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THE EMPLOYMENT SITUATION

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before the

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

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Prepared by DONALD C. EVANS III

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THE JULY EMPLOYMENT SITUATION

Friday, August 4, 1995

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

The Committee met, at 9:35 a.m., in Room 2261, Rayburn House Office Building, the Honorable Jim Saxton, Vice Chairman of the Committee, presiding.

Present: Representative Saxton.

Staff Present: Christopher Frenze, Jeff Given, Juanita Morgan, Lee Price, William Buechner and William Spriggs.

OPENING STATEMENT OF REPRESENTATIVE JIM SAXTON, VICE CHAIRMAN

Representative Saxton. Dr. Abraham, welcome. It is always good to see you, and let me say at the outset that Members on both sides of the aisle are trying their best to, our collective best, to get things wrapped up so that we can get out of town. It is obviously a very busy day, therefore, on Capitol Hill.

So I apologize for the attendance or lack thereof. I do believe, however, that there are a couple of people who will be coming and joining us as we proceed. So again, thank you for being here.

It is always a pleasure to welcome you, Commissioner Abraham, before the Joint Economic Committee.

The employment data reported this morning are not very encouraging. The unemployment rate increased to 5.7 percent. Even more disturbing, nonfarm payroll employment increased by only 55,000, a fraction of most people's expectations, while 85,000 factory jobs were lost, the fourth consecutive decline in factory employment.

The JEC Members from both sides of the aisle noted in 1993 that President Clinton's fiscal policies would have a contractionary effect on the economy, at least for several years. Now that the unsustainable, loose Federal Reserve monetary policy has been discontinued, the underlying costs of Clinton's policies are now coming to the surface.

Turning to another matter, I would like to note a recent release by Secretary Reich and his chief economist on real wage trends. Apparently,

this release was based on a manipulation of a BLS compensation report designed for a different purpose.

However, by exaggerating the decline in real wages and contrasting this with profit growth, Secretary Reich and his officials attempted to create once again a class warfare issue for the 1996 election. I think that is quite unfortunate.

However, this use of the compensation report was misleading, according to a BLS official -- a BLS official who discussed the issue with the *Daily Labor Report.* In discussions with my staff, the BLS staff closest to the compensation data also stated that it is not accurate to make year-to-year comparisons of cash levels of wages and compensation.

And so once again, Secretary Reich and his politicized staff have gone overboard, twisting the economic data produced by BLS. I might add that in recent months other such misuse of information, such as the report that was issued by the Department on minimum wage in my home State of New Jersey, based on faulty data, as well as information that was released that had to do with something called "economically targeted investments", are all part of what I believe is a very unfortunate pattern coming out of the Department of Labor.

A number of publications, including *The Washington Post,* have recently took pains to express disagreement with Secretary Reich's statements, particularly relating to this last issue. Apparently the credibility problems of Secretary Reich and his propaganda machine at the Department of Labor seem to be becoming more and more broadly recognized.

All that aside, Dr. Abraham, we look forward to hearing from you this morning relative to the most recent employment statistics. And at this time I will stop and let you begin.

Thank you again for being here.

STATEMENT OF THE HONORABLE KATHARINE G. ABRAHAM, COMMISSIONER, BUREAU OF LABOR STATISTICS ACCOMPANIED BY KATHLEEN M. MACDONALD, ACTING ASSOCIATE COMMISSIONER FOR COMPENSATION AND WORKING CONDITION; KENNETH V. DALTON, ASSOCIATE COMMISSIONER, PRICES AND LIVING CONDITIONS; AND THOMAS J. PLEWES, ASSOCIATE COMMISSIONER, EMPLOYMENT AND UNEMPLOYMENT STATISTICS

Ms. Abraham. And thank you for, on what I do appreciate is an extremely busy day, making time to give us the opportunity to offer some comments on the employment data released this morning.

Payroll employment, as you noted, was little changed in July, at 116.6 million total, over the month, the change being 55,000. And the unemployment rate at 5.7 percent remained at about the same level as in the prior month.

Payroll job growth has been considerably weaker in recent months than it had been in the first-quarter of the year. Continued deterioration in manufacturing employment was a major factor in the weakness of the July payroll job count.

The number of factory jobs fell by 85,000 over the month, and has declined by a total of 188,000 over the past four months. Job losses in July were widespread throughout both durable and nondurable goods industries.

The largest decline was in transportation equipment, where employment fell by 20,000. Both the motor vehicles and aircraft industries were affected.

The decline in motor vehicles reflects temporary plant shutdowns, but the loss in aircraft manufacturing continues a pattern that has persisted for some years now. There were also continued losses in the textiles, apparel, chemicals, and rubber and plastics industries.

In fact, electronics was the only manufacturing industry to show a job gain in July. In addition to the job cutbacks, the factory workweek fell by two-tenths of an hour, and has been shortened by nearly a full hour since January. Factory overtime edged up by a tenth of an hour in July, at least temporarily halting a string of steady declines that began earlier this year.

Employment in the services industry rose by only 60,000 in July; growth in the industry has been relatively weak since March. Over the month, there were lower than average job gains in business and health services, the two largest services industry components. Within business services, employment in the computer services component has shown the most strength in recent months, while help supply services employment has been weak.

Employment in retail trade rose by 54,000 in July and is up by over 100,000 in the last two months, after having exhibited no net growth in the first five months of the year. Increases since May have been concentrated in eating and drinking places. Wholesale trade also added jobs over the month.

Average hourly earnings of production or nonsupervisory workers were up by seven cents in July, after having risen five cents in June. Increases in average hourly earnings had averaged less than three cents a month over the year ended in May. Because earnings increases are very uneven from month to month, however, we will need to see additional

months' data before concluding that the underlying growth rate of this earnings series has changed.

Turning to data from the household survey, the seasonally-adjusted estimates of both total employment and the labor force rose markedly from their June levels. As you may recall, the survey had recorded extremely large declines in those estimates for May, while the June figures were little changed. Looking at the data over a somewhat longer period, the survey had shown no growth in either employment for the labor force over the first-half of the year.

The overall unemployment picture has changed very little in recent months. The unemployment rate has been in the 5.6 percent to 5.8 percent range since April, and the number of unemployed persons has remained within a narrow range around 7.5 million. There also has been little movement in unemployment rates for the major demographic groups.

In summary then, payroll employment showed very little growth in July. While there were small gains in the service producing sector, the number of factory jobs fell for the fourth month in a row. The jobless rate was about unchanged at 5.7 percent.

That is our overview of these figures. We will, of course, be happy to answer any questions you might have.

[The prepared statement of Commissioner Abraham appears in the Submissons for the Record.]

Representative Saxton. Thank you very much, Commissioner. Commissioner, in your statement you mentioned what seemed to be a large loss in factory jobs over the last four months. How many factory jobs have been lost in total over that time?

Ms. Abraham. Over the last four months, factory employment has fallen by 188,000 with 85,000 of that decline registered in July.

Representative Saxton. Is there any regional implication to those numbers? Were they worse in some quadrants of the country or was it a fairly broad scope?

Ms. Abraham. Well, it was fairly widespread across industries. We don't have the July employment figures state-by-state at this point, so I would have to go back to looking at the June figures, and I don't know if you have got anything here on the past several months, Tom.

Mr. Plewes. I do. It might take me a while --

Ms. Abraham. Okay. There was certainly nothing that leapt out at the analysts who were looking at this in terms of regional impact. It was --

Representative Saxton. You have these figures by region of the country as well as by various industries?

Ms. Abraham. We do with a bit of a lag, so we just within the past couple weeks got the numbers for June, we don't have them today for July, region by region.

Mr. Plewes. This will take a minute or two. I am looking at the change over the past year from last June, 1994, to June, 1995, in manufacturing by state. And all I can see is basically a pattern in which there have been some increases and some declines. The Midwest has seemed to do fairly well.

Ms. Abraham. The Pacific region has done relatively poorly.

Mr. Plewes. The Middle Atlantic States are still in some trouble. New Jersey, for example, over that time period lost over 12,000 jobs in manufacturing. It is quite difficult to make I think an overall statement. Some states are up and some states are down.

Representative Saxton. How about the New England area?

Mr. Plewes. New England was --

Ms. Abraham. Over the year manufacturing employment in New England was down six-tenths of one percent, June to June.

Mr. Plewes. Massachusetts lost jobs, Connecticut lost jobs. Vermont gained 1,000 jobs. So it is a bit of a mixed bag.

Representative Saxton. So it doesn't perhaps have a regional implication, but you did mention that the Midwest seems to be doing quite well, the West Coast seems to be doing not so well and it is kind of a mixed bag in the Northeast?

Mr. Plewes. In the Northeast, yes. And in the Middle Atlantic States, I think there is still some trouble with manufacturing. It has to do with industry mix and which industries are in which States and how well those industries are doing, basically.

Representative Saxton. Do you have a breakdown by different types of industries?

Can you give us any numbers that reflect how various segments of the economy are doing? Or various segments of manufacturing jobs, I guess I should say.

Ms. Abraham. Within manufacturing we really are not easily able to break that out state-by-state. I do have here, which I would be happy to share with you, a table showing region-by-region the percentage changes in employment by broader sector, construction, manufacturing, trade services and so on. But that is about the most detail that we have in terms of a comprehensive look at the data.

Tom's characterization of manufacturing overall was quite accurate. It is New England and the Middle Atlantic States have not done particularly well. Midwest in general seems to have done better. The Pacific region, including California, has not done well.

Representative Saxton. Maybe you can help us with some numbers as we move forward beyond today.

Senator Mack, I believe, is planning to convene a series of hearings trying to determine what it is about our national policy that we might want to look at in terms of changes that would help, in particular, manufacturing jobs, but jobs throughout various segments of the economy. And so if we might just ask you whatever you can provide that gives us a kind of window into where the problems are, therefore giving us an opportunity to look at some things that we might be able to do or stop doing -- as in Federal policy -- to address some of these issues.

I think we will move along. The payroll and employment numbers you report today are much weaker than generally expected. Is this weakness fairly broad in scope or is it narrowly limited to specific industries?

Of course, this is related once again to the line of questioning and conversation that we were just having. Is there anything that you can shed further on this issue?

Ms. Abraham. Well, to try to characterize what happened this past month, we saw weaker than average growth in the services industry and, as we already talked, about a decline in manufacturing. With respect to the decline in manufacturing employment, I would have to say that it was fairly widespread.

If you look across the two digit industries within manufacturing, the only one where we saw an increase in employment was the electronics industry. So with respect to that decline, I would have to say that it was fairly broad-based.

Representative Saxton. How about high tech, meaning, of course, the information industry, computer industry, the telecommunications industry, is there anything to report there?

Ms. Abraham. Well, you know, other than saying this was fairly broad-based computer and office equipment employment, our estimates show a decline in employment of a thousand over the month. I would hesitate to say that was statistically meaningful. But it was down. Electronic and other electrical equipment was, as I said, the one industry where employment went up, but -- do we have any kind of categorization that would be high-tech? We don't really quite break it out that way.

Mr. Plewes. We have done some work in terms of high-tech, we haven't updated that for some time. We could run that again. We have identified some industries, pharmaceuticals, electrical components and so forth, as high-tech, and we have run those separately to find out what is going on. We would be pleased to update that if you would like.

Representative Saxton. Well, once again, it would be extremely helpful to us in doing our job and pursuing our objectives if we were able to look at where growth is or is lacking in some of these specific areas. Anything that you may be able to pull out to help us with that would be very helpful.

Ms. Abraham. We would be happy to prepare a report on what we can tell you about that.

[The additional information prepared for Representative Saxton appears in the Submissions for the Record.]

Representative Saxton. Let me move along to another question. Construction employment failed to increase in July at all. Does this reflect a slowdown in construction activity or is it just a statistical blip?

Ms. Abraham. Well, I guess housing starts were down a bit. I don't know that we can speak directly to precisely what is driving what we were seeing in employment. Again, Tom, do you have anything to add on what was going on in construction?

Mr. Plewes. I think that we are seeing a continuation of a pattern that we have seen since this spring. Basically we are seeing continued weakness in residential construction. There is some strength in the heavy construction categories. And the rest of the construction, which is primarily special trades, is mixed, some areas are doing well and some areas are doing poorly. On balance, construction is not going gang-busters.

Ms. Abraham. Looking back, we saw overall construction employment, comparing back to March on net is down somewhat from its March level, after some downs and ups in the intervening time.

Representative Saxton. Okay. Well, thank you. Let me move on to one other subject that I would like to discuss with you this morning, recognizing that this is perhaps a difficult issue for you to get into. Do you recall seeing a story that was run in *The New York Times* on June 23rd relating to the decline in real wages?

Ms. Abraham. I am not sure I remember specifically what story you are referring to, that having been some weeks ago.

Representative Saxton. Well, there was a story that *The New York Times* ran that reported that real wages declined. Are you familiar with the general topic?

Ms. Abraham. Yes. I, in fact, have written on the general topic.

Representative Saxton. I thought you had. And quite effectively, we might add. Apparently there was a DOL report issued that was made as the basis of this June 23rd story in *The New York Times*, and I understand that the report was issued for a specific purpose. Can you comment on the report and the thrust of the report?

Ms. Abraham. I believe that you are referring to a report that we issued on employers' employment cost levels derived from our employment cost index data.

I want to ask Kathleen MacDonald, who is at the moment Acting Associate Commissioner for our Office of Compensation and Working Conditions, which is the office where these data are produced, to join us, in case this gets more technical than I have in-depth knowledge to speak to.

Representative Saxton. Welcome.

Ms. Abraham. We have an employment cost index program that was designed to allow us to track the rate of change in wage rates, holding the occupational and industry mix of the people who are working constant. We publish those numbers quarterly.

We also make use of the same data to produce annually, based on the data for each March, a series that, instead of holding the industry occupation mix constant, is constructed in such a way as to take account as best we can with these data collected for this other purpose of changes in the industry occupation mix.

So those data are --

Representative Saxton. Let me make sure that I -- I am trying to get this into my language. Your study and the report was intended to show the mix in compensation between wages and other items of remuneration such as fringe benefits, which come to a total package of compensation; is that correct?

Ms. Abraham. Right, it gives each year as of March a breakout of the average current level of compensation per hour. It is weighted as best we can to reflect the current industry occupation mix, so it is our best estimate of the current level of compensation. And then we also have a breakout of what the different pieces of that compensation are, how much are wages and salaries, how much are contributions to pension plans and so on.

Representative Saxton. Did you draw any conclusions in your study or in your report?

Ms. Abraham. Well, the release that we put out, as is typically the case, I have a copy of that here if you would be interested in seeing it, just focused on the new data for this year. And the focus of our release was on, as you said, the breakout of compensation per hour across these different categories.

Representative Saxton. And did you draw any conclusion as to the total increase or decrease in compensation?

Ms. Abraham. No, we did not in this release. That is not something that we typically do.

I guess the question that you are really getting at is what kind of comparisons would it be appropriate to make over time based on these data. And they are year-to-year, if you wanted to look at them over time, for each year our best estimate of what the level of compensation is.

Representative Saxton. Now, the Bureau -- I am sorry, excuse me. The Bureau of Labor Statistics -- then did not draw any conclusion about the percentage of increase or decrease in compensation?

Ms. Abraham. No, we have not historically focused on the data in that way.

Representative Saxton. In this report did you focus on it?

Ms. Abraham. No, this report was just looking at the level of compensation as of March of 1995 and the breakout of that compensation. But I would add that in terms of looking at the data over time, and I would like to ask Kathleen to speak to this as well, these numbers, year-to-year, are our best estimates of the level of compensation per hour.

I think there are some issues with making too much of the year-to-year change in the numbers. But in terms of looking at these numbers with respect to assessing over a longer period of time the trend in compensation, we have no problem with that. I don't know if you want to elaborate, Kathleen.

Representative Saxton. Before -- before you do, Kathleen, and I want you to, let me -- let me try to express my concern. *The New York Times* is obviously a widely read newspaper, and based on your report, which you say you drew no conclusions about the rate of increase or decrease in levels of compensation, *The New York Times* quotes Secretary Reich, quite to the contrary, saying there was a 2.3 percent decline in compensation.

I find that very curious. I guess there are two questions. One you have already answered, is that you did not draw any conclusion such as that. I read later in *The Washington Post* and other publications that the data you produced is not appropriate data from which to draw this conclusion under any case, in any case. So that is my concern. Kathleen, if you would like to --

Ms. Abraham. Before Kathleen speaks, maybe I could just make one comment, and then I would like to turn this over to Kathleen, who is, in terms of the details of the technical aspects of this, the real expert.

I would note only that people frequently use our data to look at issues and questions that we have not addressed. And, you know, that is not something that is necessarily problematic in any way. I would like to turn this over to Kathleen to speak to the technical issues here.

Ms. MacDonald. The Chairman was correct, we did not make any change comparisons, but I would hasten to add that I would feel comfortable in looking at trend changes with these data over time.

I think the staff cautions, just as the Bureau cautions, with any series, looking at one more data point, against making too much of one change based on one point. But the trend data, if you look at this series since it began in 1987, the most recent data being March, 1995, you come to the same place in the sense of the short-run change, comparing the change in the index to the change in the cost levels.

Now, this release showed a decline in costs for health insurance between 1994 and 1995. That was the first time this had occurred. That series does not extend back to 1987. If you were to look at this for just one over the year change, without that body of trend, we would caution some care in that.

But health insurance cost increases have been moderating. So I think you have to look at the trend and the trend shows the same moderation leading to the over-the-year decline. The increase in wage levels is generally less than the increase in the wage index.

Representative Saxton. Dr. Abraham, I have a copy of a publication here, *The Bureau of National Affairs, Inc.* "Economic developments" is the name of the article, and in the article, near the beginning, it says a BLS analyst cautioned that year-to-year comparisons are misleading, using this particular study, because of the mix in occupations and industries change annually. Somebody, that is associated with you, was quoted in this publication --

Ms. Abraham. Somebody who works for Kathleen, I suspect. You talk to the press frequently and I am sure that you have had the experience that I personally have had many times of what I said not making its way into print precisely in the way that I said it. I don't know whether this person used the word misleading or not. I don't think that is a word that I would necessarily use to characterize making this sort of comparison.

Ms. MacDonald. Nor I, nor I. I will further add that coming out with cost levels which reflect current weights, and then having a quarterly index which reflect a fixed market basket of occupations, and then trying to talk comparisons, can complicate the conversation with whoever is on the other end of the phone. And we did have a great deal of that kind of confusion.

And we still are continuing, actually, to have that. You know, I take some of these press calls myself and some people are calling up and getting confused about the level series and the index. There is a lot of room here for difficult conversations.

Representative Saxton. Well, it is difficult. I said at the outset that I knew these were difficult questions for me to ask you in this setting, so I appreciate your candor in dealing with them.

