the marginally attached who were not currently looking for jobs specifically because they believed no jobs were available for them or there were none for which they would qualify—was 311,000 in August, down from 415,000 a year earlier. (See table A-9.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment was little changed in August. Employment growth was held down by a strike of 185,000 workers in the transportation industry. (See table B-1.)

Employment in transportation declined by 153,000. The direct impact of the strike was partially offset by hiring elsewhere within the industry to help meet the demand for parcel delivery. Employment fell by 164,000 in transportation by air, the industry in which the strike occurred. Trucking employment increased by 12,000, compared with an average gain of 6,000 over the prior 3 months.

Employment in services rose by only 32,000 in August, following a much stronger increase in July. The average employment gain of 94,000 over these 2 months was close to the average monthly growth in 1996 and the first half of 1997. The increase in health services (21,000) was in line with recent growth in that industry, although there was an especially strong gain in hospitals (11,000). Employment growth also continued in computer services (10,000), social services (15,000), and engineering and management services (17,000). In contrast, help supply services experienced a decline of 16,000 jobs in August, the fourth decline in the last 5 months. Amusement and recreation services and educational services both lost jobs, following strong summer hiring.

Retail trade added 31,000 jobs in August, following larger increases in June and July. Employment expanded by 15,000 in general merchandise stores and by 11,000 in miscellaneous retail establishments. The number of jobs in eating and drinking places edged down in August, following gains totaling 60,000 over the prior 2 months. Wholesale trade showed moderate growth in August (8,000), following an exceptionally large increase in July. Within wholesale trade, durable goods distribution continued its strong growth pattern, with an increase of 14,000 jobs.

Employment growth continued in finance (10,000) in August. Job gains in the industry have totaled 98,000 over the past year. Insurance continued its recent upward trend, adding 14,000 jobs since March. In contrast, real estate employment was about unchanged in August after gaining 10,000 jobs in July.

Employment in local government education rose by 49,000 in August, after seasonal adjustment. This was the third consecutive large employment increase. Changing seasonal patterns in hiring by local school systems continue to make precise seasonal adjustment of these data difficult. An increase in federal government employment reflected the hiring of postal workers to handle a greater volume of parcel delivery resulting from the strike. Excluding the Postal Service, federal government employment continued its monthly declines in August and was down by 36,000 so far this year.

Within the goods-producing sector, construction employment increased by 10,000 in August, the first gain since May. Employment rose in heavy construction as well as in special trades. Manufacturing employment rose by 47,000 in August. The increase includes the return of 10,000 auto and steel workers who had been on strike. In several industries, the job gains in August offset losses that occurred in July; these include fabricated metals (4,000), autos (16,000), and rubber and miscellaneous plastics (6,000). Three industries continued their strong growth trend: industrial machinery (12,000), electronic components (6,000), and aircraft (4,000). The number of jobs in both textiles and apparel continued to decline. Employment in food products also fell slightly and was down by 18,000 since April.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls increased by 0.2 hour in August to 34.7 hours, seasonally adjusted. The manufacturing workweek and factory overtime both edged up by 0.1 hour, to 41.9 and 4.8 hours, respectively. (See table B-2.)

The index of aggregate weekly hours of private production or nonsupervisory workers on nonfarm payrolls increased by 0.4 percent to 140.8 (1982=100), seasonally adjusted. The manufacturing index rose by 0.5 percent to 108.2. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers on nonfarm payrolls were up 5 cents in August to $12.29, seasonally adjusted. Average weekly earnings rose by 1.0 percent to $426.46, reflecting the increase in both average weekly hours and average hourly earnings. Over the past year, average hourly earnings have risen by 3.6 percent and average weekly earnings by 4.2 percent. (See table B-3.)

The Employment Situation for September 1997 is scheduled to be released on Friday, October 3, at 8:30 A.M. (EDT).

Changes in Household Data Series

Effective with the release of data for December 1997 in January 1998, improvements will be introduced into the composite estimation procedures used in the Current Population Survey. These changes will simplify processing of the monthly labor force data at BLS and will allow users of the survey microdata to replicate the official estimates released by BLS. In addition, there will be a slight decrease in the variance of some major estimates, particularly employment levels and the over-the-month change in those levels. The new procedures will produce somewhat lower estimates of the civilian labor force and employment. Data will be revised back to January 1997 to facilitate over-the-year comparisons between 1997 and 1998.

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

(Numbers in thousands)

Employment status, sex, and age	Not seasonally adjusted			Seasonally adjusted[1]					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
TOTAL									
Civilian noninstitutional population	200,847	203,166	203,364	200,847	202,674	202,832	203,000	203,166	203,364
Civilian labor force	135,011	136,331	137,460	133,898	136,098	136,173	136,200	136,290	136,480
Participation rate	67.2	68.1	67.6	66.7	67.2	67.1	67.1	67.1	67.1
Employed	128,143	131,350	130,865	126,968	129,384	129,639	129,364	129,708	129,804
Employment-population ratio	63.8	64.7	64.4	63.2	63.8	63.9	63.7	63.8	63.8
Agriculture	3,706	3,849	3,661	3,418	3,497	3,430	3,391	3,482	3,383
Nonagricultural industries	124,437	127,501	127,205	123,570	125,887	126,209	125,973	126,226	126,421
Unemployed	6,868	6,981	6,594	6,910	6,714	6,534	6,836	6,583	6,677
Unemployment rate	5.1	5.0	4.8	5.2	4.9	4.8	5.0	4.8	4.9
Not in labor force	65,836	64,835	65,904	66,949	66,577	66,659	66,800	66,876	66,884
Men, 16 years and over									
Civilian noninstitutional population	96,335	97,733	97,838	96,335	97,474	97,559	97,649	97,733	97,838
Civilian labor force	72,888	74,674	74,149	71,981	73,232	73,200	73,242	73,230	73,315
Participation rate	75.7	76.4	75.8	74.7	75.1	75.0	75.0	74.9	74.9
Employed	69,533	71,157	70,890	68,368	69,827	69,929	69,567	69,749	69,791
Employment-population ratio	72.2	72.8	72.5	71.0	71.4	71.7	71.2	71.4	71.3
Unemployed	3,355	3,517	3,259	3,593	3,604	3,271	3,674	3,481	3,524
Unemployment rate	4.6	4.7	4.4	5.0	4.9	4.5	5.0	4.8	4.8
Men, 20 years and over									
Civilian noninstitutional population	88,650	89,888	89,982	88,650	89,680	89,766	89,829	89,888	89,982
Civilian labor force	68,390	69,614	69,571	68,044	69,147	69,059	69,167	69,203	69,301
Participation rate	77.1	77.4	77.3	76.8	77.1	76.9	77.0	77.0	77.0
Employed	65,725	66,962	67,000	65,165	66,243	66,418	66,288	66,414	66,491
Employment-population ratio	74.1	74.5	74.5	73.5	73.9	74.0	73.8	73.9	73.9
Agriculture	2,477	2,575	2,424	2,347	2,428	2,421	2,417	2,411	2,300
Nonagricultural industries	63,248	64,387	64,576	62,818	63,815	63,997	63,849	64,003	64,191
Unemployed	2,665	2,653	2,571	2,879	2,904	2,640	2,901	2,789	2,810
Unemployment rate	3.9	3.8	3.7	4.2	4.2	3.8	4.2	4.0	4.1
Women, 16 years and over									
Civilian noninstitutional population	104,512	105,433	105,527	104,512	105,200	105,274	105,351	105,433	105,527
Civilian labor force	62,123	63,656	63,311	61,937	62,866	62,973	62,956	63,060	63,165
Participation rate	59.4	60.4	60.0	59.3	59.8	59.8	59.8	59.8	59.9
Employed	58,610	60,193	59,978	58,620	59,756	59,710	59,796	59,958	60,013
Employment-population ratio	56.1	57.1	56.8	56.1	56.8	56.7	56.8	56.9	56.9
Unemployed	3,514	3,463	3,335	3,317	3,109	3,263	3,162	3,102	3,152
Unemployment rate	5.7	5.4	5.3	5.4	4.9	5.2	5.0	4.9	5.0
Women, 20 years and over									
Civilian noninstitutional population	97,146	97,919	98,000	97,146	97,685	97,767	97,834	97,919	98,000
Civilian labor force	57,992	58,952	59,123	58,230	58,974	59,130	59,207	59,186	59,408
Participation rate	59.7	60.2	60.3	59.9	60.4	60.5	60.5	60.4	60.6
Employed	55,026	56,243	56,311	55,498	56,392	56,481	56,585	56,685	56,819
Employment-population ratio	56.6	57.4	57.5	57.1	57.7	57.8	57.8	57.9	58.0
Agriculture	880	902	888	826	779	743	740	841	836
Nonagricultural industries	54,146	55,342	55,423	54,672	55,613	55,738	55,845	55,844	55,983
Unemployed	2,966	2,708	2,811	2,732	2,581	2,650	2,621	2,501	2,589
Unemployment rate	5.1	4.6	4.8	4.7	4.4	4.5	4.4	4.2	4.4
Both sexes, 16 to 19 years									
Civilian noninstitutional population	15,051	15,359	15,382	15,051	15,309	15,300	15,336	15,359	15,382
Civilian labor force	8,629	9,764	8,765	7,624	7,977	7,984	7,828	7,901	7,771
Participation rate	57.3	63.6	57.0	50.7	52.1	52.2	51.0	51.4	50.5
Employed	7,392	8,145	7,554	6,325	6,748	6,740	6,512	6,608	6,493
Employment-population ratio	49.1	53.0	49.1	42.0	44.1	44.1	42.5	43.0	42.2
Agriculture	349	371	348	245	290	286	234	229	246
Nonagricultural industries	7,043	7,773	7,205	6,080	6,458	6,474	6,279	6,379	6,247
Unemployed	1,237	1,620	1,212	1,299	1,229	1,244	1,314	1,293	1,278
Unemployment rate	14.3	16.6	13.8	17.0	15.4	15.6	16.8	16.4	16.4

