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EMPLOYMENT-UNEMPLOYMENT

HEARINGS
BEFORE THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES
ONE HUNDRED SECOND CONGRESS
FIRST SESSION

PART 40

JANUARY 4, FEBRUARY 1, AND MARCH 8, 1991

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DECEMBER EMPLOYMENT SITUATION

FRIDAY, JANUARY 4, 1991

U.S. CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met at 9:40 a.m., pursuant to notice, in room 628 of the Dirksen Senate Office Building, the Hon. Paul S. Sarbanes (chairman of the committee), presiding.

Present: Senators Sarbanes and Symms.

Also Present: William Buechner, Steve Quick, Jim Klumpner, Joe Cobb and Chris Frenze, professional staff members.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator SARBANES. The committee will come to order. The Joint Economic Committee is very pleased this morning to again welcome Commissioner Janet Norwood of the Bureau of Labor Statistics for her first appearance before the committee in 1991. Commissioner Norwood and her colleagues are here this morning to testify on the employment and unemployment situation for last month.

Employment data provide a prime indicator of the overall health of the economy, and these data have been sending out some very disturbing signals in recent months. The rising unemployment rate has already convinced many economists that the country has moved into a recession. Some have asserted what they perceive to be a gradual pace at which unemployment has increased has led forecasters to anticipate a short and shallow recession.

There are unfortunately some early warning signs in the employment data which suggest that the recession may be neither shallow nor short. The number of people employed has been dropping swiftly for several months, a pattern which is consistent with the onset of serious recessions in the past.

Since May of last year, civilian employment has decreased by more than 1.1 million jobs, over a million job decrease in civilian employment, a pace of job loss greater than that experienced in the first 5 months of the deep recessions of 1981-82 and 1974-75. The 1981-82 recession was, in fact, the worst we had experienced since the Great Depression. The loss in jobs in this period since May has been greater than experienced during the first 5 months of that recession. Aggregate hours worked also have declined at a rate which suggests a deeper drop in GNP during the fourth quarter than the consensus forecast.

Other data point in the same direction. Industrial production declined 2.7 percent between August and November, an annual rate

of more than 10 percent, and the leading indicators have declined for 5 months in a row.

It's difficult to judge whether the worst is yet to come, but we do have ample evidence that the current recession has already created the kind of economic distress associated with serious past recessions.

If this recession should turn out to be no worse than the average post-war recession, the number of people with jobs will fall by about 2 percent or 2½ million. Millions of job losers will turn for help to an unemployment insurance system which may not be adequate to meet their needs.

As the nation moves into recession, the members of the Joint Economic Committee are concerned about whether the unemployment insurance system will provide an adequate safety net for those who lose their jobs. Therefore, this morning, following the testimony of the Commissioner and her colleagues on the employment and unemployment figures, the committee will hold a second hearing immediately upon the conclusion of this one to examine the condition of the unemployment insurance system, which is our basic safety net for unemployed workers.

We have a panel of distinguished experts who will testify at that hearing.

Commissioner, we welcome you, and we look forward to hearing your testimony.

STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND THOMAS J. PLEWES, ASSOCIATE COMMISSIONER, OFFICE OF EMPLOYMENT AND UNEMPLOYMENT STATISTICS

Mrs. NORWOOD. Thank you very much, Mr. Chairman. We appreciate the opportunity to be here to add a few comments to our news release.

It's a special pleasure to be here this morning, Senator Sarbanes, as you once again take over the chairmanship of this committee.

The nation's job market continued to weaken in December, as the unemployment rate rose and payroll employment declined. The civilian unemployment rate increased two-tenths of a percentage point to 6.1 percent, the second month in a row with an increase of that magnitude. The jobless rate has risen eight-tenths of a percentage point in the 6 months since June.

Payroll employment, as measured in our business survey, fell by about 75,000, following 2 months of very large job losses. Since September, we have lost half a million payroll jobs.

The December job losses were again widespread. The BLS diffusion index of employment has remained under 50 percent since August, showing that more industries lost jobs than gained them.

Construction employment continued to slide, with a loss of about 30,000 jobs beyond what we might get for purely seasonal reasons. The cutbacks since spring are now approaching 300,000, more than 5 percent of the industry's employment.

Reflecting this trend, the number of unemployed construction workers continued to rise. Nearly 900,000 of these workers are now unemployed, representing 14 percent of the construction workforce. That jobless rate is up from 9.6 percent a year ago.

Employment in the nation's factories fell by 35,000 in December. We lost 200,000 factory jobs in November and a combined 180,000 jobs in the prior 3 months. Although automobile manufacturing employment was up 20,000 over the month, the change reflected the reopening of temporarily closed plants rather than the new hiring of workers.

The December recalls recouped less than half of the prior month's losses, however, and auto employment was still down 55,000 from last June.

In the service-producing sector, health services again continues to be the most dependable job creator. This industry added another 55,000 jobs in December.

I might note that despite the overall economic weakness in much of 1990, a few industries affected by the changing age structure of the population have continued to expand at a brisk pace. Health services has added 600,000 jobs over the year, education nearly 300,000, and assisted living facilities and child-care facilities about 50,000 each.

By contrast, business services is clearly feeling the effects of widespread economic weakness. It lost 17,000 jobs in December, and its employment level has dropped by 40,000 over the last 3 months. The holiday hiring in retail trade continued to reflect shaky conditions with a seasonally adjusted decline of nearly 50,000 jobs in December.

A puzzling development in December was the increase in the average workweek, two-tenths of an hour overall and three-tenths in manufacturing. In view of the widespread job losses and the hours declines of recent months, it's difficult to interpret these changes.

The aggregate hours series, which are more comprehensive because they reflect both employment and the workweek, while up in December remained below their September level.

The employment count from the household survey was up slightly after a large loss in November, but at 117.6 million, civilian employment was still 300,000 below September's level.

As I mentioned at the outset of my comments, the two-tenths of a percentage point rise in unemployment in December left the jobless rate eight-tenths of a point higher than the revised June figure. The impact of higher unemployment has been remarkably even.

Virtually every major demographic group, whether defined by age, by gender, or by race, has seen a rise in joblessness over the June to December period. For example, the jobless rate for adult men has risen by nine-tenths of a percentage point since June, and the rate for women was up by seven-tenths of a point. The unemployment rate for teenagers has risen by about 2 percentage points during the same time span.

The data suggest that teenagers have become less likely to take part in the labor force at all, an option not often possible for adult workers. The participation rate for teenagers has been declining since early spring. This may be the result of a softening in demand

in retail trade and in some of the other industries that employ young workers.

Two other labor market measures tend to move in tandem with unemployment, discouraged workers and part time for economic reasons. Both have risen in recent months.

The number of discouraged workers is now 940,000, the highest in 2 years. The number of persons working part time for economic reasons has now reached 5.6 million. This group has increased 560,000 since June.

In summary, the job market continued to deteriorate in December. Unemployment rose another two-tenths of a point. Seventy-five thousand payroll jobs were lost, following 2 months of even larger losses. The employment weakness was broadbased, affecting most sectors of the economy.

Mr. Senator, we would be glad to try to answer any questions you have.

[The table attached to Mrs. Norwood's statement, together with the Employment Situation press release, follows:]

Unemployment rates of all civilian workers by alternative seasonal adjustment methods

Month and year	Unad-justed rate	X-11 ARIMA method					X-11 method (official method before 1980)	Range (cols. 2-8)	
		Official procedure	Concurrent (as first computed)	Concurrent (revised)	Stable	Total			Residual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1989									
December....	5.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	-
1990									
January.....	5.9	5.3	5.3	5.3	5.3	5.3	5.3	5.3	-
February....	5.8	5.3	5.3	5.3	5.3	5.3	5.2	5.3	.1
March.....	5.4	5.3	5.3	5.3	5.2	5.2	5.2	5.2	.1
April.....	5.2	5.4	5.4	5.4	5.4	5.3	5.3	5.4	.1
May.....	5.1	5.3	5.3	5.3	5.3	5.3	5.4	5.3	.1
June.....	5.3	5.3	5.3	5.3	5.2	5.3	5.2	5.2	.1
July.....	5.5	5.5	5.5	5.5	5.4	5.5	5.4	5.5	.1
August.....	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	-
September...	5.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
October.....	5.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
November....	5.8	5.9	5.9	5.9	6.0	5.9	5.9	5.9	.1
December....	5.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	-

SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
January 1991

(1) *Unadjusted rate.* Unemployment rate for all civilian workers, not seasonally adjusted.

(2) *Official procedure (X-11 ARIMA method).* The published seasonally adjusted rate for all civilian workers. Each of the 3 major civilian labor force components—agricultural employment, nonagricultural employment and unemployment—for 4 age-sex groups—males and females, ages 16-19 and 20 years and over—are seasonally adjusted independently using data from January 1974 forward. The data series for each of these 12 components are extended by a year at each end of the original series using ARIMA (Auto-Regressive, Integrated, Moving Average) models chosen specifically for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural employment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. The unemployment rate is computed by summing the 4 seasonally adjusted unemployment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adjusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors, for July-December are computed in the middle of the year after the June data become available. Each set of 6-month factors are published in advance, in the January and July issues, respectively, of *Employment and Earnings*.

(3) *Concurrent (as first computed, X-11 ARIMA method).* The official procedure for computation of the rate for all civilian workers using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-11 ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised only once each year, at the end of the year when data for the full year become available. For example, the rate for January 1984 would be based, during 1984, on the adjustment of data from the period January 1974 through January 1984.

(4) *Concurrent (revised, X-11 ARIMA method).* The procedure used is identical to (3) above, and the rate for the current month (the last month displayed) will always be the same in the two columns. However, all previous months are subject to revision each month based on the seasonal adjustment of all the components with data through the current month.

(5) *Stable (X-11 ARIMA method).* Each of the 12 civilian labor force components is extended using ARIMA models as in the official procedure and then run through the X-11 part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-year and computes final seasonal factors as unweighted averages of all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in 6-month intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.

(6) *Total (X-11 ARIMA method).* This is one alternative aggregation procedure, in which total unemployment and civilian labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the program. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(7) *Residual (X-11 ARIMA method).* This is another alternative aggregation method, in which total civilian employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived unemployment level as a percent of the labor force level. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(8) *12-month extrapolation (X-11 ARIMA method).* This approach is the same as the official procedure except that the factors are extrapolated in 12-month intervals. The factors for January-December of the current year are computed at the beginning of the year based on data through the preceding year. The values for January through June of the current year are the same as the official values since they reflect the same factors.

