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THE EMPLOYMENT SITUATION: NOVEMBER 2001

HEARING

before the

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED SEVENTH CONGRESS

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JOINT ECONOMIC COMMITTEE

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THE EMPLOYMENT SITUATION: NOVEMBER 2001

Friday, December 7, 2001

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

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

Present: Representatives Saxton and Dunn; Senators Reed, Corzine, and Sarbanes.

Staff Present: Chris Frenze, Robert Keleher, Colleen J. Healy, Darryl Evans, Brian Higginbotham, Matthew Salomon, and Daphne Clones-Federing.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

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

The employment data reported today are consistent with the findings recently made by the National Bureau of Economic Research (NBER) that the U.S. economy is in recession. Payroll employment declined by 331,000 and the unemployment rate rose to 5.7 percent. Overall the report today indicates that labor market conditions remain weak.

According to the NBER, the October payroll employment and industrial production data following the terrorist attacks indicated that the slowing economy had slipped into a recession earlier this year. The NBER report also noted that the declines of two of three major contracting indicators it considered began in 2000.

Even before the events of September 11th, the available economic data indicated that the economic slowdown that began in the middle of 2000 remained underway. The downward trends in investment led the recession, with the rate of real GDP growth slowing quite sharply since the second quarter of 2000, actually falling in the third quarter of this year. The staggering manufacturing sector was another leading signal of recession, with losses of over one million factory jobs since July of 2000.

On the other hand, real personal income continues to grow. Housing and consumer spending also have held up fairly well. In addition, since last January the Fed has reduced interest rates 10 times, Congress has lowered the tax drag on the economy, and energy prices are declining. Many economists had expected these factors to lead to an economic rebound by the last half of 2001, but the attacks on the World Trade Center have led them to forecast a delay in the recovery. Although in recent weeks there have been some signs that the economy may have

bottomed out, economic stimulus legislation is still needed as an insurance policy to bolster the economy and ensure that a rebound does not falter.

Financial markets and the economy have been disrupted by the terrorist attacks. The attacks have increased uncertainty and caused a widespread reevaluation of risk and security. Delays and higher shipping costs in air and ground transport, additional inventory and insurance costs, higher expenses for security personnel and equipment, fortification of buildings and facilities and other measures will have the effect of imposing something like a "security tax" on an already vulnerable economy.

This burden will undermine the economy in the short run and could tend to adversely affect both the productivity growth and the economy's potential growth rate. A logical policy response would be to offset these costs by relieving some of the tax burden on the private sector. Measures to reduce the cost of capital and address the sharp declines in business investment are particularly needed.

Monetary policy has addressed the economic situation with an easing that began last January. The Fed's policy moves so far this year have certainly provided economic stimulus, but the lags in monetary policy are long and variable. Given the lack of inflationary pressures, prudent action by the Federal Reserve this Tuesday to reduce interest rates further could also contribute to improving the economic outlook.

At this point I will turn to Senator Reed for any statement he may have.

[The prepared statement of Representative Saxton appears in the Submissions for the Record on page 15.]

OPENING STATEMENT OF SENATOR JACK REED, VICE CHAIRMAN

Senator Reed. Thank you, Mr. Chairman. Thank you for convening this hearing but also for maintaining the practice of reviewing these unemployment statistics as they are released. It is a very important opportunity to talk about economic policy.

As the Chairman pointed out, the National Bureau of Economic Research declared that the country entered a recession last March. We understood even before that there were difficult economic circumstances facing the country. Those circumstances were aggravated significantly by the terrorist attacks on September 11th.

The U.S. economy has lost more than a million jobs since the beginning of the recession in March. Despite some hopeful signs, the number of Americans losing their jobs continues to climb, and the number of people who are still unemployed after more than six months is rising. Those are disturbing statistics.

Some 290,000 unemployed workers exhausted benefits in the month of October alone. The last time we saw numbers this high was 10 years ago in the wake of the last recession. At that time, in November 1991, legislation was enacted providing 13 to 20 additional weeks of benefits

to workers who exhausted their regular benefits. Passing a 13-week extension of unemployment benefits now could help more than three-quarters of a million people, almost one in 10 unemployed workers.

There should be no doubt about the importance of extending benefits as part of the stimulus package. Getting money into the hands of lower-income households, either through expanded unemployment benefits or tax rebates, would boost consumption spending. People who have lost their jobs and have trouble making ends meet are the targets to get the most bang for the buck out of our stimulus policies. There must be a demand for a company's products or services before a firm will invest in new equipment or hire additional workers.

The task before us as policy makers is to get the economy out of this recession quickly and put it back on the path of strong and sustainable growth.

A fiscal stimulus package is only a good idea to the extent that it has a maximum impact on the short run without undermining long-term fiscal discipline. A poorly designed fiscal policy could be a waste of valuable resources or could even be counterproductive.

I am looking forward to the testimony of the Acting Commissioner on the state of our labor markets. I welcome the Acting Commissioner. Thank you, Mr. Chairman.

[The prepared statement of Senator Reed appears in the Submissions for the Record on page 17.]

Representative Saxton. Thank you, Senator.

Commissioner, thank you for being with us this morning. We have had a sneak preview of the numbers that you are going to talk about this morning. As I mentioned to you on the way in the room, it is Christmas so we were hoping you would bring good news, but we understand the reality of the situation, and so we are here and the floor is yours.

OPENING STATEMENT OF LOIS ORR, ACTING COMMISSIONER, BUREAU OF LABOR STATISTICS:

ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND PHILIP L. RONES, ASSISTANT COMMISSIONER OF CURRENT EMPLOYMENT ANALYSIS

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

As noted earlier by the Chairman, the job market continued to deteriorate in November. The unemployment rate rose three-tenths of a percentage point to 5.7 percent, following a jump of half a percentage point in October. Payroll employment fell by 331,000, as noted earlier, in November in the wake of deep job cuts totalling 468,000 in October. Job losses were widespread again in November, although the largest decline continued to be concentrated in manufacturing and help supply services. Since its recent peak in March, total nonfarm employment has fallen by 1.2 million. I would note, as has been noted earlier this

morning, that the March peak in payroll employment coincides with the onset of the recession, as recently announced by the National Bureau of Economic Research.

In terms of the sheer number of jobs lost, manufacturing continued to bear the brunt of the downturn in the economy. In November the industry shed yet another 163,000 jobs. Employment in the Nation's factories has fallen by almost one million since March and a total of 1.4 million since July of 2000. Although nearly all manufacturing industries lost jobs over the month, decline continued to be pronounced among durable goods manufacturers. Particularly large declines occurred in electrical equipment, which was down 29,000 in November, industrial machinery, down 26,000, and fabricated metals, down 19,000. The factory workweek and factory overtime also continued to trend down over the month, to 40.3 and 3.7 hours, respectively. Manufacturing hours have been drifting down since the spring of 2000.

Reflecting the declining demand for factory workers as well as the softening demand for labor throughout much of the rest of the economy, employment in the help supply industry fell by 87,000 in November, on the heels of an even steeper decline in October. I think that was the 14th straight month with employment declines in the help supply industry. Employment in this industry actually has declined by 629,000 since its most recent peak in September 2000. That is a drop of nearly 18 percent. Elsewhere in the services industry, employment in amusement and recreation services declined by 25,000. In addition, hotels lost 7,000 jobs, following a much larger decrease in October. One services industry that is growing in the aftermath of the terrorist attacks is guard services, which I think we noted also last month. It added 15,000 jobs in November after adding 14,000 jobs in the prior month. Health services continued to record steady job growth, adding 32,000 jobs in November and nearly 300,000 jobs over the past year.

The wholesale trade industry continued to be adversely affected by the slump in manufacturing. In November wholesale trade employment fell by 25,000 with almost all of the job cuts in durable goods distribution. In retail trade, overall employment was down slightly in November after seasonal adjustment, following large losses in the prior two months. Employment in department stores and apparel stores fell for the second month in a row, as hiring has fallen short of the normal seasonal buildup for the holiday period. Elsewhere in retail trade, there were small job gains in November among car dealers and in eating and drinking establishments.

In the transportation industry, employment in air transportation and transportation services, largely travel agencies, fell sharply for the second month in a row, with November declines at 45,000 and 12,000, respectively. As in October, these declines were likely related to reductions in air travel since September 11.

Employment in finance expanded by 14,000 in November, aided by low interest rates that continue to spur activity in banking and mortgage brokerages. Construction employment was unchanged in November at

6.9 million, and the job total in the construction industry has held at this level since February. I should note that construction employment is normally quite cyclical, falling sharply during recessions. This year, however, the industry has been buoyed by high levels of residential building activity, due in part to the favorable lending rates and by growth in heavy construction, such as road work.

Finally from the payroll data, average hourly earnings rose five cents in November; over the year hourly earnings have risen by 3.9 percent.

As I mentioned at the beginning of my remarks, the jobless rate in November was 5.7 percent, up three-tenths of a percentage point over the month. The rate increased from 3.9 to 4.3 percent between October of a year ago and the start of the recession in March. Since March the rate has risen by an additional 1.4 percentage points. The number of jobless persons currently is at 8.2 million, and that is an increase of 2.6 million since October of last year.

Unemployment rates were up in November for adult men and whites. These two groups and the other major worker groups, adult women, teenagers, blacks and Hispanics, have experienced increases since October of last year as well. The November increase in unemployment occurred principally among those persons who had lost their jobs and did not expect to be recalled.

The deteriorating job market is making it increasingly difficult for job seekers to find work. Indeed, the number of unemployed who have been searching for work for six months or longer has nearly doubled since July, to 1.2 million in November.

Finally, from the household data, total civilian employment fell by nearly 500,000, that is, half a million, in November, and the proportion of the population with a job declined three-tenths of a percentage point to 63 percent. That is what we call the employment-population ratio.

In summary, nonfarm payroll employment fell by 331,000 in November, the second extremely large drop in a row. Losses were widespread, with the largest employment declines occurring in manufacturing and help supply service industries, and the unemployment rate rose three-tenths of a percentage point to 5.7 percent.

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

[The prepared statement of Acting Commissioner Orr appears in the Submissions for the Record on page 18.]

Representative Saxton. Commissioner, thank you very much. The Senate is going to have a vote very shortly, so we are going to pass on my initial questions and go to Senator Reed and Senator Corzine. Then we will come back.

Senator Reed.

Senator Reed. Thank you very much, Mr. Chairman.

Commissioner, the last U.S. recession ended in March of 1991. At that time the unemployment rate was approximately 6.8 percent. And even though the economy began to recover in March of 1991, the

unemployment rate continued to lag for another 15 months, peaking at 7.8 percent in June of 1992. My concern is that even if the economy begins to recover in the first quarter of 2002, or any time in 2002, the unemployment rate may continue to rise for another year or more. How long might the unemployment rate lag a recovery?

Ms. Orr. You know, we are not in the business of projecting. As you state, the last recession there was a substantial lag. I think it has varied over time. But it is not uncommon that unemployment continues to increase or stays at a high level for a number of months after the trough is reached in a recession.

Phil, do you want to comment?

Mr. Rones. I think I will just add that in the last recession the delay before the employment and unemployment measures started improving was unusually long. But I think the point is correct, that those things can deteriorate even after general economic activity starts picking up.

Senator Reed. Thank you.

Ms. Orr. It is not uncommon for us to see some increase in the hours at work for those that are employed before we see much of a pickup in employment.

Senator Reed. In the same spirit with which the Chairman was so gracious, let me yield to my colleague. We have 13 minutes left before we have to respond to a vote. So I will now yield to Senator Corzine.

Senator Corzine. Thank you. I appreciate the Chairman for allowing me to ask a question. The help supply services I take it are temporary workers, people that are assigned out. Many of these I would suspect, the way our unemployment compensation system worked, would not be eligible for unemployment compensation?

Ms. Orr. I think it varies that some would be eligible for unemployment compensation through their employer, the temporary help supply agency. But I can't say definitively. Phil?

Mr. Rones. Yeah. It wouldn't be a legal restriction to their being compensated.

Senator Corzine. They have to work consistently at one job?

Mr. Rones. That is the issue. There are many people in the industry who are what would look like fairly permanent employees of that company. They work regular hours for extended periods of time. But it is clearly the case that the average duration of employment in a temporary help setting would be shorter than it would in a regular full-time wage and salary kind of setting.

Senator Corzine. I ask that question because again our unemployment compensation system isn't geared to people who do work in these transient, temporary employment roles.

Are there statistics on how long folks are in the help supply services, the duration of their employment? Do we have numbers on that or do we track that?

Mr. Rones. We can get those for you. We should be able to produce those.

[The information on temporary workers appears in the Submissions for the Record on page 45.]

Senator Corzine. I would appreciate actually getting a feel for that. Do you get the general observation that about 50 percent of the unemployed are not eligible for unemployment compensation? I wonder how much of this particular category which is rising rapidly might fit that category.

Thank you.

Senator Reed. Mr. Chairman, might we include one or two questions in the record for a response since we have to depart?

Representative Saxton. Sure. Without objection.

Senator Reed. I thank you very much. Thank you, Commissioner.

[The letter from Senator Reed to Acting Commissioner Orr, with response, appears in the Submissions for the Record on page 137.]

Representative Saxton. Thank you. Commissioner, as I noted in my opening statement and I believe as you alluded to as well, the downturn in the economy actually began quite some time ago in the middle of 2000. And if I just may by way of use of some charts that we have brought along, demonstrate actually what has happened in the economy over the last year or so.

This is a chart that shows GDP growth over the past several years, and it is fairly obvious from this chart that GDP growth began to diminish actually significantly in the third quarter of 2000. Actually the second quarter of 2000 was fairly robust growth, something around six percent, and in the third quarter of 2000 it looks like the rate of GDP growth was well under two percent. And of course it has been diminished since until the second quarter of this year, when we actually saw negative growth.

[The chart entitled "Gross Domestic Product" appears in the Submissions for the Record on page 187.]

The next chart shows a similar pattern with fixed private nonresidential investment, where we again saw robust growth in nonresidential investment through the first and second quarter of 2000 but by the third quarter of 2000 we saw diminished growth of about half what it was in the first quarter of 2000. And of course we see the continuing pattern in 2000 of diminished nonresidential investment growth.

[The chart entitled "Fixed Private Nonresidential Investment" appears in the Submissions for the Record on page 188.]

Another chart, which I think is telling, is the chart detailing personal consumption over the same period of time. And again, we see that personal consumption growth, the rate of growth has continued to diminish, beginning, again, in the second and third quarter of 2000.

[The chart entitled " Personal Consumption Expenditures" appears in the Submissions for the Record on page 189.]

The unemployment rate, which was going down quite steadily through the late 1990s and into the first half of 2000, also began to show increases in early 2001 and I suspect that that is a very direct result of the economic factors that we have demonstrated on the previous charts.

[The chart entitled "Civilian Unemployment Rate" appears in the Submissions for the Record on page 190.]

So we have seen the economy continue to show signs of weakness in 2001, and of course the increases in unemployment are obviously a result of the same thing.

Now, last December the Committee released an analysis of the economy that warned of the serious economic slowdown then, which we have demonstrated here, was well underway. This slowdown has recently been designated as a recession by the National Bureau of Economic Research, which noted a decline in industrial production well before the recession officially began.

The recession seems to have started in the manufacturing sector, which lost over a million factory jobs since July of 2000. With the data released today, how large is the decline in factory jobs since July of 2000? Do you have those – I think Mr. Rones probably has charts which he can tell us just how large that loss in factory jobs is during the second and third quarter of 2000 as well as the first and second quarter of this year.

Ms. Orr. Well, the decline in factory jobs since July of 2000 has been 1.4 million.

Representative Saxton. 1.4 million jobs. Do your charts show how many of those losses were during 2000?

Ms. Orr. We can quickly look at it. Do you want to check on that? 955,000 of those jobs were lost since March.

Representative Saxton. Since March of this year?

Ms. Orr. Um-hmm.

Representative Saxton. The official figures released by the Commerce Department show that this is an investment-led slowdown. Private investment has been trending downward since the start of the slowdown in the third quarter of 2000 and has actually declined at double digit rates during the last three quarters. Real fixed nonresidential investment has declined sharply in the last two quarters of the designated recession. This decline in investment may have been reflected in employment in industries such as industrial machinery and equipment.

How does the level of employment in the industrial sector compare with the level of July of 2000 and how many jobs have been gained or lost since July of 2000 in that sector?

Ms. Orr. Which sector is that again, sir?

Representative Saxton. Real fixed nonresidential investment in industrial machinery and equipment.

Ms. Orr. We will check those numbers. But in the year 2000, to answer your earlier question, Chairman, we lost about 200,000 jobs in

manufacturing in the year 2000. The remainder of the 1.4 million, that is 1.2 million, have been lost in this calendar year.

Representative Saxton. So your figures show that the decline in industrial jobs actually began in the second quarter of 2000, is that correct – the third quarter of 2000?

Ms. Orr. Although there had been some modest declines prior to that time, since July of 2000. You want to take that, Phil?

Mr. Rones. Industrial machinery employment has gone down 219,000 on a base of 2.1 million since July of 2000. So a little more than 10 percent.

Representative Saxton. Thank you. And the other question relates to industrial machinery and equipment. How does the level of employment in this sector compare with the level of July of 2000?

Mr. Rones. That is the one I had just given you, the industrial machinery.

Representative Saxton. I am sorry, I thought you were talking about the previous question.

Ms. Orr. Help us.

Representative Saxton. Help us again with this issue of the industrial machinery and equipment. If you gave us this answer, would you please restate it in the context of this question?

Mr. Rones. I am sorry. The employment in industrial machinery has gone down 219,000 since July, and that represents a little more than 10 percent of its employment.

Representative Saxton. Thank you.

Ms. Dunn, do you have questions?

Representative Dunn. Thank you, Mr. Chairman. I think what caught my eye, Commissioner, in your report was the sentence on page three, "Health services continued to record steady job growth, adding 32,000 jobs in November and nearly 300,000 jobs over the past year."

Could you give us the reasoning behind your analysis there, please? Why did that occur?

Ms. Orr. Employment increases in a number of the components of the health services, care for the elderly, hospitals, the full array of the components without major kind of increases in any one of the health care industry components, but sort of generally across the board.

Representative Dunn. I am especially interested in the numbers of nurses out there. We are told we have a shortage in the nursing area. Did you break that out?

Ms. Orr. The information that I am citing here comes from our series of nonfarm payroll employment by industry as opposed to occupational data. We don't really have any specific data that speaks to the matter of nursing shortages, although we do collect data on the number of nurses that are employed in the U.S. but we don't have any vacancy data on nurses.

Representative Dunn. I would be interested in that data that you have on nurses. Maybe we could get that from your office.

[The information on the employment of nurses appears in the Submissions for the Record on page 191.]

Representative Dunn. According to your most recent data, Washington State, the State that I represent, has the highest unemployment rate in the Nation at 6.6 percent right now, almost a full percentage point above the 5.7 percent that you have given us today in your analysis. Obviously the setbacks by the high tech sector coupled with the job losses in aviation, the Boeing Company, that has already sent notices out and will continue to do that through the end of next year for 30,000 jobs, have contributed to this unfortunate situation.

We are working right now in the Congress to put together a stimulus package that will help all of these workers as quickly as we possibly can. Setting aside fiscal policy and the stimulus package that we are working on in the Congress, can you give to me some sense of what the short-and long-term employment prospects are in Washington State?

Ms. Orr. I would like to be able to do so, but as I mentioned before, you know, we are not in the activity of making projections. You know, we do in the Bureau have a cooperative program with each of the individual states in which we jointly collect data and produce it as to employment and unemployment by industry and the likes.

So for example, I know that in the State of Washington that during the past year the unemployment rate, as you noted, has climbed by 1.4 percentage points, largely reflecting declines in employment in manufacturing, trade and marginally offset by increases in health care employment in your state. But I can't help you in terms of making projections about employment in the state.

Representative Dunn. No trend line that gives you a clue? I know that it is very difficult to quantify the impact of September 11th on the labor market. Undoubtedly businesses such as hotels and the airline industry, the restaurant industry, have been devastated by the attacks on the first level. But there are many other industries who have been hit at the second level. I think of – for example, I mentioned Boeing before but the suppliers for the aircraft that Boeing is now not selling because of airlines cutbacks in what they are ordering. They have been hurt in the second order of fashion.

The concern that many of us have is we haven't seen the end of layoffs related to September 11th. In your opinion, is the worst behind us or can we expect a further round of cutbacks?

Ms. Orr. That question has some characteristics that are somewhat similar to your prior question. I am really not in the position to make forecasts.

Representative Dunn. Thank you very much.

Representative Saxton. The gentlelady's time has expired.

Senator Sarbanes, do you have questions at this time?

Senator Sarbanes. Yes. Commissioner Orr, I think that the monthly unemployment rate you are announcing this morning is 5.7 percent. Am I correct that a year ago last October, October of 2000, the rate was 3.9 percent?

Ms. Orr. That is correct.

Senator Sarbanes. So it has gone from 3.9 percent just over a year ago to 5.7 this morning, is that correct?

Ms. Orr. That is correct.

Senator Sarbanes. I want to ask about the index you keep that includes in people working part time for economic reasons and discouraged workers as well. What is the rate?

Ms. Orr. The most inclusive rate that we have that includes the marginally attached workers and those who are working part time for economic reasons gives us an unemployment estimate of nine percent.

Senator Sarbanes. Nine percent.

Ms. Orr. Right. What was that figure in October of 2000?

Mr. Rones. I have November, that is a year ago, when it was 6.8 percent.

Senator Sarbanes. I have a figure of 6.3 percent last October, 2000, which I understand was a record low. Is that correct?

Ms. Orr. I don't have those data with me, but that could very well be.

Senator Sarbanes. Was 6.8 percent close to a record low?

Ms. Orr. We don't have the historical data for that series with us, do we?

Mr. Rones. That is a relatively new series that we introduced in the '90s. So when we talk about a record low for that measure, that is very different than a record low for unemployment, which we have been measuring fairly consistently since 1948.

Senator Sarbanes. Yeah. But you don't have the October of last year's figure?

Mr. Rones. I don't have the historical series with me. We can certainly get that for you.

Senator Sarbanes. Could you do that and provide it for the record?

[The information on marginally attached workers appears in the Submissions for the Record on page 244.]

Senator Sarbanes. When was the unemployment rate last as high as 5.7 percent?

Ms. Orr. The unemployment rate was at the same level in August '95.

Senator Sarbanes. It was at 5.7 percent in August of—

Ms. Orr. Yes, that was the last time the labor market measure was 5.7 percent.

Senator Sarbanes. At that time was it on its way down or on its way up?

Ms. Orr. It was overall on its way down. But it was relatively flat for several months. But since that time of course the unemployment rate declined.

Senator Sarbanes. I gather earlier you were asked the questions about whether the unemployment figure lags the bottoming out of the economic downturn? Is that correct?

Ms. Orr. Yes, we were asked that.

Senator Sarbanes. What was your response to that?

Ms. Orr. We said that that has happened of course, and it has varied from one recession to another as to the extent of the lag between the trough and the time that employment starts to pick up substantially.

Senator Sarbanes. I take it, it is uniform that there is a lag and that therefore even if we have hit the trough of this downturn, we can expect the unemployment figure to rise on the basis of previous experience?

Ms. Orr. I think in the main that is correct, but I would like to have an opportunity to look at the data to see if there are some instances where employment rose very shortly after the trough.

Phil?

Senator Sarbanes. But I am correct in stating that as a general proposition, the unemployment figure continues to rise after the trough; it is not until later in the business cycle that the unemployment figure levels off or begins to turn down, is that correct?

Mr. Rones. If you—

Ms. Orr. Typically.

Mr. Rones. It is hard to generalize because there are periods where there is an extended lag. And I point out the last recession where the unemployment rate went up to 7.8 percent in June of 1992 while the recession ended in March of 1991.

Senator Sarbanes. It went up for 15 months, didn't it?

Mr. Rones. That is right. But that would be unusual. There would be periods where the lag would be short. I don't have all the figures in front of me, and of course we will provide them for you.

[The information on the employment lag appears in the Submissions for the Record on page 244.]

Senator Sarbanes. But you don't have any instance in which there was no lag, do you?

Mr. Rones. I am not sure.

Senator Sarbanes. Probably not. I mean, I am just trying to – I am not asking you to predict. I am not asking the sort of – I am asking you—

Ms. Orr. I would say probably.

Senator Sarbanes. – to look through the rear-view mirror and tell me.

Ms. Orr. Probably not. As we have noted earlier, we have had nine recessions since World War II and we need to go back and carefully look at that to say with certainty that there is never such a case.

Representative Saxton. I thank the Senator. Thank you very much. We appreciate your thoughtful questions as always.

Commissioner, I have no other questions at this time. Ms. Dunn?

The Senator would like to ask another question or two. So we will yield to him at this point.

Senator Sarbanes. I just wanted to pursue a couple of other points. I understand that the unemployment rate for Hispanics and African Americans is now starting to rise considerably more than the general rise in the unemployment rate, is that correct?

Ms. Orr. Certainly not this past month. But if we looked at the change over time, we would see it rising.

Mr. Rones. If you look at the percent increase in the number of unemployed persons, the increase for whites between October of last year and the data we are releasing today has been – it has gone up 74 percent, that is in the level, whereas the level for blacks and Hispanics has gone up much less, 20 percent and 15 percent – I am sorry.

Senator Sarbanes. Are you sure about those figures?

Mr. Rones. The correct figures are the whites has gone up by 50 percent over that period from about four to about six million. The black unemployment level has gone up 37 percent. The Hispanic has gone up 56 percent. But of course I would point out that the base of unemployment for blacks in particular, but also Hispanics, is higher than that for whites in general, or at least the unemployment rate.

Senator Sarbanes. What is the unemployment rate for whites that you are bringing in this month?

Mr. Rones. That is 5.1 percent.

Senator Sarbanes. And for blacks?

Mr. Rones. For blacks it is 10.1 percent. I would say that that is at the bottom of the historical relationship. Usually the ratio between the two ranges from double to about two and a half times. So this is slightly less than double. The rate for Hispanics is 7.6 percent.

Senator Sarbanes. Okay. I see the number of people unemployed for five to 14 weeks – well, this is on last month's. Let me ask it on this month's data. What is the increase in the number of people unemployed for five to 14 weeks from a year ago?

Mr. Rones. It is a little more than 800,000.

Senator Sarbanes. And the percentage increase?

Mr. Rones. It would be slightly less than a 50 percent increase.

Senator Sarbanes. And the people unemployed for more than 15 weeks?

Mr. Rones. That is an increase of a million and the percent is 82 percent increase.

Senator Sarbanes. 82 percent.

Mr. Rones. That is right.

Senator Sarbanes. From over a year ago.

Mr. Rones. That is right.

Senator Sarbanes. In the number of people unemployed for more than 15 years, do you do anything with the unemployment insurance (UI) coverage, its length and so forth, its duration, its expiration, anything of that sort? Do you maintain any statistics on that?

Mr. Rones. Is your question whether any of the states have extended benefits beyond the 26 weeks?

Senator Sarbanes. I am really trying to find out what the situation is with respect to unemployment insurance coverage. Presumably, if there is a significant upturn in the percent of long-term unemployed, presumably there is an increase in the number of people no longer covered or able to draw unemployment insurance, is that correct?

Ms. Orr. Well, currently approximately 40 percent of the UI folks are in our Current Population Survey (CPS) total unemployed. Does that answer your question?

Senator Sarbanes. I didn't follow that.

Ms. Orr. Currently regular UI recipients are approximately 42 percent of our household survey total unemployment.

Senator Sarbanes. Okay. So the people that you surveyed that you found are unemployed, 42 percent are drawing unemployment insurance, is that correct?

Ms. Orr. Um-hmm.

Senator Sarbanes. To turn it around, 58 percent are not drawing unemployment insurance?

Ms. Orr. Right.

Mr. Rones. That is correct.

Senator Sarbanes. How does that compare with three months ago, six months ago, any sort of comparison that shows a trend line?

Mr. Rones. It is a little bit high. If you look at the averages for recent years, they have ranked around 35 percent of total unemployed are actually drawing unemployment insurance benefits. Now, as the Commissioner suggests, it is 42 percent.

Senator Sarbanes. Okay. Thank you very much.

Representative Saxton. Thank you very much, Senator. Acting Commissioner Orr, thank you very much for being here. Mr. Dalton, Mr. Rones, we appreciate your appearance here again this month very much, and we look forward to seeing you in the months ahead hopefully with more encouraging and positive news.

Thank you very much for being here with us. We appreciate it. Have a great holiday.

[Whereupon, at 10:16 a.m., the hearing was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE JIM SAXTON, CHAIRMAN

I am pleased to welcome Acting Commissioner Orr before the Joint Economic Committee (JEC) once again to testify on the November employment situation. The employment data reported today are consistent with the finding recently made by National Bureau of Economic Research (NBER) that the U.S. economy is in recession. Payroll employment declined by 331,000 and the unemployment rate rose to 5.7 percent. Overall, the report today indicates that labor market conditions remain weak.

According to the NBER, the October payroll employment and industrial production data following the terrorist attacks indicated that the slowing economy had slipped into a recession earlier this year. The NBER report also noted that the declines of two of three major contracting indicators it considered began in 2000.

Even before the events of September 11, the available economic data indicated that the economic slowdown that began in the middle of 2000 remained underway. The downward trend in investment led the recession, with the rate of real GDP growth slowing quite sharply since the second quarter of 2000, actually falling in the third quarter of this year. The staggering manufacturing sector was another leading signal of recession, with losses of over one million factory jobs since July of 2000.

On the other hand, real personal income continues to grow. Housing and consumer spending also have held up fairly well. In addition, since last January the Fed has reduced interest rates ten times, Congress has lowered the tax drag on the economy, and energy prices are declining. Many economists had expected these factors to lead to an economic rebound in the last half of 2001, but the attacks have led them to forecast a delay in the recovery. Although in recent weeks there have been some signs that the economy may have bottomed out, economic stimulus legislation is still needed as an insurance policy to bolster the economy and ensure that a rebound does not falter.

Financial markets and the economy have been disrupted by the terrorist attacks. The attacks have increased uncertainty, and caused a widespread reevaluation of risk and security. Delays and higher shipping costs in air and ground transport, additional inventory and insurance costs, higher expenses for security personnel and equipment, fortification of buildings and facilities, and other measures will have the effect of imposing something like a "security tax" on an already vulnerable economy.

This burden will undermine the economy in the short run, and could tend to adversely affect both productivity growth and the economy's potential growth rate. A logical policy response would be to offset these costs by relieving some of the tax burden on the private sector. Measures

to reduce the cost of capital and address the sharp declines in business investment are particularly needed.

Monetary policy has addressed the economic situation with an easing that began last January. The Fed's policy moves so far this year have certainly provided economic stimulus, but the lags in monetary policy are long and variable. Given the lack of inflationary pressures, prudent action by the Federal Reserve this Tuesday to reduce interest rates could also contribute to improving the economic outlook.

PREPARED STATEMENT OF SENATOR JACK REED, VICE CHAIRMAN

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

Since our last hearing, the National Bureau of Economic Research declared that this country's longest economic expansion on record came to an end back in March, as the nation entered a recession. Of course, it was clear before the announcement that we had entered a period of slow economic growth, which was aggravated by the terrorist attacks on September 11.

The U.S. economy has lost more than a million jobs since the beginning of the recession in March. Despite some hopeful signs, the number of Americans losing their jobs continues to climb. And the number of people who are still unemployed after more than six months is rising.

Some 290,000 unemployed workers exhausted benefits in the month of October alone. The last time we saw numbers this high was 10 years ago, in the wake of the last recession. At that time, in November 1991, legislation was enacted providing 13 to 20 additional weeks of benefits to workers who exhausted their regular benefits. Passing a 13 week extension now could help more than three quarters of a million people – almost one in ten unemployed workers. There should be no doubt about the importance of extending benefits as part of the stimulus package.

Getting money into the hands of *lower*-income households – either through expanded unemployment benefits or tax rebates – would boost consumption spending. People who have lost their jobs and have trouble making ends meet are the ones to target if the goal is to get the most bang for the buck out of stimulus policies. There must be demand for a company's products or services before a firm will invest in new equipment or hire additional workers.

The task before us as policymakers is to get the economy out of this recession quickly and put it back on the path of strong and sustainable growth. A fiscal stimulus package is only a good idea to the extent that it has maximum impact in the short run without undermining long-term fiscal discipline. A poorly designed fiscal policy could be a waste of valuable resources or could even be counterproductive.

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

FOR DELIVERY: 9:30 A.M., E.S.T.
FRIDAY, DECEMBER 7, 2001

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

Statement of

Lois Orr
Acting Commissioner
Bureau of Labor Statistics

before the

Joint Economic Committee

UNITED STATES CONGRESS

Friday, December 7, 2001

Mr. Chairman and Members of the Committee:

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

The job market continued to deteriorate in November. The unemployment rate rose three-tenths of a percentage point to 5.7 percent, following a jump of half a percentage point in October. Payroll employment fell by 331,000 in November in the wake of deep job cuts totaling 468,000 (as revised) in October. Job losses were widespread again in November, although the largest declines continued to be concentrated in manufacturing and help supply services.

Since its recent peak in March, total nonfarm employment has fallen by 1.2 million. I would note that the March peak in payroll employment coincides with the onset of the recession, as recently announced by the National Bureau of Economic Research.

In terms of the sheer number of jobs lost, manufacturing continued to bear the brunt of the downturn in the economy. In November, the industry shed 163,000 jobs, and employment in the nation's factories has fallen by almost 1 million since March and 1.4 million since July 2000. Although nearly all manufacturing industries lost jobs over the month, declines continued to be pronounced among durable-goods producers. Particularly large declines occurred in electrical equipment (down 29,000 in November), industrial machinery (-26,000), and fabricated metals (-19,000). The factory workweek and factory overtime also continued to trend down over the month, to 40.3 and 3.7 hours, respectively. Manufacturing hours have been drifting down since the spring of 2000.

Reflecting the declining demand for factory workers as well as the softening demand for labor throughout much of the rest of the economy, employment in the help supply industry fell by 87,000 in November, on the heels of an even steeper decline in October. Employment in this

industry has declined by 629,000 since its most recent peak in September 2000, a drop of nearly 18 percent. Elsewhere in the services industry, employment in amusement and recreation services declined by 25,000. In addition, hotels lost 7,000 jobs, following a much larger decrease in October. One services industry that is growing in the aftermath of the terrorist attacks is guard services, which added 15,000 jobs in November after adding 14,000 jobs in October. Health services continued to record steady job growth, adding 32,000 jobs in November and nearly 300,000 over the past year.

The wholesale trade industry continued to be adversely affected by the slump in manufacturing. In November, wholesale trade employment fell by 25,000, with almost all of the job cuts in durable goods distribution. In retail trade, overall employment was down slightly in November after seasonal adjustment, following large losses in the prior 2 months. Employment in department stores and apparel stores fell for the second month in a row, as hiring has fallen short of the normal seasonal buildup. Elsewhere in retail trade, there were small job gains in November among car dealers and in eating and drinking establishments.

In the transportation industry, employment in air transportation and transportation services fell sharply for the second month in a row, with November declines of 45,000 and 12,000, respectively. As in October, these declines were likely related to reductions in travel since September 11.

Employment in finance expanded by 14,000 in November, aided by low interest rates that continue to spur activity in banking and mortgage brokerages. Construction employment was unchanged in November at 6.9 million, and the job total in the industry has held at this level since February. Construction employment is normally quite cyclical, falling sharply during recessions. This year, however, the industry has been buoyed by high levels of residential building activity, due in part to the favorable lending rates, and by growth in heavy construction, like road work.

Finally from the payroll data, average hourly earnings rose 5 cents in November; over the year, hourly earnings have risen 3.9 percent.

As I mentioned at the beginning of my remarks, the jobless rate was 5.7 percent in November, up three-tenths of a percentage point over the month. The rate increased from 3.9 to 4.3 percent between October 2000 and the start

of the recession in March; since March, the rate has risen by an additional 1.4 percentage points. The number of jobless persons, at 8.2 million in November, is up by 2.6 million since October of last year.

Unemployment rates were up in November for adult men and whites; those two groups and the other major worker groups – adult women, teenagers, blacks and Hispanics – have experienced increases since October of last year. The November increase in unemployment occurred principally among those persons who had lost their jobs and did not expect to be recalled.

The deteriorating job market is making it increasingly difficult for jobseekers to find work. Indeed, the number of unemployed who have been searching for work for 6 months or more has nearly doubled since July, to 1.2 million in November.

Finally from the household data, total civilian employment fell by nearly 500,000 in November and the proportion of the population with a job declined three-tenths of a percentage point to 63.0 percent.

In summary, nonfarm payroll employment fell by 331,000 in November, the second extremely large drop in a row. Losses were widespread, with the largest employment

declines occurring in manufacturing and help supply services. The unemployment rate rose three-tenths of a percentage point to 5.7 percent.

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

News

United States Department of Labor

Bureau of Labor Statistics Washington, D.C. 20212

Technical information:

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

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

Media contact: 691-5902

USDL 01-453

Transmission of material in this release is embargoed until 8:30 A.M. (EST), Friday, December 7, 2001.

THE EMPLOYMENT SITUATION: NOVEMBER 2001

Employment fell sharply for the second month in a row in November, and the unemployment rate rose to 5.7 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment dropped by 331,000, following an even larger decline in October. As was the case in October, job losses in November were widespread.

Chart 1. Unemployment rate, seasonally adjusted, December 1998 - November 2001

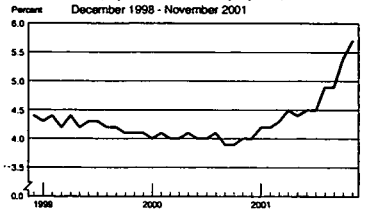
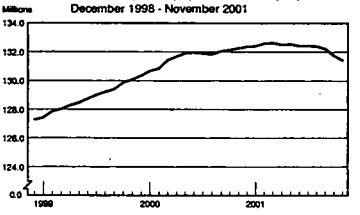


Chart 2. Nonfarm payroll employment, seasonally adjusted, December 1998 - November 2001



Unemployment (Household Survey Data)

The number of unemployed persons increased by 419,000 to 8.2 million in November, and the unemployment rate rose by 0.3 percentage point to 5.7 percent; this followed an increase of half a percentage point in October. The jobless rate in November was at its highest level since August 1995. Since October 2000, when both measures were at their most recent lows, unemployment has risen by 2.6 million and the unemployment rate has increased by 1.8 percentage points, of which 1.4 percentage points have come since the beginning of the recession in March. (See table A-1.)

The unemployment rates for adult men (5.3 percent) and whites (5.1 percent) rose in November. The rates for adult women (4.9 percent), blacks (10.1 percent), Hispanics (7.6 percent), and teenagers (15.9 percent) were little changed over the month, but were up substantially over the year. (See tables A-1 and A-2.)

Among persons age 25 and older, the unemployment rates for high school graduates with no college (5.1 percent) and college graduates (3.1 percent) increased in November. The jobless rates for all of the educational groups have risen over the year. (See table A-3.)

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

Category	Quarterly averages 2001		Monthly data 2001			Oct.-Nov. change
	II	III	Sept.	Oct.	Nov.	
HOUSEHOLD DATA	Labor force status					
Civilian labor force	141,461	141,771	142,190	142,303	142,244	-59
Employment	135,130	134,984	135,181	134,562	134,084	-478
Unemployment	6,331	6,787	7,009	7,741	8,160	419
Not in labor force	70,072	70,367	70,167	70,279	70,523	244
	Unemployment rates					
All workers	4.5	4.8	4.9	5.4	5.7	0.3
Adult men	4.0	4.2	4.3	4.8	5.3	.5
Adult women	3.8	4.2	4.4	4.8	4.9	.1
Teenagers	14.0	15.2	14.7	15.5	15.9	.4
White	3.9	4.2	4.3	4.8	5.1	.3
Black	8.2	8.6	8.7	9.7	10.1	.4
Hispanic origin	6.5	6.2	6.4	7.2	7.6	.4
ESTABLISHMENT DATA	Employment					
Nonfarm employment	132,483	132,358	132,230	p131,762	p131,431	p-331
Goods-producing[1]	25,310	24,991	24,888	p24,747	p24,580	p-167
Construction	6,866	6,866	6,871	p6,854	p6,852	p-2
Manufacturing	17,882	17,556	17,448	p17,324	p17,161	p-163
Service-producing[1]	107,173	107,367	107,342	p107,015	p106,851	p-164
Retail trade	23,546	23,575	23,536	p23,417	p23,403	p-14
Services	41,052	41,103	41,134	p40,983	p40,913	p-70
Government	20,782	20,973	20,981	p21,000	p20,994	p-6
	Hours of work[2]					
Total private	34.2	34.1	34.1	p34.0	p34.1	p0.1
Manufacturing	40.8	40.7	40.6	p40.5	p40.3	p-.2
Overtime	3.9	4.0	3.9	p3.8	p3.7	p-.1
	Indexes of aggregate weekly hours (1982=100)[2]					
Total private	151.4	150.3	149.9	p148.8	p148.7	p-0.1
	Earnings[2]					
Average hourly earnings, total private	$14.25	$14.40	$14.45	p$14.47	p$14.52	p$0.05
Average weekly earnings, total private	487.46	490.93	492.75	p491.98	p495.13	p3.15

[1] Includes other industries, not shown separately.

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

p=preliminary.

The number of unemployed persons who had been jobless for 27 weeks or more rose by 280,000 in November to 1.2 million. This level has nearly doubled since July. (See table A-6.)

The number of unemployed job losers not on temporary layoff rose by 427,000 in November to 3.4 million and has grown by 1.2 million since July. These job losers accounted for 42.0 percent of the unemployed in November compared to 28.8 percent a year earlier. (See table A-7.)

Total Employment and the Labor Force (Household Survey Data)

The total number of employed persons fell by 478,000 in November to 134.1 million (seasonally adjusted). The employment-population ratio dropped by 0.3 percentage point to 63.0 percent. Since its most recent peak in January, employment has fallen by 1.9 million, and the employment-population ratio has lost 1.5 percentage points. (See table A-1.)

The civilian labor force was essentially unchanged at 142.2 million in November, and the labor force participation rate remained at 66.9 percent. (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 November, up from 1.1 million a year earlier. These persons wanted and were available for work and had looked for a job sometime in the prior 12 months but were not counted as unemployed because they had not actively searched for work in the 4 weeks preceding the survey. The number of discouraged workers was 322,000 in November, up from 234,000 a year earlier. Discouraged workers, a subset of the marginally attached, were not currently looking for work specifically because they believed no jobs were available for them. (See table A-10.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment fell by 331,000 in November to 131.4 million, seasonally adjusted, following a decline of 468,000 (as revised) in October. Since the recession began in March, payroll employment has fallen by 1.2 million. As was the case in October, job losses in November were broad based. Manufacturing, help supply services, and transportation continued to have particularly large employment declines. (See table B-1.)

Widespread job losses continued in manufacturing. Factory employment fell by 163,000 over the month, bringing the decline since July 2000 to 1.4 million. In November, large employment cutbacks continued in both electrical equipment (-29,000) and industrial machinery (-26,000). These two industries have accounted for one-third of the factory jobs lost since July 2000. Fabricated metals also had a particularly large decline (-19,000) in November. Four additional manufacturing industries lost more than 10,000 jobs each over the month—primary metals, apparel, printing and publishing, and rubber and miscellaneous plastics.

Elsewhere in the goods-producing sector, construction employment was essentially unchanged, after seasonal adjustment. Unseasonably warm temperatures across virtually the entire country in November helped to mitigate some of the seasonal layoffs that typically occur during the month. As a result, employment rose, after seasonal adjustment, in outdoor construction activities such as heavy construction, concrete, and masonry. These increases were offset by job losses in plumbing and electrical work.

The services industry lost 70,000 jobs in November; over the last 2 months, employment in the industry has fallen by 221,000. Much of the decline occurred in help supply services. That industry, which provides workers to other businesses, lost a total of 188,000 jobs in October and November. About 1 job in 5 in

the industry has been lost since September 2000. A decline of 7,000 in hotel employment followed a sizable drop in October. Employment also fell over the month in amusement and recreation services (-25,000). In contrast, employment in health services continued its steady growth with an increase of 32,000 in November, including 17,000 in hospitals. The health services industry has added 277,000 jobs thus far in 2001. Employment in guard services, a component of business services, continued to grow in the aftermath of the September 11 terrorist attacks.

Employment declines continued in transportation, with a loss of 54,000 jobs in November and 172,000 since March. Over-the-month job losses accelerated in air transportation (-45,000) and continued in transportation services (-12,000), which includes travel agencies.

Wholesale trade employment fell by 25,000 in November. Since its peak in November 2000, the industry has lost 124,000 jobs. Mirroring the recent trends in manufacturing, over-the-month declines were concentrated in durable goods distribution, particularly in machinery and in professional and commercial equipment.

Retail trade employment edged down in November, following a large drop in October. This was the fourth consecutive monthly decrease, with total losses of 203,000 jobs in retail trade since July. Industries that usually hire extensively for the holiday shopping season—department stores, apparel stores, and miscellaneous retailers (such as toy stores and jewelry stores)—had large job declines, after seasonal adjustment, for the second consecutive month. Car dealers added 6,000 jobs in November, reflecting the incentives offered to boost car sales.

Finance added 14,000 jobs over the month. Mortgage brokerages, commercial banks, and savings institutions have benefited from low interest rates in recent months.

Employment in government was little changed in November and has shown no net growth since August. A decline in federal government employment was due primarily to limited holiday hiring by the postal service. Local government education employment increased by 22,000 over the month and has risen by 117,000 since May.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged up by 0.1 hour in November to 34.1 hours, seasonally adjusted. The manufacturing workweek decreased by 0.2 hour to 40.3 hours, the same level as in March 1991, its lowest point in the last recession. Factory overtime was down by 0.1 hour to 3.7 hours. Since July 2000, the manufacturing workweek has fallen by 1.5 hours and overtime by 1.0 hour. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls edged down by 0.1 percent in November to 148.7 (1982=100), seasonally adjusted. The index has fallen by 2.3 percent from its recent peak in January. The manufacturing index fell by 1.5 percent to 93.5 in November and has dropped by 12.6 percent since July 2000. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls increased by 5 cents in November to $14.52, seasonally adjusted. This followed a gain of 2 cents in October. Average weekly earnings rose by 0.6 percent in November to $495.13. Over the year, average hourly earnings increased by 3.9 percent and average weekly earnings grew by 3.3 percent. (See table B-3.)

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Following usual practice, the 6-month updates to seasonal adjustment factors for the establishment survey data are introduced with this release. These factors were used in the revisions to the September and October data as well as in the November estimates, and will be used through the April 2002 estimates. These factors will be published in the December 2001 issue of *Employment and Earnings* and are available on the Internet (http://www.bls.gov/ces/) or by calling (202) 691-6555.

Also in accordance with usual practice, the release of December data in January will incorporate annual revisions in seasonally adjusted unemployment and other labor force series from the household survey. Seasonally adjusted data for the most recent 5 years are subject to revision.

The Employment Situation for December 2001 is scheduled to be released on Friday, January 4, 2002, at 8:30 A.M. (EST). Release dates for the balance of 2002 are as follows:

Feb. 1	May 3	Aug. 2	Nov. 1
March 8	June 7	Sept. 6	Dec. 6
April 5	July 5	Oct. 4	

Explanatory Note

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

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

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

Coverage, definitions, and differences between surveys

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

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

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

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

Establishment survey. The sample establishments are drawn from private nonfarm businesses such as factories, offices, and stores, as well as Federal, State, and local government entities. *Employees on nonfarm payrolls* are those who received pay for any part of the reference pay period, including persons on paid leave. Persons are counted in each job they hold. *Hours and earnings* data are for private businesses and relate only to production workers in the goods-producing sector and nonsupervisory workers in the service-producing sector.

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

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

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

Seasonal adjustment

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

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

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

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

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

Reliability of the estimates

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

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

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

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

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

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

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

Additional statistics and other information

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

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

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

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]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
TOTAL									
Civilian noninstitutional population	210,577	212,581	212,767	210,577	211,821	212,135	212,357	212,581	212,767
Civilian labor force	141,025	142,004	141,911	141,135	141,774	141,350	142,190	142,303	142,344
Participation rate	67.0	66.8	66.7	67.0	66.9	66.6	67.0	66.9	66.9
Employed	135,731	134,886	134,259	135,476	135,979	134,993	135,161	134,662	134,094
Employment-population ratio	64.5	63.5	63.1	64.3	63.9	63.4	63.7	63.3	63.0
Agriculture	3,030	3,265	2,971	3,178	3,045	3,117	3,220	3,200	3,109
Nonagricultural industries	132,701	131,633	131,288	132,302	132,934	131,876	131,951	131,462	130,978
Unemployed	5,295	7,106	7,651	5,658	6,395	6,857	7,009	7,741	8,169
Unemployment rate	3.8	5.0	5.3	4.0	4.5	4.9	4.9	5.4	5.7
Not in labor force	69,551	70,577	70,856	69,441	70,147	70,785	70,167	70,279	70,523
Persons who currently want a job	3,971	4,339	4,320	4,351	4,529	4,658	4,539	4,700	4,742
Men, 16 years and over									
Civilian noninstitutional population	101,175	102,229	102,322	101,175	101,885	101,995	102,110	102,229	102,322
Civilian labor force	75,152	75,811	75,594	75,286	75,719	75,518	76,058	76,051	75,943
Participation rate	74.3	74.2	73.9	74.5	74.3	74.0	74.5	74.4	74.2
Employed	72,371	72,017	71,458	72,354	72,279	71,980	72,333	71,971	71,401
Employment-population ratio	71.5	70.4	69.8	71.5	70.9	70.9	70.8	70.3	69.8
Unemployed	2,781	3,794	4,136	3,032	3,439	3,538	3,724	4,179	4,542
Unemployment rate	3.7	5.0	5.5	4.0	4.5	5.1	4.9	5.5	6.0
Men, 20 years and over									
Civilian noninstitutional population	93,061	94,015	94,077	93,061	93,708	93,810	93,917	94,015	94,077
Civilian labor force	71,151	71,801	71,739	71,135	71,555	71,514	71,894	71,953	71,845
Participation rate	76.5	76.3	76.2	76.4	76.4	76.2	76.6	76.5	76.4
Employed	68,908	68,748	68,252	68,883	68,745	68,402	68,826	68,481	68,042
Employment-population ratio	74.0	73.1	72.6	73.8	73.4	72.9	73.3	72.8	72.3
Agriculture	2,099	2,184	2,013	2,122	2,029	2,140	2,175	2,117	2,027
Nonagricultural industries	66,809	66,564	66,239	66,761	66,717	66,262	66,651	66,365	66,015
Unemployed	2,243	3,152	3,446	2,452	2,810	3,112	3,068	3,472	3,803
Unemployment rate	3.2	4.4	4.8	3.4	3.9	4.4	4.3	4.8	5.3
Women, 16 years and over									
Civilian noninstitutional population	109,402	110,353	110,445	109,402	110,035	110,140	110,247	110,353	110,445
Civilian labor force	65,874	66,194	66,317	65,760	66,055	65,833	66,132	66,252	66,300
Participation rate	60.2	60.0	60.0	60.1	60.0	59.8	60.0	60.0	60.0
Employed	63,360	62,861	62,804	63,124	63,100	62,703	62,848	62,691	62,693
Employment-population ratio	57.9	57.0	57.0	57.7	57.3	56.9	57.0	56.8	56.8
Unemployed	2,513	3,312	3,414	2,636	2,955	3,130	3,284	3,562	3,617
Unemployment rate	3.8	5.0	5.1	4.0	4.5	4.8	5.0	5.4	5.5
Women, 20 years and over									
Civilian noninstitutional population	101,533	102,571	102,438	101,533	102,057	102,165	102,277	102,371	102,438
Civilian labor force	61,991	62,358	62,454	61,825	62,145	62,172	62,342	62,252	62,333
Participation rate	60.9	60.9	61.0	60.7	60.9	60.9	60.9	60.8	60.8
Employed	59,868	59,687	59,576	59,806	59,762	59,562	59,499	59,337	59,239
Employment-population ratio	59.0	58.2	58.2	58.8	58.6	58.3	58.2	57.9	57.9
Agriculture	722	853	776	767	773	768	826	853	862
Nonagricultural industries	59,146	58,794	58,808	59,709	58,978	58,795	58,883	58,384	58,887
Unemployed	2,012	2,771	2,878	2,119	2,384	2,610	2,764	3,016	3,074
Unemployment rate	3.3	4.4	4.6	3.4	3.9	4.2	4.4	4.8	4.9
Both sexes, 16 to 19 years									
Civilian noninstitutional population	15,983	16,195	16,252	15,983	16,145	16,161	16,163	16,195	16,252
Civilian labor force	7,894	7,745	7,719	8,076	8,074	7,864	8,054	8,087	8,085
Participation rate	50.0	47.8	47.5	52.4	50.0	47.4	49.8	50.0	49.8
Employed	6,955	6,883	6,691	7,339	6,953	6,429	6,857	6,844	6,783
Employment-population ratio	43.5	40.3	39.9	45.8	42.8	39.8	42.5	42.3	41.7
Agriculture	209	227	188	257	244	211	219	231	220
Nonagricultural industries	6,746	6,656	6,503	7,032	6,638	6,218	6,648	6,613	6,563
Unemployed	1,059	1,182	1,229	1,087	1,191	1,236	1,187	1,253	1,282
Unemployment rate	13.0	15.3	15.9	13.0	14.8	16.1	14.7	15.5	15.9

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

 HOUSEHOLD DATA

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

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	Not seasonally adjusted			Seasonally adjusted[1]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
WHITE									
Civilian noninstitutional population	175,034	176,372	176,500	175,034	175,924	176,080	176,220	176,372	176,500
Civilian labor force	117,429	118,251	118,168	117,640	117,982	117,729	118,290	118,597	118,564
Participation rate	67.1	67.0	67.0	67.2	67.1	66.9	67.1	67.2	67.2
Employed	113,598	113,104	112,649	113,509	113,237	112,703	113,201	112,900	112,535
Employment-population ratio	64.9	64.1	63.8	64.8	64.4	64.0	64.2	64.0	63.8
Unemployed	3,830	5,147	5,519	4,131	4,745	5,024	5,088	5,696	6,029
Unemployment rate	3.3	4.4	4.7	3.5	4.0	4.3	4.3	4.8	5.1
Men, 20 years and over									
Civilian labor force	60,222	60,875	60,686	60,280	60,432	60,575	60,784	61,031	60,896
Participation rate	76.7	76.9	76.6	76.8	76.6	76.7	76.9	77.1	76.9
Employed	58,594	58,495	58,080	58,478	58,352	58,297	58,493	58,320	57,964
Employment-population ratio	74.7	73.9	73.4	74.5	74.0	73.8	74.0	73.7	73.2
Unemployed	1,627	2,380	2,606	1,802	2,080	2,278	2,292	2,711	2,932
Unemployment rate	2.7	3.9	4.3	3.0	3.4	3.8	3.8	4.4	4.8
Women, 20 years and over									
Civilian labor force	50,527	50,839	50,874	50,335	50,684	50,656	50,651	50,759	50,834
Participation rate	60.2	60.2	60.3	60.0	60.2	60.1	60.0	60.1	60.2
Employed	49,105	48,911	48,856	48,825	48,925	48,839	48,724	48,668	48,664
Employment-population ratio	58.6	57.9	58.0	58.2	58.1	57.9	57.8	57.6	57.6
Unemployed	1,422	1,928	2,019	1,510	1,759	1,817	1,927	2,091	2,170
Unemployment rate	2.8	3.8	4.0	3.0	3.5	3.6	3.8	4.1	4.3
Both sexes, 16 to 19 years									
Civilian labor force	6,679	6,537	6,508	7,025	6,866	6,495	6,855	6,807	6,835
Participation rate	52.6	50.9	50.7	55.3	53.6	50.7	53.5	53.0	53.2
Employed	5,898	5,698	5,613	6,206	5,950	5,567	5,984	5,912	5,907
Employment-population ratio	46.5	44.4	43.7	48.9	46.5	43.4	46.7	46.1	46.0
Unemployed	781	839	894	819	916	928	870	895	927
Unemployment rate	11.7	12.8	13.7	11.7	13.3	14.3	12.7	13.1	13.6
Men	12.2	13.9	16.2	12.4	13.7	15.8	13.5	14.8	16.1
Women	11.2	11.6	11.3	10.9	13.0	12.7	11.9	11.5	11.0
BLACK									
Civilian noninstitutional population	25,378	25,686	25,720	25,378	25,565	25,604	25,644	25,686	25,720
Civilian labor force	16,798	16,733	16,729	16,732	16,693	16,712	16,792	16,735	16,659
Participation rate	66.2	65.1	65.0	65.9	65.3	65.3	65.5	65.2	64.8
Employed	15,604	15,202	15,127	15,485	15,374	15,195	15,327	15,104	14,980
Employment-population ratio	61.5	59.2	58.8	61.0	60.1	59.3	59.8	58.8	58.2
Unemployed	1,195	1,531	1,602	1,247	1,320	1,517	1,466	1,631	1,679
Unemployment rate	7.1	9.1	9.6	7.5	7.9	9.1	8.7	9.7	10.1
Men, 20 years and over									
Civilian labor force	7,453	7,393	7,424	7,397	7,395	7,434	7,468	7,319	7,366
Participation rate	73.2	71.7	71.9	72.6	72.1	72.3	72.6	71.0	71.4
Employed	6,964	6,817	6,804	6,888	6,808	6,762	6,904	6,730	6,717
Employment-population ratio	68.4	66.2	65.9	67.6	66.4	65.6	67.1	65.3	65.1
Unemployed	490	576	620	509	586	672	564	589	649
Unemployment rate	6.6	7.8	8.3	6.9	7.9	9.0	7.6	8.0	8.8
Women, 20 years and over									
Civilian labor force	8,382	8,441	8,386	8,325	8,408	8,424	8,424	8,461	8,359
Participation rate	65.7	65.6	65.1	65.4	65.6	65.6	65.4	65.6	64.8
Employed	7,886	7,762	7,703	7,808	7,903	7,842	7,772	7,706	7,634
Employment-population ratio	61.8	60.1	59.7	61.3	61.6	61.0	60.4	59.8	59.1
Unemployed	496	680	683	517	506	582	652	755	725
Unemployment rate	5.9	8.2	8.3	6.2	6.0	6.9	7.7	8.9	8.7
Both sexes, 16 to 19 years									
Civilian labor force	983	899	909	1,010	890	884	901	955	935
Participation rate	38.9	36.1	36.4	41.0	35.8	34.8	36.2	38.4	37.5
Employed	774	632	620	789	663	601	651	668	629
Employment-population ratio	31.5	25.4	24.9	32.1	26.7	24.2	25.2	26.8	25.2
Unemployed	209	266	289	221	227	283	250	287	306
Unemployment rate	21.2	29.7	31.8	21.9	25.5	30.4	27.7	30.1	32.7
Men	21.4	30.0	31.1	22.5	26.8	32.5	30.5	31.2	31.6
Women	21.1	29.4	32.4	21.3	24.3	28.1	24.8	29.0	33.7

See footnotes at end of table.

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]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
HISPANIC ORIGIN									
Civilian noninstitutional population	22,687	23,361	23,417	22,687	23,157	23,222	23,288	23,351	23,417
Civilian labor force	15,514	16,007	15,830	15,626	15,788	15,772	15,813	16,004	15,944
Participation rate	68.4	68.5	67.6	68.9	68.2	67.9	67.9	68.5	68.1
Employed	14,631	14,903	14,698	14,686	14,843	14,778	14,802	14,858	14,728
Employment-population ratio	64.5	63.8	62.8	64.7	64.1	63.6	63.6	63.6	62.9
Unemployed	883	1,104	1,132	940	945	994	1,010	1,146	1,217
Unemployment rate	5.7	6.9	7.1	6.0	6.0	6.3	6.4	7.2	7.6

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

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals because data for the "other races" group are not presented and Hispanics are included in both the white and black population groups.