What concerns me and other policymakers is that when we see a report that speaks to a statistical conclusion which has been drawn on a study that was not intended to produce statistics that would be used to draw that kind of a conclusion. Then it becomes a matter of some debate in and between other reporters and press people and publications, it does become somewhat of a concern.

Particularly in light of what we have seen coming from certain quarters of DOL relative to other subjects like the minimum wage and other issues where, frankly, we think the books were cooked to reflect a conclusion that somebody wanted to have drawn. None of you; you folks have done a wonderful job.

And I will say that over and over again from my years of experience in dealing with you. Let me ask -- let me stop on this line of questioning, let me just ask one other question. As you know, there is a fair amount of downsizing - and we appreciate what you do, we rely on what you do - there is a fair amount of downsizing that has been proposed and in process within the Federal Government generally, because of a variety of changes that are being made by Congress.

You have probably no doubt taken a look at what has been proposed for funding for the Department of Labor. And I am just interested to know how you think that will affect your ability to proceed to do the fine job that you have done. And incidentally, this is a question that was suggested to me by Mr. Stark and so let me just leave it at that and then I will have one follow-up.

Ms. Abraham. Okay. I appreciate your raising it.

Maybe by way of backdrop with respect to our budget, about two-thirds of our budget goes to just four things, producing the monthly unemployment numbers, producing the monthly payroll figures, producing the Consumer Price Index, and producing the Producer Price Index. And as far as I am concerned, those are essential, core things.

So in terms of any change in our budget, we would act to protect those. The budget that, based on the House Appropriations Committee's decisions, we would be working with for fiscal year 1996, would be in real terms about 6.5 percent below our 1995 figure. I say -- it was 1.5 percent in nominal terms, but adjusting for cost increases that we can't control, it works out to about a 6.5 percent decrease, which in terms of our planning for how we -- what we would do next year, we would be looking at absorbing out of that one-third of our budget that is not those four big programs.

We are looking at a variety of possible things that we would have to cut out, and I think it does -- that kind of cut would imply in our case cutting out some activities. I could elaborate, if you would like, on the range of things that we are looking at, but we have not reached any kind of final decisions at this point.

Representative Saxton. Why don't you elaborate on it just briefly in terms of what you think it means, in terms of our ability to conduct public policy based on what -- based on the information you are able to bring us.

Ms. Abraham. Okay. If I had to describe our core mission, our core mission is to produce national economic statistics. So that what we would be looking at cutting back would be data, important data, that are State and local data, rather than national data, and data that are of specialized interest rather than of more general interest.

And that would include things like looking at eliminating our program to produce direct use estimates of the unemployment rate for States from the current population survey. I am afraid to say that would include those monthly unemployment figures we bring you each month for the State of New Jersey, as well as for 10 other States.

We would produce those using a different method. We would be looking at perhaps cutting out our foreign direct investment program, which provides data on employment at foreign-owned firms in the United States. We would be looking at cutting back on the amount of information we provide on occupational safety and health.

We would be looking at cutting back on the amount of local area data that we produce on occupational pay rates. I suspect that all of those things, unfortunately, are things that you probably find useful as you set about trying to assess the condition of the labor market for the purpose of making public policy decisions.

Representative Saxton. Thank you. And forgive me for not knowing the answer to this question, which I probably should know, but when the Department of Labor gets its budget, does the Secretary have the flexibility to change or to use other monies from other internal --

Ms. Abraham. No, no. We get a budget. There is a budget total for the Bureau of Labor Statistics and then there are actually seven specific line items for the Bureau.

Representative Saxton. Do you know which line item the Office of the Chief Economist is in?

Ms. Abraham. It is completely separate from us. I suspect it is in the Office of the Secretary line item, but I don't know the Department's budgeting.

Representative Saxton. This is a new office under Secretary Reich, which I believe is funded to the tune of about $500,000. And we believe

that some of the misuse of statistical data and calculations that become questionable publicly, come from this office. And obviously we are more interested in projective data, and to the extent that you might be able to use that money, the Congress would certainly be interested in doing what we could through the appropriations process to direct it to you. And you don't need to comment on that, that is a --

Ms. Abraham. Thank you.

Representative Saxton. But I -- once again, we appreciate you being here. We always find the information that you provide useful.

While this is not good news in this instance in terms of the growth or lack of it in employment and the economy generally, I guess your numbers reflect generally what we saw in the economy over the last quarter, one-half of 1 percent growth which is bad by anybody's comparison.

So while it could be worse, we would certainly hope for a pickup in the economy and a pickup in the employment in months ahead. Once again Senator Mack and I will be holding a different series of hearings to try to determine what it is that Congress should do or stop doing in order to make the -- provide the opportunity for you to come before us with better news in the future.

Thank you very much for being here today. And unless you have something additional to offer, we are going to close this hearing.

And once again, look forward to seeing you in months ahead.

Ms. Abraham. Thank you. We owe you a report which we will provide.

Representative Saxton. Thank you very much. We are adjourned.

[Whereupon, at 10:14 a.m., the Committee was adjourned.]

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SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF JIM SAXTON, VICE CHAIRMAN

It is always a pleasure to welcome Commissioner Abraham before the Committee.

The employment data reported this morning are not encouraging. The unemployment rate increased to 5.7 percent. Even more disturbing, nonfarm payroll employment increased by only 55,000, a fraction of most expectations. Meanwhile, 85,00 factory jobs were lost, the fourth consecutive decline in factory employment.

As JEC Members from both sides of the aisle noted in 1993, Clinton fiscal policies would have a contractionary effect on the economy for at least several years. Now that the unsustainably loose federal reserve monetary policy has been discontinued, the underlying costs of Clinton policies are now coming to the surface.

Turning to another matter I would also like to note a recent release by Secretary Reich and his chief economist on real wage trends. Apparently, this release was based on a manipulation of a BLS compensation report designed for a different purpose. However, by exaggerating the decline in real wages and contrasting this with profit growth, Secretary Reich and his officials attempted to create a class warfare issue for the 1996 election.

However, this use of the compensation report was misleading, according to a BLS official who discussed the issue with the daily labor report. In discussions with my staff, the BLS staff closest to the compensation data also stated that it is not accurate to make year to year comparisons of the cash levels of wages and compensation.

Once again, Secretary Reich and his politicized staff have gone overboard twisting the economic data produced by BLS. However, a number of publications, including *The Washington Post*, took pains to express disagreement with Reich's statements. Apparently, the credibility problems of Secretary Reich and his propaganda machine at the Department of Labor seem to be becoming more broadly recognized.

PREPARED STATEMENT OF KATHARINE G. ABRAHAM

Mr. Chairman and Members of the Committee:

I appreciate this opportunity to provide comments on the labor market data released this morning.

Payroll employment was little changed in July, at 116.6 million, and the unemployment rate, at 5.7 percent, remained at about the same level as in the prior month. Payroll job growth has been considerably weaker in recent months than it was in the first quarter of the year.

Continued deterioration in manufacturing employment was a major factor in the weakness of the July payroll job count. The number of factory jobs fell by 85,000 over the month and has declined by a total of 188,000 over the past 4 months. Job losses in July were widespread throughout both durable and nondurable goods industries. The largest decline was in transportation equipment, where employment fell by 20,000; both the motor vehicles and aircraft industries were affected. The decline in motor vehicles reflects temporary plant shutdowns, but the loss in aircraft manufacturing continues a pattern that has persisted for 5 years. There also were continuing losses in the textiles, apparel, chemicals, and rubber and plastics industries. In fact, electronics was the only manufacturing industry to show a job gain in July.

In addition to the job cutbacks, the factory workweek fell by two-tenths of an hour and has been shortened by nearly a full hour since January. Factory overtime edged up by a tenth of an hour in July, at least temporarily halting a string of steady declines that began early this year.

Employment in the services industry rose by only 60,000 in July; growth in the industry has been relatively weak since March. Over the month, there were lower than average job gains in business and health services, the two largest services industry components. Within business services, employment in the computer services component has shown the most strength in recent months, while help supply services employment has been weak.

Employment in retail trade rose by 54,000 in July and is up by over 100,000 in the last 2 months, after having exhibited no net growth in the first 5 months of the year.

Increases since May have been concentrated in eating and drinking places. Wholesale trade also added jobs over the month.

Average hourly earnings of private production or nonsupervisory workers were up by 7 cents in July, after rising by 5 cents in June. Increases in hourly earnings had averaged less than 3 cents a month over the year ended in May. Because earnings increases are very uneven from month to month, however, we will need to see additional months, data

before concluding that the underlying growth rate of this earnings series has changed.

Turning to data from the household survey, the seasonally adjusted estimates of both total employment and the labor force rose markedly from their June levels. As you may recall, the survey had recorded extremely large declines in these estimates for May, while the June figures were little changed. Looking at the data over a somewhat longer period, the survey had shown no growth in either employment or the labor force over the first half of the year.

The overall unemployment picture has changed very little in recent months. The unemployment rate has been in the 5.6 to 5.8 percent range since April, and the number of unemployed persons has remained within a narrow range around 7-1/2 million. There also has been little movement in unemployment rates for the major demographic groups. July jobless rates were 4.7 percent for adult men and 5.1 percent for adult women. The rate for teenagers rose to 18.2 percent and their employment level declined. The unemployment rate among black workers, at 11.1 percent, was more than twice as high as the rate for whites, at 4.8 percent. The rate for Hispanics was 8.8 percent.

The number of persons working part time even though they would have preferred full-time employment totaled 4.4 million in July. There were also about 1.6 million former job seekers who reported that they wanted and were available to take jobs in July, but were not counted as unemployed because they were no longer seeking work. Of these "marginally attached" workers, about 450,000 said they were not looking for work because they felt their job prospects were poor and hence were classified as discouraged workers.

In summary, payroll employment showed very little growth in July. While there were small gains in the service-producing sector, the number of factory jobs fell for the fourth month in a row. The jobless rate was about unchanged at 5.7 percent.

My colleagues and I will now be glad to respond to any questions you may have.

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USDL 95-299

Transmission of material in this release is embargoed until 8:30 A.M. (EDT), Friday, August 4, 1995.

THE EMPLOYMENT SITUATION: JULY 1995

Both unemployment and nonfarm payroll employment were essentially unchanged in July, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The unemployment rate was 5.7 percent in July and has shown very little movement in recent months. The overall weakness in payroll employment reflected a sharp drop in manufacturing jobs that was offset by small gains in a number of the service-producing industries. Average hourly earnings rose by 7 cents and the factory workweek continued its descent.

Chart 1. Unemployment rate, seasonally adjusted, August 1992 - July 1995

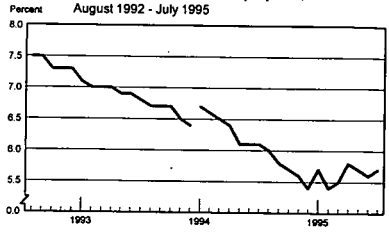
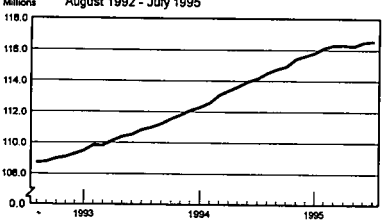


Chart 2. Nonfarm payroll employment, seasonally adjusted, August 1992 - July 1995



Unemployment (Household Survey Data)

The number of unemployed persons totaled 7.6 million in July, and the unemployment rate was 5.7 percent. Both measures have shown little change since April. (See table A-1.)

Jobless rates showed little or no change in July for adult men (4.7 percent), adult women (5.1 percent), whites (4.8 percent), blacks (11.1 percent), and Hispanics (8.8 percent). In contrast, the rate for teenagers rose to 18.2 percent. Both the mean (16.5 weeks) and median (9.1 weeks) duration of unemployment rose over the month after falling in June. (See tables A-1, A-2, and A-5.)

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

Category	Quarterly averages 1995 I	Quarterly averages 1995 II	Monthly data 1995 May	Monthly data 1995 June	Monthly data 1995 July	June-July change
HOUSEHOLD DATA	Labor force status					
Civilian labor force	132,318	132,139	131,811	131,869	132,518	649
Employment	125,012	124,625	124,319	124,485	124,959	474
Unemployment	7,306	7,514	7,492	7,384	7,559	175
Not in labor force	65,564	66,157	66,476	66,583	66,096	-487
	Unemployment rates					
All workers	5.5	5.7	5.7	5.6	5.7	0.1
Adult men	4.8	4.9	5.1	4.8	4.7	-.1
Adult women	4.9	5.0	4.8	5.0	5.1	.1
Teenagers	16.8	17.2	17.6	16.4	18.2	1.8
White	4.8	5.0	5.0	4.8	4.8	.0
Black	10.0	10.4	9.9	10.6	11.1	.5
Hispanic origin	9.4	9.3	10.0	9.0	8.8	-.2
ESTABLISHMENT DATA	Employment					
Nonfarm employment	116,078	p116,352	116,248	p116,498	p116,553	p55
Goods-producing [1]	24,329	p24,265	24,228	p24,235	p24,146	p-89
Construction	5,223	p5,221	5,190	p5,231	p5,231	p0
Manufacturing	18,517	p18,461	18,456	p18,422	p18,337	p-85
Service-producing [1]	91,749	p92,087	92,020	p92,263	p92,407	p144
Retail trade	20,771	p20,769	20,747	p20,798	p20,852	p54
Services	32,385	p32,645	32,630	p32,756	p32,816	p60
Government	19,237	p19,258	19,243	p19,269	p19,267	p-2
	Hours of work[2]					
Total private	34.7	p34.4	34.2	p34.5	p34.6	p0.1
Manufacturing	42.1	p41.5	41.4	p41.5	p41.3	p-.2
Overtime	4.8	p4.4	4.4	p4.2	p4.3	p.1
	Earnings[2]					
Average hourly earnings, total private	$11.32	p$11.40	$11.37	p$11.42	p$11.49	p$0.07
Average weekly earnings, total private	392.31	p392.43	388.85	p393.99	p397.55	p3.56

[1] Includes other industries, not shown separately.
[2] Data relate to private production or nonsupervisory workers.
p = preliminary.

Total Employment and the Labor Force (Household Survey Data)

Total employment increased by 474,000 in July to 125.0 million (seasonally adjusted). A rise in employment among adult women was partly offset by a decline among teenagers. The employment-population ratio—the proportion of the working-age population with jobs—was up 0.2 percentage point to 62.9 percent but remains below the levels reached earlier in the year. (See table A-1.)

A total of 7.8 million workers (not seasonally adjusted), or 6.1 percent of all employed persons, held two or more jobs in July. A year earlier, 5.8 percent of the employed held more than one job. (See table A-8.)

The civilian labor force was up by 649,000 over the month to 132.5 million, seasonally adjusted. Adult women accounted for virtually all of this increase. The labor force participation rate rose 0.3 percentage point to 66.7 percent, somewhat less than the levels that prevailed earlier in the year. (See table A-1.)

Persons Not in the Labor Force (Household Survey Data

A total of 1.6 million persons (not seasonally adjusted) had a marginal attachment to the labor force in July, that is, they wanted and were available for work but had ceased their active search for jobs after having looked sometime in the prior 12 months. Those who were not looking because they believed that no jobs were available for them—discouraged workers—accounted for 456,000 of the 1.6 million. Both figures were below those of a year earlier. (See table A-8.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment was about unchanged in July, after seasonal adjustment, as job gains in several of the service-producing industries were largely offset by a steep decline in manufacturing. (See table B-1.)

The manufacturing job reduction of 85,000 in July added to losses that now total 188,000 since the industry began shedding jobs in April. Over-the-month declines were widespread across both durable and nondurable goods industries. Among durables, the largest decline occurred in transportation equipment, where the decrease of 20,000 reflected temporary shutdowns in the motor vehicle industry and further cutbacks in aircraft manufacturing. Aircraft has lost nearly 40 percent of its employment over the last 5 years. Small job losses continued in July among most other durable goods manufacturers. Among the nondurable goods industries, sizable employment declines continued in apparel, textiles, chemicals, and rubber and plastics. The only manufacturing industry to sustain a trend of job growth was electronics.

Construction employment was unchanged in July, after seasonal adjustment. Job totals in the industry have fluctuated in recent months, and there has been no definitive trend since steady growth tapered off this past spring. Mining employment continued its long-term decline in July.

In the service-producing sector, both wholesale and retail trade added jobs over the month. In wholesale trade, the job gain of 17,000 was in line with the average monthly increase over the past year. Employment in retail trade expanded by 54,000, following a similarly sized gain in June. There had been no net job growth in the industry this year prior to June. Most of the recent strength was in eating and drinking places.

The services industry exhibited modest job growth in July, with a gain of only 60,000. Smaller-than-average increases occurred in business, health, and engineering services, and employment in social services declined for the second straight month. Overall, the pace of job growth in services has clearly slowed in recent months.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged up by 0.1 hour in July to 34.6 hours, after seasonal adjustment. Average hours in manufacturing fell by 0.2 hour to 41.3 hours; the series is nearly a full hour below its recent peak. Factory overtime edged up to 4.3 hours, after falling in each of the prior 5 months. (See table B-2.)

The index of aggregate weekly hours of private production or nonsupervisory workers on nonfarm payrolls rose 0.5 percent to 133.0 (1982=100) in July. The manufacturing index, which has been trending downward since March, declined further in July to 105.3. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers rose 7 cents in July to $11.49, after seasonal adjustment. Average weekly earnings rose by 0.9 percent to $397.55. Over the past year, average hourly and weekly earnings rose by 3.2 and 2.9 percent, respectively. (See table B-3.)

The Employment Situation for August 1995 will be released on Friday, September 1, at 8:30 A.M. (EDT).

Explanatory Note

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

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. In March 1994, the sample included about 390,000 establishments employing over 47 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 359,000. 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 -259,000 to 459,000 (100,000 +/- 359,000). 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 +/- 256,000, and for the monthly change in the unemployment rate it is +/- .22 percentage point.

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

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

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

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

The sample-based estimates from the establishment survey are adjusted once a year (on a lagged basis) to universe counts of payroll employment obtained from administrative records of the unemployment insurance program. The difference between the March sample-based employment estimates and the March universe counts is known as a benchmark revision, and serves as a rough proxy for total survey error. The new benchmarks also incorporate changes in the classification of industries. Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.2 percent, ranging from zero to 0.6 percent.

Additional statistics and other information

More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for $13.00 per issue or $31.00 per year from the U.S. Government Printing Office, Washington, DC 20402. All orders must be prepaid by sending a check or money order payable to the Superintendent of Documents, or by charging to Mastercard or Visa.