(9) *X-11 method (official method before 1980).* The method for computation of the official procedure is used except that the series are not extended with ARIMA

models and the factors are projected in 12-month intervals. The standard X-11 program is used to perform the seasonal adjustment.

Methods of Adjustment: The X-11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Times Series Staff under the direction of Estela Bee Dagum. The method is described in *The X-11 ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, February 1980.

The standard X-11 method is described in *X-11 Variant of the Censes Method II Seasonal Adjustment Program*, by Julius Shiskin, Allan Young and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).

The Four Most Recent Recessions

<u>First Recession</u> <u>Quarter</u>	<u>Percent Change, Annual Rate</u>	
	<u>Index of Private,</u> <u>Nonfarm Aggregate Hours</u>	<u>Real GNP</u>
1970 I	-2.10	-2.44
1974 I	-0.71	-2.21
1980 II	-8.40	-9.12
1981 IV	-3.67	-5.47
1990 IV	-4.20	-----

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THE EMPLOYMENT SITUATION: DECEMBER 1990

The nation's employment situation deteriorated further in December, as the civilian worker unemployment rate rose from 5.9 to 6.1 percent, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. Nonfarm payroll employment declined, though not as much as in the prior 2 months. Total civilian employment, which has also fallen substantially in recent months, was little changed in December.

Unemployment (Household Survey Data)

The number of unemployed persons rose by 260,000 to 7.6 million in December, and the civilian worker unemployment rate rose to 6.1 percent. Since June, the jobless count has risen by 1 million and the jobless rate has increased by eight-tenths of a percentage point, reaching its highest level since June 1987.

Jobless rates for most major worker groups continued their upward trend in December. Specifically, the rates rose to 5.6 percent for adult men, 5.3 percent for adult women, 5.3 percent for whites, and 9.3 percent for Hispanics. The rate for teenagers (16.6 percent) was little changed and that for blacks (12.2 percent) was unchanged over the month, but, as with the rates for the other groups, both have trended upward since mid-1990. (See tables A-2 and A-3.)

Persons reentering the labor force accounted for most of the increased unemployment in December. The number of unemployed who lost their last jobs was about unchanged but, at 3.8 million, was 600,000 higher than in June. The number of persons working part time for economic reasons--sometimes referred to as the partially unemployed--edged up by 150,000 to 5.6 million in December and has risen by 560,000 since June. (See tables A-8 and A-4.)

This release incorporates annual revisions in seasonally adjusted unemployment and other labor force series derived from the household survey. Information on the revisions appears on page 5.

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

Category	Quarterly averages		Monthly data			Nov.- Dec. change
	1990		1990			
	III	IV	Oct.	Nov.	Dec.	
HOUSEHOLD DATA						
Thousands of persons						
Labor force 1/.....	126,418	126,525	126,445	126,338	126,791	453
Total employment 1/..	119,441	119,165	119,303	119,001	119,191	190
Civilian labor force..	124,795	124,924	124,875	124,723	125,174	451
Civilian employment..	117,818	117,564	117,733	117,386	117,574	188
Unemployment.....	6,976	7,360	7,142	7,337	7,600	263
Not in labor force....	63,471	63,772	63,650	63,974	63,692	-282
Discouraged workers..	831	941	N.A.	N.A.	N.A.	N.A.
Percent of labor force						
Unemployment rates:						
All workers 1/.....	5.5:	5.8:	5.6:	5.8:	6.0:	0.2
All civilian workers	5.6:	5.9:	5.7:	5.9:	6.1:	.2
Adult men.....	5.0:	5.4:	5.2:	5.4:	5.6:	.2
Adult women.....	4.9:	5.1:	4.9:	5.1:	5.3:	.2
Teenagers.....	16.0:	16.4:	16.2:	16.4:	16.6:	.2
White.....	4.8:	5.1:	4.9:	5.0:	5.3:	.3
Black.....	11.6:	12.0:	11.7:	12.2:	12.2:	.0
Hispanic origin...	8.1:	8.7:	8.2:	8.6:	9.3:	.7
ESTABLISHMENT DATA						
Thousands of jobs						
Nonfarm employment....	110,655	p110,234	110,432	p110,173	p110,097	p-76
Goods-producing.....	25,016	p24,578	24,777	p24,506	p24,451	p-55
Service-producing....	85,639	p85,656	85,655	p85,667	p85,646	p-21
Hours of work						
Average weekly hours:						
Total private.....	34.6:	p34.4:	34.2:	p34.4:	p34.6:	p0.2
Manufacturing.....	41.0:	p40.7:	40.7:	p40.5:	p40.8:	p.3
Overtime.....	3.7:	p3.6:	3.6:	p3.5:	p3.7:	p.2

1/ Includes the resident Armed Forces.
 Note: Household data have been revised
 based on the experience through December 1990.

N.A.=not available.
 p=preliminary.

Civilian Employment and the Labor Force (Household Survey Data)

Following declines in October and November, total civilian employment was little changed in December at 117.6 million. Since June, the number of employed persons has fallen by nearly 700,000 (some of which stemmed from cutbacks in employment of temporary census workers). At 62.3 percent in December, the percentage of the population that is employed (the employment-population ratio) was six-tenths of a percentage point lower than in June. (See table A-2.)

The civilian labor force showed an increase of 450,000 in December, reaching 125.2 million. Over the past year, however, the labor force has risen by only 630,000. The civilian labor force participation rate edged back up to 66.3 percent in December, following steady declines during most of the second half of the year. (See table A-2.)

Discouraged Workers (Household Survey Data)

The number of discouraged workers--persons who want to work but are not looking for jobs because they believe they could not find any--increased by 110,000 in the fourth quarter of 1990 to a seasonally adjusted level of 940,000. This was the highest level since the first quarter of 1988. Women accounted for all of the increase in discouragement in the fourth quarter. (See table A-14.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment decreased by 75,000 in December to 110.1 million. While much smaller than in the prior 2 months, job losses were still widespread. The largest declines occurred in retail trade, manufacturing, and construction. (See table B-1.)

Following extremely large cutbacks in November, manufacturing employment declined by 35,000 in December. Most manufacturing industries showed only small declines, but noteworthy losses occurred in industrial machinery as well as in several construction and auto-related industries--lumber; stone, clay, and glass; fabricated metals; and rubber and plastics. Employment in motor vehicles and equipment was up by 20,000 in December, reflecting the return of some auto workers from temporary layoffs; still, auto employment was about 55,000 lower than in mid-1990.

Employment in construction (seasonally adjusted) was down by 30,000 in December, following substantially larger losses in the prior 2 months. Since May, construction declines have totaled 290,000. Mining had a small job gain in December, mostly in oil and gas extraction.

In the service-producing sector, retail trade lost 50,000 jobs in December, after seasonal adjustment, with half of the decline in general merchandise (department and variety) stores. In part because employers did not staff up as much as they usually do for the Christmas buying period, retail employment fell by 150,000 over the past 3 months. Wholesale trade had its fourth straight monthly employment decrease in December; employment in this industry is down 55,000 since June.

In the services industry, health services added 55,000 jobs in December and has increased its employment at about that pace throughout the year. In contrast, employment in business services declined for the third straight month and has lost 40,000 jobs since September.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls rose by 0.2 hour in December to 34.6 hours, seasonally adjusted, bringing the average workweek close to the September level. The manufacturing workweek increased 0.3 hour to 40.8 hours, seasonally adjusted, and factory overtime rose by 0.2 hour to 3.7 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers increased by 0.6 percent to 124.2 (1982=100) in December, seasonally adjusted. The index for manufacturing rose by 0.7 percent to 104.2, seasonally adjusted. Over the year, however, the manufacturing index was down by 3.3 percent, reflecting the declines in employment. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers rose by 0.6 percent on a seasonally adjusted basis to \$10.20 in December. Average weekly earnings rose by 1.2 percent, seasonally adjusted, to \$352.92. Prior to seasonal adjustment, average hourly earnings were up 4 cents and average weekly earnings increased by \$6.48. Over the past year, average hourly earnings increased by 3.8 percent and average weekly earnings by 4.4 percent. (See tables B-3 and B-4.)

The Employment Situation for January 1991 will be released on Friday, February 1, at 8:30 A.M. (EST). Release dates for the balance of 1991 are as follows:

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

Changes in Data Presentation

Beginning with next month's issue, this release will include new seasonally adjusted data for broad occupational groupings. These data will be incorporated into existing tables A-4 and A-6 and will replace not seasonally adjusted data in table A-11, which will be discontinued. Table A-10 (data for "black and other" workers) also will be discontinued. The unadjusted occupational data and the "black and other" data series will continue to be published in Employment and Earnings and also will be available upon request. Data for specific race and ethnic groups (black, white, and Hispanic) will continue to appear in table A-3 of this release.

Revision of Seasonally Adjusted Household Survey Data

At the end of each calendar year, BLS routinely updates the seasonal adjustment factors for labor force series derived from the Current Population Survey (household survey) to incorporate the experience of that year. As a result, seasonally adjusted data for the most recent 5 years are subject to revision. (Seasonally adjusted establishment data are revised later in the year, concurrently with the introduction of annual benchmark adjustments.)

Table B summarizes the effects of the revisions on the overall and civilian worker unemployment rates in 1990. Table C presents revised seasonally adjusted data for major civilian labor force series for December 1989 through December 1990.

The January 1991 issue of Employment and Earnings will contain the new seasonal adjustment factors that will be used to calculate the civilian labor force and other major series for January-June of 1991. The publication will also contain a description of the current seasonal adjustment methodology and revised data for the most recent 13 months or calendar quarters for all regularly published tables containing seasonally adjusted household survey data. Revised monthly data for the 1986-90 revision period for nearly 450 labor force series will be published in the February 1991 issue. Microcomputer diskettes of historical seasonally adjusted data (monthly and quarterly) may be purchased from the Bureau (contact Gloria P. Green on 202--523-1959).

Table B. Seasonally adjusted unemployment rates in 1990 and change due to revision

Month	Civilian worker rate			Overall rate		
	As first: computed	As revised	Change	As first: computed	As revised	Change
January.....	5.3	5.3	0	5.2	5.2	0
February.....	5.3	5.3	0	5.2	5.2	0
March.....	5.2	5.3	0.1	5.1	5.2	0.1
April.....	5.4	5.4	0	5.3	5.3	0
May.....	5.3	5.3	0	5.3	5.3	0
June.....	5.2	5.3	.1	5.1	5.2	.1
July.....	5.5	5.5	0	5.4	5.4	0
August.....	5.6	5.6	0	5.5	5.6	.1
September.....	5.7	5.7	0	5.6	5.6	0
October.....	5.7	5.7	0	5.6	5.6	0
November.....	5.9	5.9	0	5.8	5.8	0
December.....	*6.2	6.1	-.1	*6.1	6.0	-.1

* Not published.