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

(Numbers in thousands)

Educational attainment	Not seasonally adjusted			Seasonally adjusted[1]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
Less than a high school diploma									
Civilian noninstitutional population	27,851	27,325	27,504	27,851	27,679	27,468	27,478	27,325	27,504
Civilian labor force	12,026	12,037	11,997	11,958	12,188	11,799	11,859	12,073	11,969
Percent of population	43.2	44.1	43.6	42.9	44.0	43.0	43.2	44.2	43.5
Employed	11,242	11,183	11,044	11,171	11,380	10,943	10,932	11,139	11,000
Employment-population ratio	40.4	40.9	40.2	40.1	41.1	39.8	39.8	40.8	40.0
Unemployed	784	854	954	787	808	856	927	934	969
Unemployment rate	6.5	7.1	7.9	6.6	6.6	7.3	7.8	7.7	8.1
High school graduates, no college[2]									
Civilian noninstitutional population	57,562	57,221	57,400	57,562	56,947	57,513	57,400	57,221	57,400
Civilian labor force	37,344	36,782	36,856	37,129	36,970	37,096	36,873	36,855	36,670
Percent of population	64.9	64.3	64.2	64.5	64.9	64.5	64.2	64.4	63.9
Employed	36,087	35,208	35,089	35,830	35,468	35,460	35,303	35,137	34,790
Employment-population ratio	62.7	61.5	61.1	62.2	62.3	61.7	61.5	61.4	60.6
Unemployed	1,258	1,575	1,767	1,299	1,502	1,636	1,571	1,717	1,880
Unemployment rate	3.4	4.3	4.8	3.5	4.1	4.4	4.3	4.7	5.1
Less than a bachelor's degree[3]									
Civilian noninstitutional population	44,770	45,471	45,353	44,770	45,444	45,339	45,424	45,471	45,353
Civilian labor force	33,076	33,583	33,529	32,776	33,296	33,481	33,880	33,331	33,311
Percent of population	73.9	73.9	73.9	73.2	73.3	73.8	74.6	73.3	73.4
Employed	32,270	32,285	32,203	31,897	32,301	32,407	32,696	31,975	31,853
Employment-population ratio	72.1	71.0	71.0	71.2	71.1	71.5	72.0	70.3	70.2
Unemployed	806	1,298	1,326	879	994	1,075	1,184	1,356	1,458
Unemployment rate	2.4	3.9	4.0	2.7	3.0	3.2	3.5	4.1	4.4
College graduates									
Civilian noninstitutional population	45,708	47,371	47,225	45,708	46,784	46,734	46,870	47,371	47,225
Civilian labor force	36,184	37,354	37,290	36,237	36,634	36,649	36,886	37,281	37,429
Percent of population	79.2	78.9	79.0	79.3	78.3	78.4	78.7	78.7	79.3
Employed	35,676	36,404	36,285	35,674	35,859	35,870	36,000	36,259	36,286
Employment-population ratio	78.1	76.8	76.8	78.1	76.6	76.8	76.8	76.5	76.8
Unemployed	507	950	1,005	563	775	779	886	1,023	1,143
Unemployment rate	1.4	2.5	2.7	1.6	2.1	2.1	2.4	2.7	3.1

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

[2] Includes high school diploma or equivalent.

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

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Table A-4. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
CHARACTERISTIC									
Total employed, 16 years and over	135,731	134,898	134,359	135,479	133,979	134,393	135,181	134,552	134,084
Married men, spouse present	43,612	43,319	43,044	43,551	43,254	43,172	43,081	42,932	42,787
Married women, spouse present	33,880	33,492	33,482	33,633	33,603	33,605	33,684	33,160	32,953
Women who maintain families	8,535	8,254	8,386	8,495	8,567	8,323	8,240	8,215	8,319
OCCUPATION									
Managerial and professional specialty	41,296	42,148	42,031	41,083	41,917	41,750	41,775	41,974	41,891
Technical, sales, and administrative support	39,677	39,488	39,602	39,616	39,067	39,654	39,114	38,589	39,497
Service occupations	18,429	18,071	18,436	18,471	18,842	18,052	18,357	18,421	18,436
Precision production, craft, and repair	14,767	14,914	14,620	14,748	14,997	15,050	14,941	14,840	14,552
Operators, fabricators, and laborers	18,488	17,951	17,581	18,184	17,671	17,855	17,679	17,583	17,282
Farming, forestry, and fishing	3,085	3,326	3,090	3,236	3,186	3,154	3,308	3,251	3,236
CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,677	1,845	1,753	2,005	1,788	1,850	1,884	1,809	1,853
Self-employed workers	1,125	1,332	1,258	1,180	1,258	1,239	1,290	1,239	1,275
Unpaid family workers	28	27	11	25	22	29	23	25	11
Nonagricultural industries:									
Wage and salary workers	124,055	122,943	122,859	123,632	123,432	122,886	123,278	122,658	122,318
Government	19,264	19,235	19,358	19,146	18,919	19,219	19,267	19,274	19,184
Private industries	104,801	103,708	103,503	104,486	104,513	103,667	103,881	103,384	103,134
Private households	800	848	772	827	790	827	809	876	783
Other industries	104,001	102,860	102,730	103,659	103,723	102,840	103,072	102,808	102,341
Self-employed workers	8,505	8,586	8,450	8,533	8,574	8,481	8,563	8,467	8,482
Unpaid family workers	131	93	79	128	88	113	102	105	74
PERSONS AT WORK PART TIME									
All industries:									
Part time for economic reasons	3,241	3,854	4,042	3,416	3,486	3,328	4,188	4,482	4,341
Slack work or business conditions	2,083	2,706	2,729	2,183	2,120	2,086	2,881	3,023	2,884
Could only find part-time work	829	1,032	1,052	886	999	935	1,081	1,134	1,133
Part time for noneconomic reasons	20,015	19,451	19,672	18,896	18,845	19,153	18,825	18,505	18,634
Nonagricultural industries:									
Part time for economic reasons	3,089	3,825	3,837	3,295	3,336	3,196	4,045	4,342	4,080
Slack work or business conditions	1,979	2,623	2,600	2,082	2,059	2,004	2,758	2,953	2,740
Could only find part-time work	821	1,017	1,035	871	885	911	1,070	1,108	1,110
Part time for noneconomic reasons	19,454	18,878	19,118	18,323	18,309	18,580	18,276	18,031	17,988

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.

Table A-5. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
CHARACTERISTIC									
Total, 16 years and over	5,658	7,741	8,160	4.0	4.5	4.9	4.9	5.4	5.7
Men, 20 years and over	2,452	3,472	3,803	3.4	3.9	4.4	4.3	4.9	5.3
Women, 20 years and over	2,119	3,016	3,074	3.4	3.9	4.2	4.4	4.8	4.9
Both sexes, 16 to 19 years	1,087	1,253	1,282	13.0	14.8	16.1	14.7	15.5	15.8
Married men, spouse present	974	1,384	1,493	2.2	2.8	2.7	2.7	3.1	3.4
Married women, spouse present	858	1,275	1,248	2.5	2.9	3.0	3.3	3.7	3.6
Women who maintain families	467	607	750	5.2	6.2	6.7	7.0	6.9	8.3
Full-time workers	4,560	6,353	6,778	3.9	4.4	4.8	5.0	5.4	5.8
Part-time workers	1,096	1,383	1,379	4.5	5.1	5.6	4.5	5.8	5.6
OCCUPATION[2]									
Managerial and professional specialty	699	1,183	1,232	1.7	2.2	2.5	2.4	2.7	2.9
Technical, sales, and administrative support	1,464	1,908	2,124	3.8	4.0	4.3	4.5	4.7	5.2
Precision production, craft, and repair	559	828	931	3.7	4.2	4.8	4.8	5.9	6.0
Operators, fabricators, and laborers	1,230	1,885	1,757	6.3	7.2	7.7	7.5	8.7	8.2
Farming, forestry, and fishing	246	210	232	7.1	7.5	8.7	7.1	6.1	6.7
INDUSTRY									
Nonagricultural private wage and salary workers	4,313	6,494	6,754	4.0	4.7	5.1	5.2	5.8	6.1
Goods-producing industries	1,289	1,928	2,042	4.5	5.6	6.2	6.2	6.9	7.3
Mining	20	39	28	3.5	3.7	4.3	4.8	7.0	5.3
Construction	544	702	781	6.9	6.8	7.5	7.8	8.4	8.4
Manufacturing	725	1,186	1,233	3.8	5.1	5.7	5.6	6.2	6.5
Durable goods	423	813	832	3.5	4.7	5.8	5.6	6.9	7.1
Nondurable goods	302	373	401	3.9	5.7	5.5	5.4	5.2	5.4
Service-producing industries	3,024	4,566	4,713	3.8	4.4	4.8	4.9	5.6	5.7
Transportation and public utilities	202	491	536	2.6	3.3	3.5	3.9	6.0	6.5
Wholesale and retail trade	1,284	1,573	1,609	4.7	5.2	5.6	5.9	6.1	6.5
Finance, insurance, and real estate	153	221	302	1.9	3.2	2.7	2.8	2.7	3.6
Services	1,385	2,181	2,068	3.7	4.3	4.9	4.8	5.7	5.5
Government workers	445	468	492	2.3	2.1	2.1	2.1	2.4	2.5
Agricultural wage and salary workers	207	186	185	8.4	10.9	10.2	7.1	8.8	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.

Table A-6. Duration of unemployment

(Numbers in thousands)

Duration	Not seasonally adjusted			Seasonally adjusted					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
NUMBER OF UNEMPLOYED									
Less than 5 weeks	2,343	2,898	2,883	2,531	2,812	3,024	2,764	3,185	3,157
5 to 14 weeks	1,744	2,527	2,501	1,798	2,150	2,100	2,361	2,570	2,609
15 weeks and over	1,207	1,943	2,188	1,317	1,587	1,617	1,884	2,082	2,399
15 to 26 weeks	653	1,081	1,115	713	935	982	1,088	1,174	1,250
27 weeks and over	555	862	1,052	604	652	635	795	888	1,149
Average (mean) duration, in weeks	12.4	13.5	14.5	12.4	12.6	13.3	13.1	13.0	14.5
Median duration, in weeks	5.9	7.3	7.5	6.1	6.7	6.5	7.4	7.4	7.7
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	44.3	40.6	38.2	44.6	41.1	43.4	39.4	40.6	38.7
5 to 14 weeks	32.9	31.8	33.1	31.8	33.9	30.3	33.7	33.0	31.9
15 weeks and over	22.8	27.3	28.7	23.3	25.0	26.3	26.9	26.4	29.4
15 to 26 weeks	12.3	15.2	14.8	12.6	14.7	14.2	15.5	15.1	15.1
27 weeks and over	10.5	12.1	13.9	10.7	10.3	12.1	11.3	11.4	14.3

HOUSEHOLD DATA

Table A-7. Reason for unemployment

(Numbers in thousands)

Reason	Not seasonally adjusted			Seasonally adjusted					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
NUMBER OF UNEMPLOYED									
Job losers and persons who completed temporary jobs	2,327	3,701	4,184	2,501	3,252	3,408	3,800	4,380	4,886
On temporary layoff	776	884	1,017	877	1,003	1,078	1,116	1,380	1,172
Not on temporary layoff	1,552	2,828	3,177	1,624	2,249	2,330	2,682	3,000	3,427
Permanent job losers	978	2,082	2,403	[1]	[1]	[1]	[1]	[1]	[1]
Persons who completed temporary jobs	574	775	774	[1]	[1]	[1]	[1]	[1]	[1]
Job leavers	733	823	799	768	774	894	800	883	842
Reentrants	1,853	2,051	2,089	1,836	1,912	2,166	2,109	2,089	2,202
New entrants	380	430	462	429	436	495	476	462	508
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	44.0	52.1	55.5	44.4	51.0	49.0	51.5	55.6	56.4
On temporary layoff	14.6	12.2	13.5	15.6	15.7	15.5	16.0	17.5	14.4
Not on temporary layoff	29.3	39.9	42.1	28.8	35.3	33.5	35.5	38.4	42.0
Job leavers	13.9	13.0	10.6	13.6	12.1	12.8	11.5	11.4	10.3
Reentrants	35.0	28.9	27.8	34.4	30.0	31.1	30.2	26.8	27.0
New entrants	7.2	6.1	6.1	7.6	6.8	7.1	6.8	5.9	6.2
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers and persons who completed temporary jobs	1.7	2.6	3.0	1.8	2.3	2.4	2.5	3.1	3.2
Job leavers	.5	.6	.6	.5	.5	.6	.6	.6	.6
Reentrants	1.3	1.4	1.5	1.4	1.3	1.5	1.5	1.5	1.5
New entrants	.3	.3	.3	.3	.3	.4	.3	.3	.4

[1] Not available.

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

(Percent)

Measure	Not seasonally adjusted			Seasonally adjusted					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force	.9	1.4	1.5	.9	1.1	1.3	1.3	1.4	1.7
U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force	1.7	2.6	3.0	1.8	2.3	2.4	2.5	3.1	3.2
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate)	3.8	5.0	5.3	4.0	4.5	4.8	4.9	5.4	5.7
U-4 Total unemployed plus discouraged workers, as a percent of the civilian labor force plus discouraged workers	3.9	5.2	5.5	[1]	[1]	[1]	[1]	[1]	[1]
U-5 Total unemployed, plus discouraged workers, plus all other marginally attached workers, as a percent of the civilian labor force plus all marginally attached workers	4.5	5.9	6.2	[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	6.8	8.7	9.0	[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*.

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

Age and sex	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	Nov. 2000	Oct. 2001	Nov. 2001	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001	Nov. 2001
Total, 16 years and over	5,658	7,741	8,180	4.0	4.5	4.8	4.9	5.4	5.7
16 to 24 years	2,281	2,839	2,703	9.1	10.1	11.5	10.7	11.8	11.9
16 to 19 years	1,087	1,253	1,282	13.0	14.8	16.1	14.7	15.5	15.9
16 to 17 years	507	538	530	15.4	19.3	19.1	16.2	17.2	17.4
18 to 19 years	579	715	754	11.4	11.8	14.7	13.9	14.4	15.0
20 to 24 years	994	1,585	1,420	6.8	7.5	9.0	8.5	9.5	9.7
25 years and over	3,554	5,086	5,426	3.0	3.4	3.7	3.8	4.3	4.5
25 to 54 years	3,043	4,400	4,786	3.0	3.6	3.9	3.9	4.4	4.8
55 years and over	520	677	668	2.9	2.8	3.0	3.3	3.5	3.5
Men, 16 years and over	3,032	4,179	4,542	4.0	4.5	5.1	4.9	5.5	6.0
16 to 24 years	1,139	1,458	1,565	9.5	10.4	12.4	11.3	12.4	13.3
16 to 19 years	580	707	739	13.6	15.1	17.9	15.8	17.3	18.0
16 to 17 years	287	322	321	17.5	19.0	22.7	18.3	20.4	20.7
18 to 19 years	293	383	420	11.3	13.0	15.4	14.3	15.2	16.5
20 to 24 years	559	750	825	7.3	7.9	9.5	8.9	9.8	10.7
25 years and over	1,873	2,714	2,958	3.0	3.5	3.7	3.7	4.2	4.6
25 to 54 years	1,572	2,335	2,527	2.9	3.6	3.9	3.8	4.3	4.7
55 years and over	296	361	429	2.9	3.0	3.3	3.3	3.7	4.1
Women, 16 years and over	2,626	3,562	3,617	4.0	4.5	4.8	5.0	5.4	5.5
16 to 24 years	942	1,181	1,138	8.6	9.7	10.4	10.1	10.8	10.4
16 to 19 years	507	546	543	12.3	14.4	14.2	13.6	13.8	13.7
16 to 17 years	220	216	209	13.4	19.6	15.5	13.9	14.0	13.9
18 to 19 years	286	331	333	11.5	10.6	13.9	13.5	13.5	13.5
20 to 24 years	435	635	595	6.3	7.1	8.4	8.2	9.1	8.5
25 years and over	1,681	2,372	2,470	3.1	3.4	3.7	3.9	4.3	4.5
25 to 54 years	1,471	2,065	2,259	3.2	3.5	3.8	4.0	4.4	4.8
55 years and over	224	287	239	2.7	2.5	2.7	3.3	3.3	2.8

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

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

(Numbers in thousands)

Category	Total		Men		Women	
	Nov. 2000	Nov. 2001	Nov. 2000	Nov. 2001	Nov. 2000	Nov. 2001
NOT IN THE LABOR FORCE						
Total not in the labor force	69,551	70,856	26,023	26,729	43,528	44,127
Persons who currently want a job	3,971	4,320	1,708	1,998	2,266	2,324
Searched for work and available to work now[1]	1,097	1,315	560	685	536	630
Reason not currently looking:						
Discouragement over job prospects[2]	234	322	165	180	70	141
Reasons other than discouragement[3]	853	993	395	504	468	488
MULTIPLE JOBHOLDERS						
Total multiple jobholders[4]	7,455	7,080	3,812	3,593	3,643	3,487
Percent of total employed	5.5	5.3	5.3	5.0	5.8	5.5
Primary job full time, secondary job part time	4,082	3,870	2,271	2,189	1,811	1,682
Primary and secondary jobs both part time	1,555	1,514	519	491	1,036	1,022
Primary and secondary jobs both full time	321	341	211	136	110	105
Hours vary on primary or secondary job	1,466	1,414	800	748	666	658

[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.

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Nov. 2000	Sept. 2001	Oct. 2001P	Nov. 2001P	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001P	Nov. 2001P
Total	133,351	132,528	132,574	132,441	132,279	132,449	132,395	132,230	131,762	131,431
Total private	112,328	111,738	111,282	111,006	111,689	111,517	111,390	111,249	110,762	110,437
Goods-producing	25,853	25,203	24,993	24,701	25,711	25,122	24,963	24,888	24,747	24,580
Mining	553	575	576	571	548	567	569	569	569	567
Metal mining	40.1	35.2	34.7	34.4	40	34	35	35	35	34
Coal mining	75.6	79.7	81.2	81.8	75	79	80	80	81	81
Oil and gas extraction	320.5	344.6	343.9	340.1	319	341	342	342	340	339
Nonmetallic minerals, except fuels	116.3	115.8	116.5	115.0	114	113	112	112	113	113
Construction	6,877	7,114	7,083	6,940	6,781	6,867	6,861	6,871	6,854	6,852
General building contractors	1,558.4	1,598.8	1,590.4	1,570.7	1,548	1,554	1,557	1,562	1,561	1,561
Heavy construction, except building	933.0	1,005.0	999.5	968.1	909	935	932	932	933	942
Special trade contractors	4,385.2	4,509.3	4,473.3	4,402.9	4,324	4,378	4,372	4,377	4,360	4,349
Manufacturing	18,423	17,514	17,354	17,190	18,382	17,688	17,533	17,448	17,324	17,161
Production workers	12,551	11,784	11,657	11,533	12,511	11,900	11,782	11,706	11,627	11,501
Durable goods	11,141	10,471	10,361	10,259	11,120	10,624	10,523	10,460	10,393	10,247
Production workers	7,568	6,988	6,900	6,830	7,544	7,102	7,022	6,970	6,898	6,813
Lumber and wood products	822.3	805.6	796.6	789.1	817	797	793	794	789	786
Furniture and fixtures	558.0	513.5	504.8	497.6	557	531	519	513	505	498
Stone, clay, and glass products	580.7	574.1	570.4	562.3	577	569	568	567	566	560
Primary metal industries	693.1	639.0	631.8	622.7	601	648	643	638	632	621
Blast furnaces and basic steel products	221.6	207.1	206.5	204.0	(1)	(1)	(1)	(1)	(1)	(1)
Fabricated metal products	1,542.3	1,467.0	1,455.2	1,438.2	1,537	1,478	1,468	1,464	1,453	1,434
Industrial machinery and equipment	2,117.6	1,956.6	1,934.6	1,913.3	2,122	2,007	1,980	1,965	1,944	1,918
Computer and office equipment	364.9	343.5	342.2	338.6	365	353	348	344	343	340
Electronic and other electrical equipment	1,739.4	1,548.7	1,526.8	1,501.1	1,737	1,589	1,565	1,551	1,529	1,500
Electronic components and accessories	708.1	608.9	598.7	590.7	706	634	618	613	601	592
Transportation equipment	1,824.6	1,735.1	1,708.5	1,709.8	1,822	1,752	1,750	1,735	1,715	1,707
Motor vehicles and equipment	996.3	921.1	899.2	908.6	992	936	931	919	903	903
Aircraft and parts	463.8	465.3	463.1	457.3	462	466	465	465	463	456
Instruments and related products	863.2	850.6	847.6	844.9	865	865	858	851	849	847
Miscellaneous manufacturing	399.3	382.7	384.8	379.6	395	388	379	382	381	376
Nondurable goods	7,282	7,043	6,993	6,931	7,262	7,064	7,010	6,988	6,981	6,914
Production workers	4,983	4,796	4,757	4,703	4,967	4,798	4,760	4,736	4,729	4,688
Food and kindred products	1,685.2	1,726.7	1,713.9	1,696.2	1,679	1,680	1,674	1,682	1,689	1,690
Tobacco products	33.6	33.7	33.8	33.5	33	33	35	33	33	33
Textile mill products	516.1	462.8	454.5	448.7	514	471	465	459	453	447
Apparel and other textile products	616.3	555.2	548.1	535.4	611	571	554	551	543	532
Paper and allied products	653.0	630.7	627.5	627.1	654	632	628	629	628	627
Printing and publishing	1,546.2	1,470.2	1,468.3	1,457.4	1,540	1,489	1,483	1,473	1,465	1,452
Chemicals and allied products	1,037.2	1,028.7	1,028.0	1,021.8	1,038	1,039	1,035	1,031	1,028	1,023
Petroleum and coal products	126.9	131.0	128.9	128.7	127	128	127	128	127	127
Rubber and misc. plastics products	997.5	943.1	935.4	924.4	997	957	947	941	935	924
Leather and leather products	70.2	60.9	60.5	59.3	69	64	62	61	60	59
Service-producing	107,498	107,325	107,581	107,740	106,568	107,327	107,432	107,342	107,015	106,851
Transportation and public utilities	7,141	7,112	7,055	7,008	7,093	7,106	7,082	7,070	7,017	6,959
Transportation	4,620	4,571	4,514	4,485	4,573	4,561	4,539	4,528	4,473	4,419
Railroad transportation	236.6	228.4	225.7	225.7	235	226	225	226	225	224
Local and interurban passenger transit	494.2	496.3	495.2	498.2	478	485	486	482	479	480
Trucking and warehousing	1,877.1	1,865.7	1,858.6	1,850.3	1,864	1,863	1,844	1,838	1,832	1,837
Water transportation	198.6	210.8	210.0	202.4	200	203	203	205	207	205
Transportation by air	1,325.8	1,293.5	1,258.8	1,234.2	1,306	1,304	1,303	1,300	1,264	1,219
Pipelines, except natural gas	13.7	14.0	14.1	14.2	14	14	14	14	14	14
Transportation services	476.1	464.2	452.3	440.0	476	466	463	463	452	440
Communications and public utilities	2,521	2,541	2,541	2,541	2,520	2,547	2,543	2,542	2,544	2,540
Communications	1,674.8	1,694.1	1,694.1	1,693.7	1,672	1,700	1,695	1,695	1,695	1,692
Electric, gas, and sanitary services	846.7	848.8	847.1	847.5	848	847	848	847	849	848
Wholesale trade	7,094	6,993	6,985	6,958	7,070	7,017	7,010	6,998	6,971	6,946
Durable goods	4,209	4,122	4,112	4,091	4,206	4,149	4,134	4,123	4,114	4,091
Nondurable goods	2,875	2,871	2,873	2,867	2,864	2,868	2,876	2,865	2,857	2,855

See footnotes at end of table.

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

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Nov. 2000	Sept. 2001	Oct. 2001[P]	Nov. 2001[P]	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001[P]	Nov. 2001[P]
Retail trade	23,787	23,548	23,400	23,761	23,395	23,606	23,583	23,536	23,417	23,403
Building materials and garden supplies	1,001.6	1,013.0	1,008.5	1,002.1	1,011	1,008	1,014	1,013	1,013	1,011
General merchandise stores	3,068.6	2,746.8	2,789.9	2,973.6	2,835	2,810	2,800	2,793	2,763	2,761
Department stores	2,702.4	2,408.4	2,444.6	2,610.6	2,492	2,458	2,449	2,452	2,420	2,405
Food stores	3,562.7	3,531.1	3,542.1	3,571.2	3,526	3,536	3,531	3,538	3,542	3,537
Automotive dealers and service stations	2,422.9	2,446.2	2,437.0	2,432.9	2,426	2,435	2,441	2,435	2,429	2,435
New and used car dealers	1,122.8	1,138.3	1,137.0	1,139.9	1,123	1,131	1,133	1,133	1,133	1,139
Apparel and accessory stores	1,266.8	1,205.4	1,205.8	1,257.2	1,208	1,219	1,224	1,224	1,210	1,200
Furniture and home furnishings stores	1,171.3	1,125.8	1,136.4	1,165.0	1,144	1,137	1,137	1,138	1,136	1,138
Eating and drinking places	8,072.5	8,353.6	8,124.4	8,122.4	8,142	8,310	8,290	8,242	8,185	8,198
Miscellaneous retail establishments	3,220.5	3,126.0	3,156.1	3,236.3	3,103	3,151	3,156	3,153	3,139	3,125
Finance, insurance, and real estate	7,554	7,628	7,604	7,614	7,575	7,618	7,623	7,633	7,627	7,636
Finance	3,725	3,750	3,742	3,763	3,729	3,755	3,758	3,758	3,755	3,769
Depository institutions	2,019.0	2,033.2	2,027.1	2,036.8	2,023	2,039	2,037	2,039	2,035	2,041
Commercial banks	1,417.0	1,430.4	1,420.5	1,425.9	1,420	1,426	1,423	1,423	1,426	1,428
Savings institutions	252.1	254.9	255.5	258.9	253	255	255	256	256	259
Nondepository institutions	677.5	705.5	708.6	718.3	678	703	709	708	712	719
Mortgage bankers and brokers	301.8	322.0	325.1	333.4	302	321	324	323	327	334
Security and commodity brokers	769.7	755.8	748.3	749.6	770	755	755	755	750	751
Holding and other investment offices	258.3	255.5	257.7	258.2	258	258	257	256	258	258
Insurance	2,338	2,356	2,354	2,354	2,340	2,357	2,357	2,362	2,360	2,358
Insurance carriers	1,581.1	1,596.1	1,595.8	1,595.2	1,583	1,599	1,598	1,601	1,602	1,598
Insurance agents, brokers, and service	757.0	759.8	757.7	758.4	757	758	759	761	758	758
Real estate	1,491	1,522	1,508	1,497	1,506	1,506	1,508	1,513	1,512	1,511
Services[2]	40,809	41,254	41,225	40,956	40,845	41,046	41,129	41,134	40,983	40,913
Agricultural services	811.5	878.7	867.9	838.4	811	834	837	838	840	837
Hotels and other lodging places	1,864.2	1,961.5	1,858.6	1,781.9	1,939	1,922	1,912	1,913	1,862	1,855
Personal services	1,232.7	1,248.9	1,246.5	1,241.4	1,261	1,281	1,284	1,284	1,280	1,270
Business services	10,094.9	9,696.1	9,650.2	9,533.0	9,833	9,592	9,588	9,581	9,467	9,387
Services to buildings	998.1	997.4	994.3	993.4	998	998	997	997	995	997
Personnel supply services	4,023.1	3,822.2	3,552.0	3,415.1	3,869	3,517	3,521	3,488	3,376	3,294
Help supply services	3,598.6	3,229.3	3,163.8	3,035.7	3,461	3,127	3,113	3,106	3,005	2,918
Computer and data processing services	2,150.8	2,188.8	2,190.2	2,192.5	2,152	2,202	2,194	2,200	2,202	2,198
Auto repair, services, and parking	1,264.4	1,306.9	1,297.1	1,299.6	1,270	1,312	1,307	1,306	1,298	1,308
Miscellaneous repair services	365.7	363.9	364.0	359.6	366	360	362	363	362	359
Motion pictures	585.4	578.0	565.5	570.4	583	585	589	586	581	579
Amusement and recreation services	1,590.5	1,844.7	1,718.8	1,584.8	1,755	1,772	1,777	1,768	1,775	1,750
Health services	10,173.8	10,389.0	10,428.0	10,471.6	10,164	10,354	10,384	10,408	10,429	10,461
Offices and clinics of medical doctors	1,941.8	1,989.8	1,990.9	2,000.4	1,941	1,983	1,990	1,992	1,993	2,001
Nursing and personal care facilities	1,802.7	1,829.9	1,834.3	1,841.6	1,800	1,823	1,825	1,830	1,833	1,838
Hospitals	4,017.1	4,120.9	4,134.3	4,152.0	4,016	4,098	4,114	4,124	4,133	4,150
Home health care services	648.9	656.0	658.5	661.0	644	647	653	655	656	658
Legal services	1,013.2	1,023.0	1,025.3	1,029.7	1,013	1,026	1,028	1,030	1,029	1,030
Educational services	2,522.4	2,598.7	2,603.4	2,643.1	2,338	2,432	2,452	2,446	2,439	2,447
Social services	2,974.9	3,066.5	3,100.8	3,109.3	2,958	3,048	3,076	3,085	3,094	3,095
Child day care services	743.0	755.2	768.7	771.1	727	760	765	756	756	755
Residential care	818.4	847.6	850.9	851.7	820	847	848	851	853	853
Museums and botanical and zoological gardens	108.0	112.5	112.2	107.6	108	111	111	112	112	110
Membership organizations	2,470.8	2,487.7	2,491.4	2,494.3	2,486	2,493	2,503	2,506	2,505	2,508
Engineering and management services	3,467.5	3,516.2	3,524.4	3,530.6	3,478	3,540	3,544	3,533	3,536	3,542
Engineering and architectural services	1,033.4	1,059.6	1,068.4	1,065.5	1,035	1,064	1,067	1,067	1,069	1,067
Management and public relations	1,115.5	1,120.1	1,122.1	1,122.1	1,113	1,119	1,123	1,122	1,122	1,121
Services, nec	49.9	51.6	51.2	51.2	(1)	(1)	(1)	(1)	(1)	(1)
Government	21,023	20,790	21,312	21,435	20,590	20,932	21,005	20,981	21,000	20,994
Federal	2,613	2,620	2,809	2,804	2,620	2,626	2,622	2,627	2,623	2,804
Federal, except Postal Service	1,746.8	1,776.4	1,767.4	1,761.1	1,761	1,772	1,774	1,778	1,777	1,775
State	4,941	4,908	5,057	5,062	4,798	4,909	4,913	4,931	4,923	4,913
Education	2,193.1	2,092.8	2,256.6	2,281.9	2,033	2,117	2,122	2,129	2,116	2,115
Other State government	2,747.8	2,815.0	2,800.1	2,780.4	2,765	2,792	2,791	2,802	2,807	2,798
Local	13,469	13,262	13,646	13,769	13,172	13,397	13,470	13,423	13,454	13,477
Education	7,803.5	7,443.5	7,863.6	7,992.2	7,449	7,575	7,650	7,595	7,607	7,628
Other local government	5,665.3	5,818.2	5,782.4	5,776.3	5,723	5,822	5,820	5,828	5,847	5,849

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

[2] Includes other industries, not shown separately.

[P] = preliminary.

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

Industry	Not seasonally adjusted				Seasonally adjusted					
	Nov. 2000	Sept. 2001	Oct. 2001[P]	Nov. 2001[P]	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001[P]	Nov. 2001[P]
Total private	34.3	34.3	34.0	34.0	34.3	34.2	34.0	34.1	34.0	34.1
Goods-producing	40.8	40.7	40.4	40.3	40.6	40.5	40.3	40.2	40.0	40.1
Mining	42.9	44.0	43.6	42.9	43.0	43.3	43.4	43.5	43.0	43.1
Construction	38.7	39.6	39.4	39.1	38.9	39.4	39.2	39.1	38.6	39.4
Manufacturing	41.6	41.0	40.7	40.7	41.2	40.8	40.7	40.6	40.5	40.3
Overtime hours	4.6	4.3	4.0	3.9	4.3	4.0	4.1	3.9	3.8	3.7
Durable goods	42.1	41.3	40.9	40.9	41.6	41.2	41.1	40.9	40.7	40.5
Overtime hours	4.6	4.1	3.8	3.8	4.4	4.0	4.1	3.8	3.7	3.6
Lumber and wood products	41.0	41.6	40.8	40.8	40.8	41.1	40.9	41.1	40.5	40.5
Furniture and fixtures	39.9	39.6	39.7	39.7	39.4	39.7	39.7	39.8	39.4	39.4
Stone, clay, and glass products	43.2	45.1	44.3	44.3	43.0	44.0	43.9	44.0	43.8	44.0
Primary metal industries	45.0	44.4	43.1	42.8	44.4	44.1	43.7	43.7	43.2	42.2
Blast furnaces and basic steel products	45.6	45.9	43.7	43.2	45.2	44.7	44.6	45.5	43.9	42.8
Fabricated metal products	42.6	41.5	41.2	41.3	42.1	41.6	41.5	41.2	41.0	40.8
Industrial machinery and equipment	42.0	40.4	40.4	40.4	41.7	40.8	40.2	40.3	40.5	40.1
Electronic and other electrical equipment	41.0	39.4	39.3	39.4	40.5	38.9	39.1	39.1	39.0	38.9
Transportation equipment	43.1	41.9	41.7	41.8	42.5	42.2	42.8	41.5	41.3	41.3
Motor vehicles and equipment	43.9	42.9	42.5	42.6	43.2	43.0	44.6	42.3	42.0	42.1
Instruments and related products	41.5	41.1	40.8	41.0	41.2	40.8	40.4	41.1	40.7	40.7
Miscellaneous manufacturing	38.7	37.8	37.8	37.4	38.4	38.4	38.2	37.6	37.4	37.2
Nondurable goods	41.0	40.7	40.4	40.5	40.5	40.3	40.1	40.2	40.2	40.0
Overtime hours	4.5	4.5	4.3	4.2	4.2	4.0	4.1	4.1	4.1	3.9
Food and kindred products	42.1	42.0	41.7	41.3	41.4	40.9	41.1	41.0	41.1	40.6
Tobacco products	41.0	40.8	40.8	40.4	40.4	40.5	39.9	40.0	40.2	39.9
Textile mill products	40.9	40.2	39.7	40.0	40.5	39.7	39.8	39.8	39.7	39.7
Apparel and other textile products	37.8	36.7	36.6	36.7	37.6	37.7	36.9	36.9	36.7	36.6
Paper and allied products	42.8	42.2	41.8	41.8	42.2	41.9	41.2	41.6	41.5	41.2
Printing and publishing	38.6	38.5	38.2	38.4	38.2	38.2	38.0	38.1	38.0	37.8
Chemicals and allied products	42.4	42.3	42.3	42.6	42.1	42.7	42.1	42.2	42.3	42.2
Petroleum and coal products	43.0	42.9	42.0	41.8	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products	41.2	41.2	40.7	41.0	41.0	40.6	40.5	40.6	40.5	40.6
Leather and leather products	37.6	36.6	36.2	36.2	37.3	35.7	36.4	36.3	36.0	35.6
Service-producing	32.6	32.8	32.5	32.5	32.8	32.6	32.6	32.6	32.5	32.6
Transportation and public utilities	38.5	38.0	37.6	37.6	38.6	37.8	37.8	37.6	37.6	37.7
Wholesale trade	38.4	38.7	38.1	38.2	38.4	38.2	38.3	38.3	38.1	38.2
Retail trade	28.6	28.6	28.5	28.5	28.9	28.6	28.6	28.7	28.7	28.6
Finance, insurance, and real estate	36.0	36.7	35.9	36.1	36.2	36.2	36.2	36.2	36.1	36.3
Services	32.6	32.7	32.4	32.5	32.6	32.7	32.5	32.6	32.5	32.6

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

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

[P] = preliminary.

ESTABLISHMENT DATA

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			
	Nov. 2000	Sept. 2001	Oct. 2001P	Nov. 2001P	Nov. 2000	Sept. 2001	Oct. 2001P	Nov. 2001P
Total private	$13.99	$14.51	$14.50	$14.54	$479.86	$497.69	$493.00	$494.36
Seasonally adjusted	13.97	14.45	14.47	14.52	479.17	492.75	491.98	495.13
Goods-producing	15.66	16.14	16.14	16.18	636.93	656.90	652.05	652.05
Mining	17.32	17.67	17.70	17.78	743.03	777.48	771.72	762.76
Construction	18.20	18.50	18.55	18.56	704.34	736.30	730.67	725.70
Manufacturing	14.50	15.01	14.97	15.06	607.36	615.41	609.28	612.94
Durable goods	15.05	15.49	15.45	15.53	633.61	639.74	631.91	635.18
Lumber and wood products	12.07	12.45	12.35	12.41	494.87	517.82	503.88	505.85
Furniture and fixtures	11.90	12.35	12.38	12.36	474.81	489.06	479.11	478.33
Stone, clay, and glass products	14.76	15.22	15.13	15.11	637.63	686.42	670.28	669.37
Primary metal industries	16.58	17.27	17.11	17.23	746.10	766.79	737.44	737.44
Blast furnaces and basic steel products	19.71	20.91	20.56	20.83	902.72	959.77	898.47	899.86
Fabricated metal products	14.03	14.42	14.34	14.43	597.68	596.43	590.81	585.86
Industrial machinery and equipment	15.67	16.05	16.09	16.11	658.14	648.42	650.04	650.84
Electronic and other electrical equipment	14.04	14.84	14.77	14.87	575.64	584.70	580.46	585.88
Transportation equipment	19.05	19.31	19.38	19.50	821.06	809.09	808.15	815.10
Motor vehicles and equipment	19.43	19.68	19.82	19.95	852.98	844.27	842.35	849.87
Instruments and related products	14.84	15.06	15.00	15.06	607.56	618.97	609.00	617.46
Miscellaneous manufacturing	11.82	12.37	12.27	12.40	457.43	467.59	461.35	463.76
Nondurable goods	13.89	14.31	14.27	14.37	569.49	582.42	576.51	581.99
Food and kindred products	12.69	12.95	12.93	13.14	534.25	543.90	539.18	542.68
Tobacco products	21.85	21.70	21.70	22.47	895.85	885.36	881.02	907.79
Textile mill products	11.27	11.40	11.36	11.45	460.94	458.28	450.99	458.00
Apparel and other textile products	9.33	9.56	9.48	9.58	352.67	350.85	346.97	351.59
Paper and allied products	16.50	17.12	17.12	17.16	708.20	722.46	715.62	717.29
Printing and publishing	14.56	15.01	14.96	14.93	564.93	577.89	571.47	573.31
Chemicals and allied products	18.35	18.86	18.82	18.83	778.04	797.78	787.53	793.64
Petroleum and coal products	22.23	22.27	22.35	22.29	955.89	955.38	938.70	931.72
Rubber and misc. plastics products	13.10	13.51	13.48	13.53	539.72	556.61	548.64	554.73
Leather and leather products	10.32	10.25	10.17	10.28	390.10	377.20	368.15	372.14
Service-producing	13.47	14.02	14.01	14.06	439.12	459.86	455.33	458.95
Transportation and public utilities	16.43	17.07	17.10	17.14	632.56	648.66	642.96	644.46
Wholesale trade	15.45	16.03	15.86	15.91	593.28	620.36	604.27	607.76
Retail trade	9.61	9.92	9.94	9.99	274.85	285.70	283.29	284.72
Finance, insurance, and real estate	15.25	16.05	15.97	16.04	549.00	589.04	573.32	579.04
Services	14.20	14.78	14.79	14.88	462.92	483.31	479.20	483.60

[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	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001[P]	Nov. 2001[P]	Percent change from: Oct. 2001-Nov. 2001
Total private:							
Current dollars	$13.97	$14.34	$14.40	$14.45	$14.47	$14.52	0.3
Constant (1982) dollars[2]	7.82	8.00	8.03	8.02	8.06	N.A.	(3)
Goods-producing	15.63	15.93	16.01	16.04	16.05	16.16	.7
Mining	17.38	17.74	17.69	17.67	17.73	17.84	.6
Construction	16.16	16.26	16.35	16.36	16.38	16.51	.7
Manufacturing	14.57	14.86	14.93	14.96	14.97	15.04	.5
Excluding overtime[4]	13.84	14.16	14.24	14.28	14.30	14.37	.5
Service-producing	13.46	13.87	13.93	13.98	14.01	14.05	.3
Transportation and public utilities	16.42	16.68	16.95	17.02	17.10	17.14	.2
Wholesale trade	15.44	15.84	15.81	15.95	15.90	15.91	.1
Retail trade	9.61	9.84	9.87	9.87	9.92	9.99	.7
Finance, insurance, and real estate	15.28	15.91	15.99	16.01	16.06	16.07	.1
Services	14.16	14.61	14.71	14.76	14.80	14.83	.2

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

[2] The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.

[3] Change was .5 percent from September 2001 to October 2001, the latest month available.

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

N.A. = not available.

[P] = preliminary.

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					
	Nov. 2000	Sept. 2001	Oct. 2001P	Nov. 2001P	Nov. 2000	July 2001	Aug. 2001	Sept. 2001	Oct. 2001P	Nov. 2001P
Total private	152.6	151.9	149.7	149.1	151.8	150.8	150.1	149.9	148.8	148.7
Goods-producing	116.6	112.8	110.7	108.9	114.9	111.5	110.3	109.5	108.2	107.7
Mining	52.5	56.5	56.3	55.2	52.0	55.1	55.3	55.1	54.7	54.8
Construction	187.8	199.7	196.2	190.0	184.7	190.3	188.5	188.0	185.1	188.7
Manufacturing	105.4	97.5	95.6	94.7	103.9	98.0	96.8	95.9	94.9	93.5
Durable goods	111.1	100.6	98.4	97.5	109.6	102.1	100.8	99.4	97.9	96.3
Lumber and wood products	144.6	142.7	138.4	136.7	143.0	139.5	138.0	138.6	135.8	135.6
Furniture and fixtures	139.2	125.9	120.6	119.0	137.2	130.1	127.6	123.2	119.8	118.0
Stone, clay, and glass products	119.6	122.7	119.4	117.7	118.0	118.9	117.0	117.8	116.8	116.2
Primary metal industries	92.7	83.1	79.6	77.5	91.1	83.4	82.3	81.7	79.9	78.1
Blast furnaces and basic steel products	71.0	66.0	62.5	60.8	70.2	64.2	64.1	65.3	63.0	59.9
Fabricated metal products	123.0	112.3	110.5	109.5	120.8	113.7	112.6	111.1	109.7	107.5
Industrial machinery and equipment	101.5	88.0	86.9	85.9	101.0	91.5	88.9	88.2	87.7	85.6
Electronic and other electrical equipment	109.4	90.0	88.5	87.1	107.7	92.4	90.9	89.6	88.0	85.9
Transportation equipment	120.1	109.2	106.6	107.2	117.9	111.2	112.6	108.0	105.9	105.5
Motor vehicles and equipment	159.2	142.1	136.9	139.0	155.8	145.1	149.6	136.9	135.6	136.3
Instruments and related products	76.2	72.8	71.2	71.8	75.9	73.8	72.4	72.9	72.0	71.7
Miscellaneous manufacturing	100.3	91.3	91.2	89.4	97.9	94.3	90.6	90.2	89.4	87.5
Nondurable goods	97.6	93.3	91.8	90.9	96.2	92.4	91.3	91.0	90.8	89.6
Food and kindred products	118.6	121.1	119.2	116.4	116.0	114.0	114.5	113.7	115.4	113.7
Tobacco products	50.2	50.5	50.4	49.7	48.0	48.1	51.4	47.5	47.8	47.4
Textile mill products	73.3	64.9	63.0	62.4	72.4	65.3	64.7	63.7	62.8	61.7
Apparel and other textile products	53.1	46.0	45.0	44.2	52.4	48.6	45.9	45.7	44.9	43.8
Paper and allied products	103.3	98.7	97.2	97.4	102.0	97.8	95.8	98.7	96.5	98.0
Printing and publishing	122.0	114.4	112.8	112.7	119.4	114.7	113.7	113.4	112.4	110.3
Chemicals and allied products	99.5	96.8	96.8	97.1	98.6	99.1	97.0	96.9	97.0	96.2
Petroleum and coal products	70.5	75.3	72.7	71.5	70.1	71.8	73.3	73.4	71.7	71.7
Rubber and misc. plastics products	144.9	136.2	133.5	132.5	144.5	136.4	134.3	134.5	132.6	131.9
Leather and leather products	30.6	25.7	24.9	24.4	29.8	25.8	26.3	25.7	24.9	23.6
Service-producing	168.7	169.4	167.1	167.2	168.3	168.4	168.0	168.1	167.0	167.1
Transportation and public utilities	140.8	139.2	136.6	135.1	139.8	138.3	137.8	136.7	135.6	134.4
Wholesale trade	133.1	131.9	130.0	129.9	132.5	130.6	131.0	130.6	129.6	129.4
Retail trade	147.5	146.1	144.0	146.3	146.4	145.7	145.6	145.7	144.8	145.1
Finance, insurance, and real estate	137.4	141.6	138.2	139.2	138.9	139.6	139.6	140.0	139.6	140.6
Services	211.5	213.9	211.9	210.5	211.2	212.8	212.0	212.4	211.0	211.1

[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, 353 industries[1]											
Over 1-month span:												
1997	57.2	58.6	62.5	63.2	59.8	57.2	59.8	59.2	62.7	65.2	61.6	62.2
1998	63.2	56.2	59.3	60.2	58.9	57.1	55.4	58.4	54.8	55.0	58.2	56.4
1999	55.1	59.6	52.8	57.2	58.2	54.2	57.1	54.4	55.2	57.9	59.9	58.8
2000	55.7	59.3	61.0	54.2	47.7	60.5	57.8	55.1	52.0	54.8	55.1	54.2
2001	53.7	50.4	55.8	45.0	46.6	44.3	45.5	43.9	44.1	P39.4	P39.2	
Over 3-month span:												
1997	63.5	64.0	66.0	67.0	63.2	63.3	59.8	65.6	67.3	71.1	70.0	69.5
1998	65.3	66.1	64.6	65.7	62.2	57.9	57.5	58.4	59.1	59.2	59.3	59.2
1999	60.6	57.8	58.5	55.8	58.1	57.9	57.2	59.2	59.8	59.1	61.0	60.6
2000	61.6	63.3	61.9	56.2	55.1	57.9	61.5	56.4	54.1	53.3	55.7	53.3
2001	51.7	54.1	48.6	49.2	42.5	42.4	40.5	39.9	P39.0	P36.4		
Over 6-month span:												
1997	66.7	68.6	68.1	68.0	65.3	65.9	66.0	69.1	69.4	70.3	71.1	70.7
1998	70.4	67.4	65.0	62.5	63.6	60.5	59.2	58.6	57.9	59.6	60.6	59.9
1999	59.8	59.8	58.2	60.3	56.7	59.2	61.8	60.6	62.2	61.2	62.3	64.9
2000	63.5	60.6	62.6	63.7	61.5	55.5	56.1	56.6	54.2	54.8	51.8	54.2
2001	52.0	50.6	48.6	45.3	44.1	38.5	P37.4	P36.1				
Over 12-month span:												
1997	69.3	67.4	68.4	70.0	69.7	70.3	70.1	70.8	71.0	70.5	69.7	70.7
1998	69.7	67.6	67.4	66.0	64.0	62.7	61.9	62.0	60.9	59.3	60.8	58.8
1999	61.2	60.2	58.2	60.8	60.8	61.6	62.2	61.3	63.9	63.0	61.3	60.9
2000	62.5	63.0	61.8	59.5	58.4	56.8	55.7	56.5	54.2	53.4	53.0	51.7
2001	49.6	47.7	45.0	P42.4	P39.7							
	Manufacturing payrolls, 136 industries[1]											
Over 1-month span:												
1997	48.2	52.6	55.5	54.8	52.9	53.7	49.3	51.1	57.7	61.8	61.4	54.8
1998	57.4	51.5	53.7	53.3	43.8	48.2	38.2	51.5	41.9	41.5	41.2	43.4
1999	48.0	44.5	43.0	42.3	50.4	39.3	51.5	39.3	45.2	46.3	53.3	48.7
2000	44.9	56.6	55.5	48.7	41.2	54.8	53.7	38.6	34.6	41.5	43.8	44.1
2001	37.9	32.4	41.5	31.3	29.4	33.1	39.0	27.6	36.0	P30.9	P25.4	
Over 3-month span:												
1997	50.0	51.5	55.9	55.5	52.9	52.9	50.4	54.8	59.8	70.6	66.5	64.3
1998	59.6	59.8	55.9	50.4	46.7	37.9	41.5	41.5	41.9	38.2	36.8	40.8
1999	41.2	39.0	38.2	41.5	40.8	45.2	39.0	45.2	40.8	44.9	46.3	46.0
2000	50.0	54.0	52.9	42.3	43.0	48.5	48.2	33.8	28.7	30.5	39.0	35.7
2001	28.3	29.4	24.6	26.5	22.4	24.6	21.0	19.9	P21.0	P22.4		
Over 6-month span:												
1997	53.7	53.7	51.1	52.9	50.7	50.7	54.6	62.1	61.8	64.3	67.3	65.8
1998	63.2	54.4	50.4	40.4	44.5	40.1	37.5	36.4	34.9	40.1	37.1	34.2
1999	36.0	38.2	37.5	41.2	36.8	39.7	43.0	41.5	46.0	40.4	46.3	51.5
2000	51.5	44.5	48.5	55.1	43.8	34.9	33.5	34.8	30.1	29.4	25.0	27.9
2001	26.8	25.4	19.9	20.8	20.2	15.1	P15.1	P14.7				
Over 12-month span:												
1997	55.1	52.6	54.0	54.4	55.5	57.0	57.0	58.8	59.2	57.7	57.4	57.7
1998	54.8	52.2	51.8	48.7	40.4	40.1	38.2	37.5	38.4	34.8	35.7	34.2
1999	38.6	34.8	32.4	36.0	37.9	39.0	40.1	40.4	44.5	48.0	44.9	44.5
2000	46.3	45.2	41.2	37.9	33.8	31.3	31.3	31.3	27.8	25.4	24.3	21.0
2001	19.1	16.5	14.7	P16.9	P14.0							

[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.

. 29 2002

The Honorable Jon Corzine
Joint Economic Committee
United States Senate
Washington, D.C. 20510

Dear Senator Corzine:

At the December 7 hearing of the Joint Economic Committee, you raised the issue of whether temporary workers stay in their jobs long enough to qualify for unemployment insurance. We have some data related to that topic, although it is not enough to provide a complete answer to your question.

The information that we do have comes from our contingent work supplement to the Current Population Survey. The contingent work supplement collects information on the number and characteristics of workers in contingent and alternative employment arrangements. This includes persons who report that they work for a temporary help firm.

People who say they are working for temporary help firms are asked how long they have been working at the place they were assigned by the firm and how long they have been accepting assignments from temporary help firms. The most recent data available are from February 2001; these data show that the median tenure at the place assigned for temporary help workers was 6 months. The median tenure working as a temporary help worker was about 7 months. In contrast, median tenure with current employer for workers in traditional employment arrangements was 4.4 years.

These measures do not indicate how long the worker will stay at an assignment or with a particular employer. Rather they show how long the worker has been at that assignment or with that employer up to the time they were in our survey. We do not have data on completed spells of tenure for either temporary or nontemporary workers.

There is information available from our Mass Layoff Statistics (MLS) program in regard to filings from workers in the help supply industry for unemployment insurance. The MLS is a

federal-state program that tracks the effects of major job cutbacks, using data from each State's unemployment insurance database. These are cutbacks in which a business establishment has at least 50 initial claims filed against it during a consecutive 5-week period. I have enclosed a table showing data on mass layoff events in the help supply services industry during 2000 and the first 11 months of 2001. The table shows that thousands of workers in the industry file for unemployment insurance each month following large-scale layoffs.

These data refer only to mass layoffs which may not be the most common type of job layoff in the temporary help industry. Many of the separations may involve fewer workers. A broader examination of access to unemployment insurance in nonstandard employment arrangements is contained in the report, Labor Market Changes and Unemployment Insurance Benefit Availability. Wayne Vroman, an economist at the Urban Institute, prepared the report under contract with the Employment Training Administration, the federal agency responsible for the unemployment insurance system. The report examines the evolution of benefit availability in unemployment insurance programs. Section II discusses access to unemployment insurance benefits by individuals in nonstandard employment arrangements. I have enclosed a copy of the report for your review. Additional questions regarding coverage and eligibility of workers in the help supply industry can be directed to Ms. Grace Kilbane, Director, Office of Workforce Security, Employment and Training Administration, U.S. Department of Labor; her telephone number is 202--693-3200.

I hope that this information is helpful to you. Please let me know if I can be of any further assistance. Also, Philip Rones, Assistant Commissioner for Current Employment Analysis, can be

The Honorable Jon Corzine--3

JAN 29 2002

reached at 202--691-6378 and would be happy to answer any follow-up questions that you or your staff may have regarding these data.

Sincerely yours,

LOIS ORR
Acting Commissioner

Enclosures

BLS/OEUS
T. Nardone:klj:1/23/02
cc: Comm. RF, Orr, Galvin, Rones, Nardone, Parks, Kilbane, RF, DF

Mass layoff events and initial claimants for unemployment insurance in help supply services (SIC 7363)

Date	Layoff events	Initial claimants for unemployment insurance
2000		
January	144	21,607
February	69	6,264
March	75	8,729
April	71	9,976
May	69	7,499
June	94	14,711
July	92	8,201
August	77	9,644
September	95	11,533
October	59	5,874
November	128	21,382
December	169	17,300
2001		
January	122	14,489
February	144	22,054
March	112	10,706
April	138	20,859
May	133	12,853
June	120	11,119
July	150	22,201
August	135	12,952
September	98	14,884
October	151	18,538
November	188	17,546

Source: Bureau of Labor Statistics, Mass Layoff Statistics program
January 2002

Labor Market Changes and Unemployment Insurance Benefit Availability

by

Wayne Vroman*

Revised: January 1998

* Economist the Urban Institute. This report was prepared for the U.S. Department of Labor under Contract No. F-5532-5-00-80-30.

Table of Contents

1

Introduction

This report examines the evolution of benefit availability in Unemployment Insurance (UI) programs. The focus is regular UI, the program that pays up to 26 weeks of benefits to eligible individuals. A major objective of the report is to document changes in the U.S. labor market that may have adversely affected access to UI benefits.

The report is divided into seven major sections. Section I briefly documents the downtrend in UI recipiency that has occurred since World War II. Section II examines the emergence of nonstandard employment arrangements such as temporary help agency employment. It provides a taxonomy of the various types of nonstandard employment, estimates their prevalence and describes what is known about access to UI benefits by individuals in these situations. Section III examines some other key aspects of UI benefit availability including differences in receipt by reason for unemployment, the duration of unemployment and state of residence. Section IV examines the implications of welfare reform for UI programs. It estimates the likely UI recipiency rates of former welfare recipients. Section V examines UI trust fund adequacy. It reviews recent pattern of trust fund decumulations during 1990-1992, years of high unemployment, and the subsequent recovery of trust fund balances. Section VI reviews the performance of unemployment insurance as an automatic stabilizer of the economy. It estimates the reduced stabilizing effect of the program due to the decline in recipiency of the early 1980s. Finally, Section VII draws together the principal findings and notes some policies that would increase access to UI benefits. Based on the analysis of Sections I-VI, it also identifies areas for future research.

As indicated by the preceding paragraph, the report is broad in scope, but much of the analysis focuses on access to benefits by unemployed workers. In most recent years, less than one third of the unemployed received UI benefits. The recipiency rate is lower than twenty years ago and much lower than forty years ago.

Several findings relate to the long term decline in UI recipiency. Three should be noted here. (1) The decrease in recipiency is not an inexorable phenomenon. Recipiency has been actually somewhat higher in the 1990s than it was during the 1980s. (2) The changing distribution of the labor force across geographic areas has contributed to the long term decline in UI recipiency. Low recipiency in the South and Rocky Mountain states coupled with above-average growth of the labor force in these areas have acted to depress national measures of recipiency. (3) Policy initiatives can raise recipiency. One that is examined in Section IV is offering an alternative base period for persons monetarily ineligible under the regular base period. However, increases in recipiency will be modest, particularly for former welfare recipients because they will often fail to satisfy nonmonetary criteria even if they are monetarily eligible.

Three other findings should also be noted. (4) Trust fund rebuilding following the recession-related drawdowns of 1990-1992 has been slow. The slow recovery of trust fund balances during 1993-1997 is especially noticeable in the very largest states. This could have ramifications during the next recession in terms of large scale borrowing to pay benefits. (5) The UI program is now less important as an automatic stabilizer of the economy than it was twenty years ago. While the decline in this function is measurable, the earlier stabilizing performance of the UI was only modest. Section VI discusses this in more detail. (6) Our knowledge of several important questions and issues related to UI benefit recipiency is incomplete. Section VII discusses research needs drawing upon findings in Sections II-VI.

I. The Long Term Trend in the Receipt of UI Benefits

Several researchers have noted a long term trend towards reduced availability of UI benefits.[1] Chart 1 provides a visual representation of the downtrend using the most common measure of availability, the so called IUTU ratio. The numerator of IUTU is insured unemployment (IU), a count of people actively seeking or currently receiving UI benefits as measured from UI program reporting. The denominator of the IUTU ratio is total unemployment (TU), a measure derived from the monthly household labor force survey. Chart 1 shows time series for two IUTU ratios, the annual series covering the fifty years 1947 to 1996 and centered five year averages which extend from 1949 to 1994.[2] Both series clearly show a downward trend of a reasonably large magnitude. The first and last observations of the five year averages are respectively 0.470 and 0.330 indicating a 30 percent decline in the centered five year ratio between 1949 and 1994.

Three other points are indicated by these data series. 1) The annual IUTU ratios are highly volatile with sharp increases observed in recession years like 1949, 1954, 1958, 1971, 1975, 1980 and 1991. Much of this short run noise is smoothed by the use of five year averages. 2) In the five year averages, the long term downtrend is seen to be discontinuous. There are three periods when the ratio is roughly stable, and two periods when large declines occur.[3] Between 1959 and 1967 the centered five year average declined from 0.495 to 0.379 or by 0.116. Between 1976 and 1986 the decline was from 0.411 to 0.304 or by 0.107. These two periods account for all of the decrease in the five year averages of the IUTU ratio between 1949 and

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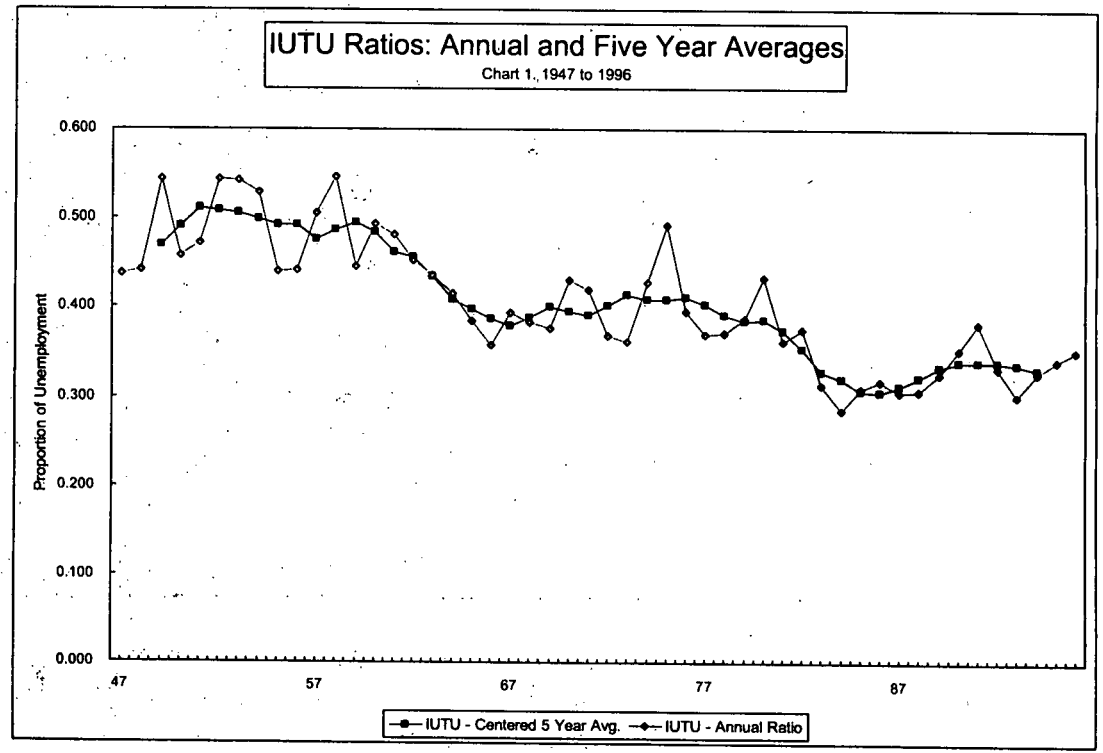
[1] Prominent in the literature are papers by Blank and Card (1981), Saxe and Burtless (1984), Corson and Nicholson (1988), Vroman (1991) and McMurrer and Chasanov (1995).

[2] The centered observation for 1949, for example, is the average of the IUTU ratios for the years 1947-1951.

[3] Both series displayed in Chart 1 are shown in Table 1 of Vroman (1997).



Source: Data from UI Service and BLS

1994.[4] 3) Since 1986, the five year average actually increased modestly from 0.304 to 0.330. Thus not all of the change in IUTU has been inexorably downward.

This final point is reinforced by the analysis undertaken in Appendix A. Time series multiple regressions were fitted that test for a post-1981 downward shift in the IUTU ratio in individual states. The regressions utilized annual data covering two data periods: 1967 to 1989 and 1967 to 1996. For 37 of 51 programs the point estimate for the size of the post-1981 downward shift was larger during the 1967-1989 period than during 1967-1996. Adding the seven most recent observations (1990-1996) caused the estimated size of the decrease in IUTU to become smaller for nearly three quarters of the state UI programs. Thus the long term downtrend in IUTU appears to have been interrupted and even partially reversed in the 1990s.

While there is not a full consensus, many researchers would assert that different factors were operating during the two periods of large decreases in the IUTU ratio. The earlier period (1959-1967) saw the entry of the post-World War II baby boom into the labor market. This demographic effect would be expected to be strong since those younger than age 25 are much less likely to collect UI benefits than adults. During the later period (1976-1986) UI programs were experiencing serious financing problems and benefit eligibility was restricted in several states.[5]

The long term decrease in IUTU hinders the performance of unemployment insurance in achieving its two major objectives:

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[4] The highest of the five year averages occurred in 1951 (0.512) while the 1994 average was 0.330. The total end-point to end-point decline was thus 0.182 whereas the sum for the two periods of decline 1959-1967 and 1976-1986 was 0.223.