[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 1997, data reflect 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]					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
WHITE									
Civilian noninstitutional population	168,489	170,010	170,148	168,489	169,575	169,782	169,897	170,010	170,148
Civilian labor force	113,713	116,265	115,365	112,904	114,618	114,630	114,691	114,827	114,649
Participation rate	67.5	68.4	67.8	67.0	67.6	67.5	67.5	67.4	67.4
Employed	108,801	111,323	110,654	107,853	109,831	110,052	109,821	109,853	109,782
Employment-population ratio	64.6	65.5	65.0	64.0	64.7	64.8	64.6	64.6	64.5
Unemployed	4,912	4,942	4,711	5,051	4,786	4,578	4,870	4,774	4,867
Unemployment rate	4.3	4.3	4.1	4.5	4.2	4.0	4.2	4.2	4.2
Men, 20 years and over									
Civilian labor force	58,553	59,465	59,307	58,347	59,196	59,008	59,088	59,096	59,129
Participation rate	77.5	77.9	77.6	77.3	77.7	77.4	77.5	77.4	77.4
Employed	56,568	57,543	57,418	56,143	57,057	57,112	56,981	57,030	57,018
Employment-population ratio	74.9	75.4	75.2	74.4	74.9	74.9	74.7	74.7	74.6
Unemployed	1,985	1,922	1,889	2,204	2,139	1,895	2,107	2,066	2,111
Unemployment rate	3.4	3.2	3.2	3.8	3.6	3.2	3.6	3.5	3.6
Women, 20 years and over									
Civilian labor force	47,980	48,575	48,677	48,162	48,662	48,874	48,924	48,756	48,927
Participation rate	59.1	59.6	59.7	59.4	59.8	60.0	60.1	59.8	60.0
Employed	45,847	46,726	46,699	46,232	46,902	47,047	47,128	47,055	47,123
Employment-population ratio	56.5	57.3	57.3	57.0	57.6	57.8	57.9	57.7	57.8
Unemployed	2,113	1,849	1,978	1,930	1,759	1,827	1,795	1,701	1,805
Unemployment rate	4.4	3.8	4.1	4.0	3.6	3.7	3.7	3.5	3.7
Both sexes, 16 to 19 years									
Civilian labor force	7,200	8,226	7,382	6,395	6,760	6,748	6,679	6,775	6,593
Participation rate	60.6	67.5	60.5	53.8	55.7	55.5	54.9	55.6	54.0
Employed	6,387	7,055	6,536	5,478	5,872	5,893	5,711	5,768	5,641
Employment-population ratio	53.7	57.9	53.6	46.1	48.4	48.5	46.9	47.3	46.2
Unemployed	813	1,171	843	917	888	855	968	1,007	951
Unemployment rate	11.3	14.2	11.4	14.3	13.1	12.7	14.5	14.9	14.4
Men	12.1	14.5	12.1	15.7	14.3	12.7	16.3	15.4	15.5
Women	10.5	14.0	10.7	12.9	11.9	12.7	12.6	14.3	13.2
BLACK									
Civilian noninstitutional population	23,650	24,008	24,043	23,650	23,923	23,950	23,978	24,008	24,043
Civilian labor force	15,470	15,877	15,953	15,297	15,363	15,434	15,398	15,510	15,804
Participation rate	65.4	66.1	66.4	64.7	64.2	64.4	64.2	64.6	65.7
Employed	13,792	14,218	14,409	13,699	13,863	13,857	13,793	14,055	14,341
Employment-population ratio	58.3	59.2	59.9	57.9	57.9	57.9	57.5	58.5	59.6
Unemployed	1,677	1,659	1,544	1,598	1,503	1,577	1,605	1,455	1,463
Unemployment rate	10.8	10.4	9.7	10.4	9.8	10.3	10.4	9.4	9.3
Men, 20 years and over									
Civilian labor force	6,888	6,992	7,077	6,874	6,805	6,831	6,926	6,957	7,072
Participation rate	73.2	73.0	73.7	73.0	71.4	71.5	72.4	72.8	73.7
Employed	6,320	6,411	6,554	6,301	6,234	6,255	6,296	6,386	6,541
Employment-population ratio	67.1	66.9	68.3	66.9	65.4	65.5	65.8	66.8	68.1
Unemployed	568	580	523	573	571	575	630	572	532
Unemployment rate	8.2	8.3	7.4	8.3	8.4	8.4	9.1	8.2	7.5
Women, 20 years and over									
Civilian labor force	7,478	7,688	7,793	7,477	7,641	7,693	7,615	7,689	7,803
Participation rate	63.1	64.0	64.8	63.1	63.8	64.1	63.5	64.0	64.8
Employed	6,749	6,989	7,081	6,802	6,997	6,974	6,921	7,053	7,148
Employment-population ratio	57.0	58.2	58.8	57.4	58.4	58.1	57.7	58.7	59.4
Unemployed	728	698	712	675	644	719	694	636	656
Unemployment rate	9.7	9.1	9.1	9.0	8.4	9.4	9.1	8.3	8.4
Both sexes, 16 to 19 years									
Civilian labor force	1,104	1,197	1,083	948	920	910	857	884	928
Participation rate	46.2	49.5	44.9	39.6	38.1	37.9	35.4	35.7	38.5
Employed	723	817	774	596	632	608	577	616	655
Employment-population ratio	30.3	33.8	32.1	25.0	26.2	25.3	23.8	25.5	27.2
Unemployed	381	379	309	350	287	302	281	247	273
Unemployment rate	34.5	31.7	28.5	37.0	31.2	33.2	32.7	28.6	29.4
Men	36.4	35.4	32.7	38.2	37.3	32.6	41.1	32.9	33.1
Women	32.4	28.1	24.4	35.8	25.3	33.8	24.5	25.1	26.2

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]					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
HISPANIC ORIGIN									
Civilian noninstitutional population	19,292	20,351	20,407	19,292	20,180	20,236	20,293	20,351	20,407
Civilian labor force	12,989	14,057	14,026	12,884	13,572	13,746	13,807	13,866	13,910
Participation rate	67.3	69.1	68.7	66.7	67.3	67.9	68.0	68.1	68.2
Employed	11,844	12,909	13,014	11,736	12,470	12,730	12,756	12,768	12,911
Employment-population ratio	61.4	63.4	63.8	60.8	61.8	62.9	62.9	62.7	63.3
Unemployed	1,145	1,149	1,014	1,128	1,102	1,016	1,051	1,098	999
Unemployment rate	8.8	8.2	7.2	8.8	8.1	7.4	7.6	7.9	7.2

[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 1997, data reflect revised population controls used in the household survey.

Table A-3. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
CHARACTERISTIC									
Total employed, 16 years and over	128,143	131,350	130,865	126,998	129,364	129,639	129,364	129,708	129,804
Married men, spouse present	42,622	42,589	42,740	42,568	42,329	42,273	42,448	42,589	42,697
Married women, spouse present	32,209	32,408	32,472	32,665	32,473	32,445	32,519	32,888	32,933
Women who maintain families	7,276	7,767	7,854	7,336	7,838	7,858	7,847	7,901	7,941
OCCUPATION									
Managerial and professional specialty	36,265	37,209	37,407	36,605	37,599	37,318	37,493	37,558	37,775
Technical, sales, and administrative support	37,971	38,651	38,475	37,818	38,150	38,362	38,143	38,193	38,322
Service occupations	17,571	18,066	18,041	17,343	17,267	17,390	17,412	17,523	17,774
Precision production, craft, and repair	14,029	14,539	14,349	13,660	14,301	14,380	14,364	14,282	13,972
Operators, fabricators, and laborers	18,344	18,773	18,754	18,031	18,415	18,647	18,597	18,515	18,473
Farming, forestry, and fishing	3,962	4,111	3,839	3,515	3,605	3,680	3,499	3,554	3,407
CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,991	2,158	2,001	1,814	1,989	1,941	1,929	1,913	1,841
Self-employed workers	1,835	1,628	1,907	1,525	1,424	1,444	1,404	1,492	1,487
Unpaid family workers	79	64	63	64	70	50	40	53	51
Nonagricultural industries:									
Wage and salary workers	115,358	118,362	118,116	114,539	116,608	116,969	116,653	117,104	117,323
Government	17,737	17,825	17,708	18,265	18,036	17,807	18,099	18,338	18,254
Private industries	97,620	100,537	100,409	96,274	98,572	99,162	98,554	98,766	99,068
Private households	1,030	980	1,005	973	922	967	870	910	945
Other industries	96,590	99,578	99,404	95,301	97,650	98,196	97,684	97,856	98,122
Self-employed workers	8,956	9,002	8,959	8,898	9,159	9,108	9,126	8,867	8,923
Unpaid family workers	124	137	130	122	130	148	128	131	129
PERSONS AT WORK PART TIME									
All industries:									
Part time for economic reasons	4,407	4,279	4,036	4,339	4,402	4,019	4,025	4,017	3,992
Slack work or business conditions	2,388	2,211	2,078	2,437	2,491	2,300	2,375	2,211	2,122
Could only find part-time work	1,615	1,728	1,518	1,598	1,629	1,391	1,347	1,522	1,519
Part time for noneconomic reasons	15,459	15,727	15,398	18,184	18,176	18,336	18,322	18,015	18,093
Nonagricultural industries:									
Part time for economic reasons	4,218	4,123	3,877	4,182	4,235	3,806	3,782	3,872	3,854
Slack work or business conditions	2,242	2,115	1,972	2,310	2,374	2,159	2,220	2,102	2,037
Could only find part-time work	1,586	1,683	1,479	1,586	1,603	1,347	1,298	1,509	1,485
Part time for noneconomic reasons	14,866	15,102	14,839	17,555	17,661	17,780	17,663	17,418	17,519

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 1997, data reflect revised population controls used in the household survey.

Table A-4. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
CHARACTERISTIC									
Total, 16 years and over	6,910	6,583	6,577	5.2	4.9	4.8	5.0	4.8	4.9
Men, 20 years and over	2,879	2,789	2,810	4.2	4.2	3.8	4.2	4.0	4.1
Women, 20 years and over	2,732	2,501	2,589	4.7	4.4	4.5	4.4	4.2	4.4
Both sexes, 16 to 19 years	1,299	1,293	1,278	17.0	15.4	15.8	16.8	16.4	16.4
Married men, spouse present	1,277	1,149	1,131	2.9	2.7	2.6	2.7	2.6	2.6
Married women, spouse present	1,148	1,058	1,009	3.4	3.1	3.2	3.2	3.1	3.0
Women who maintain families	686	634	701	8.5	7.5	7.6	8.0	7.4	8.1
Full-time workers	5,479	5,309	5,311	5.0	4.8	4.7	4.9	4.7	4.7
Part-time workers	1,453	1,300	1,363	5.9	5.7	5.2	5.3	5.4	5.8
OCCUPATION[2]									
Managerial and professional specialty	820	748	787	2.2	2.0	2.1	2.0	2.0	2.0
Technical, sales, and administrative support	1,726	1,627	1,662	4.4	4.2	3.8	4.3	4.1	4.2
Precision production, craft, and repair	764	734	690	5.3	4.8	4.6	4.7	4.9	4.7
Operators, fabricators, and laborers	1,561	1,490	1,535	8.0	7.3	7.1	7.4	7.4	7.7
Farming, forestry, and fishing	241	227	271	6.4	6.6	6.2	6.1	6.0	7.4
INDUSTRY									
Nonagricultural private wage and salary workers	5,460	5,077	5,227	5.4	5.0	5.0	5.0	4.9	5.0
Goods-producing industries	1,611	1,547	1,552	5.7	5.4	5.2	5.2	5.4	5.4
Mining	26	25	36	4.5	2.0	3.0	2.9	3.8	5.3
Construction	595	600	635	9.1	8.7	8.4	8.5	8.7	9.3
Manufacturing	990	922	881	4.7	4.4	4.2	4.1	4.3	4.1
Durable goods	489	431	443	4.0	3.8	3.5	3.5	3.4	3.6
Nondurable goods	501	491	438	5.6	5.8	5.3	5.0	5.5	4.9
Service-producing industries	3,849	3,531	3,676	5.2	4.9	4.9	5.0	4.7	4.9
Transportation and public utilities	296	249	288	4.1	2.8	3.5	2.8	3.4	3.9
Wholesale and retail trade	1,667	1,591	1,635	6.3	6.2	6.1	6.5	6.0	6.2
Finance, insurance, and real estate	184	251	238	2.5	3.4	3.2	2.5	3.2	3.0
Services	1,700	1,440	1,514	5.2	4.6	4.6	4.8	4.3	4.5
Government workers	517	529	497	2.8	2.4	2.4	2.9	2.8	2.6
Agricultural wage and salary workers	149	156	182	7.8	9.6	7.1	10.8	7.5	9.5

[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 1997, data reflect revised population controls used in the household survey.

Table A-6. Duration of unemployment

(Numbers in thousands)

Duration	Not seasonally adjusted			Seasonally adjusted					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
NUMBER OF UNEMPLOYED									
Less than 5 weeks	2,364	2,643	2,409	2,534	2,354	2,523	2,538	2,352	2,598
5 to 14 weeks	2,402	2,284	2,322	2,190	2,156	2,022	2,211	2,071	2,134
15 weeks and over	2,102	2,053	1,863	2,273	2,092	2,071	2,083	2,157	2,012
15 to 26 weeks	835	925	780	1,003	1,056	1,078	1,045	1,082	931
27 weeks and over	1,268	1,128	1,084	1,270	1,034	993	1,018	1,074	1,082
Average (mean) duration, in weeks	17.3	15.8	16.0	17.2	15.2	15.1	15.1	16.6	15.9
Median duration, in weeks	8.6	7.7	8.0	8.5	8.3	7.7	7.7	8.5	7.8
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	34.4	37.9	36.5	36.2	35.7	36.1	37.3	35.7	36.5
5 to 14 weeks	35.0	32.7	35.2	31.4	32.7	30.6	32.5	31.5	31.6
15 weeks and over	30.6	29.4	28.3	32.4	31.7	31.3	30.3	32.8	29.8
15 to 26 weeks	12.2	13.3	11.8	14.3	16.0	16.3	15.3	16.5	13.8
27 weeks and over	18.5	16.2	16.4	18.1	15.7	15.0	14.9	16.3	16.0

NOTE: Beginning in January 1997, data reflect revised population controls used in the household survey.