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Table C. Employment status of the civilian noninstitutional population by sex and age, seasonally adjusted

(Numbers in thousands)

Employment status, sex, and age	1990												
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL													
Civilian noninstitutional population ¹	187,165	187,293	187,412	187,529	187,669	187,828	187,977	188,136	188,261	188,401	188,525	188,697	188,866
Civilian labor force	124,542	124,489	124,653	124,798	124,781	124,839	124,797	124,709	124,705	124,970	124,875	124,723	125,174
Percent of population	66.5	66.5	66.5	66.5	66.5	66.5	66.4	66.3	66.2	66.3	66.2	66.1	66.3
Employed	117,957	117,945	118,074	118,235	118,090	118,277	118,233	117,882	117,690	117,863	117,733	117,383	117,574
Employment-population ratio ²	63.0	63.0	63.0	63.0	62.9	63.0	62.9	62.7	62.5	62.6	62.4	62.2	62.3
Unemployed	6,585	6,544	6,579	6,563	6,691	6,662	6,560	6,827	7,015	7,087	7,142	7,337	7,600
Unemployment rate	5.3	5.3	5.3	5.3	5.4	5.3	5.3	5.5	5.6	5.7	5.7	5.9	6.1
Men, 20 years and over													
Civilian noninstitutional population ¹	82,055	82,168	82,248	82,378	82,487	82,581	82,676	82,790	82,862	82,940	83,013	83,092	83,208
Civilian labor force	64,053	64,031	64,111	64,154	64,188	64,313	64,342	64,331	64,419	64,572	64,594	64,682	64,803
Percent of population	78.1	77.9	77.9	77.9	77.8	77.9	77.8	77.7	77.7	77.9	77.8	77.8	77.9
Employed	61,149	61,059	61,160	61,202	61,152	61,276	61,294	61,162	61,174	61,248	61,245	61,217	61,188
Employment-population ratio ²	74.5	74.3	74.4	74.3	74.1	74.2	74.1	73.9	73.8	73.8	73.8	73.7	73.5
Agriculture	2,277	2,268	2,262	2,275	2,272	2,374	2,369	2,279	2,266	2,299	2,283	2,307	2,365
Nonagricultural industries	58,872	58,791	58,898	58,927	58,880	58,902	58,925	58,883	58,908	58,949	58,962	58,910	58,823
Unemployed	2,904	2,972	2,951	2,952	3,036	3,037	3,048	3,169	3,245	3,324	3,349	3,465	3,615
Unemployment rate	4.5	4.6	4.6	4.6	4.7	4.7	4.7	4.9	5.0	5.1	5.2	5.4	5.6
Not in labor force	18,002	18,137	18,137	18,224	18,299	18,268	18,334	18,459	18,443	18,368	18,419	18,410	18,405
Women, 20 years and over													
Civilian noninstitutional population ¹	91,042	91,091	91,157	91,237	91,330	91,414	91,495	91,581	91,688	91,785	91,857	91,963	92,042
Civilian labor force	52,629	52,703	52,822	52,837	52,943	53,075	53,107	53,155	53,255	53,129	53,047	52,896	53,182
Percent of population	57.8	57.9	57.9	57.9	58.0	58.1	58.0	58.0	58.1	57.9	57.7	57.5	57.8
Employed	50,132	50,265	50,340	50,368	50,424	50,613	50,675	50,633	50,649	50,504	50,423	50,196	50,389
Employment-population ratio ²	55.1	55.2	55.2	55.2	55.2	55.4	55.4	55.3	55.2	55.0	54.9	54.6	54.7
Agriculture	616	610	609	650	658	664	661	586	634	633	628	627	647
Nonagricultural industries	49,516	49,655	49,731	49,718	49,766	49,949	50,014	50,051	50,015	49,871	49,795	49,569	49,742
Unemployed	2,497	2,438	2,482	2,469	2,519	2,462	2,432	2,518	2,606	2,625	2,624	2,700	2,793
Unemployment rate	4.7	4.6	4.7	4.7	4.8	4.6	4.6	4.7	4.9	4.9	4.9	5.1	5.3
Not in labor force	38,413	38,388	38,335	38,400	38,387	38,339	38,388	38,426	38,433	38,636	38,610	39,067	38,860
Both sexes, 16 to 19 years													
Civilian noninstitutional population ¹	14,067	14,034	14,008	13,914	13,852	13,832	13,806	13,764	13,711	13,696	13,655	13,642	13,616
Civilian labor force	7,860	7,755	7,720	7,807	7,650	7,551	7,348	7,223	7,031	7,269	7,234	7,145	7,189
Percent of population	55.9	55.3	55.1	56.1	55.2	54.6	53.2	52.5	51.3	53.1	53.0	52.4	52.8
Employed	6,676	6,621	6,574	6,665	6,514	6,388	6,268	6,083	5,867	6,131	6,085	5,973	5,997
Employment-population ratio ²	47.5	47.2	46.9	47.9	47.0	46.2	45.4	44.2	42.8	44.8	44.4	43.8	44.0
Agriculture	290	267	248	272	210	248	249	243	252	262	264	251	241
Nonagricultural industries	6,386	6,354	6,326	6,393	6,304	6,140	6,019	5,840	5,615	5,869	5,801	5,722	5,756
Unemployed	1,184	1,134	1,146	1,142	1,136	1,163	1,080	1,140	1,164	1,138	1,169	1,172	1,192
Unemployment rate	15.1	14.6	14.8	14.6	14.8	15.4	14.7	15.8	16.6	15.7	16.2	16.4	16.6
Not in labor force	6,207	6,279	6,288	6,107	6,202	6,281	6,458	6,541	6,680	6,427	6,421	6,497	6,427

¹ The population figures are not adjusted for seasonal variation.² Civilian employment as a percent of the civilian noninstitutional population.

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

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, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 60,000 households that is conducted by the Bureau of the Census with most of the findings analyzed and published by the Bureau of Labor Statistics (BLS).

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. The sample includes over 340,000 establishments employing over 40 million people.

For both surveys, the data for a given month are actually collected for and relate to a particular week. In the household survey, unless otherwise indicated, it is the calendar week that contains the 12th day of the month, which is called the survey week. In the establishment survey, the reference week is the pay period including the 12th, which may or may not correspond directly to the calendar week.

The data in this release are affected by a number of technical factors, including definitions, survey differences, seasonal adjustments, and the inevitable variance in results between a survey of a sample and a census of the entire population. Each of these factors is explained below.

Coverage, definitions, and differences between surveys

The sample households in the household survey are selected so as to reflect the entire civilian noninstitutional population 16 years of age and older. Each person in a household is classified as employed, unemployed, or not in the labor force. Those who hold more than one job are classified according to the job at which they worked the most hours.

People are classified as *employed* if they did any work at all as paid civilians; worked in their own business or profession or on their own farm; or worked 15 hours or more in an enterprise operated by a member of their family, whether they were paid or not. People are also counted as employed if they were on unpaid leave because of illness, bad weather, disputes between labor and management, or personal reasons. Members of the Armed Forces stationed in the United States are also included in the employed total.

People are classified as *unemployed*, regardless of their eligibility for unemployment benefits or public assistance, if they meet all of the following criteria: They had no employment during the survey week; they were available for work at

that time; and they made specific efforts to find employment sometime during the prior 4 weeks. Persons laid off from their former jobs and awaiting recall and those expecting to report to a job within 30 days need not be looking for work to be counted as unemployed.

The *labor force* equals the sum of the number employed and the number unemployed. The *unemployment rate* is the percentage of unemployed people in the labor force (civilian plus the resident Armed Forces). Table A-5 presents a special grouping of seven measures of unemployment based on varying definitions of unemployment and the labor force. The definitions are provided in the table. The most restrictive definition yields U-1 and the most comprehensive yields U-7. The overall unemployment rate is U-5a, while U-5b represents the same measure with a civilian labor force base.

Unlike the household survey, the establishment survey only counts wage and salary employees whose names appear on the payroll records of nonfarm firms. As a result, there are many differences between the two surveys, among which are the following:

- The household survey, although based on a smaller sample, reflects a larger segment of the population; the establishment survey excludes agriculture, the self-employed, unpaid family workers, private household workers, and members of the resident Armed Forces;
- The household survey includes people on unpaid leave among the employed; the establishment survey does not;
- The household survey is limited to those 16 years of age and older; the establishment survey is not limited by age;
- The household survey has no duplication of individuals, because each individual is counted only once; in the establishment survey, employees working at more than one job or otherwise 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 the 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. For example, the labor force increases by a large number each June, when schools close and many young people enter the job market. The effect of such seasonal variation can be very large; over the course of a year, for example, seasonality 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. To return to the school's-out example, the large number of people entering the labor force each June is likely to obscure any other changes that have taken place since 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.

Measures of labor force, employment, and unemployment contain components such as age and sex. Statistics for all employees, production workers, average weekly hours, and average hourly earnings include components based on the employer's industry. All these statistics can be seasonally adjusted either by adjusting the total or by adjusting each of the components and combining them. The second procedure usually yields more accurate information and is therefore followed by BLS. For example, the seasonally adjusted figure for the labor force is the sum of eight seasonally adjusted civilian employment components, plus the resident Armed Forces total (not adjusted for seasonality), and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the overall unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the labor force.

The numerical factors used to make the seasonal adjustments are recalculated regularly. 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 also calculated twice a year. In both surveys, revisions to historical data are made once a year.

Sampling variability

Statistics based on the household and establishment surveys are subject to sampling error, that is, the estimate of the number of people employed and the other estimates drawn from these surveys probably differ from the figures that would be obtained from a complete census, even if the same questionnaires and procedures were used. In the household survey, the amount of the differences can be expressed in terms of standard errors. The numerical value of a standard error depends upon the size of the sample, the results of the survey, and other factors. However, the numerical value is always such that the chances are approximately 68 out of 100 that an estimate based on the sample will differ by no more than the standard error

from the results of a complete census. The chances are approximately 90 out of 100 that an estimate based on the sample will differ by no more than 1.6 times the standard error from the results of a complete census. At approximately the 90-percent level of confidence—the confidence limits used by BLS in its analyses—the error for the monthly change in total employment is on the order of plus or minus 358,000; for total unemployment it is 224,000; and, for the overall unemployment rate, it is 0.19 percentage point. These figures do not mean that the sample results are off by these magnitudes but, rather, that the chances are approximately 90 out of 100 that the "true" level or rate would not be expected to differ from the estimates by more than these amounts.