[5] See Corson and Nicholson (1988) for a detailed exploration of factors leading to the decreases in IUTU during the early 1980s. They attributed the largest contribution to changes in state UI provisions affecting eligibility.

maintaining income for individuals and families that experience unemployment and providing increased automatic (or built-in) stability to the macro economy. Each of these objectives is enhanced when a larger share of the unemployed receive benefits.

The remainder of the report examines aspects of UI benefit recipiency. A series of descriptive analyses are undertaken and some suggests are made for changes that would increase benefit recipiency. In certain subject areas there are uncertainties which could be addressed by additional research. Some suggestions are offered in Section VII. The next section explores the emergence of nonstandard employment arrangements.

II. Nonstandard Employment

The long term decline in unemployment insurance (UI) benefit recipiency noted in Section I could be attributable to several different factors. This section focuses on the emergence of what can be termed nonstandard employment. Several types of nonstandard employment are identified. For each type, its prevalence and growth are documented along with available information on worker experiences with unemployment and with the receipt of UI benefits. The primary source of information is the Current Population Survey (CPS), a nationally representative monthly survey of 55,000 households.

A Taxonomy of Nonstandard Employment

An increasing share of employment in the U.S. economy involves work that can be termed nonstandard. Without attempting to characterize the full range of emerging employment relationships, this section will briefly introduce four dimensions that are important to note. These are: 1) work for fewer hours than the normal weekly schedule, 2) temporary work of finite duration, i.e., a time beyond which there is no implied employer obligation to continue the

employment relationship, 3) use of outside workers where the employer directing the content of the work (the client employer) is not the employer who hires and pays these workers, and 4) self-employment. Persons employed in these situations are respectively referred to as: 1) part-time workers (usually measured as less than 35 hours worked per week), 2) temporary or contingent workers (temporary direct hires, temporary help agency employees and day laborers), 3) outside workers (leased employees, contract workers and temporary help agency employees) and 4) self-employed (incorporated, unincorporated and independent contractors).

Table 1 provides a summary of these different employment arrangements and shows estimates of their prevalence in 1995-1996. Information on nonstandard employment has been greatly improved by two recent supplements to the CPS (February 1995 and February 1997) that focused on this subject. Several articles using data from the February 1995 supplement appeared in the October 1996 issue of the Monthly Labor Review. This report will also use data from the February 1995 supplement.

Before discussing the employment estimates, some definitional issues should be addressed. At the outset, note that the four dimensions of nonstandard employment identified in Table 1 are not mutually exclusive.[6] Temporary workers often work on a part-time basis (hence are included in part-time employment). Temporary help agency employees are both temporary as far as work duration and outside employees (working under direction from the client firm but an employee of the temporary help agency). When temporary help agency employees work part-time, they are included in each of the first three categories of Table 1's left hand column. Most independent contractors are classified as self- employed in the CPS. In certain situations, the distinction between leased employees and contract

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[6] One breakdown which places individuals into mutually exclusive categories based mainly on the February 1995 CPS data is shown in Table 1 of Houseman (1997).

Table 1. A Taxonomy of Nonstandard Employment Relationships and Estimates of Prevalence

Dimension of Employment	Distinguishing Characteristic	Common Designation	Prevalence in Household Survey Data (millions)	Prevalence in Employer Survey Data (millions)
1) Hours worked per Week	Weekly hours at less than a full-time schdule	Part-time worker	23.2 - 1996-a 29.9 - 1996-a	INA
2) Work of temporary duration	Employment known to be of short duration, less than one year	Temporary worker (Contingent worker)	2.7 to 6.0 - 1995-b	INA
		a) Temporary direct hire	1.8 to 4.0 - 1995-c	2.7 - 1995-d
		b) On-call worker	2.0 - 1995	
		c) Temporary help agency employee	1.2 - 1995	1.8 - 1995-d 2.0 - 1996-e
3) On-site employee of another employer	Employer at the worksite controls the content of work but is not the employer who pays the salary and fringe benefits	Outside worker	INA	INA
		a) Leased employee	INA	0.4 - 1996-e
		b) Contract worker	0.7 - 1995	
		c) Temporary help agency employee	1.2 - 1995	1.8 - 1995-d 2.0 - 1996-e
4) Self-employment	Individual owns their business and controls key aspects of the content and pace of work	Self-employed	10.5 - 1996-f	
		a) Independent Contractor	8.3 - 1995-f	

Source: Household survey data are based on the Current Population Survey. Estimates for 1996 are annual whereas 1995 estimates are for February. Employer survey data are from indicated sources.
INA - Information not available.

a - The estimates are the monthly average (23.2 million) and the annual number who usually worked part-time when they worked (29.9 million).

b - Three estimates were developed totaling 2.7, 3.4 and 6.0 million.

c - Three estimates were developed totaling 1.8, 2.0 and 4.0 million.

d - Based on percentages shown in Houseman (1997, pp.11-12) and total employment of 121 million.

e - Estimate derived by the author based on unofficial estimates from BLS.

f - Total for unincorporated self-employed many of whom are independent contractors.

workers is not always clear. In a classic leasing arrangement, a leasing company provides all the employees to a client firm. In contrast, contract workers usually fill specialized occupational niches within client firms, working closely with the permanent employees of client firms. Self-employment covers both incorporated and unincorporated individuals who direct their own businesses.[7]

The point estimates shown for part-time employment and self-employment in 1996 come from standard CPS sources. These are measured both monthly and for the year as a whole (work experience estimates). The remaining household survey estimates were derived from the special February 1995 supplement to the CPS previously noted. This so called contingent worker supplement was repeated in February 1997. It should be reemphasized that the estimates shown in Table 1 are not additive as the same person may be included in two (or more) of the four employment dimensions. From the table, however, a rank ordering of the prevalence of each type of nonstandard employment can be inferred. Part-time employment is most prevalent, followed by self-employment, then temporary (contingent) employment, and, last, outside employees who work on-site. Finally, observe that the three estimates of temporary help agency employment fall within a reasonably small range with the two employer-based estimates larger than the household survey estimate.

Each of the nonstandard employment relationships is examined in the following pages.

Part-time Employment

Part-time employment is pervasive. Table 2 summarizes employment and unemployment of part-time workers with CPS data that extend back to 1967 for all series and back to 1950 for so-called work experience data.

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[7] As will be discussed below, the published estimates of self-employment based on the CPS, however, cover just the unincorporated self-employed.

Table 2. Part-time Employment and Unemployment

	Total			Women			Men		
	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus
Panel 1- Total Employment - Work Experience Data									
1950	67534	13029	54505	22857	5582	17275	44677	7447	37230
1967	88179	20062	68117	35787	9599	26188	52392	10463	41929
1977	107096	26876	80220	46379	12672	33707	60717	14204	46513
1987	127955	25097	102858	58936	12247	46689	69019	12850	56169
1996	141379	23057	118322	66371	11110	55261	75009	11947	63062
Panel 2 - Part-time Employment - Work Experience Data									
1950	9663	2832	6831	5845	1225	4620	3818	1607	2211
1967	16261	6841	9420	10532	3252	7280	5729	3589	2140
1977	22897	9854	13043	15302	5293	10009	7595	4561	3034
1987	27815	10854	16961	18537	5957	12580	9278	4897	4381
1996	29868	11011	18857	19484	5850	13634	10384	5161	5223
Panel 3 - Part-time Employment - Percent of Employment - Work Experience Data									
1950	14.3	21.7	12.5	25.6	21.9	26.7	8.5	21.6	5.9
1967	18.4	34.1	13.8	29.4	33.9	27.8	10.9	34.3	5.1
1977	21.4	36.7	16.3	33.0	41.8	29.7	12.5	32.1	6.5
1987	21.7	43.2	16.5	31.5	48.6	26.9	13.4	38.1	7.8
1996	21.1	47.8	15.9	29.4	52.7	24.7	13.8	43.2	8.3
Panel 4 - Part-time Employment - Annual Average Data									
1967	11362	4053	7311	7009	1870	5141	4353	2183	2171
1977	16558	6620	9938	10639	3448	7191	5919	3172	2747
1987	21189	7438	13749	13819	3993	9824	7371	3447	3924
1996	23170	7751	15419	15725	4305	11420	7445	3447	3999
Panel 5 - Part-time Employment - Percent of Total Employment - Annual Average Data									
1967	15.3	28.6	12.1	26.1	30.2	24.8	9.2	27.3	5.5
1977	18.3	32.3	14.2	29.0	37.0	26.3	11.0	28.4	6.4
1987	18.8	36.9	14.9	27.5	41.1	24.2	11.9	33.0	7.6
1996	18.3	41.6	14.3	26.9	48.4	23.0	10.9	35.4	6.8
Panel 6 - Total Unemployment - Annual Average Data									
1967	2976	1349	1627	1468	667	802	1508	683	826
1977	6855	3220	3636	3268	1513	1753	3588	1707	1881
1987	7425	2800	4625	3324	1290	2035	4100	1510	2590
1996	7236	2545	4690	3356	1137	2219	3880	1408	2472
Panel 7 - Part-time Unemployment - Annual Average Data									
1967	683	434	249	395	205	190	288	229	59
1977	1423	931	492	836	473	362	587	458	128
1987	1446	917	529	866	475	391	580	442	138
1996	1433	850	583	829	416	413	604	434	170
Panel 8 - Part-time Unemployment - Percent of Total Unemployment - Annual Average Data									
1967	23.0	32.2	15.3	26.9	30.7	23.7	19.1	33.5	7.1
1977	20.8	28.9	13.5	25.6	31.3	20.7	16.4	26.8	6.8
1987	19.5	32.8	11.4	26.1	36.8	19.2	14.1	29.3	5.3
1996	19.8	33.4	12.4	24.7	36.6	18.6	15.6	30.8	6.9

Panel 9 - Unemployment Rate - All Workers - Annual Average

1967	3.8	8.7	2.6	5.2	9.7	3.7	3.1	7.9	2.0
1977	7.0	13.6	4.9	8.2	14.0	6.0	6.2	13.3	4.2
1987	6.2	12.2	4.8	6.2	11.7	4.8	6.2	12.6	4.8
1996	5.4	12.0	4.2	5.4	11.3	4.3	5.4	12.6	4.1

Panel 10 - Unemployment Rate - Part-time Workers - Annual Average

1967	5.7	9.7	3.3	5.3	9.9	3.6	6.2	9.5	2.6
1977	7.9	12.3	4.7	7.3	12.1	4.8	9.0	12.6	4.5
1987	6.4	11.0	3.7	5.9	10.6	3.8	7.3	11.4	3.4
1996	5.8	9.9	3.6	5.0	8.8	3.5	7.5	11.2	4.1

Source: All data from the Current Population Survey (CPS). Data measured in thousands.

8

The CPS distinguishes voluntary from involuntary part-time employment. Most who work part-time do so voluntarily. In 1996, for example, only about one fifth of part-timers worked part-time for economic reasons.[8] For present purposes, the reason for part-time employment will not be emphasized. Monetary eligibility for UI benefits is linked to actual past earnings. If a claimant has inadequate base period earnings and/or high quarter earnings, it does not matter whether the part-time work was voluntary or involuntary in reference to the monetary determination

Two types of employment estimates are shown, annual averages and work experience data. Annual averages are the averages from the twelve monthly CPS labor force surveys while work experience data are gathered in March through retrospective questions asked about work during the preceding year. Because many workers are not in the labor force on a year-round basis work experience estimates of employment are larger than monthly averages, e.g., 1996 part-time employment totaled 29.9 million in work experience data while the annual average was 23.2 million. The work experience data that underlie in Panels 1, 2 and 3 show that part-time employment tripled between 1950 and 1996 and grew from 14.3 percent to 21.1 percent of total employment. The part-time percentage increased between 1950 and 1977 and then remained quite stable through 1996.

Younger workers and women are more likely to work part-time than adult men. Note in Panel 3 that the percentages for 16-24 year olds have shown continuing growth after 1977. In 1996 nearly half (47.8 percent) of those aged 16-24 with work experience, worked part-time. In the same year about one quarter of adult women (24.7 percent) worked part-time while the male percentage was about one third this level (8.3 percent). Finally, observe in Panel 3 that the part-time employment percentage for adult women has been declining

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[8] See Table 21 in Employment and Earnings of January 1997. Those who usually worked part-time totaled 17.2 million in 1996 compared to 4.1 million worked part-time for economic reasons.

for the past 20 years while for adult men it has been slowly increasing. Chart 2 summarizes historical developments in the part-time employment percentages.

Part time workers are employed fewer weeks per year than full-time workers. In 1996, for example, they worked an average of 36 weeks compared to 48 weeks for full-time workers. Thus the monthly averages of part-time employment are not only lower than the work experience counts but proportionately lower than for full-time workers. Consequently in the annual average data, part-time employment is a lower percentage of total employment than in work experience data, 18.3 percent versus 21.1 percent in 1996. Note, however, that the trends in the part-time percentages are similar in annual average data (Panel 5) as in work experience data (Panel 3). Part-time employment in annual average data has been stable since 1977 at 18-19 percent of total employment.

It should be noted that the work commitment among part-time workers is substantial. In tabulations of CPS work experience data from 1995 the average weeks worked by those 16 and older were 36.8 for women and 34.2 for men. For both genders average hours worked per week was about 21.5 hours implying mean annual hours worked of 793 and 739 for part-time women and men respectively. The respective means of annual earnings were $7533 and $7841. The averages conceal a large amount of variation in annual earnings, but compared to UI base period earnings requirements the averages are substantially above the amount needed to qualify on monetary criteria.[9]

Part time workers also represent a substantial percentage of

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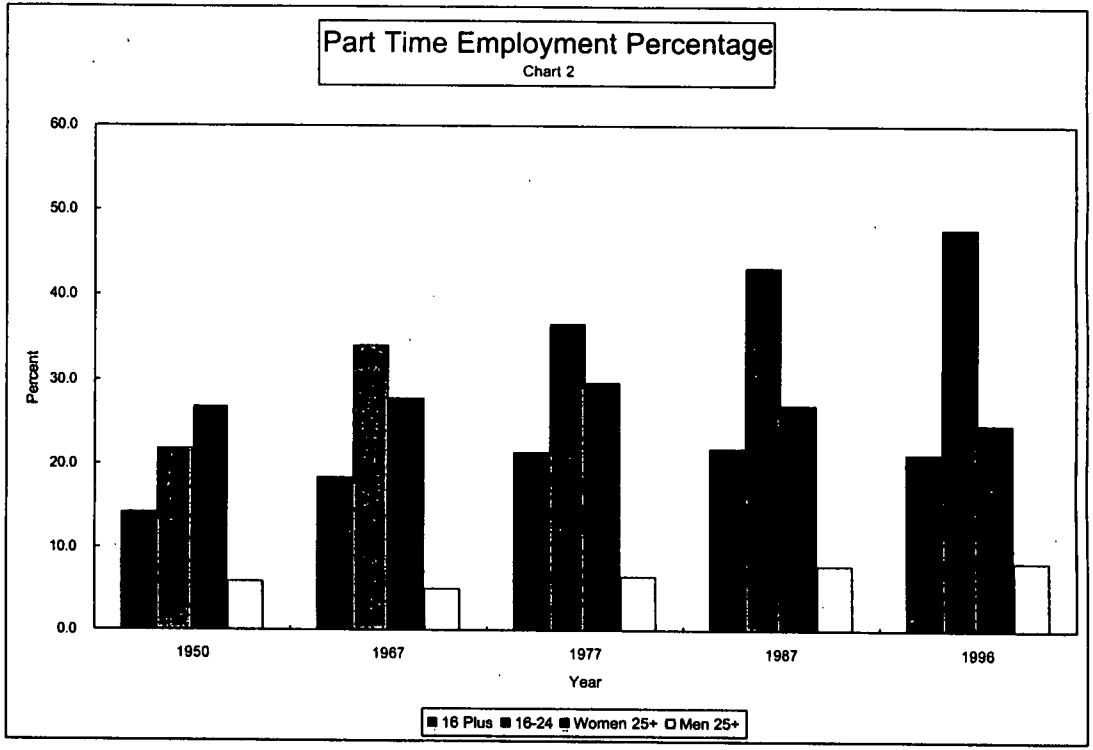
[9] There are issues of high quarter earnings and (in several states) weeks of employment that also influence monetary eligibility in individual states. The CPS does not provide quarterly data to make fully accurate estimates of monetary eligibility. See Blank and Card (1981) for an analysis of this issue. Bassi and Chasanov (1996) utilized the Survey of Income and Program Participation to estimate monetary eligibility but did not place major emphasis on part time employment.



Work Experience Data

total unemployment, e.g., 1.433 million out of 7.236 million in 1996 annual average data or 19.8 percent of the total. Among adults, however, the unemployment rate for part-time workers is not above-average. Note Panels 9 and 10 in Table 2. While the comparative unemployment rates among everyone 16 and older was higher for part-time workers in 1996 (5.8 percent versus 5.4 percent), the part-time rate was the lower of the two adult unemployment rates (3.6 percent versus 4.2 percent). For adult women who constituted nearly half of total part-time employment, the issue of the part time unemployment rate is particularly important. Note in Panel 10 that the unemployment rate for part-time adult women was lower than the rate for all adult women by at least a full percentage point in 1977 and 1987 and lower by 0.8 percent in 1996.

Another aspect of unemployment among part-time workers is its comparatively short average duration. In 1996 the mean and median duration of unemployment in annual average data were 16.7 weeks and 8.3 weeks respectively.[10] The means and medians for part-time workers were 11.5 weeks and 5.2 weeks respectively. On average, unemployment spells last for shorter periods among part-time workers than among full-time workers.

Some of the preceding contrast is explained by the comparatively young average age of part-time workers who typically experience numerous but short spells of unemployment. In annual work experience data where all spells are combined into the annual duration of unemployment, average unemployment duration for part-time and full-time workers is quite similar. For example, the mean and median durations in work experience data were 15.6 weeks and 13.0 weeks among full-time workers compared to 18.7 weeks and 15.9 weeks among part-time workers. Thus when unemployment duration is measured for calendar years not for individual spells, part-time workers

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[10] See the unemployment duration distributions in Table 30 of the January 1997 issue of Employment and Earnings.

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actually had longer average duration than full-time workers.[11]

To summarize, part-time employment and part-time unemployment represent a substantial share of total employment and total unemployment, roughly 20 percent. While much of part-time unemployment occurs among 16-24 year olds, an age group with very low UI recipiency, many adults, especially adult women work on a part-time basis. On average, adult part-timers work about three fourths of the year, and their annual earnings usually exceed base period earnings requirements for UI. Thus most would be expected to satisfy UI monetary eligibility requirements.

Receipt of UI benefits among part-time workers was examined in tabulations of CPS work experience data and income data from 1994 and 1996. Recipiency patterns were studied among full-time and part-time workers classified by age, gender and duration of unemployment. Table 3 summarizes the findings for 1996. Overall, 0.289 of those with unemployment reported receipt of UI benefits.[12] The proportion among full-time workers (0.356) was about three times the proportion for part-time workers (0.118).

Patterns of receipt by age and gender in Table 3 are as would be expected. Persons 16-24 are about one fourth as likely to receive UI benefits as adults (0.088 versus 0.366). Unemployed women are less likely to receive UI than unemployed men in both age groups. Among all adults 25 or older with unemployment, part-time workers are about half as likely to receive UI as full-time

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[11] Estimates of the duration of unemployment in the monthly CPS surveys represent a different concept than in annual work experience data. Monthly data measure the duration of the current spell up to the time of the CPS interview. These spells are not complete when the interview takes place. Work experience estimates of duration refer to the entire 52 weeks of the past calendar year. Most of these spells are complete. Many persons experience two or more spells of unemployment per year, about 30 percent in recent years. Thus average duration is shorter in the monthly data both because the spells are incomplete and because work experience data reflect multiple spells.

[12] The CPS question on UI benefits combines regular state UI with UCFE (Unemployment Compensation for Federal Employees). The latter program is less than 3 percent of the reported total.

Table 3. Unemployment and Receipt of UI Benefits by Full-time and Part-time Status in 1996.

	Total	Total Full-time	Part-time	Women Total	Women Full-time	Women Part-time	Men Total	Men Full-time	Men Part-time
Persons 16 and Older									
Worked in 1996	141,379	111,512	29,868	66,371	46,887	19,484	75,009	64,625	10,384
Unemployment	14,454	10,347	4106	6326	3936	2389	8128	6411	1717
UI Benefits	4173	3687	486	1606	1273	333	2567	2414	153
Proportion with Unemployment	0.102	0.093	0.137	0.095	0.084	0.123	0.108	0.099	0.165
Proportion with UI Benefits	0.289	0.356	0.118	0.254	0.323	0.139	0.316	0.377	0.089
Persons 16-24									
Worked in 1996	23,057	12,046	11,011	11,110	5260	5850	11,947	6786	5161
Unemployment	4027	2105	1923	1828	816	1013	2199	1289	910
UI Benefits	353	278	76	136	93	44	217	185	32
Proportion with Unemployment	0.175	0.175	0.175	0.165	0.155	0.173	0.184	0.190	0.176
Proportion with UI Benefits	0.088	0.132	0.040	0.074	0.114	0.043	0.099	0.144	0.035
Persons 25 and Older									
Worked in 1996	118,322	99,465	18,857	55,261	41,627	13,634	63,062	57,809	5223
Unemployment	10,427	8242	2183	4498	3120	1376	5929	5122	807
UI Benefits	3819	3410	411	1469	1180	290	2350	2230	121
Proportion with Unemployment	0.088	0.083	0.116	0.081	0.075	0.101	0.094	0.089	0.155
Proportion with UI Benefits	0.366	0.414	0.188	0.327	0.378	0.211	0.396	0.435	0.150

Source: Tabulation of the March 1997 Current Population Survey. Data in thousands. Counts of those with unemployment do not include 2,329,000 with unemployment but no work in 1996.

workers (0.188 versus 0.414). The pattern is similar for both men and women. Note that the UI recipiency rate among adult part-timers was higher for women than for men. All of the Table 3 patterns were repeated in 1994 work experience data. Among adults, part-time workers are about half as likely to receive UI benefits as full-time workers.

From the earlier summary of data on weeks worked, hours worked per week and annual earnings, it is clear that the majority of part-time workers who file for UI benefits satisfy the monetary eligibility criteria of UI. The low recipiency rate is due mainly to other factors. Two will be noted and discussed: reason for job separation and work search requirements. Most UI programs impose a durational disqualification on workers who quit their jobs.[13] Most states also require the claimant to search for full-time employment as a condition for benefit eligibility. This search requirement is usually applied even if the person previously worked on a part-time basis.

Access to UI benefits among unemployed part-time workers would be increased if two specific changes were instituted. First, allow compensation after a fixed length disqualification period, perhaps six or eight weeks. The annual work experience data noted above clearly show that many adult part-time workers have long unemployment spells. Allowing them to receive UI benefits would help to stabilize family incomes while requiring a substantial waiting period would reduce the moral hazard of quitting to receive benefits. Second, most states interpret work search to mean searching for a full-time job. Thus a blanket denial is often given to applicants who previously worked as part-time workers. Eligibility would seem appropriate if unemployed part-timers were available for work at jobs with at least

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[13] Good personal reasons for leaving a job are recognized in some states. Most states do not disqualify in circumstances such as sexual harassment. Because the determinations in these situations are often set by administrative procedures, not by statutory language, is not always clear how individual states apply quit disqualifications in specific situations.

the same hours as the jobs previously held.

Implementing these two changes would raise UI eligibility and recipiency among adult workers. If the rate of UI recipiency were raised by one-half above present levels (from 0.188 to 0.282 in 1996) this would close about half of the gap between full-time and part-time recipiency proportions among adults and add roughly five percent to UI caseloads.[14]

Self-employment

Although self-employment lies outside the scope of UI coverage, there are reasons to discuss this type of nonstandard employment. Many persons now classified as self-employed describe themselves with terms such as independent contractor, independent consultant or free lance worker. Unlike the traditional entrepreneur who owns a business establishment and works at a fixed location, these "independents" may perform services at different locations and for more than a single client.

When an independent's relationship with a single predominant client persists for a long period (in excess of a year), the relationship may be substantially the same as a traditional employment relationship. In fact, individuals in this situation often view themselves as employees and behave like employees when the employer terminates their jobs, i.e., they file for UI benefits. UI programs are frequently in the position of having to decide whether such persons are self-employed or employees. Typically, common law tests are applied in these situations. The right of the individual to exercise direction and control over the work is often a key element

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[14] Table 3 shows there were 2,183,000 part-time workers 25 and older with unemployment in 1996. Raising their beneficiary proportion from 0.188 to 0.282 would increase the number of recipients by 205,000, or by 4.9 percent of the 4,173,000 UI recipients for 1996. This estimate has considerable uncertainty attached. Among other things UI receipt is underreported in the CPS. From UI program data it appears about 7.7 million persons received UI during 1996 whereas the CPS records only 4.2 million with UI among those with unemployment.

in these determinations.

This question is frequently addressed by the states where UI tax administrators have to make coverage decisions. In Florida, for example, the volume of such determinations averaged as much as 150-200 per month in the past and still averages more than 50 per month. It might be possible to derive information directly from the states as to the monthly or annual volume of independent contractor determinations. Such information would be helpful for assessing tax enforcement resources devoted to this question. Another possible source of information would be data from the Revenue quality control (RQC) program. It might be possible to identify the number and the amount of tax revenues involved in RQC decisions where independent contractor status was an issue.

Defining the limits of self-employment versus wage and salary employment is also a frequent subject of state UI legislation. During 1997, for example, six states passed laws excluding direct sellers from UI coverage. Minnesota tightened coverage in 1997 legislation focused on employment in commercial and residential construction.[15]

Self-employment has been measured in the CPS for fifty years. One aspect of this measurement is noteworthy. Starting in 1967 the CPS classified the self-employed who were incorporated as wage and salary workers. In 1967 the number of incorporated self-employed was about 1.0 million. By 1994 the number had grown to nearly 4.0 million and by 1996 to about 6.0 million.[16] The CPS treats these

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[15] Laws related to direct sellers passed in Kansas, Maryland, Nebraska, Oklahoma, Tennessee and Virginia in 1997. See Runner(1998) for a summary of 1997 UI legislation in the states.

[16] Growth in corporate self-employment after 1994 has probably been influenced by 1994 changes in payroll taxes. Starting that year all wages and salaries and self-employment income were taxable for purposes of paying Health Insurance (HI) contributions into the Social Security (OASDHI) program. For the unincorporated self-employed this higher tax base applied to wages and salaries and to profits. By becoming a so called "S Corporation" income received as profits could be shielded from the HI payroll tax. See Wittman (1997).

people (in both sole proprietorships and partnerships) as working for their corporations, hence as wage and salary workers. If the incorporated self-employed were included with others, the self-employment totals would be much larger than reported in the CPS, about 40 percent larger in 1996.

Interest in self-employment as it relates to the UI programs in the states centers on the distinction between being an employee and being self-employed. Unfortunately, the CPS does not provide much useful information on this issue. People's responses to survey questions are taken as valid. Thus people classify themselves as they perceive their employment situation. One type of potentially useful information from the CPS is the ability to trace movements between the two self-reported situations of self-employed and wage and salary worker. Presumably much of the misclassification "problem" encountered by UI programs centers on CPS respondents who report themselves as wage and salary workers but are being treated by their employing entity as an independent contractor. The CPS does not provide direct information on the prevalence of these situations.

Table 4 displays data on self-employment disaggregated by sector (agricultural and non-agricultural), gender and age extending back to 1950. For measuring the trend in self employment, the period since 1950 falls into two phases. Between 1950 and 1970 there was a steady downtrend in self-employment as a percent of total employment. Since 1970 the self-employment percentage remained a stable 8-9 percent of total employment.[17] Note in Panel 3 of Table 4 the self-employment percentage was 17.6 percent in 1950 but fell into the narrow 8.3-8.6 percent range in 1977, 1987 and 1996. Panel 2 shows that total self-employment in 1996, 10.5 million was only slightly larger than in 1950 (10.4 million). Even if the incorporated self-employed were included in the totals, the 1996 level would be only 16.5 million and the percentage would be 13.0 percent.

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[17] See Table 1 in Bregger (1996).

Table 4. Self-employment by Year, Age and Gender

	Total			Women			Men		
	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus
Panel 1 - Total Employment - Annual Average									
1950	58918								
1967	74372	14184	60188	26895	6190	20705	47480	7997	39483
1977	90544	20466	70078	36686	9310	27376	53861	11155	42706
1987	112440	20163	92277	50334	9725	40609	62106	10437	51669
1996	126707	18640	108067	58501	8901	49600	68207	9739	58468
Panel 2 - Total Self-employment - Annual Average									
1950	10359								
1967	7170	256	6914	1383	79	1304	5787	177	5610
1977	7575	485	7090	1775	131	1644	5801	353	5448
1987	9624	477	9147	3007	152	2855	6617	324	6293
1996	10489	416	10073	3900	158	3742	6589	259	6330
Panel 3 - Self-employment Percentage									
1950	17.6								
1967	9.6	1.8	11.5	5.1	1.3	6.3	12.2	2.2	14.2
1977	8.4	2.4	10.1	4.8	1.4	6.0	10.8	3.2	12.8
1987	8.6	2.4	9.9	6.0	1.6	7.0	10.7	3.1	12.2
1996	8.3	2.2	9.3	6.7	1.8	7.5	9.7	2.7	10.8
Panel 4 - Agricultural Employment - Annual Average									
1950	7160								
1967	3844	634	3210	682	91	591	3165	544	2621
1996	3443	561	2882	871	108	763	2573	452	2121
Panel 5 - Agricultural Self-employment - Annual Average									
1950	4340								
1967	1996	66	1930	103	2	101	1893	64	1829
1996	1518	72	1446	394	7	387	1124	65	1059
Panel 6 - Agricultural Self-employment Percentage									
1950	60.6								
1967	51.9	10.4	60.1	15.1	2.2	17.1	59.8	11.8	69.8
1996	44.1	12.8	50.2	45.2	6.5	50.7	43.7	14.4	49.9
Panel 7 - Non-agricultural Employment - Annual Average									
1950	51758								
1967	70528	13550	56978	26213	6099	20114	44315	7453	36862
1977	87301	19692	67609	36081	9181	26900	51222	10510	40712
1987	109232	19527	89705	49668	9630	40038	59564	9897	49667
1996	123264	18079	105185	57630	8793	48837	65634	9287	56347
Panel 8 - Non-agricultural Self-employment - Annual Average									
1950	6019								
1967	5174	190	4984	1280	77	1203	3894	113	3781
1977	6005	372	5633	1658	125	1533	4348	246	4102
1987	8201	391	7810	2778	144	2634	5423	247	5176
1996	8971	344	8627	3506	151	3355	5465	194	5271

Panel 9 - Non-agricultural Self-employment Percentage

1950	11.6								
1967	7.3	1.4	8.7	4.9	1.3	6.0	8.8	1.5	10.3
1977	6.9	1.9	8.3	4.6	1.4	5.7	8.5	2.3	10.1
1987	7.5	2.0	8.7	5.6	1.5	6.6	9.1	2.5	10.4
1996	7.3	1.9	8.2	6.1	1.7	6.9	8.3	2.1	9.4

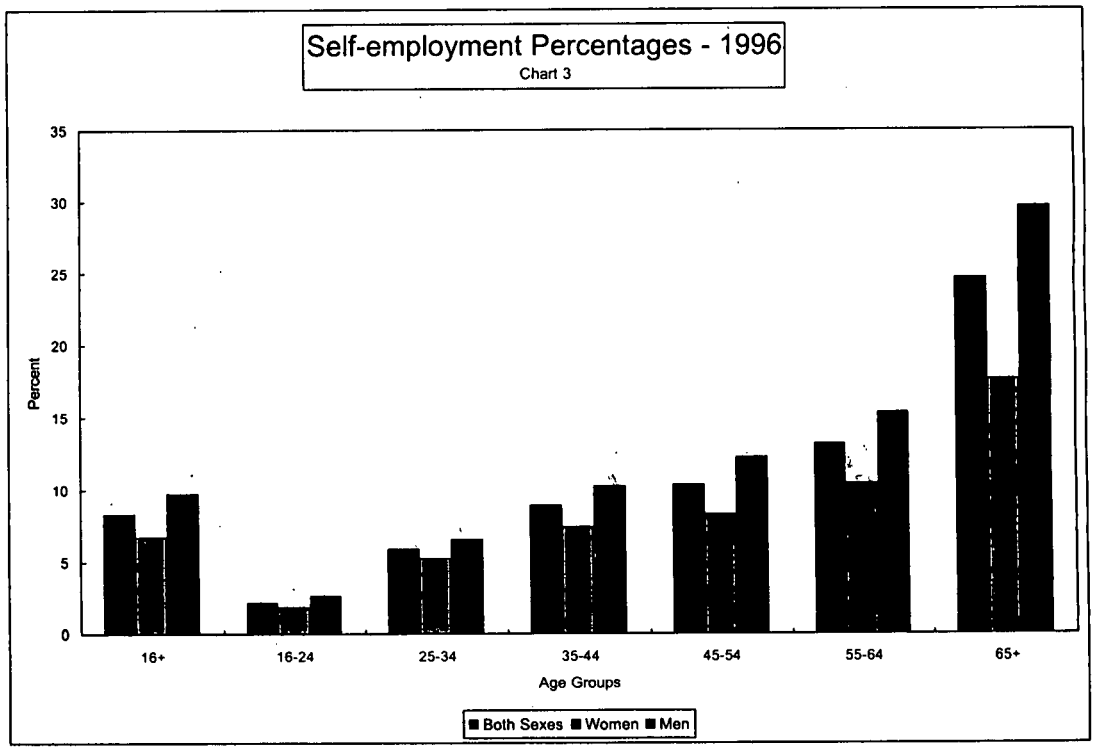
Source: All data from the Current Population Survey (CPS). Data measured in thousands.

The decline of employment in agriculture has contributed to the comparatively slow growth in self-employment. This industry employed about half as many in 1996 as in 1950 (3.4 million compared to 7.2 million), and the percentage that worked in agriculture as self-employed declined from 60.6 percent to 44.1 percent. Since 1967 the number of (unincorporated) self-employed in agriculture has declined somewhat from 1.93 million to 1.45 million (Panel 5).

Self-employment totals and percentages in non-agricultural industries are displayed in Panels 8 and 9 of Table 4. The unincorporated percentages shown in the table have fluctuated within a narrow range from 6.9 percent to 7.5 percent between 1967 and 1996. However, if incorporated self employment were added, the percentage of non-agricultural employment would have grown modesty during these 30 years. The percentage was about 9.0 percent in 1967 and about 12.0 percent in 1996. Thus by 1996 total self employment was about the same percent of overall non-agricultural employment in the U.S. as it had been in 1950.

Gender and age are clearly linked to the probability of working as self-employed. Men have higher self employment percentages than women, but the women's percentage has been growing while it has been roughly stable for men. The percentages for unincorporated self-employed in 1996 were 6.1 percent for women and 8.3 percent for men in non-agricultural industries.

The likelihood of working as self-employed grows measurably as individuals age. Younger workers are not likely to be self-employed. In non-agricultural industries the percentages among 16-24 year olds were 1.7 percent for women and 2.1 percent for men in 1996 (Panel 9 of Table 4). Chart 3 shows percentages by age and gender in 1996. For each age group through 55-64, the percentage is higher than for the immediately younger age group. Among those aged 55-64 who worked in 1996 10.4 percent of women and 15.3 percent of men were self-employed. Chart 3 also shows that roughly one in four aged 65 and older who worked in 1996 was self-employed.



Based on Total Employment and Self-employment

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Self-employment spans a wide variety of working arrangements and hours of work. Although the image is that entrepreneurs work very long hours, a sizeable fraction of the unincorporated self-employed work part-time, e.g., 33 percent in 1996.[18] Annual earnings from self-employment also spans a wide range, much wider than for the wage and salary employment, and many of the self-employed earn low annual amounts, especially women.[19] Thus commitment to work and the financial rewards to work among the self-employed exhibit very wide variation.

The self-employed generally have low unemployment. Among the 141.4 million persons who worked sometime during 1996, 14.5 million or 10.2 percent experienced some unemployment. However, 10.2 percent who worked predominantly as wage and salary workers had some unemployment during the year compared to 5.6 percent of those who worked predominantly as unincorporated self-employed.[20]

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[18] See Table 21 in the January 1997 issue of Employment and Earnings.

[19] In 1986 the mean and median of reported nonfarm self-employment income among women were $6206 and $2466 while the corresponding amounts for women with wage and salary earnings were $11,994 and $10,186 respectively. The total annual income of those with self employment also includes substantial wage and salary earnings. Thus the mean and median annual income (self-employment plus wages and salaries plus nonearned income) were $11,578 and $7498 for these same women. Relying heavily on wages and salaries limits their hours worked as self-employed. See Tables 37 and 38 in U.S. Bureau of the Census, "Money Income of Households, Families and Persons in the United States: 1986."

[20] Among those who worked as incorporated self-employed in 1996 only 2.5 percent experienced unemployment during the year. The corresponding percentages of workers with unemployment in 1994 were 12.1 for wage and salary workers, 6.5 percent for the unincorporated self-employed and 3.0 percent for the incorporated self-employed.

Among those with some unemployment during the year, the mean and median unemployment durations were quite similar for wage and salary workers and for the self-employed.[21] Thus, on average, the self-employed who do experience unemployment spend about the same length of time in unemployment as wage and salary workers.

Although the self-employed are excluded from coverage under unemployment insurance, measurable numbers in the CPS report receiving UI benefits. The estimates for 1994 and 1996 indicated that at least 10 percent of the unincorporated self-employed received benefits in both years. Among all unincorporated self-employed aged 16 and older the proportions were 0.125 in 1994 and 0.102 in 1996 and higher for women than for men in both years. It seems clear that a sizeable fraction of unincorporated self-employed also work as wage and salary workers although they report their main work as self-employment.

The overall rate of UI recipiency among the self-employed is comparable to the recipiency rate for part-time workers (as reported in the CPS). Over the calendar year periods covered by work experience data, both groups experience reasonably long average spells of unemployment and about 10 percent of both groups report receiving UI benefits. The fact that the self-employed have equally high recipiency despite lack of UI coverage would seem to be an issue for further research.

Temporary or Contingent Employment

Use of temporary or contingent employees has been growing, but systematic measurement of its overall importance has been lacking

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[21] Mean and median unemployment duration during 1996 were 15.8 weeks and 13.3 weeks for wage and salary workers. The mean and median for the unincorporated self-employed were 15.5 weeks and 12.7 weeks, only somewhat shorter. In 1994 the means and medians for the self-employed were actually higher than for wage and salary workers: means of 16.0 weeks versus 15.6 weeks and medians of 13.4 weeks versus 13.2 weeks.

until recent years.[22] Information on the prevalence of temporary employment arrangements could be gathered either from households or from employers. Abraham's work utilized an employer survey, and there was a recent employer survey undertaken Houseman (1997) at the Upjohn Institute. Data from the 1995 Contingent Worker survey suggested there were from 2.7 million to 6.0 million contingent workers in February 1995. The range exists because of definitional issues to be discussed.

The concept of contingent work implies impermanence in the employment relationship, i.e., the employer has no obligation to provide employment on a long term basis. The definition used in the CPS contingent worker supplements is the following: "Contingent work is any job in which an individual does not have an explicit or implicit contract for long-term employment." The measurement of contingent work looks both forward and backward from the time of the CPS interview. The narrowest definition included wage and salary workers who expected to work in their current job less than one year and had worked in it less than one year. The broadest definition included all wage and salary workers who did not expect their jobs to last plus the self-employed and independent contractors with expected or current job duration of less than one year.[23] Under all three definitions the largest component of the contingent worker total consisted of wage and salary workers who were temporary direct hires.

Table 1 identified three categories of temporary workers: temporary direct hires, on-call workers (including day laborers) and temporary help agency employees. The latter group was estimated to total 1.2 million in the February 1995 CPS Contingent worker supplement, and to be the smallest of the three temporary employee

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[22] Among the early work are papers by Abraham (1988) (1990).

[23] See Polivka (1996) for the definition of contingent work and the details of the three contingent worker measures.

categories.[24]

Employment in temporary help agencies can also be estimated from employer (or business establishment) data. Within the services sector there is a detailed industrial category (Personnel supply services, four digit industry 7363) which employed 2.3 million persons in 1996. This industry includes mainly temporary help agency employees but also the permanent employees of employment agencies and leased employees. Leased employees are estimated to constitute about 15-16 percent of the industry total. Table 1 shows two employer-based estimates of temporary help agency employment: 2.0 million in 1996 and 1.8 million in 1995. The 1996 estimate is based on the personnel supply services industry total from the BLS establishment survey (2.3 million) coupled with an estimate that leased employees constitute 16 percent of the industry total while temporary help agency employment made up the remaining 84 percent. The second employer-based estimate is 1.8 million in 1995, an estimate from the survey undertaken by Houseman. The fact that employer-based data yield larger estimates of temporary help agency employment than household survey data is due to at least two factors. 1) Some "temps" are registered with more than one temporary agency, hence appear twice in employer-based data. 2) Respondents in the CPS may be unaware that household members are employed by a temporary help agency or may report their employment in the industry of the client employer.

Of the three categories of temporary employees, there has been more direct analysis of temporary help agency employees than of temporary direct hires and on-call workers. A recent analysis by

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[24] The three definitions of contingent all emphasize the temporary nature of the employment relationship. Under the narrowest definition of contingent, about half or temporary help agency employees and one third of on-call workers were contingent. Under the broadest definition, about 80 percent of temporary help agency employees and 70 percent of on-call workers were contingent. The others in these categories had longer employment relationships than used in these definitions of contingent worker. See Table 1 in Polivka (1996).

Segal and Sullivan (1997) provides several insights into this type of employment. On average, temporary help agency employment grew more than 11 percent per year between 1972 and 1995. Employment in this industry had above-average responsiveness to the business cycle. Compared to other workers, they were more likely to be working part-time involuntarily. On average they were paid lower hourly wages and had less health insurance coverage vis-a-vis permanent workers.

Temporary help agency workers have very high turnover. Segal and Sullivan traced their mobility over twelve month periods in matched CPS data covering the years 1983 to 1993. Their unemployment rates were from two to three times those of permanent workers. Temporary help agency workers were mobile out of the industry with only 20-30 percent working as temporaries one year later. However, fewer than 60 percent were working as permanent employees one year later. Compared to permanent workers, they were more likely to be unemployed and to be out of the labor force at the time of the later interviews. Their unemployment rates were from two to three times those of permanent employees.[25] Their analysis indicated that many workers have experiences in the industry, but this kind of work usually does not represent a permanent career path.

Note in Table 1 that temporary direct hires and on-call workers accounted for more employment in February 1995 than temporary help agency employment. Houseman (1997) found that while use of temporary agency employees was more prevalent than temporary direct hires, employers utilized the latter workers more intensively.[26] In her data, hours worked by temporary direct hires represented 2.7 percent of all hours worked while temporary help agency workers constituted only 1.8 percent of total hours. Much of what is known about temporary direct hires and on-call workers is available from the CPS

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[25] The mobility patterns are summarized in Table 2 of Segal and Sullivan (1997).

[26] Between 1990 and 1995 46.0 percent of employers in her survey used temporary help agency workers while 38.2 percent used temporary direct hires. See Table 4 in Houseman (1997).

contingent worker supplements and from the Houseman employer survey.

Later paragraphs in this section summarize the unemployment experiences and receipt of UI benefits for various groups of temporary (contingent) workers and nonstandard employees. To assemble the required data, the February 1995 and March 1995 CPS files were matched. The former had the data from the contingent worker supplement while the latter had the annual data on unemployment and the receipt of UI benefits for the year 1994.

How important is temporary employment in the U.S. labor market? Two different impressions are generated by employment and unemployment data for these workers. The February 1995 employment estimate, 6.0 million under the broadest of the three contingent worker definitions, represented about 5.0 percent of employment. On the other hand, because these workers have high turnover they are much more important as a component of unemployment.

Since 1994 unemployment among workers whose temporary jobs have ended has been an explicit CPS unemployment category. The annual average of unemployment among these workers in 1996 was 0.689 million out of 7.236 million or 9.5 percent of the total. Unlike part-time workers and the self-employed, these persons experience unemployment rates that are considerably above-average. They may have a strong need for UI benefits.

Use of Outside Employees

Table 1 identified three groups of outside workers.[27] Combined, they represent the smallest total number of workers across the four major dimensions of nonstandard employment discussed at the start of this section. The total for the three (leased employees, contract workers and temporary help agency employees) probably did not exceed 3.5 million in 1996. Since the largest of the three groups (temporary

[27] This is a common short hand term used to distinguish permanent employees (inside employees) from those who work at a firm for a specific period or on a specific project or in a specialized area, e.g., computer support. The latter are the employees of another employer hence the term outside employees.

help agency employees) has already been discussed above, there is no need to give them added attention here.

The estimate of leased employment is not firm and merits further elaboration. Firms that supply labor services can supply both temporary help and leased employees. Numerically temporary help is the larger of the two groups. Whereas temporary help is usually a short term arrangement, leased employees (and contract workers) may work in jobs with client employers for several years. Leased employees are also more likely than temporary employees to be paid high wages. Detailed knowledge of their pay, fringe benefits and other aspects of their labor market experiences, however, is very limited.

Employee leasing companies are subject to regulation in several states through registration and bonding requirements.[28] There are also reporting requirements associated with the U.S. Department of Labor's ES 203 reporting of employer establishment data. Temporary help agencies are to report all employment in the personnel supply services industry regardless of where the employees are actually working. Leasing companies, on the other hand, are to (or are encouraged to) report the number of leased employees and the industry of each client employer using a multiple worksite report.[29] This report is intended to identify the industrial locus of leasing to provide more accurate estimates of industry employment and productivity.

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[28] See Cook and Brinsko (1997) for an analysis of employee leasing. They report results of a survey of reporting requirements in the states.

[29] This report has several lines, one for each client employer, one for permanent employees of leasing companies and an overall total. If reporting were complete in the multiple worksite reports, all leased employees could be assigned in a manner appropriate for measuring employment in each industry.

In practice, the multiple worksite report is not followed in many states. It is also likely that several companies that provide temporary employees also participate in leasing arrangements. If they report only as a temporary help agency, the result is an exaggerated estimate of temporary help agency employment and an underestimate of leased employment.

Because both leased employees and contract workers are often engaged in long term employment relationships with client employers, their unemployment and experiences with UI recipiency would be expected to be low. In contrast, temporary, contingent and on-call workers whose jobs do frequently end would be expected to experience much more unemployment given the temporary nature of their jobs. These presumptions were examined with matched CPS data from the February 1995 and March 1995 surveys.

Table 5 displays summary data on unemployment and receipt of UI benefits among workers classified by gender, age and the major categories of nonstandard employment. There are seven columns for nonstandard workers, i.e., one for each of three definitions of contingent employment utilized in the February 1995 CPS supplement and individual columns respectively for temporary help agency workers, on-call workers, contract workers and independent contractors. The initial column of the table summarizes work experiences for all persons who worked in 1994.[30]

The matched CPS files would be expected to identify three fourths of the February 1995 interviewees in March. In fact, the match rate actually achieved was 69 percent, not 75 percent. Thus the counts in Table 5 for the categories of nonstandard workers are 69 percent of the published totals appearing in articles from the Monthly Labor Review of October 1996. Table 5 reports weighted counts based on records that were successfully matched. To make aggregate estimates the estimates in Table 5 should be inflated by roughly the reciprocal of 0.69 or 1.45. However the data are used here primarily

[30] An additional 2,857,000 persons who looked for work but did not secure work in 1994 have not been included in the totals.

Table 5. Occurrences of Unemployment and Receipt of UI Benefits Among Nonstandard Workers

	Total Workers in 1994	Contingent Worker: Definition 1	Contingent Worker: Definition 2	Contingent Worker: Definition 3	Temp. Help Agency Worker	On-call Worker	Contract Worker	Independent Contractor
Women 16+								
Number of Workers	64,452	987	1237	2164	454	721	126	1894
Unemp. in 1994	6813	286	335	461	179	129	23	148
UI Benefits in 1994	1817	63	69	100	37	28	14	31
Prop. with Unemp.	0.106	0.289	0.271	0.213	0.394	0.178	0.181	0.078
Prop. with UI Ben.	0.267	0.221	0.206	0.217	0.206	0.217	0.620	0.212
Men 16+								
Number of Workers	73,132	910	1131	2014	393	711	316	3873
Unemp. in 1994	9296	280	366	514	158	252	82	350
UI Benefits in 1994	3057	118	164	227	49	130	49	60
Prop. with Unemp.	0.127	0.308	0.323	0.255	0.402	0.354	0.259	0.090
Prop. with UI Ben.	0.329	0.420	0.447	0.441	0.313	0.514	0.594	0.171
Total 16+								
Number of Workers	137,584	1897	2368	4178	848	1432	442	5767
Unemp. in 1994	16,109	566	701	975	337	381	105	498
UI Benefits in 1994	4874	181	233	327	86	158	63	91
Prop. with Unemp.	0.117	0.298	0.296	0.233	0.398	0.266	0.237	0.086
Prop. with UI Ben.	0.303	0.319	0.332	0.336	0.256	0.414	0.600	0.183
Total 16-24								
Number of Workers	23,083	779	869	1237	208	260	61	199
Unemp. in 1994	4626	180	201	273	86	68	17	34
UI Benefits in 1994	455	9	16	23	17	13	0	4
Prop. with Unemp.	0.200	0.231	0.232	0.220	0.412	0.263	0.281	0.173
Prop. with UI Ben.	0.098	0.052	0.080	0.084	0.202	0.184	0.000	0.107
Women 25+								
Number of Workers	53,407	562	768	1506	364	594	101	1819
Unemp. in 1994	4853	182	225	316	135	100	17	140
UI Benefits in 1994	1659	61	67	94	31	24	14	31
Prop. with Unemp.	0.091	0.324	0.293	0.210	0.371	0.168	0.171	0.077
Prop. with UI Ben.	0.342	0.335	0.298	0.299	0.228	0.245	0.820	0.224
Men 25+								
Number of Workers	61,093	556	731	1435	275	578	280	3749
Unemp. in 1994	6630	204	275	387	117	213	70	323
UI Benefits in 1994	2760	110	150	210	38	120	49	56
Prop. with Unemp.	0.109	0.366	0.376	0.269	0.423	0.368	0.251	0.086
Prop. with UI Ben.	0.416	0.541	0.544	0.543	0.329	0.566	0.692	0.174
Total 25+								
Number of Workers	114,501	1118	1498	2941	639	1172	381	5568
Unemp. in 1994	11,483	386	500	702	252	312	87	463
UI Benefits in 1994	4419	171	217	304	69	145	63	87
Prop. with Unemp.	0.100	0.345	0.334	0.239	0.394	0.266	0.230	0.083
Prop. with UI Ben.	0.385	0.444	0.433	0.433	0.275	0.464	0.718	0.189

Source: Totals from the March 1995 CPS. Other data from merged February-March 1995 CPS files. Data in thousands.

to show proportions with unemployment and proportions receiving UI benefits. These proportions would not change if the data were reweighted.

Among all persons who worked sometime during 1994, 0.117 experienced unemployment sometime during the year. The proportions were higher for part-time workers than for full-time workers (0.152 versus 0.107).[31] Overall the UI recipiency proportion among these workers was 0.303 in 1994 and the respective proportions for men and women were 0.329 and 0.267.

Compared to the overall averages for 1994, the nonstandard workers in Table 5 had generally much higher proportions with unemployment and highly varied rates of receiving UI benefits. Under the three definitions of contingent workers, Table 5 shows the proportions with unemployment were nearly 0.30 for definitions 1 and 2 and 0.23 for definition 3. Temporary help agency workers had the highest proportions with unemployment (0.398 among all men and women 16 and older). On-call workers
and contract workers also had high proportions with unemployment (0.266 and 0.237 respectively). Only independent contractors had below-average proportions with unemployment (0.086).

High proportions with unemployment were also observed among most classes of nonstandard workers aged 25 and older. Only independent contractors had an unemployment proportion below the overall average for persons 25 and older (0.083 versus the overall average of 0.100). All others in Table 5 had unemployment proportions that were at least twice the overall average while three groups had rates at least three times the overall average.

On average, contingent workers with unemployment (all three definitions) received UI benefits at about the same rate as the average for persons with unemployment in 1994. Their recipiency proportions, all in the 0.32-0.34 range, were about 10 percent above the overall average of 0.303. The highest rate of receipt of UI

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[31] The part-time and full-time proportions are not shown in Table 5.

benefits was observed among contract workers (0.600) while independent contractors and temporary help agency employees had below-average recipiency rates. The fact that 0.183 of independent contractors reported receiving UI benefits again points up the limited commitment to self-employment of some of these workers.

For most groups of nonstandard employees, women with unemployment were less likely to receive UI benefits than men. The differences in the recipiency proportions are large for all three definitions of contingent workers as well as for temporary help agency workers and on-call workers. These gender differences are observed among adults 25 and older as well as all persons 16 and older. For all three definitions of contingent workers the recipiency proportion for adult women is only about 60 percent of the proportion for adult men.[32] Only among contract workers was the proportion higher for adult women than for men.

Recall that the underlying counts of workers in the nonstandard employment categories are reasonably small and successively smaller for those with unemployment and for UI beneficiaries. No attempt has been made to test the statistical significance of the observed differences, but among contingent workers the gender differences probably are significant.

To summarize, it appears there could be problems of UI coverage for contingent workers and temporary help agency workers. Both experienced very high unemployment proportions during 1994 and UI recipiency rates that were close to the national average of 0.303. For temporary help agency workers, in particular, high unemployment coupled with low UI recipiency continues into adulthood.

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[32] For example, under the first (narrowest) definition of contingent worker the adult women's proportion was 0.335 compared to 0.541 for men.

Nonstandard Employment: Summary

Four dimensions of nonstandard employment have been identified and discussed. For each there was an analysis of prevalence, occurrences of unemployment and receipt of UI benefits. Part-time work and self-employment are the largest of the nonstandard employment categories. For adult part-time workers and the self-employed unemployment rates were below the average for all adults. The likelihood of adult part-timers 25 or older receiving UI benefits was roughly half of that of full-time workers. The self-employed who are not covered by UI laws nevertheless had UI recipiency rates similar to those of part-time workers in CPS data. Apparently a sizeable fraction of the self-employed also have jobs as wage and salary workers.

Temporary (contingent) workers experience high rates of unemployment. They have an average likelihood of receiving UI benefits. Below-average recipiency rates were observed for employees of temporary help agencies. Their lower rate of benefit receipt was even more pronounced among adults, i.e., 0.275 versus 0.385 for persons aged 25 and older.

Thus if access to UI benefits is to be increased among workers with nonstandard employment arrangements, changing eligibility provisions relevant to part-timers and contingent workers would be most important. For part-time workers, one could consider changing the availability requirement of UI to be availability for a job with hours equal to those of the previous part-time job (as opposed to availability for full time employment). For temporary help agency employees, the definition of suitable work offered by the temporary agency following the end of a temporary assignment needs to be monitored. The concept of suitable work is especially difficult for temporary help agency employees. After one temporary assignment ends, these agencies should be monitored to ensure that they do not offer jobs with very low pay and then claim that such jobs represent "suitable" work.

Even if access to UI benefits among nonstandard workers is substantially increased, overall UI recipiency would be increased rather modestly. Estimates derived here suggested that the aggregate IUTU ratio would increase by roughly 0.06 or by about 18 percent. Of the total increase the bulk would arise from increased access among part-time workers (roughly 0.05) and the remainder among temporary (contingent) workers. If an increase of this scale were to occur, it would still mean that less than 40 percent of the unemployed would be active UI claimants.

It is also instructive to speculate directly on the effect of growth in nonstandard employment on the IUTU ratio. Growth in the largest of these arrangements, i.e., part-time employment, was most rapid in the period between 1950 and 1975. Thus part-time employment, suggesting that the growth in part-time employment did not contribute to the declining IUTU in the 1980s. growth may have contributed to the decline in IUTU during the 1960s. However, the decline of IUTU at the start of the 1980s post-dated the period of most rapid growth in part-time employment. As noted in Table 2, part-time work has grown at about the same pace as overall employment growth since the mid 1970s. While an increasing share of younger workers work part time (recall Chart 2), this age group has traditionally had low UI recipiency.[33] Thus, the growth in non-standard employment had little relationship to the decrease in IUTU.

Self-employment's share of total employment declined between 1950 and 1970, spanning the earlier of the two periods when UI recipiency declined (the early-to-mid 1960s). Since 1970,self-employment growth has been similar to total employment growth.

There are no long term time series showing the aggregate levels of temporary (or contingent) employment. The data exist only for one category, employees of temporary help agencies. While temporary help agency employment has grown sharply since 1972, the total as of 1996 was between 1.2 million and 2.0 million. This is simply too small a

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[33] The receipt of UI by age is examined in Section III.

total to have a measurable effect on the long term trend in the IUTU ratio. Employer direct hires of temporary workers account for more temporary employment than the use of temporary help agency workers, but the total across all categories of temporary employment did not exceed 5 percent of total employment in February 1995. While this broad group of workers does experience above-average unemployment (nearly 10 percent of the total in the regular monthly CPS summaries), there is no direct way to estimate the effect of their growth on the aggregate IUTU ratio.

More generally, all of the nonstandard employment arrangements have exhibited measured patterns of employment growth. Probably the most important effects on the IUTU ratio have been associated with growth in part-time and temporary employment. Because temporary employment arrangements have only been subjected to systematic measurement in recent years, however, there is no reliable way to assess their individual contribution to the long term decline in the IUTU ratio.

III. Other Dimensions of UI Recipiency

This section explores three other aspects of UI recipiency: 1) demographic characteristics, 2) reason and duration of unemployment and 3) geographic variation. For all three, there are vivid contrasts in the receipt of benefits when workers are arranged into sub-groupings.

IUTU Ratios for Standard Recipient Characteristics

Table 6 displays breakdowns of IU and TU for 1996 according to five standard reporting dimensions from the "Characteristics of the Insured Unemployment" reports. For both IU and TU the data are annual averages. The table shows where receipt is high and low relative to the national average which was 0.351 in 1996. The IU data have been adjusted to exclude Puerto Rico and the Virgin Islands. The national

Table 6. UI Recipiency in 1996 by Age, Gender, Race, Industry and Occupation

	Reported IU	Adjusted IU	Reported TU	Adjusted TU	IUTU
Total	2571.1	2540.6	7236		0.351
Age					
16-24	266.2	271.9	2545		0.107
25-34	696.7	711.7	1757		0.405
35-44	724.6	740.2	1505		0.492
45-54	482.8	493.2	883		0.559
55-64	258.0	263.5	407		0.648
65+	58.9	60.2	139		0.433
INA	84.0				
Gender					
Women	1043.9	1065.2	3356		0.317
Men	1446.0	1475.4	3880		0.380
INA	80.0				
Race/Ethnicity					
White/NH	1616.0	1672.3	5300	4281	0.391
Black/NH	359.4	371.9	1592	1501	0.248
Other/NH	126.7	131.1	344	322	0.407
Hispanic	353.0	365.3	1132	1132	0.323
Unkn.	115.4				
Industry					
Mining	18.0	20.5	30		0.682
Con.	334.2	380.0	666		0.571
Mfg.	539.9	613.9	1013		0.606
Trans	113.1	128.6	291		0.442
Trade	429.4	488.3	1679		0.291
Finance	92.6	105.3	201		0.524
Services	619.6	704.6	1751		0.402
Ag.- Wg.&Sal			213		
Govt./Self-Emp.	87.4	99.4	813		0.122
Other	164.6				
INA	172.3				
No Prior Work			580		
Occupation					
Pro./Tech./Mgr.	416.5	495.9	983		0.504
Clerical/Sales	470.5	560.1	1653		0.339
Services	226.3	269.4	1334		0.202
Ag./For./Fish.	102.8	122.4	293		0.418
Industrial	917.9	1092.8	2365		0.462
INA	437.1				
No Prior Work			580		

Source: Data from UI Service and BLS. Unemployment in thousands.

total for IU agrees with the preliminary total from the "Handbook." The data on TU are the annual averages from Employment and Earnings of January 1997.

For both IU and TU there are columns of adjusted and unadjusted data. The adjusted numbers for IU spread the INAs across the other reported categories to yield totals of 2,540,600. The TU data are mostly as reported but with an adjustment for race/ethnicity reporting. The UI system records race/ethnicity with Hispanic as a separate category along with non-Hispanic whites, blacks and others (largely Asians). The CPS does race separately from Hispanic. Hence the original CPS race responses have been adjusted by removing from white, black and other an estimate of the number of Hispanics included in these categories. Most Hispanics are white so the biggest changes are to reduce the TU estimate of white unemployment.

The IUTU ratios are based on the fields that are in brackets. Briefly, Table 6 shows results according to five dimensions of UI reporting.