HOUSEHOLD DATA

Table A-6. Reason for unemployment

(Numbers in thousands)

Reason	Not seasonally adjusted			Seasonally adjusted					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
NUMBER OF UNEMPLOYED									
Job losers and persons who completed temporary jobs	2,932	2,895	2,859	3,095	2,979	2,902	3,145	2,903	3,084
On temporary layoff	777	873	716	931	976	871	925	877	865
Not on temporary layoff	2,155	2,022	2,143	2,164	2,003	2,031	2,220	2,026	2,199
Permanent job losers	1,459	1,381	1,438	(1)	(1)	(1)	(1)	(1)	(1)
Persons who completed temporary jobs	696	642	705	(1)	(1)	(1)	(1)	(1)	(1)
Job leavers	808	836	956	775	754	801	829	822	915
Reentrants	2,556	2,417	2,217	2,467	2,420	2,306	2,359	2,244	2,144
New entrants	573	633	561	552	577	574	481	553	544
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	42.7	41.5	43.4	44.9	44.3	44.1	46.2	44.5	46.0
On temporary layoff	11.3	12.5	10.9	13.5	14.5	13.2	13.6	13.4	13.0
Not on temporary layoff	31.4	29.0	32.5	31.4	29.8	30.9	32.6	31.1	33.0
Job leavers	11.8	12.0	14.5	11.2	11.2	12.2	12.2	12.6	13.7
Reentrants	37.2	34.6	33.6	35.8	36.0	35.0	34.6	34.4	32.2
New entrants	8.3	11.9	8.5	8.0	8.6	8.7	7.1	8.5	8.2
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers and persons who completed temporary jobs	2.2	2.1	2.1	2.3	2.2	2.1	2.3	2.1	2.2
Job leavers	.6	.6	.7	.6	.6	.6	.6	.6	.7
Reentrants	1.9	1.7	1.6	1.8	1.8	1.7	1.7	1.6	1.6
New entrants	.4	.6	.4	.4	.4	.4	.4	.4	.4

[1] Not available.

NOTE: Beginning in January 1997, data reflect revised population controls used in the household survey.

Table A-7. Range of alternative measures of labor underutilization

(Percent)

Measure	Not seasonally adjusted			Seasonally adjusted					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	1.6	1.5	1.4	1.7	1.5	1.5	1.5	1.6	1.5
U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	2.2	2.1	2.1	2.3	2.2	2.1	2.3	2.1	2.2
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate)	5.1	5.0	4.8	5.2	4.9	4.8	5.0	4.8	4.9
U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	5.4	5.3	5.0	(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	6.1	5.9	5.7	(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	9.3	9.0	8.8	(1)	(1)	(1)	(1)	(1)	(1)

[1] Not available.

NOTE: This range of alternative measures of labor underutilization replaces the U1-U7 range published in table A-7 of this release prior to 1994. Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not currently looking for a job. Persons employed part time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule. For further information, see "BLS Introduces new range of alternative unemployment measures," in the October 1995 issue of the *Monthly Labor Review*. Beginning in January 1997, data reflect revised population controls used in the household survey.

Table A-8. Unemployed persons by sex and age, seasonally adjusted

Age and sex	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Aug. 1996	July 1997	Aug. 1997	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997	Aug. 1997
Total, 16 years and over	6,910	6,563	6,677	5.2	4.9	4.8	5.0	4.8	4.9
16 to 24 years	2,438	2,328	2,390	11.7	11.4	10.9	11.5	10.9	11.3
16 to 19 years	1,299	1,293	1,278	17.0	15.4	15.6	16.6	16.4	16.4
16 to 17 years	604	555	544	18.9	18.5	18.4	17.3	17.5	17.7
18 to 19 years	692	748	732	15.7	13.3	13.7	16.3	15.8	15.6
20 to 24 years	1,139	1,036	1,112	8.6	9.0	8.2	8.4	7.7	8.3
25 years and over	4,511	4,224	4,318	4.0	3.7	3.7	3.8	3.7	3.7
25 to 54 years	3,988	3,777	3,786	4.1	3.8	3.8	3.9	3.8	3.8
55 years and over	505	489	500	3.2	3.0	2.9	3.1	3.0	3.0
Men, 16 years and over	3,593	3,481	3,524	5.0	4.9	4.5	5.0	4.8	4.8
16 to 24 years	1,303	1,272	1,340	12.0	11.8	10.3	12.1	11.4	12.0
16 to 19 years	714	692	714	18.2	17.2	15.2	19.0	17.2	17.8
16 to 17 years	342	299	282	21.5	20.5	17.8	19.9	18.6	17.5
18 to 19 years	370	386	429	16.1	15.2	13.5	18.2	16.2	18.1
20 to 24 years	589	580	626	8.4	8.7	7.5	8.2	8.1	8.7
25 years and over	2,336	2,178	2,218	3.8	3.7	3.4	3.7	3.5	3.6
25 to 54 years	2,030	1,920	1,917	3.9	3.8	3.5	3.8	3.6	3.6
55 years and over	292	272	279	3.2	3.0	2.8	3.1	3.0	3.0
Women, 16 years and over	3,317	3,102	3,152	5.4	4.9	5.2	5.0	4.9	5.0
16 to 24 years	1,135	1,057	1,050	11.5	10.9	11.6	10.8	10.4	10.5
16 to 19 years	585	601	564	15.8	13.6	16.0	14.4	15.5	15.0
16 to 17 years	262	256	262	16.3	16.5	19.0	14.4	16.4	17.8
18 to 19 years	322	361	303	15.2	11.3	13.8	14.3	15.4	13.1
20 to 24 years	550	456	486	8.9	9.3	8.9	8.6	7.3	7.8
25 years and over	2,175	2,048	2,100	4.2	3.8	4.0	3.9	3.9	4.0
25 to 54 years	1,958	1,856	1,869	4.3	3.9	4.2	4.0	4.1	4.1
55 years and over	213	218	221	3.0	3.0	3.0	3.2	3.0	3.0

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

NOTE: Beginning in January 1997, data reflect revised population controls used in the household survey.

Table A-9. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

Category	Total		Men		Women	
	Aug. 1996	Aug. 1997	Aug. 1996	Aug. 1997	Aug. 1996	Aug. 1997
NOT IN THE LABOR FORCE						
Total not in the labor force	65,836	65,904	23,447	23,688	42,389	42,216
Persons who currently want a job	5,668	5,030	2,118	1,899	3,547	3,132
Searched for work and available to work now[1]	1,436	1,298	687	575	749	723
Reason not currently looking:						
Discouragement over job prospects[2]	415	311	256	175	159	136
Reasons other than discouragement[3]	1,021	987	432	400	590	586
MULTIPLE JOBHOLDERS						
Total multiple jobholders[4]	7,525	7,583	4,089	4,123	3,436	3,460
Percent of total employed	5.9	5.8	5.9	5.8	5.9	5.8
Primary job full time, secondary job part time	4,252	4,313	2,528	2,584	1,724	1,730
Primary and secondary jobs both part time	1,514	1,437	513	447	1,001	990
Primary and secondary jobs both full time	245	258	192	161	53	97
Hours vary on primary or secondary job	1,477	1,528	848	909	630	618

[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 1997, data reflect 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					
	Aug. 1996	June 1997	July 1997p	Aug. 1997p	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997p	Aug. 1997p
Total	119,733	123,111	122,213	122,231	119,983	121,671	121,834	122,056	122,421	122,470
Total private	101,453	103,409	103,590	103,731	100,433	102,092	102,269	102,417	102,694	102,671
Goods-producing	24,928	25,018	24,986	25,220	24,468	24,657	24,702	24,714	24,696	24,751
Mining	584	580	584	582	574	573	576	574	573	571
Metal mining	55.5	55.5	55.0	54.9	54	54	54	54	54	54
Coal mining	96.0	92.8	92.0	91.2	96	93	93	92	91	91
Oil and gas extraction	322.0	320.2	324.3	323.5	318	319	321	320	320	319
Nonmetallic minerals, except fuels	110.9	111.9	112.2	112.1	106	107	108	108	108	107
Construction	5,767	5,829	5,944	5,974	5,433	5,509	5,628	5,622	5,622	5,632
General building contractors	1,321.9	1,338.7	1,365.2	1,369.3	1,261	1,297	1,300	1,302	1,307	1,307
Heavy construction, except building	848.0	819.0	827.2	835.7	774	767	777	786	780	783
Special trade contractors	3,597.3	3,671.2	3,751.8	3,769.1	3,398	3,535	3,551	3,554	3,555	3,562
Manufacturing	18,577	18,609	18,458	18,664	18,461	18,495	18,498	18,518	18,501	18,548
Production workers	12,847	12,866	12,709	12,911	12,749	12,774	12,790	12,791	12,781	12,811
Durable goods	10,803	10,954	10,852	10,968	10,788	10,856	10,864	10,891	10,901	10,951
Production workers	7,391	7,525	7,413	7,524	7,389	7,440	7,454	7,466	7,475	7,521
Lumber and wood products	798.7	807.8	807.7	814.8	783	799	800	797	797	798
Furniture and fixtures	503.1	510.3	500.1	506.0	502	508	508	508	509	505
Stone, clay, and glass products	552.5	550.1	549.7	552.2	540	541	540	538	541	540
Primary metal industries	711.9	711.5	702.7	717.1	712	710	708	709	708	717
Blast furnaces and basic steel products	242.0	236.6	235.3	240.3	(1)	(1)	(1)	(1)	(1)	(1)
Fabricated metal products	1,452.2	1,478.1	1,452.9	1,470.4	1,451	1,468	1,468	1,470	1,466	1,470
Industrial machinery and equipment	2,108.7	2,163.5	2,148.9	2,157.7	2,114	2,142	2,146	2,152	2,153	2,165
Computer and office equipment	364.2	381.2	383.8	385.3	364	375	378	379	381	385
Electronic and other electrical equipment	1,652.8	1,654.7	1,651.5	1,663.7	1,654	1,643	1,644	1,651	1,659	1,665
Electronic components and accessories	612.4	629.4	634.0	638.9	612	618	622	628	633	639
Transportation equipment	1,781.9	1,831.6	1,800.4	1,839.7	1,791	1,804	1,809	1,824	1,822	1,849
Motor vehicles and equipment	965.8	974.5	942.1	976.3	968	957	960	967	962	978
Aircraft and parts	457.1	503.7	507.9	511.2	459	495	498	505	510	514
Instruments and related products	855.8	858.5	856.2	858.1	855	855	854	856	857	855
Miscellaneous manufacturing	387.5	388.1	381.7	388.0	386	388	387	386	389	387
Nondurable goods	7,774	7,655	7,606	7,698	7,673	7,639	7,634	7,627	7,600	7,597
Production workers	5,456	5,341	5,296	5,387	5,360	5,334	5,336	5,325	5,306	5,290
Food and kindred products	1,765.8	1,689.4	1,715.1	1,761.2	1,685	1,699	1,693	1,692	1,683	1,681
Tobacco products	40.2	37.7	37.6	39.2	40	41	41	41	41	39
Textile mill products	624.8	611.7	602.7	607.4	621	609	609	607	607	604
Apparel and other textile products	859.0	823.3	793.5	808.2	857	822	818	816	810	806
Paper and allied products	682.8	680.6	677.5	679.7	678	677	677	675	674	675
Printing and publishing	1,535.7	1,549.7	1,547.7	1,547.0	1,537	1,541	1,548	1,550	1,549	1,548
Chemicals and allied products	1,037.7	1,032.9	1,027.8	1,030.5	1,032	1,029	1,030	1,027	1,023	1,025
Petroleum and coal products	145.2	140.9	141.3	141.5	142	140	139	138	138	138
Rubber and misc. plastics products	987.3	996.7	976.3	992.3	986	988	988	989	985	991
Leather and leather products	95.6	92.3	86.7	90.6	95	93	93	92	90	90
Service-producing	94,805	98,093	97,227	97,011	95,515	97,004	97,132	97,342	97,725	97,719
Transportation and public utilities	6,283	6,465	6,433	6,278	6,299	6,421	6,431	6,434	6,453	6,293
Transportation	4,043	4,213	4,176	4,026	4,075	4,179	4,187	4,193	4,210	4,057
Railroad transportation	232.2	229.9	230.6	228.3	230	225	226	230	229	226
Local and interurban passenger transit	384.0	458.3	398.0	394.8	448	450	456	457	463	460
Trucking and warehousing	1,677.6	1,698.9	1,706.3	1,728.1	1,656	1,676	1,687	1,686	1,693	1,705
Water transportation	181.9	184.0	188.5	189.2	174	177	178	178	178	181
Transportation by air	1,132.5	1,190.4	1,197.4	1,030.5	1,134	1,192	1,192	1,192	1,196	1,032
Pipelines, except natural gas	14.7	14.5	14.6	14.6	14	14	14	14	14	14
Transportation services	420.2	437.1	438.6	440.8	419	435	434	436	437	439
Communications and public utilities	2,240	2,252	2,257	2,252	2,224	2,242	2,244	2,241	2,243	2,238
Communications	1,352.5	1,375.6	1,380.0	1,379.5	1,344	1,369	1,372	1,372	1,374	1,371
Electric, gas, and sanitary services	887.8	876.6	877.3	872.4	880	873	872	869	869	865
Wholesale trade	6,531	6,680	6,706	6,707	6,497	6,622	6,630	6,634	6,664	6,672
Durable goods	3,831	3,943	3,962	3,967	3,816	3,900	3,909	3,917	3,938	3,952
Nondurable goods	2,700	2,737	2,744	2,740	2,681	2,722	2,721	2,717	2,726	2,720