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

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

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]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
TOTAL									
Civilian noninstitutional population	196,859	198,452	198,615	196,859	198,007	198,148	198,286	198,452	198,615
Civilian labor force	132,783	133,447	134,440	130,774	132,511	132,737	131,811	131,869	132,518
Participation rate	67.5	67.2	67.7	66.4	66.9	67.0	66.5	66.4	66.7
Employed	124,503	125,720	126,548	122,781	125,274	125,072	124,319	124,485	124,959
Employment-population ratio	63.2	63.4	63.7	62.4	63.3	63.1	62.7	62.7	62.9
Agriculture	3,732	3,872	3,810	3,333	3,698	3,594	3,357	3,451	3,409
Nonagricultural industries	120,770	121,848	122,738	119,448	121,576	121,478	120,962	121,034	121,550
Unemployed	8,281	7,727	7,892	7,993	7,237	7,665	7,492	7,384	7,559
Unemployment rate	6.2	5.8	5.9	6.1	5.5	5.8	5.7	5.6	5.7
Not in labor force	64,076	65,005	64,175	66,085	65,496	65,412	66,476	66,583	66,096
Men, 16 years and over									
Civilian noninstitutional population	94,377	95,110	95,191	94,377	94,879	94,952	95,024	95,110	95,191
Civilian labor force	72,058	72,394	72,743	70,655	71,673	71,655	71,255	71,345	71,338
Participation rate	76.4	76.1	76.4	74.9	75.5	75.5	75.0	75.0	74.9
Employed	67,649	68,384	68,750	66,226	67,811	67,588	67,110	67,390	67,383
Employment-population ratio	71.7	71.9	72.2	70.2	71.5	71.2	70.6	70.9	70.8
Unemployed	4,409	4,010	3,993	4,429	3,862	4,067	4,145	3,955	3,955
Unemployment rate	6.1	5.5	5.5	6.3	5.4	5.7	5.8	5.5	5.5
Men, 20 years and over									
Civilian noninstitutional population	87,123	87,750	87,818	87,123	87,622	87,664	87,691	87,750	87,818
Civilian labor force	67,138	67,600	67,810	66,747	67,643	67,563	67,250	67,232	67,258
Participation rate	77.1	77.0	77.0	76.6	77.2	77.1	76.7	76.6	76.6
Employed	63,638	64,549	64,533	63,076	64,465	64,224	63,841	63,994	64,066
Employment-population ratio	73.0	73.6	73.5	72.4	73.6	73.3	72.8	72.9	73.0
Agriculture	2,486	2,530	2,485	2,314	2,519	2,384	2,242	2,344	2,327
Nonagricultural industries	61,150	62,019	62,047	60,762	61,946	61,840	61,599	61,649	61,739
Unemployed	3,502	3,051	3,077	3,671	3,178	3,339	3,410	3,238	3,192
Unemployment rate	5.2	4.5	4.6	5.5	4.7	4.9	5.1	4.8	4.7
Women, 16 years and over									
Civilian noninstitutional population	102,482	103,342	103,424	102,482	103,128	103,197	103,262	103,342	103,424
Civilian labor force	60,725	61,053	61,696	60,119	60,838	61,082	60,556	60,524	61,180
Participation rate	59.3	59.1	59.7	58.7	59.0	59.2	58.6	58.6	59.2
Employed	56,854	57,336	57,798	56,555	57,462	57,484	57,208	57,095	57,576
Employment-population ratio	55.5	55.5	55.9	55.2	55.7	55.7	55.4	55.2	55.7
Unemployed	3,872	3,717	3,899	3,564	3,375	3,598	3,347	3,429	3,604
Unemployment rate	6.4	6.1	6.3	5.9	5.5	5.9	5.5	5.7	5.9
Women, 20 years and over									
Civilian noninstitutional population	95,469	96,204	96,265	95,469	96,037	96,099	96,141	96,204	96,265
Civilian labor force	56,320	56,700	57,149	56,536	57,042	57,360	56,819	56,773	57,471
Participation rate	59.0	58.9	59.4	59.2	59.4	59.7	59.1	59.0	59.7
Employed	53,169	53,799	54,050	53,541	54,242	54,403	54,097	53,915	54,519
Employment-population ratio	55.7	55.9	56.1	56.1	56.5	56.6	56.3	56.0	56.6
Agriculture	672	888	855	790	913	925	828	791	787
Nonagricultural industries	52,297	52,911	53,194	52,751	53,329	53,477	53,268	53,124	53,732
Unemployed	3,150	2,900	3,100	2,995	2,800	2,957	2,722	2,857	2,952
Unemployment rate	5.6	5.1	5.4	5.3	4.9	5.2	4.8	5.0	5.1
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,267	14,498	14,531	14,267	14,348	14,385	14,454	14,498	14,531
Civilian labor force	9,325	9,148	9,681	7,491	7,828	7,814	7,742	7,864	7,790
Participation rate	65.4	63.1	66.6	52.5	54.5	54.3	53.6	54.2	53.6
Employed	7,698	7,372	7,965	6,164	6,567	6,446	6,381	6,576	6,375
Employment-population ratio	54.0	50.8	54.8	43.2	45.8	44.8	44.1	45.4	43.9
Agriculture	375	454	469	229	266	285	287	316	295
Nonagricultural industries	7,323	6,918	7,496	5,935	6,300	6,160	6,094	6,261	6,080
Unemployed	1,628	1,776	1,715	1,327	1,260	1,369	1,360	1,288	1,415
Unemployment rate	17.5	19.4	17.7	17.7	16.1	17.5	17.6	16.4	18.2

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

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]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
WHITE									
Civilian noninstitutional population	165,576	166,822	166,931	165,576	166,521	166,613	166,708	166,822	166,931
Civilian labor force	112,514	112,924	113,747	110,911	111,999	112,153	111,568	111,541	112,197
Participation rate	68.0	67.7	68.1	67.0	67.3	67.3	66.9	66.9	67.2
Employed	106,447	107,341	108,096	105,006	106,698	106,500	105,935	106,145	106,770
Employment-population ratio	64.3	64.3	64.8	63.4	64.1	63.9	63.5	63.6	64.0
Unemployed	6,067	5,583	5,651	5,905	5,301	5,653	5,633	5,396	5,427
Unemployment rate	5.4	4.9	5.0	5.3	4.7	5.0	5.0	4.8	4.8
Men, 20 years and over									
Civilian labor force	57,667	57,974	57,975	57,326	57,868	57,768	57,594	57,592	57,618
Participation rate	77.6	77.5	77.4	77.1	77.5	77.3	77.0	77.0	76.9
Employed	55,065	55,684	55,705	54,566	55,448	55,225	54,956	55,133	55,263
Employment-population ratio	74.1	74.4	74.4	73.4	74.2	73.9	73.5	73.7	73.8
Unemployed	2,601	2,289	2,270	2,760	2,420	2,544	2,638	2,459	2,355
Unemployment rate	4.5	3.9	3.9	4.8	4.2	4.4	4.6	4.3	4.1
Women, 20 years and over									
Civilian labor force	47,088	47,279	47,748	47,227	47,494	47,765	47,432	47,275	47,965
Participation rate	58.9	58.7	59.3	59.0	59.1	59.4	58.9	58.7	59.5
Employed	44,725	45,170	45,506	45,016	45,515	45,622	45,403	45,215	45,873
Employment-population ratio	55.9	56.1	56.5	56.3	56.6	56.7	56.4	56.1	56.9
Unemployed	2,363	2,110	2,242	2,211	1,978	2,143	2,028	2,060	2,092
Unemployment rate	5.0	4.5	4.7	4.7	4.2	4.5	4.3	4.4	4.4
Both sexes, 16 to 19 years									
Civilian labor force	7,759	7,671	8,023	6,358	6,637	6,619	6,542	6,674	6,614
Participation rate	68.8	67.0	69.9	56.3	58.3	58.0	57.2	58.3	57.6
Employed	6,657	6,487	6,885	5,424	5,734	5,653	5,575	5,797	5,634
Employment-population ratio	59.0	56.6	60.0	48.1	50.4	49.5	48.8	50.6	49.1
Unemployed	1,102	1,184	1,138	934	903	966	967	877	980
Unemployment rate	14.2	15.4	14.2	14.7	13.6	14.6	14.8	13.1	14.8
Men	15.2	16.3	14.0	16.1	14.7	15.3	15.2	14.5	14.6
Women	13.1	14.4	14.4	13.1	12.4	13.8	14.3	11.6	15.0
BLACK									
Civilian noninstitutional population	22,883	23,221	23,249	22,883	23,142	23,169	23,192	23,221	23,249
Civilian labor force	14,811	14,990	15,062	14,380	14,818	14,938	14,803	14,707	14,656
Participation rate	64.7	64.6	64.8	62.8	64.0	64.5	63.8	63.3	63.0
Employed	13,072	13,257	13,280	12,767	13,370	13,337	13,336	13,142	13,033
Employment-population ratio	57.1	57.1	57.1	55.8	57.8	57.6	57.5	56.6	56.1
Unemployed	1,739	1,733	1,782	1,613	1,448	1,601	1,467	1,565	1,623
Unemployment rate	11.7	11.6	11.8	11.2	9.8	10.7	9.9	10.6	11.1
Men, 20 years and over									
Civilian labor force	6,625	6,752	6,707	6,561	6,828	6,826	6,749	6,721	6,666
Participation rate	72.4	72.8	72.2	71.7	73.8	73.7	73.0	72.5	71.7
Employed	5,953	6,154	6,089	5,880	6,297	6,221	6,158	6,117	6,059
Employment-population ratio	65.0	66.4	65.5	64.2	68.0	67.1	66.6	66.0	65.2
Unemployed	672	598	618	681	531	605	591	604	607
Unemployment rate	10.1	8.9	9.2	10.4	7.8	8.9	8.8	9.0	9.1
Women, 20 years and over									
Civilian labor force	6,982	7,108	7,099	6,954	7,131	7,205	7,153	7,067	7,085
Participation rate	60.7	60.9	60.8	60.5	61.3	61.9	61.4	60.6	60.6
Employed	6,349	6,479	6,409	6,345	6,482	6,532	6,593	6,453	6,422
Employment-population ratio	55.2	55.5	54.9	55.2	55.7	56.1	56.6	55.3	55.0
Unemployed	633	629	690	609	649	673	559	614	663
Unemployment rate	9.1	8.9	9.7	8.8	9.1	9.3	7.8	8.7	9.4
Both sexes, 16 to 19 years									
Civilian labor force	1,204	1,130	1,255	865	859	907	901	918	905
Participation rate	53.9	49.7	55.2	38.7	38.2	40.2	39.4	40.4	39.8
Employed	769	624	781	542	591	584	585	571	552
Employment-population ratio	34.5	27.4	34.4	24.3	26.3	25.9	25.6	25.1	24.3
Unemployed	434	506	474	323	268	323	317	347	353
Unemployment rate	36.1	44.8	37.8	37.3	31.2	35.6	35.1	37.8	39.0
Men	37.6	44.2	38.5	41.4	31.7	35.4	40.0	38.7	41.8
Women	34.3	45.4	37.0	32.7	30.7	35.8	30.5	36.8	36.3

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]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
HISPANIC ORIGIN									
Civilian noninstitutional population	18,143	18,604	18,653	18,143	18,458	18,509	18,554	18,604	18,653
Civilian labor force	12,183	12,338	12,535	11,956	12,001	12,131	12,111	12,229	12,323
Participation rate	67.2	66.3	67.2	65.9	65.0	65.5	65.3	65.7	66.1
Employed	10,908	11,242	11,381	10,760	10,903	11,058	10,895	11,131	11,235
Employment-population ratio	60.1	60.4	61.0	59.3	59.1	59.7	58.7	59.8	60.2
Unemployed	1,275	1,094	1,154	1,196	1,098	1,073	1,216	1,098	1,088
Unemployment rate	10.5	8.9	9.2	10.0	9.1	8.8	10.0	9.0	8.8

[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. Selected employment indicators

(Numbers in thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
CHARACTERISTIC									
Total employed, 16 years and over	124,503	125,720	126,548	122,781	125,274	125,072	124,319	124,485	124,959
Married men, spouse present	41,307	42,040	42,094	41,281	42,132	42,086	41,874	41,956	42,137
Married women, spouse present	30,877	31,631	31,630	31,462	32,135	32,106	32,022	31,918	32,309
Women who maintain families	7,006	7,165	7,067	7,016	7,071	7,152	7,175	7,201	7,081
OCCUPATION									
Managerial and professional specialty	33,476	35,037	35,302	33,893	34,846	34,765	35,209	35,300	35,692
Technical, sales, and administrative support	37,491	37,523	38,125	37,239	37,297	37,381	37,301	37,374	37,860
Service occupations	17,440	17,146	17,211	16,924	16,997	17,075	16,987	16,794	16,759
Precision production, craft, and repair	13,730	13,688	13,742	13,406	13,910	13,880	13,479	13,459	13,433
Operators, fabricators, and laborers	18,182	18,203	18,016	17,839	18,280	18,260	17,985	17,936	17,748
Farming, forestry, and fishing	4,184	4,122	4,152	3,535	3,849	3,726	3,568	3,550	3,561
CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,899	2,091	2,065	1,669	1,987	1,884	1,747	1,848	1,832
Self-employed workers	1,770	1,720	1,688	1,619	1,674	1,649	1,560	1,593	1,551
Unpaid family workers	64	60	58	50	57	70	55	48	45
Nonagricultural industries:									
Wage and salary workers	111,575	112,892	113,477	110,345	112,849	112,578	112,111	112,160	112,331
Government	17,763	18,074	17,807	18,281	18,685	18,646	18,493	18,387	18,358
Private industries	93,811	94,818	95,670	92,064	93,964	93,932	93,619	93,773	93,973
Private households	1,059	963	974	940	1,039	988	913	866	887
Other industries	92,753	93,855	94,695	91,124	92,925	92,945	92,705	92,907	93,086
Self-employed workers	9,051	8,844	9,153	8,962	8,865	8,848	8,763	8,765	9,098
Unpaid family workers	145	112	108	140	129	110	125	106	103
PERSONS AT WORK PART TIME									
All industries:									
Part time for economic reasons	4,841	4,740	4,749	4,487	4,530	4,469	4,478	4,442	4,402
Slack work or business conditions	2,408	2,325	2,484	2,431	2,333	2,517	2,502	2,304	2,497
Could only find part-time work	2,014	2,036	1,983	1,698	1,902	1,686	1,720	1,785	1,672
Part time for noneconomic reasons	15,242	16,112	15,572	17,922	17,627	18,121	17,668	17,745	18,299
Nonagricultural industries:									
Part time for economic reasons	4,617	4,545	4,558	4,273	4,347	4,171	4,289	4,185	4,234
Slack work or business conditions	2,299	2,201	2,356	2,318	2,226	2,328	2,364	2,158	2,365
Could only find part-time work	1,962	1,983	1,909	1,661	1,854	1,624	1,698	1,747	1,613
Part time for noneconomic reasons	14,600	15,453	14,940	17,308	16,991	17,232	17,034	17,056	17,660

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-4. Selected unemployment indicators, seasonally adjusted

(Numbers in thousands)

Category	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
CHARACTERISTIC									
Total, 16 years and over	7,993	7,384	7,559	6.1	5.5	5.8	5.7	5.6	5.7
Men, 20 years and over	3,671	3,238	3,192	5.5	4.7	4.9	5.1	4.8	4.7
Women, 20 years and over	2,995	2,657	2,952	5.3	4.9	5.2	4.8	5.0	5.1
Both sexes, 16 to 19 years	1,327	1,288	1,415	17.7	16.1	17.5	17.6	16.4	18.2
Married men, spouse present	1,543	1,498	1,489	3.6	3.2	3.4	3.4	3.4	3.4
Married women, spouse present	1,326	1,276	1,360	4.0	3.9	4.2	3.9	3.8	4.1
Women who maintain families	605	661	658	7.9	7.6	9.0	8.0	8.4	8.5
Full-time workers	6,521	5,851	5,925	6.1	5.4	5.6	5.6	5.5	5.5
Part-time workers	1,477	1,534	1,634	6.0	5.8	6.3	6.1	6.3	6.6
OCCUPATION[2]									
Managerial and professional specialty	926	899	966	2.7	2.5	2.5	2.2	2.5	2.6
Technical, sales, and administrative support	1,878	1,753	1,761	4.8	4.3	4.8	4.6	4.5	4.4
Precision production, craft, and repair	835	832	948	5.9	5.2	6.0	6.2	5.8	6.6
Operators, fabricators, and laborers	1,837	1,667	1,822	9.3	7.5	7.9	8.7	8.5	8.4
Farming, forestry, and fishing	368	335	293	9.4	8.0	8.5	9.2	8.6	7.6
INDUSTRY									
Nonagricultural private wage and salary workers	6,216	5,690	5,924	6.3	5.5	5.9	6.0	5.7	5.9
Goods-producing industries	1,879	1,783	1,801	6.8	6.0	6.4	7.2	6.4	6.5
Mining	41	28	20	6.0	6.1	4.3	4.9	4.4	3.4
Construction	687	675	701	11.1	10.8	11.8	12.6	10.6	10.9
Manufacturing	1,151	1,080	1,080	5.6	4.5	4.8	5.5	5.2	5.2
Durable goods	657	500	584	5.5	4.2	4.4	5.3	4.2	4.8
Nondurable goods	494	580	496	5.8	4.9	5.4	6.0	6.6	5.8
Service-producing industries	4,337	3,897	4,123	6.1	5.4	5.7	5.6	5.4	5.7
Transportation and public utilities	361	313	330	5.1	4.5	4.6	4.0	4.5	4.7
Wholesale and retail trade	1,903	1,585	1,696	7.5	6.2	6.8	6.7	6.2	6.6
Finance, insurance, and real estate	280	250	260	3.7	3.3	3.4	3.7	3.3	3.5
Services	1,793	1,750	1,838	5.9	5.3	5.6	5.5	5.5	5.8
Government workers	644	609	530	3.4	2.7	3.1	2.8	3.2	2.8
Agricultural wage and salary workers	229	250	197	12.1	10.5	11.3	12.5	11.9	9.7

[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-5. Duration of unemployment

(Numbers in thousands)

Duration	Not seasonally adjusted			Seasonally adjusted					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
NUMBER OF UNEMPLOYED									
Less than 5 weeks	3,104	3,475	2,901	2,768	2,523	2,629	2,598	2,742	2,600
5 to 14 weeks	2,484	2,055	2,778	2,365	2,319	2,430	2,304	2,348	2,621
15 weeks and over	2,692	2,198	2,213	2,823	2,266	2,505	2,585	2,299	2,319
15 to 26 weeks	1,081	1,008	917	1,234	920	1,115	1,282	1,096	1,023
27 weeks and over	1,611	1,189	1,295	1,589	1,347	1,390	1,303	1,203	1,297
Average (mean) duration, in weeks	18.1	14.8	15.7	19.0	17.5	17.7	16.9	15.6	16.5
Median duration, in weeks	8.1	5.9	7.8	9.2	7.9	8.5	9.0	7.5	9.1
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	37.5	45.0	38.8	34.8	35.5	34.8	34.7	37.1	34.5
5 to 14 weeks	30.0	26.6	35.2	29.7	32.6	32.1	30.8	31.8	34.8
15 weeks and over	32.5	28.4	28.0	35.5	31.9	33.1	34.5	31.1	30.8
15 to 26 weeks	13.1	13.1	11.6	15.5	12.9	14.7	17.1	14.8	13.6
27 weeks and over	19.5	15.4	16.4	20.0	18.9	18.4	17.4	16.3	17.2

HOUSEHOLD DATA

Table A-6. Reason for unemployment

(Numbers in thousands)

Reason	Not seasonally adjusted			Seasonally adjusted					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
NUMBER OF UNEMPLOYED									
Job losers and persons who completed temporary jobs	3,701	3,160	3,470	3,863	3,352	3,532	3,814	3,423	3,615
On temporary layoff	950	908	1,094	1,031	1,032	1,145	958	1,066	1,184
Not on temporary layoff	2,751	2,252	2,376	2,832	2,320	2,387	2,857	2,357	2,431
Permanent job losers	2,016	1,563	1,693	(1)	(1)	(1)	(1)	(1)	(1)
Persons who completed temporary jobs	735	688	683	(1)	(1)	(1)	(1)	(1)	(1)
Job leavers	797	813	861	770	811	817	870	834	832
Reentrants	2,907	2,845	2,723	2,766	2,430	2,779	2,458	2,526	2,593
New entrants	876	909	838	594	604	637	522	540	571
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	44.7	40.9	44.0	48.3	46.6	45.5	48.4	46.7	47.5
On temporary layoff	11.5	11.8	13.9	12.9	14.3	14.7	12.8	14.6	15.6
Not on temporary layoff	33.2	29.1	30.1	35.4	32.2	30.7	35.6	32.2	31.9
Job leavers	9.6	10.5	10.9	9.6	11.3	10.5	11.7	11.4	10.9
Reentrants	35.1	36.8	34.5	34.6	33.8	35.8	32.9	34.5	34.1
New entrants	10.6	11.8	10.6	7.4	8.4	8.2	7.0	7.4	7.5
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers and persons who completed temporary jobs	2.8	2.4	2.6	3.0	2.5	2.7	2.7	2.6	2.7
Job leavers	.6	.6	.6	.6	.6	.6	.7	.6	.6
Reentrants	2.2	2.1	2.0	2.1	1.8	2.1	1.9	1.9	2.0
New entrants	.7	.7	.6	.5	.5	.5	.4	.4	.4

[1] Not available.