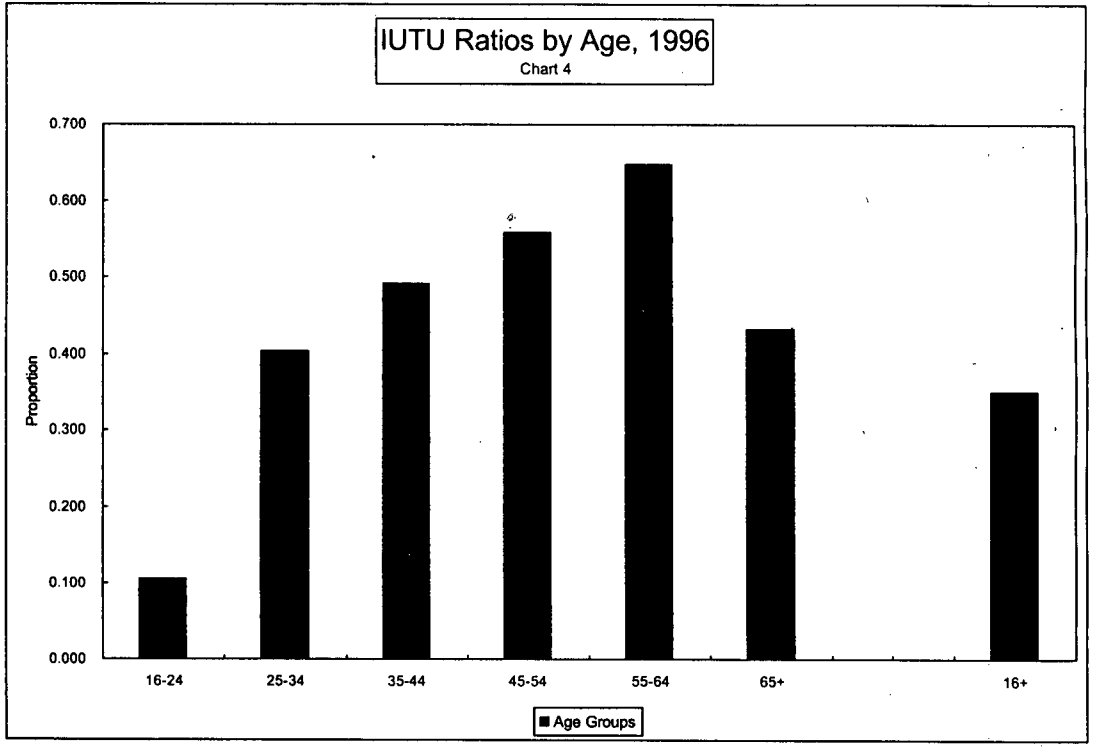
Age

Recipiency was low among those under 24, and then above-average for each of the older age groups. Recipiency increases among all subsequent age groups from 16-24 through 55-64. From ages 35-44 and older the average IUTU ratio was 0.5 or higher in 1996. Chart 4 displays IUTU ratios for the ten year age groups.

Gender

Unemployed women receive UI benefits less often than men when measured as a proportion of the unemployed. During 1996 the IUTU gender differential was 0.063 (0.380 - 0.317) or 17 percent.

Recipiency among women has increased relative to recipiency among men, but the explanation for the convergence is that male recipiency has declined while women's recipiency has remained more or less stable. The trend in women's relative UI recipiency can be traced back to 1967. In that year the IUTU ratio was 0.337 for women and 0.449 for men. The difference in these proportions of 0.112 represented a 25 percent lower recipiency rate for women. In 1977 the



Source: Data from the UI Service and BLS

IUTU ratio was 0.432 for men compared to 0.301 for women implying a 30 percent lower rate for women. Thus compared to 20 and 30 years previously, the IUTU ratio for women has moved closer to parity. However the men's ratio had declined much more than the women's ratio had increased. In fact, the 1967 ratio for women (0.337) was higher than the 1996 ratio (0.317).

A sizeable share of the gender differential is related to the higher proportion of women who work part time. Policy interventions to increase recipiency among women probably need to focus on nonmonetary determinations. Most part-time women work enough to meet monetary eligibility in the states. (Average weeks worked total about 40 among adults and hours per week average about 21 in recent years.) It would seem to be especially important to consider modifying the requirement to be searching for a full-time job. The gender differential in the IUTU ratio would probably be much lower if unemployed women were not required to search for full-time jobs as is the present practice in most states.

Race/Ethnicity

Lowest recipiency is observed among blacks. Some of the differential is probably linked to geographic concentration of black unemployment in the South which still has about half of the total black population in the U.S. and systematically below-average IU-TU ratios.[34]

Hispanic recipiency is also below-average, but not as much as black recipiency. It would be instructive to examine Hispanics in California, Texas and Florida, three states that account for more than half of the U.S. Hispanic population. California is generally a high recipiency state (its IUTU ratio is above average) while Texas and Florida have low IUTU ratios.

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[34] Geographic differences in the receipt of UI benefits are examined later in this section.

Industry

Trade (wholesale plus retail) is the only industry with below-average recipiency in Table 6. However, there are problems in matching CPS industry codes with IU industry codes. I have not examined this question in detail but the fact that Services has an above-average recipiency rate (0.402 versus 0.351) suggests the problem is probably substantial.

Occupation

Of the five broad occupations identified in Table 6 only services has very low recipiency while even clerical/sales is close to average. If eligibility among low wage workers were increased, recipiency in both of these occupations would be expected to increase the most.

The high recipiency among industrial occupations (0.462) is at least partly due to unionization. Several researchers have suggested that the decline in unionization is linked to the long run decline in the IUTU ratio.

Displaced workers are probably highly represented in both the Industrial and Pro./Tech./Mgr. occupations of Table 6.

Recipiency by Reason and Duration of Unemployment

The standard CPS labor force questions distinguish reason for unemployment among the jobless seeking work. Since 1967 there have been four major categories: job losers, job leavers, labor force reentrants and new entrants into the labor force. The first two categories identify the reason for leaving the last job distinguishing employer-initiated (job losers) from worker- initiated separations (job leavers). Job losers are usually eligible for UI benefits while job leavers are typically subjected to either a disqualification for a fixed number of weeks or a disqualification of indefinite duration which lasts until the current spell of unemployment ends.

New entrants have never worked before and therefore are not relevant to discussions of UI eligibility. Reentrants, however, have

worked in the past and were either job losers or job leavers from that prior job. However, the CPS questions asked of reentrants focus on their recent period outside the labor force and do not ascertain the reason for leaving the last job. Each unemployed reentrant is either a job loser or a job leaver, but this is not determined by the CPS questions. Among reentrants, the time out of the labor force is often of rather short duration. In 1996, for example, 60 percent of men who were unemployed reentrants and 50 percent of women had worked within the past twelve months. Thus many would have recent earnings and would be monetarily eligible for UI benefits.

The CPS revisions effective in 1994 made a further distinction regarding the reason for unemployment that is relevant for this report. Traditionally, job losers were classified as either on temporary layoff or permanently separated from the past job. Starting in 1994, the new category was persons unemployed because they had completed a temporary job.

Thus the CPS allows one to distinguish six distinct groups among the unemployed. The individual categories and their annual averages in 1996 were as follows: job losers on temporary layoff (1,021,000), permanent job losers (1,660,000), persons who completed temporary jobs (689,000), job leavers (774,000), reentrants (2,512,000) and new entrants (580,000). As noted previously, those who lost temporary jobs accounted for 9.5 percent of unemployment in 1996. Observe also that job leavers and reentrants totaled nearly as many as the three categories of employer-initiated unemployment (3,286,000 versus 3,370,000).[35] In summary, while job losers are traditionally thought of as recipients of UI benefits, there were nearly as many unemployed reentrants plus job leavers in 1996, many of whom would satisfy at least the monetary eligibility criteria of UI programs.

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[35] Note that 1996 was a year of full employment. In a recessionary year the job losers would greatly exceed the number of unemployed job leavers and reentrants.

The CPS does not routinely ask questions about receipt of UI benefits in the monthly survey. However, there have been three special surveys conducted in conjunction with the regular monthly survey. These were held in 1976, 1989 and in 1993.[36] Information from these surveys is displayed in Table 7.

Table 7 focuses on reported receipt of UI benefits among unemployed workers classified by reason for unemployment, gender and unemployment duration. Recipiency increases sharply with duration. For both men and women job losers are much more likely to report benefits than job leavers and reentrants. However, note that measurable numbers of job leavers and reentrants did report receipt of benefits in each of the three years.

Perhaps the most interesting information in Table 7 is the change in benefit recipiency after 1976. For all six groups, UI recipiency was highest in 1976 and lowest in 1989. Moving across the duration distributions of each line, there is a clear tendency for recipiency to increase as duration lengthens.

Since 1976 and 1993 were both years of quite high unemployment, comparisons of data from these two years are particularly interesting.[37] Note that the beneficiary proportions for job losers were about 20 percent lower in 1993 than in 1976. For both job leavers and reentrants, however, the 1993 proportions were from 30 to 60 percent lower in 1993. Thus while recipiency has always been highest for job leavers, the proportional declines between 1976 and 1993 were larger for both job leavers and reentrants.

There are several reasons why UI receipt was quite high in 1976

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[36] See Rosenfeld (1977), Vroman (1991) and Horvath (1996) for analyses of these CPS surveys. The 1976 data were collected in May of that year. The 1989 data were collected in four months: May, August and November 1989 and February 1990. The 1993 surveys were conducted in February, June, August and November.

[37] The annual unemployment rates were as follows: 1976 - 7.7 percent, 1989 - 5.3 percent and 1993 - 6.9 percent.

Table 7. Probability of Receiving UI Benefits by Gender, Reason for Unemployment and Unemployment Duration

	Unemployment Duration (weeks)					
	1-2	3-4	5-10	11-26	27+	Total
Panel 1 - Job Losers - Women 16+						
1976	0.324	0.444	0.619	0.717	0.816	0.636
1989	0.074	0.327	0.472	0.544	0.560	0.392
1993	0.139	0.283	0.472	0.610	0.716	0.498
Panel 2 - Job Losers - Men 16+						
1976	0.287	0.421	0.653	0.771	0.767	0.639
1989	0.100	0.268	0.492	0.548	0.530	0.396
1993	0.075	0.273	0.600	0.622	0.656	0.511
Panel 3 - Job Leavers - Women 16+						
1976	0.167	0.065	0.130	0.536	0.675	0.310
1989	0.010	0.075	0.084	0.138	0.021	0.062
1993	0.006	0.021	0.007	0.298	a	0.110
Panel 4 - Job Leavers - Men 16+						
1976	0.033	0.132	0.289	0.529	0.583	0.318
1989	0.007	0.046	0.117	0.106	0.116	0.062
1993	0.032	0.144	0.018	0.235	0.374	0.153
Panel 5 - Reentrants - Women 16+						
1976	0.100	0.109	0.198	0.136	0.299	0.146
1989	0.030	0.091	0.104	0.107	0.182	0.085
1993	0.053	0.061	0.117	0.135	0.215	0.104
Panel 6 - Reentrants - Men 16+						
1976	0.105	0.190	0.246	0.333	0.333	0.251
1989	0.025	0.085	0.107	0.045	0.230	0.084
1993	0.015	0.054	0.177	0.243	0.139	0.122

Source: Special supplements to the CPS conducted in 1976, 1989 and 1993.
a - Cell did not meet BLS publication criteria.

that extend beyond the regular UI program.[38] However, Table 7 strongly suggests that benefit availability since 1976 has been reduced more for job leavers and reentrants than for job losers.

One likely explanation for this change has been the increasing use of durational disqualifications for persons who voluntarily leave employment. In about half UI programs, good personal reasons for leaving employment are not recognized as compensable. Fixed length disqualifications have been increasingly replaced by durational disqualifications. This change probably has strong implications for recipiency among reentrants as well as job leavers since many reentrants probably left their last jobs (as opposed to being laid off).

The new category of unemployment among people whose temporary jobs have ended is particularly interesting for the present report. Unfortunately the CPS revisions that added this category occurred after the last of the special surveys included in Table 7. If one of these special surveys were to be repeated, however, it would then be possible to examine UI recipiency among those who previously held temporary jobs.

Three final observations about receipt by reason for unemployment should be made. First, it appears that part of the explanation for the decrease in the IUTU ratio since 1976 is reduced receipt among job leavers and reentrants. This may be linked to the increased prevalence of durational disqualifications for job leaving. Second, there is no UI data source that fully reflects reason for unemployment. Data from the BQC (Benefits Quality Control or BAM as it is now termed) investigations are incomplete on this issue. While BQC data can show weeks compensated for persons who are on layoff/RIF, voluntary quits and discharges, they do not show persons

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[38] The May 1976 survey did not distinguish which UI programs were the source of the benefit payments. In 1976 extended benefits were still being paid in most states (both federal-state Extended Benefits and federally financed Federal Supplemental Benefits). Additionally, Special Unemployment Assistance was also available in that year.

who do not apply cross classified by their reason for leaving employment. Thus they lack the denominator which would be important for assessing application rates and recipiency rates by reason for unemployment. Third, the CPS does not effectively gather information on persons discharged for misconduct. Hardly any respondent in the CPS volunteers this as the reason for the job separation. Thus the CPS also has limitations for assessing reason for unemployment.

Recipiency by Geographic Area

Receipt of UI benefits is highly variable across the U.S., a situation that has persisted since regional measures of total unemployment first were consistently available in 1967. Table 8 provides a summary for four separate years (1967, 1977, 1987 and 1996) and averages for the thirty years 1967 to 1996. To keep the detail manageable, the table shows IUTU ratios for the nine Census Divisions and for the thirteen largest states (selected on the basis of UI taxable covered employment in 1996).

Table 8 vividly illustrates that UI recipiency is highest in the North East and Pacific Coast and lowest in the three divisions of the South and the Mountain division. In 1996, New England and the Mid-Atlantic divisions had especially high recipiency while the South Atlantic and West South Central divisions had especially low recipiency. The full range of IUTU ratios across the nine census divisions in 1996 was almost two to one, 0.468 in New England versus 0.236 in the West South Central.

The table makes a stronger point about geographic variability. The patterns by census division are not unusual in 1996. Similar patterns were also present in 1967, 1977 and 1987.

A convenient overall summary of recipiency by census division is provided by the thirty year (1967-1996) averages in Table 8. Again there is roughly a two to one ratio between the highest IUTU average (0.491 in New England) and the lowest average (0.241 in the West South Central).

Table 8. UI Recipiency by Geographic Area, 1967 to 1996

Census Division	1967	1977	1987	1996	1967-96 Average
North East					
New England	0.680	0.422	0.445	0.468	0.491
Mid Atlantic	0.550	0.434	0.419	0.441	0.467
Midwest					
East North Central	0.363	0.402	0.292	0.380	0.354
West North Central	0.389	0.400	0.300	0.325	0.372
South					
South Atlantic	0.253	0.280	0.226	0.266	0.270
East South Central	0.351	0.342	0.231	0.312	0.315
West South Central	0.215	0.251	0.229	0.236	0.241
West					
Mountain	0.329	0.300	0.262	0.264	0.299
Pacific	0.451	0.395	0.416	0.407	0.419
U.S. Total	0.393	0.370	0.305	0.350	0.363
Thirteen Largest States					
Massachusetts - NEng.	0.747	0.387	0.538	0.511	0.515
New York - MAtl	0.613	0.394	0.414	0.390	0.450
New Jersey - MAtl	0.562	0.393	0.445	0.433	0.492
Pennsylvania - MAtl	0.445	0.535	0.414	0.535	0.480
Illinois - ENC	0.332	0.502	0.285	0.402	0.379
Michigan - ENC	0.448	0.410	0.329	0.423	0.382
Ohio - ENC	0.286	0.325	0.283	0.303	0.311
Florida - SAtl	0.202	0.254	0.166	0.248	0.225
Georgia - SAtl	0.261	0.259	0.244	0.226	0.260
North Carolina - SAtl	0.305	0.311	0.287	0.327	0.317
Vrginia - SAtl	0.159	0.220	0.165	0.187	0.192
Texas - WSC	0.167	0.179	0.211	0.222	0.199
California - Pac	0.449	0.373	0.428	0.393	0.411

Source: Data from the UI Service and BLS. Unemployment in thousands.

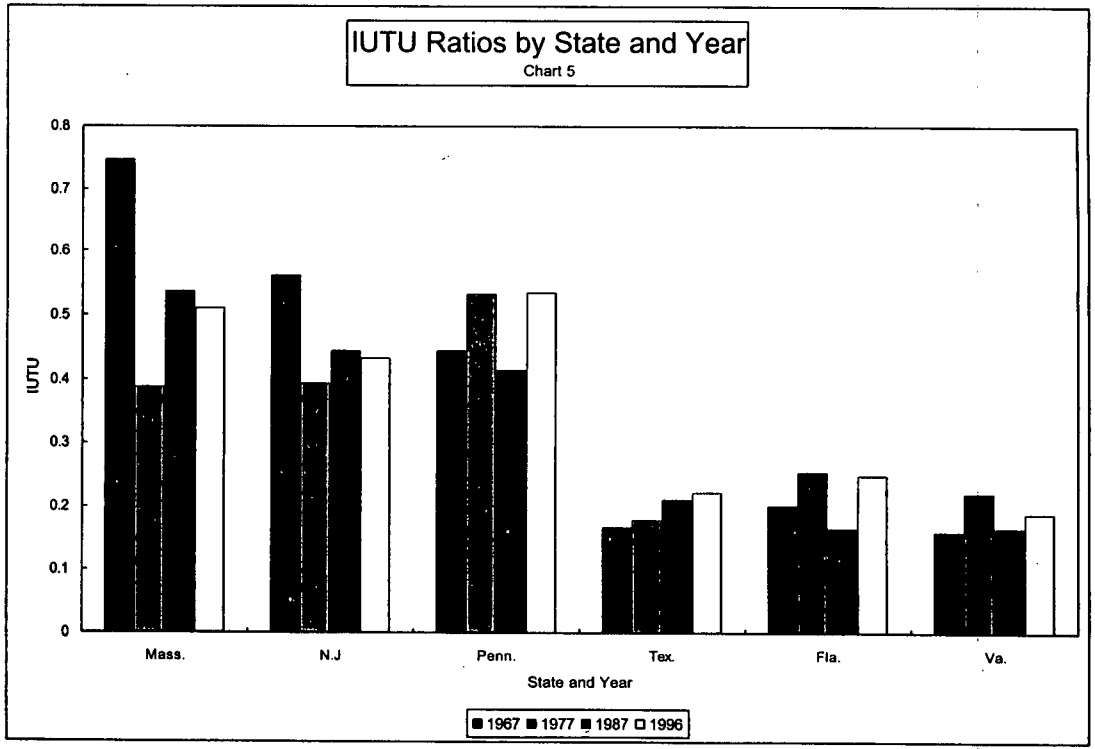
The preceding observations about variable recipiency are reinforced with the state level detail for the thirteen largest states included in Table 8. The thirteen states combined represented 61 percent of taxable covered employment in 1996. Thus the variation in recipiency for these states carries aggregate significance for the system of unemployment insurance as a whole.

A two to one ratio is also observed in the state data. In 1996 IUTU exceeded 0.500 in Massachusetts and Pennsylvania but fell below 0.250 in Florida, Texas and Virginia. The thirty year averages further emphasize that the variation is a persistent year to year phenomenon, not an aberration of one or a few years.

Chart 5 illustrates the same point with data from six states: the three with the highest IUTU averages from Table 8 and the three with the lowest averages. The UI programs differ systematically in the access afforded to unemployed workers. It is much harder to collect in the South and in Rocky Mountain states than elsewhere in the country.

Differential access to UI benefits by geographic area, as shown in Table 8 and Chart 5, has implications for the downtrend in the national IUTU ratio. This question was examined previously by Blank and Card (1991), Corson and Nicholson (1988) and Vroman (1991). All three studies attribute part of the long run decrease in the IUTU ratio to above-average labor force growth in states where the IUTU ratio falls below the national average.

Between 1967 and 1996 the share of the U.S. labor force located in the nine states of the North East decreased from 0.247 to 0.191 while the share located in the South increased from 0.298 to 0.346. To estimate the effects of this change, the IUTU ratio for 1996 (0.3501) was recalculated using each state's share of total unemployment as of 1967. The recomputed IUTU ratio was 0.3608. Of the total decrease in the national ratio of 0.0433 (from 0.3934 in 1967 to 0.3501 in 1996), 0.0326 represented the effect of generally lower state-level IUTU ratios in 1996 and 0.0107 was the effect of changing unemployment weights in the individual states. This calculation



Source: Data from the UI Service and BLS

suggests that had all states maintained their 1967 labor force shares, the national ratio in 1996 would have been 0.3608 not 0.3501. Roughly one fourth of the decrease in the national IUTU ratio between 1967 and 1996 was related to faster labor force growth in states where IUTU ratios were lower than the national average.

If access to UI is to be improved it would seem that states with low recipiency should be evaluated to better understand why so few of their unemployed collect UI benefits year after year.

IV. Welfare Reform and Unemployment Insurance

One goal of welfare reform is to move larger numbers of welfare recipients into the workforce. If the aims of the 1996 federal welfare reform legislation are achieved, by 1998 more than a quarter of the roughly 4 million adults who received Aid to Families with Dependent Children (AFDC) will be active labor market participants, and half are slated to join the workforce by 2002. Many, if not most, will no longer be receiving welfare benefits at that time.[39]

Low education and lack of work skills and experience put current and former welfare recipients at special risk of unemployment. The national unemployment rate for persons 16 and older averaged only 4.9 percent in 1997, but former welfare recipients can be expected to have high jobless rates, perhaps twice the national average.[40]

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[39] AFDC was eliminated by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act. In discussing welfare benefits in 1997 and beyond, reference should be made to AFDC's successor program--Temporary Assistance to Needy Families (TANF).

[40] Assumptions made about the future work patterns of former welfare recipients are based on studies of the employment patterns of low-wage workers and women who received welfare in the past. Four examples of this literature are Gustafson and Levine(1997), Kaye (1997), Spalter-Roth, Hartmann and Burr(1994) and Vroman(1995).

Nonetheless, the anticipated increase in the unemployment pool resulting from welfare reform will be modest. Under current UI program eligibility criteria only a small fraction of adult welfare recipients who enter the labor market will be eligible for unemployment insurance benefits. The pressure they will put on the UI delivery system in terms of added costs and increased caseload will be small. Moreover, in the near term neither federal nor state laws governing unemployment insurance are likely to change in ways that will enhance access to unemployment benefits for unemployed former welfare recipients.

Relative to the current pool of jobless workers, unemployed welfare recipients would be less likely to receive UI benefits for three reasons. First, many will find it difficult to satisfy UI's monetary eligibility criteria, which most adversely affect workers paid low hourly wages. In absolute numbers, the monetary eligibility requirements are not stringent, especially for full-time workers earning average or above average wages. Kansas, for example, whose earnings requirements were close to the national average, required base period earnings of $2,010 in 1997 to satisfy monetary eligibility. Based on that state's average weekly wage of roughly $483, applicants would only have to have worked 4.2 weeks at the average weekly wage in order to satisfy Kansas's UI monetary requirement.

However, due to low wage rates and part-time work schedules, former welfare recipients in Kansas (and elsewhere) are not likely to earn the average weekly wage rate. If a single mother formerly on AFDC in Kansas makes, say, only $103 working 20 hours a week at the minimum wage ($5.15), she would have to have worked 19.5 weeks to qualify for UI, in contrast to the 4.2 weeks for the worker receiving the average weekly wage.

The definition of the base period for determining earnings eligibility is also likely to reduce this population's access to unemployment benefits. In nearly all states, the base period is the earliest four of the past five fully completed calendar quarters. To be monetarily eligible for UI, claimants in most states must have earned more than a specified amount for the full base period and a second amount for the quarter of highest earnings during the base period.[41] Most states do not recognize recent earnings--from the quarter when the UI claim is filed and from the full preceding calendar quarter--in determining monetary eligibility. This often makes it difficult for low-wage workers who are paid on an hourly basis and who work intermittently--both categories that apply to former AFDC recipients--to meet the earnings required for UI eligibility.

Empirical analyses of the earnings patterns of former welfare recipients support the preceding. Using data from the National Longitudinal Survey for Youth (NLSY), Gustafson and Levine(1997) found that 54 percent women who were former welfare recipients during the years 1979-1994 were monetarily eligible. Kaye(1997), also using the NLSY, estimated monetary eligibility to be 36 percent for such women. Spalter-Roth, Hartmann and Burr(1994) also examined the work patterns of former welfare mothers using the Survey of Income and Program Participation (SIPP). While they did not try to estimate monetary eligibility, they did document the low earnings and low receipt of UI benefits among such women.

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[41] Base period earnings requirements vary quite widely across states. The dollar thresholds also vary considerably for high quarter earnings. Additionally, there may be requirements that specify a minimum weeks of employment, minimum hours worked or other patterns for earnings beyond the base period and the high quarter. About one third of UI programs have one of these additional monetary eligibility requirements.

The second factor inhibiting former welfare recipients' receipt of UI benefits is related to the reasons for leaving work. Quits and discharges for misconduct typically disqualify applicants for unemployment benefits. The majority of former AFDC recipients are single mothers who have family responsibilities that are likely to cause above-average rates of separation from work for reasons that will be deemed disqualifying. Fewer than half of states recognize personal reasons for leaving employment such as to take care of illness in the family, and allow benefit payments when the person later seeks reemployment. The estimates of nonmonetary eligibility by Gustafson and Levine(1997) found that quits were important among these women and contributed to low simulated UI eligibility.

Third, all states require a UI applicant be available for work and many mandate that she or he seek full-time work. Given the purpose of welfare legislation, it is not unreasonable to expect that work search efforts among former AFDC recipients will be monitored more closely than those among other UI claimants--a scenario that could lead to higher disqualification rates among former welfare recipients.

Due to their inability to satisfy monetary or other UI eligibility criteria, it seems probable that no more than 20 percent of former welfare recipients who experience unemployment would be expected to be eligible for unemployment benefits. Moreover, the per case cost for these eligibles is likely to be 40 to 50 percent lower than the costs for current UI recipients. This is because low base period earnings would limit both their weekly benefit amount and weeks of potential benefit duration.[42]

Assuming that welfare reform added a weekly average of 1 million persons to the labor force in 1998 and the former welfare recipients had an unemployment rate to 10 percent, the total number

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[42] UI benefit formulas in most states operate to limit potential benefit duration for low wage workers to considerably fewer than 26 weeks, often less than 20 weeks.

of unemployed individuals nationwide would increase by 100,000.[43] If 20 percent of former welfare recipients receive UI benefits and have a per-case cost that is half the national average, in 1998 UI beneficiaries would increase by about 20,000 persons and costs by about $100 million (in 1996 dollars). This would represent a 0.8 percent increase over 1996 UI caseloads and a 0.5 percent addition to total benefit costs. In the year 2002 both percentages would be doubled, assuming that, by then, 50 percent of former AFDC recipients had joined the labor force and that the unemployment rate for adult welfare recipients was about 10 percent, or twice the national average. These added costs are modest, and would be even lower if the McMurrer, Sawhill and Lerman(1997) estimates of added labor force growth are correct.

Existing factors that limit low-paid, hourly workers' access to UI are set by laws that are unlikely to relax in the current economic and political climate. Individual states determine most legislation governing UI benefits and taxes. Faced with prospective new UI claimants due to welfare reform, one might expect state-level legislation to ease the transition into the labor market for AFDC recipients. But UI legislation to assist such persons did not emerge in 1997,[44] nor does it appear to be the horizon. Moreover, current state and federal laws that severely curtail the number of low-wage workers (and thus former welfare recipients) eligible to receive

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[43] Estimates of annual additions to the labor force caused by welfare reform made by McMurrer, Sawhill and Lerman(1997)are considerably lower, about 140,000 per year. Their estimates imply an increased labor force of about 300,000 in 1998 and somewhat less than 1,000,000 in 2002 due to welfare reform.

[44] State legislation in 1997 is summarized in Runner(1998). Of the state laws affecting benefits, only three changes would increase access among low wage workers. North Carolina instituted an alternative base period. In other states low wage workers have benefited disproportionately from he alternative base period. See Vroman(1995). Minnesota eliminated a requirement for 15 weeks of employment in the base period and reduced the disqualification for voluntary leaving. Louisiana also reduced the disqualification for voluntary leaving.

unemployment are not likely to change soon in ways that will broaden this population's access to UI benefits.

One area of increased eligibility that has been shown to benefit low wage workers is offering an alternative base period. For those monetarily ineligible under the regular base period (typically the earliest four of the past five completed quarters), the alternative base period recognizes more recent earnings. In 1998, eight states offer an alternative base period determination to otherwise monetarily ineligible claimants. The overriding of the Pennington decision by 1997 federal legislation, however, means that increased access to benefits through the alternative base period can be achieved at the present time only through legislation enacted on a state by state basis. It seems highly likely that only a limited number of additional states will provide increased access to UI benefits through this route.

To summarize, welfare reform has small financial implications for UI programs. Unless some major changes in eligibility criteria are made, very few former welfare recipients will collect UI benefits while they are unemployed. Research completed to date has reached consistent findings on the limited access to UI benefits among former welfare recipients. If benefit recipiency among former welfare recipients is to be raised appreciably, it will require changes in nonmonetary as well as monetary qualification requirements. Two changes that would be especially helpful to these persons would be for states to offer an alternative base period for monetary determinations and to allow payment of benefits to persons searching for part-time work. Both eligibility criteria fall under state control.

V. Trust Fund Adequacy

State trust funds as the source for benefit payments are a key feature of UI program financing. Trust fund financing allows UI programs to pay out much more in benefits than their receipts of UI payroll taxes during recessions. This feature enables UI programs to operate as automatic stabilizers of economic activity. Trust fund balances automatically decrease during recessions and are rebuilt during subsequent economic expansions. The UI system is often described with terms such as advance funding, pre-funding or forward funding.

In the recession of 1974-1975 and again during the back to back recessions of 1980 and 1981-1982 trust fund balances were not adequate to meet needs for UI benefit payments and states had to borrow substantial sums to meet payment obligations. Borrowing by 24 state programs totaled $5.5 billion during 1974-1979 while 31 programs borrowed $24.2 billion during 1980-1987.

Compared to the recessions of the mid 1970s and the early 1980s, the states fared much better during the most recent recession which started in 1990. Borrowing during 1991-1995 totaled just $4.8 billion and only seven state programs required loans. The bulk of the borrowing ($3.4 billion) was concentrated in two states: Connecticut and Massachusetts.

Analyses of state experiences during the past recession point to two factors responsible for the low volume of borrowing. (1) The recession was mild by historic standards. The reduction in real output and the increase in unemployment were both unusually small. (2) The UI trust funds were comparatively large, hence states were generally able to finance almost all of the added payouts without needing loans.[45]

To discuss UI borrowing during recessions it is helpful to

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[45] Two analyses of borrowing during the most recent recessions are given in Miller, Pavosevich and Vroman(1997) and Chapter 1 of Vroman(1998).

introduce a measure of fund adequacy termed the high cost multiple or reserve ratio multiple. This indicator of fund adequacy places the trust fund balance into a simple expression that also recognizes two other determinants of a state's need for reserves: total UI covered wages (an indicator of the size of the state's economy) and the high cost period of benefit payouts (the highest previous 12 month payout rate). The numerator in the reserve ratio multiple is the reserve ratio: total trust fund reserves as a percent of covered wages. The denominator is the high cost period, benefits as a percent of covered payrolls for the highest cost previous period. The ratio of these two ratios is the reserve ratio (high cost) multiple. During recessions borrowing is most likely and typically largest among states with the lowest reserve ratio multiples.

While the reserve ratio multiple helps in assessments of fund adequacy, there is no single standard of fund adequacy. Some have advocated that multiples should reach 1.5, a level that is rarely achieved by any state. More recently the Advisory Council on Unemployment Compensation (1996) suggested as a solvency standard a reserve ratio multiple of 1.0 where the high cost payout rate is measured as the average payout rate for the highest three of the past 20 years. Whatever standard is most appropriate, analysis of past recessions has shown that states with reserve ratio multiples below 0.50 have the highest risk of recession-related financing problems (Miller, Pavosevich and Vroman(1997)).

To provide additional detail on individual state trust fund developments during the 1990s, Table 9 displays net reserves and reserve ratio (high cost) multiples at the end of three recent years: 1989, 1992 and 1997. Trust fund levels and changes for these periods span the most recent episode of recession and recovery. To characterize state-level unemployment developments during the recession, the average unemployment rate for 1990-1992 is shown as a ratio to the average for 1987-1989. The states have been arrayed by Census Division and then alphabetically within each of the nine Census Divisions. Table 9 also identifies the seven states needing UI

Table 9. Net Reserves and Reserve Ratio Multiples by State, 1989, 1992 and 1997

STATE	Net Reserves ($mil)			Reserve Ratio (High Cost) Multiples					Unemp. Rates
				Levels			Changes		
	Dec. 1989	Dec. 1992	Dec. 1997	Dec. 1989	Dec. 1992	Dec. 1997	1989 to 1992	1992 to 1997	1990-92/ 1987-89
* CONNECTICUT	274	-653	533	0.22	-0.50	0.33	-0.72	0.83	1.947
* MAINE	208	35	136	0.94	0.15	0.49	-0.78	0.33	1.632
* MASSACHUSETTS	909	-380	1446	0.45	-0.18	0.53	-0.63	0.72	2.236
NEW HAMPSHIRE	204	130	278	0.89	0.55	0.89	-0.34	0.34	2.400
RHODE ISLAND	304	104	160	0.92	0.32	0.41	-0.60	0.09	2.227
VERMONT	197	181	234	1.63	1.41	1.45	-0.21	0.04	1.783
NEW JERSEY	2795	2440	2385	1.06	0.85	0.68	-0.21	-0.18	1.664
* NEW YORK	3181	214	990	0.76	0.05	0.18	-0.71	0.13	1.476
PENNSYLVANIA	1616	808	2254	0.55	0.25	0.57	-0.30	0.32	1.297
PUERTO RICO	564	749	587	1.82	2.05	1.26	0.24	-0.79	NA
VIRGIN ISLANDS	28	47	45	2.67	3.21	3.22	0.54	0.01	NA
ILLINOIS	1268	848	1743	0.47	0.28	0.45	-0.19	0.17	1.035
INDIANA	770	942	1362	1.04	1.11	1.22	0.07	0.11	1.083
* MICHIGAN	370	-72	2223	0.13	-0.02	0.53	-0.15	0.55	1.118
OHIO	778	602	1875	0.30	0.21	0.51	-0.09	0.30	1.037
WISCONSIN	1041	1195	1632	0.96	0.93	0.97	-0.03	0.04	1.007
IOWA	518	615	727	1.20	1.20	1.08	0.00	-0.13	0.943
KANSAS	472	606	607	1.35	1.47	1.13	0.12	-0.33	0.943
MINNESOTA	359	224	565	0.52	0.27	0.51	-0.24	0.24	1.093
* MISSOURI	372	3	418	0.50	0.00	0.39	-0.50	0.38	1.028
NEBRASKA	127	161	206	0.89	0.94	0.88	0.05	-0.05	0.671
NORTH DAKOTA	45	50	38	0.70	0.65	0.36	-0.05	-0.29	0.909
SOUTH DAKOTA	45	50	49	1.46	1.26	0.87	-0.20	-0.39	0.811
DELAWARE	207	219	279	1.24	1.18	1.14	-0.06	-0.04	1.685
* DIST OF COL	76	-19	136	0.40	-0.09	0.53	-0.50	0.63	1.405
FLORIDA	2041	1444	2090	1.29	0.79	0.85	-0.50	0.06	1.345
GEORGIA	1018	966	1797	0.96	0.79	1.04	-0.18	0.25	1.032
MARYLAND	598	146	721	0.75	0.17	0.67	-0.58	0.50	1.387
NORTH CAROLINA	1471	1387	1301	1.26	1.03	0.71	-0.23	-0.32	1.362
SOUTH CAROLINA	415	433	687	0.66	0.60	0.72	-0.06	0.12	1.154
VIRGINIA	718	507	979	1.17	0.74	1.08	-0.43	0.34	1.368
WEST VIRGINIA	146	141	166	0.41	0.35	0.34	-0.06	-0.01	1.019
ALABAMA	623	550	451	1.21	0.90	0.57	-0.31	-0.33	0.965
KENTUCKY	393	364	571	0.69	0.54	0.64	-0.15	0.10	0.877
MISSISSIPPI	388	345	564	1.67	1.26	1.52	-0.42	0.26	0.916
TENNESSEE	657	603	848	0.90	0.69	0.72	-0.21	0.03	1.041
ARKANSAS	131	81	204	0.40	0.20	0.39	-0.20	0.18	0.934
LOUISIANA	306	601	1276	0.43	0.72	1.18	0.29	0.46	0.693
OKLAHOMA	323	419	609	1.34	1.53	1.78	0.19	0.25	0.910
TEXAS	989	586	707	0.73	0.36	0.32	-0.37	-0.04	0.902
ARIZONA	493	372	741	0.84	0.55	0.72	-0.29	0.17	1.037
COLORADO	239	339	574	0.75	0.87	1.01	0.12	0.14	0.796
IDAHO	220	240	280	1.37	1.16	0.95	-0.21	-0.20	0.967
MONTANA	80	96	136	0.63	0.62	0.69	-0.01	0.08	0.970
NEVADA	321	234	388	1.12	0.65	0.69	-0.47	0.04	1.047
NEW MEXICO	174	239	431	1.48	1.69	2.22	0.21	0.53	0.857
UTAH	239	342	573	1.25	1.40	1.54	0.15	0.14	0.885
WYOMING	54	110	159	0.71	1.23	1.44	0.52	0.22	0.756
ALASKA	180	232	202	0.93	1.06	0.79	0.12	-0.27	1.005
CALIFORNIA	5419	2787	3736	0.92	0.43	0.48	-0.48	0.04	1.380
HAWAII	340	362	217	1.75	1.68	0.94	-0.07	-0.74	1.058
OREGON	804	1055	1069	1.35	1.47	1.03	0.12	-0.43	1.070
WASHINGTON	1364	1766	1447	1.07	1.09	0.69	0.02	-0.40	0.937
U.S.Total	36871	25847	43833	0.87	0.54	0.70	-0.33	0.17	1.156

Source: Trust fund data from the U.I. Service of the U.S. Department of Labor. Unemployment rate data from BLS.
* - States needing U.S. Treasury loans during 1991-1995.

trust fund loans during 1991-1995.

Four aspects of Table 9 are noteworthy. First, state level unemployment experiences were highly varied during the 1990-1992 downturn. While the national average unemployment rate ratio was 1.156, the state-level ratios ranged from 2.400 (New Hampshire) to 0.671 (Nebraska). Second, the highest unemployment rate ratios were found in states located along the Atlantic Coast along with California. New England and Middle Atlantic states had especially large increases in their unemployment rates. Arranging the states geographically helps to emphasize this point. Third, the large decreases in reserves and reserve ratio multiples occurred disproportionately in the states with the largest increases in unemployment. Of the nine states where multiples decreased by 0.50 or more between 1989 and 1992, eight had unemployment rate ratios of 1.345 or higher.[46] Fourth, reserve ratio multiples decreased in seventeen programs between the end of 1992 and the end of 1997. In a period when trust fund building would be expected, the position of these seventeen deteriorated using the reserve ratio (high cost) multiple to gauge trust fund adequacy.

The slow pace of reserve accumulations during 1993-1997 is noteworthy and deserves added emphasis. One way is to highlight developments in the ten largest states which accounted for 52 percent of taxable covered employment and 56 percent of covered payrolls in 1996.[47] Four of the ten had smaller reserve balances at the end of 1997 than at the end of 1989 and six had smaller reserve ratio

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[46] Missouri, the ninth state, had a ratio of only 1.028. The simple correlation between the unemployment rate ratios of Table 1-3 and the 1989-1992 change in state reserve ratio multiples was -.627. The correlation was much higher (-.907) when states were weighted by the size of their labor forces.

[47] The ten, ranked in descending order according to 1996 payrolls, are California, New York, Texas, Illinois, Florida, Ohio, Pennsylvania, Michigan, New Jersey and Massachusetts.

multiples.[48] Weighted by 1996 payrolls, the average reserve ratio multiple for the ten declined from 0.72 at the end of 1989 to 0.32 at the end of 1992 and then recovered to 0.47 in 1997. Compared to the national average reserve ratio multiple, their average was 0.15 lower in 1989 (0.72 compared to 0.87) but 0.23 lower in 1997 (0.47 compared to 0.70). In 1997 only one of the ten largest states (Florida) had a reserve ratio multiple that exceeded 0.60 while two (New York and Texas) had multiples below 0.40. The largest states were clearly more vulnerable to the risk of recession-related financing problems in 1997 than seven years earlier.

Compared to the ten largest states, the pace of post-1992 reserve accumulations for remaining UI programs was more rapid. Prior to the 1990 recession their average reserve ratio multiple was 1.08. At the end of 1997 their average multiple was 1.00. Thus, the average reserve position of these states at the end of 1997 was almost the same as before the onset of the 1990 recession. This suggests the increased exposure to potential insolvency was much more concentrated in the largest states at the end of 1997 than it was at the end of 1989.

A second way to highlight the slow pace of reserve accumulation during 1992-1997 is to ask the following question: How long would it take to restore reserves to their 1989 position? Between 1992 and 1997 the national reserve ratio multiple increased by only 0.17 (from 0.54 to 0.70) or by an average of 0.034 per year. At that pace of accumulation, more than 4 more years would be required before a national multiple of 0.87 (the 1989 reserve ratio multiple) would be achieved. This would imply an economic recovery lasting more than nine years, i.e., longer than any expansion since the establishment of UI programs in the mid 1930s.

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[48] Note in Table 9 that only Massachusetts, Michigan, Ohio and Pennsylvania had higher reserve ratio multiples at the end of 1997 compared to 1989 and only in Michigan and Ohio were the multiples noticeably higher.

Given the strong pace of economic expansion experienced during 1993-1997, a substantial accumulation of reserves would have been anticipated. Annual benefit payouts during 1993-1996 averaged $3.8 billion less than during 1991-1992. Aggregate tax receipts also increased substantially. The three year average for 1994-1996 of $21.8 billion was 42 percent higher than the 1989-1991 average of $15.4 billion.[49]

What distinguishes the UI tax increases during the most recent period of economic recovery is their comparatively modest size. The analogous increases following the downturns of 1974-1975 and 1980-1982 exceeded 100 percent and 60 percent respectively. Higher UI taxes would have been expected during 1994-1996 based on earlier recessionary episodes.

While a detailed analysis of recent changes in UI tax laws lies beyond the scope of this report, there clearly have been UI tax reductions which slowed trust fund accumulations during 1993-1997. States such as Kansas and North Carolina were especially aggressive in lowering UI taxes, but tax reductions have been widespread during the 1990s. Modifications of UI tax statutes in Georgia, Florida and Virginia during 1997 will cause further tax reductions and can be interpreted as at least partly motivated by the tax cuts in North Carolina of 1995.

The slow pace of trust fund accumulations during 1993-1997 has obvious implications for state UI solvency. In particular it implies that states at the end of 1997 were more exposed to the threat of financing problems than they were eight years earlier, i.e., before the onset of the 1990-1992 recession.

To examine risks of insolvency a series of simulations were

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[49] Annual data on aggregate UI benefits and employer taxes from 1938 through 1996 appear in columns (10) and (8) respectively of U.S. Department of Labor (1995) and later updates to this Handbook.

undertaken.[50] The simulations utilized the relationship between decreases in state reserve ratio multiples and increases in average unemployment rates that were observed during the 1990-1992 recession. Historic patterns of increases in state unemployment rates were then combined with the slope and intercept of this relationship to provide projections of trust fund drawdowns during recessions of differing severity.

Two conclusions emerged from the simulation analysis. (1) The absence of widespread financing problems during 1990-1992 was attributable both to the mild nature of the recession and to the comparatively large initial trust fund balances held by the states. The states may not be as lucky in the next recession regarding the magnitude of the increase in unemployment. (2) More states needed loans when they entered recessions with their 1996 year end reserve balances than when they entered with their 1989 reserve balances. Based on 1993-1997 rates of trust fund accumulations as summarized in Table 9, several states will start the next recession with smaller balances than at the end of 1989. Other things equal, the smaller balances resulting from the slow pace of accumulations during 1993-1997 could lead to increased borrowing during the next recession.

The need for large reserves during a future recession could be mitigated by two factors that merit some additional comments. (1) Compared to earlier periods, the UI programs of the states may now have in place more features that automatically lead to tax increases and/or benefit reductions in recessions. (2) Due to evolutionary developments, the economy may now be less prone to recessions than in earlier years. If either of these factors were important, there would be less need for large trust fund reserves than in the past. Either the UI response features would automatically be activated to offset the effects of higher unemployment on trust fund balances or the cyclical swings would be less pronounced due to macroeconomic developments.

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[50] The details of the simulations are given in Appendix A of Vroman(1998).

The first of these two arguments has been addressed by recent research, e.g., Miller, Pavosevich and Vroman(1997) and Chapter 2 in Vroman(1998). There is no doubt regarding the increased prevalence of automatic tax and benefit features in UI programs, e.g., solvency taxes and automatic freezes on maximum weekly benefits, that are activated when trust fund balances descend below designated thresholds. However, the quantitative importance of these features remains small. Thus while these features are present in many more programs in 1998 than, say, two decades ago, there is no evidence that their increased importance has reduced the need for large pre-recession trust fund balances.

Determining whether the economy is inherently more stable than in the past is a more difficult question. It is clear that the service sector is relatively more important than in the past and that international trade now links the U.S. economy more closely to other economies than in the past. The former development could be important because the production of services takes place without accompanying large stocks of raw materials, intermediate goods and finished goods that are associated with production in goods sector of the economy. Thus goods production in general and manufacturing production in particular may now exert less of a destabilizing effect through stock-flow (multiplier-accelerator) interactions than in the past. It is also possible that closer international trade and financial relations operate to enhance the stability of the U.S. economy. However, observing the developments in Asia during the past six months leads to skepticism regarding the inherent stability of the economy associated with increased dependence on international trade and finance.

Thus the argument that the economy is inherently more stable while interesting has not gained widespread acceptance within the economics profession at large. It would seem prudent to wait for additional research and confirmation of this idea before moving UI programs towards having lower trust fund balances.

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To summarize, it seems quite certain that the UI system will enter the next recession with lower trust fund reserves (reserves as a percent of payroll) than they had prior to the 1990 recession. This has implications for potential borrowing by individual states and for the performance of UI as an automatic stabilizer of the economy, as examined in the next section.

VI. Unemployment Insurance as an Automatic Stabilizer

One of the primary objectives of unemployment insurance (UI) is to impart enhanced automatic stability to the macro economy. The payment of UI benefits automatically increases during recessions helping to stabilize aggregate spending (primarily household expenditures) and dampens the effects of impulses that move aggregate real output (GDP) downward. This effect of UI was emphasized when the program was established in the 1930s, emphasized in the summary volume by Haber and Murray (1966)[51] and still remains an important rationale for UI at the present time.

Increasing UI eligibility and benefit recipiency would enhance the performance of UI as an automatic stabilizer. This would help to restore the stabilizing effectiveness of UI towards the levels it realized in the 1970s, i.e., prior to the downward shift in recipiency that occurred in the early 1980s. Before discussing empirical estimates of UI's stabilizing effects, it will be useful to examine the potential stabilizing role of the program and briefly review one paper in the empirical literature.

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[51] See Chapter II, pages 31-32 in Haber and Murray(1966).

UI and Aggregate Economic Activity

Unemployment insurance (UI) benefit payments are highly cyclical, but quite small relative to the overall macro economy. Regular UI benefits ranged from 0.221 to 0.729 percent and averaged 0.377 percent of GDP in annual data covering the years 1967 to 1995. Total payouts from all three tiers of UI[52] ranged from 0.221 to 1.011 percent, averaging 0.442 percent of GDP.

Descriptive time series regressions based on annual data from 1967 to 1995 were fitted to explain UI benefit payouts as a percentage of GDP. The specification included three explanatory variables: the total unemployment rate or TUR, the TUR lagged one year and a zero-one dummy variable that identified the years starting in 1981. Each of the three explanatory variables had consistently significant coefficients: positive on the TUR, negative on the TUR lagged (reflecting effects of benefit exhaustions) and negative on the post-1981 dummy variable.

In the regression explaining regular UI payments as a percent of GDP, the coefficient on the TUR was 0.1115 indicating that payouts increased by 0.1115 percent of GDP for each percentage point increase in the TUR. This coefficient was 0.1558 in the regression explaining total payouts from all three tiers of UI as a percent of GDP for the 1967-1995 period. The coefficient for the post-1981 period indicated that regular UI payments shifted downward by 21 percent after 1981 while total payouts from all three tiers combined shifted downward by 34 percent starting in 1981.[53] These regressions illustrated four

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[52] The three tiers are: 1) the regular UI program which potentially pays up to 26 weeks of benefits in nearly all states, 2) the Federal-State Extended Benefits program which can pay up to 13 weeks when activated and 3) emergency federal benefits such as Emergency Unemployment Compensation which was active from November 1991 through April 1994.

[53] The post 1981 coefficient was -0.0796 in the regular UI equation and -0.1492 in the total UI (all three tiers) equation. The elasticity estimates were derived as the ratio of the post-1981 dummy coefficient in each regression to the mean of UI benefits as a percent of GDP.

important points: the small overall size of UI benefits, their cyclical sensitivity, the downward shift in benefits after 1981 and the importance of EB and temporary federal programs in the overall cyclical pattern of UI benefit payments.

Program benefits stabilize the economy primarily by helping to maintain household consumption expenditures. Within a business cycle context UI operates as a proportional stabilizer of economy. When there is an impulse that tends to either increase or decrease total real output, UI acts to dampen the total effect by offsetting part of the effect of the impulse. While the direction of the effect caused by the impulse is not altered, its magnitude is reduced, hence the term proportional stabilizer.[54] UI benefits offset a proportion of the effect of the impulse.

There are two important proportional stabilizers in the public sector of economy: UI benefit outlays and taxes linked to income and output such as the personal income tax, the corporate income tax and payroll taxes. Both proportional stabilizers have measurable macroeconomic effects.

There are three important macroeconomic relationships that determine the importance UI as an automatic stabilizer. (1) There is the relationship between changes in aggregate output or GDP (measured as aggregate income) and the pre-tax-pre-transfer income of households. (2) There is the relationship between pre-tax-pre-transfer household income and post-tax-post-transfer (or disposable) household income. (3) There is the relationship between household disposable income household spending (or consumption). These three links combined determine the size of the response of household spending when GDP changes. Respectively these three can be termed the pre-tax income response, the disposable income response and the consumption response. As each of these responses is smaller the automatic stability of the economy is enhanced.

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[54] This terminology was developed by A.W. Phillips (1954).

A proportional stabilizer like UI affects the second of these relationships by helping to cushion household disposable income from changes in pre-tax-pre-transfer household income. When employers reduce labor inputs they often place workers on temporary or permanent layoff. Benefit payments from UI offset part of the wage loss caused by layoffs thereby keeping household disposable income more stable than it would be without UI.

When aggregate real output (GDP) changes there are two factors operating within the private sector that cushion the effect on pre-tax-pre-transfer household income, the first of the three relationships identified above. (1) The gross income share received by owners of capital (pre-tax corporate profits plus interest on corporate debt) absorbs much of the aggregate income change. Capital's income share is about one-third of GDP, but in the short run it will absorb over half of the reduction in aggregate income. (2) Within capital's income share there are four components: retained corporate profits, corporate profits taxes, dividend payments and interest payments on debt. The component that most directly affects households is dividend payments which tend to be very stable in the face of decreases in profits. Both preceding factors operate to stabilize pre-tax-pre-transfer household income when real GDP changes.

These same two factors severely limit the potential for UI benefit payments to play a major role as an automatic stabilizer. To the extent that pre-tax-pre-transfer household income is stabilized by the cyclical pattern of the corporate income share and by dividend payouts, there is less of an unemployment response and less need for UI benefit payments. Stated somewhat differently, employment tends to be more stable than real output when the economy enters a recession. These stabilizing effects of corporate profits and dividend payouts tend to weaken as a downturn extends for a longer period.

The decline in the IUTU ratio of the early 1980s implies that the stabilizing effect of UI would be weakened. Compared to the 1970s and earlier, there would be a larger response of after-tax-after-transfer (or disposable) household income to a given change in pre-tax-pre-transfer household income, i.e., the second of the three relationships that link changes in GDP and to changes in household spending as discussed above. Because household disposable income becomes more cyclically responsive, when the IUTU ratio declines, the proportional response of consumption to GDP becomes larger and the economy becomes more volatile. Empirical estimates of the size UI's stabilizing effect are discussed below. The important conclusion from the present discussion, however, is that the potential role of UI as an automatic stabilizer is limited by other aspects of macroeconomic behavior, in particular by the cyclical response of capital's gross income share and the response of dividend payments.

Other macroeconomic factors that affect stabilizing impact of UI should also be noted. First, to the extent that spending out of UI benefits is more complete than spending out of other components of household income, there may be a larger stabilizing effect than suggested by just noting the size of UI benefits relative to total household disposable income. Second, because UI taxes are experience rated, a recession-related increase in benefits will eventually be followed by higher UI taxes. Depending on the timing of this response which occurs with a lag, it could weaken the effects of UI as an automatic stabilizer because of negative effects on business profits and business spending. This effect of UI taxes would be more important in downturns of longer duration.

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The Analysis of Dunson, Maurice and Dwyer

The most recent analysis of the automatic stabilizing properties of UI was undertaken by Dunson, Maurice and Dwyer (1991).[55] This research, supported by the U.S. Department of Labor, utilized simulations with the Data Resources Inc. (DRI) model to derive quantitative estimates of the UI's stabilizing effects. While the full project also included an analysis of UI in four states and a literature review, principal interest centered on simulation results based on a full scale national macroeconomic model.

Dunson, et.al. utilized the DRI model in simulations that covered two eleven year intervals: 1977 to 1987 and 1991 to 2001. For each time period the scale of the UI program was modeled as of the start of the period. The work, undertaken mainly during 1990, could utilize historic data for the earlier period but utilized eleven year projections for the latter period. For both time periods there were paired simulations: one with UI and one without UI. The UI variable of primary interest was real UI benefits per unemployed worker. This was found to be lower in 1991-2001 than in 1977-1987 primarily because recipiency among job losers was lower.

In each simulation there was a shock to the economy (a two percent reduction in the monetary base) and the time paths of all variables were then traced. Particular attention was focused on the time path of real output (GDP) and aggregate employment. Since output was traced for eleven years in a quarterly model, the comparisons of effects with and without UI cover a lengthy time period. The research strategy was to focus on the four quarters when the decline in GDP was the largest.

For the earlier period (1977-1987) they found that the decline in real GDP was cushioned by 5.4 percent and employment by 4.9 percent, i.e. the GDP reduction was 5.4 percent smaller when UI was present. For the later period (1991-2001) the GDP reduction was cushioned by 3.7 percent and the employment reduction by 3.5 percent.

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[55] A more complete review of the automatic stabilizing literature is given in Section III of Vroman and Woodbury(1996).

While all of these estimated effects of UI are quite modest, the programs effectiveness was clearly lower in the second time period. Overall, UI during 1991-2001 was about 70 percent as effective as it had been during 1977-1987. The program was less effective in stabilizing household disposable income hence household spending.

This analysis is important because the two time periods bracket the period when the IUTU ratio declined, i.e., the early 1980s. Theirs is the only model-based analysis of the effects of the decline in the IUTU ratio, and it suggests a small stabilizing effect became even smaller.

There are questions about the methodology of this study that should be noted. First, the primary variable used to gauge the decline in the scale of the UI program is the real benefit per unemployed worker. They estimate that the real benefit decreased by 40 percent in a linear manner between 1981 and 1985. This scale of reduction exceeds that of the direct studies of the IUTU ratio. Second, because the analysis does not separate the three tiers of UI, it is not clear how temporary federal programs enter the analysis. Third, it is also not clear how exhaustions of UI benefits enter (or do not enter) their analysis. Finally, there is no explicit treatment of income distribution by factor shares, e.g., the cyclical sensitivity of capital's income share and dividend payouts. Thus, interested readers would have questions about details of their procedures.

These questions notwithstanding, their qualitative findings are highly plausible. A modest stabilizing effect was reduced when UI benefit availability declined in the early 1980s.

Stabilizing Effects of Changes in Benefit Eligibility

In an earlier report with Steve Woodbury, we identified ten potential changes in UI benefit availability that would raise

eligibility and the receipt of benefits.[56] These changes which would mainly affect low wage workers would enhance the performance of UI as an automatic stabilizer.[57] If all ten changes were enacted, the IUTU ratio would increase 14-18 percent but payouts would increase only 7-9 percent above present levels. The increase in IUTU caused by these changes would be of the same order of magnitude as the decrease that occurred in the early 1980s. However, because the associated increase in benefit payments would mainly affect low wage workers, the increase in the stabilizing effect of UI would be modest.

The Dunson, et.al. (1991) analysis is useful for the present question. Suppose we take their 1991-2001 simulation results as an approximation for the effects of the present UI system. The increases in eligibility proposed in part III would increase UI benefits per unemployed worker somewhat less than 10 percent. Thus the added stability caused by these changes would still not bring the program back to its stabilizing effectiveness of the 1977-1987 simulations.

Perhaps these improvements in benefit availability would increase the stabilizing effect of UI by one-tenth. Thus the total decline in real GDP at the trough would be 4.1 percent smaller after making these changes compared to 3.7 percent smaller under present UI eligibility. This is a small change, but it would make UI more effective in achieving one of its principal program objectives.

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[56] See Section II in Vroman and Woodbury(1996).

[57] Among the suggestions were the following. 1) Base monetary eligibility on hours of work. 2) Have each state offer an alternative base period. 3) Allow part time workers to be eligible if looking for work with at least as many weekly hours as the previous job. 4) Eliminate indefinite duration disqualifications. 5) Allow good personal reasons for leaving employment. 6) Modify EB program unemployment rate triggers.

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Stabilizing Performance in a Future Recession

With the preceding discussion of Sections V and VI as background, it may be instructive to briefly speculate on some likely consequences of a serious recession. A severe recession of the scale of the downturns of 1958, 1974-1975 or the back-to-back recessions of 1980-1982 would quickly deplete UI reserves. At the end of 1997 state reserves totaled $43.8 billion (Table 9). If the national benefit payout rate averaged 2.0 percent of covered payrolls for one full year, total payments would be $60 billion which would increase to $90 billion if this payout rate lasted for eighteen months.[58] Thus even considering current revenues, borrowing would take place during the first twelve months and substantial borrowing during the first two years.

Under this scenario, UI programs would add more than $40 billion to the net spending stream of the economy (UI benefit payments less state UI taxes) based just on outlays from state trust funds during the first twelve months. If there were emergency federal legislation as in previous recessions, federal emergency benefits would make further additions to household income and spending. While the dollar amounts seem impressive, they would represent only about 0.5 percent of GDP. UI is a program of limited scale.

Further reducing the net stabilizing impact of UI would be some likely state and federal actions. In the states, the emergence of UI debts to the U.S. Treasury would be followed by solvency legislation which could be expected to both raise employer taxes and reduce benefit payments. The emergency federal legislation would probably fall under the terms of the Budget Enforcement Act that requires added benefits to be "financed."[59] These federal and state actions would operate to reduce the net stabilizing effect of UI during the

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[58] In 1998 total payrolls of taxable covered employers will equal about $3000 billion. Two percent equals $60 billion.

[59] Speculation about likely state actions are based on actual state behavior during the early 1980s. See Chapter 2 in Vroman(1986). The federal UI expenditures during 1991-1994 in the Emergency Unemployment Compensation program (EUC) were mainly "financed."

hypothesized recession.

Having larger pre-recession trust fund balances would reduce the amount of offsetting actions undertaken by the states. In this area, a provision of the Department of Labor appropriation legislation for fiscal year 1998 should be noted. States were encouraged to achieve trust fund target levels with a financial inducement, e.g., interest free advances in the event of indebtedness if pre-recession fund balances met a target determined by the Secretary of Labor. A regulation that specifies target trust fund balances is expected during 1998.

VII. Summary and Conclusions

Because this report has covered several topics, its conclusions fall into several areas. Some can be noted very briefly. The reform of the welfare system will have few noticeable consequences for UI programs assuming their current eligibility rules do not change. Few former welfare recipients who become unemployed will collect benefits. Failure to meet nonmonetary eligibility criteria as well as monetary criteria will contribute to this outcome.

UI trust fund building has been quite slow during the period of economic recovery of the past five years. It can be anticipated that UI programs will enter the next recession with smaller balances than they did in 1990, the start of the last recession. As a consequence, borrowing during the next recession can be expected to be much larger than during 1991-1995.

Nonstandard employment is a large and growing segment of employment in the U.S.. An analysis of their experiences in data from the February 1997 CPS contingent worker supplement should also be undertaken. This would provide two observations on the receipt of UI benefits for the various workers in nonstandard employment. Added reliability in our understanding of their UI beneficiary patterns would be most useful.

More generally, it would be useful to document more completely the unemployment experiences of contingent workers. To the extent they are job losers, their recipiency rates would be expected to be considerably above-average. One suggestion would be to make a longitudinal match and an analysis of their unemployment in March 1995, one month after the first of the two CPS contingent worker supplements. A longitudinal analysis of the February 1997 contingent worker supplement also would be useful.