Sampling errors for monthly surveys are reduced when the data are cumulated for several months, such as quarterly or annually. Also, as a general rule, the smaller the estimate, the larger the sampling error. Therefore, relatively speaking, the estimate of the size of the labor force is subject to less error than is the estimate of the number unemployed. And, among the unemployed, the sampling error for the jobless rate of adult men, for example, is much smaller than is the error for the jobless rate of teenagers. Specifically, the error on monthly change in the jobless rate for men is .25 percentage point; for teenagers, it is 1.29 percentage points.

In the establishment survey, estimates for the 2 most current months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. When all the returns in the sample have been received, the estimates are revised. In other words, data for the month of September are published in preliminary form in October and November and in final form in December. To remove errors that build up over time, a comprehensive count of the employed is conducted each year. The results of this survey are used to establish new benchmarks—comprehensive counts of employment—against which month-to-month changes can be measured. The new benchmarks also incorporate changes in the classification of industries and allow for the formation of new establishments.

Additional statistics and other information

In order to provide a broad view of the Nation's employment situation, BLS regularly publishes a wide variety of data in this news release. More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$8.50 per issue or \$25.00 per year from the U.S. Government Printing Office, Washington, D.C., 20204. A check or money order made out to the Superintendent of Documents must accompany all orders.

Employment and Earnings also provides approximations of the standard errors for the household survey data published in this release. For unemployment and other labor force categories, the standard errors appear in tables B through J 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 M, O, P, and Q of that publication.

HOUSEHOLD DATA

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Table A-1. Employment status of the population, including Armed Forces in the United States, by sex

(Numbers in thousands)

Employment status and sex	Not seasonally adjusted			Seasonally adjusted ¹					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
TOTAL									
Noninstitutional population ²	188,865	190,312	190,483	188,865	189,901	190,002	190,095	190,312	190,483
Labor force ³	125,698	126,436	126,247	126,242	126,345	126,571	126,445	126,338	126,791
Participation rate ³	66.6	66.4	66.3	66.8	66.5	66.6	66.5	66.4	66.6
Total employed ⁴	119,398	119,226	118,904	119,657	119,330	119,484	119,303	119,001	119,191
Employment-population ratio ⁴	63.2	62.6	62.4	63.4	62.8	62.9	62.8	62.5	62.6
Resident Armed Forces	1,700	1,615	1,617	1,700	1,640	1,601	1,570	1,615	1,617
Civilian employed	117,698	117,611	117,287	117,957	117,690	117,883	117,733	117,386	117,574
Agriculture	2,862	3,056	2,943	3,183	3,152	3,194	3,175	3,185	3,253
Nonagricultural industries	114,836	114,555	114,344	114,774	114,538	114,689	114,558	114,201	114,321
Unemployed	6,300	7,211	7,343	6,585	7,015	7,087	7,142	7,337	7,600
Unemployment rate ⁵	5.0	5.7	5.8	5.2	5.6	5.6	5.6	5.8	6.0
Not in labor force	63,167	63,875	64,236	62,623	63,556	63,431	63,650	63,974	63,692
Men, 16 years and over									
Noninstitutional population ²	90,678	91,440	91,537	90,678	91,240	91,271	91,299	91,440	91,537
Labor force ³	69,164	69,656	69,566	69,685	69,552	69,814	69,804	69,899	70,058
Participation rate ³	76.3	76.2	76.0	76.8	76.2	76.5	76.5	76.4	76.5
Total employed ⁴	65,600	65,590	65,242	66,130	65,663	65,853	65,822	65,790	65,781
Employment-population ratio ⁴	72.3	71.7	71.3	72.9	72.0	72.2	72.1	71.9	71.9
Resident Armed Forces	1,525	1,453	1,454	1,525	1,475	1,441	1,414	1,453	1,454
Civilian employed	64,075	64,137	63,788	64,605	64,188	64,412	64,408	64,337	64,327
Unemployed	3,565	4,067	4,324	3,555	3,889	3,961	3,982	4,109	4,277
Unemployment rate ⁵	5.2	5.8	6.2	5.1	5.6	5.7	5.7	5.9	6.1
Women, 16 years and over									
Noninstitutional population ²	98,187	98,872	98,946	98,187	98,661	98,731	98,796	98,872	98,946
Labor force ³	56,534	56,780	56,681	56,557	56,793	56,757	56,641	56,439	56,733
Participation rate ³	57.6	57.4	57.3	57.6	57.6	57.5	57.3	57.1	57.3
Total employed ⁴	53,798	53,636	53,662	53,527	53,667	53,631	53,481	53,211	53,410
Employment-population ratio ⁴	54.8	54.2	54.2	54.5	54.4	54.3	54.1	53.8	54.0
Resident Armed Forces	175	162	163	175	165	160	156	162	163
Civilian employed	53,623	53,474	53,499	53,352	53,502	53,471	53,325	53,049	53,247
Unemployed	2,735	3,144	3,020	3,030	3,126	3,126	3,160	3,228	3,323
Unemployment rate ⁵	4.8	5.5	5.3	5.4	5.5	5.5	5.6	5.7	5.9

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

² Includes members of the Armed Forces stationed in the United States.

³ Labor force as a percent of the noninstitutional population.

⁴ Total employment as a percent of the noninstitutional population.

⁵ Unemployment as a percent of the labor force (including the resident Armed Forces).

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

HOUSEHOLD DATA

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Table A-2. Employment status of the civilian population by sex and age

(Numbers in thousands)

Employment status, sex, and age	Not seasonally adjusted			Seasonally adjusted ¹					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
TOTAL									
Civilian noninstitutional population	187,165	188,697	188,866	187,165	188,261	188,401	188,525	188,657	188,866
Civilian labor force	123,998	124,821	124,630	124,542	124,705	124,970	124,875	124,723	125,174
Participation rate	66.3	66.1	66.0	66.5	66.2	66.3	66.2	66.1	66.3
Employed	117,698	117,611	117,287	117,957	117,690	117,883	117,733	117,386	117,574
Employment-population ratio ²	62.9	62.3	62.1	63.0	62.5	62.6	62.4	62.2	62.3
Unemployed	6,300	7,211	7,343	6,585	7,015	7,087	7,142	7,337	7,600
Unemployment rate	5.1	5.8	5.9	5.3	5.6	5.7	5.7	5.7	6.1
Men, 20 years and over									
Civilian noninstitutional population	82,055	83,092	83,208	82,055	82,862	82,940	83,013	83,092	83,208
Civilian labor force	63,814	64,622	64,575	64,053	64,419	64,572	64,594	64,682	64,803
Participation rate	77.8	77.8	77.5	78.1	77.7	77.9	77.8	77.8	77.9
Employed	60,862	61,200	60,881	61,149	61,174	61,248	61,245	61,217	61,188
Employment-population ratio ²	74.2	73.7	73.2	74.5	73.8	73.8	73.8	73.7	73.5
Agriculture	2,119	2,261	2,205	2,277	2,266	2,299	2,283	2,307	2,365
Nonagricultural industries	58,743	58,939	58,676	58,872	58,908	58,949	58,962	58,910	58,823
Unemployed	2,952	3,422	3,695	2,904	3,245	3,324	3,349	3,465	3,615
Unemployment rate	4.6	5.3	5.7	4.5	5.0	5.1	5.2	5.4	5.6
Women, 20 years and over									
Civilian noninstitutional population	91,042	91,963	92,042	91,042	91,688	91,785	91,857	91,963	92,042
Civilian labor force	52,761	53,394	53,284	52,629	53,255	53,129	53,047	52,896	53,182
Participation rate	58.0	58.1	57.9	57.8	58.1	57.9	57.7	57.5	57.8
Employed	50,459	50,751	50,697	50,132	50,649	50,504	50,423	50,196	50,389
Employment-population ratio ²	55.4	55.2	55.1	55.1	55.2	55.0	54.9	54.6	54.7
Agriculture	551	809	578	616	634	633	628	627	647
Nonagricultural industries	49,908	50,142	50,119	49,516	50,015	49,871	49,795	49,569	49,742
Unemployed	2,302	2,643	2,586	2,497	2,606	2,625	2,624	2,700	2,793
Unemployment rate	4.4	5.0	4.9	4.7	4.9	4.9	4.9	5.1	5.3
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,067	13,642	13,616	14,067	13,711	13,698	13,655	13,642	13,616
Civilian labor force	7,424	6,805	6,772	7,860	7,001	7,269	7,234	7,145	7,189
Participation rate	52.8	49.9	49.7	55.9	51.3	53.1	53.0	52.4	52.8
Employed	6,377	5,860	5,709	6,676	5,867	6,131	6,065	5,973	5,997
Employment-population ratio ²	45.3	41.5	41.9	47.5	42.8	44.8	44.4	43.8	44.0
Agriculture	192	186	160	290	252	262	264	251	241
Nonagricultural industries	6,185	5,474	5,549	6,386	5,615	5,869	5,801	5,722	5,756
Unemployed	1,047	1,145	1,063	1,184	1,164	1,138	1,169	1,172	1,192
Unemployment rate	14.1	16.8	15.7	15.1	16.6	15.7	16.2	16.4	16.6

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

² Civilian employment as a percent of the civilian noninstitutional

population.