Table A-7. Unemployed persons by sex and age, seasonally adjusted

Age and sex	Number of unemployed persons (in thousands)			Unemployment rates[1]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
Total, 16 years and over	7,993	7,384	7,559	6.1	5.5	5.6	5.7	5.6	5.7
16 to 24 years	2,696	2,522	2,691	12.5	11.6	11.8	11.8	11.7	12.5
16 to 19 years	1,327	1,288	1,415	17.7	16.1	17.5	17.6	16.4	18.2
16 to 17 years	642	626	698	20.3	20.0	20.6	21.5	18.5	21.4
18 to 19 years	679	687	703	15.7	13.0	15.7	14.7	15.2	15.4
20 to 24 years	1,369	1,233	1,276	9.7	9.1	8.7	8.6	9.0	9.3
25 years and over	5,278	4,851	4,823	4.6	4.2	4.6	4.5	4.4	4.3
25 to 54 years	4,629	4,231	4,246	4.9	4.3	4.7	4.6	4.5	4.5
55 years and over	648	589	615	4.2	3.5	3.8	3.8	3.8	3.9
Men, 16 years and over	4,429	3,955	3,955	6.3	5.4	5.7	5.8	5.5	5.5
16 to 24 years	1,529	1,378	1,420	13.4	11.7	11.8	12.3	12.0	12.5
16 to 19 years	758	716	763	19.4	17.0	17.8	18.4	17.4	18.7
16 to 17 years	342	328	379	20.9	20.2	21.7	22.6	18.4	21.9
18 to 19 years	409	411	377	18.0	14.6	16.1	15.2	17.4	15.9
20 to 24 years	771	662	657	10.3	8.9	8.6	8.9	9.0	9.0
25 years and over	2,880	2,564	2,495	4.9	4.1	4.5	4.6	4.3	4.2
25 to 54 years	2,488	2,198	2,200	4.9	4.2	4.5	4.7	4.3	4.3
55 years and over	389	335	337	4.5	3.7	4.3	4.0	3.9	3.9
Women, 16 years and over	3,564	3,429	3,604	5.9	5.5	5.9	5.5	5.7	5.9
16 to 24 years	1,167	1,143	1,271	11.5	11.5	11.9	11.4	11.3	12.8
16 to 19 years	569	572	652	15.9	15.2	17.2	16.7	15.2	17.6
16 to 17 years	300	298	319	19.7	19.8	19.4	20.4	18.6	21.0
18 to 19 years	270	276	326	13.1	11.3	15.2	14.0	12.8	14.9
20 to 24 years	598	572	619	9.1	9.4	8.8	8.2	9.0	9.7
25 years and over	2,398	2,288	2,329	4.8	4.3	4.7	4.4	4.5	4.6
25 to 54 years	2,141	2,032	2,046	5.0	4.4	5.0	4.6	4.7	4.6
55 years and over	257	254	278	3.7	3.4	3.3	3.6	3.7	3.9

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

Table A-8. Persons not in the labor force and multiple jobholders by sex, not seasonally adjusted

(Numbers in thousands)

Category	Total		Men		Women	
	July 1994	July 1995	July 1994	July 1995	July 1994	July 1995
NOT IN THE LABOR FORCE						
Total not in the labor force	64,078	64,175	22,319	22,448	41,757	41,727
Persons who currently want a job	6,026	5,292	2,194	2,036	3,832	3,256
Searched for work and available to work now[1]	1,844	1,568	856	735	988	832
Reason not currently looking:						
Discouragement over job prospects[2]	542	456	324	290	218	166
Reasons other than discouragement[3]	1,302	1,112	532	445	771	666
MULTIPLE JOBHOLDERS						
Total multiple jobholders[4]	7,172	7,779	3,853	4,341	3,319	3,439
Percent of total employed	5.8	6.1	5.7	6.3	5.8	5.9
Primary job full time, secondary job part time	4,023	4,476	2,419	2,745	1,604	1,732
Primary and secondary jobs both part time	1,529	1,626	497	592	1,032	1,034
Primary and secondary jobs both full time	284	302	204	217	80	85
Hours vary on primary or secondary job	1,302	1,325	720	761	582	564

[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.

Table A-9. Employment status of the civilian population for 11 large states

(Numbers in thousands)

State and employment status	Not seasonally adjusted[1]			Seasonally adjusted[2]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
California									
Civilian noninstitutional population	23,464	23,576	23,586	23,464	23,541	23,557	23,564	23,576	23,586
Civilian labor force	15,563	15,340	15,688	15,331	15,307	15,342	15,209	15,328	15,474
Employed	14,119	14,153	14,366	13,989	14,140	14,127	13,921	14,166	14,258
Unemployed	1,444	1,186	1,322	1,342	1,167	1,215	1,288	1,162	1,216
Unemployment rate	9.3	7.7	8.4	8.8	7.6	7.9	8.5	7.6	7.9
Florida									
Civilian noninstitutional population	10,899	11,050	11,065	10,899	11,009	11,023	11,036	11,050	11,065
Civilian labor force	6,864	6,899	7,007	6,776	6,809	6,944	6,822	6,824	6,930
Employed	6,399	6,498	6,613	6,351	6,513	6,552	6,472	6,462	6,573
Unemployed	464	401	394	425	297	392	350	363	357
Unemployment rate	6.8	5.8	5.6	6.3	4.4	5.6	5.1	5.3	5.2
Illinois									
Civilian noninstitutional population	8,861	8,919	8,923	8,861	8,889	8,912	8,915	8,919	8,923
Civilian labor force	6,061	6,158	6,160	5,973	6,114	6,219	6,061	6,028	6,076
Employed	5,712	5,883	5,853	5,633	5,846	5,868	5,730	5,784	5,768
Unemployed	349	275	307	340	269	352	331	244	308
Unemployment rate	5.8	4.5	5.0	5.7	4.4	5.7	5.5	4.1	5.1
Massachusetts									
Civilian noninstitutional population	4,683	4,667	4,668	4,683	4,688	4,666	4,666	4,667	4,668
Civilian labor force	3,267	3,194	3,211	3,205	3,182	3,166	3,144	3,137	3,154
Employed	3,070	3,013	3,025	3,014	3,035	2,979	2,987	2,960	2,975
Unemployed	198	180	186	191	146	187	156	177	180
Unemployment rate	6.0	5.6	5.8	6.0	4.6	5.9	5.0	5.6	5.7
Michigan									
Civilian noninstitutional population	7,138	7,167	7,169	7,138	7,155	7,163	7,184	7,167	7,169
Civilian labor force	4,814	4,821	4,803	4,727	4,735	4,767	4,812	4,755	4,715
Employed	4,499	4,519	4,517	4,452	4,449	4,489	4,539	4,458	4,472
Unemployed	315	302	286	275	285	278	273	297	242
Unemployment rate	6.5	6.3	6.0	5.8	6.0	5.8	5.7	6.2	5.1
New Jersey									
Civilian noninstitutional population	6,057	6,120	6,122	6,057	6,072	6,116	6,118	6,120	6,122
Civilian labor force	4,060	4,186	4,172	4,007	4,026	4,106	4,134	4,140	4,108
Employed	3,788	3,907	3,881	3,745	3,791	3,847	3,865	3,868	3,828
Unemployed	272	280	292	262	235	260	268	272	280
Unemployment rate	6.7	6.7	7.0	6.5	5.8	6.3	6.5	6.6	6.8
New York									
Civilian noninstitutional population	13,986	13,987	13,986	13,986	13,973	13,991	13,988	13,987	13,986
Civilian labor force	8,814	8,568	8,779	8,643	8,479	8,490	8,496	8,434	8,602
Employed	8,202	8,055	8,240	8,039	7,921	7,914	7,961	7,940	8,069
Unemployed	612	512	540	604	558	575	535	494	533
Unemployment rate	6.9	6.0	6.1	7.0	6.6	6.8	6.3	5.9	6.2

See footnotes at end of table.

Table A-9. Employment status of the civilian population for 11 large states — Continued

(Numbers in thousands)

State and employment status	Not seasonally adjusted[1]			Seasonally adjusted[2]					
	July 1994	June 1995	July 1995	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995	July 1995
North Carolina									
Civilian noninstitutional population	5,385	5,446	5,454	5,385	5,444	5,431	5,438	5,446	5,454
Civilian labor force	3,653	3,709	3,723	3,585	3,665	3,645	3,609	3,661	3,648
Employed	3,476	3,531	3,561	3,421	3,522	3,472	3,452	3,500	3,501
Unemployed	176	172	162	164	144	173	157	161	147
Unemployment rate	4.8	4.7	4.4	4.6	3.9	4.7	4.3	4.4	4.0
Ohio									
Civilian noninstitutional population	8,416	8,447	8,450	8,416	8,436	8,442	8,444	8,447	8,450
Civilian labor force	5,583	5,618	5,649	5,480	5,533	5,519	5,602	5,557	5,550
Employed	5,264	5,357	5,368	5,168	5,325	5,269	5,340	5,287	5,280
Unemployed	319	261	281	312	208	250	262	269	270
Unemployment rate	5.7	4.6	5.0	5.7	3.8	4.5	4.7	4.8	4.9
Pennsylvania									
Civilian noninstitutional population	9,277	9,272	9,273	9,277	9,280	9,272	9,271	9,272	9,273
Civilian labor force	5,981	5,919	5,978	5,876	5,953	5,962	5,805	5,848	5,868
Employed	5,582	5,565	5,634	5,502	5,594	5,613	5,475	5,484	5,552
Unemployed	400	354	344	374	359	349	329	364	316
Unemployment rate	6.7	6.0	5.8	6.4	6.0	5.8	5.7	6.2	5.4
Texas									
Civilian noninstitutional population	13,554	13,795	13,817	13,554	13,725	13,753	13,773	13,795	13,817
Civilian labor force	9,618	9,788	9,761	9,473	9,482	9,560	9,630	9,660	9,607
Employed	8,961	9,124	9,150	8,842	8,945	8,997	9,054	9,055	9,029
Unemployed	657	664	611	632	537	563	576	605	578
Unemployment rate	6.8	6.8	6.3	6.7	5.7	5.9	6.0	6.3	6.0

[1] These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

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

Table B-1. Employees on nonfarm payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	July 1994	May 1995	June 1995[p]	July 1995[p]	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995[p]	July 1995[p]
Total	114,004	116,858	117,568	116,411	114,171	116,302	116,310	116,248	116,498	116,553
Total private	95,923	97,220	98,230	98,195	95,061	97,054	97,049	97,005	97,229	97,286
Goods-producing	24,229	24,262	24,564	24,466	23,922	24,370	24,331	24,228	24,235	24,146
Mining	607	580	586	588	596	589	583	582	582	578
Metal mining	49.7	51.2	52.5	52.8	49	51	51	51	52	52
Coal mining	113.0	106.7	106.3	106.5	(1)	(1)	(1)	(1)	(1)	(1)
Oil and gas extraction	336.2	315.7	318.9	320.0	332	323	319	320	320	316
Nonmetallic minerals, except fuels	107.6	106.8	108.1	108.6	103	106	105	104	104	104
Construction	5,344	5,265	5,460	5,560	5,029	5,256	5,242	5,190	5,231	5,231
General building contractors	1,258.7	1,236.0	1,280.6	1,297.7	1,199	1,258	1,255	1,237	1,242	1,236
Heavy construction, except building	806.9	763.2	793.5	807.7	743	747	743	730	737	742
Special trade contractors	3,278.5	3,265.3	3,385.5	3,454.4	3,087	3,251	3,244	3,223	3,252	3,253
Manufacturing	18,278	18,417	18,518	18,318	18,297	18,525	18,506	18,456	18,422	18,337
Production workers	12,574	12,745	12,812	12,614	12,610	12,832	12,818	12,772	12,736	12,653
Durable goods	10,390	10,613	10,653	10,522	10,422	10,633	10,632	10,611	10,594	10,556
Production workers	7,047	7,281	7,302	7,171	7,088	7,297	7,296	7,271	7,251	7,218
Lumber and wood products	768.1	752.8	763.7	762.7	755	767	761	757	753	750
Furniture and fixtures	497.2	500.5	499.5	486.8	504	509	506	501	497	494
Stone, clay, and glass products	542.6	547.3	555.3	549.8	533	547	546	542	544	540
Primary metal industries	695.1	717.3	718.6	706.7	700	718	719	718	716	712
Blast furnaces and basic steel products	240.0	239.8	241.2	240.7	240	240	240	241	241	240
Fabricated metal products	1,378.2	1,437.2	1,440.9	1,419.8	1,398	1,439	1,442	1,439	1,432	1,431
Industrial machinery and equipment	1,978.8	2,040.1	2,050.1	2,035.0	1,983	2,029	2,036	2,034	2,040	2,039
Computer and office equipment	354.5	336.2	338.8	338.3	352	336	337	336	337	336
Electronic and other electrical equipment	1,564.4	1,616.9	1,626.0	1,618.8	1,570	1,614	1,616	1,620	1,620	1,625
Electronic components and accessories	545.4	573.0	580.0	582.9	545	569	571	574	577	583
Transportation equipment	1,720.0	1,764.8	1,758.9	1,716.7	1,736	1,767	1,766	1,761	1,754	1,734
Motor vehicles and equipment	878.4	942.5	940.5	909.9	893	937	938	936	934	927
Aircraft and parts	473.4	450.7	448.5	440.0	475	455	455	452	449	442
Instruments and related products	858.3	843.9	845.8	840.7	859	847	846	846	845	842
Miscellaneous manufacturing	387.6	392.1	394.4	384.9	392	396	394	393	393	389
Nondurable goods	7,888	7,804	7,865	7,796	7,875	7,892	7,874	7,845	7,828	7,781
Production workers	5,527	5,464	5,510	5,443	5,522	5,535	5,522	5,501	5,485	5,435
Food and kindred products	1,718.0	1,647.8	1,694.2	1,723.1	1,681	1,690	1,687	1,687	1,694	1,696
Tobacco products	38.2	36.2	36.5	35.7	42	39	40	39	40	39
Textile mill products	669.0	663.5	662.7	646.6	673	670	669	664	659	651
Apparel and other textile products	949.8	934.5	930.0	890.9	969	946	940	931	920	909
Paper and allied products	695.7	687.5	695.0	691.8	692	691	692	690	689	688
Printing and publishing	1,541.9	1,555.4	1,560.8	1,553.3	1,544	1,561	1,557	1,555	1,561	1,555
Chemicals and allied products	1,065.3	1,046.3	1,051.5	1,044.6	1,060	1,053	1,051	1,048	1,044	1,039
Petroleum and coal products	151.5	146.1	147.6	147.3	148	148	146	145	145	144
Rubber and misc. plastics products	948.9	977.3	978.0	959.1	953	982	981	976	968	963
Leather and leather products	109.9	109.4	109.1	103.5	113	112	111	110	108	107
Service-producing	89,775	92,596	93,004	91,945	90,249	91,932	91,979	92,020	92,263	92,407
Transportation and public utilities	6,025	6,182	6,231	6,196	6,022	6,175	6,184	6,177	6,189	6,197
Transportation	3,780	3,918	3,948	3,912	3,794	3,914	3,919	3,910	3,918	3,930
Railroad transportation	243.1	241.2	240.9	241.6	240	242	242	240	238	238
Local and interurban passenger transit	355.5	455.3	441.9	384.8	415	433	437	439	441	449
Trucking and warehousing	1,836.7	1,860.3	1,894.0	1,905.8	1,813	1,877	1,879	1,872	1,877	1,881
Water transportation	180.3	163.7	164.1	166.8	171	164	164	161	159	158
Transportation by air	750.9	757.4	764.2	769.6	744	760	759	758	762	763
Pipelines, except natural gas	17.8	16.7	17.0	16.6	17	17	17	17	17	16
Transportation services	395.2	423.5	425.9	426.5	394	421	421	423	424	425
Communications and public utilities	2,245	2,264	2,283	2,284	2,228	2,261	2,265	2,267	2,271	2,267
Communications	1,310.0	1,357.2	1,368.9	1,369.5	1,305	1,351	1,355	1,359	1,365	1,364
Electric, gas, and sanitary services	934.5	906.7	913.7	914.3	923	910	910	908	906	903
Wholesale trade	6,180	6,308	6,364	6,377	6,138	6,287	6,300	6,298	6,317	6,334
Durable goods	3,566	3,660	3,691	3,697	3,544	3,643	3,650	3,653	3,665	3,675
Nondurable goods	2,614	2,648	2,673	2,680	2,594	2,644	2,650	2,645	2,652	2,659

See footnotes at end of table.