Part-time employment is the largest of the nonstandard employment categories identified in Section II, but its most rapid growth occurred before 1975. Part-timers account for more than one in five who now work during a given year. Overall, they are about one third as likely as others to receive UI benefits when they experience unemployment. Among adults aged 25 and older, part-time workers are about half as likely to receive UI benefits as full-time workers. Improving their access to UI benefits would have a measurable effect on overall UI recipiency. If the differential in recipiency among part-timers could be halved it would add about 5 percent to insured unemployment. One key to raising recipiency would seem to be modifying the work search requirement to permit search for part-time jobs.

Temporary (contingent) employees have very high rates of unemployment. Improving access to UI benefits by temporary help agency employees would have only small macro effects (because they number only about 1.2-2.0 million), but it would seem worthy of support given their high unemployment and below-average recipiency rates. Monitoring how offers of suitable work by temporary help agencies are made to these workers is important to document.

Three insights into the long term decline in the IUTU ratio

were gained through the analysis of Section III. First, the long term decline in the IUTU ratio has a distinct gender component. The ratio has declined for men over the past 30 years while it has been stable for women. The often noted declines in manufacturing employment and in unionization are consistent with a larger effect on the male IUTU ratio, but this gender perspective has not been emphasized by previous research. Second, the decrease in the IUTU ratio since 1976 appears to have been proportionately larger among job leavers and reentrants than among job losers. This was strongly suggested by the data in Table 7. There was an inference from these findings that an increased prevalence of durational disqualifications may have contributed to this decrease in recipiency. Third, geographic differences in IUTU ratios have persisted during the past 30 years. Over this period, states in the South and the Mountain division have had above-average labor force growth. Since these geographic areas have the lowest IUTU ratios, this differential growth has had a depressing effect on the national IUTU ratio.

Several other research ideas were noted in earlier sections of this report. Repeating a few at this point may be useful. (1) The long term decrease in IUTU ratios could be reexamined. Seven to ten additional annual time series observations per state are now available to augment the earlier analyses of Blank and Card(1991) and Corson and Nicholson(1988). (2) Closely related, it would seem that the reasons for low recipiency in states like Florida, Texas and Virginia should be examined to better understand why fewer than one fourth of their unemployed receive UI benefits.

Three areas of research on nonstandard employment could be especially productive. (1) An analysis that focuses on unemployed part-time workers is needed. This should try to disentangle the monetary from the nonmonetary factors contributing to their failure to receive UI benefits. Among the nonmonetary factors it would seem that the effects of durational disqualifications for quitting and

state requirements to seek full time work as a condition for eligibility should be studied. (2) Analyses of independent contractors are needed. Two possible areas of work within UI programs and reporting systems were identified. They were information from state tax offices on determinations of independent contractor status and information that may be derived from RQC data. (3) Since unemployed reentrants are numerous there is need to examine their reason for leaving their last jobs. It would be important to document the proportions of layoffs and quits. Presumably quits are much more numerous but this has yet to be documented.

Finally, the redesign of the CPS in 1994 now yields information on the unemployment of temporary workers whose assignments have ended. Undertaking a new special CPS supplement like the earlier 1989 and 1993 supplements would be useful in furthering our understanding of the experiences of these workers with UI programs in the states. If a special survey were undertaken it could also be the vehicle for gathering information on reason for unemployment among unemployed reentrants.

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Appendix A. An Analysis of IUTU Ratios by State

In an earlier report, state-level IUTU ratios were examined with time series multiple regressions fitted to annual data, Appendix A in Vroman (1991). The specification utilized three explanatory variables: the total unemployment rate (or TUR), the unemployment rate lagged one year (TURL) and a dummy variable (D81) equal to zero from 1967 to 1980 and unity from 1981 to 1989. Regressions were fitted for each state plus the District of Columbia.

The expectation was that TUR would enter with a positive coefficient as there are more job losers (as a proportion of the unemployed) during recessions when the unemployment rate increases. Since job losers are the group most likely to be eligible and to receive benefits, this mix effect would be expected to increase the IUTU ratio. The combined effects of UI benefit exhaustions and reduced monetary eligibility cause the IUTU ratio to decrease after a recession has been underway for some quarters. Hence the expectation was that TURL would have a negative coefficient. Finally, the D81 dummy variable was included to test for the size and significance of a downward shift in UI claims in 1981. On average, fewer unemployed would be expected to receive benefits after 1981 than before 1981.

The regression results generally conformed to these expectations. The D81 dummy had a negative coefficient in 45 of 51 equations, and its coefficient's t ratio was statistically significant in 28 states. The coefficients and t ratios from this earlier analysis are reproduced in Table A1 in the column headed D1981-1989. Also shown at the bottom are the results from a pooled regression using state data weighted by an indicator of state size (average unemployment for the years 1967-1989).

These regressions were refitted for a longer estimation period 1967 to 1996 using the most recently available annual data. If IUTU were trending inexorably downward, the estimated size of the post-

Table A1. Regression Estimates of the Post-1981 Decrease in UI Recipiency

Division	and State	D1981-1989	D1981-1996	Change	Avg. Divisional Change
N. Eng.	CONNECTICUT	-.1465 (4.5)	-.1078 (4.1)	0.0387	0.0118
	MAINE	-.0657 (3.0)	-.0644 (3.2)	0.0013	
	MASSACHUSETTS	-.0935 (4.6)	-.0903 (5.9)	0.0032	
	NEW HAMPSHIRE	-.1589 (3.4)	-.1622 (4.3)	-0.0033	
	RHODE ISLAND	-.0990 (3.5)	-.0853 (3.5)	0.0137	
	VERMONT	-.0271 (1.3)	-.0097 (0.6)	0.0174	
M. Atl.	NEW JERSEY	-.1110 (6.9)	-.1146 (9.5)	-0.0036	0.0102
	NEW YORK	-.1065 (8.6)	-.0998 (9.9)	0.0067	
	PENNSYLVANIA	-.0941 (3.7)	-.0664 (3.2)	0.0277	
E.N.C.	ILLINOIS	-.2042 (4.4)	-.1158 (3.4)	0.0884	0.0475
	INDIANA	-.0578 (2.7)	-.0570 (3.9)	0.0008	
	MICHIGAN	-.1254 (5.0)	-.0953 (5.4)	0.0301	
	OHIO	-.0616 (2.1)	-.0168 (0.9)	0.0448	
	WISCONSIN	-.1046 (2.5)	-.0311 (1.1)	0.0735	
W.N.C.	IOWA	-.1468 (5.7)	-.0662 (3.6)	0.0806	0.0305
	KANSAS	.0004 (0.0)	-.0309 (1.0)	-0.0313	
	MINNESOTA	-.0822 (2.7)	-.0713 (3.5)	0.0109	
	MISSOURI	-.1170 (3.9)	-.1197 (5.2)	-0.0027	
	NEBRASKA	-.0826 (3.9)	-.0122 (0.7)	0.0704	
	NORTH DAKOTA	-.0713 (1.2)	-.0397 (1.4)	0.0316	
	SOUTH DAKOTA	-.1745 (4.2)	-.1207 (5.6)	0.0538	
S. Atl.	DELAWARE	-.0256 (1.3)	-.0205 (1.1)	0.0051	0.0075
	DIST. OF COL.	-.0142 (0.4)	.0169 (0.6)	0.0311	
	FLORIDA	-.0678 (7.3)	-.0450 (4.0)	0.0228	
	GEORGIA	-.0351 (2.1)	-.0230 (1.2)	0.0121	
	MARYLAND	-.0221 (1.0)	-.0251 (1.4)	-0.0030	
	NORTH CAROLINA	-.0001 (0.0)	.0039 (0.2)	0.0040	
	SOUTH CAROLINA	-.0271 (0.9)	-.0212 (0.9)	0.0059	
	VIRGINIA	-.0324 (1.9)	-.0239 (1.8)	0.0085	
	WEST VIRGINIA	-.0500 (0.8)	-.0689 (1.9)	-0.0189	
E.S.C.	ALABAMA	-.1285 (3.8)	-.0922 (4.2)	0.0363	0.0496
	KENTUCKY	-.1557 (2.4)	-.0804 (2.7)	0.0753	
	MISSISSIPPI	-.0332 (0.8)	.0005 (0.0)	0.0337	
	TENNESSEE	-.1421 (5.4)	-.0891 (4.2)	0.0530	
W.S.C.	ARKANSAS	-.1332 (4.9)	.0069 (0.3)	0.1401	0.0264
	LOUISIANA	-.0501 (1.1)	-.0712 (3.2)	-0.0211	
	OKLAHOMA	-.0250 (0.6)	-.0630 (2.2)	-0.0380	
	TEXAS	-.0307 (1.5)	-.0059 (0.4)	0.0248	
Mount.	ARIZONA	-.0339 (1.5)	-.0368 (2.1)	-0.0029	0.0025
	COLORADO	-.0013 (0.1)	.0200 (1.3)	0.0213	
	IDAHO	.0140 (0.4)	.0295 (1.4)	0.0155	
	MONTANA	-.0733 (1.8)	-.0294 (1.1)	0.0439	
	NEVADA	-.1338 (7.0)	-.1072 (5.7)	0.0266	
	NEW MEXICO	-.0407 (1.4)	-.0667 (3.3)	-0.0260	
	UTAH	-.0643 (2.4)	-.0813 (4.5)	-0.0170	
	WYOMING	.1364 (3.2)	.0950 (3.2)	-0.0414	
Pac.	ALASKA	.0133 (0.3)	-.0048 (0.1)	-0.0181	0.0155
	CALIFORNIA	.0038 (0.5)	-.0064 (0.9)	-0.0102	
	HAWAII	-.0321 (1.4)	-.0220 (1.0)	0.0101	
	OREGON	-.0517 (3.3)	-.0033 (0.2)	0.0484	
	WASHINGTON	-.0888 (3.6)	-.0415 (1.8)	0.0473	
	Pooled Data	-.0492 (7.5)	-.0459 (8.8)	0.0033	

Source: Regressions by the author with annual data from 1967. The dependent variable was the state IUTU ratio. Other explanatory variables were the state unemployment rate, current and lagged one year.

1981 downward shift should be larger in data that extend seven years beyond the original estimation period. Table A1 shows each coefficient and t ratio for the 1967-1996 data period in the column headed D1981-1996. Again, results are also displayed for a pooled regression using weighted state data.

The third column then shows the difference between the two point estimates of the downward shift. Contrary to expectations, most are positive not negative, i.e., the estimated post-1981 downward shifts are generally smaller when seven more years are added. Thirty seven of 51 dummy coefficients are less negative in data based on the 1967-1996 estimation period.

The final column of Table A1 displays unweighted averages of the changes in the D81 coefficients for the nine Census divisions. All nine averages are positive. The largest changes in the averages are observed in the East North Central and East South Central divisions. These states have generally enjoyed high prosperity during the 1990s, and there has been a generally noticeable recovery in their IUTU ratios from the lows reached during the 1980s.

The preceding finding may provide a basis for further research into the determinants of the IUTU ratio. This analysis was undertaken simply to replicate earlier work and to test a specific hypothesis, namely to estimate the size of the decrease in the IUTU ratio based on data that extend into the mid 1990s. However more work on the determinants of the IUTU ratio may be warranted. The most recent analyses by Blank and Card(1991) and Corson and Nicholson(1988) used data periods which ended in the mid 1980s. New insights might be obtained from an analysis with data that extend to 1996 or even 1997.

Mass layoff events and initial claimants for unemployment insurance in help supply services (SIC 7363)

Date	Layoff events	Initial claimants for unemployment insurance
2000		
January	144	21,607
February	69	6,264
March	75	8,729
April	71	9,976
May	89	7,499
June	94	14,711
July	92	8,201
August	77	9,844
September	95	11,533
October	59	5,874
November	128	21,382
December	169	17,300
2001		
January	122	14,489
February	144	22,054
March	112	10,708
April	136	20,859
May	133	12,853
June	120	11,119
July	150	22,201
August	135	12,952
September	98	14,884
October	151	16,538
November	168	17,546

Source: Bureau of Labor Statistics, Mass Layoff Statistics program
January 2002

SEN. JACK REED (RI)
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Jan 4, 2002

Dr. Lois Orr
Acting Commissioner
Bureau of Labor Statistics
Room 440
2 Massachusetts Ave, NE
Washington, DC 20212

via fax 691-6426

Dear Acting Commissioner Orr:

I want to thank you again for testifying before the Committee on December 7th. Unfortunately, votes on the Senate floor cut short my ability to stay and ask you more questions regarding the November employment data. I would therefore be grateful if you would answer the following questions for the record.

1. I have three questions on shifts towards defense-related production. Although we have seen a sharp increase in new defense-related capital goods orders, the employment numbers do not reflect any strength in defense-related employment. a) How much is employment in defense-related industries expected to lag the increase in production? b) Does defense production use labor more or less intensively than comparable non-defense production? c) Are defense-related jobs more white-collar than average?

2. There is concern about the recession's impact on recent welfare leavers. Under current rules in most states, a worker who has only worked for a few months (such as a recent welfare leaver) is unlikely to qualify for unemployment when laid-off. Do we know how many former welfare recipients fall into this category? If not, do we know how many former welfare recipients have been employed for only four months or less? For three months or less?

3. In a related question, I noticed that the unemployment rate for "women who

maintain families" jumped from 6.9 percent to 8.3 percent in November. What else do we know about this group? What are the average wages (or earnings) for this group? Do we have a sense of how many of these women are former welfare recipients?

Since we are not yet receiving mail, it might be best to either fax your responses to my staff on the Joint Economic Committee in their temporary offices at 225-0505, or call Ms. Daphne Clones at 226-2487 to coordinate delivery. I look forward to receiving your responses.

Sincerely,

Jack Reed
United States Senator

U. S. Department of Labor

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

FEB 5 2002

Honorable Jack Reed
Vice Chairman, Joint Economic Committee
804 Hart Senate Office Building
Washington, DC 20510-6602

Dear Senator Reed:

I am writing in response to your letter of January 4, 2002, in which you posed additional questions regarding our employment report for November. I have addressed these questions by topic below.

Defense-Related Production

The Bureau of Labor Statistics (BLS) maintains a data series on employment for industries that have been identified as being "defense-dependent," that is, at least 50 percent of their product is generated for defense purposes (based on data for 1987, the peak year for real defense expenditures). These industries--ordnance and accessories; aircraft and parts; shipbuilding and repairing; guided missiles and space vehicles; tanks and tank components; and search and navigation equipment--are all in the manufacturing division. Table 1 shows the employment figures on a monthly basis from 1985 through the most recent month available.

Note that this series is not an exact measure of employment generated by defense spending. Industries that do not meet the 50-percent criterion may have defense-dependent jobs. Moreover, in the industries identified as defense-dependent, many jobs stem from the production of nondefense goods. We are not able to separate the effects of defense and nondefense production on employment in these industries. Consequently, the employment trend in these industries could reflect weakness in nondefense production areas, for example, commercial aircraft manufacture.

In order to try and shed light on your question about the relative lag that may occur between production and employment increases in defense-dependent industries, we are including the Federal Reserve Board's industrial

production index for defense and space equipment to accompany our employment figures. The Federal Reserve data are shown in the lower half of Table 1, and we have graphed the long-term trends of the two series in Chart 1. As you can see in the chart, the broad trends in the two series have tracked relatively closely over time, although the industrial production series appears to be much more volatile on a monthly basis. While the industrial production data have shown relatively little change in recent months, the employment series has edged down. It is difficult to determine the precise point in the production cycle when increased production will translate into increased employment. We will have to wait on future data to see when in the current cycle increases in defense expenditures translate into job growth for these particular industries.

Regarding your question about labor-usage intensity in defense production, the Bureau has a multifactor productivity data series that measures the change over time in the relative use of capital and labor. The change in the ratio of capital services to labor hours (commonly referred to as the capital/labor ratio) shows whether capital services are growing faster or slower than labor hours for specific industries. If the change in the ratio is positive, then capital services are growing faster than labor hours for that industry. For the period 1990 to 1999, total manufacturing and durable goods manufacturing had nearly the same rates of growth in the capital/labor ratio, about 3.5 percent per year, as shown in Table 2. Over the same time span, four of the six defense-dependent industries had capital/labor ratios that increased at a faster rate than total manufacturing.

It may be worth noting that for five of the six defense-dependent industries, the capital/labor ratio grew faster in the first part of the period, 1990-95, than in the latter half of the period. During the first half of the decade, each of those industries (miscellaneous transportation equipment being the exception) went through a fairly substantial contraction in output production and total labor hours. Not surprisingly, the capital/labor

ratios grew faster during the first half of the period because industries generally are not as able to shed capital services as fast as they can reduce labor hours. This contraction lessened or turned around for all of these industries in the second half of the decade and, correspondingly, the rates of change in the capital/labor ratios slowed. This pattern differed from that for the total manufacturing and the durable goods manufacturing sectors, where the capital/labor ratios grew faster in the later half of the decade than during the first half.

The answer to your question on the occupational mix of defense-dependent jobs depends in part on how white-collar occupations are defined. BLS, in its Occupational Employment Statistics (OES) program, collects data for 22 major occupational groups, as defined in the Federal government's Standard Occupational Classification (SOC) system. (BLS does not collect occupational employment data for the military.) For purposes of this analysis, 12 of those groups have been selected to make up "white-collar" employment.

Using this approach, as can be seen in Table 3, white-collar occupations represent 52 percent of total employment in defense-dependent industries, compared to 56 percent for all industries. The results of this type of analysis will vary, naturally, depending upon which occupational groups are included in white- or non-white collar employment. For instance, simply excluding sales and office workers from the white-collar category would reduce the share of white-collar employment in the defense-dependent industries from 52 percent to 41 percent. The share among all industries would fall markedly, from 56 to 28 percent, with the result that under this formulation white-collar employment in the defense-dependent industries would be much greater than that for all industries as a whole. The proportion of white-collar workers across all industries is boosted by the presence of a great deal of service, retail, and similar workers. Since the defense-dependent industries are all in manufacturing, it is useful to compare their white-collar employment to all other manufacturing industries. As also can be seen in Table 3, only about a

third of the jobs for manufacturers excluding the defense-dependent industries are white collar; the clear implication is that the defense-dependent manufacturers employ a higher share of white-collar workers than other manufacturers.

In fact, the types of white-collar workers in defense-dependent industries in some instances are quite different than those for workers across all industries or in other manufacturing industries. As is shown in Table 3, defense-dependent industries have a sharply higher concentration of architecture and engineering occupations, and a lower percentage of workers in sales and clerical jobs. Workers in business and financial operations jobs and in computer and mathematical jobs also are more concentrated in defense. Management occupations account for about the same proportion of employment in defense-dependent industries--about 6 or 7 percent--as in other manufacturing or the economy overall.

Other findings of note from the OES data include the fact that the largest of all occupational groups, office and administrative workers, account for about 1 in every 5 jobs among workers in all industries, but account for only 1 in 10 jobs in the defense-dependent industries. Among the blue-collar occupations, production jobs account for a third of total defense-dependent employment, as compared to one-tenth across all industries. Workers in production occupations compose the single largest share of employment in the defense-dependent industries.

Former Welfare Recipients

Little information is available to estimate the likelihood that former welfare recipients who might be laid off in the current recession would be eligible for unemployment insurance. BLS surveys do not address the issue directly. However, in an attempt to respond to your questions, we reviewed several outside sources of information, and I have enclosed copies of the research articles cited here for

your reference. The most germane analysis comes from Harry J. Holzer of Georgetown University in a December 2000 Urban Institute brief entitled, "Unemployment Insurance and Welfare Recipients: What Happens When the Recession Comes?". Based on the author's 1998-99 survey of approximately 3,000 employers in Chicago, Cleveland, Los Angeles, and Milwaukee, median job tenure was estimated at 7 months for welfare recipients. Their estimated median starting wages were $7.00 per hour and median weekly hours of work were 40.

Using the survey data and a rough "average" of state eligibility requirements, Holzer concluded that a majority of these employed welfare recipients would qualify for unemployment insurance, assuming that they lost their jobs involuntarily and that they were available for full-time employment. He emphasized, however, that there may be significant numbers of welfare recipients underrepresented in these data: those whose work experience is primarily in informal areas of the labor market (i.e., casual or occasional work not reported to state authorities or work not covered by unemployment insurance) and those who have little work experience at all.

Separately, the National Survey of America's Families (NSAF), a nationally representative survey conducted in 1997 and 1999 by the Urban Institute, provides some additional information of relevance. An analysis of the survey data was published in a September 2001 *FRBNY Economic Policy Review* article by Pamela Loprest entitled "How Are Families Who Left Welfare Doing Over Time? A Comparison of Two Cohorts of Welfare Leavers." Based on data from the 1999 NSAF, Loprest reports that 64.0 percent of welfare leavers were employed at the time they were surveyed. The following table from Loprest shows the tenure of those who were employed at the time of the survey and who reported receiving welfare at some point in the prior two years. As you can see, approximately one-third had been with their current employer less than six months at that point in time. It is not known what work

experience they may have had prior to their current employment that might also count towards unemployment insurance eligibility.

Time at Current Employer	Percent of Employed Welfare Leavers
Less than 6 months	32.8
6 Months to 1 Year	33.4
1 to 2 Years	15.4
More than 2 Years	18.4

Because unemployment insurance eligibility also is influenced by the amount of wages earned during a qualifying time period, it is worth noting that Loprest reports median hourly earnings of employed welfare leavers were $7.15 in 1999, and that about 68 percent worked 35 hours or more per week.

Lastly, the office of the Assistant Secretary for Planning and Evaluation of the Department of Health and Human Services funded a number of state and locality welfare leaver studies, the majority of which were conducted from 1997 to 1999. Data available from some of these studies indicated that between 31 to 47 percent of former welfare recipients worked in the four consecutive quarters after leaving welfare, although not necessarily for the same employer.

Women Who Maintain Families

The unemployment rate for women who maintain families was 6.8 percent in October 2001 and 8.0 percent in November. (Since your letter was prepared, all seasonally adjusted labor force series from our household survey for the 1997-2001 period were revised to reflect updated seasonal factors.) The December unemployment rate for women who maintain families (released January 4) was 8.0 percent and the January rate (released February 1) was 7.9 percent.

Senator Jack Reed--7
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The January 2002 rate represented an increase of 2.9 percentage points from the most recent low for this group--5.0 percent in December 2000.

It is important to note that when we speak of "women who maintain families," we are not referring exclusively to unmarried women with dependent children. Under Current Population Survey definitions, a family household is one in which any two or more persons related by birth, marriage, or adoption are residing together. Women identified as maintaining families are those who: 1) do not have a spouse present in the household, 2) live with one or more relatives, and 3) are the one in whose name the housing unit is owned or rented (also known as the "householder"). Hence, an unmarried woman who has an elderly parent residing with her would be classified as a woman maintaining a family just as would one with a school-age child. In 2000, families maintained by women represented about 18 percent of all families.

While we cannot determine how many women who maintain families are former welfare recipients, the following table provides some basic demographic characteristics of these women and employment characteristics of their families, based on 2000 annual averages from the Bureau's Current Population Survey (CPS).

Senator Jack Reed--8
FEB 5 2002

	Number (in thousands)	Percent
Total, Women who Maintain Families	12,775	100.0
With no own children under age 18	5,162	40.4
With own children under age 18	7,613	59.6
With own children under age 6	2,945	23.1
With own children under age 3	1,538	12.0
White	8,453	66.2
Black	3,817	29.9
Hispanic origin	1,745	13.7
Some member employed	10,026	78.5
Female householder only employed	5,581	43.7
Female householder and other Member(s)employed	2,806	22.0
Other member(s)employed, not Female householder	1,639	12.8
No family member employed	2,749	21.5

Some additional data on these women and their families are available from the March supplement to the CPS. Based on information from the March 2000 supplement published by the Census Bureau, we know that the average age of women maintaining families was 44, with about 11 percent under the age of 25 and 22 percent age 55 or older. Approximately 24 percent of women maintaining families lacked a high school diploma, 35 percent had only a high school diploma, 29 percent had some college but no degree, and about 12 percent had a bachelor's degree or more. The statistics shown below are from the March 2001 CPS supplement and pertain to family income and poverty status in calendar year 2000.

Senator Jack Reed--9

FEB 5 2002

	Median Income	Percent In Poverty
Total, Women who Maintain Families	$25,811	24.7
With no own children under age 18	34,117	11.5
With own children under age 18	20,636	34.1
With own children under age 6	15,927	46.5
With own children under age 3	13,680	52.6
White	28,408	20.0
Black	20,427	34.6
Hispanic origin	20,974	34.2
Female householder and other Family member(s)are earners	43,459	7.2
Female householder only earner	21,763	26.4
No earners	9,331	63.7

I hope this information is helpful. If you have further questions, please contact Mr. Bill Parks, an economist in my immediate office, at 202--691-7807.

Sincerely yours,

130

LOIS ORR
Acting Commissioner

Enclosures

Table 1

Employment in defense-dependent industries (50 percent),* seasonally adjusted, in thousands

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985	1351.4	1363.2	1371.5	1377.8	1382.1	1391.1	1392.1	1399.7	1402.3	1407.7	1416.0	1415.5
1986	1416.8	1421.4	1420.2	1428.2	1431.6	1422.7	1437.4	1434.8	1439.4	1442.9	1440.1	1436.5
1987	1439.1	1439.0	1439.5	1434.4	1434.6	1433.3	1435.1	1438.5	1440.1	1439.6	1438.4	1437.8
1988	1436.1	1433.2	1422.9	1427.7	1426.5	1425.2	1419.7	1422.0	1417.6	1416.6	1421.3	1421.3
1989	1424.5	1423.3	1422.0	1424.7	1426.4	1423.1	1426.0	1423.7	1422.8	1419.5	1421.0	1415.8
1990	1414.7	1413.6	1410.8	1411.6	1411.0	1410.4	1406.8	1399.0	1394.1	1387.0	1377.8	1373.1
1991	1366.1	1354.1	1344.7	1333.3	1322.7	1311.3	1300.9	1295.2	1287.1	1281.2	1273.3	1263.2
1992	1255.0	1240.2	1228.8	1215.5	1206.5	1197.7	1187.2	1173.1	1162.0	1148.0	1136.4	1127.9
1993	1116.2	1105.7	1093.8	1082.3	1066.1	1053.8	1043.1	1033.9	1025.7	1014.4	1002.8	988.2
1994	978.7	970.0	962.7	953.8	945.3	936.2	925.4	922.1	916.5	911.2	909.2	905.4
1995	899.5	894.4	891.4	886.6	885.1	881.2	873.7	871.0	869.3	841.6	834.1	860.1
1996	862.8	862.8	862.0	861.9	863.3	859.1	863.3	865.1	866.1	872.5	876.8	877.9
1997	881.9	885.4	888.5	893.4	896.7	902.0	906.4	911.8	914.5	919.5	923.9	928.2
1998	930.8	933.2	935.0	935.8	938.6	940.0	938.9	939.5	938.0	937.4	934.2	931.0
1999	931.6	925.6	922.7	907.1	899.9	893.1	886.6	889.1	881.5	874.6	868.8	863.7
2000	860.1	842.0	854.2	848.2	847.6	845.2	845.6	840.9	831.2	832.9	837.5	837.4
2001	834.8	835.1	839.3	838.6	838.9	842.1	840.1	843.1	839.7	838.7	833.3	821.4(p)
2002	818.0(p)											

* At least 50 percent of the following industries' output was for defense purchases in 1987 (the peak year for defense expenditures):

SIC 348	Ordnance & accessories	SIC 376	Guided missiles, space vehicles, parts
SIC 372	Aircraft & parts	SIC 3795	Tanks & tank components
SIC 3731	Shipbuilding & repairing	SIC 381	Search & navigation equipment

Source: Bureau of Labor Statistics, Current Employment Statistics Survey

Index of industrial production for defense and space equipment,* 1982=100

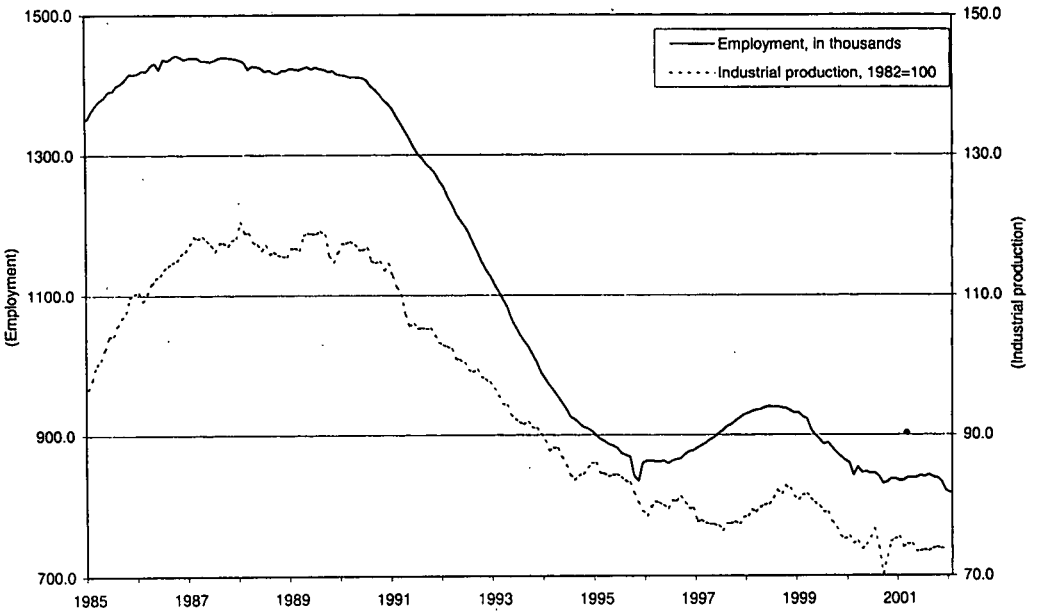
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1985	96.5	97.9	100.0	100.7	102.3	104.0	104.2	105.6	106.7	107.5	109.7	110.2
1986	110.4	109.2	110.3	111.7	112.4	112.9	113.7	114.2	114.6	115.0	115.8	116.3
1987	117.2	118.2	118.0	118.2	117.6	117.0	116.3	117.3	117.4	117.0	117.7	118.1
1988	120.4	118.8	118.8	117.5	117.1	116.4	117.1	115.8	116.1	115.7	115.5	115.5
1989	116.6	116.7	116.4	118.5	118.8	118.7	118.7	119.1	118.6	115.5	114.7	116.1
1990	117.2	117.3	117.6	117.1	116.5	116.4	116.7	114.9	114.6	114.8	113.6	114.5
1991	112.7	111.1	110.1	107.1	105.5	105.8	105.1	105.2	105.1	105.1	104.1	103.2
1992	102.8	102.6	102.2	100.8	100.7	100.2	99.2	98.9	99.2	98.2	97.9	97.4
1993	96.5	95.5	94.4	94.2	92.9	92.3	91.8	91.5	91.8	91.1	90.9	90.1
1994	89.2	87.8	88.2	88.1	88.8	85.7	84.2	83.6	84.2	84.5	85.4	86.0
1995	86.0	84.6	84.5	84.1	84.3	84.4	84.0	83.5	83.2	81.8	80.4	79.3
1996	78.6	79.9	80.6	80.4	80.1	79.7	80.7	80.7	81.2	80.4	79.7	79.7
1997	77.8	78.0	77.6	77.4	77.4	77.1	76.5	77.5	77.5	77.8	77.5	78.4
1998	78.7	79.5	79.2	79.8	80.1	80.3	81.1	82.2	81.7	82.8	82.4	81.4
1999	80.9	81.5	81.6	81.0	80.5	79.9	79.2	79.1	77.7	76.8	75.7	75.2
2000	75.6	74.6	74.8	73.8	74.4	75.4	76.7	74.0	70.3	72.7	74.8	75.2
2001	75.5	74.1	74.5	74.4	73.5	73.4	73.6	73.5	73.8	74.0	73.8	73.9

* The defense and space equipment market group includes the following industries:

SIC 348	Ordnance	SIC 3761	Guided missiles & space vehicles
SIC 3721pt.	Military aircraft	SIC 3795	Tanks
SIC 3724,8pt.	Military aircraft equipment, nec.	SIC 381pt.	Guidance and navigation equipment
Sic 3731pt.	Military ships, private yards		

Source: Federal Reserve

Chart 1. Employment and industrial production in defense-dependent industries, seasonally adjusted



Sources: BLS and Federal Reserve

Table 2

Average annual rates of growth of capital/labor ratios for manufacturing, durable goods, and defense-dependent industries,* 1990 to 1999

	Manufacturing	Durable goods	SIC 348	SIC 372	SIC 373	SIC 376	SIC 379	SIC 381
1990-99	3.35	3.53	4.85	5.31	0.25	6.51	-1.10	4.17
1990-95	2.56	2.51	5.92	9.24	1.08	8.37	-3.22	8.63
1995-99	4.34	4.82	3.54	0.60	-0.78	4.22	1.61	-1.15

* Defense-dependent industries include the following:

SIC 348 Ordnance and accessories
SIC 372 Aircraft and parts
SIC 373 Ship and boat building and repairing
SIC 376 Guided missiles, space vehicles, parts
SIC 379 Miscellaneous transportation equipment
SIC 381 Search and navigation equipment

NOTE: Capital/labor ratios are not available for SICs 3731 and 3795, and thus the scope for the two industries included in this table differs somewhat from that shown for employment in Table 1.

Table 3. Employment and share of employment by major occupational group for all industries, defense-dependent industries[1], and manufacturing industries, except defense-dependent industries[2], 2000.

	All industries		All defense-dependent[1] industries		Manufacturing industries, except defense-dependent industries[2]	
White-collar occupations	Employment	Share	Employment	Share	Employment	Share
Management occupations	7,782,680	6%	64,790	7%	1,069,170	6%
Business and financial operations occupations	4,619,270	4%	62,520	7%	426,580	2%
Computer and mathematical occupations	2,932,810	2%	48,140	5%	304,070	2%
Architecture and engineering occupations	2,575,620	2%	172,020	19%	851,140	5%
Life, physical, and social science occupations	1,038,670	1%	5,340	1%	185,220	1%
Community and social services occupations	1,469,000	1%		(3)	170	(3)
Legal occupations	890,910	1%	440	(3)	8,180	(3)
Education, training, and library occupations	7,450,860	6%	440	(3)	3,140	(3)
Arts, design, entertainment, sports, & media occupations	1,513,420	1%	9,090	(3)	244,690	1%
Healthcare practitioners and technical occupations	6,041,210	5%	480	(3)	12,340	(3)
Sales and related occupations	13,506,880	10%	7,530	1%	534,540	3%
Office and administrative support occupations	22,938,140	18%	85,950	10%	1,846,850	11%
Total white-collar occupations	**72,757,470**	**56%**	**456,740**	**52%**	**5,486,080**	**31%**
Non white-collar occupations	Employment	Share	Employment	Share	Employment	Share
Healthcare support occupations	3,039,430	2%	50	(3)	990	(3)
Protective service occupations	3,009,070	2%	5,470	1%	24,180	(3)
Food preparation and serving related occupations	9,955,060	8%	30	(3)	20,640	(3)
Building & grounds cleaning & maintenance occupations	4,318,070	3%	4,810	1%	136,960	1%
Personal care and service occupations	2,700,510	2%	50	(3)	1,690	(3)
Farming, fishing, and forestry occupations	460,700	(3)		(3)	88,950	1%
Construction and extraction occupations	6,187,360	5%	40,800	5%	296,010	2%
Installation, maintenance, and repair occupations	5,318,490	4%	56,430	6%	788,550	5%
Production occupations	12,400,080	10%	295,190	33%	8,996,360	52%
Transportation and material moving occupations	9,592,740	7%	22,590	3%	1,600,130	9%
Total non white-collar occupations	**56,981,510**	**44%**	**425,420**	**48%**	**11,954,430**	**69%**
Total employment	129,738,980		882,160		17,440,515	

(1) Defense-dependent industries are defined here as the five 3-digit SIC industries 348, 372, 373, 376, and 381. BLS does not publish occupation employment data at the 4-digit SIC level. Defense-dependent industries, as defined here, do not include SIC 379, miscellaneous transportation equipment, because the defense-dependent component, SIC 3795, tanks and tank components, makes up only 8 percent of the industry's employment. It does include SIC 373, ship and boat building, where 58 percent of the industry is in defense-dependent SIC 3731, shipbuilding.

(2) Manufacturing industries, except defense-dependent industries, are defined here as SICs 20-39, excluding SICs 348, 372, 373, 376, and 381.

(3) Less than 0.5% of industry employment.

NOTE: Detail does not sum to total due to rounding and because some cells are left blank due to the suppression of confidential data.

New Federalism
Issues and Options for States

An Urban Institute Program to Assess Changing Social Policies

THE URBAN INSTITUTE

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Unemployment Insurance and Welfare Recipients: What Happens When the Recession Comes?

Harry J. Holzer

A recession will significantly limit the employment options of recent welfare recipients and will require appropriate safety nets for unemployed recipients.

In many ways, our national experiment with welfare reform has been more successful to date than many analysts had anticipated. Not only have welfare rolls declined by roughly half since the early 1990s, but also employment rates have risen for most former (and many current) welfare recipients (Council of Economic Advisers 1999). Nevertheless, several important questions about the success of welfare reform remain—and one of the most pressing is what will happen when the current national economic boom ends and the next recession begins.

The importance of the strong national economy to the success of welfare reform to date has been considerable. For one thing, we have recently enjoyed the lowest unemployment rates nationally in 30 years. Virtually every recent analysis suggests that the strong economy of the 1990s has contributed significantly to both the declining caseload and the rise in employment rates and earnings among single mothers (e.g., Council of Economic Advisers 1999; Meyer and Rosenbaum 2000). The continuation of extremely tight labor markets since federal reforms were implemented has created an environment in which transitions from welfare to work could proceed more easily than they otherwise would. A serious recession would eliminate these conditions and likely cause some reversal of these trends. Furthermore, we have moved from a social welfare system that was centered around cash assistance to the nonemployed to one that is based on assistance to the "working poor" (e.g., Ellwood 1999). In an era when jobs may not be so plentiful as they currently are, the "safety net" available to those who cannot find jobs may have some significant gaps in it.

Traditionally, the major "safety net" program available to unemployed workers during a recession has been the Unemployment Insurance (UI) system. However, several authors (Kaye 1997; Gustafson and Levine 1998; Vroman 1998) have noted that, in the next recession, eligibility for UI among former welfare recipients will be limited for a variety of reasons, particularly insufficient prior work experience. At the same time, many of these individuals (and their families) will be ineligible for Temporary Assistance for Needy Families (TANF) benefits if they have exhausted their lifetime limits. Neither program may be available to the (often noncustodial) fathers in these families as well, whose contributions to their family's financial well-being are increasingly crucial (Sorensen 1999).

On the other hand, little is known currently about how significant these problems are likely to be. Estimates in the sources cited above are based almost exclusively on data from the 1980s and early 1990s, during which time employment among welfare recipients was much lower than it is today. More recent data on the employment experiences of current and former welfare recipients are now available and might lead to new estimates of future UI eligibility.

This brief reviews evidence on these issues and considers their implications for

policy. In particular, the following questions are addressed:

1. By how much is employment likely to decline among welfare recipients and other vulnerable groups of workers during a recession?
2. How many former welfare recipients and other vulnerable workers will be eligible for UI?
3. If UI is not likely to serve a large fraction of this population during a downturn, what should state and federal policymakers do to address these issues?

Only about 30 percent of all currently unemployed workers receive UI, and only about 40 percent did so during the most recent economic downturn.

Employment Declines in the Next Recession

One way to estimate the extent to which employment will decline among welfare recipients and other vulnerable groups during the next recession is to gauge movements in employment and unemployment over previous business cycles (figures 1 and 2). In general, the employment rates of women have been less sensitive to the business cycle than those of men, even among the less educated. Nonetheless, the data show that adult female high school dropouts, black women, and teenage black women in particular experience large employment declines during recessions. Indeed, employment rates for black female teens during a recession can decline by as much as one-third.

So which group is most comparable to former welfare recipients who are now working? In terms of education and basic cognitive (i.e., reading, writing, and arithmetic) skills, adult female high school dropouts may be the most relevant comparison group and, therefore, the employment losses of welfare recipients in a downturn may be relatively modest. On the other hand, welfare recipients' vulnerability to a downturn might be more like that of teens—both have substantially less labor market experience than most working adults, and experience is a very strong predictor of job loss during a recession.

Another way to determine the vulnerability of welfare recipients' employment during an economic downturn involves considering current hiring patterns and their relation to measures of labor market tightness. For instance, data from employer surveys recently administered in several large metropolitan areas show that the job vacancy rate would likely decline by two-thirds or more during a severe recession and by somewhat less in a milder recession (Holzer and Stoll 2000a, b). Accordingly, the new hire and employment rates of welfare recipients could decline by large amounts as well.[1]

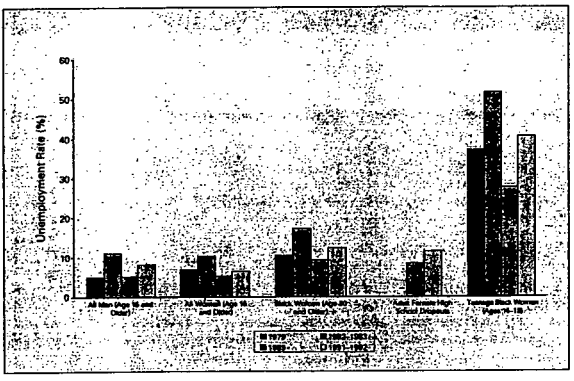
Of course, the impact of the next recession on the job status of welfare recipients remains uncertain, since many of its attributes—including its severity, duration, and distribution across states and/or economic sectors—are unknown. Despite this uncertainty, however, nearly all of the above estimates suggest that a recession will significantly limit the employment options of recent welfare recipients and will require appropriate safety nets for unemployed recipients.

Determining Eligibility for Unemployment Insurance

There are a number of reasons why welfare recipients who lose their jobs might not qualify for UI. Vroman (1998) identifies four: (1) insufficient prior work experience and earnings, (2) use of base periods for calculating prior earnings that, in turn, disqualify up to six months of an employee's most recent work (since the current and previous quarter's earnings are generally omitted), (3) reasons for job departure or loss (since spells of unemployment resulting from employee quits or discharges for just cause are generally not covered by UI), and (4) lack of availability for full-time work due to family responsibilities or other personal problems. Applying these reasons to work and turnover patterns observed among welfare recipients in the National Longitudinal Survey of Youth in the 1980s and 1990s has led several analysts to conclude that no more than 20 percent of unemployed welfare recipients would be eligible for UI in a recession.

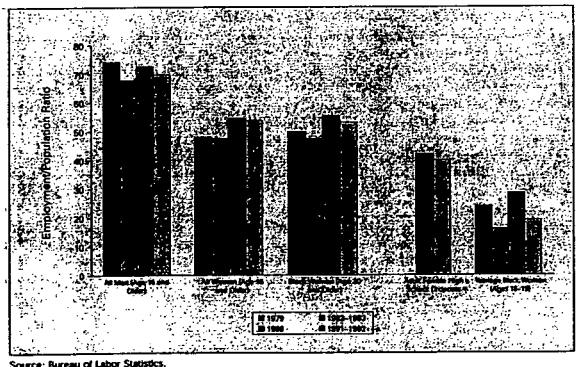
There are a number of reasons, however, to question whether these inferences from past data are accurate predictors of

FIGURE 1. Unemployment Changes over Previous Business Cycles (1979, 1982–1983, 1989, 1991–1992)



Source: Bureau of Labor Statistics.
Note: Data on high school dropouts were not available for the earlier periods.

FIGURE 2. Employment Changes over Previous Business Cycles (1979, 1982–1983, 1989, 1991–1992)



Source: Bureau of Labor Statistics.
Note: Data on high school dropouts were not available for the earlier periods.

UI eligibility during future downturns. First, there are many more current and recent welfare recipients working now than in the 1980s. Next, the longer the current boom lasts, the more work experience recipients will have gained once the recession begins—and the less important the base period designation might be in determining their eligibility. Furthermore, many more job losers in a recession will have been laid off from their jobs than is the case currently, and thus fewer job leavers/losers will be disqualified from UI eligibility due to reason for job departure. Finally, the growth of labor market activity among single mothers in the 1980s and 1990s and the availability of child care subsidies for former welfare recipients may mean greater availability for full-time employment among this population than observed in the past.

Recent estimates suggest that the welfare rolls will rise by 5 to 7 percent for each percentage-point increase in the national unemployment rate.

Table 1 presents data on the welfare recipients hired most recently (primarily from 1997 to early 1999) in the survey of employers described above, including wages, hours worked, and durations of employment. The findings show that:

- The mean and median durations of employment for recipients are roughly seven to eight months;
- Very few recipients were employed for less than three months;
- The median starting wage in these metro areas was $7.00 per hour; and
- Most recipients were working full-time.

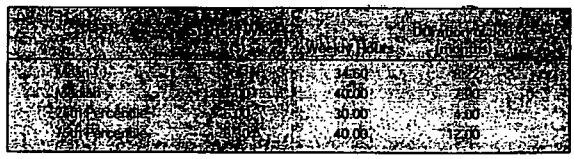
How do these figures compare with most states' eligibility requirements? These requirements vary from state to state; the average is roughly $2,000 of earnings over the previous four quarters, with most states falling in the range of $1,000 to $3,000.[2] At 30 hours per week and roughly $6.00 per hour (both of which are achieved by large majorities of these workers), recipients would need to work 5 to 17 weeks, or an average of 11 weeks, to meet base period earnings requirements. Even allowing for a base period that may exclude the most recent three to six months of earnings, most of these workers would qualify for UI if laid off so long as they would be willing to work as many hours on their subsequent jobs as they had worked on their most recent ones.

At the same time, there remain several other groups of current or former welfare recipients who may be underrepresented in these data and who will likely not qualify for UI during a downturn. These groups include those who work primarily in *informal* sectors and those who have worked little to date, either on the rolls or off. The evidence suggests that *both groups may not be small.*[3]

The latter group includes those unemployed welfare recipients who will be new entrants or reentrants to the labor force when the downturn occurs and, therefore, will have little recent work experience and eligibility for UI. In addition, at least some former welfare recipients will have quit or been discharged with cause and will not gain new employment before the recession begins; these groups will remain ineligible for UI as well.[4] Additionally, even among those who are eligible, take-up rates may be quite low.[5]

Overall, only about 30 percent of *all* currently unemployed workers receive UI,

TABLE 1. Job Characteristics of Welfare Recipients in Four Metropolitan Areas



Source: Author's survey of employers in Chicago, Cleveland, Milwaukee, and Los Angeles.

and only about 40 percent did so during the most recent economic downturn (Bassi and McMurrer 1997). It seems quite unlikely that this percentage will be higher among unemployed welfare recipients in the next recession.

Of course, many of those women who fail to qualify for UI can return to the welfare rolls during a recession. In fact, recent estimates suggest that the rolls will rise by 5 to 7 percent for each percentage-point increase in the national unemployment rate (Council of Economic Advisers 1999). While welfare rolls have been declining in recent years, most states have been accumulating TANF surpluses in expectation of using these funds during a downturn if needed. Under certain circumstances, the $2B federal contingency fund can also be tapped by states that have exhausted their own TANF funds (see Levine 1999).

On the other hand, federal- or state-imposed time limits on TANF benefits will limit the eligibility of many unemployed recipients, particularly if the recession is a lengthy one, and since UI eligibility is itself limited in duration, some who initially qualify may exhaust their eligibility for this program as well. The ability of states to finance rising rolls out of their current and accumulated TANF funds remains questionable as well. And in many states, many of the noncustodial fathers referred to earlier will not be eligible for these funds.

Finally, it is important to note that the labor market experiences of noncustodial fathers and low-income males more generally have improved much less dramatically than those of single mothers in recent years (Lerman, Riegg, and Aron 2000). In fact, the labor force participation rates of young black men continued to fall during the 1990s and their employment-to-population ratios are no higher now than a decade ago, despite a much tighter labor market. Due to lengthy spells of nonemployment and limited attachment to the workforce, these men will continue to experience very limited UI eligibility during the next downturn as well.

In summary, the employment experiences of current and former welfare recipients are improving rapidly enough that their eligibility for UI will be significantly greater than many had earlier thought. Nevertheless, many female welfare recipients and their male counterparts are still gaining little employment experience and will likely not qualify for either UI or TANF, at least at some point during a downturn. Some planning for their needs during this time remains critically important.

Potential Policy Responses to the Downturn

Policy responses that could help to protect these vulnerable workers during the next recession can be grouped into two broad categories:

- *Changes in UI* that would improve the eligibility of low-wage workers; and/or
- *Changes in TANF* or other programs that would make it easier for unemployed workers to gain income during a recession.

Changes in UI that would raise eligibility among low-wage workers might include (a) encouraging states to adopt *alternative base periods* for earnings calculations, so that the most recent quarter of earnings might not be disqualified; (b) setting minimum levels of hours and/or earnings for eligibility nationwide; and (c) allowing part-time workers, or those who have quit for specified family difficulties, to be eligible for UI. In fact, these proposals have already been implemented in some states and are part of an ongoing discussion of reforms to the UI system at the federal level.[6] Alternatively, the government might consider setting up a separate system, funded by general federal revenues, to provide income support for those who have worked but do not yet qualify for benefits under the regular program.[7]

Changes in TANF might include allowing temporary suspensions of federal time limits on recipients and crediting more educational and training activities to count toward work requirements. Also, progress toward time limits could be suspended for individuals on welfare who are

The ability of states to finance rising rolls out of their current and accumulated TANF funds remains questionable as well.

working. More federal funding for TANF or community service jobs might be triggered by state unemployment rates, in the same way that UI extended benefits are triggered during a recession. These changes could potentially be incorporated into the TANF reauthorization expected in 2002.

Finally, the federal government might provide additional assistance to states wishing to implement some type of work experience (or community service jobs) program, in the form of technical assistance and/or additional funding. These programs might be a form of paid employment, or some type of "workfare" for those who remain on the welfare rolls (perhaps beyond the original time limit).[4]

Many female welfare recipients and their male counterparts are still gaining little employment experience and will likely not qualify for either UI or TANF, at least at some point during a downturn.

Of course, many questions remain about all the approaches mentioned above. These include: (1) Exactly who would be eligible for additional forms of assistance (such as an SUA or work experience program), among low-wage men as well as women? (2) Who would administer these programs locally—TANF offices, "One-Stop" centers, or other agencies? Would they have the necessary administrative capacity? (3) How can the federal government provide assistance while still giving states the incentive to use their own funds, including unspent TANF surpluses or UI trust funds?

Given the many questions and time lags involved with the implementation of any such approach, it is imperative that discussions of their various advantages and disadvantages begin as soon as possible. The well-being of several vulnerable populations is at stake.

Endnotes

1. The surveys were administered to roughly 3,000 employers in late 1998 and early 1999 in Chicago, Cleveland, Los Angeles, and Milwaukee. The predictions are based on regressions of new hire rates for welfare recipients on establishment vacancy rates and a wide range of control variables, along with estimates of how much those vacancy rates will change in the aggregate during a severe or mild recession. Predicted new hire rates decline by as much as two-thirds during a severe recession, though employment among those hired previously would presumably decline less.

2. Three states (Florida, Virginia, and Washington) required more than $3,000 in previous earnings, while six required less than $1,000 as of 1997 (Vroman 1998).

3. Ludwig et al. (2000) note that, in Maryland, up to a third of welfare recipients who are working do not show up in UI wage records, suggesting that many work informally or in uncovered sectors; many of them will be underrepresented in this survey as well. Studies of recent welfare leavers also suggest that 20 to 30 percent of permanent leavers do not work at all in the year following their exit (Loprest 1999).

4. In our employer survey data, the welfare recipients hired most recently also have somewhat greater problems with job performance than those hired earlier. Results from the overall sample might therefore understate the job market difficulties of the current and future entrants. See Holzer and Stoll (2000a).

5. Take-up may be reduced by *perceptions* of ineligibility and informational limitations, perhaps linked to administrative practices in various states that limit outreach and deter applicants.

6. For instance, the state of Washington has implemented an alternative base period for the calculation of UI eligibility that counts all earnings in the most recently completed quarter.

7. Such a program (called Supplemental Unemployment Assistance, or SUA) was set up during the 1974–75 recession to provide benefits for workers in uncovered sectors of the economy (Vroman 1999). TANF surpluses could also potentially be used to fund these programs at the state level.

8. See Ellwood and Welty (2000) for evidence on the effectiveness of publicly funded jobs programs.

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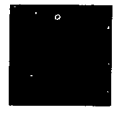
About the Author



Harry J. Holzer is a professor of public policy at Georgetown University and a visiting fellow at the Urban Institute. Dr. Holzer is a former chief economist for the U.S. Department of Labor. His books include The Black Youth Employment Crisis (coedited with Richard B. Freeman, University of Chicago Press 1986); What Employers Want: Job Prospects for Less-Educated Workers (Russell Sage Foundation 1996); and Employers and Welfare Recipients: The Effects of Welfare Reform in the Workplace (Public Policy Institute of California 2000).

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This series is dedicated to the memory of Steven D. Gold, who was codirector of *Assessing the New Federalism* until his death in August 1996.

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Pamela Loprest

How Are Families Who Left Welfare Doing over Time? A Comparison of Two Cohorts of Welfare Leavers

Introduction

One of the stated purposes of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, popularly known as welfare reform, was to "end the dependence of needy parents on government benefits by promoting job preparedness, work, and marriage." To this end, this federal legislation, along with many other changes in state policies before and after passage, has increased incentives and requirements for families receiving benefits to move into work and eventually off welfare. The major cash assistance program for poor families is now named Temporary Assistance for Needy Families (TANF), reflecting the goal that receipt of cash assistance from the government should be a temporary situation for families.

After passage of PRWORA, concerns began to grow about the effect of welfare policy changes on family well-being. These concerns were heightened by the large declines in welfare caseloads—more than 50 percent nationally from 1994 to 1999—and the claims by some that this meant that welfare reform was a success. Although there have always been families leaving the welfare rolls, these recent policy changes have done more to explicitly "create" leavers, mainly through stricter sanctions for failure to meet program requirements and the institution of time limits on benefits receipt.

To address these concerns, a number of state and local welfare agencies as well as some independent researchers began conducting what have come to be known as leaver studies. These studies examine outcomes for families who left welfare over a certain period of time. Early results from these studies showed that a majority of leavers were working and that their wage rates were the same or higher than other similar groups in the labor market.[1] Although results were not all positive (many leavers were not working and few had escaped poverty), it seemed that the goal of increasing work was being met.

However, a cautionary note in interpreting these results, pointed out by many, was that future groups of leavers may not fare as well and that these early results may not be representative of future results. For example, if recipients who can most easily find work leave welfare more quickly, future

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cohorts could possibly have higher numbers of recipients with obstacles to work, such as inferior job skills and experience.

Now, four years after passage of these welfare program changes, many additional efforts are under way to assess and evaluate whether the goals of reform have been met and how these policy changes have impacted families. Leaver studies have also progressed, in terms of the number and quality. The U.S. Department of Health and Human Services' Office of the Assistant Secretary for Planning and Evaluation (ASPE) provided funding to fourteen states and local areas to conduct studies of families who left the welfare rolls, providing technical assistance to help bolster quality and enhance comparability. Results of these studies are now being released.[2]

This study is also a "leaver study"—describing the economic well-being of families who left welfare and using the National Survey of America's Families (NSAF), conducted by the Urban Institute. It adds to the body of leaver studies by presenting a national picture, providing context for the individual state and local study results, and giving a sense of outcomes on average across the fifty state "experiments" in welfare policy. An initial study of welfare leavers using these data was carried out recently (Loprest 1999); that study presented results for families leaving welfare between 1995 and 1997, compared with other low-income families with children.

This paper focuses on a comparison of outcomes for these early leavers with a more recent cohort of those leaving welfare between 1997 and 1999. It addresses two questions:

- Do the characteristics of leavers in the later period differ from the earlier period?
- Are leavers in the later group doing better or worse economically than the earlier leavers?

The paper is organized into the following sections. In the first section, I describe the data used and my definitions. The next section discusses the characteristics of leavers in the 1997-99 cohort and how they differ from the earlier 1995-97 cohort. The remainder of the paper examines the question of whether leavers in the later cohort are doing better or worse economically than the earlier cohort of leavers. I describe economic well-being by examining employment and job characteristics. I also examine whether the use of nonwelfare government benefits seems to have changed. Finally, I document leavers' experiences of material hardship and whether this has changed compared with the earlier cohort of leavers.

Data and Definitions

The data for this paper are drawn from the NSAF, a nationally representative survey of the civilian, noninstitutionalized population under sixty-five and their families. Two rounds of interviews using essentially the same instrument have been conducted. The first was between February and November 1997 and the second was between March and October 1999. These rounds provide two cross-sectional samples. The survey collected economic, health, and social characteristics for about 44,000 households, oversampling households with incomes under 200 percent of poverty and households in each of thirteen targeted states. The survey's oversample of low-income families generates a larger sample size of welfare leavers than most national surveys.[3]

My definition of leavers includes those who reported receiving welfare at some point in the two years prior to the interview and also reported that they stopped receiving benefits at some point in this same time period. Some of these leavers were also receiving TANF benefits at the time of the interview, meaning that they left the program and then returned. For much of the study, I focus on the subset that has not returned to TANF. The total unweighted sample of welfare leavers is 1,771 in the 1995-97 cohort and 1,206 in the 1997-99 cohort.[4] All of the results reported in this paper are weighted.

Has the Composition of Welfare Leavers Changed over Time?

The concern that newer cohorts of welfare leavers may fare progressively worse in the market as the time since passage of welfare reform increases stems in part from the idea that the most "job-ready" left welfare first. This, in turn, would mean that more of the remaining recipients have barriers to work. However, the implications of this hypothesis, if it is true, for the composition of cohorts of leavers is not clear. More recipients with barriers to work could mean fewer recipients leaving. This smaller group of leavers may look similar to the earlier group in its characteristics, if we believe that only those with a certain level of job readiness will leave. However, differences could be introduced because of the existence of time limits and work

sanctions that can compel exit, regardless of barriers to work. Since time limits are being reached in some states during the period of the second cohort we study and since use of full family sanctions also increased over the 1995-99 period (U.S. General Accounting Office 2000), it is possible that the second cohort of leavers is composed of fewer job-ready former recipients on average.

Caseloads continue to decline every year over the 1995-99 period, with some moderation toward the end of the period.[5] The size of my leaver group also declines between the first and second cohort—from 2.1 million who left between 1995 and 1997 to 1.6 million who left between 1997 and 1999.[6]

Before examining whether characteristics associated with work differ across these cohorts, one important factor needs to be considered: the extent to which former recipients in both cohorts have returned to TANF. Returning to the TANF program is in itself an indicator of economic well-being and success (or lack of success) in transitioning from welfare to work. In the early cohort of leavers, by the time of the interview in 1997, 29.1 percent of former recipients were again receiving TANF benefits.[7] For the second cohort of leavers, fewer returned to TANF, with 21.9 percent receiving benefits at the time of the interview in 1999. Fewer returns to TANF could signal that leavers in the second cohort are doing better than those in the first cohort. It could also be a reflection that as families grow nearer to "using up" their time-limited TANF benefits (or have already exhausted benefits), fewer are opting to (or are able to) return.[8]

Because TANF receipt affects the probability of outcomes such as work and receipt of other sources of income, the fact that fewer of the second cohort are receiving benefits could lead to differences in outcomes between the early and later groups of leavers. In order to focus on differences beyond returns to TANF, the rest of this paper compares subsets of the two leaver cohorts who were not receiving TANF benefits at the time of their respective interviews.

The two groups of leavers studied here are made up of those leaving welfare over a fairly wide time frame. Although both cohorts are defined in the same way, a possible difference between them is the weighting of time since leaving welfare. However, I find that of former recipients who have not returned to welfare, the distribution of time since exiting is similar across cohorts, weighted, in both cases, more heavily toward those who left welfare in the past year (Chart 1). In both cohorts, about a quarter left welfare in the three months prior to the interview. Close to an additional third left welfare between three and twelve months prior to the interview. The rest exited TANF more than a year ago.

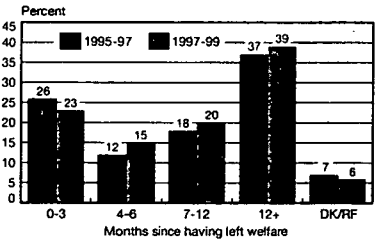
For the most part, characteristics of leavers are similar across these two cohorts (Table 1). The ages, sex, and race of the two groups are not significantly different. More recent leavers have slightly fewer children and slightly younger children than the earlier cohort, although the distribution is not significantly different. They are somewhat more likely to have an unmarried partner, but the percentages who have never married are similar.

Education levels across the two groups are also broadly similar, with a slightly higher percentage of the recent group having some years of college. The only characteristic that is significantly different is the indicator that an individual has a physical, mental, or other health condition that limits the kind or amount of work he or she can do. In the second cohort, a greater number of leavers, 22.1 percent, report having this health issue than the first cohort (15.8 percent). Given that the percentage of current recipients with health problems has not increased significantly from 1997 to 1999, this suggests a greater likelihood of exit for those with health problems.[9]

CHART 1

Former Welfare Recipients Who Have Not Returned to the Program, by Months since Having Left

1995-97 and 1997-99 Cohorts



Source: Author's calculations, based on the National Survey of America's Families.

Notes: None of the differences between groups is significant at p<.10. DK/RF is don't know/refuse to answer.