See footnotes at end of table.

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

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Aug. 1996	June 1997	July 1997P	Aug. 1997P	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997P	Aug. 1997P
Retail trade	21,870	22,286	22,282	22,358	21,692	22,029	22,026	22,079	22,150	22,181
Building materials and garden supplies	917.4	973.1	964.4	952.0	896	931	932	928	930	930
General merchandise stores	2,698.7	2,739.7	2,752.9	2,781.0	2,737	2,799	2,787	2,798	2,805	2,820
Department stores	2,369.8	2,400.2	2,416.4	2,439.8	2,401	2,448	2,452	2,450	2,461	2,471
Food stores	3,461.4	3,510.5	3,524.5	3,517.6	3,445	3,480	3,482	3,487	3,502	3,501
Automotive dealers and service stations	2,310.8	2,338.7	2,347.1	2,352.3	2,284	2,319	2,316	2,315	2,316	2,325
New and used car dealers	1,043.3	1,058.8	1,060.1	1,062.4	1,038	1,055	1,054	1,056	1,055	1,058
Apparel and accessory stores	1,099.2	1,088.2	1,087.1	1,096.4	1,101	1,105	1,099	1,097	1,095	1,098
Furniture and home furnishings stores	985.5	1,024.4	1,031.6	1,036.4	994	1,026	1,032	1,034	1,041	1,045
Eating and drinking places	7,713.0	7,832.1	7,798.3	7,826.8	7,510	7,571	7,572	7,595	7,632	7,622
Miscellaneous retail establishments	2,683.7	2,779.2	2,775.8	2,795.9	2,725	2,798	2,806	2,825	2,829	2,840
Finance, insurance, and real estate	6,999	7,099	7,145	7,150	6,917	7,019	7,029	7,034	7,054	7,065
Finance	3,336	3,413	3,427	3,436	3,313	3,381	3,389	3,394	3,401	3,411
Depository institutions	2,039.0	2,056.8	2,062.0	2,062.8	2,022	2,041	2,043	2,044	2,045	2,046
Commercial banks	1,478.8	1,497.4	1,501.6	1,502.4	1,466	1,486	1,488	1,487	1,488	1,490
Savings institutions	263.5	254.8	254.2	253.4	262	253	253	254	253	252
Nondepository institutions	523.8	546.0	546.9	549.4	523	539	542	543	545	548
Mortgage bankers and brokers	235.1	246.2	244.9	246.7	234	243	244	243	243	245
Security and commodity brokers	561.7	588.7	597.3	601.8	557	583	586	586	592	596
Holding and other investment offices	211.5	221.2	220.9	221.9	211	218	218	221	219	221
Insurance	2,225	2,232	2,241	2,238	2,217	2,221	2,222	2,226	2,229	2,231
Insurance carriers	1,516.0	1,510.1	1,517.3	1,516.6	1,510	1,502	1,503	1,506	1,509	1,511
Insurance agents, brokers, and service	708.8	722.3	723.8	721.8	707	719	719	720	720	720
Real estate	1,438	1,454	1,477	1,476	1,387	1,417	1,418	1,414	1,424	1,423
Services[2]	34,842	35,861	36,038	36,018	34,560	35,334	35,451	35,522	35,677	35,709
Agricultural services	689.3	745.8	749.7	740.5	631	664	669	668	675	677
Hotels and other lodging places	1,861.4	1,848.6	1,895.0	1,894.1	1,718	1,756	1,752	1,744	1,749	1,748
Personal services	1,145.2	1,157.2	1,143.6	1,145.6	1,187	1,193	1,189	1,182	1,184	1,188
Business services	7,424.2	7,655.9	7,698.2	7,768.2	7,330	7,594	7,618	7,645	7,674	7,667
Services to buildings	906.9	911.2	905.0	902.0	898	902	903	903	900	893
Personnel supply services	2,774.3	2,742.0	2,770.4	2,822.2	2,699	2,752	2,744	2,748	2,763	2,744
Help supply services	2,463.4	2,401.6	2,429.9	2,478.4	2,392	2,419	2,409	2,407	2,420	2,404
Computer and data processing services	1,218.0	1,334.0	1,342.3	1,356.3	1,218	1,306	1,322	1,337	1,346	1,356
Auto repair, services, and parking	1,101.4	1,140.2	1,147.0	1,147.2	1,094	1,132	1,136	1,131	1,138	1,139
Miscellaneous repair services	379.3	388.7	391.6	391.4	376	382	384	386	387	388
Motion pictures	535.6	541.7	546.8	556.1	526	528	532	537	538	546
Amusement and recreation services	1,722.2	1,805.4	1,857.0	1,819.9	1,474	1,503	1,542	1,561	1,574	1,556
Health services	9,514.6	9,695.1	9,723.3	9,737.0	9,493	9,644	9,673	9,673	9,694	9,715
Offices and clinics of medical doctors	1,695.6	1,744.4	1,750.7	1,751.1	1,687	1,728	1,740	1,740	1,744	1,742
Nursing and personal care facilities	1,744.4	1,762.4	1,768.7	1,772.1	1,737	1,760	1,764	1,761	1,763	1,765
Hospitals	3,818.4	3,876.5	3,889.4	3,892.4	3,813	3,857	3,864	3,869	3,876	3,887
Home health care services	665.7	684.7	685.2	684.4	667	684	682	682	685	685
Legal services	939.9	967.8	972.3	967.3	933	951	952	953	957	960
Educational services	1,744.9	1,889.7	1,818.1	1,782.7	2,031	2,062	2,062	2,074	2,085	2,074
Social services	2,375.9	2,467.6	2,470.5	2,468.3	2,415	2,458	2,466	2,474	2,492	2,507
Child day care services	521.9	574.4	534.0	544.6	572	581	587	590	592	597
Residential care	683.5	704.6	708.3	711.4	677	694	695	698	701	705
Museums and botanical and zoological gardens	91.7	95.0	96.3	94.7	85	87	88	88	88	88
Membership organizations	2,228.0	2,237.4	2,276.5	2,244.8	2,191	2,199	2,201	2,202	2,210	2,207
Engineering and management services	2,872.8	3,008.1	3,034.5	3,044.8	2,860	2,965	2,971	2,988	3,015	3,032
Engineering and architectural services	855.0	884.7	891.5	896.6	841	869	869	877	878	882
Management and public relations	883.6	958.0	970.4	978.2	879	936	941	950	962	973
Services, nec	48.3	48.8	49.5	49.4	(1)	(1)	(1)	(1)	(1)	(1)
Government	18,280	19,702	18,623	18,500	19,550	19,579	19,565	19,639	19,727	19,799
Federal	2,758	2,720	2,713	2,706	2,743	2,708	2,703	2,694	2,689	2,691
Federal, except Postal Service	1,910.6	1,870.1	1,867.5	1,855.5	1,889	1,856	1,851	1,843	1,839	1,834
State	4,386	4,498	4,431	4,424	4,637	4,635	4,636	4,640	4,672	4,677
Education	1,652.5	1,772.1	1,678.4	1,673.3	1,937	1,938	1,943	1,950	1,971	1,959
Other State government	2,733.3	2,725.6	2,752.9	2,751.0	2,700	2,697	2,693	2,690	2,701	2,718
Local	11,136	12,484	11,479	11,370	12,170	12,236	12,226	12,305	12,366	12,431
Education	5,603.3	6,926.0	5,773.5	5,745.0	6,837	6,858	6,850	6,902	6,959	7,008
Other local government	5,532.6	5,558.0	5,705.4	5,624.8	5,333	5,378	5,376	5,403	5,407	5,423

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

[2] Includes other industries, not shown separately.

P = preliminary.

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

Industry	Not seasonally adjusted				Seasonally adjusted					
	Aug. 1996	June 1997	July 1997[p]	Aug. 1997[p]	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997[p]	Aug. 1997[p]
Total private	34.8	34.9	34.8	35.0	34.5	34.5	34.5	34.6	34.5	34.7
Goods-producing	41.4	41.4	41.0	41.5	41.1	41.4	41.4	41.1	41.2	41.2
Mining	45.3	45.8	45.1	45.0	45.2	45.3	46.0	45.4	45.3	44.9
Construction	39.9	39.5	40.1	39.7	38.8	38.9	39.4	38.7	39.0	38.6
Manufacturing	41.8	42.0	41.3	42.0	41.7	42.1	42.0	41.8	41.8	41.9
Overtime hours	4.7	4.7	4.5	5.0	4.5	4.9	4.8	4.6	4.7	4.8
Durable goods	42.5	42.8	41.9	42.8	42.5	43.0	42.8	42.6	42.6	42.7
Overtime hours	5.0	5.0	4.7	5.3	4.8	5.3	5.2	5.0	5.0	5.1
Lumber and wood products	41.4	41.5	40.8	41.4	40.9	41.2	41.0	41.0	41.1	40.9
Furniture and fixtures	40.1	39.9	39.4	40.8	39.6	40.1	40.4	39.9	39.9	40.3
Stone, clay, and glass products	44.0	43.6	43.3	43.8	43.2	43.0	43.4	42.9	43.1	43.0
Primary metal industries	44.1	44.8	43.9	44.8	44.3	45.1	44.8	44.7	44.4	45.1
Blast furnaces and basic steel products	44.0	44.6	44.4	44.9	44.3	45.2	44.7	44.5	44.4	45.3
Fabricated metal products	42.6	42.6	41.7	42.5	42.4	42.9	42.8	42.4	42.5	42.3
Industrial machinery and equipment	42.7	43.4	42.8	43.2	43.0	43.9	43.6	43.3	43.4	43.5
Electronic and other electrical equipment	41.6	42.0	41.3	41.9	41.6	42.3	42.0	42.0	42.1	41.9
Transportation equipment	44.3	44.6	42.3	44.3	44.4	44.8	44.5	44.2	43.6	44.3
Motor vehicles and equipment	45.5	45.3	42.0	44.9	45.6	45.3	45.2	44.8	43.8	44.9
Instruments and related products	41.6	41.9	41.1	42.0	41.8	41.9	41.9	41.8	41.6	42.2
Miscellaneous manufacturing	39.8	40.1	39.5	40.2	39.7	40.5	40.3	40.1	40.4	40.1
Nondurable goods	40.9	40.7	40.4	41.0	40.6	40.9	40.8	40.6	40.7	40.7
Overtime hours	4.4	4.1	4.3	4.7	4.1	4.4	4.3	4.1	4.3	4.3
Food and kindred products	41.5	40.8	41.2	41.7	40.8	41.1	41.4	40.9	41.2	41.0
Tobacco products	40.0	39.2	35.0	38.2	39.7	39.0	38.4	37.6	35.8	37.9
Textile mill products	41.3	41.7	40.6	41.7	40.9	41.7	41.4	41.2	41.3	41.3
Apparel and other textile products	37.7	37.8	36.6	37.5	37.4	37.5	37.1	37.4	36.9	37.2
Paper and allied products	43.4	43.4	43.3	43.4	43.4	43.9	43.8	43.4	43.5	43.4
Printing and publishing	38.6	38.0	38.1	38.6	38.3	38.5	38.3	38.3	38.4	38.3
Chemicals and allied products	42.9	43.1	42.7	43.1	43.2	43.1	43.3	43.1	43.0	43.4
Petroleum and coal products	43.9	42.9	42.8	42.8	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products	41.6	41.7	41.0	41.7	41.6	42.0	41.6	41.5	41.7	41.7
Leather and leather products	38.9	38.8	37.7	38.7	38.6	38.5	38.2	38.1	38.3	38.3
Service-producing	33.0	33.1	33.1	33.3	32.7	32.7	32.7	32.9	32.7	32.9
Transportation and public utilities	40.0	39.8	39.5	40.4	39.7	39.3	39.5	39.6	39.1	40.0
Wholesale trade	38.4	38.7	38.4	38.5	38.3	38.4	38.4	38.5	38.4	38.4
Retail trade	29.5	29.4	29.6	29.8	28.8	28.9	28.9	28.9	28.8	29.2
Finance, insurance, and real estate	35.7	36.6	35.9	36.0	(2)	(2)	(2)	(2)	(2)	(2)
Services	32.7	32.8	32.8	32.9	(2)	(2)	(2)	(2)	(2)	(2)