ESTABLISHMENT DATA

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

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	July 1994	May 1995	June 1995[p]	July 1995[p]	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995[p]	July 1995[p]
Retail trade	20,582	20,774	20,986	20,981	20,459	20,760	20,762	20,747	20,798	20,852
Building materials and garden supplies	864.5	879.8	888.7	878.2	833	849	852	849	849	846
General merchandise stores	2,485.6	2,443.5	2,466.0	2,474.5	2,542	2,530	2,539	2,532	2,532	2,530
Department stores	2,160.6	2,131.4	2,153.5	2,163.4	2,211	2,207	2,218	2,213	2,216	2,214
Food stores	3,313.8	3,333.0	3,376.0	3,384.2	3,292	3,332	3,345	3,343	3,353	3,361
Automotive dealers and service stations	2,151.7	2,209.8	2,227.9	2,236.6	2,122	2,202	2,205	2,205	2,206	2,206
New and used car dealers	973.3	997.5	1,001.0	1,005.1	967	998	1,000	1,000	998	999
Apparel and accessory stores	1,125.3	1,071.9	1,084.9	1,083.2	1,134	1,110	1,103	1,095	1,096	1,091
Furniture and home furnishings stores	884.9	934.8	938.3	938.6	893	943	945	944	947	947
Eating and drinking places	7,232.6	7,320.0	7,431.4	7,412.6	7,076	7,191	7,170	7,189	7,208	7,253
Miscellaneous retail establishments	2,523.5	2,581.5	2,573.0	2,573.1	2,567	2,603	2,603	2,610	2,607	2,618
Finance, insurance, and real estate	7,036	6,926	7,006	7,032	6,947	6,938	6,924	6,925	6,934	6,941
Finance	3,358	3,301	3,327	3,337	3,332	3,313	3,305	3,307	3,307	3,310
Depository institutions	2,093.1	2,053.6	2,069.1	2,073.8	2,076	2,066	2,063	2,060	2,057	2,055
Commercial banks	1,506.0	1,489.3	1,502.4	1,507.1	1,492	1,499	1,494	1,492	1,491	1,492
Savings institutions	309.9	284.5	285.1	284.4	308	289	288	285	284	283
Nondepository institutions	503.6	477.2	481.8	485.4	502	475	473	476	479	484
Mortgage bankers and brokers	261.0	223.9	225.9	229.6	(2)	(2)	(2)	(2)	(2)	(2)
Security and commodity brokers	528.2	527.3	531.8	532.9	522	532	528	528	528	527
Holding and other investment offices	232.8	243.0	243.9	245.1	232	240	241	243	243	244
Insurance	2,249	2,238	2,249	2,251	2,238	2,238	2,239	2,237	2,240	2,240
Insurance carriers	1,558.6	1,534.2	1,540.7	1,543.5	1,551	1,536	1,536	1,534	1,535	1,536
Insurance agents, brokers, and service	690.8	703.4	708.3	707.6	687	702	703	703	705	704
Real estate	1,429	1,387	1,430	1,444	1,377	1,387	1,380	1,381	1,387	1,391
Services[3]	31,871	32,768	33,079	33,143	31,573	32,524	32,548	32,630	32,756	32,816
Agricultural services	630.2	629.6	653.3	653.6	567	584	589	577	582	588
Hotels and other lodging places	1,746.4	1,629.9	1,720.6	1,752.6	1,625	1,616	1,611	1,615	1,625	1,626
Personal services	1,094.2	1,123.5	1,114.6	1,102.1	1,135	1,158	1,152	1,146	1,144	1,143
Business services	6,305.0	6,554.3	6,632.4	6,645.4	6,274	6,570	6,538	6,567	6,593	6,612
Services to buildings	866.2	870.7	881.1	879.8	858	871	866	868	869	871
Personnel supply services	2,294.5	2,366.0	2,393.7	2,395.1	2,281	2,399	2,368	2,371	2,377	2,381
Help supply services	2,042.2	2,094.0	2,118.3	2,120.5	2,026	2,138	2,097	2,096	2,099	2,102
Computer and data processing services	949.5	1,034.6	1,044.1	1,050.9	949	1,017	1,026	1,039	1,046	1,051
Auto repair, services, and parking	979.2	1,018.9	1,030.4	1,036.4	971	1,014	1,016	1,016	1,021	1,028
Miscellaneous repair services	337.8	340.8	343.2	344.8	333	344	342	341	340	340
Motion pictures	474.6	592.1	596.7	607.2	470	577	580	596	593	601
Amusement and recreation services	1,571.9	1,548.6	1,718.9	1,753.5	1,361	1,434	1,462	1,471	1,509	1,521
Health services	9,046.3	9,214.0	9,277.8	9,301.8	9,011	9,197	9,211	9,223	9,250	9,265
Offices and clinics of medical doctors	1,548.4	1,578.4	1,590.1	1,594.0	1,541	1,576	1,578	1,580	1,585	1,586
Nursing and personal care facilities	1,659.6	1,677.8	1,691.6	1,697.6	1,654	1,679	1,682	1,683	1,688	1,693
Hospitals	3,790.1	3,802.5	3,821.9	3,831.5	3,772	3,802	3,810	3,810	3,810	3,812
Home health care services	561.0	603.4	608.7	609.8	560	599	597	600	605	608
Legal services	941.4	924.5	944.9	943.8	925	933	932	930	928	928
Educational services	1,587.0	1,909.2	1,712.4	1,631.1	1,826	1,863	1,866	1,875	1,886	1,877
Social services	2,188.2	2,288.8	2,264.1	2,250.8	2,191	2,264	2,265	2,275	2,266	2,253
Child day care services	457.4	540.7	508.7	476.4	506	519	519	522	522	526
Residential care	608.7	632.2	640.1	641.0	603	629	631	634	635	635
Museums and botanical and zoological gardens	86.5	84.2	88.6	90.5	79	81	81	81	82	83
Membership organizations	2,120.6	2,057.5	2,093.0	2,127.2	2,058	2,059	2,057	2,060	2,060	2,065
Engineering and management services	2,590.4	2,680.1	2,716.2	2,730.0	2,575	2,658	2,674	2,685	2,705	2,714
Engineering and architectural services	790.0	798.5	810.0	815.4	778	795	799	799	800	803
Management and public relations	721.9	792.8	811.7	814.2	716	773	785	790	808	808
Services, nec	40.9	41.0	41.6	41.4	(1)	(1)	(1)	(1)	(1)	(1)
Government	18,081	19,638	19,338	18,216	19,110	19,248	19,261	19,243	19,269	19,267
Federal	2,882	2,831	2,848	2,848	2,864	2,826	2,826	2,831	2,831	2,831
Federal, except Postal Service	2,068.8	1,999.4	2,008.7	2,006.7	2,045	1,992	1,987	1,995	1,987	1,985
State	4,339	4,665	4,456	4,368	4,572	4,613	4,608	4,602	4,607	4,605
Education	1,593.1	1,968.4	1,729.9	1,627.8	1,882	1,904	1,905	1,906	1,916	1,922
Other State government	2,745.4	2,696.4	2,726.2	2,739.7	2,690	2,709	2,703	2,696	2,691	2,683
Local	10,860	12,142	12,034	11,000	11,674	11,807	11,827	11,810	11,831	11,831
Education	5,376.9	6,969.7	6,642.0	5,481.8	6,497	6,599	6,614	6,606	6,602	6,621
Other local government	5,483.2	5,172.5	5,391.5	5,517.8	5,177	5,208	5,213	5,204	5,229	5,210

[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] This series is not suitable for seasonal adjustment because it has very little seasonal and irregular movement. Thus, the not seasonally adjusted series can be used for analysis of cyclical and long-term trends.

[3] Includes other industries, not shown separately.

p = preliminary.

ESTABLISHMENT DATA

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

Industry	Not seasonally adjusted				Seasonally adjusted					
	July 1994	May 1995	June 1995[p]	July 1995[p]	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995[p]	July 1995[p]
Total private	35.0	34.3	34.6	34.9	34.7	34.6	34.6	34.2	34.5	34.6
Goods-producing	41.2	40.8	41.2	40.7	41.4	41.3	40.7	40.6	40.9	40.8
Mining	44.9	44.3	44.9	44.5	45.4	44.8	44.7	44.3	44.9	44.9
Construction	39.8	38.4	39.6	40.0	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing	41.6	41.4	41.6	40.8	42.0	42.0	41.5	41.4	41.5	41.3
Overtime hours	4.5	4.2	4.3	4.1	4.7	4.7	4.5	4.4	4.2	4.3
Durable goods	42.2	42.2	42.4	41.3	42.7	42.8	42.3	42.1	42.3	41.9
Overtime hours	4.7	4.6	4.6	4.3	5.0	5.1	4.9	4.6	4.5	4.6
Lumber and wood products	41.0	40.6	40.8	39.9	41.2	40.7	40.4	40.3	40.6	40.1
Furniture and fixtures	40.2	38.7	39.4	38.6	40.5	39.8	38.7	39.2	39.4	39.0
Stone, clay, and glass products	43.8	43.0	43.5	43.3	43.5	43.4	42.5	42.4	42.9	43.0
Primary metal industries	44.4	43.9	44.0	42.6	44.6	44.5	43.5	43.8	43.8	42.8
Blast furnaces and basic steel products	45.3	44.1	44.0	43.1	44.8	45.1	45.4	44.1	43.7	42.6
Fabricated metal products	42.0	42.1	42.4	41.1	42.7	42.8	42.0	42.1	42.2	41.9
Industrial machinery and equipment	43.1	43.4	43.3	42.6	43.6	43.9	43.3	43.4	43.3	43.1
Electronic and other electrical equipment	41.5	41.3	41.6	40.7	42.2	41.8	41.5	41.4	41.6	41.4
Transportation equipment	42.5	43.7	44.0	42.0	43.6	44.5	44.3	43.4	43.8	43.2
Motor vehicles and equipment	43.2	44.9	45.1	42.6	44.8	45.8	43.1	44.2	44.6	44.3
Instruments and related products	41.4	41.2	41.3	40.7	41.9	41.7	41.5	41.3	41.2	41.2
Miscellaneous manufacturing	39.5	39.6	39.9	38.7	40.2	39.9	40.1	39.8	40.0	39.4
Nondurable goods	40.8	40.3	40.5	40.1	41.1	40.9	40.4	40.4	40.5	40.4
Overtime hours	4.3	3.8	3.9	4.0	4.3	4.2	4.0	4.0	3.9	4.0
Food and kindred products	41.6	40.7	41.2	41.3	41.6	41.3	40.7	41.0	41.3	41.3
Tobacco products	38.0	40.1	41.6	39.3	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products	41.2	40.5	40.8	39.7	41.7	41.8	41.0	40.4	40.3	40.2
Apparel and other textile products	37.3	37.0	37.2	36.3	37.6	37.6	37.0	36.9	36.9	36.6
Paper and allied products	43.9	42.8	42.9	42.7	44.2	43.7	43.0	42.9	42.9	43.0
Printing and publishing	38.3	38.0	37.8	37.9	38.6	38.4	38.2	38.4	38.1	38.2
Chemicals and allied products	43.1	43.2	43.5	43.0	43.3	43.4	43.4	43.2	43.5	43.2
Petroleum and coal products	43.8	43.2	43.7	43.9	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products	41.6	41.6	41.6	40.4	42.3	42.0	41.2	41.6	41.4	41.1
Leather and leather products	37.9	38.5	38.7	36.4	38.0	38.4	38.1	38.5	38.3	36.5
Service-producing	33.2	32.5	32.8	33.3	32.8	32.7	32.9	32.4	32.7	32.9
Transportation and public utilities	40.3	39.2	39.5	40.1	39.9	39.5	39.8	39.1	39.3	39.7
Wholesale trade	38.4	38.1	38.3	38.5	38.3	38.2	38.3	37.9	38.2	38.4
Retail trade	29.8	28.7	29.2	29.7	29.0	28.8	29.1	28.7	28.9	28.9
Finance, insurance, and real estate	35.7	35.4	35.6	36.4	(2)	(2)	(2)	(2)	(2)	(2)
Services	32.7	32.1	32.5	32.9	(2)	(2)	(2)	(2)	(2)	(2)

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

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

[p] = preliminary.

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			
	July 1994	May 1995	June 1995P	July 1995P	July 1994	May 1995	June 1995P	July 1995P
Total private	$11.05	$11.38	$11.36	$11.41	$386.75	$390.33	$393.06	$398.21
Seasonally adjusted	11.13	11.37	11.42	11.49	386.21	388.85	393.99	397.55
Goods-producing	12.75	12.96	13.01	13.14	525.30	528.77	536.01	534.80
Mining	14.73	15.21	15.24	15.30	661.38	673.80	684.28	680.85
Construction	14.75	14.96	14.99	15.09	587.05	574.46	593.60	603.60
Manufacturing	12.04	12.28	12.30	12.40	500.86	508.39	511.68	505.92
Durable goods	12.62	12.83	12.85	12.92	532.56	541.43	544.84	533.60
Lumber and wood products	9.87	10.01	10.10	10.20	404.67	406.41	412.08	406.98
Furniture and fixtures	9.54	9.71	9.79	9.88	383.51	375.78	385.73	381.37
Stone, clay, and glass products	12.17	12.31	12.35	12.44	533.05	529.33	537.23	538.65
Primary metal industries	14.40	14.50	14.61	14.65	639.36	636.55	642.84	624.09
Blast furnaces and basic steel products	16.93	17.23	17.38	17.27	766.93	759.84	764.72	744.34
Fabricated metal products	11.86	12.07	12.05	12.15	498.12	508.15	510.92	499.37
Industrial machinery and equipment	12.94	13.15	13.15	13.21	557.71	570.71	569.40	562.75
Electronic and other electrical equipment	11.56	11.55	11.59	11.67	479.74	477.02	482.14	474.97
Transportation equipment	16.41	16.57	16.62	16.81	697.43	724.11	731.28	706.02
Motor vehicles and equipment	16.89	17.13	17.17	17.47	729.65	769.14	774.37	744.22
Instruments and related products	12.46	12.66	12.68	12.78	515.84	521.59	523.68	520.15
Miscellaneous manufacturing	9.61	9.98	9.95	10.04	379.60	395.21	397.01	388.55
Nondurable goods	11.28	11.52	11.55	11.69	460.22	464.26	467.78	468.77
Food and kindred products	10.68	10.91	10.92	10.93	444.29	444.04	449.90	451.41
Tobacco products	20.60	21.05	21.75	22.08	782.80	844.11	904.80	867.74
Textile mill products	9.12	9.35	9.39	9.39	375.74	378.68	383.11	372.78
Apparel and other textile products	7.31	7.56	7.60	7.60	272.66	279.72	282.72	275.88
Paper and allied products	13.83	14.17	14.14	14.43	607.14	606.48	606.61	616.16
Printing and publishing	12.12	12.22	12.25	12.37	464.20	464.36	463.05	468.82
Chemicals and allied products	15.16	15.53	15.52	15.72	653.40	670.90	675.12	675.96
Petroleum and coal products	18.94	19.18	19.15	19.39	829.57	826.58	836.86	851.22
Rubber and misc. plastics products	10.75	10.86	10.90	11.02	447.20	451.78	453.44	445.21
Leather and leather products	7.98	8.19	8.13	8.04	302.44	315.32	314.63	292.66
Service-producing	10.46	10.83	10.78	10.82	347.27	351.98	353.58	360.31
Transportation and public utilities	13.81	14.07	14.08	14.19	556.54	551.54	556.16	569.02
Wholesale trade	12.04	12.32	12.32	12.43	462.34	469.39	471.86	478.56
Retail trade	7.46	7.65	7.65	7.67	222.31	219.56	223.38	227.80
Finance, insurance, and real estate	11.72	12.24	12.21	12.33	418.40	433.30	434.68	448.81
Services	10.90	11.34	11.24	11.27	356.43	364.01	365.30	370.78

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

P = preliminary.

ESTABLISHMENT DATA

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

Industry	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995p	July 1995p	Percent change from: June 1995-July 1995
Total private:							
Current dollars	$11.13	$11.34	$11.40	$11.37	$11.42	$11.49	0.6
Constant (1982) dollars[2]	7.39	7.38	7.40	7.36	7.39	N.A.	(3)
Goods-producing	12.72	12.91	12.94	12.94	13.01	13.11	.8
Mining	14.84	15.15	15.17	15.18	15.29	15.42	.9
Construction	14.76	14.90	14.95	14.99	15.10	15.09	-.1
Manufacturing	12.06	12.25	12.28	12.28	12.31	12.42	.9
Excluding overtime[4]	11.42	11.61	11.72	11.67	11.71	11.81	.9
Service-producing	10.57	10.79	10.87	10.83	10.87	10.94	.6
Transportation and public utilities	13.84	14.05	14.15	14.13	14.18	14.22	.3
Wholesale trade	12.06	12.27	12.41	12.31	12.37	12.45	.6
Retail trade	7.50	7.61	7.63	7.65	7.67	7.72	.7
Finance, insurance, and real estate	11.82	12.16	12.28	12.19	12.32	12.44	1.0
Services	11.06	11.30	11.39	11.34	11.37	11.43	.5

[1] See footnote 1, table B-2.
[2] The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.
[3] Change was .4 percent from May 1995 to June 1995, the latest month available.
[4] Derived by assuming that overtime hours are paid at the rate of time and one-half.
N.A. = not available.
p = preliminary.