TABLE 1
Characteristics of Former Welfare Recipients Who Have Not Returned to the Program
1995-97 and 1997-99 Cohorts (Percent)

Characteristic	Former Recipients, 1995-97	Former Recipients, 1997-99
Sex		
Male	6.5	5.5
Female	93.5	94.5
Age		
18 to 25	30.5	28.6
26 to 35	44.0	40.0
36 to 50	23.5	29.1
51 to 65	1.9	2.5
Race		
Hispanic	13.1	14.0
White	52.2	50.4
Nonwhite, non-Hispanic	34.7	35.6
Number of children in family		
One	31.5	33.5
Two	35.1	32.4
Three	19.7	19.4
More than three	13.6	14.8
Age of youngest child in family		
Less than three years old	41.8	43.1
Between three and six years old	25.4	20.8
Six to twelve years old	25.9	30.4
Thirteen years or older	6.9	5.7
Marital status		
Married	26.8	24.4
Unmarried partner	10.6	15.4
Widowed/divorced/separated	29.8	26.6
Never married	31.6	31.8
Married spouse not interviewed	1.3	1.6
Education		
Less than high school	28.9	29.2
GED or high-school diploma	37.2	33.8
Some college	27.3	30.9
College degree	6.0	5.7
Don't know/refuse to answer/ not available	0.6	0.3
Condition that limits work[a]	15.8	22.1
Memo:		
Sample size	1,289	987

Source: Author's calculations, based on the National Survey of America's Families.

[a] The two groups are significantly different with p<.10.

Are More Recent Welfare Leavers Better or Worse off Economically?

Moving recipients into employment is a primary goal of the welfare legislation and an important factor in making the transition to self-sufficiency. In the more recent cohort of welfare leavers who have not returned to welfare, a slightly higher percentage are working than in the earlier cohort, 64.0 percent versus 61.3 percent (Table 2).[10] This masks a larger, but still not significantly different, change in the employment rates of single-parent leavers, which increased from 65.6 percent to 71.0 percent across the cohorts. If we broaden the definition of work to include those former recipients who are not currently working but have recently worked (in the year of the interview—on average, the last six months), the percentage increases slightly. An additional 8.6 percent of the early group of leavers and 10.8 percent of the more recent leavers have worked recently (Table 2, bottom section).

A recipient leaving welfare to work (or continuing work at higher earnings) is an oft-cited model of how to transition off

TABLE 2
Employment of Former Welfare Recipients Who Have Not Returned to the Program
1995-97 and 1997-99 Cohorts

Employment Measure	Former Recipients, 1995-97	Former Recipients, 1997-99
Percentage employed		
All former recipients	61.3	64.0
Single-parent former recipients	65.6	71.0
Former recipients with spouse/partner	54.0	53.7
Former recipients or spouse/partner in two-parent families	89.4	90.2
All families[a]	74.5	78.6
Percentage of former recipients not currently employed but recently employed (in year of interview)		
All former recipients	8.6	10.8

Source: Author's calculations, based on the National Survey of America's Families.

Note: None of the differences between groups is significant at p<.10.

[a] Includes all former recipient families: employment of former recipient for single-parent families and employment of either former recipient or spouse/partner for two-parent families.

welfare. However, even when a former recipient is not working, a family can be relying on the earnings of a spouse or partner. This is important, since a large percentage of former recipients (more than a third) are married or have an unmarried partner in both cohorts. In former recipient families with spouses or partners, the family employment rate (at least one of the two people working) is much higher, about 90 percent. This did not change between the two cohorts. Overall, this means that about 75 percent of former recipient families have at least one parent currently working; the figure is even higher for the second cohort (79 percent). The more recent cohort of leavers is working the same or to an even greater extent than the earlier cohort.

Even with similar numbers of leavers working, it is possible that the jobs that the later cohort holds are of a lesser quality than those held by the earlier cohort. The first indicator of job quality is the hourly wage. Hourly wages for the 1997-99 cohort of leavers are similar to the hourly wages of the 1995-97 cohort of leavers across the wage distribution. Adjusting for inflation, median hourly wages for the later cohort are $7.15, compared with $7.08 for the earlier cohort (Table 3).[11]

Total earnings could be affected by a change in the hours that employed leavers work, but there is no significant difference in work effort among the employed across the two groups. In the newer cohort, 67.5 percent of employed recipients are working thirty-five hours or more, compared with 69.4 percent of recipients in the older cohort. The difference is not statistically significant. A slightly greater number of former recipients in the second cohort work multiple jobs, although again this is not statistically different. A similar percentage of former recipients in the two cohorts work in the private and government sectors. There is a small shift (again not statistically significant) within the private sector toward nonprofits, from 4.9 percent to 8.9 percent, but this is still a relatively small group of workers.

Working mainly at night or on variable shifts can make finding child care difficult. There is no significant change in the percentage working mainly the day shift, from 71.8 percent to 73.2 percent. But these statistics mean that more than a quarter of employed former recipients are working more difficult night schedules. In two-parent families, some mothers may work night hours while a spouse or partner works day hours as a way of coordinating work and child-care needs. The survey asked whether spouses or partners worked different hours so they could take turns caring for their children. The percentage making these arrangements decreased from 62.4 percent in the first cohort to 53.4 in the second cohort, although this difference is not statistically significant.[12]

Time working for the current employer reflects a level of employment stability and can be related to higher wages. Contrary to the hypothesis that more recent leavers are less job-ready, many more of the recent cohort of leavers have worked for more than two years at their current job, 18.4 percent versus

TABLE 3
Job Characteristics of Employed Former Welfare Recipients Who Have Not Returned to the Program
1995-97 and 1997-99 Cohorts

Job Characteristic	Former Recipients, 1995-97	Former Recipients, 1997-99
Hourly wages[a]		
25th percentile	$5.71	$6.05
Median	$7.08	$7.15
75th percentile	$8.71	$9.00
Hours of work		
Less than 20	6.1	8.7
20 to 34	24.5	23.8
35 or more	69.4	67.5
Multiple jobs (two or more)	8.0	10.1
Class of work		
Government	11.4	11.0
Private company	76.9	73.3
Nonprofit organization	4.9	8.9
Self-employed[b]	6.8	6.8
Mostly work between 6 a.m. and 6 p.m.	71.8	73.2
Coordinated schedule with spouse for child care[c]	62.4	53.4
Time at current employer[d]		
Less than six months	31.2	32.8
Six months to one year[e]	42.8	33.4
One to two years[e]	16.2	15.4
More than two years	9.7	18.4

Source: Author's calculations, based on the National Survey of America's Families.

Notes: All figures are percentages, except where indicated. Numbers may not add up to 100 percent due to rounding or in some cases a small percentage of "don't know" or "refuse" answers.

[a]1997 wages are reported in 1999 dollars using the CPI-X.
[b]Includes a small number without a regular employer who work only occasionally.
[c]Asked only of two-parent families with both parents working and a child under thirteen.
[d]Excludes the self-employed.
[e]The two groups are significantly different with $p<.10$.

9.7 percent. While the same percentage of leavers have worked at their job for less than six months in both groups, a smaller percentage of the recent leavers have been with their employer in the six-months-to-a-year range. These differences are statistically significant. This may be a reflection of the increasing number of women working while on welfare, some of whom may have continued on the same job after exiting welfare.

Sources of Support after Leaving Welfare

The most common measure of economic well-being, particularly for low-income families, is the percentage with incomes below the poverty level. I do not calculate a measure of total income or the percentage in poverty here because all sources of income are not available for the current time period, only for the past year. Since many leavers recently left welfare and therefore spent part of the previous year receiving benefits, last year's income would not represent income after exiting. Instead, I examine in this section the total earnings of families and their receipt of other public benefits, in particular food stamps and Medicaid. Examination of earnings at least allows us to compare whether income from work is changing over time. Receipt of food stamps and Medicaid, although not traditionally counted as part of income, can add to family economic well-being, sometimes substantially.[13]

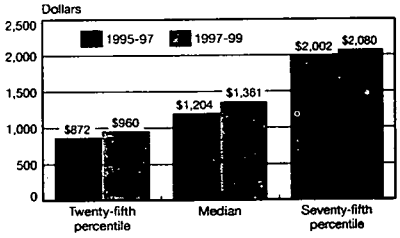
Putting together hourly wages and the usual amount of work of former recipients and their spouses/partners, I calculate the total monthly earnings of former recipient families with at least one employed adult. This is only a portion of many families' total income, because they may have other sources of income and these amounts do not include the earned income tax credit for which most of these families are eligible. The median total family monthly earnings for the 1997-99 cohort is $1,360, only slightly higher than and not statistically different from the median of the earlier cohort of $1,204 (Chart 2).[14] If work effort remained the same over the course of a year, this median would represent annual earnings of $16,320 for the recent cohort. However, most evidence from other research on low-income workers and other leaver studies shows that work effort is not stable over time. Thus, annual earnings are likely to be lower.

Most welfare recipients receive food stamp benefits and many former recipients remain eligible. However, it has been well documented that receipt of food stamp benefits drops off precipitously when families leave welfare (Zedlewski 1999; U.S. Department of Agriculture 1999). Food stamps can add substantially to family incomes. For example, in 1999, a single parent with two children and a full-time minimum-wage job would receive $260 per month in food stamps.[15] For both cohorts of leavers discussed here, less than a third were receiving food stamps at the time they were interviewed, 31 percent in the early cohort and 29 percent in the later cohort (Chart 3).

We might expect that those who have left welfare more recently may be more likely to receive food stamp benefits, and that as time since leaving increases former recipients are less reliant on benefits. This could happen if eligibility for food stamps declined over time because incomes are increasing. For both cohorts, the percentage of those who left in the past year receiving food stamps is higher than the percentage who left more than twelve months ago. For the recent group of leavers, 33 percent of those who left in the past year are receiving food stamps, compared with 25 percent of those who left more than a year ago.

Medicaid is also a benefit that can greatly increase the well-being of families leaving welfare, since many low-wage jobs do not provide health insurance coverage. Again, most welfare

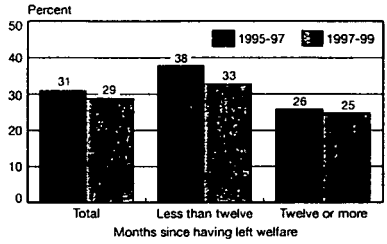
Chart 2
Total Monthly Family Earnings of Employed Former Welfare Recipients Who Have Not Returned to the Program
1995-97 and 1997-99 Cohorts



Source: Author's calculations, based on the National Survey of America's Families.

Notes: Earnings include those of the former recipient and spouse/partner where at least one of them is working. All figures are in 1999 dollars. None of the differences between groups is significant at p<.10.

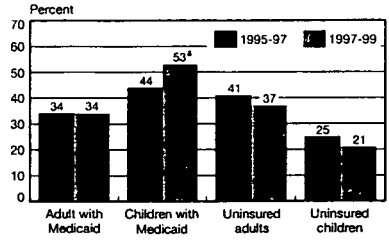
CHART 3
Food Stamp Receipt by Former Welfare Recipients Who Have Not Returned to the Program, by Months since Having Left
1995-97 and 1997-99 Cohorts



Source: Author's calculations, based on the National Survey of America's Families.

Notes: The total includes all former recipients who have not returned to welfare. None of the differences between groups is significant at $p < .10$.

CHART 4
Medicaid Coverage and No Insurance Coverage for Former Welfare Recipients Who Have Not Returned to the Program
1995-97 and 1997-99 Cohorts



Source: Author's calculations, based on the National Survey of America's Families.

Notes: Medicaid here includes state children's health insurance programs. Children with Medicaid refers to the percentage of all children of former welfare recipients who have Medicaid coverage.

[a]Differences between the groups are significant at $p < .10$.

recipients are covered by Medicaid and many continue to be eligible after leaving. Employed former recipients are eligible for transitional Medicaid benefits up to certain income and time limits. Expansions for children and the implementation of the Children's Health Insurance Program (CHIP) in individual states have extended nonwelfare-related coverage to even higher income levels for children. However, only about a third of former recipient adults in both cohorts report having Medicaid coverage (Chart 4). This percentage is significantly higher for children, with 44 percent of the early cohort and 53 percent of the later cohort having coverage. The increase for children is likely related to the CHIP expansions and outreach efforts around these programs.

Many former recipients remain uninsured. Forty-one percent of the adults in our early cohort and 37 percent of adults in our later cohort are uninsured. Given the increases in Medicaid, less children are uninsured in the later cohort, 17 percent, compared with 25 percent in the earlier group.

Measures of Material Hardship

In addition to earnings and sources of income, another measure of economic well-being is whether and how often a family experiences certain material hardships, such as not having enough food or having problems paying the rent. Several questions of this type were asked in the NSAF in reference to the twelve months prior to the survey. Results for these indicators provide evidence, with a few exceptions, that both groups of former recipients are experiencing similar levels of hardship (Table 4).

About a third of both groups of leavers say that they have had to cut the size of meals or skip meals because they did not have enough food in the past year. More than half of both groups have worried that food would run out before they received money to buy more. Among the more recent group of leavers, a significantly greater percentage had this worry often, compared with the earlier group of leavers. About half of both groups report that food did not last or that they did not have money for more food at some time in the past year, either often or sometimes.

Problems paying rent or utility bills were also an issue for more than a third of both leaver groups. A significantly higher percentage of the more recent group of leavers, 46.1 percent, were unable to pay mortgage, rent, or utility bills in the past

year, compared with 38.7 percent for the earlier cohort. A smaller percentage in both groups had to move in with others because of this inability to pay bills, 7.1 percent in the early group and 9.2 percent in the later group.

TABLE 4
Indicators of Economic Struggles over the Previous Year
Former Welfare Recipients Who Have Not Returned to the Program (Percent)

Indicator	Former Recipients, 1996-97	Former Recipients, 1997-99
Had to cut size of meal or skip meals because there wasn't enough food	33.4	32.7
Worried that food would run out before got money to buy more		
Often true[a]	17.9	25.0
Sometimes true	39.0	35.1
Food didn't last and didn't have money for more		
Often true	11.8	14.6
Sometimes true	37.6	39.9
A time in last year when not able to pay mortgage, rent, or utility bills[a]	38.7	46.1
Moved in with other people even for a little while because couldn't afford to pay mortgage, rent, or utility bills[b]	7.1	9.2

Source: Author's calculations, based on the National Survey of America's Families.

Note: Approximately 1 percent of respondents in 1995-97 and 3 percent of respondents in 1997-99 did not answer the questions on food problems.

[a] The two groups are significantly different with $p<.10$.
[b] Only asked of those who had an instance when they were not able to pay bills.

CONCLUSIONS

Despite concerns that later cohorts of leavers may fare increasingly worse in the labor market, I find relatively little evidence that there has been much change over the two groups of leavers studied here. The characteristics of the two groups are similar except for a larger percentage in the recent group reporting health conditions that may limit work. Despite this difference, employment and characteristics of jobs are also very similar across the two groups. About two-thirds of former recipients are working and three-quarters of families have an adult working (either the former recipient or the spouse/partner). Wages are at about the same level for the more recent leavers and most are working full-time, as in the earlier group. One difference in work is the experience of the two groups, with a significantly higher number of more recent leavers having been on their job for more time.

Receipt of nongovernment benefits is also similar across the two cohorts. About a third of each group are receiving food stamps and about a third of adults are covered by Medicaid. One difference is that a higher percentage of children are covered by Medicaid in the second cohort, potentially from expansions in state child health insurance programs for low-income families. Finally, measures of material hardship show for the most part similar experiences of problems with food for early and late cohorts of leavers.

Overall, there are few differences between these two groups of leavers. On face, these results seem to provide little evidence in support of the hypothesis that as the amount of time since the passage of the Personal Responsibility and Work Opportunity Reconciliation Act increases, subsequent groups of leavers are less "job-ready" and fare worse economically. However, the two groups of leavers are experiencing different labor markets in 1997 versus 1999. Average monthly unemployment rates for the whole labor force fell from 4.9 percent in 1997 to 4.2 percent in 1999. According to the National Survey of America's Families data, employment at the time of the interview for unmarried women with children and less than a high-school education increased from 42.4 percent in 1997 to 47.9 percent in 1999. A similar increase (58.9 percent to 63.1 percent) was observed for unmarried women with children with less than or equal to a high-school education.

Improvements in labor market outcomes over this time period mean that for a similarly job-ready group of former recipients we might expect to observe *improvement* in outcomes. The fact that we do not observe significant

improvements in economic outcomes across leaver groups could indicate that the more recent cohort of leavers is less job-ready. It could also indicate that the subset of former welfare recipients among all less educated single women with children did not experience improvement over this time period. We can only conclude from these results that the more recent cohort is not faring worse than the earlier cohort on an absolute level.

Beyond this, it is also true that neither group is showing unequivocal success in transitioning off welfare. A relatively large percentage of leavers still have returned to welfare over this two-year time period, and about a quarter are in families without earnings at the time of the survey. Although this more recent group of leavers looks similar to earlier cohorts, the issues raised about the absolute well-being of earlier cohorts and whether some are "falling through the cracks" remain. Further analysis of subgroups of these data will help us to answer some additional questions about the distribution of outcomes for this group.

ENDNOTES

1. For reviews of some of these early studies, see Brauner and Loprest (1999) and U.S. General Accounting Office (1999). Loprest (1999) compares the wage rates of employed leavers between 1995 and 1997 with other employed low-income women with children who had not recently been on welfare and finds that the leavers' wages were generally higher.

2. Many studies have links on the ASPE's web page: <http://aspe.hhs.gov/hsp/leavers99/index.htm>.

3. For more information on the NSAF, see Brick et al. (1999).

4. The NSAF questions about current and former welfare receipt are asked of the adult in the family who is most knowledgeable about the children. The samples of leavers are therefore not exactly all adults who left welfare, but one adult per family who reports that he/she or the children received Aid to Families with Dependent Children (AFDC) or TANF at some point in the two years prior to the interview. Since most respondents are the children's mothers and most AFDC recipients are women, this corresponds closely to a sample of mothers who left welfare. However, some single fathers and a small number of fathers in two-parent families (who are the adults most knowledgeable about the children and reported leaving welfare) are also included.

5. Caseload numbers are reported at <http://www.acf.dhhs.gov/news/welfare>.

6. As in most surveys, the NSAF undercounts TANF receipt compared with administrative data. The NSAF in both rounds finds about 70 percent of welfare receipt in the previous year, similar to the March Current Population Survey. This implies that my weighted count of welfare leavers reported here is also an undercount, although it is difficult to estimate the extent.

7. Because the survey does not ask for complete welfare histories, this may understate returns to welfare. Some families may be missed that left in the time period, returned, and left again, such that they are not receiving TANF at the time of the interview. These families are included in my "did not return to welfare" group.

8. Analysis of what factors are most important in predicting returns to TANF and whether they have changed over the two cohorts is being carried out as part of another study using these data.

9. This is supported by the increase in work among current recipients with multiple barriers to work (Zedlewski and Alderson 2001).

10. Working is defined as any positive weekly hours of work at the time of the survey interview.

11. Adjustments for inflation were made using the CPI-X. All wages are reported in 1999 dollars.

12. This question was asked only to two-parent families in which both parents were working and there was at least one child under age thirteen. The percentage of working former recipients meeting this criterion changed only slightly over the cohorts, from 22 percent to 24 percent.

13. The calculations needed to estimate total income and poverty and the results are presented in another study on this topic (Loprest 2001).

14. Monthly earnings are in 1999 dollars, adjusted using the CPI-X.

15. This assumes that the family has no income beyond earnings, a maximum child-care cost deduction for children older than two, and no excess shelter costs.

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Status Report on Research on the Outcomes of Welfare Reform

Appendix B: Findings from ASPE-Funded Leavers Studies

(Grants to States and Localities to Study Welfare Outcomes)

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Welfare caseloads have declined dramatically during the past several years. Overall, the welfare caseload has fallen by 8.4 million recipients, from 14.2 million recipients in 1994 to 5.8 million in June 2000, a drop of 59 percent. This is the largest welfare caseload decline in history. As the caseloads have fallen there has been widespread interest in the circumstances of recipients who have left welfare. How are they faring without cash assistance? Are they working? Are they moving out of poverty? To what extent do they return to welfare? To what extent do they continue to need and to receive assistance and supportive services through other programs?

To answer these questions, ASPE awarded approximately $2.9 million in grants to states and counties in FY 1998 to study the outcomes of welfare reform on individuals and families who leave the TANF program, who apply for cash welfare but are never enrolled because of non-financial eligibility requirements or diversion programs, and/or who appear to be eligible but are not enrolled. The 1998 grants were awarded to ten states and three large counties or consortia of counties (Arizona, the District of Columbia, Florida, Georgia, Illinois, Massachusetts, Missouri, New York, Washington, and Wisconsin; and Cuyahoga County, Ohio, Los Angeles County, California, and San Mateo, Santa Cruz, and Santa Clara Counties, California). Separate but comparable studies were also funded in Iowa (with FY 1999 funding) and South Carolina (in FY 1998 and 2000, as part of a longer-term project) resulting in a total of 15 studies with findings on former recipients as of spring 2001.[1]

Following the devolution of welfare programs to the state level, ASPE chose a research strategy that combined local flexibility in study design with some national direction and coordination. Most of the projects used administrative data to track an early cohort of individuals who left welfare around 1996 or 1997. Projects also used a combination of administrative and survey data to track the economic status and general well-being of at least one cohort who left welfare one to two years later, after the transition from AFDC to the TANF program. Projects varied, however, in the number and types of administrative data sets examined and the design of the surveys of former recipients. Final survey

sample sizes varied from 277 to over 3,500 cases, response rates ranged from 23 to 81 percent, and approximate time of interview varied from 6 to 30 months after exit, as shown in Table 1. All researchers were encouraged to collect data across multiple dimensions, including employment, program participation, economic status, family structure, child well-being, material hardship, barriers to employment, etc. Grantees designed their own survey instruments, however, which differed in wording and emphasis. While this diversity poses challenges for summarizing results nationally, it has allowed states to meet the demands of their elected officials and program administrators for timely information on families leaving their state's welfare program.

Table 1.
Survey Sample Size, Response Rate, and Timing of Interview

Grantee & Cohort CY (Qtr)	Final Survey Sample Size	Response Rate	Timing of Interview (Mos. post exit)
Arizona 98(1)	821	72%	12-18 months
Florida 97(2)	3548	23%	23-30 months
Georgia 99(1)-00(1)	2935	52%	4-6 months
Illinois 98(4)	514	51%	6-8 months
Iowa 99(2)	405	76%	8-12 months
Massachusetts 99(1)	570	75%	6-16 months
Missouri 96(4)	878	75%	26-34 months
South Carolina 98(4)-99(1)	1072	75%	12-15 months
Washington 98(4)	708	72%	6-8 months
District of Columbia 98(4)	277	61%	10-14 months
Cuyahoga 98(3)	306	81%	18-22 months
San Mateo 98(4)	438	66%	6-12 months

Although each study had its own methodology, ASPE took certain steps to promote comparability across the studies. Chief among these was developing consensus around a common definition of the "leaver" study population as "all cases that leave cash assistance for at least two months." This definition excludes cases that re-open within one or two months; such cases are more likely closed due to administrative "churning" than to true exits from welfare. In addition, through national meetings and an electronic list-serve, ASPE staff facilitated peer networking among researchers, promoted the use of nationally developed questions on topics such as food security and child well-being, and encouraged standardized reporting of certain administrative data outcomes.

As of March 2001, all 15 studies identified above had released preliminary reports based on administrative data findings, and 12 of the 15 also had released reports with more detailed findings from follow-up surveys. Highlights from these reports are presented below, with a focus on outcomes in employment and earnings, recidivism and program participation, and household income and family well-being.[2] This summary stresses common findings for "average" welfare leavers in each jurisdiction, without analyzing how outcomes vary for different types of leavers (e.g., urban vs. rural, those who left due to earnings vs. sanctions). Findings are presented for all single-parent leavers in a state or county except where noted otherwise. Observed cross-state differences in outcomes reflect the diverse range of state policies and underlying economic and demographic conditions of the

jurisdictions under study, as well as methodological differences in study design.[3] A more comprehensive synthesis report, including analysis of how outcomes differ for various subgroups, is expected by Fall 2001.

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Employment and Earnings

Employment

Employment outcomes have been quite consistent across the 15 studies. Employment rates of former recipients ranged from 47 to 68 percent in the first quarter after exit according to administrative data (see Table 2). Moreover, employment rates remained fairly constant in the first year after exit in most study areas. This finding does not mean that the same 50 to 60 percent of leavers were employed every quarter. Some former recipients lost their jobs, while others found new employment, with the result that 62 to 90 percent of leavers had earnings at least once within the first four quarters after exit. Between 31 and 47 percent of leavers were employed in all four quarters (data not shown),[4] according to the eight studies reporting this statistic.

Table 2.
Employment Rates of Former Recipients

	Administrative Data: Employment Rates					Survey Data: Employment Rates	
Grantee & Cohort CY(Qtr)	1st Qtr post exit	2nd Qtr post exit	3rd Qtr post exit	4th Qtr post exit	Any of 4 Qtrs	Employed at Interview	Employed since exit
Arizona 98(1)	53	51	52	50	73	58	--
Florida 97(2)	50	51	53	54	71	57	--
Georgia 99(1)-00(1)	61	63	59	59	--	69	--
Illinois 97(3)-98(4) *	54	53	53	54	69	63	85
Iowa 99(2)	57	42	39	38	69	61	--
Massachusetts 99(1) *	60	61	51	--	68	71	--
Missouri 96(4)*	58	58	59	58	73	65	90
New York 97(1)	50	49	48	48	62	--	--
S. C. 98(4)-99(1)	67	68	67	63	90	60	--
Washington 98(4)	62	58	--	--	--	59	86
Wisconsin 98(2)-(4) *	67	65	67	67	72	--	--
D. C. 97(4)*	54	58	50	52	--	60	--
Cuyahoga 98(3)	68	64	67	64	82	70	92

Los Angeles 96(4)	47	46	46	47	--	--	--
San Mateo 98(4)	55	55	55	--	--	57	--

Notes: A recipient is considered "employed" if she or he has any earnings in UI-covered employment within the state, except: Cuyahoga and Los Angeles require >$100 per quarter, Washington also counts earnings reported to the welfare system, and D.C. uses data from the National Directory of New Hires. D.C. employment rates would be 8 percentage points higher if leavers without Social Security numbers were excluded from the denominator, as they are in New York, Missouri and possibly other studies.

* Rates are for single-parent leavers, except that Illinois, Massachusetts, Missouri, Wisconsin, and D.C. include small percentages of two-parent leavers.

Three of six jurisdictions analyzing employment across multiple cohorts found that recipients leaving welfare in 1998 had higher employment rates — by 5 to 10 percentage points — than those leaving in 1996 (data not shown). Two other two jurisdictions, however, found no change and one found a decrease in employment.

Administrative data do not capture all employment: quarterly earnings reported to the states' unemployment insurance (UI) programs do not capture earnings from self-employment, employment in the military or federal government, certain agricultural employment, and jobs across state boundaries. In fact, between 57 and 71 percent of former recipients reported working at time of interview. These self-reported employment rates from survey data were higher than the rates based on administrative data in all but one study (see Table 2). The vast majority of leavers - 85 to 92 percent - reported being employed at least once since exit. In addition, three studies found that the household employment rate (counting earnings of anyone in the household) was 9 to 15 percentage points higher than the individual rate for the leaver herself, or about 72 to 80 percent (data not shown).

Earnings

Median quarterly earnings of former recipients with jobs ranged from $1,900 in South Carolina to $3,400 in Washington, D.C. in the first quarter post-exit (see Table 3). In all reporting locations, quarterly earnings rose over the course of the year following exit.[5] Median hourly wages, as reported in survey data from eight studies, ranged from $6.50 to $9.00 an hour. Former recipients with jobs worked an average of 33 to 39 hours per week; median hours averaged 40 hours per week.

In sum, the studies were consistent in finding that about three-fifths of leavers were working, generally 40 hours per week, but with relatively low wages and intermittent spells of unemployment. To what extent do families with these patterns of employment and earnings support themselves, and to what extent do they rely on government programs for support?

Table 3.
Earnings of Former Recipients

Grantee & Cohort CY(Qtr)	Administrative Data: Median Quarterly Earnings				Survey Data: Hourly Wages	
	1st Qtr post exit	2nd Qtr post exit	3rd Qtr post exit	4th Qtr post exit	Mean wages	Median wages
Arizona 98(1)**	$2,211	$2,354	$2,695	$2,511	$7.52	--
Florida 97(2)	$2,007	$2,168	$2,167	$2,329	--	--
Georgia 99(1)**	$2,184	$2,319	$2,518	--	--	--

Illinois 97(3)-98(4)	$2,471	$2,527	$2,614	$2,720	--	$7.41
Iowa 99(2)	$2,177	$2,520	$2,332	$2,417	$7.54	--
Massachusetts 9(1)*	$2,645	$2,754	$2,977	--	$8.46	--
Missouri 96(4)*	$1,996	$2,171	$2,200	$2,535	--	--
S. C. 98(4)-99(1)	$1,871	$1,807	$1,904	$2,148	--	$6.50
Washington 98(4)	$2,387	$2,497	--	--	$7.70	$7.00
Wisconsin 98(2)-(4)*	$2,272	$2,362	$2,278	$2,561	--	--
D. C. 97(4) admin.data* D. C. 98(4) survey**	$3,416 --	-- --	$3,395 --	$3,934 --	-- $8.74	-- $8.13
Cuyahoga 98(3)	$2,744	$2,489	$2,663	$2,754	$7.50	--
Los Angeles 96(4)	$3,248	$3,156	$3,303	$3,290	--	--
San Mateo 98(4)	$3,144	$3,439	$3,612	--	--	$9.00

Notes: Excludes leavers without earnings in the quarter. Earnings are reported in nominal dollars.

* Figures are for single-parent leavers, except that Massachusetts, Missouri, Wisconsin, and the District of Columbia include small percentages of two-parent leavers.
** Arizona and Georgia quarterly earnings are mean, rather than median, earnings. Median earnings would be somewhat lower.

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Program Participation

Returns to TANF

According to data from 15 studies, between 3 and 21 percent of families leaving welfare returned to cash assistance within one quarter (see Table 4). Rates of welfare receipt rose to between 9 and 24 percent in the next quarter. Rates rose very slightly over the next six months, reaching 11 to 25 percent one year after exit. Because some people return to the rolls and then leave again, the proportion that *ever* returned within the first year after exit was higher, ranging from 17 to 38 percent. (6)

Table 4.
Percentage of Adult Leavers Receiving AFDC/TANF

	Administrative Data: AFDC/TANF Receipt				
Grantee & Cohort CY(Qtr)	1st Qtr (3 mos) post exit	2nd Qtr (6 mos) post exit	3rd Qtr (9 mos) post exit	4th Qtr (12 mos) post exit	Ever receiving within 1 yr
Arizona 98(4)	5.3	12.9	16.6	15.5	27.7
Florida 97(2)	6.5	13.9	12.8	--	26.1
Georgia 99(1)	8.4	14.4	16.4	16.0	--

Illinois 97(2)-98(4)	16.2	18.6	17.5	16.3	28.9
Iowa 99(2)	5.5	14.2	19.0	18.8	30.1
Massachusetts 9(1)*	2.9	10.0	14.3	11.4	18.8
Missouri 96(4)*	12.4	18.6	20.8	20.6	--
New York 97(1)	--	--	--	17.0	--
S. C. 99(4)-00(1)	3.4	8.8	11.7	10.9	17.1
Washington 97(4)	8.0	14.0	16.0	16.0	--
Wisconsin 98(2)-(4) *	18.5	22.1	21.8	19.7	35.5
D.C. 98(4)*	7.5	12.7	16.2	18.8	21.1
Cuyahoga 98(3)	21.1	24.3	25.5	24.9	38.1
San Mateo 98(4)	16.9	20.9	22.8	20.8	--

Notes: Grantees measuring program participation by month — Arizona, Florida, Illinois, Iowa, New York, the District of Columbia, and San Mateo — are likely to report lower program participation than grantees measuring participation over a three-month quarter. These and other methodological differences have a particularly strong effect on measurement of TANF receipt three months/one quarter after exit, and so differences in the first column of Table 3 should be viewed with caution.

* Figures are for single-parent leavers, except that Massachusetts, Missouri, Wisconsin, and the District of Columbia include small percentages of two-parent leavers.

Survey data on returns to TANF are fairly similar to the administrative data. In addition, survey data also found that at least one half of those who returned to TANF did so for a job-related reason, such as job loss or decreases in work hours or wages. Other common reasons for returning to TANF included divorce or separation from partner, pregnancy or birth of a new child, re-compliance with program regulations, loss of other income, problems with child care, and problems with health or medical benefits.

Comparisons of early and later cohorts reveal no clear pattern of returns to welfare (data not shown). As compared with earlier cohorts, recidivism among 1998 leavers was higher in three states but lower in three others. No trend was apparent in two others.

Families leaving in the 1996 to 1999 period did so before they hit the five-year federal time limits on benefit receipt. Thus, most families had the option of returning to cash assistance as needed. Two studies, however, examined cohorts of 1999 leavers who were affected by state time limits of two years. Recidivism rates in these two states — Massachusetts and South Carolina — were lower than rates in other states, as shown in Table 4. Sub-group analysis in these two states indicates that families who left because of time limits were much less likely to be back on welfare at time of interview than other families; only 2 percent of the time-limited families in South Carolina and 8 percent in Massachusetts were back on welfare a year after exit.

Medicaid and Health Insurance

Although the majority of leavers remained off cash assistance, most continued to receive other government support. One of the most common supports was Medicaid, although rates of participation varied considerably across states. As shown in Table 5, between 42 and 80 percent of adult leavers were enrolled in Medicaid in the first quarter post-exit according to administrative data. In many

areas, adult enrollment rates dropped 10 percentage points or more by the fourth quarter after exit. Medicaid coverage varied even more dramatically in survey data, ranging from 33 percent in Missouri (measured over 2 years after exit) to 81 percent in Massachusetts (measured slightly under a year after exit). A higher percentage of surveyed leavers — 51 to 83 percent — reported Medicaid coverage for their children, as shown in Table 6.

Table 5.
Adult Health Insurance Status

Grantee & Cohort CY(Qtr)	Administrative Data: Medicaid Enrollment		Survey Data: Health Insurance Coverage at Interview			
	1st Qtr post exit	4th Qtr post exit	Medicaid	Employer Sponsored Insurance	Other Insurance	No Insurance
Arizona 98(1)**	54	40	39	15	5	40
Georgia99(1)-00 (1)	--	--	66	--	--	24
Florida 97(2)	55	46	--	--	--	45
Illinois 97(3)-98 (4)*	58	40	47	***	21	36
Iowa 99(2)	43	41	48	14	7	37
Massachusetts 9 (1)*	--	--	81	--	--	7
Missouri 96(4)*	42	39	33	25	9	32
New York 97(1)	--	35	--	--	--	--
S. C. 98(4)-99(1)	69	45	--	--	--	--
Washington 98(4) *	60	--	56	13	8	26
Wisconsin 98(2)-(4)*	80	76	--	--	--	--
D.C. 98(4)*	--	--	54	19	4	22
Cuyahoga 98(3)	60	46	--	--	--	--

Notes: These rates measure enrollment of the adult head who left TANF. Measures of participation by month - reported by Arizona, Florida, Illinois, Iowa, New York, and the District of Columbia - are likely to be lower than measures of participation over a three-month quarter.

* Rates are for single-parent leavers, except that Illinois, Massachusetts, Missouri, Washington (administrative data), Wisconsin, and D.C. include small percentages of two-parent leavers and Washington tracks the Medicaid enrollment of both adults, not just the adult head.

** Arizona data include leavers who return to TANF after one month, as well as the traditional two-month leavers.

*** Rates for employer-sponsored insurance in Illinois are included in "other."

Table 6.
Child Health Insurance Status

Grantee & Cohort CY(Qtr)	Administrative Data: Medicaid Enrollment		Survey Data: Health Insurance Coverage at Interview			
	1st Qtr post exit	4th Qtr post exit	Medicaid	Employer Sponsored Insurance	Other Insurance	No Insurance
Arizona 98(1)**	--	--	51	12	8	26
Georgia 99(1)-00 (1)	--	--	82	4	3	11
Florida 97(2)	--	--	57	--	--	33
Illinois 97(3)-98 (4)*	--	--	53	***	23	29
Iowa 99(2)	56	55	63	11	17	20
Massachusetts 99 (1)*	--	--	83	--	--	8
Missouri 96(4)*	85	86	68	14	9	11
New York 97(1)	--	34	--	--	--	--
S. C. 98(4)-99(1)	88	68	85	--	--	--
Washington 98(4)	--	--	67	9	11	13
Wisconsin 98(2)-(4)	86	80	--	--	--	--
D.C. 98(4)*	42	48	60	12	11	16
San Mateo 98(4)	76	59	64	--	28	9

Notes: These rates are the percentage of adult leavers with at least one child on Medicaid (or one member of a family, in Iowa, D. C. and San Mateo). SCHIP is counted as Medicaid in most surveys. As noted in Table 4, above, measures of participation by month - reported by Arizona, Florida, Illinois, Iowa, New York, the District of Columbia, and San Mateo - are likely to be lower than measures of participation over a three-month quarter.

* Rates are for single-parent leavers, except that Illinois, Massachusetts, Missouri, and D.C. include small percentages of two-parent leavers.
** Arizona data include leavers who return to TANF after one month, as well as the traditional two-month leavers.
*** Rates for employer-sponsored insurance in Illinois are included in "other."

Lack of Medicaid enrollment is not necessarily a problem if leavers have health insurance through employment or other means. However, only 20 to 34 percent of adult leavers reported being covered by employer-sponsored or other insurance; somewhat fewer (7 to 28 percent) reported such coverage for their children. These figures reveal that, in most states, substantial numbers of former recipients and their children were without any health insurance. The percentage of adult leavers without insurance ranged from 7 to 45 percent; rates for children ranged from 8 to 33 percent, for Massachusetts and Florida, respectively. Data in Tables 5 and 6 indicate that lack of health insurance was more prevalent in states with low numbers of leavers enrolled in Medicaid. Survey data from six states (discussed in the section on Material Hardship and displayed in Table 10 below) show the consequences of lack of health insurance coverage.

Some of the state variation in Medicaid enrollment can be explained by differences in survey methodology (e.g., timing and wording of surveys) or in the linking and analysis of administrative data.[7] Still, the observed cross-state variation is too wide to be solely attributable to measurement differences. Some variation in enrollment is likely to reflect differences in Medicaid eligibility (which is set by states) and in administrative practices, which vary across states and local areas.

Findings from the leavers studies and other research have prompted Federal and state initiatives to ensure that families leaving welfare are not incorrectly denied Medicaid benefits. In their leavers reports, several states mentioned changes in policies or procedures designed to increase Medicaid enrollment among future leaver cohorts. Early trends, between 1996 and 1998, show increased Medicaid enrollment in three jurisdictions, no change in one, and decreased enrollment in another.

Food Stamps and Other Program Participation

Participation in other forms of government assistance was also common, though generally at lower levels than for Medicaid. Participation rates of former recipients in the Food Stamp program, for example, ranged from 23 to 78 percent across 12 studies, with most finding that roughly one-third to one-half of AFDC/TANF leavers received food stamps immediately after exit (see Table 7). Similar rates were found in both administrative and survey data. Food stamp receipt declined in some states over time, but remained constant in others.

Table 7.
Percentage of Leavers Receiving Food Stamps

	Administrative Data: Food Stamp Receipt				
Grantee & Cohort CY(Qtr)	1st Qtr (3 mos) post exit	2nd Qtr (6 mos) post exit	3rd Qtr (9 mos) post exit	4th Qtr (12 mos) post exit	Ever receiving within 1 yr
Arizona 98(1)	39	39	38	35	67
Florida 97(2)	45	41	38		
Illinois 7/97-12/98	33	35	34	33	56
Iowa 99(2)	36	37	38	37	65
Massachusetts 99(1)*	42	41	41	38	51
Missouri 96(4)*	57	47	43	40	--
New York 97(1)	--	--	--	21	--
S. C. 99(4)-00(1)	78	68	64	61	88
Washington 97(4)*	47	42	--	--	--
Wisconsin 98(2)-(4)*	70	68	65	63	83
D.C. 98(4)*	36	38	37	38	41
Cuyahoga 98(3)	56	48	48	47	68
San Mateo 98(4)	23	28	29	27	-

Notes: Grantees measuring program participation by month - Arizona, Florida, Illinois, Iowa, New York, the District of Columbia, and San Mateo - are likely to report lower program participation than grantees measuring participation over a three-month quarter.

* Rates are for single-parent leavers, except that Massachusetts, Missouri, Washington, Wisconsin, and D.C. include small percentages of two-parent leavers.

Other commonly received forms of government assistance included free- and reduced-price school lunches (43 to 87 percent of leavers), the federal Earned Income Tax Credit (32 to 65 percent of former recipients), housing assistance (16 to 60 percent of leavers), and Supplemental Security Income (2 to 12 percent of leavers), according to survey data from several surveys (data not shown). In addition between 11 and 35 percent of former recipients across seven studies reported receiving child support, often secured with help from the child support enforcement agency. As seen below, income from these sources can be an important component of household income.

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Household Income and Family Well-Being

Household Income and Poverty Status

Total household income is difficult to measure, particularly in leaver households. Paychecks can vary from month to month, and variations in unearned income and in household composition may generate added instability. Nevertheless, ASPE encouraged researchers to collect survey data on this critical measure of family well-being.

As shown in Table 8, average household cash income of former recipients ranged from $964 to $1440 per month across eight studies. When reported separately, median household incomes were about $200 lower. While not included in these cash income totals, food stamp benefits provided the average household with an additional $96 to $129 per month, according to three studies. (The value of the federal Earned Income Tax Credit also was not included in the cash income totals).

Six of the eight studies shown in Table 8 asked a series of detailed questions probing for income from various specific sources, while two (Illinois and the District of Columbia) simply asked for total household income. Consistent with past research, the surveys that asked multiple income-related questions uncovered higher levels of income than the other two surveys. This pattern of variation suggests that the lower incomes found in Illinois and the District of Columbia may reflect differences in income reporting rather than true differences in income.[8]

Table 8.
Total Household Income and Percentage of Household Income Contributed by Various Sources
(Survey Data)

Grantee & Cohort CY (Qtr)	Total Cash Income: Mean (Median)	Own Earnings	Others Earnings	AFDC/TANF	Child Support	SSI	Other Income
Arizona 98(1) **	$1,338 (----)	45	40	3	3	5	3
Illinois 97(2)-98(4)*	$964 ($800)	--	--	--	--	--	--
Iowa 99(2)	$1,440 (----)	46	35	4	6	2	7

Missouri 96 (4)*	$1,427 ($1,166)	50	20	8	6	6	8
Washington 98(4)	$1,208 ($1,000)	55	28	8	7	1	1
Cuyahoga 98 (3)	$1,069 (----)	63	19	6	2	5	5
D. C. 98(4)*	$1,091 ($800)	--	--	--	--	--	--
San Mateo 98 (4)	--- ($1,400)	--	--	--	--	--	--

Notes: Total cash income does not include value of food stamps (average of $96 in Iowa, $100 in Cuyahoga and approximately $129 in Arizona). Income information is based on multiple survey questions about income from various sources, except in Illinois and D.C., where the survey asks one question about total household income.

* Figures are for single-parent leavers, except that figures from Illinois, Missouri and D.C. include small percentages of two-parent leavers, who generally have higher incomes.
** In Arizona, sources of income based on a sample of leavers which includes those who return to TANF after one month, as well as the traditional two-month leavers.

Five of the studies provided information about the sources of household income. Earnings were the largest income source: the leaver's own earnings made up 45 to 63 percent of total household income, while earnings of others in the household accounted for an additional 19 to 40 percent. Cash assistance from AFDC or TANF added another 3 to 8 percent. The final 9 to 20 percent of household income came from child support payments, Supplemental Security Income (SSI), and "other" income, including Social Security and survivors' benefits, veterans' benefits, workers' compensation, and financial assistance from others.

Four of the studies with comprehensive income questions also calculated the percentage of former recipients with household income below the federal poverty line. Estimated poverty rates ranged from 41 percent to 58 percent, depending in part on whether food stamps were included in measures of household income.[2] Many leavers with household incomes at or above the poverty threshold were still close to poverty; the Iowa study found that 63 percent of leavers had income below 130 percent of the poverty threshold, in Cuyahoga 79 percent were below 150 percent of poverty and in Missouri 89 percent had cash incomes below 185 percent of the poverty threshold.

Though these poverty rates are quite high, one study (Washington) reported an even higher poverty rate — 83 percent — among a sample of recipients remaining on welfare for six months. Mean and median household incomes of ongoing recipients also were lower (data are not shown, but were $890 and $642, respectively) than those of former recipients. While the Washington study does not track the same group of people over time, it provides some evidence that economic status improves after exit from welfare.

Family Well-Being and Material Hardship

Partly because of the challenges of measuring income, most leavers surveys also asked directly about family well-being and material hardships resulting from not having enough money. Although surveys varied in wording, they generally asked about hardships related to food shortages, housing problems, and medical hardship.

Between one-eighth and one-half of leavers (13 to 52 percent) of leavers reported some level of food

hardship, according to the 12 studies with survey data (see Table 9). Rates of food insecurity ranged from 32 to 46 percent among the three states that measured food insecurity through a standardized six-item questionnaire. About half of these families, or 16 to 26 percent of all leaver families, were classified as food insecure with hunger.(10) Other states, while not using the six-item standardized scale, found similar evidence of food insecurity: 20 to 43 percent of respondents said that adults in the household cut the size of meals or skipped meals and 13 to 52 percent exhibited other signs of food insecurity, such as not being able to buy enough food. Very few leavers reported that children in their households skipped meals (3 to 5 percent, according to two studies).

Table 9.
Percentage of Leavers Reporting Food Hardships Since Exit (and While on Welfare)

Grantee & Cohort CY(Qtr)	Food insecure†	Food insecure with hunger†	Adults cut size of or skipped meals	Children skipped meals	Some other sign of food insecurity **
Iowa 99(2)	32	16	--	--	--
Massachusetts 99 (1)*	43 (30)	22 (14)	--	--	--
Cuyahoga 98(3)	46	26	--	--	--
Illinois 97(3)-98 (4)*	--	--	25 (24)	--	44 (51)
S. C. 98(4)-99(1) ***	--	--	20 (14)	--	52
Washington 98(4) *	--	--	43 (39)	5 (4)	--
D.C. 98(4)*	--	--	25	--	46
Arizona 98(1)***	--	--	--	--	24 (30)
Georgia 99(1)-00 (1)	--	--	--	--	13 (5)
Florida 97(2)	--	--	--	--	44
Missouri 96(4)*	--	--	--	3	26
San Mateo 98(4)	--	--	--	--	32

Notes: Figures in parentheses are percentage recalling hardship while on welfare (Arizona, Illinois, Massachusetts, South Carolina) or percentage recalling hardship among a comparison group of recipients remaining on welfare (Georgia, Washington).

* Figures are for single-parent leavers, except that figures from Illinois, Massachusetts, Missouri and D.C. include small percentages of two-parent leavers.

** Other signs of food insecurity include: not able to buy enough food (Florida, Missouri); food did not last (Illinois, South Carolina, D.C.); or not enough food to eat (Arizona, Georgia, San Mateo). Other indicators of food insecurity, such as worrying about food running out, are not shown here.

*** South Carolina survey data are limited to leavers who do not return to welfare. Arizona leavers include those who returned to TANF after one month, as well as the traditional two-month leavers.

† As explained in Footnote 10, families that answer "yes" to two or more questions on a six-point scale developed by the U.S. Department of Agriculture are considered "food insecure," and those that answer "yes" to five or more questions are considered "food insecure with hunger."

Former recipients also reported problems with housing arrangements, although somewhat less frequently than food shortages. As shown in Table 10, the most common problems were falling behind in rent or mortgage (18 to 38 percent across seven studies), loss of utilities (12 to 36 percent of leavers across seven studies) and being forced to move (13 to 32 percent across four studies). Less often, former recipients were evicted (4 to 7 percent), went to a homeless shelter (1 to 7 percent, except one study reported 17 percent), or reported that their children were forced to live elsewhere (3 to 8 percent, except one study reported 19 percent).[11]

Table 10.
Percentage of Leavers Reporting Housing or Medical Hardships After Exit (and While on Welfare)

Grantee & Cohort CY (Qtr)	Utilities cut off	Behind in rent/ mortgage	Had to move because could not pay	Evicted	Stayed at homeless shelter	Child had to live elsewhere	Unable to get needed medical care
Arizona 98(1) ***	12 (18)	37 (41)	17 (21)	--	3 (4)	8 (9)	24 (14)
Georgia 99(1)-00(1)	12	18	--	4	--	--	10
Florida 97(2)	36	--	32	--	17****	19****	--
Illinois 97(3)-98(4)*	14 (26)	38 (45)	13 (15)	--	3 (4)	8 (9)	31 (26)
Iowa 99(2)	--	25	--	--	7	--	--
Massachusetts 99(1)*	26 (20)	--	--	--	2 (1)	3 (1)	--
Missouri 96(4)*	--	26	--	--	--	--	--
S. C. 98(4)-99(1)***	--	33	--	--	2 (3)	5 (5)	10 (4)
Washington 98 (4)	12 (12)	--	--	7 (3)	1 (2)	3 (2)	--
D.C. 98(4)*	--	27 (27)	--	--	3 (5)	5 (6)	8 (3)
Cuyahoga 98(3)	19	--	26	**	**	--	10

Notes: Figures in parentheses are percentage recalling hardship while on welfare (Arizona, Illinois, Massachusetts, South Carolina, D.C.) or percentage recalling hardship among a comparison group of recipients remaining on welfare (Washington).

* Figures are for single-parent leavers, except that figures from Illinois, Massachusetts, Missouri and D.C. include small percentages of two-parent leavers.

** In Cuyahoga, 7 percent were either evicted or lived in homeless shelter.

*** South Carolina survey data are limited to leavers who do not return to welfare. Arizona leavers include those who returned to TANF after one month, as well as the traditional two-month leavers.

**** The findings from Florida should be viewed with caution, because figures were imputed for the 77 percent of the sample that could not be located by telephone. The raw, unadjusted percentages, reported in an appendix to their final report, were closer to those reported by other states (4 percent homeless and 8 percent with children living elsewhere).

Studies were split as to whether housing and food shortages were greater before or after exit; some found more hardship after exit, some found less hardship after exit, and some showed little difference. None of the leavers studies reported a significant change in use of homeless shelters before and after exit, or in experiences with separations of children from the family.

Six studies also examined medical hardship, and found that between 8 percent and 31 percent of leavers in the six sites reported that they or someone in their household was unable to get needed medical attention since leaving welfare because they could not afford it. Studies consistently reported more difficulty getting needed medical care after exit than while on welfare.

Finally, when directly asked about overall economic well-being or standard of living, 46 to 68 percent of families in five states reported they were better off financially after exit; 16 to 32 percent said they were the same, and 13 to 30 percent said they were worse off (see Table 11).

Table 11.
Overall Economic Well-being Before and After Leaving Welfare
(Survey Data)

Grantee & Cohort CY(Qtr)	Better Off	Same	Worse Off
Arizona 98(1)**	68	16	15
Illinois 97(3)-98(4)*	57	30	13
Iowa 99(2)	49	32	19
Massachusetts 99(1)*	46	24	30
Washington 98(4)	60	19	21

* Figures are for single-parent leavers, except that figures from Illinois and Massachusetts include small percentages of two-parent leavers.
** Arizona leavers include those who returned to TANF after one month, as well as the traditional two-month leavers.

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Conclusion

In sum, findings across the 15 studies showed that about three-fifths of leavers were working, generally 40 hours per week. Former recipients experienced intermittent spells of unemployment and financial hardship, however, and about one-fourth to one-third returned to welfare at least once in the first year after exit in most states studied. Although quarterly earnings rose over time, total household incomes remained fairly low, averaging about $1,400 or less per month. Access to health insurance and food stamps appeared problematic for some recipients, and there also were reports of food shortages and inability to get needed medical attention. Evidence was mixed as to whether material hardships were greater before or after exit; families generally reported that they are better off overall after leaving welfare.

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Other Outcomes Data

The descriptive statistics highlighted above provide some important insights into the outcomes and well-being of individuals and families leaving welfare. However, they do not represent the sum total of the rich administrative and survey data collected by states and counties under the ASPE-funded grants. Links to most of the individual state and county reports can be found at <http://aspe.hhs.gov/hsp/leavers99/reports.htm>. The initial synthesis report by the Urban Institute is posted on the same web site, at <http://aspe.hhs.gov/hsp/leavers99/synthesis01/index.htm>. In addition, ASPE is working collaboratively with the grantees and a technical assistance contractor to make the grantees' welfare outcomes data files available to researchers for secondary analyses. Information on how to secure access to these data files can be found on the ASPE-sponsored web page on Welfare Leavers and Diversion Studies at <http://aspe.hhs.gov/hsp/leavers99/index.htm>.

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Endnotes

1. In addition to funding the Iowa leavers study in FY 1999, ASPE funded leavers studies in Texas and in Contra Costa and Alameda Counties, California, as well as several applicant/diversion studies. Also in FY 1999, ASPE awarded an additional $837,000 for continuations and extensions of several of the FY 1998 leavers projects. In addition, $1.236 million was awarded in FY 2000 to enhance some existing studies of welfare-related outcomes. In all, ASPE has committed over $5 million to state and county grantees to study welfare outcomes.

2. Findings presented here are based on an *Initial Synthesis Report of the Findings From ASPE's "Leavers" Grants* (prepared by the Urban Institute and available at <http://aspe.hhs.gov/hsp/leavers99/synthesis01/index.htm>; "*A Cross-State Examination of Families Leaving Welfare: Findings from the ASPE-Funded Leavers Studies*," prepared by ASPE staff and available at <http://aspe.hhs.gov/hsp/leavers99/cross-state00/index.htm>; and ASPE staff analyses of reports submitted between November 2000 and March 2001.

3. Cross-state comparisons are affected by a variety of factors, ranging from state sanction policies, maximum benefit levels and earnings disregard policies, to survey sample sizes, time of interview and response rates. They are also affected by the underlying economic, social and demographic conditions of the study sites. Some observed differences also reflect methodological issues, including questionnaire design or population under study. Brief summaries of the projects can be found at <http://aspe.hhs.gov/hsp/leavers99/fy98.htm>. Information on comparing survey instruments can be found at <http://aspe.hhs.gov/hsp/leavers99/cross.htm#comparing>.

4. These individuals may not have been employed in every month, however, since UI records are based on quarterly earnings, reflecting *any* covered employment during that quarter.

5. Data from the UI system are limited to aggregate quarterly earnings, without underlying information about hourly wages or hours worked in a quarter. Therefore, the data do not indicate whether increased earnings are due to wage rate increases or more hours of work. Also, since leavers without earnings in the quarter are excluded when calculating mean earnings, the earnings increases could also be due to low earners dropping out of the labor market.

6. Recidivism rates would be higher if the studies had included those who exited for less than two months. Also note that recidivism was generally lower in studies that measured it on a monthly basis

than in those that observed welfare receipt over a quarterly (three-month) period.

7. The potential for measurement variation can be seen in the fact that two studies — Missouri and San Mateo — more than doubled their initial enrollment rates from administrative data. In both cases, researchers re-analyzed administrative data and classified additional eligibility codes as "Medicaid" enrollment, after noting large discrepancies between administrative and survey data. Earlier syntheses of findings from leavers grantees showed a wider range in Medicaid enrollment rates, based on the initial reports by Missouri and San Mateo.

8. In fact, both quarterly earnings and hourly wages of leavers in Illinois and the District of Columbia were comparable or higher than those in the other regions.

9. Poverty rates were 41 percent in Iowa (counting cash and food stamps), 47 percent in Iowa (counting cash income only), 57 percent in Cuyahoga County (counting cash and food stamps), and 58 percent in both Missouri and Washington (counting cash only). The official poverty measure does not include food stamps; food stamp benefits are included, however, in alternative poverty measures recommended by a panel from the National Academy of Sciences. The Panel on Poverty and Family Assistance also recommended that poverty measures take into account the effects of other non-cash benefits, taxes (such as the EITC) and work expenses.

10. The six-item scale is an abbreviated version of a broader 18-question scale developed by the U. S. Department of Agriculture. Families that answer yes to two or more questions on the six-item scale are considered "food insecure" and those that answer yes to five or more questions are considered "food insecure with hunger." National estimates of food insecurity, based on the 18-item scale, indicate that 37 percent of families below the poverty threshold were food insecure in 1999, including 12 percent who were food insecure with hunger (U. S. Department of Agriculture, *Household Food Security in the United States, 1999*). Estimates from the six-item scale are generally comparable with those from the broader scale.

11. The atypically high rates of homelessness (19 percent) and removals of children (17 percent) were from the same study, Florida. These results should be viewed with caution, because figures were imputed for the 73 percent of the sample that could not be located by telephone. The raw, unadjusted percentages, reported in an appendix, were closer to those reported by other states (4 percent homeless and 8 percent with children living elsewhere).