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

HOUSEHOLD DATA

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Table A-3. 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					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
	WHITE								
Civilian noninstitutional population	159,832	160,831	160,942	159,832	160,550	160,640	160,717	160,831	160,942
Civilian labor force	106,406	107,013	106,948	106,965	107,166	107,391	107,277	107,048	107,517
Participation rate	66.6	66.5	66.5	66.9	66.7	66.9	66.7	66.6	66.8
Employed	101,793	101,739	101,505	102,108	101,996	102,192	102,017	101,648	101,843
Employment-population ratio ²	63.7	63.3	63.1	63.9	63.5	63.6	63.5	63.2	63.3
Unemployed	4,613	5,274	5,443	4,857	5,170	5,199	5,260	5,400	5,674
Unemployment rate	4.3	4.9	5.1	4.5	4.8	4.8	4.9	5.0	5.3
Men, 20 years and over									
Civilian labor force	55,556	56,101	56,071	55,798	56,040	56,119	56,123	56,174	56,307
Participation rate	78.2	78.2	78.0	78.6	78.3	78.3	78.3	78.3	78.3
Employed	53,338	53,536	53,213	53,611	53,601	53,675	53,615	53,564	53,497
Employment-population ratio ²	75.1	74.6	74.0	75.5	74.9	74.9	74.8	74.6	74.4
Unemployed	2,218	2,565	2,858	2,187	2,439	2,444	2,508	2,610	2,810
Unemployment rate	4.0	4.6	5.1	3.9	4.4	4.4	4.5	4.6	5.0
Women, 20 years and over									
Civilian labor force	44,574	45,098	45,050	44,504	45,060	44,984	44,918	44,711	44,995
Participation rate	57.5	57.7	57.6	57.4	57.8	57.7	57.6	57.2	57.6
Employed	42,937	43,210	43,229	42,702	43,194	43,101	43,032	42,768	43,001
Employment-population ratio ²	55.4	55.3	55.3	55.1	55.4	55.3	55.1	54.8	55.0
Unemployed	1,637	1,888	1,821	1,802	1,866	1,883	1,886	1,943	1,994
Unemployment rate	3.7	4.2	4.0	4.0	4.1	4.2	4.2	4.3	4.4
Both sexes, 16 to 19 years									
Civilian labor force	6,277	5,813	5,827	6,663	6,066	6,288	6,236	6,163	6,215
Participation rate	55.3	53.1	53.4	58.7	54.9	57.1	56.9	56.3	57.0
Employed	5,518	4,992	5,063	5,795	5,201	5,416	5,370	5,316	5,345
Employment-population ratio ²	48.6	45.6	46.4	51.1	47.1	49.2	49.0	48.6	49.0
Unemployed	759	821	764	868	865	872	866	847	870
Unemployment rate	12.1	14.1	13.1	13.0	14.3	13.9	13.9	13.7	14.0
Men	14.0	15.8	15.3	13.9	15.4	15.0	14.7	14.9	14.9
Women	10.1	12.3	10.8	12.1	13.1	12.8	13.0	12.5	13.0
BLACK									
Civilian noninstitutional population	21,164	21,417	21,448	21,164	21,337	21,381	21,383	21,417	21,448
Civilian labor force	13,487	13,608	13,478	13,500	13,401	13,476	13,493	13,550	13,486
Participation rate	63.7	63.5	62.8	63.8	62.8	63.1	63.1	63.3	62.9
Employed	11,889	11,969	11,859	11,958	11,838	11,869	11,913	11,897	11,836
Employment-population ratio ²	56.2	55.9	55.3	56.5	55.5	55.6	55.7	55.5	55.2
Unemployed	1,498	1,639	1,619	1,544	1,563	1,607	1,580	1,653	1,650
Unemployment rate	11.1	12.0	12.0	11.4	11.7	11.9	11.7	12.2	12.2
Men, 20 years and over									
Civilian labor force	6,206	6,348	6,340	6,228	6,260	6,324	6,339	6,348	6,359
Participation rate	73.6	74.3	73.9	73.8	73.4	74.1	74.1	74.3	74.1
Employed	5,554	5,637	5,641	5,573	5,594	5,597	5,635	5,638	5,664
Employment-population ratio ²	65.9	66.0	65.8	66.1	65.6	65.5	65.9	66.0	66.0
Unemployed	652	711	699	655	666	727	704	710	695
Unemployment rate	10.5	11.2	11.0	10.5	10.6	11.5	11.1	11.2	10.9
Women, 20 years and over									
Civilian labor force	6,389	6,452	6,386	6,317	6,358	6,362	6,345	6,265	6,339
Participation rate	60.3	60.2	59.5	59.8	59.6	59.5	59.3	59.4	59.0
Employed	5,779	5,808	5,729	5,708	5,733	5,716	5,728	5,717	5,668
Employment-population ratio ²	54.7	54.2	53.4	54.0	53.7	53.5	53.5	53.3	52.8
Unemployed	590	644	657	609	625	646	617	648	671
Unemployment rate	9.3	10.0	10.3	9.6	9.8	10.2	9.7	10.2	10.6
Both sexes, 16 to 19 years									
Civilian labor force	912	809	751	955	783	790	809	837	788
Participation rate	42.1	37.5	35.2	44.1	36.6	37.0	38.0	38.9	36.9
Employed	655	524	488	675	511	556	550	542	504
Employment-population ratio ²	30.3	24.3	22.9	31.2	23.9	26.0	25.8	25.2	23.6
Unemployed	257	285	263	280	272	234	259	295	284
Unemployment rate	28.1	35.2	35.0	29.3	34.7	29.6	32.0	35.2	36.0
Men	29.0	33.1	36.6	29.2	36.7	31.4	31.3	33.2	36.4
Women	27.2	37.7	33.3	29.5	32.7	27.6	32.7	37.5	35.6

See footnotes at end of table.

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Table A-3. 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					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
HISPANIC ORIGIN									
Civilian noninstitutional population	14,019	14,474	14,514	14,019	14,358	14,396	14,435	14,474	14,514
Civilian labor force	9,410	9,508	9,472	9,506	9,565	9,632	9,580	9,500	9,569
Participation rate	67.1	65.7	65.3	67.8	67.3	66.9	66.4	65.6	65.9
Employed	8,651	8,682	8,586	8,734	8,904	8,809	8,793	8,683	8,676
Employment-population ratio ²	61.7	60.0	59.2	62.3	62.0	61.2	60.9	60.0	59.8
Unemployed	759	826	887	772	761	823	787	817	893
Unemployment rate	8.1	8.7	9.4	8.1	7.9	8.5	8.2	8.6	9.3

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

² Civilian employment as a percent of the civilian noninstitutional population.

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. Seasonally adjusted data have been revised based on the experience through December 1990.

Table A-4. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
CHARACTERISTIC									
Civilian employed, 16 years and over	117,698	117,611	117,287	117,957	117,690	117,883	117,733	117,386	117,574
Married men, spouse present	41,075	40,957	40,795	41,006	40,661	40,833	40,833	40,844	40,728
Married women, spouse present	29,897	30,036	29,951	29,708	29,869	29,797	29,789	29,713	29,776
Women who maintain families	6,442	6,401	6,464	6,349	6,372	6,376	6,354	6,341	6,367
MAJOR INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,505	1,595	1,507	1,671	1,705	1,752	1,714	1,681	1,671
Self-employed workers	1,257	1,352	1,354	1,366	1,364	1,293	1,350	1,388	1,473
Unpaid family workers	99	109	82	123	97	108	99	116	102
Nonagricultural industries:									
Wage and salary workers	105,919	105,451	105,195	105,782	105,627	105,686	105,384	105,267	105,095
Government	18,035	17,981	17,939	17,747	17,798	17,597	17,694	17,633	17,640
Private industries	87,884	87,469	87,256	88,035	87,829	88,089	87,690	87,634	87,455
Private households	1,051	982	1,012	1,058	1,021	1,067	1,017	992	1,013
Other industries	86,833	86,487	86,244	86,977	86,806	87,022	86,673	86,642	86,442
Self-employed workers	8,679	8,863	8,927	8,655	8,648	8,809	8,859	8,800	8,896
Unpaid family workers	237	241	222	254	238	238	250	255	238
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	4,709	5,357	5,497	4,790	5,092	5,301	5,409	5,438	5,581
Slack work	2,333	2,661	3,074	2,235	2,491	2,658	2,663	2,786	2,928
Could only find part-time work	2,026	2,239	2,169	2,115	2,153	2,408	2,344	2,340	2,302
Voluntary part time	18,465	16,149	16,119	15,399	15,317	15,250	15,129	15,048	15,081
Nonagricultural industries:									
Part time for economic reasons	4,485	5,092	5,211	4,543	4,830	5,051	5,135	5,163	5,262
Slack work	2,151	2,666	2,850	2,079	2,290	2,482	2,467	2,625	2,742
Could only find part-time work	1,998	2,181	2,140	2,063	2,084	2,333	2,281	2,262	2,218
Voluntary part time	16,106	15,782	15,740	14,988	14,861	14,823	14,715	14,658	14,650

¹ Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial dispute

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

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Table A-5. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measure	Quarterly averages					Monthly data		
	1989	1990				1990		
	IV	I	II	III	IV	Oct.	Nov.	Dec.
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.1	1.1	1.1	1.3	1.3	1.3	1.4	1.4
U-2 Job losers as a percent of the civilian labor force	2.4	2.5	2.5	2.7	3.0	2.9	3.0	3.0
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force for persons 25 years and over	4.1	4.1	4.2	4.4	4.7	4.5	4.7	5.0
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	4.9	5.0	5.0	5.2	5.7	5.5	5.7	5.8
U-5a Total unemployed as a percent of the labor force, including the resident Armed Forces	5.2	5.2	5.2	5.5	5.8	5.6	5.8	6.0
U-5b Total unemployed as a percent of the civilian labor force	5.3	5.3	5.3	5.6	5.9	5.7	5.9	6.1
U-6 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons as a percent of the civilian labor force less 1/2 of the part-time labor force	7.2	7.3	7.3	7.6	8.1	7.9	8.1	8.4
U-7 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less 1/2 of the part-time labor force	7.8	7.9	8.0	8.3	8.9	N.A.	N.A.	N.A.

N.A. = not available.

December 1990.