ESTABLISHMENT DATA

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

(1982=100)

Industry	Not seasonally adjusted				Seasonally adjusted					
	July 1994	May 1995	June 1995p	July 1995p	July 1994	Mar. 1995	Apr. 1995	May 1995	June 1995p	July 1995p
Total private	132.4	131.6	134.6	135.5	129.9	132.5	132.8	131.0	132.4	133.0
Goods-producing	110.6	109.7	112.4	110.4	109.2	111.7	109.9	108.9	109.9	109.1
Mining	55.4	53.4	54.9	54.7	55.2	54.5	54.3	53.8	54.4	54.3
Construction	151.5	142.3	153.1	158.3	137.4	143.8	140.0	136.9	142.2	143.6
Manufacturing	105.4	106.4	107.5	103.6	106.8	108.6	107.1	106.6	106.6	105.3
Durable goods	103.7	107.2	108.0	103.4	105.6	108.9	107.6	106.9	107.0	105.6
Lumber and wood products	137.6	132.7	135.4	132.4	135.7	136.2	133.9	132.3	132.7	130.4
Furniture and fixtures	123.8	120.4	122.2	116.1	127.0	126.1	121.7	122.3	121.7	119.5
Stone, clay, and glass products	111.4	110.4	113.3	111.6	108.3	111.0	108.7	107.7	108.9	108.7
Primary metal industries	89.6	92.6	93.3	88.1	91.0	94.0	92.2	92.5	92.5	89.6
Blast furnaces and basic steel products	74.1	72.5	73.1	71.0	73.2	74.5	74.6	72.8	72.6	70.4
Fabricated metal products	107.2	112.9	113.9	108.1	110.1	115.2	113.2	113.0	112.7	111.7
Industrial machinery and equipment	97.3	102.8	102.6	99.7	99.0	103.1	102.3	102.4	102.4	101.6
Electronic and other electrical equipment	103.0	106.7	107.5	104.5	105.5	108.2	107.2	107.0	107.1	107.3
Transportation equipment	110.2	119.9	120.0	110.7	114.7	121.6	121.1	118.3	118.8	115.6
Motor vehicles and equipment	141.2	160.4	160.7	144.7	149.2	162.5	153.1	156.4	157.4	153.7
Instruments and related products	74.2	73.3	73.8	72.3	75.6	74.3	74.2	73.6	73.5	73.5
Miscellaneous manufacturing	102.4	103.4	104.6	97.9	105.6	105.1	105.3	104.1	104.7	101.2
Nondurable goods	107.7	105.3	106.7	104.3	108.3	108.2	106.6	106.3	106.1	104.8
Food and kindred products	118.3	110.4	115.2	118.1	115.4	115.6	113.7	114.6	116.1	115.1
Tobacco products	54.1	52.8	55.4	51.4	61.9	58.1	59.0	58.2	60.3	58.0
Textile mill products	97.1	94.5	95.0	89.7	98.9	98.3	96.4	94.2	93.1	91.5
Apparel and other textile products	86.7	84.4	84.2	78.0	89.4	87.1	84.9	83.9	82.7	80.5
Paper and allied products	112.9	109.1	110.3	108.9	112.9	111.9	110.3	109.8	109.2	108.8
Printing and publishing	125.2	124.7	124.6	123.8	126.3	126.6	125.5	126.0	125.6	125.2
Chemicals and allied products	102.0	102.5	104.0	102.4	102.3	102.9	103.0	102.6	103.3	102.6
Petroleum and coal products	82.8	78.4	80.3	81.1	80.4	79.9	78.6	76.0	78.1	79.2
Rubber and misc. plastics products	138.9	143.1	143.3	135.6	142.2	145.5	142.6	143.2	141.0	138.9
Leather and leather products	50.5	50.7	50.9	44.8	52.5	51.9	50.9	50.9	50.0	46.6
Service-producing	142.2	141.5	144.5	146.7	139.2	141.8	143.0	141.0	142.5	143.7
Transportation and public utilities	124.3	123.9	126.0	127.1	122.9	125.0	126.2	123.6	124.2	125.6
Wholesale trade	117.7	119.1	121.2	122.0	116.3	119.2	119.6	118.5	119.9	120.8
Retail trade	132.7	128.9	132.4	134.8	128.5	129.5	130.6	128.8	129.9	130.4
Finance, insurance, and real estate	126.6	123.5	125.9	129.5	125.0	124.0	126.7	122.8	124.7	127.5
Services	166.0	167.3	170.7	173.2	162.6	167.4	168.4	166.5	168.6	170.0

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

p = preliminary.

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

(Percent)

Time span	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Private nonfarm payrolls, 356 industries[1]											
Over 1-month span:												
1991	39.7	40.0	38.6	37.2	49.4	44.2	47.1	53.7	49.3	47.6	46.2	45.8
1992	42.3	45.2	50.1	57.3	53.7	48.2	53.5	49.6	53.4	57.0	52.2	58.1
1993	57.6	61.5	51.4	56.3	61.4	55.1	57.7	56.3	61.4	59.7	61.1	60.7
1994	60.0	63.3	65.9	62.4	58.0	63.8	60.5	61.5	60.7	61.1	65.3	61.1
1995	60.3	61.7	57.6	51.3	46.2	p54.6	p48.6					
Over 3-month span:												
1991	34.0	32.6	31.5	38.2	39.3	44.2	48.9	52.0	52.1	44.9	43.5	41.2
1992	40.2	42.6	50.7	56.3	56.3	54.6	50.6	51.3	52.5	54.9	58.7	59.1
1993	64.0	61.2	61.8	58.8	61.4	61.8	59.3	61.8	62.6	66.7	65.7	63.6
1994	68.8	70.9	69.8	67.1	66.0	66.0	68.4	68.3	67.8	67.3	68.1	67.4
1995	66.4	64.9	57.9	49.3	p50.0	p47.2						
Over 6-month span:												
1991	29.8	32.6	30.9	32.6	39.0	44.8	47.1	44.7	48.0	45.8	40.7	40.3
1992	43.4	46.2	46.3	50.8	55.1	55.3	52.7	52.2	56.7	55.9	63.6	63.2
1993	63.2	63.8	62.8	64.2	60.8	63.9	64.5	64.7	66.2	67.3	70.8	70.8
1994	71.2	70.2	70.5	69.5	69.8	69.1	70.5	70.9	69.0	69.0	67.4	67.0
1995	65.9	58.8	p55.8	p51.7								
Over 12-month span:												
1991	31.0	31.0	31.7	31.9	31.7	33.8	35.8	37.5	40.0	45.2	45.6	45.4
1992	47.2	42.3	42.7	44.1	48.0	52.5	55.8	60.7	59.7	61.4	62.9	62.9
1993	64.9	63.9	64.0	65.4	67.0	67.6	67.6	67.0	70.2	69.4	68.8	69.4
1994	68.4	70.8	71.9	70.2	69.5	69.7	70.4	70.8	70.4	70.2	66.0	p64.9
1995	p62.4											
	Manufacturing payrolls, 139 industries[1]											
Over 1-month span:												
1991	32.4	35.6	32.4	35.3	47.1	42.4	44.6	52.2	43.2	47.5	42.1	38.5
1992	37.1	40.3	46.0	57.2	48.2	46.0	56.1	42.8	50.7	47.5	51.4	52.5
1993	52.2	57.9	52.9	44.2	51.4	46.0	50.7	48.6	56.1	54.7	56.5	54.3
1994	59.4	61.2	59.4	56.5	55.0	59.0	54.0	56.5	53.2	59.4	59.0	57.6
1995	56.8	54.7	49.6	44.2	36.7	p41.0	p35.3					
Over 3-month span:												
1991	23.7	23.0	20.9	33.1	35.6	37.4	47.1	47.1	50.4	39.9	37.4	32.7
1992	29.9	36.0	45.0	51.4	52.2	54.3	45.3	50.7	43.9	49.6	51.4	53.6
1993	60.8	60.4	57.2	46.4	46.4	50.7	49.6	54.3	53.2	60.1	56.1	57.6
1994	65.1	66.5	64.4	59.0	58.6	58.3	61.5	59.0	61.5	60.4	64.0	62.2
1995	61.5	56.1	47.1	35.6	p32.0	p25.2						
Over 6-month span:												
1991	14.7	20.5	21.6	24.8	34.9	38.5	42.8	40.6	41.4	39.2	31.7	33.1
1992	33.5	36.0	39.8	47.5	51.8	52.5	47.5	48.9	52.5	47.1	57.9	58.3
1993	57.6	56.5	56.1	55.0	49.3	52.2	55.4	57.9	56.8	57.6	65.1	62.9
1994	61.9	62.9	64.4	61.5	60.8	59.0	62.2	62.6	61.5	64.0	61.5	61.5
1995	57.2	47.1	p39.6	p29.1								
Over 12-month span:												
1991	16.5	16.2	17.3	18.0	20.9	24.1	26.3	30.6	32.7	38.1	38.8	37.4
1992	42.4	36.7	36.3	36.0	39.6	45.7	50.0	55.8	57.9	56.8	58.3	56.5
1993	56.8	57.9	55.8	56.6	57.2	57.6	58.6	59.0	61.2	60.4	60.1	59.4
1994	58.3	59.7	61.9	61.5	61.5	61.5	61.9	63.3	61.5	59.7	56.5	p49.6
1995	p45.7											

[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.

U. S. Department of Labor

Commissioner for
Bureau of Labor Statistics
Washington D C 20212

AUG 17 1995

Honorable H. James Saxton
House of Representatives
Washington, D.C. 20515-2500

Dear Congressman Saxton:

I am responding to your information request made at the August 4 Joint Economic Committee hearing concerning employment growth and decline by state and industry, and recent employment trends in high technology industries.

I have enclosed graphics and tables from the Bureau's Current Employment Statistics program which provide over-the-year change in nonfarm employment by region, state, and major industry division for the period June 1994 through June 1995. In addition, a second set of tables is included which displays the change in employment by state at the total nonfarm and total private employment levels as well as for the manufacturing and services industries, for the period since January 1993.

In response to your interest in employment trends for high technology industries, I have enclosed an article entitled "High Technology Employment: Another View", from the July 1991 issue of the Monthly Labor Review. A more detailed set of tables with information on high technology industry employment by region and state which update and expand on the information found in the article are also included.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely yours,

Katharine Abraham

KATHARINE G. ABRAHAM
Commissioner

Enclosures

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
New England	1.2%	4.5%	-0.6%	1.0%	1.3%	0.0%	2.4%	0.5%
Middle Atlantic	0.5%	1.2%	-0.8%	-1.0%	1.1%	-0.7%	2.2%	-1.4%
South Atlantic	2.6%	4.4%	0.4%	0.8%	3.5%	1.4%	4.6%	0.9%
East North Central	1.8%	3.9%	1.8%	1.2%	1.9%	0.1%	2.7%	0.2%
East South Central	1.8%	4.7%	-0.3%	0.4%	3.4%	0.5%	2.0%	2.2%
West North Central	2.7%	2.5%	2.6%	2.2%	3.1%	1.3%	3.6%	1.6%
West South Central	3.7%	7.1%	2.1%	3.6%	4.0%	1.3%	5.8%	1.9%
Mountain	4.2%	5.2%	3.6%	3.1%	4.7%	1.1%	5.1%	3.5%
Pacific	1.5%	5.2%	0.1%	1.0%	1.3%	-2.1%	3.1%	0.8%
California	**1.0%**	**6.0%**	**-0.2%**	**0.6%**	**0.2%**	**-2.6%**	**2.6%**	**0.5%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **New England**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Connecticut	0.0%	4.3%	-1.5%	1.0%	-0.2%	-2.4%	1.6%	-1.2%
Maine	2.2%	6.3%	1.0%	2.2%	3.3%	0.0%	5.3%	-3.3%
Massachusetts	1.9%	5.2%	0.0%	0.8%	1.4%	1.8%	3.1%	1.7%
New Hampshire	1.8%	12.7%	-0.5%	3.7%	2.3%	-1.0%	0.3%	4.6%
Rhode Island	-0.6%	-8.2%	-3.5%	-3.4%	1.7%	-1.9%	0.7%	0.5%
Vermont	1.1%	-0.8%	1.8%	1.8%	1.9%	1.7%	1.2%	-0.7%
Region Total	**1.2%**	**4.5%**	**-0.6%**	**1.0%**	**1.3%**	**0.0%**	**2.4%**	**0.5%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **Middle Atlantic**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
New Jersey	1.3%	3.1%	-2.1%	0.6%	2.4%	0.1%	2.9%	0.2%
New York	0.3%	2.5%	-0.9%	-2.0%	0.8%	-1.4%	2.7%	-2.7%
Pennsylvania	0.2%	-1.7%	0.1%	-1.1%	0.4%	0.5%	0.8%	-0.1%
Region Total	**0.5%**	**1.2%**	**-0.8%**	**-1.0%**	**1.1%**	**-0.7%**	**2.2%**	**-1.4%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **South Atlantic**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Delaware	0.6%	4.1%	-6.6%	2.6%	2.2%	3.8%	2.2%	0.0%
Dist. of Col.	-2.3%	8.6%	1.5%	-5.2%	1.5%	-1.6%	1.1%	-6.8%
Florida	3.8%	3.8%	0.8%	1.3%	3.9%	2.4%	5.9%	2.5%
Georgia	4.3%	11.0%	2.1%	-1.9%	5.3%	0.9%	7.9%	2.1%
Maryland	0.6%	-1.0%	-1.1%	0.8%	1.0%	-3.1%	1.8%	0.7%
North Carolina	2.2%	5.0%	0.5%	-0.7%	3.0%	3.6%	2.4%	3.1%
South Carolina	1.5%	0.4%	-1.2%	1.0%	2.9%	0.1%	3.5%	1.8%
Virginia	2.5%	5.8%	0.0%	5.1%	3.7%	1.6%	5.1%	-1.7%
West Virginia	2.2%	1.1%	1.8%	2.8%	3.2%	2.3%	2.8%	1.3%
Region Total	**2.6%**	**4.4%**	**0.4%**	**0.8%**	**3.5%**	**1.4%**	**4.6%**	**0.9%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **East North Central**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Illinois	1.0%	0.6%	-0.3%	1.8%	1.2%	0.5%	2.1%	0.6%
Indiana	1.3%	3.4%	2.6%	0.9%	2.4%	-0.8%	1.9%	-3.2%
Michigan	2.6%	12.4%	1.9%	-0.2%	2.7%	-1.8%	3.5%	1.6%
Ohio	1.7%	1.3%	2.9%	1.2%	1.3%	0.4%	2.4%	0.6%
Wisconsin	2.5%	4.7%	2.1%	2.1%	2.8%	2.1%	4.2%	-0.2%
Region Total	**1.8%**	**3.9%**	**1.8%**	**1.2%**	**1.9%**	**0.1%**	**2.7%**	**0.2%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **East South Central**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Alabama	1.3%	4.0%	0.1%	-1.0%	2.8%	-0.1%	2.3%	0.1%
Kentucky	2.1%	-0.1%	1.6%	2.3%	3.6%	-0.2%	2.5%	1.7%
Mississippi	-0.5%	9.6%	-2.5%	-3.3%	-0.5%	-1.5%	-4.2%	4.7%
Tennessee	2.9%	6.5%	-0.7%	1.5%	5.2%	2.0%	3.9%	3.0%
Region Total	**1.8%**	**4.7%**	**-0.3%**	**0.4%**	**3.4%**	**0.5%**	**2.0%**	**2.2%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **West North Central**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Iowa	2.5%	3.7%	1.6%	2.4%	2.0%	2.9%	4.8%	0.4%
Kansas	3.2%	6.9%	3.1%	4.3%	2.1%	-0.9%	3.9%	3.7%
Minnesota	2.4%	1.2%	2.4%	2.5%	2.6%	0.4%	3.6%	1.2%
Missouri	3.0%	3.0%	3.0%	0.2%	4.7%	1.3%	2.8%	2.8%
Nebraska	2.2%	-6.5%	2.8%	5.0%	3.0%	2.1%	4.1%	-0.6%
North Dakota	2.5%	8.5%	0.5%	2.2%	3.1%	2.2%	3.6%	0.4%
South Dakota	3.0%	2.1%	6.7%	3.2%	3.9%	6.1%	2.9%	-1.2%
Region Total	**2.7%**	**2.5%**	**2.6%**	**2.2%**	**3.1%**	**1.3%**	**3.6%**	**1.6%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **West South Central**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Arkansas	3.8%	7.0%	3.0%	4.4%	5.0%	2.6%	4.4%	1.7%
Louisiana	4.7%	5.3%	2.9%	2.8%	4.6%	1.8%	7.4%	3.2%
Oklahoma	2.0%	6.4%	1.9%	2.1%	2.7%	1.7%	4.0%	-0.9%
Texas	3.7%	7.6%	1.8%	3.9%	4.0%	1.0%	5.9%	2.2%
Region Total	**3.7%**	**7.1%**	**2.1%**	**3.6%**	**4.0%**	**1.3%**	**5.8%**	**1.9%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

Region: **Mountain**

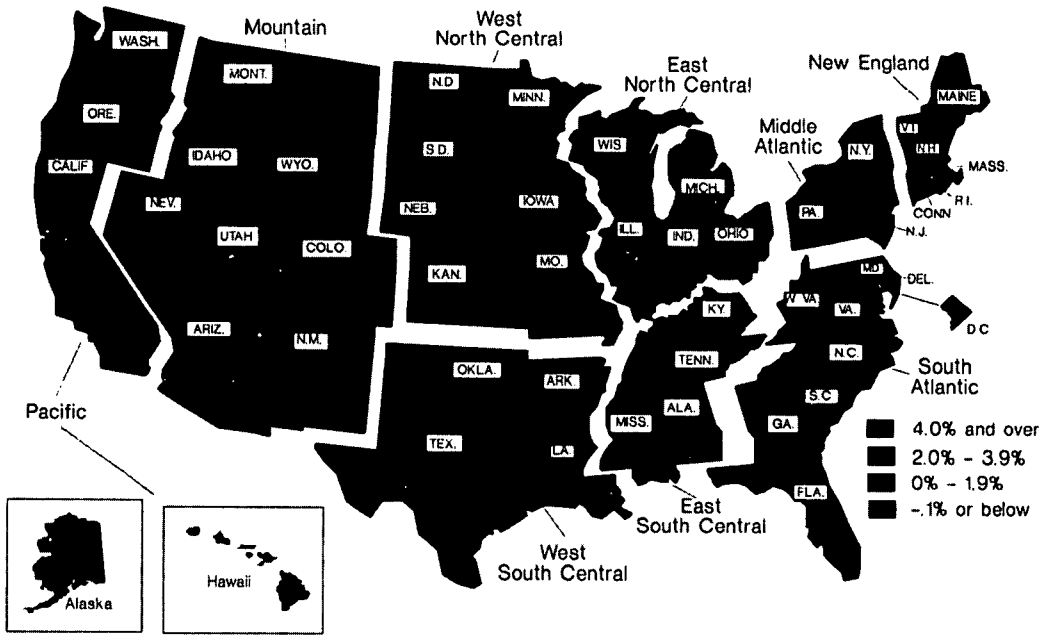
State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Arizona	5.3%	4.6%	4.3%	4.9%	4.9%	-0.3%	4.9%	9.7%
Colorado	2.3%	-2.2%	1.8%	2.0%	3.9%	-0.4%	3.4%	1.3%
Idaho	2.9%	-0.3%	2.2%	3.6%	3.9%	-1.2%	4.0%	2.4%
Montana	2.9%	3.3%	3.9%	-1.0%	2.7%	2.5%	6.9%	-0.7%
Nevada	5.7%	6.3%	6.3%	4.8%	6.3%	3.8%	5.6%	5.9%
New Mexico	5.0%	15.5%	4.5%	1.0%	5.7%	6.1%	6.4%	1.2%
Utah	5.8%	16.1%	5.3%	5.1%	5.9%	3.3%	7.6%	1.9%
Wyoming	0.9%	2.9%	2.0%	-0.7%	1.6%	1.3%	1.8%	-0.2%
Region Total	**4.2%**	**5.2%**	**3.6%**	**3.1%**	**4.7%**	**1.1%**	**5.1%**	**3.5%**