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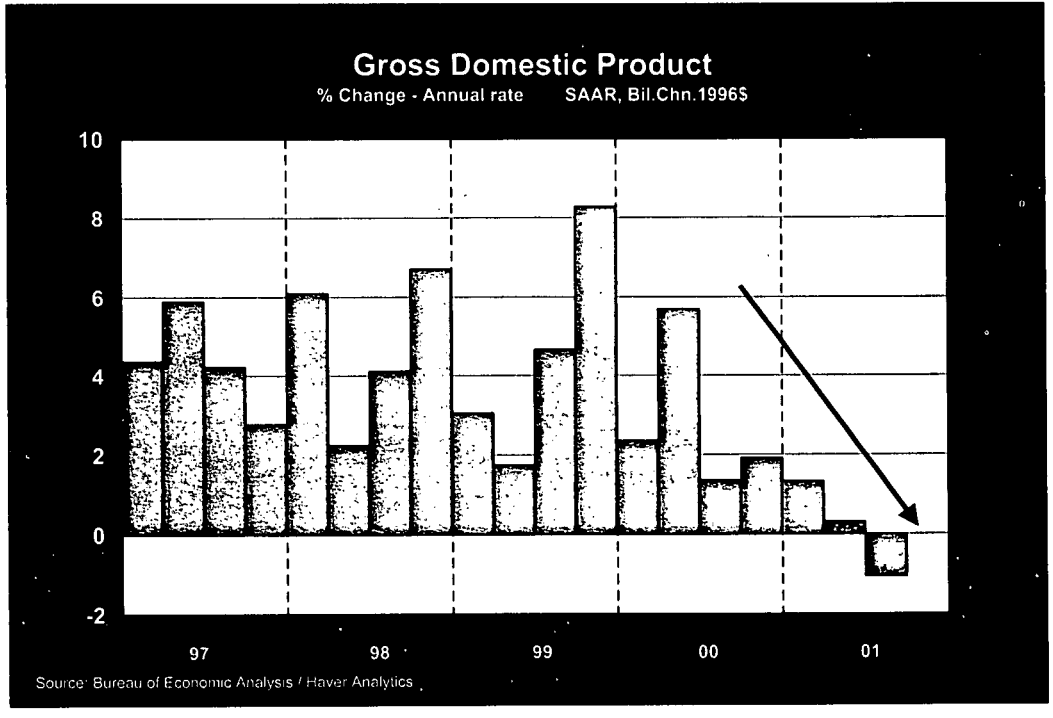
U.S. Department of Health and Human Services (HHS)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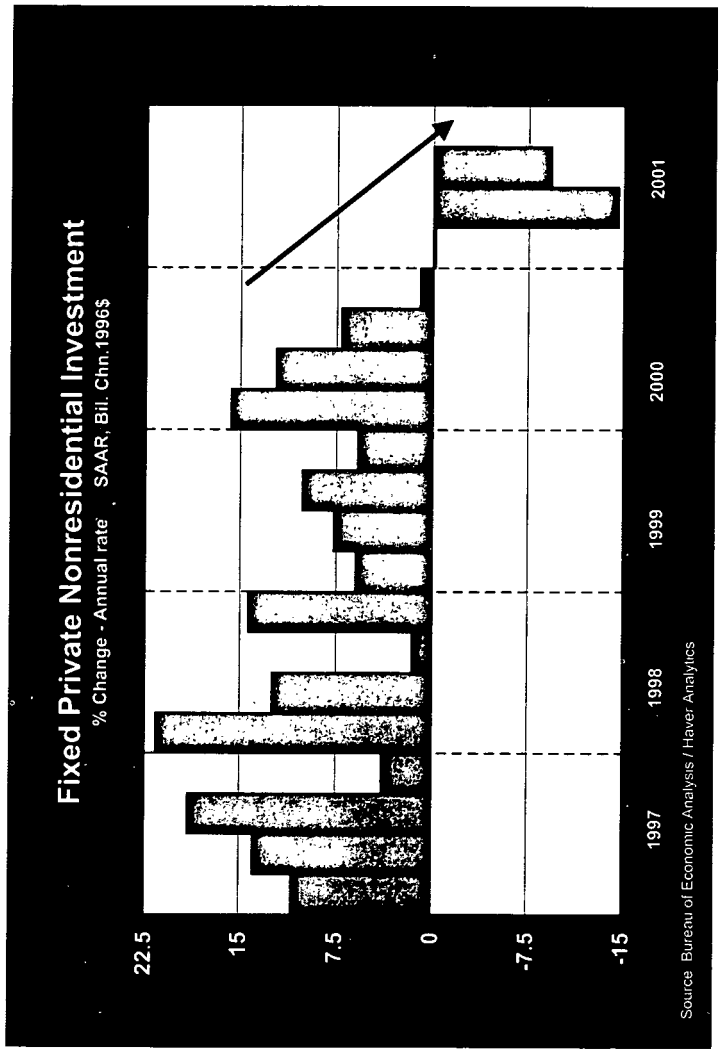
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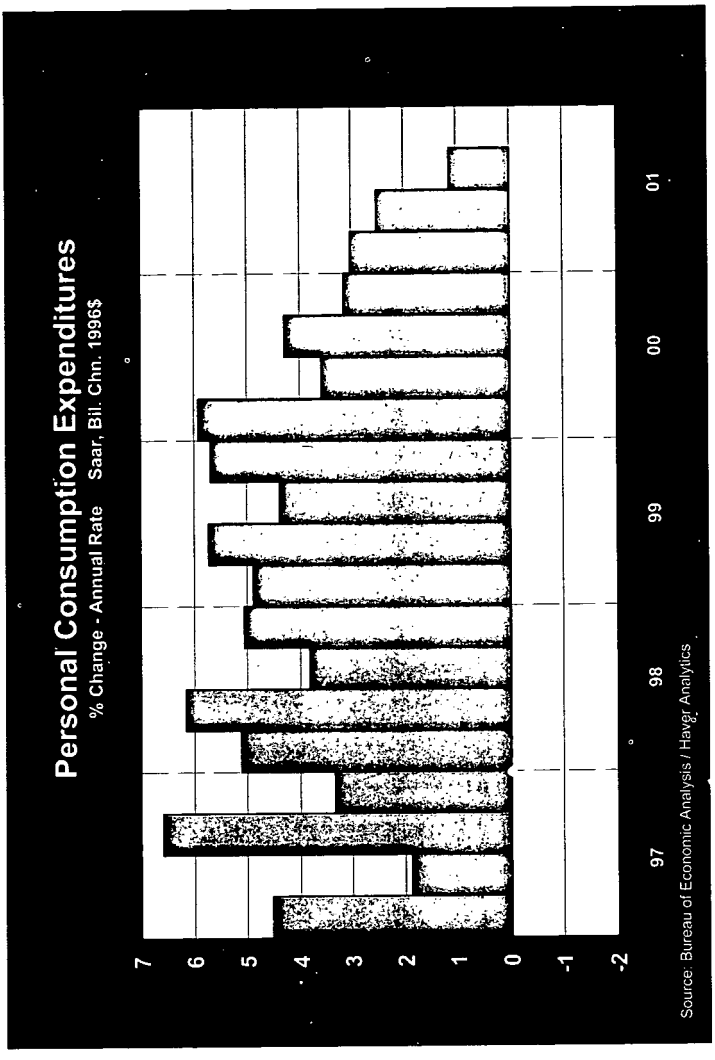
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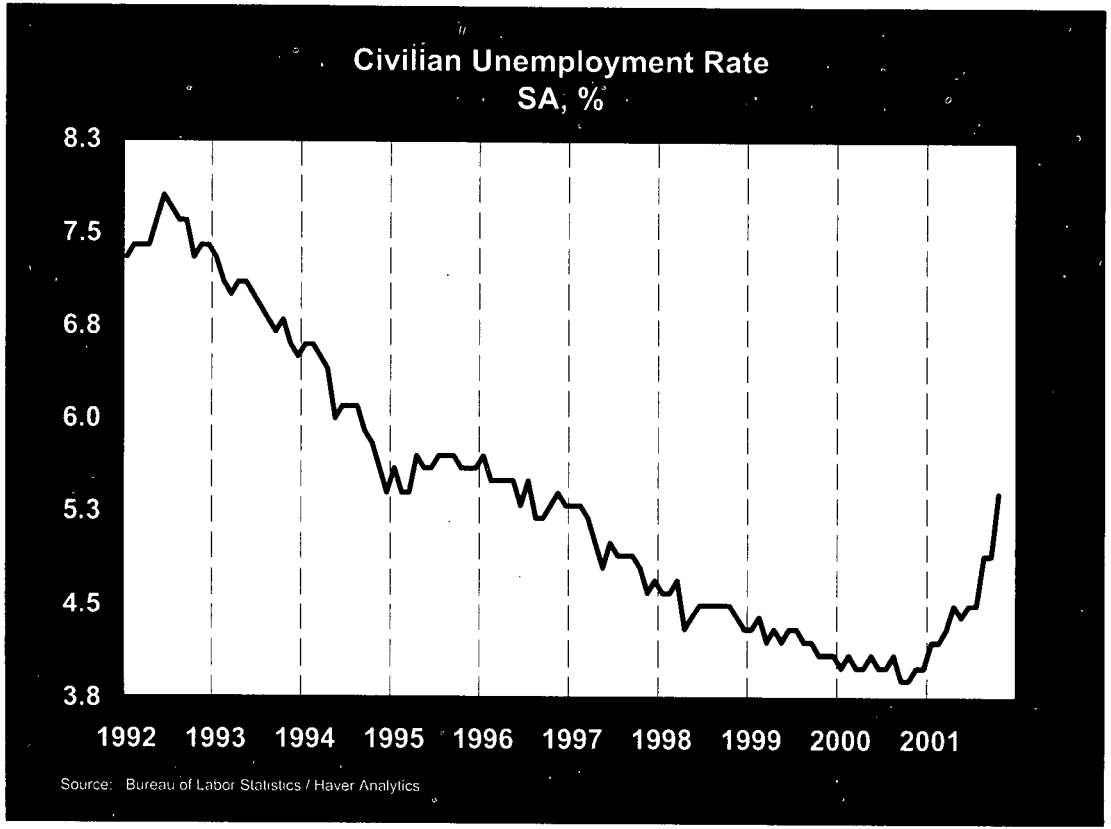
Source: Bureau of Economic Analysis / Haver Analytics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SA, %
8.3
7.5
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6.0
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1992
1993
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1996
1997
1998
1999
2000
2001
Source: Bureau of Labor Statistics / Haver Analytics

JAN 18 2002

The Honorable Jennifer Dunn
Joint Economic Committee
U.S. House of Representatives
Washington, D.C. 20515

Dear Congresswoman Dunn:

At the December 7 hearing of the Joint Economic Committee, you requested further information on employment of nurses. I have enclosed the chapters about registered and practical nurses from our recently released Occupational Outlook Handbook. These chapters provide a variety of information about the occupation including our assessment of the job outlook over the next decade. In addition to the chapters from the Handbook, I have enclosed tables with data from our Occupational Employment Statistics survey. These tables show employment and earnings of nurses in Washington State and selected metropolitan areas of the State.

As I stated at the hearing, the Bureau of Labor Statistics does not produce data on nursing vacancies. I am including, however, recent reports on nursing shortages and nursing recruitment and retention by the Congressional Research Service and the General Accounting Office.

I hope that this information is helpful to you. Please let me know if I can be of any further assistance. Philip Rones, Assistant Commissioner for Current Employment Analysis, can be reached at 202--691-6378 and would be happy to answer any follow-up questions that you or your staff may have regarding these data.

Sincerely yours,

LOIS ORR
Acting Commissioner

Enclosures
DOL/BLS/OEUS/DLFS
T. Nardone:klj:12/26/01
Cc: Comm RF, Orr, Galvin, Rones, Nardone, RF, DF

Employment and earnings of registered nurses in Washington state and selected metropolitan areas,

Area name	Industry	Employment	Mean Wage	10th Percentile wage	25th Percentile wage	50th Percentile wage	75th Percentile wage	90th Percentile wage
Statewide	All industries	42,380	$24.22	17.69	20.37	24.02	27.68	32.54
Statewide	Insurance carriers	180	22.02	14.62	18.92	21.58	25.91	30.01
Statewide	Health services	32,130	24.00	17.79	19.97	23.67	27.62	32.46
Statewide	Medical service and health insurance	160	22.00	14.65	18.86	21.43	25.81	30.11
Statewide	Offices & clinics of medical doctors	5,590	23.76	15.92	18.69	22.35	27.62	35.81
Statewide	Offices of other health practitioner	60	21.99	15.44	17.33	21.42	26.32	30.67
Statewide	Nursing and personal care facilities	2,970	20.69	16.38	18.37	20.33	22.33	26.19
Statewide	Hospitals	20,630	24.83	18.70	21.31	24.78	28.33	32.52
Statewide	Home health care services	1,850	20.84	15.10	17.45	20.27	24.12	27.59
Statewide	Health and allied services, nec	990	24.02	17.22	19.55	23.44	27.59	32.95
Statewide	Educational services	2,240	24.16	16.07	19.34	24.42	29.87	32.67
Statewide	Elementary and secondary schools	710	19.42	13.06	15.40	18.92	22.11	26.56
Statewide	Colleges and universities	1,530	26.37	18.95	22.31	27.67	31.18	33.28
Statewide	Social services	670	20.98	15.13	17.91	20.51	23.88	26.95
Statewide	Residential care	300	19.36	14.51	16.37	19.27	22.12	25.55
Statewide	Engineering & management services	440	28.11	22.28	25.84	29.26	32.05	33.72
Statewide	Government	3,030	24.38	18.98	22.07	24.40	26.70	30.77
Statewide	Federal government	1,160	25.89	19.64	22.52	25.35	29.42	33.41
Statewide	State government	670	23.68	21.59	22.86	24.17	25.78	26.74
Statewide	Local government	1,200	23.32	17.94	20.81	23.80	26.26	26.05
Bellingham, WA MSA	All industries	250	21.43	14.37	16.97	20.71	24.64	29.28
Bremerton, WA PMSA	All industries	610	21.54	17.07	18.88	21.54	24.71	26.75
Richland-Kennewick-Pasco, WA MSA	All industries	1,020	21.10	15.34	18.62	21.09	24.35	27.01
Seattle-Bellevue-Everett, WA PMSA	All industries	22,670	25.72	19.02	22.00	25.43	29.80	33.70
Spokane, WA MSA	All industries	4,250	21.41	16.09	18.45	21.60	24.78	26.76
Tacoma, WA PMSA	All industries	4,010	24.66	18.55	21.45	24.64	27.78	32.30
Yakima, WA MSA	All industries	1,810	21.18	15.84	18.39	20.85	24.40	27.09
Northwest Washington BOS	All industries	4,910	22.13	16.12	18.67	21.64	25.71	29.61

Source: Bureau of Labor Statistics, Occupational Employment Statistics survey

Employment and earnings of Licensed Practical and Licensed Vocational Nurses in Washington State and selected metropolitan areas

Area name	Industry	Employment	Mean Wage	10th Percentile wage	25th Percentile wage	50th Percentile wage	75th Percentile wage	90th Percentile wage
Statewide	All industries	10,090	$15.51	$11.98	$13.71	$15.41	$17.04	$19.81
Statewide	Business services	810	17.33	12.27	14.47	16.67	20.47	24.02
Statewide	Personnel supply services	810	17.33	12.27	14.47	16.67	20.47	24.02
Statewide	Health services (except sic 806)	7,980	15.31	11.92	13.54	15.30	16.92	19.31
Statewide	Offices & clinics of medical doctors	1,890	14.52	11.43	12.81	14.72	16.26	17.34
Statewide	Nursing and personal care facilities	2,700	16.03	12.60	14.31	15.90	17.61	20.25
Statewide	Hospitals	2,800	15.27	11.99	13.52	15.28	16.91	19.12
Statewide	Home health care services	440	14.77	11.55	12.57	14.53	16.59	19.06
Statewide	Health and allied services, nec	90	15.51	12.06	13.98	15.47	16.91	19.60
Statewide	Educational services	130	17.06	10.27	13.71	15.82	22.21	25.80
Statewide	Elementary and secondary schools	130	17.16	10.23	13.79	15.90	22.42	25.88
Statewide	Social services	450	15.15	12.02	13.70	15.19	16.65	18.38
Statewide	Individual and family services	140	15.58	12.47	14.06	15.52	16.99	19.72
Statewide	Residential care	290	14.80	11.90	13.45	14.97	16.42	17.42
Statewide	Government	680	15.60	13.64	14.36	15.53	16.69	19.03
Statewide	Federal government	310	15.26	12.73	14.05	15.27	16.50	18.47
Statewide	State government	300	15.81	13.90	14.55	15.63	16.72	19.06
Statewide	Local government	70	16.26	13.98	14.85	16.21	17.84	20.39
Bellingham, WA MSA	All industries	230	13.97	11.48	12.26	13.59	15.68	16.97
Bremerton, WA PMSA	All industries	240	15.60	13.73	14.46	15.57	16.68	18.39
Olympia, WA PMSA	All industries	450	14.15	11.60	12.50	14.10	15.90	16.99
Richland-Kennewick-Pasco, WA MSA	All industries	240	13.62	11.43	12.14	13.32	15.19	16.58
Seattle-Bellevue-Everett, WA PMSA	All industries	3,210	16.26	12.51	14.42	16.02	17.75	20.85
Spokane, WA MSA	All industries	1,370	15.69	12.19	13.85	15.48	17.15	20.07
Tacoma, WA PMSA	All industries	2,100	15.68	12.28	14.13	15.63	17.21	19.83
Yakima, WA MSA	All industries	450	15.56	12.00	13.56	15.38	17.00	19.95
Northwest Washington BOS	All industries	1,530	14.47	11.51	12.66	14.42	16.25	17.61

Source: Bureau of Labor Statistics, Occupational Employment Statistics survey

mployment by class of worker, industry, and occupation, 1983-1998 — Continued

)0000 Total, all industries

)ata are from published 1983-1998 National Industry-Occupation Employment Matrix Time Series)

Code	Occupation	1983	1984	1985	1986	1987	1988	1989	1990
2817	Pharmacists	138810	139723	145880	149858	162614	161631	160624	167480
3502	Registered nurses	1303328	1325555	1350475	1398425	1504390	1569788	1653158	1717020
3300	Therapists	209738	215974	218489	228906	242341	284874	292381	306508
7308	Physical therapists	55215	59091	65368	67891	83150	87688	82139	87944
3302	Respiratory therapists	52643	53376	54483	54099	53385	55614	57152	59498
3314	Speech-language pathologists and audiologists	40640	42296	43844	44837	48899	53841	65172	68068
3397	All other therapists	61240	61210	65973	63979	76907	78061	87915	93301
3040	Writers, artists, and entertainers	543963	585071	598087	594828	653178	678332	719011	741723
3036	Artists and commercial artists	177700	186325	184970	182873	203806	223702	232138	237836
3030	Designers	212963	237837	238049	242054	279076	288659	318438	321090
4020	Photographers and camera operators	94758	100777	109443	107858	106042	103031	108185	119137
4026	Camera operators, television, motion picture, video	10111	10229	10200	10008	10927	10872	12092	12880
4023	Photographers	84648	90547	99244	97648	97115	94060	94092	106576
4011	Reporters and correspondents	58828	60433	63806	63444	62256	60940	63253	63959
1998	All other professional workers	2583141	2624388	2665841	2707084	2758571	2870153	3009942	3101111
4000	**Technicians and related support occupations**	3407450	3530677	3640488	3724520	3727139	3858406	4048852	4161628
1901	Health technicians and technologists	1476796	1509978	1551357	1597770	1672782	1639241	1748241	1818468
1910	Clinical lab technologists and technicians	226335	231378	235898	243847	236299	247074	245858	256770
1908	Dental hygienists	82032	83159	83859	86329	87836	90282	93847	99608
1923	Electroneurodiagnostic technologists	5529	5908	5723	5892	6110	6368	6423	6685
1926	EKG technicians	17044	17282	17840	18163	18886	17600	18121	15739
1508	Emergency medical technicians	60698	62413	63784	65552	73072	76029	85858	88724
1506	Licensed practical nurses	583083	592836	609701	628384	593434	620735	614895	640252
1911	Medical record technicians	37257	37756	38630	38729	45777	46618	48398	61437
1914	Nuclear medicine technologists	9044	9170	9360	9637	9578	9983	9907	10312
1918	Radiologic technologists and technicians	107101	108570	111796	114842	125720	130901	141068	147871
1929	Surgical technologists	34483	34973	35899	36757	33802	35231	39474	37966
1994	All other health professionals and paraprofessionals	313979	328506	340469	350668	344489	358420	447819	484103
101	Engineering technicians	640894	674076	688827	693819	707714	724048	748115	752167
601	Science and mathematics technicians	226214	231849	233563	234839	237918	243883	237908	243687
000	Technicians, except health and engineering and science	1063646	1115674	1166740	1198283	1208729	1251224	1316890	1348216
702	Aircraft pilots and flight engineers	60780	65773	70869	74078	75029	82282	78504	86201
002	Air traffic controllers	28333	25645	26104	26044	28882	26967	30017	31670
029	Broadcast technicians	30292	29641	29202	27310	28202	27205	29843	31488
108	Computer programmers	419717	440503	462419	474160	488227	514965	548726	560728
308	Paralegals	47944	49727	53940	57314	76161	81941	88709	89363
111	Programmers, numerical, tool, and process control	8302	8852	8906	8687	7869	7828	7896	7790
508	Technical assistants, library	47348	46029	49843	50858	53250	55032	62776	64889
398	All other technicians	423830	447399	465837	478932	444518	455014	472919	478292
000	**Marketing and sales occupations**	10496968	10974109	11224090	11600409	11774326	12088984	12739377	12907037
023	Cashiers	1945157	2014535	2100458	2171238	2237802	2303296	2596723	2622117
010	Real estate agents, brokers, and appraisers	347372	382492	396312	412493	406858	420983	411812	412245
006	Brokers, real estate	67047	74171	76819	79856	67147	68993	68714	68987
011	Real estate appraisers	31325	33623	36181	37367	39826	40728	43181	43644
008	Sales agents, real estate	249000	274498	284312	295281	299886	311243	300018	299614
011	Salespersons, retail	3214244	3301063	3486867	3583940	3708201	3821571	3607867	3618391
014	Securities and financial services sales workers	181962	173130	183487	196748	198816	196386	186147	189704
94	All other sales and related workers	4826234	5012588	5066996	5135991	5224848	5344738	5938038	5963580
00	**Administrative support occupations, including clerical**	18873940	19676980	20359756	20875876	21447508	22148180	22717313	23101142
10	Adjusters, investigators, and collectors	668594	684403	706130	735948	896735	921544	1034773	1053943
08	Bill and account collectors	107887	111925	117210	122963	141059	148468	177110	181811
10	Insurance claims and policy processing occupations	314765	322910	332879	361894	406768	417690	417003	423749
02	Insurance adjusters, examiners, and investigators	106127	108935	110476	117996	141093	144982	148428	147628
11	Insurance claims clerks	76061	77558	80654	84379	100067	102968	101118	103926
14	Insurance policy processing clerks	132578	136089	141649	149319	164919	169740	169482	172197
02	Welfare eligibility workers and interviewers	80593	81814	83774	85871	89448	91158	90041	93114
98	All other adjusters and investigators	163546	168254	172498	175020	261459	287243	360618	368269
00	Communications equipment operators	330813	345176	354453	380590	333620	343198	331928	341481
00	Computer operators and peripheral equipment operators	269839	283197	299676	306309	304323	314310	314591	317358
00	Hotel desk clerks and new accounts clerks, banking	175013	183726	194065	201708	213968	219322	221627	221656
08	Hotel desk clerks	90827	96828	104060	107853	106591	112020	115865	116362
06	New accounts clerks, banking	84186	86898	90004	94055	107377	107302	105782	105294
03	Mail clerks and messengers	205591	215108	227730	235521	248059	257074	265459	277144
02	Mail clerks, except mail machine operators and postal service	120474	125464	130220	136070	133069	138459	131338	135673
11	Messengers	85117	89644	97520	99451	114990	121614	134123	141472
05	Postal mail carriers	233844	239679	253286	269175	278080	288013	310085	305017
11	Material recording, scheduling, dispatching, and distributing occupations	549244	574688	590296	590329	614806	632669	635296	639317

Code	Occupation	1991	1992	1993	1994	1995	1996	1997	1998
2817	Pharmacists	165367	162673	168368	167458	172818	171880	179833	184388
3502	Registered nurses	1772736	1828505	1882230	1905045	1945179	1968767	2032146	2072818
3300	Therapists	318228	328861	373880	379840	413861	419188	450810	463331
7308	Physical therapists	88284	90020	101345	101890	107553	114883	123404	119682
3302	Respiratory therapists	69621	73291	72436	72389	81412	81598	89027	88252
3314	Speech-language pathologists and audiologists	73080	72448	82796	85483	91623	87374	101248	103181
3397	All other therapists	87061	82820	117022	119870	133374	135313	141133	147817
3040	Writers, artists, and entertainers	737488	748874	752142	788939	774310	831234	828980	836491
3036	Artists and commercial artists	254736	268266	287403	271444	272427	278157	286113	284842
3030	Designers	298058	301889	298153	301503	309396	341908	348236	366659
4020	Photographers and camera operators	127221	119020	136148	137397	132890	153814	134267	138014
4026	Camera operators, television, motion picture, video	11654	11616	15772	16739	18246	19838	11148	10962
4023	Photographers	115367	107404	120378	120858	114843	123579	123120	128069
4011	Reporters and correspondents	68472	67993	59438	68388	89697	69664	67945	69475
1998	All other professional workers	3252066	3271337	3343092	3368131	3521363	3583882	3627183	3738302
4000	**Technicians and related support occupations**	4211634	4273725	4328621	4440412	4529733	4620951	4739772	4863100
1901	Health technicians and technologists	1867306	2032572	2133856	2184776	2258077	2298594	2416189	2485682
1910	Clinical lab technologists and technicians	260104	268596	271128	273497	270928	284294	308446	318068
1908	Dental hygienists	103776	107633	120820	126534	129553	133125	140680	148328
1923	Electroneurodiagnostic technologists	6111	6326	6462	6465	6361	6435	6311	6393
1926	EKG technicians	15853	16411	16103	16089	14712	14790	12284	13464
1508	Emergency medical technicians	110687	114912	130294	138813	144397	149848	146728	149787
1506	Licensed practical nurses	633155	655559	678215	702320	684169	698176	684080	690628
1911	Medical record technicians	73675	76117	79673	81064	86861	87290	90562	91966
1914	Nuclear medicine technologists	11739	12155	12985	12978	12782	12844	13782	13864
1918	Radiologic technologists and technicians	156071	161338	166381	166651	172419	173748	170336	173673
1929	Surgical technologists	42061	43542	45568	46609	48268	48462	53246	54065
1994	All other health professionals and paraprofessionals	564904	572084	606229	628048	679610	698992	769776	807578
101	Engineering technicians	701806	694464	674884	686268	689065	696835	747007	770061
601	Science and mathematics technicians	241883	242249	230230	231014	229487	228730	234037	237768
000	Technicians, except health and engineering and science	1300869	1304440	1289651	1328384	1363063	1383742	1382542	1428399
702	Aircraft pilots and flight engineers	85200	88167	91364	91230	104459	108867	90036	93829
002	Air traffic controllers	22941	23117	29744	28865	29750	29851	29633	29788
029	Broadcast technicians	36015	36330	39686	40960	42862	43567	38606	38488
108	Computer programmers	551120	555840	612005	638443	643166	671635	682397	639677
308	Paralegals	93130	93527	109902	110000	110701	112634	132784	136868
111	Programmers, numerical, tool, and process control	7536	7208	7028	7037	6750	6676	6296	6484
508	Technical assistants, library	69583	70878	73442	75439	76780	78063	70777	72294
398	All other technicians	436161	433484	426731	436381	436613	441368	392933	414818
000	**Marketing and sales occupations**	13068793	13008282	13739909	14028263	14365807	14616380	14757799	15001688
023	Cashiers	2781968	2750759	2931446	3012731	3082487	3147237	3186613	3186328
010	Real estate agents, brokers, and appraisers	385483	396839	390156	372454	394897	406404	382906	371172
006	Brokers, real estate	66711	69025	69719	66727	68907	77063	83771	69037
011	Real estate appraisers	43136	44634	46461	46673	46918	49483	74813	46742
008	Sales agents, real estate	275616	284980	273976	258863	269380	282249	294224	255396
011	Salespersons, retail	3636743	3679684	3773874	3867717	3879888	4063621	3971848	4012324
014	Securities and financial services sales workers	182462	200181	233372	244503	258806	263473	280301	292682
94	All other sales and related workers	6042170	5979135	6411060	6530656	6859957	6743314	6896631	7129180
00	**Administrative support occupations, including clerical**	22339671	22387636	22451104	23204153	23632369	24030100	23908448	24560230
10	Adjusters, investigators, and collectors	1153244	1157269	1204480	1229332	1263628	1298983	1406370	1460401
08	Bill and account collectors	232588	234670	243531	250267	260178	269316	300900	310898
10	Insurance claims and policy processing occupations	439131	437832	451878	460136	463017	467120	490443	508362
02	Insurance adjusters, examiners, and investigators	149084	149239	159213	162006	162706	166207	170301	178716
11	Insurance claims clerks	118938	118336	116808	119142	121036	121592	155275	159578
14	Insurance policy processing clerks	174131	172267	175654	176988	179274	180022	184867	189990
02	Welfare eligibility workers and interviewers	91077	93447	102990	104297	106336	108368	107110	108679
98	All other adjusters and investigators	390450	391320	406000	414632	431097	440251	507017	522306
00	Communications equipment operators	324982	326883	310193	319155	321610	329488	288790	297339
00	Computer operators and peripheral equipment operators	298010	298433	296348	289533	282982	282077	239692	230845
00	Hotel desk clerks and new accounts clerks, banking	230718	226467	246670	250261	248078	253238	264540	269700
08	Hotel desk clerks	124292	122292	132031	136943	137853	143479	155510	158669
06	New accounts clerks, banking	106424	104175	114636	113307	110124	109757	109030	111041
03	Mail clerks and messengers	265633	271441	254449	259709	262658	268219	237468	246567
02	Mail clerks, except mail machine operators and postal service	131021	131749	125062	126725	129938	130051	121936	127603
11	Messengers	134612	139692	129388	132984	132720	138168	115862	119063
05	Postal mail carriers	302890	298817	308583	320303	328896	331553	328636	331881
11	Material recording, scheduling, dispatching, and distributing occupations	649797	645920	657822	677964	691866	700400	714471	733088

mployment by class of worker, industry, and occupation, 1983-1998 — Continued

X000 Total, all industries

lata are from published 1983-1998 National Industry-Occupation Employment Matrix Time Series)

Occupation	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
517 Pharmacists	139610	139723	148880	149056	152614	161831	160824	167460	165367	162673	166339	167458	172618	171969	179633	184396
502 Registered nurses	1302329	1325558	1359478	1399428	1504390	1569796	1663159	1717020	1772738	1828506	1862230	1906048	1946179	1999767	2052145	2078913
300 Therapists	208738	215874	219469	228905	242341	264874	292381	308808	318823	326481	373590	379640	413991	419169	460810	483331
308 Physical therapists	58218	58091	58368	57991	63150	67688	82139	87044	88288	90020	101345	101690	107853	114883	123404	118682
302 Respiratory therapists	52943	53378	54483	56099	53385	55614	57162	59496	69821	73291	79436	79309	81412	81699	86027	86253
314 Speech-language pathologists and audiologists	40640	42298	43944	44837	49899	53841	65172	69068	73060	72449	82789	85483	91523	97874	101248	103181
397 All other therapists	61240	61210	65673	69979	75807	79051	87919	93301	87061	92820	117022	119970	133374	136313	141133	147217
040 Writers, artists, and entertainers	543963	595071	598067	594628	653179	676332	719011	741723	737488	749874	752142	769939	774310	831834	825990	830891
038 Artists and commercial artists	177700	196325	184970	182673	203806	223702	232139	237536	254734	268296	267403	271444	272427	279187	288113	294842
030 Designers	218983	237537	238048	242066	279076	289889	318436	321090	296068	301688	298183	301603	309399	341906	346335	358858
020 Photographers and camera operators	94768	100777	109443	107658	108042	105031	106185	119187	127221	119020	136148	137397	132880	153814	134287	139014
026 Camera operators, television, motion picture, video	10111	10229	10200	10008	10927	10972	12092	12940	11664	11618	15772	16739	18246	19936	11148	10862
023 Photographers	84848	90547	99244	97648	97115	94059	94092	106378	115387	107404	120376	120888	114643	133879	123120	128083
011 Reporters and correspondents	68822	60433	63909	62444	62284	60940	68259	63969	59472	57693	69436	54696	60897	59984	57946	59476
999 All other professional workers	2563141	2824386	2685541	2707084	2758571	2870163	3009842	3101111	3252068	3271337	3343092	3386131	3521363	3643882	3637153	3736302
000 Technicians and related support occupations	3407450	3630977	3640488	3724520	3787139	3858406	4046852	4161529	4211634	4273723	4329921	4440412	4529733	4620881	4730773	4863100
901 Health technicians and technologists	1476796	1509678	1551267	1597779	1572782	1639241	1745241	1816488	1967306	2032572	2133858	2194779	2258077	2299584	2418188	2455882
910 Clinical lab technologists and technicians	226335	231376	235696	243847	236299	247074	246853	284770	260104	268886	271128	279407	279026	284294	300445	313068
908 Dental hygienists	82032	83158	83859	88329	87636	90282	93847	96806	103776	107833	120820	128534	129853	133128	140880	143325
923 Electroneurodiagnostic technologists	5629	5806	5723	5892	6110	6368	6423	6686	8111	6328	8462	8488	6391	8435	8311	8393
926 EKG technicians	17044	17282	17640	18163	16886	17600	18121	15739	15663	16411	16103	16089	14712	14790	12284	12484
906 Emergency medical technicians	60996	62413	63784	65552	73072	78029	88686	88724	110967	114912	130294	136913	144307	149948	146726	149767
508 Licensed practical nurses	563083	592536	606701	628364	583434	620725	614885	640252	633185	658859	679215	702329	684168	699176	694080	690823
911 Medical record technicians	37257	37768	39630	38729	45777	48619	48396	51437	73678	78117	79873	81064	83861	87290	90682	91888
914 Nuclear medicine technologists	9044	9170	9380	9637	9575	9983	9907	10312	11738	12155	12965	12978	12782	12844	13782	13964
916 Radiologic technologists and technicians	107101	108570	111796	114942	125720	130901	141066	147871	155071	161338	166381	166851	172419	173748	170338	173673
926 Surgical technologists	34493	34973	35699	36757	33802	38231	38474	37986	42081	43542	45566	46509	48265	48482	53248	54023
994 All other health professionals and paraprofessionals	313979	326506	340489	350666	344489	368420	447819	484103	584904	572084	608229	626946	579610	606502	789776	807878
101 Engineering technicians	640694	674076	668827	693919	707714	724046	748115	752157	701806	694464	674634	666286	669066	696286	747007	770061
301 Science and mathematics technicians	228214	231649	233563	234939	237816	243993	237808	243667	241863	242249	230230	231014	229487	228730	234037	237786
300 Technicians, except health and engineering and science	1063846	1115574	1166740	1198283	1206728	1261224	1315690	1349216	1300869	1304440	1289681	1328354	1333063	1393743	1382962	1429369
'02 Aircraft pilots and flight engineers	60780	65778	70889	74979	75023	82282	78504	86201	85200	85157	91364	91230	104459	108867	90036	83626
02 Air traffic controllers	25333	25645	26104	26044	26882	26967	30017	31670	22841	23117	29744	28868	29750	26881	29636	29765
26 Broadcast technicians	30292	29641	29202	27310	28202	27208	29643	31496	36016	36330	36669	40960	42882	46687	35506	36488
·06 Computer programmers	419717	440903	462419	474100	496227	514965	540729	560725	551123	555640	512006	539443	543169	571696	582387	639677
06 Paralegals	47944	49727	53840	57314	79181	81841	88709	88383	93130	93527	109902	110000	110701	112634	132784	136869
11 Programmers, numerical, tool, and process control	8302	8852	8906	8687	7659	7628	7896	7790	7538	7206	7028	7037	6760	6876	8295	8484
06 Technical assistants, library	47349	48029	49643	50858	53250	58032	62776	64888	69589	70979	73442	78436	76760	78063	70777	72234
98 All other technicians	423830	447399	465837	478932	444519	455014	472819	476292	436181	433484	426731	438381	438813	441389	392933	414219
00 Marketing and sales occupations	10496963	10974109	11224090	11500409	11774328	12089964	12739377	12907037	13068783	13008282	13739906	14028283	14366807	14818360	14787798	15001885
23 Cashiers	1945157	2014536	2100458	2171236	2237803	2303298	2506723	2622117	2781888	2780789	2931449	3012731	3062467	3147237	3158513	3196326
10 Real estate agents, brokers, and appraisers	347372	382482	396312	412493	406858	420963	411813	412245	386443	390630	380156	372484	384987	406404	392008	371178
06 Brokers, real estate	67047	74171	76819	79866	67147	68993	68714	68867	66711	69025	69719	66727	66807	77963	83771	69037
11 Real estate appraisers	31325	33823	35181	37367	39628	40728	43181	43944	43139	44634	46461	46879	46918	48493	74013	48742
08 Sales agents, real estate	249000	274496	284312	295281	299886	311243	300018	299614	276815	284980	273976	258853	269360	282249	284234	265392
11 Salespersons, retail	3214244	3391063	3486887	3563940	3705201	3821871	3807687	3619391	3686743	3679584	3773874	3867717	3972868	4063921	3971846	4018334
14 Securities and financial services sales workers	161962	173130	183487	196748	199318	199399	196147	189704	183462	200181	233372	244803	265806	293473	290301	299962
34 All other sales and related workers	4828234	5012988	5088996	5135991	5224849	5344735	5938039	5963580	6042170	5979138	6411080	6330659	6659957	6743314	6898531	7129190
00 Administrative support occupations, including clerical	18873940	19679990	20359784	20876876	21447808	22149190	22717813	23101142	22339871	22387836	22481104	23204153	23832368	24030100	23906448	24560820
10 Adjusters, investigators, and collectors	666594	694403	708130	736848	896736	921644	1034773	1063943	1153244	1167269	1204480	1229332	1263626	1285853	1406370	1480401
08 Bill and account collectors	107687	111926	117210	122960	141059	149455	177110	181611	232580	234670	243531	250267	280179	288318	300800	310268
10 Insurance claims and policy processing occupations	314765	322610	332679	351694	405768	417690	417003	423749	439131	437833	451978	480139	483017	487120	490443	508252
12 Insurance adjusters, examiners, and investigators	106127	108935	110476	117099	141093	144962	149426	147628	149064	149239	159213	162006	162706	165207	170301	178716
11 Insurance claims clerks	76061	77564	80684	84379	100067	102968	101115	103926	115836	116336	116909	119142	121038	121962	168276	169675
4 Insurance policy processing clerks	132578	136069	141549	149319	164619	169740	169462	172197	174131	172287	175858	178986	179274	180022	164967	169960
12 Welfare eligibility workers and interviewers	60593	61614	63774	65871	88448	91158	90041	93114	91077	93447	102980	104297	106336	109296	107110	106579
8 All other adjusters and investigators	163548	168254	172468	176020	261459	267243	350619	355289	390460	391320	406000	414832	431097	440281	607017	623308
0 Communications equipment operators	330613	345176	354463	360599	333620	343199	331829	341481	324962	326883	310193	319156	321810	329498	296730	297306
0 Computer operators and peripheral equipment operators	289639	293197	296676	306309	304323	314310	314691	317358	295018	298433	299342	289533	282962	292077	239882	250846
0 Hotel desk clerks and new accounts clerks, banking	175013	183725	194065	201708	213968	219322	221627	221856	230718	228487	246670	250251	248078	253235	264856	268700
8 Hotel desk clerks	90827	96828	104060	107653	106591	112020	116865	116362	124292	122292	132031	136943	137953	143478	155618	158858
6 New accounts clerks, banking	84186	86898	90004	94055	107377	107302	105762	106294	106424	104175	114639	113307	110124	109757	109038	111041
3 Mail clerks and messengers	205591	215106	227739	235521	248059	257074	265459	277144	265633	271441	254449	259700	262859	268219	237489	246657
2 Mail clerks, except mail machine operators and postal service	120474	125484	130220	136070	133069	139459	131336	135673	131021	131749	125062	126725	129639	130061	121836	127603
1 Messengers	85117	89644	97520	99451	114990	121814	134123	141472	134612	139602	129368	132984	132720	138166	115652	119053
8 Postal mail carriers	233844	239679	253285	266175	279080	286013	310065	305017	302690	296917	306882	320306	328396	331583	328635	331961
1 Material recording, scheduling, dispatching, and distributing occupations	549244	574588	590268	590329	614606	632669	635290	639317	649797	645020	657822	677684	691066	700400	714471	733099

➤ National Registry of Emergency Medical Technicians, P.O. Box 29233, Columbus, OH 43229. Internet: http://www.nremt.org
➤ National Highway Transportation Safety Administration, EMS Division, 400 7th St. SW., NTS-14, Washington, DC. Internet: http://www.nhtsa.dot.gov/people/injury/ems

Licensed Practical and Licensed Vocational Nurses

(O*NET 29-2061.00)

Significant Points

- Training lasting about 1 year is available in about 1,100 State-approved programs, mostly in vocational or technical schools.
- Nursing homes will offer the most new jobs.
- Job seekers in hospitals may face competition as the number of hospital jobs for LPNs declines.

Nature of the Work

Licensed practical nurses (LPNs), or licensed vocational nurses (LVNs) as they are called in Texas and California, care for the sick, injured, convalescent, and disabled under the direction of physicians and registered nurses. (The work of *physicians and surgeons* and *registered nurses* is described elsewhere in the *Handbook*.)

Most LPNs provide basic bedside care. They take vital signs such as temperature, blood pressure, pulse, and respiration. They also treat bedsores, prepare and give injections and enemas, apply dressings, give alcohol rubs and massages, apply ice packs and hot water bottles, and monitor catheters. LPNs observe patients and report adverse reactions to medications or treatments. They collect samples for testing, perform routine laboratory tests, feed patients, and record food and fluid intake and output. They help patients with bathing, dressing, and personal hygiene, keep them comfortable, and care for their emotional needs. In States where the law allows, they may administer prescribed medicines or start intravenous fluids. Some LPNs help deliver, care for, and feed infants. Experienced LPNs may supervise nursing assistants and aides.

LPNs in nursing homes provide routine bedside care, help evaluate residents' needs, develop care plans, and supervise the care provided by nursing aides. In doctors' offices and clinics, they also may make appointments, keep records, and perform other clerical duties. LPNs who work in private homes also may prepare meals and teach family members simple nursing tasks.

Licensed practical and licensed vocational nurses take vital signs such as temperature, blood pressure, pulse, and respiration.

Working Conditions

Most licensed practical nurses in hospitals and nursing homes work a 40-hour week, but because patients need around-the-clock care, some work nights, weekends, and holidays. They often stand for long periods and help patients move in bed, stand, or walk.

LPNs may face hazards from caustic chemicals, radiation, and infectious diseases such as hepatitis. They are subject to back injuries when moving patients and shock from electrical equipment. They often must deal with the stress of heavy workloads. In addition, the patients they care for may be confused, irrational, agitated, or uncooperative.

Employment

Licensed practical nurses held about 700,000 jobs in 2000. Twenty-nine percent of LPNs worked in nursing homes, 28 percent worked in hospitals, and 14 percent in physicians' offices and clinics. Others worked for home healthcare services, residential care facilities, schools, temporary help agencies, or government agencies; about 1 in 5 worked part time.

Training, Other Qualifications, and Advancement

All States and the District of Columbia require LPNs to pass a licensing examination after completing a State-approved practical nursing program. A high school diploma, or equivalent, usually is required for entry, although some programs accept candidates without a diploma or are designed as part of a high school curriculum.

In 2000, approximately 1,100 State-approved programs provided practical nursing training. Almost 6 out of 10 students were enrolled in technical or vocational schools, while 3 out of 10 were in community and junior colleges. Others were in high schools, hospitals, and colleges and universities.

Most practical nursing programs last about 1 year and include both classroom study and supervised clinical practice (patient care). Classroom study covers basic nursing concepts and patient-care related subjects, including anatomy, physiology, medical-surgical nursing, pediatrics, obstetrics, psychiatric nursing, administration of drugs, nutrition, and first aid. Clinical practice usually is in a hospital, but sometimes includes other settings.

LPNs should have a caring, sympathetic nature. They should be emotionally stable because work with the sick and injured can be stressful. They also should have keen observational, decision making, and communication skills. As part of a healthcare team, they must be able to follow orders and work under close supervision.

Job Outlook

Employment of LPNs is expected to grow about as fast as the average for all occupations through 2010 in response to the long-term care needs of a rapidly growing elderly population and the general growth of healthcare. Replacement needs will be a major source of job openings, as many workers leave the occupation permanently.

Employment of LPNs in nursing homes is expected to grow faster than the average. Nursing homes will offer the most new jobs for LPNs as the number of aged and disabled persons in need of long-term care rises. In addition to caring for the aged and disabled, nursing homes will be called on to care for the increasing number of patients who have been discharged from the hospital but who have not recovered enough to return home.

LPNs seeking positions in hospitals may face competition, as the number of hospital jobs for LPNs declines. An increasing proportion of sophisticated procedures, which once were performed

only in hospitals, are being performed in physicians' offices and clinics, including ambulatory surgicenters and emergency medical centers, due largely to advances in technology. As a result, employment of LPNs is projected to grow much faster than average in these places as healthcare expands outside the traditional hospital setting.

Employment of LPNs is expected to grow much faster than average in home healthcare services. This is in response to a growing number of older persons with functional disabilities, consumer preference for care in the home, and technological advances, which make it possible to bring increasingly complex treatments into the home.

Earnings

Median annual earnings of licensed practical nurses were $29,440 in 2000. The middle 50 percent earned between $24,920 and $34,800. The lowest 10 percent earned less than $21,520, and the highest 10 percent earned more than $41,800. Median annual earnings in the industries employing the largest numbers of licensed practical nurses in 2000 were as follows:

Personnel supply services	$35,750
Home health care services	31,220
Nursing and personal care facilities	29,980
Hospitals	28,450
Offices and clinics of medical doctors	27,520

Related Occupations

LPNs work closely with people while helping them. So do emergency medical technicians and paramedics, social and human service assistants, surgical technologists, and teacher assistants.

Sources of Additional Information

For information about practical nursing, contact:

- National League for Nursing, 61 Broadway, New York, NY 10006. Internet: http://www.nln.org
- National Association for Practical Nurse Education and Service, Inc., 1400 Spring St., Suite 330, Silver Spring, MD 20910.
- National Federation of Licensed Practical Nurses, Inc., 893 US Highway 70 West, Suite 202, Garner, NC 27529-2597.

Medical Records and Health Information Technicians

(O*NET 29-2071.00)

Significant Points

- Medical records and health information technicians are projected to be one of the fastest growing occupations.
- High school students can improve chances of acceptance into a medical record and health information education program by taking anatomy, physiology, medical terminology, and computer courses.
- Most technicians will be employed by hospitals, but job growth will be faster in offices and clinics of physicians, nursing homes, and home health agencies.

Nature of the Work

Every time health care personnel treat a patient, they record what they observed, and how the patient was treated medically. This record includes information the patient provides concerning their symptoms and medical history, the results of examinations, reports of x rays and laboratory tests, diagnoses, and treatment plans. Medical records and health information technicians organize and evaluate these records for completeness and accuracy.

Medical records and health information technicians begin to assemble patients' health information by first making sure their initial medical charts are complete. They ensure all forms are completed and properly identified and signed, and all necessary information is in the computer. Sometimes, they communicate with physicians or others to clarify diagnoses or get additional information.

Technicians assign a code to each diagnosis and procedure. They consult classification manuals and rely, also, on their knowledge of disease processes. Technicians then use a software program to assign the patient to one of several hundred "diagnosis-related groups," or DRG's. The DRG determines the amount the hospital will be reimbursed if the patient is covered by Medicare or other insurance programs using the DRG system. Technicians who specialize in coding are called health information coders, medical record coders, coder/abstractors, or coding specialists. In addition to the DRG system, coders use other coding systems, such as those geared towards ambulatory settings.

Technicians also use computer programs to tabulate and analyze data to help improve patient care, control costs, for use in legal actions, in response to surveys, or for use in research studies. *Tumor registrars* compile and maintain records of patients who have cancer to provide information to physicians and for research studies.

Medical records and health information technicians' duties vary with the size of the facility. In large to medium facilities, technicians may specialize in one aspect of health information, or supervise health information clerks and transcriptionists while a *medical records and health information administrator* manages the department. (See the statement on medical and health services managers elsewhere in the *Handbook*.) In small facilities, a credentialed medical records and health information technician sometimes manages the department.

Working Conditions

Medical records and health information technicians usually work a 40-hour week. Some overtime may be required. In hospitals—where health information departments often are open 24 hours a day, 7 days a week—technicians may work day, evening, and night shifts.

Medical records and health information technicians work in pleasant and comfortable offices. This is one of the few health occupations in which there is little or no physical contact with

The duties of medical records and health information technicians vary with the size of the facility.

Registered Nurses

(O*NET 29-1111.00)

Significant Points

- The largest health care occupation, with more than 2 million jobs.
- One of the 10 occupations projected to have the largest numbers of new jobs.
- Job opportunities are expected to be very good.
- Earnings are above average, particularly for advanced practice nurses, who have additional education or training.

Nature of the Work

Registered nurses (RNs) work to promote health, prevent disease, and help patients cope with illness. They are advocates and health educators for patients, families, and communities. When providing direct patient care, they observe, assess, and record symptoms, reactions, and progress; assist physicians during treatments and examinations; administer medications; and assist in convalescence and rehabilitation. RNs also develop and manage nursing care plans; instruct patients and their families in proper care; and help individuals and groups take steps to improve or maintain their health. While State laws govern the tasks that RNs may perform, it is usually the work setting that determines their daily job duties.

Hospital nurses form the largest group of nurses. Most are staff nurses, who provide bedside nursing care and carry out medical regimens. They also may supervise licensed practical nurses and nursing aides. Hospital nurses usually are assigned to one area, such as surgery, maternity, pediatrics, emergency room, intensive care, or treatment of cancer patients. Some may rotate among departments.

Office nurses care for outpatients in physicians' offices, clinics, surgicenters, and emergency medical centers. They prepare patients for and assist with examinations, administer injections and medications, dress wounds and incisions, assist with minor surgery, and maintain records. Some also perform routine laboratory and office work.

Nursing home nurses manage nursing care for residents with conditions ranging from a fracture to Alzheimer's disease. Although they often spend much of their time on administrative and supervisory tasks, RNs also assess residents' health condition, develop treatment plans, supervise licensed practical nurses and nursing aides, and perform difficult procedures such as starting intravenous fluids. They also work in specialty-care departments, such as long-term rehabilitation units for patients with strokes and head injuries.

Home health nurses provide periodic services to patients at home. After assessing patients' home environments, they care for and instruct patients and their families. Home health nurses care for a broad range of patients, such as those recovering from illnesses and accidents, cancer, and childbirth. They must be able to work independently, and may supervise home health aides.

Public health nurses work in government and private agencies and clinics, schools, retirement communities, and other community settings. They focus on populations, working with individuals, groups, and families to improve the overall health of communities. They also work as partners with communities to plan and implement programs. Public health nurses instruct individuals, families, and other groups regarding health issues, disease prevention, nutrition, and childcare. They arrange for immunizations, blood pressure testing, and other health screening. These nurses also work with community leaders, teachers, parents, and physicians in community health education.

Occupational health or *industrial nurses* provide nursing care at worksites to employees, customers, and others with minor injuries and illnesses. They provide emergency care, prepare accident reports, and arrange for further care if necessary. They also offer health counseling, assist with health examinations and inoculations, and assess work environments to identify potential health or safety problems.

Head nurses or *nurse supervisors* direct nursing activities. They plan work schedules and assign duties to nurses and aides, provide or arrange for training, and visit patients to observe nurses and to ensure the proper delivery of care. They also may see that records are maintained and equipment and supplies are ordered.

At the advanced level, *nurse practitioners* provide basic primary healthcare. They diagnose and treat common acute illnesses and injuries. Nurse practitioners also can prescribe medications—but certification and licensing requirements vary by State. Other advanced practice nurses include *clinical nurse specialists, certified registered nurse anesthetists,* and *certified nurse-midwives.* Advanced practice nurses must meet higher educational and clinical practice requirements beyond the basic nursing education and licensing required of all RNs.

Hospital nurses usually are assigned to one area, such as surgery, maternity, pediatrics, emergency room, intensive care, or treatment of cancer patients.

Working Conditions

Most nurses work in well-lighted, comfortable healthcare facilities. Home health and public health nurses travel to patients' homes, schools, community centers, and other sites. Nurses may spend considerable time walking and standing. They need emotional stability to cope with human suffering, emergencies, and other stresses. Patients in hospitals and nursing homes require 24-hour care; consequently, nurses in these institutions may work nights, weekends, and holidays. RNs also may be on-call—available to work on short notice. Office, occupational health, and public health nurses are more likely to work regular business hours. Almost 1 in 10 RNs held more than one job in 2000.

Nursing has its hazards, especially in hospitals, nursing homes, and clinics where nurses may care for individuals with infectious diseases. Nurses must observe rigid guidelines to guard against disease and other dangers, such as those posed by radiation, chemicals used for sterilization of instruments, and anesthetics. In addition, they are vulnerable to back injury when moving patients, shocks from electrical equipment, and hazards posed by compressed gases.

Employment

As the largest healthcare occupation, registered nurses held about 2.2 million jobs in 2000. About 3 out of 5 jobs were in hospitals, in inpatient and outpatient departments. Others were mostly in offices and clinics of physicians and other health practitioners, home healthcare agencies, nursing homes, temporary help agencies, schools, and government agencies. The remainder worked in residential care facilities, social service agencies, religious organizations, research facilities, management and public relations firms, insurance agencies, and private households. About 1 out of 4 RNs worked part time.

Training, Other Qualifications, and Advancement

In all States and the District of Columbia, students must graduate from an approved nursing program and pass a national licensing examination to obtain a nursing license. Nurses may be licensed in more than one State, either by examination, by endorsement of a license issued by another State, or through a multi-State licensing agreement. All States require periodic license renewal, which may involve continuing education.

There are three major educational paths to registered nursing: associate degree in nursing (A.D.N.), bachelor of science degree in nursing (B.S.N.), and diploma. A.D.N. programs, offered by community and junior colleges, take about 2 to 3 years. About half of the 1,700 RN programs in 2000 were at the A.D.N. level. B.S.N. programs, offered by colleges and universities, take 4 or 5 years. More than one-third of all programs in 2000 offered degrees at the bachelor's level. Diploma programs, administered in hospitals, last 2 to 3 years. Only a small number of programs offer diploma-level degrees. Generally, licensed graduates of any of the three program types qualify for entry-level positions as staff nurses.

Many A.D.N. and diploma-educated nurses later enter bachelor's programs to prepare for a broader scope of nursing practice. They can often find a staff nurse position and then take advantage of tuition reimbursement programs to work toward a B.S.N.

Individuals considering nursing should carefully weigh the pros and cons of enrolling in a B.S.N. program because, if they do so, their advancement opportunities usually are broader. In fact, some career paths are open only to nurses with bachelor's or advanced degrees. A bachelor's degree is often necessary for administrative positions, and it is a prerequisite for admission to graduate nursing programs in research, consulting, teaching, or a clinical specialization.

Nursing education includes classroom instruction and supervised clinical experience in hospitals and other health facilities. Students take courses in anatomy, physiology, microbiology, chemistry, nutrition, psychology and other behavioral sciences, and nursing. Coursework also includes the liberal arts.

Supervised clinical experience is provided in hospital departments such as pediatrics, psychiatry, maternity, and surgery. A growing number of programs include clinical experience in nursing homes, public health departments, home health agencies, and ambulatory clinics.

Nurses should be caring and sympathetic. They must be able to accept responsibility, direct or supervise others, follow orders precisely, and determine when consultation is required.

Experience and good performance can lead to promotion to more responsible positions. Nurses can advance, in management, to assistant head nurse or head nurse. From there, they can advance to assistant director, director, and vice president. Increasingly, management-level nursing positions require a graduate degree in nursing or health services administration. They also require leadership, negotiation skills, and good judgment. Graduate programs preparing executive-level nurses usually last 1 to 2 years.

Within patient care, nurses can advance to clinical nurse specialist, nurse practitioner, certified nurse-midwife, or certified registered nurse anesthetist. These positions require 1 or 2 years of graduate education, leading to a master's degree or, in some instances, to a certificate.

Some nurses move into the business side of healthcare. Their nursing expertise and experience on a healthcare team equip them to manage ambulatory, acute, home health, and chronic care services. Healthcare corporations employ nurses for health planning and development, marketing, and quality assurance. Other nurses work as college and university faculty or do research.

Job Outlook

Job opportunities for RNs are expected to be very good. Employment of registered nurses is expected to grow faster than the average for all occupations through 2010, and because the occupation is very large, many new jobs will result. Thousands of job openings also will result from the need to replace experienced nurses who leave the occupation, especially as the median age of the registered nurse population continues to rise.

Some States report current and projected shortages of RNs, primarily due to an aging RN workforce and recent declines in nursing school enrollments. Imbalances between the supply of and demand for qualified workers should spur efforts to attract and retain qualified RNs. For example, employers may restructure workloads, improve compensation and working conditions, and subsidize training or continuing education.

Faster than average growth will be driven by technological advances in patient care, which permit a greater number of medical problems to be treated, and an increasing emphasis on preventive care. In addition, the number of older people, who are much more likely than younger people to need nursing care, is projected to grow rapidly.

Employment in hospitals, the largest sector, is expected to grow more slowly than in other healthcare sectors. While the intensity of nursing care is likely to increase, requiring more nurses per patient, the number of inpatients (those who remain in the hospital for more than 24 hours) is not likely to increase much. Patients are being discharged earlier and more procedures are being done on an outpatient basis, both in and outside hospitals. However, rapid growth

is expected in hospital outpatient facilities, such as those providing same-day surgery, rehabilitation, and chemotherapy.

Employment in home healthcare is expected to grow rapidly. This is in response to the growing number of older persons with functional disabilities, consumer preference for care in the home, and technological advances that make it possible to bring increasingly complex treatments into the home. The type of care demanded will require nurses who are able to perform complex procedures.

Employment in nursing homes is expected to grow faster than average due to increases in the number of elderly, many of whom require long-term care. In addition, the financial pressure on hospitals to discharge patients as soon as possible should produce more nursing home admissions. Growth in units that provide specialized long-term rehabilitation for stroke and head injury patients or that treat Alzheimer's victims also will increase employment.

An increasing proportion of sophisticated procedures, which once were performed only in hospitals, are being performed in physicians' offices and clinics, including ambulatory surgicenters and emergency medical centers. Accordingly, employment is expected to grow faster than average in these places as healthcare in general expands.

In evolving integrated health care networks, nurses may rotate among employment settings. Because jobs in traditional hospital nursing positions are no longer the only option, RNs will need to be flexible. Opportunities should be excellent, particularly for nurses with advanced education and training.

Earnings

Median annual earnings of registered nurses were $44,840 in 2000. The middle 50 percent earned between $37,870 and $54,000. The lowest 10 percent earned less than $31,890, and the highest 10 percent earned more than $64,360. Median annual earnings in the industries employing the largest numbers of registered nurses in 2000 were as follows:

Personnel supply services	$46,860
Hospitals	45,780
Home health care services	43,640
Offices and clinics of medical doctors	43,480
Nursing and personal care facilities	41,330

Many employers offer flexible work schedules, childcare, educational benefits, and bonuses.

Related Occupations

Workers in other healthcare occupations with responsibilities and duties related to those of registered nurses are emergency medical technicians and paramedics, occupational therapists, physical therapists, physician assistants, and respiratory therapists.

Sources of Additional Information

For information on a career as a registered nurse and nursing education, contact:

➤ National League for Nursing, 61 Broadway, New York, NY 10006. Internet: http://www.nln.org

For a list of B.S.N. and graduate nursing programs, write to:

➤ American Association of Colleges of Nursing, 1 Dupont Circle NW., Suite 530, Washington, DC 20036. Internet: http://www.aacn.nche.edu

Information on registered nurses also is available from:

➤ American Nurses Association, 600 Maryland Ave. SW., Washington, DC 20024-2571. Internet: http://www.nursingworld.org

Respiratory Therapists

(O*NET 29-1126.00, 29-2054.00)

Significant Points

- Hospitals will continue to employ more than 8 out of 10 respiratory therapists, but a growing number of therapists will work in respiratory therapy clinics, nursing homes, home health agencies, and firms that supply respiratory equipment for home use.
- Job opportunities will be best for therapists with cardiopulmonary care skills or experience working with newborns and infants.

Nature of the Work

Respiratory therapists and respiratory therapy technicians—also known as *respiratory care practitioners*—evaluate, treat, and care for patients with breathing disorders. *Respiratory therapists* assume primary responsibility for all respiratory care treatments, including the supervision of respiratory therapy technicians. *Respiratory therapy technicians* provide specific, well-defined respiratory care procedures under the direction of respiratory therapists and physicians. In clinical practice, many of the daily duties of therapists and technicians overlap, although therapists generally have more experience than technicians. In this statement, the term *respiratory therapists* includes both respiratory therapists and respiratory therapy technicians.

To evaluate patients, respiratory therapists test the capacity of the lungs and analyze oxygen and carbon dioxide concentration. They also measure the patient's potential of hydrogen (pH), which indicates the acidity or alkalinity level of the blood. To measure lung capacity, patients breathe into an instrument that measures the volume and flow of oxygen during inhalation and exhalation. By comparing the reading with the norm for the patient's age, height, weight, and sex, respiratory therapists can determine whether lung deficiencies exist. To analyze oxygen, carbon dioxide, and pH levels, therapists draw an arterial blood sample, place it in a blood gas analyzer, and relay the results to a physician.

Respiratory therapists treat all types of patients, ranging from premature infants whose lungs are not fully developed, to elderly people whose lungs are diseased. These workers provide temporary relief to patients with chronic asthma or emphysema, as well as emergency care to patients who are victims of a heart attack, stroke, drowning, or shock.

To treat patients, respiratory therapists use oxygen or oxygen mixtures, chest physiotherapy, and aerosol medications. To increase a patient's concentration of oxygen, therapists place an oxygen mask or nasal cannula on a patient and set the oxygen flow at the level prescribed by a physician. Therapists also connect patients who cannot breathe on their own to ventilators that deliver pressurized oxygen into the lungs. They insert a tube into a patient's trachea, or windpipe; connect the tube to the ventilator; and set the rate, volume, and oxygen concentration of the oxygen mixture entering the patient's lungs.

Therapists regularly check on patients and equipment. If the patient appears to be having difficulty, or if the oxygen, carbon dioxide, or pH level of the blood is abnormal, they change the ventilator setting according to the doctor's order or check equipment for mechanical problems. In homecare, therapists teach patients and their families to use ventilators and other life support systems. Additionally, they visit several times a month to inspect and clean equipment and ensure its proper use and make emergency visits, if equipment problems arise.

Order Code RL30974

CRS Report for Congress

A Shortage of Registered Nurses: Is It On the Horizon or Already Here?

May 18, 2001

Linda Levine
Specialist in Labor Economics
Domestic Social Policy Division

Prepared for Members and Committees of Congress

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List of Tables

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Who Are We Talking About?

The exact nature of RNs' daily duties usually depends on the setting in which they work.[4]

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[7] *Ibid.*

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Substantial Retiree Replacement Needs. The need to replace workers across all industries will accelerate as more members of the baby-boom generation retire. Health care providers generally, and hospitals particularly as the largest employer of RNs, could be among the industries most affected by this demographic phenomenon because an above-average proportion of nurses are aged 45 and older (39% of RNs versus 34% of all employees).[9] The U.S. Bureau of Labor Statistics (BLS) estimates that employers will need to replace 331,000 RNs who are forecast to retire between 1998 and 2008, with the majority of those retirements likely to occur toward the end of the period when baby-boomers will be between 45 and 62 years old. Of the 794,000 total job openings projected for RNs through 2008, almost 42% could arise from the need to replace retirees.[10]

The Supply of Registered Nurses

It usually is thought to be more difficult to estimate occupational labor supply than demand. The number of entrants to the RN workforce can be discerned, in part, by looking at data on graduates from programs that offer nursing degrees. The supply of new workers to nursing can be estimated more easily than the supply to many other occupations where college major is less determinative of the field into which the student will go or where no formal education or training beyond high school typically is required. By focusing on graduations alone, however, the supply of new RNs could well be understated because the availability of nurses from abroad — who can enter the country permanently or as temporary workers[11] — would be omitted. In order to develop the best possible estimate of the prospective total supply of labor to RN jobs, "leavers" (i.e., RNs who take jobs in other occupations or who exit the labor force for such reasons as retirement or disability) also must be taken into account.