[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			
	Aug. 1996	June 1997	July 1997P	Aug. 1997P	Aug. 1996	June 1997	July 1997P	Aug. 1997P
Total private	$11.76	$12.17	$12.15	$12.19	$409.25	$424.73	$422.82	$426.65
Seasonally adjusted	11.86	12.23	12.24	12.29	409.17	423.16	422.28	426.46
Goods-producing	13.54	13.86	13.93	13.97	560.56	573.80	571.13	579.76
Mining	15.51	16.11	16.02	15.97	702.60	737.84	722.50	718.65
Construction	15.57	15.88	15.99	16.09	621.24	627.26	641.20	638.77
Manufacturing	12.79	13.10	13.12	13.17	534.62	550.20	541.86	553.14
Durable goods	13.39	13.66	13.63	13.73	569.08	584.65	571.10	587.64
Lumber and wood products	10.54	10.77	10.83	10.84	436.36	446.96	441.86	448.78
Furniture and fixtures	10.19	10.51	10.53	10.82	408.62	419.35	414.88	441.46
Stone, clay, and glass products	12.92	13.13	13.21	13.20	568.48	572.47	571.99	578.16
Primary metal industries	15.02	15.16	15.30	15.26	662.38	679.17	671.67	683.65
Blast furnaces and basic steel products	17.83	17.99	18.08	18.01	784.52	802.35	802.75	808.65
Fabricated metal products	12.54	12.77	12.68	12.80	534.20	544.00	528.76	544.00
Industrial machinery and equipment	13.63	13.95	14.01	14.02	582.00	605.43	599.63	605.66
Electronic and other electrical equipment	12.28	12.59	12.70	12.71	510.85	528.78	524.51	532.55
Transportation equipment	17.28	17.45	17.26	17.51	765.50	778.27	730.10	775.69
Motor vehicles and equipment	17.80	17.92	17.60	17.97	809.90	811.78	739.20	806.85
Instruments and related products	13.18	13.55	13.55	13.53	548.29	567.75	556.91	568.26
Miscellaneous manufacturing	10.37	10.50	10.52	10.59	412.73	421.05	415.54	425.72
Nondurable goods	11.95	12.27	12.38	12.35	488.76	499.39	500.15	506.35
Food and kindred products	11.16	11.45	11.53	11.51	463.14	467.16	475.04	479.97
Tobacco products	20.27	21.10	21.08	20.54	810.80	827.12	737.80	784.63
Textile mill products	9.72	9.97	10.02	10.03	401.44	415.75	406.81	418.25
Apparel and other textile products	7.94	8.25	8.21	8.24	299.34	311.85	300.49	309.00
Paper and allied products	14.69	14.99	15.18	15.17	637.55	650.57	657.29	658.38
Printing and publishing	12.70	12.90	13.02	13.09	490.22	490.20	496.06	505.27
Chemicals and allied products	16.22	16.54	16.60	16.58	695.84	712.87	708.82	713.74
Petroleum and coal products	18.98	19.94	20.03	19.75	833.22	855.43	857.28	845.30
Rubber and misc. plastics products	11.23	11.53	11.58	11.60	467.17	480.80	474.78	483.72
Leather and leather products	8.62	8.91	8.74	8.88	335.32	345.71	329.50	343.66
Service-producing	11.15	11.60	11.56	11.59	367.95	383.96	382.64	385.95
Transportation and public utilities	14.48	14.78	14.95	14.94	579.20	588.24	590.53	603.58
Wholesale trade	12.85	13.36	13.36	13.45	493.44	517.03	513.02	517.83
Retail trade	7.95	8.27	8.26	8.28	234.53	243.14	244.50	246.74
Finance, insurance, and real estate	12.71	13.23	13.14	13.24	453.75	484.22	471.73	476.64
Services	11.63	12.15	12.07	12.11	380.30	398.52	395.90	398.42

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

P = preliminary.

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

Industry	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997P	Aug. 1997P	Percent change from: July 1997-Aug. 1997
Total private:							
Current dollars	$11.86	$12.14	$12.19	$12.23	$12.24	$12.29	0.4
Constant (1982) dollars[2]	7.44	7.49	7.52	7.54	7.53	N.A.	(3)
Goods-producing	13.54	13.80	13.85	13.88	13.86	13.95	.6
Mining	15.65	15.96	16.05	16.12	16.09	16.10	.1
Construction	15.52	15.86	15.91	15.95	15.95	16.03	.5
Manufacturing	12.85	13.07	13.11	13.12	13.12	13.22	.8
Excluding overtime[4]	12.19	12.38	12.38	12.42	12.41	12.50	.7
Service-producing	11.29	11.58	11.63	11.69	11.70	11.74	.3
Transportation and public utilities	14.50	14.76	14.80	14.85	14.95	14.95	.0
Wholesale trade	12.91	13.27	13.33	13.42	13.37	13.52	1.1
Retail trade	8.01	8.26	8.28	8.30	8.31	8.35	.5
Finance, insurance, and real estate	12.84	13.00	13.18	13.29	13.26	13.38	.9
Services	11.83	12.16	12.20	12.26	12.26	12.32	.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 -.1 percent from June 1997 to July 1997, the latest month available.
[4] Derived by assuming that overtime hours are paid at the rate of time and one-half.
N.A. = not available.
P = preliminary.

ESTABLISHMENT DATA

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					
	Aug. 1996	June 1997	July 1997P	Aug. 1997P	Aug. 1996	Apr. 1997	May 1997	June 1997	July 1997P	Aug. 1997P
Total private	140.2	143.0	142.8	143.9	137.1	139.6	140.0	140.6	140.3	140.8
Goods-producing	115.1	115.4	114.0	116.7	111.4	113.3	113.7	112.7	112.8	113.0
Mining	56.4	57.5	56.9	56.7	55.1	55.8	57.3	56.3	56.1	55.5
Construction	164.0	163.3	169.4	168.8	148.2	153.2	156.2	152.8	154.0	152.7
Manufacturing	108.4	108.9	105.7	109.4	107.2	108.5	108.3	107.8	107.7	108.2
Durable goods	109.7	112.5	108.3	112.3	109.5	111.7	111.4	111.0	111.0	112.1
Lumber and wood products	144.1	146.2	143.5	147.0	139.3	143.3	142.9	142.2	142.3	141.9
Furniture and fixtures	125.1	127.1	122.3	129.0	123.9	126.7	128.0	126.7	127.0	127.6
Stone, clay, and glass products	114.9	113.3	112.5	114.7	109.9	109.2	110.2	108.7	110.0	109.7
Primary metal industries	92.5	94.4	91.2	95.2	93.2	94.5	93.9	94.0	93.2	96.1
Blast furnaces and basic steel products	73.5	73.0	72.2	74.6	74.0	73.8	72.6	72.3	72.1	75.2
Fabricated metal products	115.4	118.3	113.0	117.2	115.0	118.0	117.1	116.8	116.6	116.7
Industrial machinery and equipment	103.2	108.9	106.3	107.7	104.6	109.2	108.5	108.1	108.4	109.1
Electronic and other electrical equipment	107.9	108.9	106.2	109.4	108.4	109.1	108.2	108.5	109.3	109.8
Transportation equipment	123.7	128.7	119.0	128.3	124.9	126.5	126.8	126.2	125.1	129.3
Motor vehicles and equipment	166.7	169.2	150.5	168.0	168.1	164.4	165.4	165.6	161.7	168.8
Instruments and related products	75.0	75.9	73.4	74.9	75.4	75.1	75.1	75.2	74.7	75.2
Miscellaneous manufacturing	102.1	103.1	99.0	102.9	101.3	103.3	103.2	102.3	103.4	102.3
Nondurable goods	106.6	103.9	102.2	105.5	104.0	104.2	104.0	103.4	103.1	102.9
Food and kindred products	123.6	115.0	118.2	124.1	114.7	117.0	117.3	115.8	115.8	115.0
Tobacco products	61.4	54.2	49.1	57.5	61.0	59.9	58.9	57.8	56.8	56.3
Textile mill products	90.7	89.8	86.1	89.3	89.2	89.6	88.8	88.2	88.4	87.9
Apparel and other textile products	77.8	74.7	69.3	72.2	76.9	73.9	73.0	73.2	71.9	71.4
Paper and allied products	110.1	109.9	109.2	109.9	109.0	110.4	110.4	109.0	109.0	108.8
Printing and publishing	124.8	124.0	124.0	125.4	124.0	124.7	125.1	125.2	125.4	124.5
Chemicals and allied products	101.1	100.3	98.9	100.6	101.0	99.9	100.5	99.7	99.4	100.6
Petroleum and coal products	79.5	78.2	76.3	76.6	77.1	73.6	75.0	74.2	73.7	74.6
Rubber and misc. plastics products	144.5	148.0	139.7	145.3	144.1	145.9	144.7	144.2	144.1	144.9
Leather and leather products	44.1	42.1	37.5	41.1	43.3	42.0	41.7	41.0	40.0	40.0
Service-producing	151.4	155.5	155.7	156.1	148.6	151.3	151.8	153.1	152.6	153.3
Transportation and public utilities	129.4	132.8	130.7	129.2	128.7	130.1	131.0	131.3	129.8	128.3
Wholesale trade	124.3	127.9	127.1	127.4	123.2	125.7	125.9	126.2	126.2	126.2
Retail trade	139.7	141.8	143.0	144.1	135.2	137.9	138.0	138.2	138.1	140.2
Finance, insurance, and real estate	126.5	131.5	129.8	130.1	125.2	126.7	127.3	130.5	127.7	128.9
Services	181.2	186.7	187.7	188.2	178.0	181.7	182.3	184.5	184.3	184.9