Over-the-Year Percent Changes in Employment
Seasonally Adjusted
June 1994 - June 1995

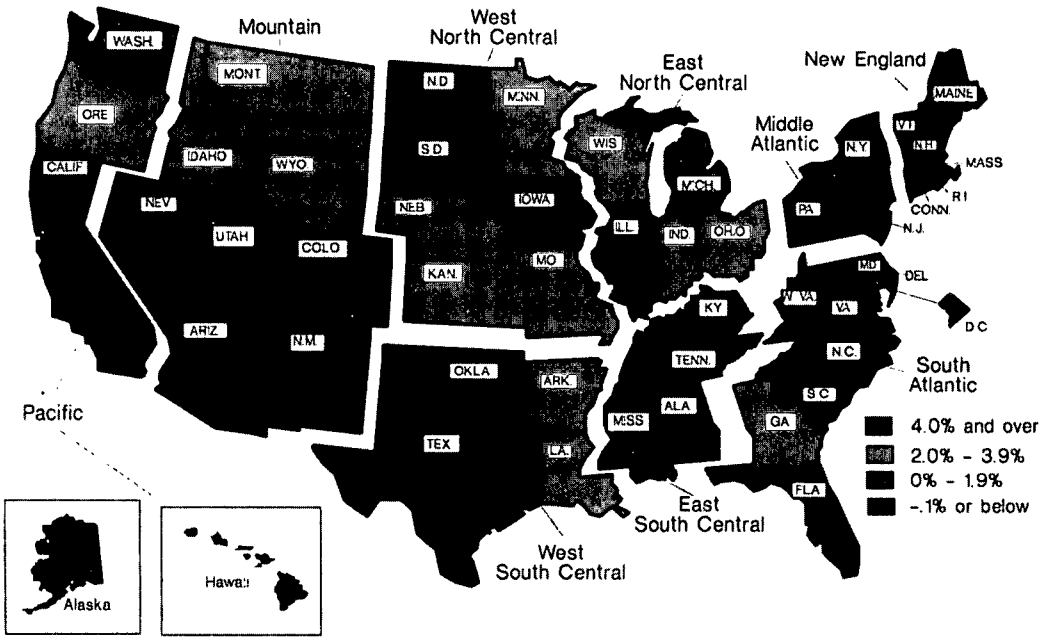
Region: **Pacific**

State	Total Nonfarm	Construction	Manufacturing	Transportation & Pub. Utilities	Trade	Finance, Insur. and Real Est.	Services	Government
Alaska	0.7%	5.0%	-5.4%	-0.4%	2.6%	1.7%	3.3%	-0.4%
California	1.0%	6.0%	-0.2%	0.6%	0.2%	-2.6%	2.6%	0.5%
Hawaii	-0.6%	-7.9%	-7.3%	-1.0%	1.9%	-2.3%	0.7%	-1.5%
Oregon	4.4%	12.5%	2.2%	2.9%	4.5%	1.8%	6.4%	2.5%
Washington	2.9%	1.5%	1.0%	2.7%	4.2%	-1.5%	4.8%	1.9%
Region Total	**1.5%**	**5.2%**	**0.1%**	**1.0%**	**1.3%**	**-2.1%**	**3.1%**	**0.8%**

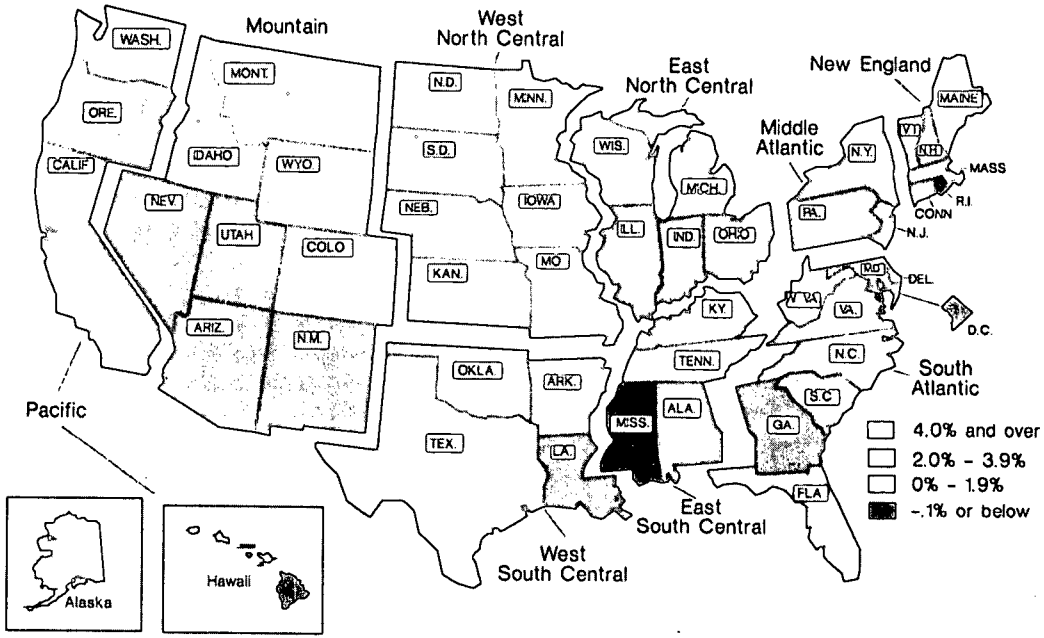
Percentage change in services employment by state, seasonally adjusted, June 1994–June 1995



Percentage change in manufacturing employment by state, seasonally adjusted, June 1994–June 1995



Percentage change in nonfarm employment by state, seasonally adjusted, June 1994–June 1995



Total Nonagricultural employment in thousands, seasonally adjusted

State	January 1993	June 1995	Net Change	Percent Change	Annual Compound Change
Alabama	1,697.2	1,778.9	81.7	4.8	2.0
Alaska	249.8	261.3	11.5	4.6	1.9
Arizona	1,534.2	1,755.6	221.4	14.4	5.7
Arkansas	978.0	1,070.5	92.5	9.5	3.8
California	12,079.5	12,259.4	179.9	1.5	0.6
Colorado	1,633.3	1,791.4	158.1	9.7	3.9
Connecticut	1,534.2	1,544.1	9.9	0.6	0.3
Delaware	345.3	357.0	11.7	3.4	1.4
District of Columbia	676.6	643.7	-32.9	-4.9	-2.0
Florida	5,458.5	6,006.4	547.9	10.0	4.0
Georgia	3,044.4	3,397.0	352.6	11.6	4.6
Hawaii	539.8	533.7	-6.1	-1.1	-0.5
Idaho	427.1	475.9	48.8	11.4	4.6
Illinois	5,281.1	5,531.9	250.8	4.7	1.9
Indiana	2,595.5	2,743.6	148.1	5.7	2.3
Iowa	1,263.3	1,355.1	91.8	7.3	2.9
Kansas	1,118.8	1,203.0	84.2	7.5	3.0
Kentucky	1,533.1	1,630.5	97.4	6.4	2.6
Louisiana	1,639.6	1,794.6	155.0	9.5	3.8
Maine	511.8	542.3	30.5	6.0	2.4
Maryland	2,091.7	2,161.5	69.8	3.3	1.4
Massachusetts	2,822.9	2,950.5	127.6	4.5	1.8
Michigan	3,977.0	4,243.6	266.6	6.7	2.7
Minnesota	2,215.9	2,372.0	156.1	7.0	2.9
Mississippi	977.2	1,053.4	76.2	7.8	3.2
Missouri	2,355.0	2,540.8	185.8	7.9	3.2
Montana	319.2	348.4	29.2	9.1	3.7
Nebraska	755.3	811.3	56.0	7.4	3.0
Nevada	650.6	776.7	126.1	19.4	7.6
New Hampshire	494.2	531.4	37.2	7.5	3.0
New Jersey	3,479.1	3,604.1	125.0	3.6	1.5
New Mexico	612.2	688.7	76.5	12.5	5.0
New York	7,730.0	7,830.8	100.8	1.3	0.5
North Carolina	3,191.5	3,433.9	242.4	7.6	3.1
North Dakota	281.9	301.3	19.4	6.9	2.8
Ohio	4,885.7	5,164.8	279.1	5.7	2.3
Oklahoma	1,233.5	1,303.0	69.5	5.6	2.3
Oregon	1,283.0	1,419.1	136.1	10.6	4.3
Pennsylvania	5,102.9	5,208.8	105.9	2.1	0.9
Rhode Island	427.4	432.7	5.3	1.2	0.5
South Carolina	1,548.1	1,632.9	84.8	5.5	2.2
South Dakota	312.5	342.3	29.8	9.5	3.8
Tennessee	2,294.0	2,492.3	198.3	8.6	3.5
Texas	7,377.1	8,012.7	635.6	8.6	3.5
Utah	787.3	908.8	121.5	15.4	6.1
Vermont	254.6	267.1	12.5	4.9	2.0
Virginia	2,887.1	3,076.3	189.2	6.6	2.7
Washington	2,228.4	2,368.0	139.6	6.3	2.5
West Virginia	647.1	687.4	40.3	6.2	2.5
Wisconsin	2,387.1	2,541.2	154.1	6.5	2.6
Wyoming	207.9	218.0	10.1	4.9	2.0

NOTE: State employment data are intended for individual state analyses only and are not designed for national aggregation.

All figures shown are subject to revision.

SOURCE: Bureau of Labor Statistics

Total Private employment in thousands, seasonally adjusted

State	January 1993	June 1995	Net Change	Percent Change	Annual Compound Change
Alabama	1,358.0	1,429.9	71.9	5.3	2.2
Alaska	175.1	187.8	12.7	7.3	2.9
Arizona	1,254.9	1,456.1	201.2	16.0	6.3
Arkansas	809.0	894.7	85.7	10.6	4.3
California	9,994.5	10,155.2	160.7	1.6	0.7
Colorado	1,338.9	1,489.7	150.8	11.3	4.5
Connecticut	1,326.3	1,329.8	3.5	0.3	0.1
Delaware	296.3	306.6	10.3	3.5	1.4
District of Columbia	386.7	391.1	4.4	1.1	0.5
Florida	4,587.4	5,081.3	493.9	10.8	4.3
Georgia	2,501.8	2,822.3	320.5	12.8	5.1
Hawaii	428.2	422.2	-6.0	-1.4	-0.6
Idaho	337.5	381.2	43.7	12.9	5.2
Illinois	4,506.7	4,748.1	241.4	5.4	2.2
Indiana	2,206.8	2,369.6	162.8	7.4	3.0
Iowa	1,041.3	1,125.1	83.8	8.0	3.3
Kansas	892.7	961.0	68.3	7.7	3.1
Kentucky	1,257.8	1,346.5	88.7	7.1	2.9
Louisiana	1,298.5	1,435.6	137.1	10.6	4.2
Maine	416.0	450.5	34.5	8.3	3.4
Maryland	1,675.8	1,739.8	64.0	3.8	1.6
Massachusetts	2,439.9	2,554.1	114.2	4.7	1.9
Michigan	3,333.9	3,598.9	265.0	7.9	3.2
Minnesota	1,865.8	2,006.0	140.2	7.5	3.0
Mississippi	769.1	828.4	59.3	7.7	3.1
Missouri	1,983.6	2,145.7	162.1	8.2	3.3
Montana	245.4	274.0	28.6	11.7	4.7
Nebraska	606.7	661.5	54.8	9.0	3.6
Nevada	563.5	681.4	117.9	20.9	8.2
New Hampshire	421.4	452.3	30.9	7.3	3.0
New Jersey	2,912.9	3,033.1	120.2	4.1	1.7
New Mexico	455.0	522.4	67.4	14.8	5.9
New York	6,309.9	6,447.9	138.0	2.2	0.9
North Carolina	2,670.3	2,878.0	207.7	7.8	3.1
North Dakota	214.2	234.3	20.1	9.4	3.8
Ohio	4,149.2	4,419.9	270.7	6.5	2.6
Oklahoma	962.0	1,034.4	72.4	7.5	3.0
Oregon	1,050.2	1,181.6	131.4	12.5	5.0
Pennsylvania	4,399.8	4,493.5	93.7	2.1	0.9
Rhode Island	365.9	371.3	5.4	1.5	0.6
South Carolina	1,253.2	1,330.9	77.7	6.2	2.5
South Dakota	246.9	275.2	28.3	11.5	4.6
Tennessee	1,935.1	2,115.9	180.8	9.3	3.8
Texas	6,022.5	6,568.3	545.8	9.1	3.7
Utah	628.5	744.5	116.0	18.5	7.3
Vermont	210.4	222.6	12.2	5.8	2.4
Virginia	2,292.2	2,482.2	190.0	8.3	3.4
Washington	1,800.3	1,921.7	121.4	6.7	2.7
West Virginia	514.6	550.9	36.3	7.1	2.9
Wisconsin	2,028.2	2,177.0	148.8	7.3	3.0
Wyoming	150.7	160.5	9.8	6.5	2.6

NOTE: State employment data are intended for individual state analyses only and are not designed for national aggregation.

All figures shown are subject to revision.

SOURCE: Bureau of Labor Statistics

Total Manufacturing employment in thousands, seasonally adjusted

State	January 1993	June 1995	Net Change	Percent Change	Annual Compound Change
Alabama	384.3	385.4	1.1	0.3	0.1
Alaska	17.8	15.9	-1.9	-10.7	-4.6
Arizona	173.5	201.6	28.1	16.2	6.4
Arkansas	239.8	260.8	21.0	8.8	3.5
California	1,846.6	1,769.4	-77.2	-4.2	-1.8
Colorado	188.6	193.9	5.3	2.8	1.2
Connecticut	300.2	281.1	-19.1	-6.4	-2.7
Delaware	66.7	59.4	-7.3	-10.9	-4.7
District of Columbia	13.8	13.2	-0.6	-4.3	-1.8
Florida	483.6	487.5	3.9	0.8	0.3
Georgia	551.5	586.9	35.4	6.4	2.6
Hawaii	19.6	16.6	-3.0	-15.3	-6.6
Idaho	68.3	73.5	5.2	7.6	3.1
Illinois	929.8	957.2	27.4	2.9	1.2
Indiana	640.1	678.2	38.1	6.0	2.4
Iowa	233.3	249.4	16.1	6.9	2.8
Kansas	183.1	195.2	12.1	6.6	2.7
Kentucky	292.7	310.2	17.5	6.0	2.4
Louisiana	186.3	192.5	6.2	3.3	1.4
Maine	90.3	92.3	2.0	2.2	0.9
Maryland	181.9	177.4	-4.5	-2.5	-1.0
Massachusetts	461.2	448.3	-12.9	-2.8	-1.2
Michigan	910.6	968.1	57.5	6.3	2.6
Minnesota	403.5	425.4	21.9	5.4	2.2
Mississippi	253.6	254.4	0.8	0.3	0.1
Missouri	411.6	424.1	12.5	3.0	1.2
Montana	22.9	23.9	1.0	4.4	1.8
Nebraska	101.8	111.8	10.0	9.8	4.0
Nevada	27.8	35.5	7.7	27.7	10.6
New Hampshire	97.6	100.3	2.7	2.8	1.1
New Jersey	522.2	498.9	-23.3	-4.5	-1.9
New Mexico	42.0	46.8	4.8	11.4	4.6
New York	999.3	945.0	-54.3	-5.4	-2.3
North Carolina	841.6	862.1	20.5	2.4	1.0
North Dakota	19.0	21.5	2.5	13.2	5.2
Ohio	1,052.3	1,097.1	44.8	4.3	1.7
Oklahoma	166.5	174.6	8.1	4.9	2.0
Oregon	209.9	226.2	16.3	7.8	3.1
Pennsylvania	945.7	943.1	-2.6	-0.3	-0.1
Rhode Island	88.9	84.3	-4.6	-5.2	-2.2
South Carolina	373.2	372.1	-1.1	-0.3	-0.1
South Dakota	37.9	46.4	8.5	22.4	8.7
Tennessee	522.8	535.4	12.6	2.4	1.0
Texas	978.0	1,025.3	47.3	4.8	2.0
Utah	108.1	122.3	14.2	13.1	5.2
Vermont	43.4	44.6	1.2	2.8	1.1
Virginia	407.3	403.9	-3.4	-0.8	-0.3
Washington	343.8	339.7	-4.1	-1.2	-0.5
West Virginia	82.9	83.0	0.1	0.1	0.0
Wisconsin	555.9	595.6	39.7	7.1	2.9
Wyoming	9.6	10.2	0.6	6.2	2.5

NOTE: State employment data are intended for individual state analyses only and are not designed for national aggregation.

All figures shown are subject to revision.