NOTE: Data have been revised based on the experience through

Table A-6. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
CHARACTERISTIC									
Total, 16 years and over	6,585	7,337	7,600	5.3	5.6	5.7	5.7	5.9	6.1
Men, 16 years and over	3,555	4,109	4,277	5.2	5.7	5.8	5.8	6.0	6.2
Men, 20 years and over	2,904	3,485	3,615	4.5	5.0	5.1	5.2	5.4	5.6
Women, 16 years and over	3,030	3,228	3,323	5.4	5.5	5.5	5.6	5.7	5.9
Women, 20 years and over	2,497	2,700	2,793	4.7	4.9	4.9	4.9	5.1	5.3
Both sexes, 16 to 19 years	1,184	1,172	1,192	15.1	16.6	15.7	16.2	16.4	16.6
Married men, spouse present	1,301	1,582	1,616	3.1	3.5	3.5	3.5	3.7	3.8
Married women, spouse present	1,176	1,281	1,279	3.8	3.9	3.9	3.9	4.1	4.1
Women who maintain families	546	605	603	7.9	8.4	8.7	8.5	8.7	8.7
Full-time workers	5,243	6,057	6,250	4.9	5.3	5.4	5.5	5.7	5.8
Part-time workers	1,381	1,302	1,364	7.5	7.7	7.2	7.1	7.3	7.6
Labor force time lost ²	—	—	—	5.9	6.3	6.4	6.6	6.7	6.9
INDUSTRY									
Nonagricultural private wage and salary workers	4,966	5,748	5,838	5.3	5.7	5.8	5.9	6.2	6.3
Goods-producing industries	1,680	2,289	2,336	6.3	6.9	7.1	7.3	7.9	8.1
Mining	30	35	42	4.1	4.7	3.8	4.1	4.7	5.8
Construction	621	840	870	9.6	11.2	12.0	13.0	13.3	14.0
Manufacturing	1,229	1,414	1,424	5.5	5.8	5.8	5.8	6.5	6.5
Durable goods	704	887	853	5.3	5.9	6.0	5.9	6.9	6.6
Nondurable goods	525	527	571	5.8	5.8	5.4	5.7	5.9	6.4
Service-producing industries	3,086	3,457	3,502	4.9	5.2	5.3	5.3	5.4	5.4
Transportation and public utilities	213	273	273	3.3	4.0	3.9	4.1	4.1	4.2
Wholesale and retail trade	1,464	1,594	1,571	6.3	6.3	6.6	6.7	6.7	6.8
Finance and service industries	1,389	1,590	1,658	4.2	4.7	4.7	4.5	4.7	4.8
Government workers	472	505	495	2.6	2.8	2.8	2.8	2.8	2.7
Agricultural wage and salary workers	178	182	235	9.6	9.5	9.3	8.5	9.8	12.3

¹ Unemployment as a percent of the civilian labor force.

NOTE: Data have been revised based on the experience through

² Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

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Table A-7. Duration of unemployment

(Numbers in thousands)

Weeks of unemployment	Not seasonally adjusted			Seasonally adjusted					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
DURATION									
Less than 5 weeks	2,982	3,326	3,057	3,219	3,275	3,087	3,139	3,277	3,280
5 to 14 weeks	2,026	2,255	2,614	1,961	2,077	2,452	2,391	2,394	2,518
15 weeks and over	1,293	1,630	1,673	1,348	1,568	1,605	1,591	1,727	1,739
15 to 26 weeks	695	866	906	721	822	861	853	938	940
27 weeks and over	598	764	765	627	746	744	698	789	799
Average (mean) duration, in weeks	11.8	12.4	12.7	11.5	12.3	12.4	12.0	12.4	12.4
Median duration, in weeks	5.1	5.4	6.1	4.9	5.3	6.1	5.9	5.9	5.9
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	47.9	46.1	41.6	49.3	47.3	43.2	44.1	44.7	43.5
5 to 14 weeks	32.2	31.3	35.6	30.0	30.0	34.3	33.6	31.8	33.4
15 weeks and over	20.5	22.6	22.8	20.6	22.7	22.5	22.3	23.5	23.1
15 to 26 weeks	11.0	12.0	12.4	11.0	11.9	12.1	12.5	12.8	12.5
27 weeks and over	9.5	10.6	10.4	9.6	10.8	10.4	9.8	10.8	10.6

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

Table A-8. Reason for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted			Seasonally adjusted					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
NUMBER OF UNEMPLOYED									
Job losers	3,172	3,743	3,956	3,063	3,388	3,519	3,583	3,756	3,787
On layoff	1,033	1,104	1,264	946	993	1,111	1,056	1,136	1,150
Other job losers	2,139	2,639	2,692	2,117	2,395	2,408	2,507	2,620	2,647
Job leavers	962	1,002	957	1,036	999	954	981	996	1,024
Reentrants	1,615	1,678	1,888	1,824	1,872	1,952	1,911	1,926	2,128
New entrants	551	587	542	660	669	663	684	655	662
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	50.3	51.9	53.9	48.4	49.0	49.8	49.9	51.2	49.9
On layoff	16.4	15.3	17.2	14.3	14.4	15.7	14.8	15.5	15.1
Other job losers	34.0	36.6	36.7	32.1	34.6	34.0	35.1	35.7	34.8
Job leavers	15.3	13.9	13.0	15.7	14.3	13.5	13.7	13.6	13.5
Reentrants	25.8	28.0	25.7	27.6	27.1	27.5	26.9	26.3	28.0
New entrants	8.7	8.1	7.4	10.3	9.7	9.4	9.6	8.9	8.7
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers	2.6	3.0	3.2	2.5	2.7	2.8	2.9	3.0	3.0
Job leavers .....	.8	.8	.8	.8	.8	.8	.8	.8	.8
Reentrants	1.3	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.7
New entrants .....	.4	.5	.4	.5	.5	.5	.5	.5	.5

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

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

Sex and age	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
Total, 16 years and over	6,585	7,337	7,600	5.3	5.6	5.7	5.7	5.9	6.1
16 to 24 years	2,389	2,428	2,483	11.0	11.4	11.5	11.7	11.8	11.7
16 to 19 years	1,184	1,172	1,192	15.1	16.6	15.7	16.2	16.4	16.6
16 to 17 years	544	507	524	17.8	18.8	18.4	18.7	18.6	19.1
18 to 19 years	636	662	665	13.3	14.9	14.5	14.6	15.0	15.0
20 to 24 years	1,205	1,256	1,271	8.7	8.8	9.3	9.4	9.1	9.2
25 years and over	4,214	4,910	5,160	4.1	4.4	4.5	4.5	4.7	5.0
25 to 54 years	3,719	4,403	4,664	4.3	4.6	4.7	4.7	5.0	5.3
55 years and over	502	513	501	3.3	3.4	3.3	3.5	3.3	3.3
Men, 16 years and over	3,555	4,109	4,277	5.2	5.7	5.8	5.8	6.0	6.2
16 to 24 years	1,327	1,325	1,363	11.6	11.7	11.9	12.0	12.1	12.3
16 to 19 years	651	644	662	15.9	17.6	16.8	18.7	17.1	17.4
16 to 17 years	303	280	295	18.9	20.7	18.9	18.4	19.2	20.1
18 to 19 years	345	367	368	13.8	15.7	16.0	15.6	15.8	15.7
20 to 24 years	676	691	701	9.2	8.6	9.4	9.6	9.5	9.6
25 years and over	2,244	2,784	2,937	4.0	4.5	4.6	4.6	4.8	5.1
25 to 54 years	1,924	2,448	2,625	4.0	4.6	4.7	4.7	5.0	5.4
55 years and over	319	335	316	3.6	3.8	3.8	3.9	3.8	3.8
Women, 16 years and over	3,030	3,228	3,323	5.4	5.5	5.5	5.6	5.7	5.9
16 to 24 years	1,062	1,093	1,100	10.4	11.2	11.0	11.4	11.0	11.1
16 to 19 years	533	528	530	14.2	15.4	14.4	15.6	15.6	15.8
16 to 17 years	241	227	229	16.6	16.9	17.8	18.9	17.8	17.9
18 to 19 years	291	295	299	12.8	14.0	12.9	13.4	14.2	14.2
20 to 24 years	529	565	570	8.2	9.0	9.2	9.2	8.6	8.7
25 years and over	1,870	2,146	2,223	4.3	4.3	4.4	4.3	4.6	4.8
25 to 54 years	1,795	1,955	2,039	4.5	4.5	4.6	4.5	4.9	5.1
55 years and over	183	178	185	2.8	2.9	2.7	2.9	2.7	2.8

¹ Unemployment as a percent of the civilian labor force.

December 1990.

NOTE: Data have been revised based on the experience through

Table A-10. Employment status of black and other workers

(Numbers in thousands)

Employment status	Not seasonally adjusted			Seasonally adjusted ¹					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
Civilian noninstitutional population	27,332	27,866	27,924	27,332	27,711	27,761	27,808	27,866	27,924
Civilian labor force	17,592	17,809	17,682	17,649	17,527	17,568	17,621	17,718	17,738
Participation rate	64.4	63.9	63.3	64.6	63.2	63.3	63.4	63.6	63.5
Employed	15,905	15,872	15,782	15,889	15,702	15,674	15,755	15,771	15,774
Employment-population ratio ²	58.2	57.0	56.5	58.1	56.7	56.5	56.7	56.8	56.5
Unemployed	1,687	1,936	1,900	1,760	1,825	1,894	1,866	1,947	1,964
Unemployment rate	9.6	10.9	10.7	10.0	10.4	10.8	10.6	11.0	11.1
Not in labor force	9,741	10,057	10,242	9,683	10,184	10,193	10,187	10,148	10,186

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

population.

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990.

² Civilian employment as a percent of the civilian noninstitutional

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Table A-11. Occupational status of the employed and unemployed, not seasonally adjusted
(Numbers in thousands)

Occupation	Civilian employed		Unemployed		Unemployment rate	
	Dec. 1989	Dec. 1990	Dec. 1989	Dec. 1990	Dec. 1989	Dec. 1990
	Total, 16 years and over ¹	117,698	117,287	6,300	7,343	5.1	5.9
Managerial and professional specialty	30,594	30,823	581	646	1.9	2.1
Executive, administrative, and managerial	14,648	14,703	345	351	2.3	2.3
Professional specialty	15,946	16,119	236	295	1.5	1.8
Technical, sales, and administrative support	36,997	36,513	1,361	1,679	3.5	4.4
Technicians and related support	3,735	3,784	96	113	2.5	2.9
Sales occupations	14,676	14,391	605	752	4.0	5.0
Administrative support, including clerical	18,586	18,337	660	814	3.4	4.3
Service occupations	15,364	15,860	1,055	1,123	6.4	6.6
Private household	871	800	63	40	6.7	4.7
Protective services	1,808	1,951	57	84	2.9	3.2
Service, except private household and protective	12,584	13,109	935	1,020	6.9	7.2
Precision production, craft, and repair	13,737	13,435	796	1,028	5.5	7.1
Mechanics and repairers	4,478	4,499	160	204	3.4	4.3
Construction trades	5,134	5,011	471	604	8.4	10.8
Other precision production, craft, and repair	4,124	3,925	165	220	3.9	5.3
Operators, fabricators, and laborers	18,063	17,656	1,617	1,949	8.2	9.9
Machine operators, assemblers, and inspectors	8,214	7,968	748	816	6.3	9.3
Transportation and material moving occupations	4,857	4,958	315	412	6.1	7.7
Handlers, equipment cleaners, helpers, and laborers	4,992	4,730	555	722	10.0	13.2
Construction laborers	738	628	138	220	15.8	26.0
Other handlers, equipment cleaners, helpers, and laborers	4,254	4,102	417	501	8.9	10.9
Farming, forestry, and fishing	2,944	3,001	233	268	7.3	8.2

¹ Persons with no previous work experience and those whose last job was in the Armed Forces are included in the unemployed total.