[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:												
1993	59.7	61.0	49.6	57.6	61.5	56.2	55.5	58.3	62.2	59.6	61.7	59.3
1994	57.6	61.9	67.1	64.5	57.7	63.9	62.5	62.6	61.4	60.3	63.8	62.4
1995	62.4	60.1	54.5	55.6	48.0	53.9	54.1	59.8	57.0	54.9	57.2	57.9
1996	51.7	64.3	60.1	54.9	62.9	60.5	56.5	59.3	54.4	62.6	58.1	61.0
1997	59.3	59.1	59.0	61.1	57.4	50.7	P58.8	P57.7				
Over 3-month span:												
1993	64.7	60.8	60.5	58.6	62.9	63.6	59.6	62.9	64.7	66.9	64.3	63.6
1994	65.3	69.5	70.4	68.7	67.1	67.0	69.1	69.7	65.7	65.6	67.0	66.2
1995	65.4	62.5	58.7	53.2	54.6	52.4	57.9	59.8	59.7	59.0	57.0	58.3
1996	62.6	63.6	62.6	61.2	62.1	63.1	62.6	58.8	62.8	60.4	64.7	65.0
1997	64.6	62.2	64.2	65.6	59.7	P58.7	P58.3					
Over 6-month span:												
1993	62.9	64.6	64.3	64.3	62.2	65.6	66.0	64.9	66.3	66.7	69.4	69.2
1994	71.1	69.8	69.8	70.9	70.1	69.8	69.7	69.4	69.4	67.4	67.7	68.2
1995	66.9	61.4	58.1	56.8	58.1	58.1	56.7	59.8	60.3	59.1	61.5	63.3
1996	62.2	63.5	63.5	63.5	62.6	61.2	65.3	63.6	62.6	64.5	64.2	67.4
1997	67.6	66.6	64.5	P64.0	P63.9							
Over 12-month span:												
1993	64.9	63.9	64.0	65.4	67.0	67.6	67.6	67.0	70.2	69.5	69.2	70.1
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	58.7	62.2	62.2	61.1	62.2	63.3
1996	63.5	64.7	62.4	62.9	64.7	64.2	65.0	63.1	63.8	66.7	65.7	65.0
1997	P66.7	P65.2										
	Manufacturing payrolls, 139 industries[1]											
Over 1-month span:												
1993	52.2	56.8	49.6	44.2	53.2	48.4	49.3	51.8	57.9	52.2	54.0	55.8
1994	55.8	59.0	60.4	58.6	52.9	58.6	59.4	58.1	52.9	55.0	58.6	58.3
1995	54.3	56.1	44.2	51.4	42.1	42.8	43.5	52.2	47.1	50.0	47.5	50.7
1996	45.7	54.3	47.8	39.2	52.2	52.2	44.2	52.9	44.2	50.7	49.6	52.2
1997	54.0	50.4	52.9	52.9	51.4	49.3	P49.3	P50.7				
Over 3-month span:												
1993	61.5	59.0	54.0	46.8	48.6	54.3	51.1	58.3	57.2	59.4	54.7	58.3
1994	61.9	64.7	65.5	59.7	57.6	60.1	62.2	57.9	55.0	55.4	60.1	59.4
1995	59.7	50.4	47.5	40.3	42.4	36.3	38.5	43.9	49.3	48.4	45.3	43.9
1996	47.5	47.8	42.1	38.5	43.2	45.0	48.9	43.2	50.4	46.4	52.5	52.5
1997	53.2	51.4	50.7	52.5	48.6	P47.8	P48.2					
Over 6-month span:												
1993	55.8	58.6	58.6	55.8	51.8	57.2	59.7	57.2	57.6	58.3	62.6	60.8
1994	62.2	62.2	62.6	63.3	59.4	56.5	56.5	58.6	58.6	55.0	58.3	55.0
1995	55.8	48.6	43.9	38.8	39.2	39.6	38.8	39.6	43.9	45.0	44.2	44.6
1996	41.4	41.7	41.0	38.1	39.6	40.6	47.5	46.8	45.3	50.4	48.2	53.2
1997	53.2	53.2	50.4	P47.5	P49.6							
Over 12-month span:												
1993	56.8	57.9	55.8	58.6	57.2	57.6	58.6	59.0	61.2	59.7	60.1	57.6
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	37.4	38.1	39.9
1996	39.6	42.8	39.2	39.6	42.4	40.3	43.5	40.3	43.5	46.8	46.4	47.1
1997	P50.7	P47.1										

[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.

PREPARED STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY

Mr. Chairman, with these monthly hearing on the Employment Situation we have thankfully been receiving excellent news each month. Even with the slight fluctuations, our economy is the envy of most of the rest of the world especially when it comes to the number of people here who are on a payroll because they are able to find jobs. It is a credit to this Administration that the employment of our citizens has been both a concern and a success.

Yet while we celebrate the excellent figures, we still need to be concerned with the pockets of unemployment which still exist in this country, in both geographical and sociological terms. We must find out WHERE there are still problems with job creation, and WHO is still not able to get a job, even with this strong economy. It is this reason that I look forward to these monthly hearings where we can determine the answers to these questions.

In New York City where my district is located, for example, we have had an unemployment rate almost twice the level of the national average. Certainly many of the new jobs have been created within the many industries which are based in New York, but somehow there are people who have not been able to take advantage of these growing industries. Our next step should be to determine how we can best get these people into the Labor Force.

While the unemployment rate is still at its lowest point in over 24 years, the rate of job growth has slowed a bit in recent months. This takes on added concern when we consider that this month Welfare Reform officially takes effect. As each state implements its own version, we must find ways to understand the impact these programs have on the economy as a whole and employment in particular. I hope the Labor Department will be able to take into account this new environment and be able to tell us the factor they will play in the unemployment picture in this country.

Thank you, Mr. Chairman, and I look forward to the testimony of the witness.

SEP 18 1997

Honorable James Saxton
Chairman, Joint Economic Committee
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

At the Joint Economic Committee hearings on September 5 you requested an historical series for real usual weekly earnings of full-time wage and salary workers. I have enclosed a table with these data, from the Current Population Survey, going back to 1979, the first year for which comparable information is available. The table contains data in current dollars and constant dollars (using both 1982 and 1996 as a base) for men and women separately and for both sexes combined. Generally speaking, median weekly earnings of men (adjusted for inflation) declined slightly over the period and that for women rose slightly. Median earnings for both sexes combined rose from 1980 to 1987, declined over the next 4 years, and has been relatively stable during the 1990s. There does not appear to be any clear relationship between the real earnings figures shown in the table and the business cycle. For example, real earnings did not grow consistently over the long expansion of the mid-to-late 1980s, and have not grown over the current expansion.

I hope this information is useful to you. Please let me know if you have any additional questions on these data, or have your staff contact Philip Rones, Assistant Commissioner for Current Employment Analysis, on 202--606-6378.

Sincerely yours,

KATHARINE G. ABRAHAM
Commissioner

Enclosure
BLS OEUS: Rones/lwx6378: Typed:9-16-97
cc: Gen. File, Comm.R.F., Abraham, ~~Exec. Sec.~~, Orr, Rones, R.F., Chron File

Median usual weekly earnings of full-time wage and salary workers, annual averages, 1979-96

Year	Both sexes			Men			Women			
	Current dollars	Constant (1982) dollars	Constant (1996) dollars	Current dollars	Constant (1982) dollars	Constant (1996) dollars	Current dollars	Constant (1982) dollars	Constant (1996) dollars	CPI-U
1979	$240	$319	$519	$291	$387	$629	$182	$242	$393	72.6
1980	$261	$306	$497	$312	$365	$594	$201	$235	$383	82.4
1981	$283	$300	$488	$339	$360	$585	$219	$232	$378	90.9
1982	$302	$302	$491	$364	$364	$592	$238	$238	$387	96.5
1983	$313	$303	$493	$378	$366	$595	$252	$244	$397	99.6
1984	$326	$303	$492	$391	$363	$590	$265	$246	$400	103.9
1985	$343	$308	$500	$406	$364	$592	$277	$248	$404	107.6
1986	$358	$315	$513	$419	$369	$600	$290	$255	$415	109.6
1987	$373	$317	$515	$433	$368	$598	$303	$257	$418	113.6
1988	$385	$314	$511	$449	$366	$596	$315	$257	$418	118.3
1989	$399	$311	$505	$468	$364	$592	$328	$255	$415	124.0
1990	$412	$304	$495	$481	$355	$577	$346	$255	$415	130.7
1991	$426	$302	$491	$493	$349	$568	$366	$259	$422	136.2
1992	$440	$303	$492	$501	$345	$560	$380	$261	$425	140.3
1993	$459	$307	$498	$510	$341	$554	$393	$262	$427	144.5
1994	$467	$304	$494	$522	$340	$553	$399	$260	$422	148.2
1995	$479	$303	$493	$538	$341	$554	$406	$257	$418	152.4
1996	$490	$301	$490	$557	$343	$557	$418	$257	$418	156.9

Source: Bureau of Labor Statistics, Current Population Survey

U. S. Department of Labor

Commissioner
Bureau of Labor Statistics
Washington, D.C. 20212

OCT 7 1997

Honorable Carolyn B. Maloney
House of Representatives
Washington, D.C. 20515

Dear Congresswoman Maloney:

At the September 5 hearing of the Joint Economic Committee, you asked the Bureau of Labor Statistics (BLS) about the collection of job vacancy data.

As I stated at the hearing, BLS conducted a very limited job vacancy survey from 1969 through 1973. Our most recent experience with this type of survey was acquired from two pilot studies--one carried out in 1979-80, the second in 1990-91--on the feasibility of collecting job vacancy information by occupation. I have enclosed two articles from the Monthly Labor Review that describe these pilot studies. From them, we learned that, from an operational viewpoint, collecting job vacancy information at the national level or by State is feasible but relatively costly. Based on the pilot study done in the early 1990s, the cost of collecting national data on vacancies by occupation was estimated to be $11 million per year, and the cost today presumably would be higher. Obtaining data for States and substate areas, the levels at which job placement and training programs operate, would be far more expensive.

I am concerned that a survey with a national design would not provide the kinds of information that State and local governments would find useful for program planning and evaluation. Further, even if we had the funding to collect data on occupational vacancies in local areas, understanding these data and using them to make judgments that would assist job placement programs could prove extremely difficult. I must tell you that this is not an area in which BLS has expertise or experience. If a vacancy data collection effort were to be undertaken, it might be best to begin by conducting pilot surveys on job vacancies in a small number of local areas to assess the quality and usefulness of such information.

With regard to the more general question of the types of jobs found in the economy, you may be interested to know that the Bureau's Occupational Employment Statistics (OES) survey recently has been expanded. This survey of about 400,000 business establishments per year will provide detailed estimates of occupational employment by industry, and--available for the first time later this year--national data on median wages for over 700 occupations. Subsequently, employment and wage data also

Honorable Carolyn B. Maloney--2
OCT 7 1997

will be produced for States, Metropolitan Statistical Areas, and balance of State (non-metropolitan) areas--a total of about 500 areas in all. We are excited about the useful information the OES will be providing and expect to announce the schedule for publication of this information in the not-too-distant future.

One of the principal uses of our OES data is as an input to the BLS employment projections program, which provides a useful perspective on the labor market of the future. Every 2 years, the Bureau's Office of Employment Projections updates a set of economic and employment projections. I have enclosed the November 1995 Monthly Labor Review, which contains five articles presenting the latest forecasts to the year 2005. A table showing projections for specific occupations begins on page 64. An updated set of projections will be published later this year.

I hope you find this information useful. If I can provide further assistance to you, please let me know. Philip Rones, Assistant Commissioner for Current Employment Analysis, on 202-606-6378, would be happy to answer any followup questions for your staff concerning the enclosed materials.

Sincerely yours,

KATHARINE G. ABRAHAM
Commissioner

Enclosures

MONTHLY LABOR REVIEW

DECEMBER 1981
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Henry Lowenstern, Editor-in-Chief
Robert W. Fisher, Executive Editor

Research Summaries

BLS tests feasibility of a new job openings survey

LOIS PLUNKERT

In 1977, Congress asked the Bureau of Labor Statistics to collect job openings data by occupation and region. This information would be used by the Government in analyses of the causes of unemployment, and to help plan training and employment programs. Accordingly, the Bureau undertook a series of cooperative Federal-State surveys in Florida, Massachusetts, Texas, and Utah during March 1979–June 1980 to explore the feasibility of gathering these data.