SOURCE: Bureau of Labor Statistics

Total Services employment in thousands, seasonally adjusted

State	January 1993	June 1995	Net Change	Percent Change	Annual Compound Change
Alabama	1,358.0	1,426.4	68.4	5.0	5.0
Alaska	175.1	188.6	13.5	7.7	7.7
Arizona	1,254.9	1,444.2	189.3	15.1	15.1
Arkansas	809.0	887.2	78.2	9.7	9.7
California	9,994.5	10,044.2	49.7	0.5	0.5
Colorado	1,338.9	1,488.2	149.3	11.2	11.2
Connecticut	1,326.3	1,328.0	1.7	0.1	0.1
Delaware	296.3	306.8	10.5	3.5	3.5
District of Columbia	386.7	387.2	0.5	0.1	0.1
Florida	4,587.4	5,004.5	417.1	9.1	9.1
Georgia	2,501.8	2,783.1	281.3	11.2	11.2
Hawaii	428.2	424.9	-3.3	-0.8	-0.8
Idaho	337.5	381.5	44.0	13.0	13.0
Illinois	4,506.7	4,740.8	234.1	5.2	5.2
Indiana	2,206.8	2,365.0	158.2	7.2	7.2
Iowa	1,041.3	1,110.2	68.9	6.6	6.6
Kansas	892.7	948.4	55.7	6.2	6.2
Kentucky	1,257.8	1,323.3	65.5	5.2	5.2
Louisiana	1,298.5	1,426.7	128.2	9.9	9.9
Maine	416.0	440.2	24.2	5.8	5.8
Maryland	1,675.8	1,736.3	60.5	3.6	3.6
Massachusetts	2,439.9	2,537.9	98.0	4.0	4.0
Michigan	3,333.9	3,583.8	249.9	7.5	7.5
Minnesota	1,865.8	1,979.0	113.2	6.1	6.1
Mississippi	769.1	837.4	68.3	8.9	8.9
Missouri	1,983.6	2,132.8	149.2	7.5	7.5
Montana	245.4	270.0	24.6	10.0	10.0
Nebraska	606.7	660.0	53.3	8.8	8.8
Nevada	563.5	665.2	101.7	18.0	18.0
New Hampshire	421.4	453.4	32.0	7.6	7.6
New Jersey	2,912.9	3,011.7	98.8	3.4	3.4
New Mexico	455.0	514.8	59.8	13.1	13.1
New York	6,309.9	6,420.3	110.4	1.7	1.7
North Carolina	2,670.3	2,865.3	195.0	7.3	7.3
North Dakota	214.2	232.1	17.9	8.4	8.4
Ohio	4,149.2	4,396.9	247.7	6.0	6.0
Oklahoma	962.0	1,030.6	68.6	7.1	7.1
Oregon	1,050.2	1,159.2	109.0	10.4	10.4
Pennsylvania	4,399.8	4,508.3	108.5	2.5	2.5
Rhode Island	365.9	374.2	8.3	2.3	2.3
South Carolina	1,253.2	1,318.7	65.5	5.2	5.2
South Dakota	246.9	273.5	26.6	10.8	10.8
Tennessee	1,935.1	2,093.3	158.2	8.2	8.2
Texas	6,022.5	6,435.8	413.3	6.9	6.9
Utah	628.5	724.0	95.5	15.2	15.2
Vermont	210.4	219.4	9.0	4.3	4.3
Virginia	2,292.2	2,459.5	167.3	7.3	7.3
Washington	1,800.3	1,912.8	112.5	6.2	6.2
West Virginia	514.6	548.6	34.0	6.6	6.6
Wisconsin	2,028.2	2,160.4	132.2	6.5	6.5
Wyoming	150.7	161.7	11.0	7.3	7.3

NOTE: State employment data are intended for individual state analyses only and are not designed for national aggregation.

All figures shown are subject to revision.

SOURCE: Bureau of Labor Statistics

High technology employment: another view

A novel definition of high technology yields some interesting statistics on employment, pay, and projected growth in this vital component of American industry

Paul Hadlock,
Daniel Hecker,
and
Joseph Gannon

Employment opportunities in high technology industries have been a source of interest among economists for many years. However, notions of what makes an industry high technology vary widely, making analyses of industry and occupational changes difficult. This article presents one method by which high technology industries can be identified and discusses employment in these industries.

One often-used definition of high technology limits the term to the aerospace, computer, and telecommunications industries. This is perhaps the most popular use of the locution. Another definition describes high technology industries as those "that are engaged in the design, development, and introduction of new products and/or innovative manufacturing processes through the systematic application of scientific and technical knowledge."[1] Still another uses research and development (R&D) expenditures as a percentage of industry value added and industry employment of scientists, engineers, and technicians as a porportion of the industry work force.[2] In 1983, BLS analysts introduced three measures of high tech employment—utilization of technology-oriented workers, expenditures for R&D, and utilization of technology-oriented workers and R&D expenditures combined.[3] The following analysis, by contrast, presents a definition of "high technology" based on an industry's percentage of R&D employment, which is defined as the number of workers who spend the *majority* of their time in R&D, as determined by their employer. Hence, we define a high technology industry as one with a significant concentration of R&D employment.

Data on R&D employment are derived from the Bureau of Labor Statistics Occupational Employment Statistics (OES) program, which provides current occupational employment data on wage and salary workers by industry.[4] This program follows a 3-year survey cycle: manufacturing industries and hospitals are surveyed in the first year; mining, construction, finance, and service industries in the second; and trade, transportation, communications, public utilities, education, and government services industries in the third. However, only manufacturing industries and selected nonmanufacturing industries are surveyed for R&D employment. The data used in this study were collected in 1987, 1988, and 1989 and are based on industries classified at the three-digit level in the 1987 edition of the *Standard Industrial Classification (SIC) Manual.*

Using the OES data, we identify industries as high technology if their proportion of R&D employment is at least equal to the average proportion for all industries. The industries that meet this criterion are then divided into two groups: If an industry's proportion of R&D employment is at least 50 percent higher than the average proportion for all industries surveyed, it is a Level I, or R&D-intensive, industry; all other such industries are from the Level II, or R&D-moderate, group. Classifications based on these criteria resulted in 30 Level I industries and 10 Level II industries.

While defining industries on the basis of the proportion of their employment in R&D is a proxy measurement of high technology, the use of occupational employment data at specific industry levels is a unique refinement that yields

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results that are in line with popularly held expectations. The industries classified as high technology in this analysis are ranked according to their percentage of R&D employment. (See table 1.) Of the top five industries with the highest percentage of R&D employment, four are part of chemical manufacturing (SIC 28). Other top-ranked high tech manufacturing industries include guided missiles, space vehicles, and parts manufacturing; petroleum refining; and computer and office equipment manufacturing. Level I high technology manufacturing industries also include many of the instruments and related products industries (SIC 38), including search and navigation equipment, measuring and control devices, medical instruments and supplies, and photographic equipment and supplies.

Research and testing services and computer and data-processing services are the highest ranked service-related high tech industries. Engineering and architectural services, miscellaneous services, and management and public relations services are also classified as high technology service industries.

Table 1. **High technology industry employment and average pay, total and by level, 1989**

SIC code	Industry	Total high tech employment	Percent research and development employment	Average annual pay
	Total	10,012,500	100.0	$34,626
	Level I industries:[1]	8,666,900	86.6	35,597
131	Crude petroleum and natural gas operations	193,100	1.9	45,822
211	Cigarettes	38,400	.4	46,273
281	Industrial inorganic chemicals	134,100	1.3	39,611
282	Plastics materials and synthetics	183,200	1.8	38,432
283	Drugs	231,300	2.3	39,986
284	Soap, cleaners, and toilet goods	159,900	1.6	32,781
285	Paints and allied products	63,100	.6	30,536
286	Industrial organic chemicals	149,000	1.5	43,519
287	Agricultural chemicals	52,500	.5	33,167
289	Miscellaneous chemical products	100,200	1.0	33,101
291	Petroleum refining	118,500	1.2	43,452
299	Miscellaneous petroleum and coal products	11,900	.1	30,758
335	Nonferrous rolling and drawing	176,700	1.8	31,462
355	Special industry machinery	161,900	1.6	30,388
357	Computer and office equipment	455,000	4.5	40,409
362	Electrical industrial apparatus	177,100	1.8	27,028
366	Communications equipment	270,600	2.7	24,238
367	Electronic components and accessories	614,000	6.1	29,387
371	Motor vehicles and equipment	847,100	8.5	37,191
372	Aircraft and parts	708,600	7.1	37,216
376	Guided missiles, space vehicles, parts	195,000	1.9	39,540
381	Search and navigation equipment	302,500	3.0	38,491
382	Measuring and controlling devices	331,100	3.3	30,940
384	Medical instruments and supplies	238,800	2.4	28,836
386	Photographic equipment and supplies	104,300	1.0	40,755
737	Computer and data-processing services	732,700	7.3	35,787
871	Engineering and architectural services	774,900	7.7	35,438
873	Research and testing services	528,600	5.3	32,088
874	Management and public relations	577,200	5.8	35,280
899	Services, n.e.c.[2]	35,600	.4	41,649
	Level II industries:[1]	1,345,700	13.4	28,373
229	Miscellaneous textile goods	52,100	.5	23,035
261	Pulp mills	16,800	.2	39,800
267	Miscellaneous converted paper products	240,100	2.4	27,697
348	Ordnance and accessories, n.e.c.[2]	75,100	.8	29,766
351	Engines and turbines	90,800	.9	36,549
356	General industrial machinery	243,300	2.4	29,223
359	Industrial machines, n.e.c.[2]	321,700	3.2	26,303
365	Household audio and video equipment	87,200	.9	28,595
369	Miscellaneous electrical equipment and supplies	170,700	1.7	28,315
379	Miscellaneous transportation equipment	47,900	.5	25,278

[1] See text for definition of Level I and Level II industries.
[2] n.e.c. = not elsewhere classified

Employment and pay

The OES program collected data on R&D for specific managerial, professional, paraprofessional, and technical occupations. Engineering, mathematical, and natural sciences managers account for most of the R&D employment in managerial and administrative occupations. Among professional occupations, engineers, physical and life scientists, and computer scientists and related occupations, as well as various health professional specialties, have the heaviest concentrations of R&D employment. Engineering and science technicians also are employed in R&D in significant numbers in high tech industries.

Although 24 of the 30 Level I high tech industries are manufacturing industries, the six nonmanufacturing industries in the Level I group (20 percent of the total) represent 32.8 percent of total employment. Computer-related industries accounted for a significant portion of that figure. Fully 21 percent of all Level I industry employment is attributed to computer and office equipment manufacturing, computer and data-processing services, and electronic components and accessories (semiconductors) manufacturing industries. Motor vehicles and equipment manufacturing and aircraft and parts manufacturing together accounted for 18 percent of Level I high tech industry employment.

Table 2. **Regional distribution of employment in high technology industries, 1989**

Region and level	High technology employment[1]	Percent of all employment in region	Percent of all high technology employment
United States			
Level I	8,666,900	9.8	.....
Level II	1,345,600	1.5	.....
Levels I and II	10,012,500	11.3	100.00
Northeast[2]			
Level I	2,000,300	10.4	.....
Level II	304,100	1.6	.....
Levels I and II	2,304,400	12.0	23.0
Midwest[3]			
Level I	2,110,400	9.7	.....
Level II	506,000	2.3	.....
Levels I and II	2,616,400	12.0	26.1
South[4]			
Level I	2,472,700	8.6	.....
Level II	350,900	1.2	.....
Levels I and II	2,823,600	9.8	28.2
West[5]			
Level I	2,083,500	11.2	.....
Level II	184,700	1.0	.....
Levels I and II	2,268,200	12.2	22.7

[1] Excludes government and education industry employment.

[2] Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

[3] Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

[4] South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

[5] West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: See text for explanation of Level I and Level II employment.

Annual pay. Total employment in high tech industries is not that large in relation to the entire economy, but these industries show an *above-average* annual pay level. Examining average annual pay for 1989, derived from wage data for workers covered by unemployment insurance programs, one can discern a strong relationship between higher pay and the degree of technological development activity of an industry.[5] In 1989, the average annual pay per employee for all industries, excluding government and education, was $22,302; employees in Level I averaged $35,597, while Level II employees averaged $28,373.

Those high tech industries with the highest average annual pay were cigarette manufacturing, crude petroleum and natural gas operations, industrial organic chemicals manufacturing, and petroleum refining. In the petroleum and chemicals industries, concentrations of highly paid engineering staff, together with specialized technical support personnel, are factors in the high average pay in these industries. The high average pay in the relatively small cigarette manufacturing industry can be attributed in part to an increased percentage of professional and technical workers in the industry. This increase stems in part from the introduction of more automation in the industry, resulting in a decreasing number of lower paying jobs.

Area distributions

Level I and Level II high tech industries comprised only 11.3 percent of total nongovernment and noneducation employment in 1989. The concentration of employment in these industries varies little regionally, ranging from 12.2 percent in the West to 9.8 percent in the South. (See table 2.) The Northeast and Midwest regions both have 12.0 percent of their employment in these industries.

Although the South has the lowest percentage of all regions of high tech industry employment (as defined here) relative to the total work force, it has the largest proportion of national high tech employment; that is, 28.2 percent of all workers employed in high tech industries are in the South. The Midwest region employs 26.1 percent of all high tech industry workers. The Northeast, popularly viewed as a bastion of high technology, ranks third with 23.0 percent, and the West

Table 3. **Percentage of States' work force employed in high technology industries and States' percentage of total employment in high technology industries, 1989**

State	Percent in high technology employment	Percent of U.S. high technology employment
New England		
Connecticut	16.0	2.3
Maine	6.4	.3
Massachusetts	16.3	4.2
New Hampshire	15.5	.7
Rhode Island	8.5	.3
Vermont	11.7	.2
Mid-Atlantic		
New Jersey	13.6	4.2
New York	10.2	6.7
Pennsylvania	10.0	4.2
East North Central		
Illinois	10.4	4.5
Indiana	13.7	2.8
Michigan	16.7	5.4
Ohio	12.5	5.0
Wisconsin	10.1	1.9
West North Central		
Iowa	7.8	.7
Kansas	12.7	1.1
Minnesota	12.3	2.1
Missouri	11.0	2.1
Nebraska	7.5	.4
North Dakota	3.6	.1
South Dakota	5.0	.1
East South Central		
Alabama	9.6	1.2
Kentucky	9.2	1.0
Mississippi	7.2	.5
Tennessee	10.0	1.8
South Atlantic		
Delaware	19.7	.6
District of Columbia	13.0	.5
Florida	7.1	3.1
Georgia	7.9	1.9
Maryland	10.6	1.8
North Carolina	9.8	2.5
South Carolina	10.6	1.3
Virginia	11.0	2.5
West Virginia	7.8	.4
West South Central		
Arkansas	8.3	.6
Louisiana	9.1	1.1
Oklahoma	11.9	1.0
Texas	11.9	6.5
Mountain		
Arizona	11.3	1.4
Colorado	12.5	1.5
Idaho	8.9	.3
Montana	3.3	.1
Nevada	4.9	.2
New Mexico	11.1	.5
Utah	11.9	.6
Wyoming	5.8	.1
Pacific		
Alaska	7.1	.1
California	13.6	14.8
Hawaii	2.6	.1
Oregon	7.6	.7
Washington	13.8	2.3

accounts for 22.7 percent of total high tech industry employment. Employment data show little dispersion among the regions, with 2.3 million high technology workers in the West being the low figure and 2.8 million in the South the high figure.

Among the States, Delaware, with significant chemical industry employment, has the highest percentage of its work force employed in high tech industries—19.7 percent. Michigan ranks second with 16.7 percent, due to a concentration in automobile manufacturing and other major manufacturing industries. The next three States in order are located in New England: Massachusetts, Connecticut, and New Hampshire. The States with the lowest percentages of their work force employed in high tech industry are located in the West North Central, Mountain, and Pacific regions. They are, in order, from the lowest percentage up: Hawaii, Montana, North Dakota, Nevada, and South Dakota.[6] (See table 3.)

California employs 14.8 percent of the Nation's high tech industry workers, more than twice the proportion of any other State. Following California are New York, Texas, Michigan, and Ohio. Unlike the other States, Texas is not known as an industrial manufacturing giant; however, its overall size and its concentration of petroleum-refining and crude petroleum and natural gas exploration industries, along with aircraft, electronics, and chemicals manufacturing, give it its place among the leading States in high technology employment.

Trends, 1988–2000

High tech industries constituted a relatively small proportion of wage and salary employment in the economy in 1988—7.1 percent for Level I and 8.4 percent for Levels I and II combined. In comparison, the earlier BLS analysis reported that employment in high technology industries in 1982 ranged from 2.8 percent to 13.4 percent.[7]

Every other year, the Bureau of Labor Statistics develops projections of employment growth. The latest projections present low-, medium-, and high-growth scenarios from 1988 to the year 2000.[8] Perhaps surprisingly, as a group, high technology industries are projected to grow more *slowly* than the average for all industries in the low- and medium-growth scenarios. In the high-growth scenario, Level I industries are projected

Table 4. **High technology industry employment, 1988 and projected to 2000**

Level[1]	1988	2000			Percent change		
		Low growth	Medium growth	High growth	Low growth	Medium growth	High growth
Total employment (thousands) ..	118,104	127,118	136,211	144,136	7.6	15.3	22.0
Level I:							
Number (thousands)	8,332	8,649	9,476	10,487	3.8	13.7	25.9
Percent	7.1	6.8	7.0	7.3	.....	.....	.....
Level II:							
Number (thousands)	1,561	1,329	1,473	1,583	−14.9	−5.6	1.4
Percent	1.3	1.0	1.1	1.1	.....	.....	.....
Levels I and II:							
Number (thousands)	9,893	9,978	10,949	12,069	.9	10.7	22.0
Percent	8.4	7.8	8.0	8.4	.....	.....	.....

[1]See text for explanation of Level I and Level II employment.

to grow more rapidly than the average for all industries, and Levels I and II combined are projected to increase at the same rate as the average. (See table 4.)

A projection of relatively slow growth for the high technology industries in, for example, the medium-growth scenario is not surprising upon closer examination. High tech industries are primarily manufacturing industries (24 of 30 in Level I, and all in Level II), and total manufacturing employment in the economy is projected to decline slightly in the medium-growth scenario. Output in manufacturing is expected to grow 31 percent in this scenario, as fast as output in the economy as a whole, but large increases in productivity will keep total employment from growing.

Even among Level I industries, the manufacturing industries' employment as a whole is projected to decline slightly in the medium-growth scenario, just as is total manufacturing. All growth in Level I (and in Levels I and II combined) is attributed to the service industries, which are projected to grow 50 percent. □

Footnotes

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[1] From *Technology, Innovation, and Regional Economic Development* (Washington, U.S. Congress, Office of Technology Assessment, Sept. 9, 1982), a 14-page report that assesses the implications of high technology in order to promote the development of high tech industries in States and other areas.

[2] Michael Boretsky, "Concerns About the Present American Position in International Trade," *Technology and International Trade* (Washington, National Academy of Sciences, 1971).

[3] Richard W. Riche, Daniel E. Hecker, and John U. Burgan, "High technology today and tomorrow: a small slice of the employment pie," *Monthly Labor Review*, November 1983, pp. 50–58.

[4] For more information about the Occupational Employment Statistics program, see *BLS Handbook of Methods*, Bulletin 2285 (Bureau of Labor Statistics, 1988), pp. 28–30.

[5] Annual pay data are compiled from reports submitted by employers under unemployment insurance programs covering 107 million full- and part-time workers. Average annual pay is computed by dividing the total annual payrolls of employees covered by unemployment insurance programs by the average monthly employment of these employees. See *Employment and Wages, Annual Averages, 1989*, Bulletin 2373 (Bureau of Labor Statistics, 1990), pp. 531–32, and *BLS Handbook of Methods*, pp. 35–40.

[6] State data were compiled from the Covered Employment and Wages Program, which collects information on the employment and wages of workers covered by unemployment insurance programs. Each quarter, covered employers submit mandatory reports of employment and wages to the appropriate State Employment Security Agency. These reports, supplemented by multiple worksite reports for employers engaged in a variety of activities, are edited and summarized by county, State, and detailed industry and forwarded to the Bureau of Labor Statistics. Self-employed persons are not included.

[7] Riche, Hecker, and Burgan, "High technology today and tomorrow," p. 53.

[8] For more details on industry employment projections in particular, see Valerie A. Personick, "Industry output and employment: a slower trend for the nineties," *Monthly Labor Review*, November 1989, pp. 25–41.

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