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Table 2. Graduates from Nursing Degree Programs, 1976-1998

Academic year	Number	Annual percent change
1975-1976	77,065	—
1976-1977	77,755	0.90
1977-1978	77,874	0.15
1978-1979	77,132	-0.95
1979-1980	75,523	-2.09
1980-1981	73,985	-2.04
1981-1982	74,052	0.09
1982-1983	77,408	4.53
1983-1984	80,312	3.75
1984-1985	82,075	2.20
1985-1986	77,027	-6.15
1986-1987	70,561	-8.39
1987-1988	64,839	-8.11
1988-1989	61,660	-4.90
1989-1990	66,088	7.18
1990-1991	72,230	9.29
1991-1992	80,839	11.92
1992-1993	88,149	9.04
1993-1994	94,870	7.62
1994-1995	97,052	2.30
1995-1996	94,757	-2.36
1996-1997	91,421	-3.52
1997-1998	84,847	-7.19

Source: Data provided by the National League for Nursing through 1995-1996 may be found in Heath Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Information and Analysis. *United States Health Workforce Personnel Factbook.* Available at [http://www.bhpr.hrsa.gov/healthworkforce/factbook.htm]. Data for 1996-1997 and 1997-1998 are unofficial, unpublished data from the National League for Nursing.

Academic year	Number	Annual percent change
2016-2017	89,126	-1.40
2017-2018	79,413	-10.90
2018-2019	81,133	2.17
2019-2020	88,065	8.54

Source: National Advisory Council on Nurse Education and Practice. *Report to the Secretary of the Department of Health and Human Services on the Basic Registered Nurse Workforce*. Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing, 1996.

The Total Supply of RNs

The Division of Nursing built on its projected supply of graduates from basic nursing education programs to develop a projection of the total supply of RNs. It was produced by looking at such things as the historical trend in the proportion of the RN population that is employed in nursing, economic and social forces evident in the early 1990s that were expected to influence RN employment (e.g., changes in women's employment rate and in nurses' salaries) and information on foreign graduate first-time licensees. In addition, estimates of leavers were derived by taking into consideration such things as trends in deaths among white women and in retirement across all types of workers. The Division of Nursing expects to release new supply-demand projections for RNs, based on more recent data, in summer 2001.

Although the total supply of RNs is projected to almost steadily increase through 2020, it is expected to do so at a diminishing rate. (See **Table 4**.) The falloff in the growth rate could be particularly steep between 2005 and 2008, when an especially large number of baby-boom RNs (i.e., those born between 1948 and 1959) will start reaching 55 years of age — an age "at which RNs have historically begun to reduce their labor participation."[12] Another sharp reduction in the growth rate is anticipated between 2012 and 2013, when this large subset of baby boomers will reach what typically are the waning years of a person's working life.

[12]Minnick, Ann F. Retirement, the Nursing Workforce, and the Year 2005. *Nursing Outlook*, September/October 2000. p. 211.

A Shortfall of Registered Nurses?

As discussed below, the latest estimates from which supply and demand conditions in the labor market for RNs may be observed point to a looming national shortage unless pre-emptive actions are taken. In contrast, reports that nurses currently are in short supply generally are anecdotal, or they relate to a specific kind of nurse (e.g., experienced nurses with specific skills as opposed to newly licensed RNs) or specific geographic areas which suggest a maldistribution of labor rather than a shortage *per se*.[13]

Projected Labor Market Conditions for RNs

A sense of future conditions in the RN labor market can be gleaned from a comparison of the BLS demand projections and the Division of Nursing's supply projections. As shown in Table 5, the estimated supply of RNs in 1998 exceeded the number actually employed in that year by 142,190. Absent intervening actions, it is not until some time late in the current decade that a shortage might occur: the supply of RNs in 2008 is projected to fall just shy of demand, by 15,674 persons. The gap could actually be slightly wider if the BLS and the Division of Nursing used the same definition for RNs. The BLS categorizes RNs who principally are teachers or managers in those non-nursing occupations; the Division of Nursing categorizes all persons who have a nursing license as RNs. Nonetheless, the difference is so small that some might regard it as indicating a balance of supply and demand.

Table 5. The First Comparison of Projected Supply and Demand in the RN Labor Market

Year	Supply of RNs[a]	Demand for RNs[b]
1998	2,221,000	2,078,810
2008	2,514,000	2,529,674

Source: Supply data from Table 4 and demand data from Table 1.

[a]The supply figures for 1998 and 2008 are projections.

[b]The demand figure for 1998 is actual employment of RNs. Employment in 2008 is a projection.

A very similar situation is revealed by comparing the Division of Nursing's supply and demand projections for RNs, despite the aforementioned difference in RN definition, the fact that the Division's demand estimate uses a different methodology than that employed by BLS[14] and the fact that it is based on statistics from the early

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[13]See, for example, The Center for Health Workforce Studies, School of Public Health, University at Albany. *Meeting Future Nursing Needs of New Yorkers: The Role of the State University of New York.* Rensselaer, NY, October 2000.

[14]For example, the Division of Nursing's demand model develops forecasts for each state that (continued...)

Table 6. The Second Comparison of Projected Supply and Demand in the RN Labor Market

Year (as of December 31)	Supply of full-time equivalent RNs[a]	Demand for full-time equivalent RNs[a]
1998	1,926,000	1,915,000
1999	1,957,000	1,943,000
2000	1,987,000	1,969,000
2001	2,014,000	1,999,000
2002	2,045,000	2,024,000
2003	2,075,000	2,048,000
2004	2,103,000	2,071,000
2005	2,128,000	2,095,000
2006	2,150,000	2,122,000
2007	2,169,000	2,148,000
2008	2,185,000	2,174,000
2009	2,197,000	2,202,000
2010	2,214,000	2,232,000
2011	2,232,000	2,262,000
2012	2,247,000	2,292,000
2013	2,256,000	2,322,000
2014	2,266,000	2,355,000
2015	2,277,000	2,391,000
2016	2,285,000	2,423,000
2017	2,290,000	2,459,000
2018	2,284,000	2,493,000
2019	2,281,000	2,532,000
2020	2,284,000	2,575,000

Source: National Advisory Council on Nurse Education and Practice. *Report to the Secretary of the Department of Health and Human Services on the Basic Registered Nurse Workforce*. Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing, 1996.

[a] The full-time equivalent for part-time workers was calculated by applying the ratio of average scheduled hours of part-timers to average scheduled hours of full-timers.

Table 7. Employment, the Unemployment Rate and Median Weekly Earnings of Registered Nurses and of Professionals Overall, 1989-2000

Year	Total employment (in thousands)		Experienced unemployment rate[a]		Median weekly earnings[b]	
	RNs	All professionals	RNs	All professionals	RNs	All professionals
1989	1,599	15,550	1.3	1.7	569	586
1990	1,667	15,800	1.1	2.0	608	610
1991	1,704	16,030	1.2	2.4	635	633
1992	1,799	16,370	1.1	2.6	662	658
1993	1,855	16,893	1.3	2.6	687	680
1994	1,956	17,536	1.5	2.5	682	705
1995	1,977	18,132	1.5	2.5	695	718
1996	1,986	18,752	1.4	2.3	697	730
1997	2,065	19,245	1.5	2.1	710	750
1998	2,032	19,883	1.3	1.9	739	763
1999	2,128	20,883	1.1	1.9	750	800
2000	2,111	21,113	1.0	1.7	790	832

Source: U.S. Bureau of Labor Statistics. *Employment and Earnings*, January issues of various years, and unpublished data from the Current Population Survey which queries households.

[a] The experienced unemployment rate covers persons who had jobs as RNs immediately before their spell of unemployment, that is, it excludes new entrants and re-entrants to the RN labor force. The employment and unemployment rate series cover all employed persons.

[b] Median weekly earnings cover wage and salary workers employed full-time. Somewhat more employed RNs work part-time (28%) compared to all professional workers (21%) according to Division of Nursing and BLS data, respectively.

(1998 and 2000),[23] employers have thus far raised RNs' wages to a lesser extent than they did during the last alleged shortage.

The efficacy of higher wages at increasing the supply of already employed RNs, as measured by their number of work hours, is open to question. According to a survey that was administered to nurses who became licensed in New York State in 1999, 40% said they would be willing to work more hours if offered a higher salary. Another 44% indicated that there were factors other than higher salaries that would motivate them to put in longer hours (i.e., flexible hours, speciality of choice, different shift or hours and other conditions), while 16.0% stated that they would not be willing to do so under any conditions.[24] The objection of nurse advocates to hospitals' current use of mandatory overtime to cope with a dearth of staff may reflect the unwillingness of arguably overburdened RNs to work more hours or to continue in nursing under the present state of working conditions, in part because fatigue might compromise the quality of care being rendered.[25]

Employment Growth. If an occupational shortage exists, comparatively fast-paced employment increases are expected as well. Between 1989 and 1994, job growth among RNs occurred much more rapidly than among professionals in general (22.3% and 12.8%, respectively). (See Table 7) Since then, however, the relative trend in employment is not consistent with the presence of a shortage: between 1995 and 2000, employment of RNs grew by 6.8% compared to 16.4% for all professionals.

The slowdown in job growth among RNs in the last several years appears to be at least partly related to the spread of managed care across the nation. The diminished rate of RN employment growth has been concentrated in hospitals,

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[23]The size of reported wage increases can vary greatly depending on such things as the definition of the occupation, how well the sample reflects the population from which it was drawn, the relative size of the sample and the rate of response to the survey. Based on data for hundreds of occupations that were culled from the Current Population Survey, which queries about 60,000 households each month and is conducted by the Census Bureau, the BLS reported an increase of 5.3% between 1999 and 2000 in the median weekly earnings of full-time wage and salary workers employed as RNs. In contrast, a health care staffing and consulting firm reported an 11.4% gain in nurses' average annual salary in 2000. (Health Workforce: In 2000, Average Salaries for Nurses Rose 11 Percent, Healthcare Consulting Firm Says. *Health Care Daily*, April 30, 2001.)

[24]Salsberg, Edward S. *State Nursing Shortage Issues: New York*. Presentation at conference, Hard Numbers, Hard Choices: A Report on the Nation's Nursing Workforce, held February 14, 2001 in Washington, D.C.

[25]See, for example: Aiken, Linda H., with Sean P. Clarke, Douglas M. Sloane, Julie A. Sochalski, Reinhard Busse, Heather Clark, Phyllis Giovannetti, Jennifer Hunt, Anne Marie Rafferty and Judith Shamian. Nurses' Reports on Hospital Care in Five Countries. *Health Affairs*, May/June 2001; American Nurses Association. *Nurses Concerned Over Working Conditions, Decline in Quality of Care, ANA Survey Reveals*. Press Release, February 6, 2001. Copy of the press release and survey are available at: [http://www.nursingworld.org]; and Federation of Nurses and Health Professionals. *The Nurse Shortage: Perspectives from Current Direct Care Nurses and Former Direct Care Nurses*. April 2001.

greater demands on the nation's health care delivery system.[30] While raising relative wages, improving working conditions, upgrading the occupation's image and lowering education costs to promote recruitment may encourage more students to become RNs, these changes could take some time to make themselves felt and their effects could be dampened by the alternative career paths now open to women. Another means of bringing more workers into the field is through immigration.[31] However, "eliminating the shortage would require immigration on an unprecedented scale,"[32] and as happened when the 105th and 106th Congresses increased the number of H-1B visas for professional/specialty workers, the policy could prove to be a controversial one.

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[30]American Organization of Nurse Executives. *Perspectives on the Nursing Shortage: A Blueprint for Action*. October 2000. Available at: [http://www.aone.org].

[31]According to the latest available data from the Immigration and Naturalization Service (INS), there were 2,500 RNs admitted to the United States in 1998 as legal permanent residents under either the family-based or employment-based categories. The INS estimates that 10,000 Canadians are now working temporarily in the United States as RNs on Trade NAFTA visas. Although foreign nursing graduates also may recently have entered the country as temporary workers on H-1B (professional/specialty occupation) visas, their numbers are likely to be relatively small because employers have largely been bringing in information technology workers in the visa category. (The number of H-1B visas issued in FY2000 hit the cap of 115,000. The 106th Congress raised the visa limit to 195,000 annually between FY2001 and FY2003.) In addition, the H-1C visa program allows only 500 nonimmigrant nurses to enter the country each year to work temporarily in health professional shortage areas.

[32]Buerhaus, Staiger and Auerbach, *Implications of an Aging Registered Nurse Workforce*, p. 2953. The authors noted in Policy Responses to an Aging Registered Nurse Workforce, *Nursing Economics*, November/December 2000, v. 18, no. 6, that by 2020 the supply of full-time equivalent RNs could be 400,000 fewer than needed to meet employer demand.

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Table 2. Graduates from Nursing Degree Programs, 1976-1998

Academic year	Number	Annual percent change
1975-1976	77,065	—
1976-1977	77,755	0.90
1977-1978	77,874	0.15
1978-1979	77,132	-0.95
1979-1980	75,523	-2.09
1980-1981	73,985	-2.04
1981-1982	74,052	0.09
1982-1983	77,408	4.53
1983-1984	80,312	3.75
1984-1985	82,075	2.20
1985-1986	77,027	-6.15
1986-1987	70,561	-8.39
1987-1988	64,839	-8.11
1988-1989	61,660	-4.90
1989-1990	66,088	7.18
1990-1991	72,230	9.29
1991-1992	80,839	11.92
1992-1993	88,149	9.04
1993-1994	94,870	7.62
1994-1995	97,052	2.30
1995-1996	94,757	-2.36
1996-1997	91,421	-3.52
1997-1998	84,847	-7.19

Source: Data provided by the National League for Nursing through 1995-1996 may be found in Heath Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Information and Analysis. *United States Health Workforce Personnel Factbook*. Available at [http://www.bhpr.hrsa.gov/healthworkforce/factbook.htm]. Data for 1996-1997 and 1997-1998 are unofficial, unpublished data from the National League for Nursing.

Academic year	Number	Annual percent change
2016-2017	89,126	-1.40
2017-2018	79,413	-10.90
2018-2019	81,133	2.17
2019-2020	88,065	8.54

Source: National Advisory Council on Nurse Education and Practice. *Report to the Secretary of the Department of Health and Human Services on the Basic Registered Nurse Workforce.* Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing, 1996.

The Total Supply of RNs

The Division of Nursing built on its projected supply of graduates from basic nursing education programs to develop a projection of the total supply of RNs. It was produced by looking at such things as the historical trend in the proportion of the RN population that is employed in nursing, economic and social forces evident in the early 1990s that were expected to influence RN employment (e.g., changes in women's employment rate and in nurses' salaries) and information on foreign graduate first-time licensees. In addition, estimates of leavers were derived by taking into consideration such things as trends in deaths among white women and in retirement across all types of workers. The Division of Nursing expects to release new supply-demand projections for RNs, based on more recent data, in summer 2001.

Although the total supply of RNs is projected to almost steadily increase through 2020, it is expected to do so at a diminishing rate. (See **Table 4**.) The falloff in the growth rate could be particularly steep between 2005 and 2008, when an especially large number of baby-boom RNs (i.e., those born between 1948 and 1959) will start reaching 55 years of age — an age "at which RNs have historically begun to reduce their labor participation."[12] Another sharp reduction in the growth rate is anticipated between 2012 and 2013, when this large subset of baby boomers will reach what typically are the waning years of a person's working life.

[12]Minnick, Ann F. Retirement, the Nursing Workforce, and the Year 2005. *Nursing Outlook*, September/October 2000. p. 211.

A Shortfall of Registered Nurses?

As discussed below, the latest estimates from which supply and demand conditions in the labor market for RNs may be observed point to a looming national shortage unless pre-emptive actions are taken. In contrast, reports that nurses currently are in short supply generally are anecdotal, or they relate to a specific kind of nurse (e.g., experienced nurses with specific skills as opposed to newly licensed RNs) or specific geographic areas which suggest a maldistribution of labor rather than a shortage *per se*.[13]

Projected Labor Market Conditions for RNs

A sense of future conditions in the RN labor market can be gleaned from a comparison of the BLS demand projections and the Division of Nursing's supply projections. As shown in **Table 5**, the estimated supply of RNs in 1998 exceeded the number actually employed in that year by 142,190. Absent intervening actions, it is not until some time late in the current decade that a shortage might occur: the supply of RNs in 2008 is projected to fall just shy of demand, by 15,674 persons. The gap could actually be slightly wider if the BLS and the Division of Nursing used the same definition for RNs. The BLS categorizes RNs who principally are teachers or managers in those non-nursing occupations; the Division of Nursing categorizes all persons who have a nursing license as RNs. Nonetheless, the difference is so small that some might regard it as indicating a balance of supply and demand.

Table 5. The First Comparison of Projected Supply and Demand in the RN Labor Market

Year	Supply of RNs[a]	Demand for RNs[b]
1998	2,221,000	2,078,810
2008	2,514,000	2,529,674

Source: Supply data from **Table 4** and demand data from **Table 1**.

[a]The supply figures for 1998 and 2008 are projections.

[b]The demand figure for 1998 is actual employment of RNs. Employment in 2008 is a projection.

A very similar situation is revealed by comparing the Division of Nursing's supply and demand projections for RNs, despite the aforementioned difference in RN definition, the fact that the Division's demand estimate uses a different methodology than that employed by BLS[14] and the fact that it is based on statistics from the early

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[13]See, for example, The Center for Health Workforce Studies, School of Public Health, University at Albany. *Meeting Future Nursing Needs of New Yorkers: The Role of the State University of New York*. Rensselaer, NY, October 2000.

[14]For example, the Division of Nursing's demand model develops forecasts for each state that (continued...)

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Table 6. The Second Comparison of Projected Supply and Demand in the RN Labor Market

Year (as of December 31)	Supply of full-time equivalent RNs[a]	Demand for full-time equivalent RNs[a]
1998	1,926,000	1,915,000
1999	1,957,000	1,943,000
2000	1,987,000	1,969,000
2001	2,014,000	1,999,000
2002	2,045,000	2,024,000
2003	2,075,000	2,048,000
2004	2,103,000	2,071,000
2005	2,128,000	2,095,000
2006	2,150,000	2,122,000
2007	2,169,000	2,148,000
2008	2,185,000	2,174,000
2009	2,197,000	2,202,000
2010	2,214,000	2,232,000
2011	2,232,000	2,262,000
2012	2,247,000	2,292,000
2013	2,256,000	2,322,000
2014	2,266,000	2,355,000
2015	2,277,000	2,391,000
2016	2,285,000	2,423,000
2017	2,290,000	2,459,000
2018	2,284,000	2,493,000
2019	2,281,000	2,532,000
2020	2,284,000	2,575,000

Source: National Advisory Council on Nurse Education and Practice. *Report to the Secretary of the Department of Health and Human Services on the Basic Registered Nurse Workforce*. Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing, 1996.

[a] The full-time equivalent for part-time workers was calculated by applying the ratio of average scheduled hours of part-timers to average scheduled hours of full-timers.

Table 7. Employment, the Unemployment Rate and Median Weekly Earnings of Registered Nurses and of Professionals Overall, 1989-2000

Year	Total employment (in thousands)		Experienced unemployment rate[a]		Median weekly earnings[b]	
	RNs	All professionals	RNs	All professionals	RNs	All professionals
1989	1,599	15,550	1.3	1.7	569	586
1990	1,667	15,800	1.1	2.0	608	610
1991	1,704	16,030	1.2	2.4	635	633
1992	1,799	16,370	1.1	2.6	662	658
1993	1,855	16,893	1.3	2.6	687	680
1994	1,956	17,536	1.5	2.5	682	705
1995	1,977	18,132	1.5	2.5	695	718
1996	1,986	18,752	1.4	2.3	697	730
1997	2,065	19,245	1.5	2.1	710	750
1998	2,032	19,883	1.3	1.9	739	763
1999	2,128	20,883	1.1	1.9	750	800
2000	2,111	21,113	1.0	1.7	790	832

Source: U.S. Bureau of Labor Statistics. *Employment and Earnings*, January issues of various years, and unpublished data from the Current Population Survey which queries households.

[a] The experienced unemployment rate covers persons who had jobs as RNs immediately before their spell of unemployment, that is, it excludes new entrants and re-entrants to the RN labor force. The employment and unemployment rate series cover all employed persons.

[b] Median weekly earnings cover wage and salary workers employed full-time. Somewhat more employed RNs work part-time (28%) compared to all professional workers (21%) according to Division of Nursing and BLS data, respectively.

(1998 and 2000),[23] employers have thus far raised RNs' wages to a lesser extent than they did during the last alleged shortage.

The efficacy of higher wages at increasing the supply of already employed RNs, as measured by their number of work hours, is open to question. According to a survey that was administered to nurses who became licensed in New York State in 1999, 40% said they would be willing to work more hours if offered a higher salary. Another 44% indicated that there were factors other than higher salaries that would motivate them to put in longer hours (i.e., flexible hours, speciality of choice, different shift or hours and other conditions), while 16.0% stated that they would not be willing to do so under any conditions.[24] The objection of nurse advocates to hospitals' current use of mandatory overtime to cope with a dearth of staff may reflect the unwillingness of arguably overburdened RNs to work more hours or to continue in nursing under the present state of working conditions, in part because fatigue might compromise the quality of care being rendered.[25]

Employment Growth. If an occupational shortage exists, comparatively fast-paced employment increases are expected as well. Between 1989 and 1994, job growth among RNs occurred much more rapidly than among professionals in general (22.3% and 12.8%, respectively). (See **Table 7**) Since then, however, the relative trend in employment is not consistent with the presence of a shortage: between 1995 and 2000, employment of RNs grew by 6.8% compared to 16.4% for all professionals.

The slowdown in job growth among RNs in the last several years appears to be at least partly related to the spread of managed care across the nation. The diminished rate of RN employment growth has been concentrated in hospitals,

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[23]The size of reported wage increases can vary greatly depending on such things as the definition of the occupation, how well the sample reflects the population from which it was drawn, the relative size of the sample and the rate of response to the survey. Based on data for hundreds of occupations that were culled from the Current Population Survey, which queries about 60,000 households each month and is conducted by the Census Bureau, the BLS reported an increase of 5.3% between 1999 and 2000 in the median weekly earnings of full-time wage and salary workers employed as RNs. In contrast, a health care staffing and consulting firm reported an 11.4% gain in nurses' average annual salary in 2000. (Health Workforce: In 2000, Average Salaries for Nurses Rose 11 Percent, Healthcare Consulting Firm Says. *Health Care Daily*, April 30, 2001.)

[24]Salsberg, Edward S. *State Nursing Shortage Issues: New York.* Presentation at conference, Hard Numbers, Hard Choices: A Report on the Nation's Nursing Workforce, held February 14, 2001 in Washington, D.C.

[25]See, for example: Aiken, Linda H., with Sean P. Clarke, Douglas M. Sloane, Julie A. Sochalski, Reinhard Busse, Heather Clark, Phyllis Giovannetti, Jennifer Hunt, Anne Marie Rafferty and Judith Shamian. Nurses' Reports on Hospital Care in Five Countries. *Health Affairs*, May/June 2001; American Nurses Association. *Nurses Concerned Over Working Conditions, Decline in Quality of Care, ANA Survey Reveals.* Press Release, February 6, 2001. Copy of the press release and survey are available at: [http://www.nursingworld.org]; and Federation of Nurses and Health Professionals. *The Nurse Shortage: Perspectives from Current Direct Care Nurses and Former Direct Care Nurses.* April 2001.

greater demands on the nation's health care delivery system.[30] While raising relative wages, improving working conditions, upgrading the occupation's image and lowering education costs to promote recruitment may encourage more students to become RNs, these changes could take some time to make themselves felt and their effects could be dampened by the alternative career paths now open to women. Another means of bringing more workers into the field is through immigration.[31] However, "eliminating the shortage would require immigration on an unprecedented scale,"[32] and as happened when the 105th and 106th Congresses increased the number of H-1B visas for professional/specialty workers, the policy could prove to be a controversial one.

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[30]American Organization of Nurse Executives. *Perspectives on the Nursing Shortage: A Blueprint for Action*. October 2000. Available at: [http://www.aone.org].

[31]According to the latest available data from the Immigration and Naturalization Service (INS), there were 2,500 RNs admitted to the United States in 1998 as legal permanent residents under either the family-based or employment-based categories. The INS estimates that 10,000 Canadians are now working temporarily in the United States as RNs on Trade NAFTA visas. Although foreign nursing graduates also may recently have entered the country as temporary workers on H-1B (professional/specialty occupation) visas, their numbers are likely to be relatively small because employers have largely been bringing in information technology workers in the visa category. (The number of H-1B visas issued in FY2000 hit the cap of 115,000. The 106th Congress raised the visa limit to 195,000 annually between FY2001 and FY2003.) In addition, the H-1C visa program allows only 500 nonimmigrant nurses to enter the country each year to work temporarily in health professional shortage areas.

[32]Buerhaus, Staiger and Auerbach, *Implications of an Aging Registered Nurse Workforce*, p. 2953. The authors noted in Policy Responses to an Aging Registered Nurse Workforce, *Nursing Economics*, November/December 2000, v. 18, no. 6, that by 2020 the supply of full-time equivalent RNs could be 400,000 fewer than needed to meet employer demand.

United States General Accounting Office

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Testimony

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NURSING WORKFORCE

Recruitment and Retention of Nurses and Nurse Aides Is a Growing Concern

Statement of William J. Scanlon
Director, Health Care Issues

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In summary, recruitment and retention of both nurses and nurse aides are major concerns for health care providers. Experts and providers are reporting a current shortage of nurses, partly as a result of patients' increasingly complex care needs. While comprehensive data are lacking on the nature and extent of the shortage, it is expected to become more serious in the future as the aging of the population substantially increases the demand for nurses. Moreover, several factors are combining to constrain the current and future supply of nurses. Like the general population, the nurse workforce is aging, and the average age of a registered nurse (RN) increased from 37 years in 1983 to 42 in 1998. Enrollments in nursing programs have declined over the past 5 years, shrinking the pool of new workers to replace those who are retiring. In addition, numerous studies report decreased levels of job satisfaction among nurses, potentially leading to their pursuing other occupations.

Demographic changes over the coming decades may also worsen the shortage of nurse aides in hospitals, nursing homes, and home health care settings. With the aging of the population, demand for nurse aides is expected to grow dramatically, while the supply of workers who have traditionally filled these jobs will remain virtually unchanged. According to the Institute of Medicine (IOM), advocacy groups, and provider associations, a serious shortage of nurse aides already exists. Retention of nurse aides is a significant problem for many providers, with some studies reporting annual turnover rates for aides working in nursing homes approaching 100 percent. Several factors contribute to providers' difficulty in both hiring and retaining nurse aides, including relatively low wages and few benefits. In addition, research has found that the physical demands of the work and other aspects of the workplace environment lead to difficulties in retaining nurse aides. In 1999, 30 states indicated that they were addressing nurse aide recruitment and retention through task forces, initiatives, and research. The federal government and provider groups also have begun to address this issue. However, few studies have evaluated the effectiveness of these efforts.

Background

RNs and licensed practical nurses (LPN) are responsible for a large portion of the health care provided in this country. RNs make up the largest group of health care providers, and, historically, have worked predominantly in hospitals; a smaller number of RNs work in other settings such as ambulatory care, home health care, and nursing homes. (See table 1.) Their responsibilities may include providing direct patient care in a hospital or a home health care setting, managing and directing complex nursing care in an intensive care unit, or supervising the

maintain a registry of nurse aides working in nursing homes who have passed their competency evaluations; no such requirement exists for aides working in home health care.[4] For nurse aides working in hospitals, there are no federal requirements related to certification, training, competency evaluations, or a registry.

Demographic and Job Satisfaction Factors Could Worsen Shortage of Nurses

The nation's health care providers are reporting a shortage of nurses in a range of settings. Although comprehensive data are lacking to describe the nature and extent of the current shortage, there is evidence of a growing demand for nurses with skills to treat patients with complex care needs. Furthermore, shortages can affect the quality of care. The shortage is expected to worsen as the aging population increases demand and fewer people enter the nurse workforce. Job dissatisfaction among nurses may further reduce the strength of the nursing supply.

Current Nurse Shortage Is Due to Several Factors

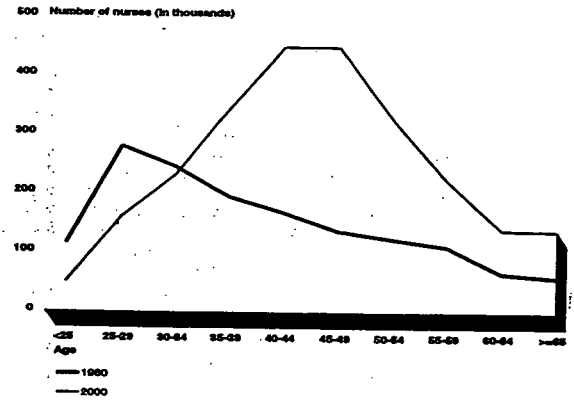
Providers and experts around the country have reported that the nation is currently facing a shortage of nurses. There is a lack of comprehensive national data to describe the full nature and extent of the shortage, but several types of information point to an existing shortage. For example, California reported an RN vacancy rate of 8.5 percent for all employers in 1997, with hospitals reporting a rate of 9.6 percent, nursing homes 6.9 percent, and home health care 6.4 percent. The Dallas-Fort Worth Hospital Council reported vacancy rates for 2000 of 9.3 percent for RNs in emergency departments and 16.9 percent for RNs in critical care units. A recent survey of providers in Vermont found that nursing homes and home health care agencies had RN vacancy rates of 15.9 percent and 9.8 percent, respectively, while hospitals had an RN vacancy rate of 4.8 percent (up from 1.2 percent in 1996).

An important factor in the current shortage is the higher proportion of patients having more complex care needs, which increases the demand for nurses with training for specialty areas such as critical care and emergency departments. In addition, the increased use of technology in care settings has increased the demand for a higher skill mix of RNs. Furthermore, the expansion of care delivery settings—such as home health care and community-based health care delivery systems—has increased the job opportunities available and demand for these workers.

[4] 42 U.S.C. Section 1395i-3 (e)(2)(A) and 42 U.S.C. Section 1396r(e)(2)(A).

fewer than one in three were younger than 40 in 2000. During the same period, the percentage of nurses under age 30 dropped from 25 to 9 percent. As shown in figure 1, the age distribution of RNs has shifted dramatically upward. The number of nurses aged 25 to 29 decreased from about 296,000 in 1980 to about 177,000 in 2000, while the number aged 45 to 49 grew from about 153,000 to about 465,000.

Figure 1: Age Distribution of the Registered Nurse Population, 1980 and 2000



Source: HRSA, The Registered Nurse Population: National Sample Survey of Registered Nurses, March 2000.

The total number of licensed RNs increased 5.4 percent between 1996 and 2000—the lowest increase ever reported in HRSA's periodic survey of RNs.[6] Nursing program enrollments further indicate a narrowing of the

[6]HRSA, *The Registered Nurse Population: National Sample Survey of Registered Nurses*, Mar. 2000.

or very dissatisfied with their job, and about half (51 percent) were much less satisfied with their job than they were 2 years ago.[13]

Job dissatisfaction is a primary reason cited for nurse retention problems. As of March 2000, 18.3 percent of RNs reported not being employed in nursing, up slightly from 17.3 percent in 1992. A recent survey reported that the national turnover rate among hospital staff nurses was 15 percent, up from 12 percent in 1996.[14] Nursing home and home health care industry surveys indicate that nurse turnover is an issue for them as well. In 1997, a survey sponsored by the American Health Care Association (AHCA) of 13 nursing home chains identified a 51-percent turnover rate for RNs and LPNs.[15] A 2000 national survey of home health care agencies reported a 21-percent turnover rate for RNs and 24-percent turnover rate for LPNs.[16]

Demographic Changes, Low Compensation, and Difficult Working Conditions Contribute to Shortage of Nurse Aides

Demographic changes over the coming decades may also worsen the shortage of nurse aides. With the aging of the population, demand for nurse aides is expected to grow dramatically, while the number of persons who have traditionally filled these jobs will change very little. Retention of nurse aides is currently a significant problem for many hospitals, nursing homes, and home health care agencies, with some studies reporting annual turnover rates for aides working in nursing homes approaching 100 percent. Low wages, few benefits, and difficult working conditions contribute to recruitment and retention problems for nurse aides. High turnover can contribute to both increased costs to the facility and problems with quality of care.

Demographic Trends Will Continue to Increase Demand for Nurse Aides

Several factors have contributed to growing demand for nurse aides to provide health and long-term care services. In the decade between 1988 and 1998, the number of employed nurse aides increased 40 percent. Medical advances that have allowed people with chronic illnesses and

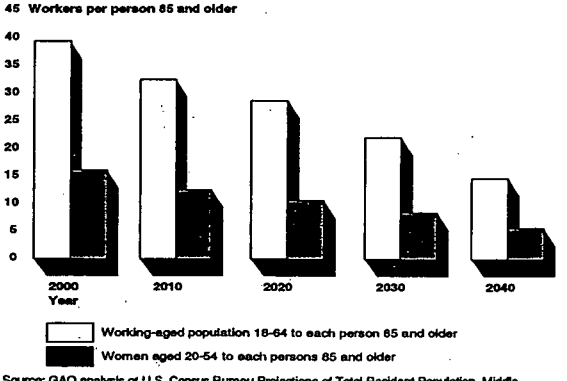
[13]The Nursing Executive Center, *The Nurse Perspective: Drivers of Nurse Job Satisfaction and Turnover* (Washington, D.C.: The Advisory Board Company, 2000).

[14]*The Nurse Perspective: Drivers of Nurse Job Satisfaction and Turnover.*

[15]American Health Care Association, *Facts and Trends 1999, The Nursing Facility Sourcebook* (Washington, D.C.: AHCA, 1999).

[16]Hospital & Healthcare Compensation Service, *Homecare Salary & Benefits Report, 2000-2001* (Oakland, N.J.: Hospital & Healthcare Compensation Service, 2000).

Figure 2: Decline in Elderly Support Ratio Expected, 2000 to 2040



Source: GAO analysis of U.S. Census Bureau Projections of Total Resident Population, Middle Series, December 1999.

Over the next several years, even before the baby boomers begin retiring, nurse aide jobs are expected to be among the fastest growing in the workforce. The 40-percent increase in nurse aide employment from 1988 to 1998 is in contrast to the 19-percent increase in the number of persons employed in the overall labor market. From 1998 to 2008, the overall number of nurse aide jobs is projected to grow an additional 36 percent—from 2.1 million to 2.9 million jobs—compared to the 14-percent projected growth in all jobs. Jobs for nurse aides working in home health care are projected to increase even faster, namely by 58 percent, from 746,000 in 1998 to 1.2 million in 2008.

Recruitment and Retention of Nurse Aides Is Widely Reported To Be a Problem

Numerous reports and media accounts in recent years have described the inability of a range of providers to hire and retain adequate numbers of nurse aides. However, little analytical work has been conducted to assess the nature or overall magnitude of the paraprofessional nursing staff

17 percent in 2000, up from 11 percent in 1999. A recent survey of providers in Vermont found high vacancy rates for nurse aides, particularly in hospitals and nursing homes; as of June 2000, the vacancy rate for nurse aides in nursing homes was 16 percent, in hospitals 15 percent, and in home health care 8 percent.

Providers also face problems with retention of nurse aide staff. Available data indicate nurse aide turnover in nursing homes and home health care agencies is much higher than the labor force in general (13 to 18 percent) or the service workforce (20 percent).[22] Annual turnover rates among aides working in nursing homes are reported to be from about 40 percent to more than 100 percent. In 1998, a survey sponsored by AHCA of 12 nursing home chains found 94-percent turnover of nurse aide positions.[23] A recent national study of home health care agencies identified a 28-percent turnover rate among aides in 2000, up from 19 percent in 1994.[24]

Lower Wages, Fewer Benefits, and Difficult Work Conditions Linked to Nurse Aide Turnover

Studies have cited low wages and few benefits as factors contributing to nurse aide turnover. Our analysis of national wage and employment data from BLS indicates that, on average, nurse aides receive lower wages and have fewer benefits than workers generally; this is particularly true for those working in nursing homes and home health care.[25] In 1999, the national average hourly wage for aides working in nursing homes was $8.29, compared to $9.22 for service workers and $15.29 for all workers. For aides working in home health care agencies, the average hourly wage was $8.67, and for aides working in hospitals, $8.94. Aides working in

[22]Comprehensive national data on nurse aide turnover are not available, and caution must be used when comparing turnover rates from different studies. While nurse aide turnover rates are typically the number of nurse aides that have left a facility divided by the total number of nurse aide positions, there is no standard method for calculating turnover and methods used in different studies vary. It is generally agreed that staff who leave after a very short tenure on the job contribute most to high turnover rates. Some nurse aide positions may turn over several times during a given year, while others may not turn over for several years.

[23]AHCA, *Staffing of Nursing Services in Long Term Care: Present Issues and Prospects for the Future* (Washington, D.C.: AHCA, 2001).

[24]Hospital & Healthcare Compensation Service, *Homecare Salary & Benefits Report 2000-2001* (Oakland, N.J.: Hospital & Healthcare Compensation Service, 2000) and Hospital & Healthcare Compensation Service, *Homecare Salary & Benefits Report 1994-1996* (Oakland, N.J.: Hospital & Healthcare Compensation Service, 1994).

[25]Detailed demographic, employment, and wage data on nurse aides in hospitals, nursing homes, and home health care are presented in app. I.

In another study, the degree of nurse aide involvement in resident care planning was superseded only by the condition of the local economy as a factor affecting turnover.[26] For example, in facilities where nursing staff were perceived to accept aides' advice and suggestions or simply discussed care plans with aides, the turnover was lower than in those facilities where aides were not involved in care planning.

High Nurse Aide Turnover May Lead to Higher Provider Costs and Quality of Care Problems

Negative effects—related to both costs for the facility and quality of patient care—have been associated with high turnover. Direct provider costs of turnover include recruitment, selection, and training of new staff, overtime, and use of temporary agency staff to fill gaps. Indirect costs associated with turnover include an initial reduction in the efficiency of new staff and a decrease in nurse aide morale and group productivity.

High turnover can disrupt the continuity of patient care—that is, aides may lack experience and knowledge of individual residents or clients. Furthermore, when turnover leads to staff shortages, nursing home residents may suffer harm because of the increased number of residents the remaining staff must care for, resulting in less time to care for each resident. The recent HCFA report to Congress that found a direct relationship between nurse staffing levels in nursing homes and quality also found a direct relationship between nurse aide staffing levels and the quality of resident care. HCFA's analysis of the three states' data demonstrated that, after controlling for case mix, there is a minimum nurse aide staffing threshold below which quality of care may be seriously impaired.[27] Moreover, 54 percent of the facilities in the three states were not staffing at that minimum threshold level.[28]

[26]Banaszak-Holl, Jane and Marilyn A. Hines, "Factors Associated with Nursing Home Staff Turnover", *The Gerontologist*, Vol. 36, No. 4 (1996), pp. 512-17.

[27]The states included in the analysis were New York, Ohio, and Texas for calendar years 1996 and 1997.

[28]Nurse aides had a minimum staffing level of 2.00 hours per resident day.

aides, concerns have been raised that funds may not always be used as intended. Few states have addressed the issue of benefits for nurse aides. According to a 1999 study, only three states had considered or taken action to require any form of benefits for nurse aides and other workers.[20]

Initiatives to improve training and opportunities for career advancement have been undertaken by states as well as providers. States and providers are experimenting with specialized training for nurse aides in targeted patient care areas, such as treatment of persons with dementia, and are developing career ladders that offer aides a chance to improve their skills while also advancing their careers. For example, according to Massachusetts officials, the Massachusetts' Nursing Home Quality Initiative provides $5 million in fiscal year 2001 specifically to develop competitive nurse aide career ladder grants and to encourage the development of partnerships of concerned groups, including community colleges and workforce investment boards.[21]

Initiatives that focus on workplace and social supports for nurse aides fall into two categories. The first type of support targets the structure of the aides' work environment, focusing on issues such as nurse aide participation in care planning and the empowerment of nurse aides to act on their special knowledge of their clients. For example, the Wellspring Program in Wisconsin is an alliance of 11 providers whose approach is based on the idea that management should foster quality of care with appropriate policies, but decisions on policy implementation should be left to the front-line workers who are most familiar with residents' needs.

The second type of support focuses on general work skills and social supports for nurse aides. For example, the Iowa Caregivers Association, a nonprofit organization representing nurse aides, received state funding to develop a pilot project to determine the effect on nurse aide recruitment and retention of employee supports such as workshops on teamwork and

[20]The states identified in the study were Hawaii, Idaho, and Maine. See North Carolina Division of Facility Services, *Comparing State Efforts to Address the Recruitment and Retention of Nurse Aide and Other Paraprofessional Aide Workers* (Raleigh, N.C.: Sept. 1999).

[21]The federal Workforce Investment Act of 1998 required states and localities to develop workforce investment boards. The state board works with the governor to develop a statewide workforce development plan and helps develop statewide workforce investment systems and labor market information systems. Local boards are responsible for implementing the system in their local area.

retention issues for nurse aides. Additional evaluation is needed to determine which initiatives are most effective. More detailed data are also needed to delineate the extent and nature of nurse and nurse aide shortages to assist in planning and targeting corrective efforts. As the federal government focuses more on the nursing workforce in hospitals, nursing homes, and home health care, support for the evaluation of efforts to increase the supply of nurses and nurse aides may also help identify more effective steps to ameliorate the shortage.

Chairman Jeffords and Ranking Member Kennedy, this concludes my statement. I would be happy to answer any questions that you or Members of the Committee may have.

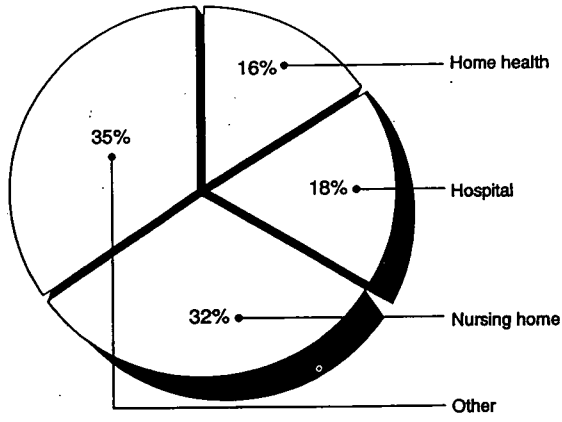
GAO Contacts and Staff Acknowledgments

For more information regarding this testimony, please contact me or Janet Heinrich at (202) 512-7118, or Helene Toiv at (202) 512-7162. Eric Anderson, Connie Peebles Barrow, Paula Bonin, Emily Gamble Gardiner, and Nila Garces-Osorio also made key contributions to this statement

Appendix I: Demographic and Employment Characteristics of Nurse Aides

Nurse aides work for a variety of employer types and in a variety of settings. Of the approximately 2.2 million nurse aides employed in 1999, most work either in nursing homes, hospitals, or home health care. (See fig. 3.) Nurse aides compose a much smaller percentage of total employees in hospitals than they do in either nursing homes or home health care. (See fig. 4.) In contrast, nurses make up the largest portion of hospital employees, and a smaller share of workers in nursing homes and home health care.

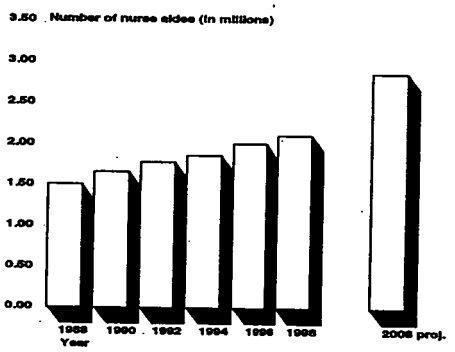
Figure 3: Nurse Aide Employment by Setting, 1999



Note: "Other" includes a range of employment settings such as residential care, social services, and temporary staffing agencies.

Source: GAO analysis of Bureau of Labor Statistics, 1999 Occupational Employment Statistics data.

Figure 5: Growth in Nurse Aide Employment, 1988-1998 and Projected to 2008



Source: Bureau of Labor Statistics, Monthly Labor Review.

Compared to the workforce in general, nurse aides are more likely to be female, non-white, unmarried, and with children at home. (See table 2.) While half of all workers and about two-thirds of service workers are women, 80 to 90 percent of nurse aides are women. In addition, nurse aides tend to be somewhat younger than the overall workforce, and a high proportion are minorities. About half of nurse aides are non-white, compared to only one-quarter of all workers. Aides in hospitals have slightly higher rates of employer-provided health and pension benefits than the general workforce. However, aides in nursing homes and home health care are less likely than other workers to have employer-provided health insurance and much less likely to be covered by a pension.

Table 3: Income, Earnings, and Poverty Status of Nurse Aides and Other Workers

	Nurse Aides working in				
	Nursing homes	Home health care	Hospitals	Service workers	All workers
Family income (percent)					
Under $10,000	12.4	16.1	6.8	13.0	9.3
$10,000-19,999	23.8	21.6	16.7	19.7	13.3
$20,000-29,999	18.2	19.6	16.9	15.9	12.9
$30,000-39,000	14.6	13.2	14.9	12.7	11.7
$40,000-49,999	11.3	9.5	11.6	10.1	10.0
$50,000 +	19.7	20.0	33.2	28.5	42.8
Family income					
Mean	$33,982	$33,653	$43,832	$40,712	$56,020
Median	26,970	25,908	36,080	30,769	42,400
Individual earnings					
Mean	$14,723	$13,501	$17,834	$13,412	$22,313
Median	13,287	12,265	16,608	10,795	13,500
Individual earnings (full-time, full-year workers)					
Mean	$19,416	$19,216	$21,432	$19,515	$39,672
Median	17,000	17,002	20,000	16,608	30,663
Poverty status (percent)					
Below poverty	17.8	18.8	8.1	16.1	10.5
100 –149	13.2	15.9	10.4	12.8	8.4
150 –199	15.0	11.4	11.9	12.6	8.9
Above 200	54.1	53.9	69.6	58.4	72.3
Health insurance (percent)					
Uninsured	25.2	32.1	14.2	31.2	16.4
Employer coverage	57.5	47.3	77.9	51.7	61.6
Medicaid	9.9	11.1	2.1	6.9	3.9
Pension coverage					
Percent covered	25.2	21.2	51.3	21.3	44.4
Food stamps					
Percent receiving	13.5	14.8	5.3	9.3	5.5

Note: All reported income and earnings have been adjusted to constant 1999 dollars using the Consumer Price Index, U.S. city average, for all urban consumers.

Source: GAO analysis of combined 1998, 1999, and 2000 Current Population Survey, March Supplements.

	Mean hourly wage, 1999			
	Nurse aide[a]	Factory worker[b]	Fast food cook	Housekeeper
New Jersey	9.85	11.17	6.83	7.98
New Mexico	7.35	9.57	6.09	6.69
New York	9.27	10.26	6.69	9.71
North Carolina	7.77	10.45	6.38	7.06
North Dakota	7.48	9.38	6.40	6.56
Ohio	8.34	11.11	6.52	7.27
Oklahoma	7.17	11.91	6.08	6.53
Oregon	8.58	10.44	7.23	7.68
Pennsylvania	8.82	10.82	6.34	7.66
Rhode Island	9.51	8.78	6.84	8.28
South Carolina	7.54	11.66	6.39	6.93
South Dakota	7.66	8.74	6.42	6.60
Tennessee	7.77	10.18	6.53	6.79
Texas	8.63	9.19	6.24	6.40
Utah	8.10	9.11	6.70	7.08
Vermont	8.30	10.24	7.52	7.42
Virginia	7.67	10.19	6.26	7.05
Washington	8.59	11.13	6.74	7.87
West Virginia	6.83	8.60	5.99	6.57
Wisconsin	8.66	10.56	6.59	7.37
Wyoming	7.74	8.95	6.34	7.09
U.S.	8.59	10.67	6.54	7.46

[a]Wage data for nurse aides represent the combined total of workers in three OES occupational categories: (1) nursing aides, orderlies, and attendants; (2) home health care aides; and (3) personal and home care aides.

[b]Factory workers consist of the occupational category "team assemblers," persons who work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers compose the largest single category of production worker, accounting for just over 10 percent of all production employees.

[c]Wage data for factory workers in the District of Columbia were not available.

Source: GAO analysis of Bureau of Labor Statistics, 1999 Occupational Employment Statistics data.

State	Mean annual earnings*	Per capita income	Aide earnings as percentage of state per capita income
South Dakota	15,923	25,045	64
Tennessee	16,153	25,574	63
Texas	17,961	26,858	67
Utah	16,852	23,288	72
Vermont	17,260	25,889	67
Virginia	15,954	29,789	54
Washington	17,877	30,392	59
West Virginia	14,204	20,966	68
Wisconsin	18,022	27,390	66
Wyoming	16,105	26,396	61
U.S.	17,866	28,542	63

*Mean annual earnings are for a full-time, full-year worker (2,080 hours) earning the mean hourly wage. Sixty-seven percent of all workers are employed full-time for the full year compared to 68 percent of hospital aides, 60 percent of aides in nursing homes, and 53 percent of aides in home health care.

Source: GAO analysis based on earnings data from Bureau of Labor Statistics, 1999 Occupational Employment Statistics data and per capita income data from the Bureau of Economic Analysis, U.S. Department of Commerce.

Technical Notes on Analysis

Two primary sources of data were used to describe the demographic and employment characteristics of nurse aides—the Current Population Survey (CPS) conducted by the Census Bureau for the Bureau of Labor Statistics (BLS) and the Occupational Employment Statistics (OES) survey conducted by BLS and State Employment Security Agencies.

The CPS is a monthly survey of approximately 47,000 households and is the source of official government statistics on employment and unemployment. The monthly CPS contains basic demographic and labor force data, while the March CPS survey contains additional data on work experience, income, benefits, and migration. For our analysis, we used the March CPS files. Although the overall sample size of the monthly CPS is large, nurse aides represent a relatively small portion of the overall workforce. In order to obtain a sample of aides large enough to support our statistical analysis, we combined the 3 most recent years of data from the March CPS in 1998, 1999, and 2000. We ended with a weighted sample of 766 hospital aides, 1,230 nursing home aides, and 1,073 home health care aides.

Paraprofessional nursing aide workers may be classified under several occupational and industry categories in the CPS. We selected two occupational categories: health aides, except nursing (occupational code 446) and nursing aides, orderlies, and attendants (code 447). We cross-

Appendix II: Examples of Government and Private Initiatives to Address Nurse Aide Recruitment and Retention

Initiatives and research efforts to address nurse aide recruitment and retention focus primarily on improved wages and benefits (table 6), opportunities for additional training and career advancement (table 7), and additional employee supports, including improved work environments, job skills, and social supports (table 8). Many initiatives are also multifaceted, addressing two or more of these areas (table 9). While states and providers have undertaken most initiatives and research efforts, the federal government has recently begun to focus on the supply and demand of this workforce. The Department of Health and Human Services, through HRSA, HCFA, and ASPE, has undertaken research and planning efforts focused on nurse aide issues (table 10). The tables describe selected examples of initiatives and research efforts, and are not meant to be comprehensive.

Table 6: Wages and Benefits

	State wage pass-throughs
Affected provider type	Nursing homes and home health care agencies
Description	States with wage pass-throughs require that some portion of a long-term care reimbursement increase from a public funding source be used specifically to increase wages and/or benefits for nurse aides. In some states, only facilities that apply may participate in the pass-through programs. As of September 2000, 26 states have established a wage pass-through, wage supplement, or related program to provide supplemental wages or benefits.
Funding source	Varies (funds are usually from Medicaid, but may also include Older Americans Act funds, state appropriations, and other sources)
Start date	Varies from state to state. Some states have had pass-throughs in place since the early 1980s to deal with episodic worker shortages; most pass-throughs are relatively recent.
Evaluation findings	Data collected in Michigan indicate that between 1990 and 1998, the aide turnover rate dropped from 74.5 percent to 67.45 percent, which the state attributes to a pass-through that has been in place since 1990.Kansas' aide turnover rate in facilities participating in the 1999 pass-through went from 120 percent in 1998 to 116 percent in 1999. There have been no evaluations examining short- or long-term effects of the wage pass-through strategy and differences in outcomes based on state variations in methodology.

Table 8: Employee Supports

	The Wellspring Program
Affected provider type	Nursing homes
Description	The Wellspring Program is a collaborative of 11 providers and is based on the idea that while top levels of management should create quality of care through appropriate policy, decisions on how to implement the policy should be made by the front-line workers who are most familiar with the needs of the residents. To implement this policy, the facilities who compose the Wellspring Program have created "care resource teams" which receive specialized job training and are empowered to train other workers and develop, implement, and evaluate facility level care and structural changes. Nurse aides play a prominent role in these interdisciplinary teams. Additionally, clinical experts, including a geriatric nurse consultant, are available to the teams, and the geriatric nurse consultants regularly visit each facility to provide assistance and support.
Funding source	Private
Start date	1994
Evaluation findings	The Institute for the Future of Aging Services, with funding from The Commonwealth Fund, is conducting an evaluation of the Wellspring Program. However, turnover rates for aides across the 11 facilities have dropped from 110 percent (1994) before the implementation of the Wellspring Program to a current rate of 23 percent (2001).

	California Caregivers Training Initiative
Affected provider type	Nursing homes, home health care agencies, hospitals
Description	The state of California's Caregiver Training Initiative (CTI) is designed to develop and implement proposals to recruit, train, and retain caregivers, including nurse aides and other entry level staff. Initiatives undertaken with funds from CTI must be regional in scope and may include supportive services such as childcare, transportation, and personal growth workshops. Participants in the regional initiatives must meet the eligibility requirements of the two funding sources, the federal Workforce Investment Act and Welfare to Work Grant Program state matching funds. In order to receive money from CTI, applicants must develop collaborations with representatives of the health care industry, public agencies, labor organizations, and public education. As of January 31, 2001, 12 grants, ranging in size from $400,000 to just over $2.5 million, were awarded.
Funding source	$25 million ($15 million from Workforce Investment Act funds, and $10 million from State General Fund match dollars)
Start date	2000
Evaluation findings	No evaluation has been conducted to date. However, an evaluation is required . The evaluation will address the implementation, process, and outcomes of each funded program. Programs are required to collect and maintain data on an ongoing basis, and to provide regular progress reports to the evaluation staff.

Table 9: Multifaceted

	Cooperative Home Care Associates
Affected provider type	Home health care agencies
Description	Cooperative Home Care Associates (CHCA) is a worker-owned home health care provider in the Bronx, New York. It currently employs 550 minority women, and was developed on the premise that home health care clients would receive higher quality of care if home health care workers were offered higher quality jobs. Over 75 percent of women who work for CHCA were previously dependent on public assistance. Wages at CHCA are among the area's highest, and the provider offers a full range of benefits, including health care and a retirement plan. CHCA provides 4 weeks of classroom training plus 90-days of on-the-job training, and offers continuing development to staff. Employees are given the opportunity to become owners of the company, and senior staff are also guaranteed a minimum of 30 hours per week.
Funding source	Private
Start date	1985
Evaluation findings	No formal evaluation has been conducted. However, CHCA reports that its annual turnover of aides is less than 25 percent, and within the last 2 years 82 percent of aides remained with CHCA at least 180 days.

	Providence Mount Saint Vincent
Affected provider type	Nursing home
Description	Providence Mount Saint Vincent (PMSV) is a long-term care facility in Seattle, Washington that offers a range of services, including a nursing center and adult day services. In 1991, PMSV restructured itself to provide "resident directed care." The organization defines resident directed care as care directed by residents, including choosing the daily routines and services the resident wishes to receive. Front-line staff were given the power to make decisions related to patient care, and certain middle management positions were eliminated to provide resources for more direct-care staff. All employees received cross-training in multiple tasks, which, according to PMSV, gave them greater opportunity for advancement. Aides also received pay increases with each year of service, bonuses for staying with PMSV, and a full benefit plan, including health care and a pension.
Funding source	Private
Start date	1991
Evaluation findings	No formal evaluation has been conducted. However, since the implementation of the changes, turnover at PMSV is lower than the industry standard. In 1994, PMSV's turnover rate was 54 percent, in 1995 it was 39 percent, and in 1996 it was 37 percent.

Table 10: Federal Research and Data Collection Initiatives

	Report to Congress on Appropriateness of the Minimum Nurse Staffing Ratios in Nursing Homes, Phase II—Health Care Financing Administration, HHS
Affected provider type	Nursing homes
Description	Phase II of the Staffing Ratio study will examine the costs and benefits associated with establishment of staffing minimums and further explore the findings of Phase I. Additionally, Phase II will examine issues that affect the recruitment and retention of nurse aides, including turnover rates, amount of staff training, and management of staff resources.
Funding source	Federal
Start date	2000, with an expected completion date of late 2001
Evaluation findings	No evaluation has been completed.
	National Study of Nursing Home Nurse Aides and Home Health Workers—Health Resources and Services Administration, HHS
Affected provider type	Nursing homes and home health care agencies
Description	The Health Resources and Services Administration recently began a national study of the current and future supply of and demand for front-line long-term care workers. The study will include analysis of existing databases and interviews of long-term care workers, providers, associations, and interested state agencies. The interviews will be conducted by the Center for Health Workforce Studies at State University of New York, University at Albany's School of Public Health, and other health workforce centers around the country. A report is expected in late 2001.
Funding source	Federal
Start date	2000
Evaluation findings	No evaluation has been completed.
	Frontline Workers in Long-Term Care—Office of Disability, Aging, and Long-Term Policy, Office of the Assistant Secretary for Planning and Evaluation, HHS
Affected provider type	All long-term care workers
Description	This project is designed to heighten the awareness of federal, state, and local policymakers about issues related to the development of a quality long-term care workforce. The project will identify successful recruitment and retention models for front-line long-term care workers and will suggest policy and research activities to promote a quality paraprofessional long-term care workforce. ASPE is collaborating with the Robert Wood Johnson Foundation. HCFA, HRSA, Administration on Aging, the Department of Education, Agency for Healthcare Research and Quality, and the Department of Labor are also involved.
Funding source	Federal and private
Start date	2000
Evaluation findings	No evaluation has been completed.

(290008)

JAN 4 2002

The Honorable Paul S. Sarbanes
United States Senate
Washington, D.C. 20510

Dear Senator Sarbanes:

At the Joint Economic Committee meeting on December 8, you asked about the record low for the alternative unemployment series that includes marginally attached workers and persons who work part time for economic reasons. This measure (U-6) was 9.0 percent (not seasonally adjusted) in November 2001. You correctly noted that it was 6.3 percent in October 2000; this was the record low for the series. I have enclosed a table showing the complete historical series. I would point out that this measure has only been obtained since 1994. In addition, because the data are not seasonally adjusted, comparisons across months do not account for intrayear variations which tend to occur during the same period each year.

You also asked whether the unemployment rate lags the bottoming out of economic downturns. Specifically, you wanted historical information showing whether the unemployment rate was a lagging indicator of an improving economy. We have looked at the relationship between the unemployment rate and the official National Bureau of Economic Research (NBER) peaks and troughs going back to 1948. I have included a table that shows the number of months that the unemployment rate has lagged or lead the official dates. I would note that due to the variability in the unemployment data, it can be difficult to determine the exact month when the jobless rate reaches its peak or trough.

As you see in the enclosed table, the unemployment rate has indeed lagged behind the official NBER troughs in the majority of recessions since World War II. However, the length of lag varies greatly. For example, the unemployment rate lagged the July 1990 trough by 15 months but was only behind the July 1981 trough by 1 month. The unemployment rate was coincident with the official trough of October 1949.

I hope that this information is helpful to you. Please let me know if you have any additional questions.

Sincerely yours,

LOIS ORR
Acting Commissioner

Enclosure

DOL/BLS/OEUS/DLFS
MARTEL/klj/ 12/26/01
Cc: Comm RF, Orr, Galvin, Rones, Hayghe, Martel, RF, DF

U-6 Series, not seasonally adjusted, 1994-2001

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann Avg
1994	12.8	12.2	11.9	10.9	10.6	11.3	11.1	10.4	10.0	9.7	9.7	9.7	10.9
1995	11.1	10.5	10.3	9.8	9.8	10.4	10.4	10.0	9.7	9.3	9.6	9.7	10.1
1996	10.8	10.7	10.3	9.7	9.5	10.0	10.0	9.3	9.0	8.8	8.9	9.2	9.7
1997	10.4	10.0	9.6	9.0	8.5	9.2	9.0	8.6	8.3	7.9	8.0	8.2	8.9
1998	9.3	8.9	8.9	7.7	7.6	8.4	8.5	7.8	7.6	7.3	7.2	7.3	8.0
1999	8.5	8.2	7.9	7.4	7.1	7.9	7.7	7.2	7.0	6.7	6.8	6.9	7.4
2000	7.8	7.6	7.4	6.7	6.8	7.3	7.3	7.0	6.6	6.3	6.8	6.7	7.0
2001	8.1	7.9	7.6	7.2	7.2	8.2	8.1	8.1	8.3	8.7	9.0	9.3	8.2

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.

Source: Bureau of Labor Statistics

Number of months that the unemployment rate lead (-) or lagged (+) the official National Bureau of Economic Research (NBER) business cycle peaks and troughs

NBER Peaks	Number of months that the unemployment rate lead (-) or lagged (+) the official NBER peaks.	NBER Troughs	Number of months that the unemployment rate lead (-) or lagged (+) the official NBER troughs.
November 1948	ND	October 1949	0
July 1953	-1	May 1954	4
August 1957	-5	April 1958	3
April 1960	-2	February 1961	3
December 1969	-7	November 1970	9
November 1973	-1	March 1975	2
January 1980	-8	July 1980	ND
July 1981	ND	November 1982	1
July 1990	-1	March 1991	15
March 2001	-5		

ND Not determined due to variability in the data.