Because the Bureau had already acquired considerable experience in collecting job openings data by industry during the 1969–73 Job Openings and Labor Turnover Survey project, the recent pilot tests instead emphasized the collection of occupational detail and the ability of employers to accurately report the number of job openings. Data from the pilots were also used to determine the sample size required to provide occupational detail at the State level, and the cost of such a survey.

The participating States were chosen to provide appropriate regional representation, and because they had demonstrated a willingness and ability to cooperate in the project. Each State was assigned a probability sample of 1,200 establishments drawn across all nonagricultural industries, except private households and public administration. State staff collected the data in tandem with the Labor Department's ongoing monthly labor turnover survey. Each State was required to conduct a response analysis survey of 200 of its sample units, and a quality measurement of job openings data collected by telephone from 225 units. Utah and Massachusetts also undertook special studies of recruiting and hiring activity in 100 of their establishments.

The pilot tests were divided into two phases roughly corresponding to fiscal 1979 and fiscal 1980. The first phase included three quarterly job openings collections during March-September 1979, and tabulation and analysis of the results. These tests were chiefly concerned with the method of soliciting participation, the nature of the data to be collected, and the format of the survey questionnaire. Also part of the first phase was a Response Analysis Survey, conducted following the collection of data for March, and designed to measure the quality of information gathered by mail. The second phase consisted of three quarterly collections of job openings data during the October 1979-June 1980 period; and a quality measurement of data collected by telephone; and a case study for which selected participating units kept daily records of recruiting and hiring activity during March 1980.

The pilot tests showed that occupational data on job openings can be collected, but the task is difficult and costly, and at present the Bureau has no plans for initiating a job openings survey. The specific results of the study and conclusions are outlined below.

Collection methodology. Response rates for the first quarter pilot test varied widely among the four States—36 percent in Texas, 50 percent in Florida, 56 percent in Utah, and 82 percent in Massachusetts. Initial response rates similar to that in Massachusetts can only be achieved if certain collection procedures are carefully followed.

First, the sample should be phased in over a 1-year period. Because States must exert intensive effort to achieve high initial response, the workload must be small. Ideally, between 1,000 and 1,500 units per quarter should be introduced through the first year.

Data should be collected from small units (fewer than 50 employees) by telephone. Because recruiting and hiring occur infrequently in small units, these employers usually have nothing to report, and therefore feel that it is unnecessary and a nuisance to complete and return the questionnaire. The pilot tests showed telephone contacts to be less objectionable, and capable of eliciting the data with speed and reliability.

Units slated to respond to the survey by mail—those with 50 or more employees—should first be solicited for participation by telephone. These employers should be contacted before the questionnaires are mailed to explain the survey, ask their cooperation, identify a con-

Lois Plunkert, a project director with the Division of Occupational Pay and Employee Benefit Levels, Bureau of Labor Statistics, conducted this study when she was an economist with the Bureau's Division of Occupational and Administrative Statistics.

tact person in the firm, and confirm the mailing address. This procedure facilitates follow-up of firms which do not respond, and minimizes delays in collecting the often perishable job openings data.

Establishments which do not respond to the initial mailing must be followed-up aggressively. The pilot tests showed that response from mail collection improved considerably when employers received reminders by telephone. And, especially sensitive large firms should be visited by a field agent for solicitation or follow-up, or both. Largest units as a class had the lowest response rate in the four participating States, indicating that some additional collection effort is needed.

Quality of the data. The Response Analysis Survey attempted to assess overall collectibility of data by identifying both the type and magnitude of collection problems. It included a unit profile and a quality measurement component. The unit profile test examined in general fashion the recruiting and hiring process, information flow, and recordkeeping practices within the reporting establishments. The quality measurement component tested the validity of the data originally collected by matching it against information for the same reference date collected at a later time by personal interview. The strongest evidence concerning the feasibility of a job openings survey is provided by the qualitative unit profile results. However, caution should be used in interpreting the pilot findings because of the modest sample sizes in some categories.

The tests indicate that the extent to which respondents are well informed concerning job openings in their firms varies by size of establishment. As a general rule, respondents in small firms and in large manufacturing firms are knowledgeable and able to supply job openings data. However, a significant number of respondents in mid-size firms (50–250 employees) report gaps in their information which would lead to underestimates of job openings. Test results for large nonmanufacturing firms are mixed, but, overall, not strong enough to substantiate collectibility.

Even though records on job openings in large firms have improved since the mid-1960's, those in mid-size firms remain sketchy. A high percentage of large firms keep formal records of recruiting activity for 28 days or more. Most small firms are able to provide valid data from memory. Mid-size firms present a mixed picture, with large numbers lacking job openings records. This highlights the perishable nature of the data, and dictates collection as soon as possible after the reference date.

Telephone contact appears to be a viable collection method for firms with fewer than 50 employees. Pilot results from telephone collection of job openings data are similar to those obtained by personal visit, which are taken to be the standard. While we were unable to completely isolate the effects of collection methods from other factors, our survey estimates indicate that personal visits found, on average, only about 5 percent more firms with openings than telephone collection. If interviewers are properly trained, collection is timely, and telephone response is carefully monitored for quality and periodically bolstered with personal visits, this method should yield data of acceptable quality.

The pilot tests used the last business day of the month as a reference date, but survey results indicate that this may not be appropriate for collecting data on job openings. First, there appears to be a weekly pattern to the data, with Mondays accounting for the largest numbers of job openings. This suggests that a designated and constant day of the week would be preferable to a "floating" day. And secondly, there appear to be monthly patterns, with unique (if offsetting) occurrences at the ends of the months. Therefore, we recommend a more typical reference date—specifically, Wednesday of the week containing the 12th of the month.

Scope of the data. The purpose of a comprehensive job openings survey would be to measure opportunity for employment. Therefore, it is important to know not only whether the respondent can and will report the requested data accurately, but also what portion of unmet demand for labor is measured in this survey and what is not measured. Three separate issues emerge: the coverage of the definition of a job opening; the composition of the universe of firms to be studied; and the importance of unmeasurable opportunities for self-employment.

The pilot results indicate that the survey definition of a job opening—a position for which the employer is actively recruiting—yields appropriate measures of employment opportunities for wage and salary workers. The infrequent hiring that does take place without some type of recruitment occurs mainly in small and mid-size nonmanufacturing firms. The test definition, therefore, is effective in setting forth strict criteria without excluding significant paths to employment.

Establishments in business for less than a year cannot be surveyed. New establishments take about a year before they appear on the BLS sampling frame. Excluding these establishments would undercount the level of job openings, but consistency could be maintained year after year.

The scope of the data is best limited to wage and salary job openings in all industries except agriculture and private households, and opportunities for self-employed cannot be measured. Even if a nationwide survey were funded, it would not be practical to collect information outside the pilot universe of industries.

Survey design. The survey design should allow for statistical measurement of the accuracy of the estimates produced, and ensure high response rates and consistency of scope over time. In particular, this means that a probability sample of firms would be required, so that estimates of the sampling error for the statistics being measured might be developed.

Sample members should be rotated periodically; that is, new firms should replace some of the previously surveyed firms after a designated time. This procedure would ensure that all firms in business 1 year or longer are represented by the sample, and that adequate survey response rates could be maintained. The pilot test results indicate that the optimal procedure would be to replace one-eighth of the sample each quarter. However, it should be noted that, while pilot evidence does suggest that the recommended survey design could maintain an adequate response rate, the scheme has not had a full field test.

Cost considerations. A full-scale national survey is estimated to cost between $25 and $30 million. This estimate pertains to a Federal-State cooperative statistical program which would collect quarterly job openings and new hires data in tandem with the monthly labor turnover information, and provide publishable estimates of job openings by State for all occupations with at least 500 openings. National statistics would be publishable in considerable occupational and industrial detail. The required sample size, the special problem of dealing with smaller firms, and optimal collection methods were taken into account in developing the cost estimate.

A national survey capable of producing occupational estimates at the State level would require a very large sample: about 275,000 units, or between 4,000 and 6,000 per State. The samples used in the pilot tests (1,200 units per State) could provide estimates with small relative errors only for total current job openings and for the largest estimating cells. Most detailed estimates had very high sampling errors. Much larger samples would be required to produce reliable statistics on the number of unfilled jobs by occupation.

Because the job openings rate in firms with fewer than 250 employees was about 50 percent higher than in larger firms, considerable resources and effort should be expended to solicit the participation of small firms in the survey. Additionally, high weights associated with the smallest firms in the pilot tests at times resulted in large numbers of estimated openings from a few reports, while the majority of small firms reported no openings. This, in turn, resulted in high variances. The implication for a full-scale survey is that small firms should be sampled more heavily to keep establishment weights as low as possible.

And finally, the pilot tests indicated that the telephone should be used for solicitation of participation, data collection from small firms (about a third of the sample), and follow-up of nonrespondents. Telephone contact is much more expensive than use of the mails, but because representatives of small firms tend to rely on memory, strict adherence to a compressed schedule is essential. This also means that a relatively large State staff would be required to complete the calls, in the absence of technological enhancements such as computer-assisted telephone interviewing.

A comprehensive report about the pilot study appears in L. Plunkert, *Job Openings Pilot Program: Final Report*, National Technical Information Service, Springfield, Va. 22151, 1981 (Pb. 81-228538). $33.50. □

Research summaries

Monthly Labor Review
March 1992
Volume 115, Number 3

The Employee Turnover and Job Openings Survey

Richard M. Devens, Jr.

Insufficient numbers of workers in some occupations have long been recognized as potential bottlenecks in the economy. As a partial solution, a longstanding policy gives immigration preference to workers with specific skills that are difficult to obtain in the domestic labor market. The process of identifying such workers is cumbersome, however, because certifications are done on a case-by-case basis. In order to improve the process, the Immigration Act of 1990 authorized the Department of Labor to test a program that would "precertify," on the basis of labor market information, occupations with shortages of workers. The Senate Committee on Appropriations, in the appropriation for the Department of Labor for fiscal year 1990 (H.R. 2990), also directed the Department to earmark funds to "develop a methodology to annually identify national labor shortages."

The Employment and Training Administration, in response to these mandates, commissioned the Employee Turnover and Job Openings Survey to evaluate the possibility of collecting data on job openings, turnover, and marginal wages.[1] In the opinion of many labor market analysts, such demand-side data are important components for determining which occupations have labor shortages.

The issues these data could address go beyond labor shortage concerns. For example, many economists believe that structural change is an important determinant of the unemployment rate. That is, the unemployment rate has gradually risen over time, in part because a growing mismatch exists between the skills of unemployed workers and the skill requirements of vacant jobs. The mismatch is due principally to an increase in the rate of change in the industrial composition of employment. Such trends can be better quantified by the analysis of job openings and turnover data. In the same way that national vacancy data could help economists understand the sources of fluctuations in the aggregate unemployment rate, information on job openings by region or State would be helpful for identifying the sources of regional variations in unemployment and for understanding patterns of migration.

Aware of their potential utility, public policymakers and research economists have often cited the need for the government to collect statistics on job openings, along with the information on turnover of employees and duration of vacancies needed to make meaningful analyses of those statistics. In 1962, the President's Committee to Appraise Employment and Unemployment Statistics noted that one of the most frequently mentioned suggestions for improving the body of labor market knowledge was instituting a program on job vacancy statistics.[2] In 1979, the National Commission on Employment and Unemployment Statistics recognized the conceptual appeal of data on job vacancies, but, purely on considerations of cost, recommended against establishing such a program.[3] More recently, in 1989, Professor Sar Levitan, who chaired the National Commission, wrote in a report to the Joint Economic Committee, "An ongoing survey of job openings could shed light on the availability of jobs for the structurally unemployed and provide a timely warning of economic downturns."[4] Levitan then, however, reiterated that the collection of statistically reliable vacancy data would entail considerable difficulty and expense.