Table A-12. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted
(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
	Dec. 1989	Dec. 1990	Dec. 1989	Dec. 1990	Dec. 1989	Dec. 1990	Number		Percent of labor force ¹	
							Dec. 1989	Dec. 1990	Dec. 1989	Dec. 1990
VIETNAM-ERA VETERANS										
Total, 35 years and over	7,539	7,709	6,899	6,984	6,604	6,588	294	396	4.3	5.7
35 to 39 years	6,503	6,501	6,185	6,107	5,937	5,746	249	361	4.0	5.9
40 to 44 years	1,588	1,295	1,505	1,205	1,447	1,106	57	99	3.8	8.2
45 to 49 years	3,313	3,229	3,177	3,054	3,038	2,893	139	160	4.4	5.3
50 years and over	1,604	1,977	1,503	1,848	1,451	1,747	52	101	3.5	5.5
	1,036	1,208	713	877	668	842	46	35	6.4	4.0
NONVETERANS										
Total, 35 to 49 years	16,770	17,765	15,711	16,878	15,145	15,907	566	771	3.6	4.6
35 to 39 years	7,650	8,149	7,237	7,755	6,953	7,389	284	366	3.9	4.7
40 to 44 years	4,968	5,400	4,951	5,031	4,520	4,839	130	192	2.8	3.6
45 to 49 years	4,152	4,217	3,824	3,892	3,672	3,679	152	213	4.0	5.8

NOTE: Male Vietnam-era veterans are men who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are men who have never served in the Armed Forces; published data are limited to

those 35 to 49 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

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Table A-13. Employment status of the civilian population for eleven large States

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ²					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
California									
Civilian noninstitutional population	21,680	22,122	22,166	21,680	21,999	22,039	22,078	22,122	22,166
Civilian labor force	14,524	14,863	14,580	14,627	14,816	14,616	14,613	14,596	14,655
Employed	13,829	13,711	13,622	13,854	14,010	13,747	13,729	13,622	13,617
Unemployed	695	952	958	773	806	869	884	974	1,038
Unemployment rate	4.8	6.5	6.6	5.3	5.4	5.9	6.0	6.7	7.1
Florida									
Civilian noninstitutional population	9,997	10,209	10,230	9,997	10,150	10,169	10,188	10,209	10,230
Civilian labor force	6,213	6,460	6,389	6,245	6,365	6,450	6,454	6,437	6,435
Employed	5,855	6,052	6,037	5,883	5,939	6,061	6,054	6,076	6,081
Unemployed	358	408	352	362	426	389	400	411	354
Unemployment rate	5.8	6.3	5.5	5.8	6.7	6.0	6.2	6.3	5.5
Illinois									
Civilian noninstitutional population	8,851	8,890	8,894	8,851	8,878	8,882	8,885	8,890	8,894
Civilian labor force	5,896	6,056	6,028	6,009	5,954	6,008	6,034	6,044	6,068
Employed	5,829	5,887	5,872	5,881	5,568	5,573	5,678	5,682	5,708
Unemployed	368	359	356	378	386	435	356	362	360
Unemployment rate	6.1	5.9	5.9	6.3	6.5	7.2	5.9	6.0	5.9
Massachusetts									
Civilian noninstitutional population	4,619	4,621	4,622	4,619	4,620	4,621	4,620	4,621	4,622
Civilian labor force	3,139	3,106	3,115	3,172	3,171	3,187	3,138	3,134	3,147
Employed	3,008	2,903	2,897	3,027	2,960	2,988	2,937	2,915	2,914
Unemployed	131	205	218	145	211	199	199	219	233
Unemployment rate	4.2	6.6	7.0	4.6	6.7	6.2	6.3	7.0	7.4
Michigan									
Civilian noninstitutional population	6,892	7,006	7,009	6,892	7,002	7,003	7,004	7,006	7,009
Civilian labor force	4,847	4,545	4,565	4,845	4,596	4,566	4,524	4,499	4,549
Employed	4,314	4,218	4,237	4,310	4,237	4,237	4,191	4,154	4,219
Unemployed	333	326	327	335	362	331	333	345	330
Unemployment rate	7.2	7.2	7.2	7.2	7.9	7.2	7.4	7.7	7.3
New Jersey									
Civilian noninstitutional population	6,031	6,027	6,028	6,031	6,028	6,027	6,028	6,027	6,028
Civilian labor force	3,998	4,052	4,034	4,006	4,066	4,083	4,126	4,073	4,039
Employed	3,859	3,843	3,807	3,857	3,872	3,870	3,901	3,851	3,799
Unemployed	138	209	227	149	194	213	225	222	240
Unemployment rate	3.5	5.2	5.6	3.7	4.8	5.2	5.5	5.5	5.9
New York									
Civilian noninstitutional population	13,804	13,801	13,803	13,804	13,801	13,801	13,799	13,801	13,803
Civilian labor force	8,787	8,569	8,564	8,782	8,568	8,751	8,532	8,548	8,541
Employed	8,305	8,117	8,098	8,278	8,155	8,267	8,151	8,088	8,069
Unemployed	482	452	466	484	431	484	481	460	472
Unemployment rate	5.5	5.3	5.4	5.5	5.0	5.5	5.6	5.4	5.5
North Carolina									
Civilian noninstitutional population	4,966	5,022	5,028	4,966	5,008	5,012	5,018	5,022	5,028
Civilian labor force	3,368	3,384	3,398	3,396	3,370	3,407	3,387	3,375	3,426
Employed	3,287	3,212	3,222	3,289	3,247	3,290	3,212	3,202	3,242
Unemployed	101	172	174	107	123	117	155	173	184
Unemployment rate	3.0	5.1	5.1	3.2	3.6	3.7	4.6	5.1	5.4
Ohio									
Civilian noninstitutional population	8,272	8,295	8,298	8,272	8,288	8,290	8,291	8,295	8,298
Civilian labor force	5,421	5,463	5,484	5,442	5,446	5,450	5,470	5,442	5,497
Employed	5,094	5,178	5,189	5,110	5,174	5,166	5,145	5,145	5,180
Unemployed	326	287	315	332	272	284	325	297	317
Unemployment rate	6.0	5.3	5.7	6.1	5.0	5.2	5.9	5.5	5.8

See footnotes at end of table.

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Table A-13. Employment status of the civilian population for eleven large States—Continued

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ²					
	Dec. 1989	Nov. 1990	Dec. 1990	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990
Pennsylvania									
Civilian noninstitutional population	9,377	9,398	9,402	9,377	9,392	9,383	9,395	9,396	9,402
Civilian labor force	5,855	5,911	5,881	5,880	5,777	5,850	5,897	5,929	5,924
Employed	5,567	5,563	5,567	5,575	5,496	5,531	5,535	5,571	5,582
Unemployed	288	347	324	305	281	319	362	358	342
Unemployment rate	4.9	5.9	5.5	5.2	4.9	5.5	6.1	6.0	5.8
Texas									
Civilian noninstitutional population	12,288	12,432	12,447	12,288	12,391	12,404	12,416	12,432	12,447
Civilian labor force	8,392	8,524	8,521	8,423	8,325	8,484	8,398	8,470	8,562
Employed	7,902	7,941	7,965	7,866	7,833	7,953	7,916	7,878	7,945
Unemployed	490	583	557	557	492	531	482	592	617
Unemployment rate	5.8	6.8	6.5	6.6	5.9	6.3	5.7	7.0	7.2

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.

NOTE: Revised seasonal adjustment factors are not yet available for State data. The seasonally adjusted series will be revised for the release of January data on February 1.

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Table A-14. Persons not in the labor force by reason, sex, and race, quarterly averages

(In thousands)

Reason, sex, and race	Not seasonally adjusted			Seasonally adjusted			
	1989	1990	1989	1990			
	IV	IV	IV	I	II	III	IV
TOTAL							
Total not in labor force	62,658	63,872	62,586	62,764	62,985	63,471	63,772
Do not want a job now	57,654	58,483	57,370	57,332	57,449	58,248	58,188
Current activity: Going to school	7,808	8,232	6,248	6,397	6,606	6,927	6,707
Ill, disabled	4,662	5,039	4,731	4,692	4,894	5,099	5,115
Keeping house	23,696	23,438	23,827	23,897	23,422	23,619	23,562
Retired	17,987	18,367	18,211	18,228	18,349	18,542	18,598
Other activity	3,500	3,388	4,352	4,118	4,079	4,061	4,206
Want a job now	5,005	5,409	5,142	5,482	5,571	5,356	5,530
Reason not looking: School attendance	1,215	1,385	1,243	1,412	1,429	1,410	1,393
Ill health, disability	904	949	902	918	915	876	947
Home responsibilities	1,186	1,093	1,245	1,181	1,263	1,229	1,150
Think cannot get a job	807	954	799	784	879	831	941
Job-market factors	556	603	543	538	539	519	588
Personal factors	250	351	256	276	340	312	353
Other reasons ¹	893	1,028	953	1,188	1,084	1,010	1,100
Men							
Total not in labor force	21,267	21,814	20,966	21,182	21,336	21,597	21,505
Do not want a job now	19,529	19,827	19,151	19,206	19,349	19,674	19,567
Want a job now	1,737	1,887	1,771	2,018	2,011	1,951	1,927
Reason not looking: School attendance	584	625	596	742	689	713	639
Ill health, disability	434	459	427	454	487	436	453
Think cannot get a job	367	378	367	333	362	395	383
Other reasons ¹	352	425	381	489	474	407	482
Women							
Total not in labor force	41,392	42,058	41,619	41,583	41,650	41,875	42,267
Do not want a job now	38,124	38,536	38,209	38,127	38,100	38,574	38,621
Want a job now	3,268	3,522	3,372	3,463	3,560	3,405	3,603
Reason not looking: School attendance	631	760	847	670	740	698	783
Ill health, disability	470	490	475	484	428	441	494
Home responsibilities	1,186	1,093	1,245	1,181	1,263	1,229	1,150
Think cannot get a job	440	576	432	450	518	435	558
Other reasons ¹	541	603	572	698	610	603	638
White							
Total not in labor force	53,040	53,722	52,897	52,959	53,103	53,302	53,549
Do not want a job now	49,523	49,918	49,245	49,041	49,082	49,362	49,636
Want a job now	3,562	3,783	3,687	4,020	3,931	3,999	3,905
Reason not looking: School attendance	810	839	849	900	853	863	874
Ill health, disability	628	720	648	669	648	664	748
Home responsibilities	888	794	904	861	916	904	828
Think cannot get a job	555	642	532	553	607	589	612
Other reasons ¹	701	787	753	948	807	769	843
Black							
Total not in labor force	7,601	7,889	7,614	7,680	7,728	7,911	7,908
Do not want a job now	6,323	6,484	6,326	6,394	6,404	6,705	6,469
Want a job now	1,278	1,425	1,268	1,273	1,350	1,239	1,408
Reason not looking: School attendance	349	484	339	355	405	340	440
Ill health, disability	267	194	252	227	231	181	183
Home responsibilities	290	287	306	289	274	310	303
Think cannot get a job	223	261	223	200	207	203	265
Other reasons ¹	150	219	147	203	233	205	217

¹ Includes small number of men not looking for work because of "home responsibilities."

weighting procedures. Seasonally adjusted data have been revised based on the experience through December 1990.