Survey purpose and design

Conducted as a pilot project from late 1990 to mid-1991, the Employee Turnover and Job Openings Survey sought to determine whether advanced data collection technologies and a specific legislative mandate to produce data related to national labor shortages could lead to a cost-effective statistical program.[5] The data obtained from the survey would, of course, be of interest, but the main purposes of the project were to assess the data concepts and methods and to estimate the costs of implementing a full-scale survey on the national level.

The survey provided the data to develop two direct measures of the difficulty employers found in hiring prospective employees: the duration of existing job openings and the "vacancy fill rate" (the number of new hires in a month divided by the number of jobs open at the end of that month). Economic theory also suggests that shortages in competitive markets will be accompanied, at the margin, by rising wages. Therefore, data were collected on the wages of new hires—the wages most directly affected by market conditions. Data on separations were collected to allow the information on job openings to be understood more completely in relation to turnover in an occupation.

The operational definitions of job openings and turnover used in the survey were designed as measures of specific activities. Job openings were vacant jobs for which there had been active recruiting and in which work

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could be started immediately. The definitions of new hires and separations excluded short-term events, such as temporary layoffs or absences, focusing instead on permanent separations and new hires. New-hire wages were defined as the arithmetic mean wage of persons hired during the month. The complete definitions of job openings, separations, new hires, and new-hire wages used in the survey are presented in the box on this page.

The survey questionnaire was constructed using the latest literature on document design. The final instrument reflected input from focus groups drawn from the business community and the results of a field pretest. The pilot survey covered only eight industries, one from each major nonfarm industry group.[6] Each industry-specific questionnaire required a customized occupational matrix, which included all occupations accounting for at least 0.25 percent of total industry employment.

Data collection

Data collection activities began on October 1, 1990, with an operations test—a preliminary test to see how the survey would be carried out in practice—on 100 establishments. After incorporating systems and procedural improvements suggested by the results of the operations test into the data collection strategy, survey staff in the national office commenced full-sample operations in December 1990.[7] Data were collected via the mail, with follow-up by mail and computer-assisted telephone interviews. Telephone interviews were also used to assure the internal consistency of questionnaires received by mail.

The data were collected in three rotations of approximately 1,000 establishments each. The rotation plan resulted in a unit being in sample for 1 month, out of sample for 2 months, and in sample again for 1 month. The months for which data were collected were November 1990 through April 1991. November, December, and January made up the first rotation through the entire sample, and February, March, and April made up the second. Response rates were higher in the second rotation, as interviewers became more experienced and the name-and-address file became more refined. The second rotation yielded a usable response rate of 75 percent, versus 70 percent in the first.

Results and analysis

The central finding of the survey was that the collection of data on job openings and employee turnover remains a difficult and labor-intensive undertaking. In general, this confirms the findings of earlier tests, including those of the Job Openings Pilot Program issued in 1981.[8] Based on the results of the survey, a full-scale program to produce, on a national scale, the demand-side data required for annual analyses of occupations experiencing a labor

Definitions

Separations: Separations are terminations of employment of permanent or temporary workers initiated by either the employee or the employer.

Included are:
- Quits
- Layoffs of more than 30 days
- Discharges for cause
- Retirements
- Unauthorized absences of more than 1 week
- Deaths
- Transfers to other establishments of the company
- Permanent separations due to disability

Excluded are:
- Temporary layoffs (under 30 days)
- Workers on strike
- Outside consultants and contractors
- Workers from temporary-help agencies

New hires: New hires include all permanent or temporary additions to the work force of the establishment.

Included are:
- Transfers from other establishments of the company
- Workers who were hired and who separated during the month

Excluded are:
- Recalls from temporary layoffs
- New hires who have not yet reported to work
- Workers returning from strikes
- Outside consultants

New-hire wage: The new-hire wage is the average (mean) hourly wage at which new employees were hired during the month. If there was only one new hire during the month, the wage of that person was used. If the new hires were not paid an hourly wage (for example, they were paid weekly, biweekly, monthly, or annually), the respondent was asked to calculate an hourly rate by dividing the salary paid the new hires during a pay period by the scheduled hours for the period.

Included are:
- Straight-time wages or salary
- Incentive payments (for example, piecework rates and commissions)
- Cost-of-living payments

Excluded are:
- Tips
- Premium pay for overtime, holidays, weekends, or shift work
- Lump-sum payments

Job openings: Jobs are open if work would have started immediately or during the next pay period *and* if active recruiting of workers from outside the establishment took place. "Active recruiting" means efforts to fill openings through means such as listings with private or public agencies or school placement offices, help wanted advertising, recruitment programs, or interviews with applicants.

Included are:
- Full- and part-time positions
- Temporary positions

Excluded are:
- Jobs to be filled by recalls from temporary layoffs and within-establishment transfers, promotions, and demotions

Duration of job openings: The duration of job openings is the length of time, in weeks, that job openings have been unfilled. The duration categories were "fewer than 2 weeks," "2 to 4 weeks," and "more than 4 weeks."

shortage could be conducted by the BLS for about $11–$12 million a year.

The responses to the survey were evaluated by a response analysis survey, conducted from April through June 1991. The response analysis survey found that a substantial majority of respondents used personnel or payroll records as the primary sources of information to complete the Employee Turnover and Job Openings Survey. As a result, there were no major problems with the validity of the data, whether collected by mail or by computer-assisted telephone interview, although technical issues of multiple reference periods, the treatment of interestablishment transfers, and the calculation of wages under nonstandard pay schemes would need to be addressed during the implementation of a full-scale program.

Although the primary objectives of the Employee Turnover and Job Openings Survey were to assess the technical feasibility and estimate the cost of conducting a full-scale program, it yielded statistical results for analysis as well. The following overview of the findings pertain strictly to the aggregation of the eight specific industries that were selected for the survey and do not reflect estimates for the entire economy.

Table 1. Selected statistics on employee turnover and job openings, by major occupation, eight industries,[1] rotations 1 and 2 and 6-month averages

[Numbers in thousands]

Occupation	Separations	New hires	Job openings	Hourly wage of new hires	Proportion of jobs open more than 4 weeks	Ratio of new hires to job openings
Rotation 1 (November 1990 to January 1991)						
Managerial	27	11	12	$13.39	52.6	0.93
Professional and technical	40	40	109	13.76	67.9	.36
Sales	95	78	15	4.53	28.4	5.07
Administrative support	73	62	42	6.51	33.1	1.46
Service	362	314	108	4.46	14.8	2.88
Production and related	[illegible]	196	99	9.57	45.3	1.98
Total, rotation 1	[illegible]	[illegible]	384	6.77	41.5	1.82
Rotation 2 (February 1991 to April 1991)						
Managerial	21	15	18	15.17	63.6	.83
Professional and technical	40	40	97	14.84	60.7	.41
Sales	56	66	9	4.78	24.7	7.00
Administrative support	76	58	52	7.03	32.4	1.12
Service	317	261	141	4.30	11.0	2.40
Production and related	183	169	45	8.86	30.6	3.69
Total, rotation 2	[illegible]	[illegible]	362	6.51	22.7	1.82
Six-month averages (November 1990 to April 1991)						
Managerial	24	13	15	14.12	58.3	.87
Professional and technical	40	40	103	14.30	64.5	.39
Sales	76	71	12	4.61	27.0	5.82
Administrative support	75	60	47	6.92	32.7	1.27
Service	334	332	124	4.37	12.7	2.69
Production and related	240	181	72	9.77	40.7	2.51
Total average, both rotations	789	667	373	6.64	37.3	1.87

[1] Oil and gas extraction (SIC 13), special trade contractors (SIC 17), electronic and other electrical equipment (SIC 36), trucking and warehousing (SIC 42), machinery, equipment, and supplies wholesaling (SIC 508), eating and drinking places (SIC 58), depository institutions (SIC 60), and hospitals (SIC 806).

In the eight industries surveyed, there were numerous openings in the first rotation (November 1990–January 1991) in professional and technical, service, and production and related jobs. (See table 1.) In the second rotation (February 1991–April 1991), there was a statistically significant decrease in job openings among the production and related jobs. This shift may reflect seasonal factors, irregular events, or cyclical developments. The survey was conducted in the midst of a recession that resulted in a sharp reduction in employment in several of the industries included in the sample. These declines may have affected the number of openings, particularly for production jobs, which tend to be cyclically sensitive.

A large number of job openings does not, in itself, signal a shortage of labor. More important are the length of time such openings remain unfilled and the number of openings relative to new hires (the fill rate). When these criteria are applied, it becomes clear that the professional and technical occupations and the managerial occupations most likely had a shortfall of labor. For each of these two groups, more than half of the job openings had been open for more than 4 weeks in both rotations. By contrast, little more than one-tenth of the job openings for the service occupations were of long duration. In addition, the professional and technical occupations and the managerial occupations had relatively little new hiring and separations. The fill rates were less than 1 for both groups, indicating that openings exceeded hirings.

The large number of job openings in the service occupations, on the other hand, were also associated with high levels of separations and new hiring. Service occupations made up about two-fifths of the separations and nearly half of the hiring in both rotations.

Future prospects

As noted before, the pilot program was too limited in industrial scope and the sample was too small to carry out a definitive analysis of occupational labor shortages. Rather, it was intended solely to highlight some of the tools that would be available for such an analysis from a full-scale survey pro-

gram. With data from a fully operational survey, research could:

1. Determine the relative importance to be accorded the various statistics on turnover and job openings in the identification of labor shortages;

2. Develop a long enough series of data to gauge the trends in important indicators, such as the change in earnings of new hires;

3. Compare the lists of occupations with a shortage of labor developed with the data from the Employee Turnover and Job Openings Survey with lists developed using other methodologies.

The full report, *Employee Turnover and Job Openings Survey: Results of a Pilot Study on the Feasibility of Collecting Measures of Imbalances of Supply and Demand for Labor in an Establishment Survey*, is available from the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics, Washington, DC 20012. □

Footnotes

[1] Bureau of Labor Statistics, *Employee Turnover and Job Openings Survey: Results of a Pilot Study of the Feasibility of Collecting Measures of Imbalance of Supply and Demand for Labor in an Establishment Survey* (Washington, Bureau of Labor Statistics, 1991). See Chapter III for a discussion of a theoretical foundation for using such data in analyzing labor shortages.

[2] President's Committee to Appraise Employment and Unemployment Statistics, *Measuring Employment and Unemployment* (Washington, Government Printing Office, 1962).

[3] National Commission on Employment and Unemployment Statistics, *Counting the Labor Force* (Washington, Government Printing Office, 1979), p. 122. This report is summarized in Robert L. Stein, "National Commission recommends changes in labor force statistics," *Monthly Labor Review*, April 1980, pp. 11–31. See also Harry Frumerman, "Job Vacancy Statistics," in National Commission on Employment and Unemployment Statistics, *Concepts and Data Needs—Appendix Volume I* (Washington, Government Printing Office, 1979), pp. 602–35.

[4] See A. Levitan and Frank Gallo, *Workforce Statistics: Do We Know What We Think We Know—and What Should We Know?* (Washington, Joint Economic Committee, 1989).

[5] Earlier efforts, such as the Job Openings and Labor Turnover Survey of the late 1960's and the Job Openings Pilot Project of the late 1970's, were hampered by very broad goals and were conducted without the availability of advanced, computer-assisted survey techniques.

[6] The eight industries (and their SIC numbers) were oil and gas extraction (13), special trade contractors (17), electronic and other electrical equipment (36), trucking and warehousing (42), machinery, equipment, and supplies wholesaling (508), eating and drinking places (58), depository institutions (60), and hospitals (806).

[7] The States of Maine and Georgia also participated in the project. The experience of the Maine State Employment Security Agency is summarized in Maine Department of Labor, *Employee Turnover and Job Openings Survey: An Analysis of the Methodology* (Augusta, ME, Division of Economic Analysis and Research, 1991).

[8] Bureau of Labor Statistics, *Job Openings Pilot Program: Final Report* (Washington, Bureau of Labor Statistics, 1981).

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