NOTE: Detail may not add to not-in-labor force totals because of the

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Table B-1. Employees on nonfarm payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Dec. 1989	Oct. 1990	Nov. 1990gr	Dec. 1990gr	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990gr	Dec. 1990gr
	Total.....	110,189	111,168	111,109	110,922	109,383	110,613	110,612	110,452	110,173	110,097
Total private.....	91,964	92,613	92,381	92,271	91,456	92,320	92,306	92,112	91,834	91,756
Goods-producing industries.....	25,180	25,123	24,734	24,419	25,128	25,013	24,931	24,777	24,506	24,451
Mining.....	710	743	743	743	718	735	736	733	734	742
Oil and gas extraction.....	400.0	414.7	415.8	418.9	396	410	410	411	411	415
Construction.....	5,141	5,337	5,159	4,925	5,216	5,194	5,176	5,093	5,023	4,995
General building contractors.....	1,533.1	1,324.4	1,278.4	1,240.4	1,335	1,307	1,306	1,278	1,251	1,245
Manufacturing.....	19,320	19,043	18,832	18,751	19,284	19,086	19,019	18,951	18,747	18,714
Production workers.....	15,152	12,944	12,757	12,683	15,124	12,968	12,899	12,849	12,679	12,656
Durable goods.....	11,330	11,038	10,914	10,882	11,296	11,129	11,068	11,026	10,867	10,849
Production workers.....	7,534	7,344	7,219	7,193	7,506	7,359	7,337	7,301	7,171	7,145
Lumber and wood products.....	745.7	736.1	737.2	736.3	753	750	737	730	716	715
Furniture and fixtures.....	924.1	910.3	902.0	900.2	919	913	910	907	897	896
Stone, clay, and glass products.....	560.1	553.5	545.8	531.1	566	551	547	546	541	536
Primary metal industries.....	740.8	750.4	746.5	742.7	750	753	751	751	745	741
Alumina and other nonferrous metal products.....	275.0	269.3	269.7	271.1	273	271	270	271	271	271
Fabricated metal products.....	1,453.3	1,411.6	1,395.7	1,388.8	1,426	1,413	1,410	1,405	1,387	1,382
Industrial machinery and equipment.....	1,730.8	1,673.7	1,663.4	1,656.5	1,722	1,685	1,674	1,663	1,652	1,648
Electronic and other electrical equipment.....	2,041.0	1,969.3	1,955.8	1,926.8	2,026	1,977	1,981	1,969	1,956	1,941
Transportation equipment.....	838.1	806.4	793.2	777.1	828	814	806	803	747	749
Motor vehicles and equipment.....	1,014.1	986.7	984.5	985.3	1,013	993	991	988	984	982
Instruments and related products.....	383.9	391.8	387.7	381.3	386	384	385	384	381	383
Miscellaneous manufacturing.....	7,990	7,985	7,918	7,869	7,988	7,953	7,951	7,925	7,880	7,865
Non-durable goods.....	5,618	5,600	5,538	5,490	5,618	5,573	5,562	5,541	5,502	5,491
Production workers.....	1,640	1,700	1,665	1,645	1,650	1,632	1,634	1,639	1,639	1,655
Food and kindred products.....	50.1	48.6	47.8	48.2	47	48	47	46	46	45
Tobacco products.....	716.2	690.4	689.5	682.1	716	701	697	688	687	682
Textile mill products.....	1,062.5	1,027.7	1,016.5	1,006.6	1,061	1,026	1,027	1,021	1,008	1,005
Apparel and other textile products.....	692.8	696.9	696.0	696.7	693	702	700	699	693	695
Paper and allied products.....	1,591.3	1,575.4	1,578.0	1,578.1	1,573	1,582	1,581	1,579	1,572	1,570
Printing and publishing.....	1,078.4	1,085.3	1,082.5	1,084.7	1,081	1,084	1,088	1,087	1,086	1,087
Chemicals and allied products.....	155.1	162.4	162.0	158.3	157	161	161	161	161	160
Petroleum and coal products.....	874.8	871.8	857.8	848.9	873	874	873	869	855	846
Rubber and misc. plastics products.....	132.1	124.1	122.0	119.9	132	125	125	122	121	120
Leather and leather products.....	85,009	86,045	86,375	86,503	84,165	85,600	85,681	85,655	85,647	85,646
Service-producing industries.....	5,823	5,921	5,989	5,923	5,776	5,846	5,870	5,870	5,865	5,874
Transportation and public utilities.....	3,597	3,703	3,696	3,702	3,568	3,631	3,632	3,632	3,632	3,641
Transportation.....	2,258	2,218	2,210	2,213	2,228	2,215	2,218	2,218	2,213	2,215
Communications and public utilities.....	6,346	6,373	6,352	6,328	6,344	6,376	6,370	6,355	6,342	6,328
Wholesale trade.....	5,768	5,752	5,762	5,731	5,767	5,766	5,763	5,752	5,742	5,731
Durable goods.....	2,578	2,621	2,610	2,597	2,597	2,606	2,607	2,603	2,600	2,597
Retail trade.....	20,335	19,812	20,958	20,324	19,710	19,846	19,844	19,792	19,742	19,694
General merchandise stores.....	2,815	2,672	2,993	2,493	2,519	2,493	2,486	2,486	2,431	2,408
Food stores.....	15,317	15,313	15,357	15,388	15,247	15,301	15,304	15,307	15,317	15,315
Automotive dealers and service stations.....	2,099	2,138	2,122	2,106	2,113	2,159	2,160	2,160	2,156	2,119
Eating and drinking places.....	6,487	6,619	6,652	6,611	6,523	6,613	6,623	6,633	6,639	6,645
Finance, insurance, and real estate.....	4,748	4,824	4,812	4,813	4,785	4,852	4,851	4,843	4,834	4,831
Finance.....	3,329	3,333	3,334	3,338	3,329	3,349	3,349	3,346	3,341	3,338
Insurance.....	2,117	2,146	2,148	2,149	2,119	2,151	2,152	2,152	2,152	2,151
Real estate.....	1,322	1,345	1,330	1,326	1,337	1,352	1,350	1,345	1,341	1,342
Services.....	27,512	28,560	28,514	28,462	27,623	28,387	28,440	28,475	28,545	28,576
Business services.....	5,097	5,122	5,081	5,049	4,986	5,052	5,071	5,062	5,046	5,029
Health services.....	7,781	8,285	8,336	8,382	7,789	8,191	8,237	8,294	8,356	8,390
Government.....	18,225	18,953	18,728	18,651	17,927	18,293	18,386	18,320	18,139	18,141
Federal.....	4,286	4,422	4,447	4,411	4,206	4,305	4,309	4,323	4,322	4,329
State.....	10,965	11,168	11,327	11,296	10,746	10,943	10,998	11,014	11,051	11,064
Local.....										

gr = preliminary.

Establishment survey data on diskette

Five years of data for all series published in the B tables of this release are now available on diskette. For information on format and costs, contact David R. Hies on 202-523-1172.

ESTABLISHMENT DATA

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Table B-2. Average weekly hours of production or nonsupervisory workers^{1/} on private nonfarm payrolls by industry

Industry	Net seasonally adjusted					Seasonally adjusted				
	Dec. 1989	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p
	Total private.....	34.6	34.3	34.3	34.8	34.4	34.5	34.7	34.2	34.4	34.6
Mining.....	43.7	44.6	45.0	45.8	43.0	43.9	44.7	44.0	44.9	45.1
Construction.....	37.0	38.0	38.2	38.5	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	41.3	40.9	40.8	41.5	40.6	41.1	41.8	40.7	40.5	40.8
Overtime hours.....	3.8	3.8	3.8	3.9	3.7	3.8	3.7	3.6	3.5	3.7
Durable goods.....	41.9	41.4	41.2	42.0	41.2	41.5	41.7	41.5	40.9	41.3
Overtime hours.....	4.0	3.8	3.7	4.0	3.7	3.9	3.8	3.6	3.5	3.7
Lumber and wood products.....	40.2	40.2	39.4	40.2	40.0	40.4	40.7	39.8	39.5	40.0
Furniture and fixtures.....	40.2	39.2	38.9	39.8	39.1	39.4	39.1	38.6	38.5	38.8
Stone, clay, and glass products.....	41.4	41.9	42.0	41.9	41.6	42.3	42.2	41.2	41.7	42.1
Primary metal industries.....	43.0	42.8	42.7	43.3	42.5	42.9	43.0	42.9	42.5	42.7
Blast furnaces and basic steel products.....	43.2	43.5	43.5	44.2	42.9	43.5	43.9	43.8	43.5	43.9
Fabricated metal products.....	42.0	41.4	41.3	42.2	43.2	41.6	41.6	41.2	40.8	41.4
Industrial machinery and equipment.....	43.0	42.0	42.0	42.9	42.1	42.1	42.1	42.1	41.8	42.0
Electronic and other electrical equipment.....	41.5	40.9	41.0	42.0	40.5	40.6	41.1	40.7	40.6	41.0
Transportation equipment.....	42.5	42.5	41.4	42.6	41.7	42.6	42.8	42.5	41.1	41.8
Motor vehicles and equipment.....	42.9	43.3	40.7	42.4	42.2	43.7	43.5	42.9	40.1	41.7
Instruments and related products.....	41.8	41.0	41.5	42.2	41.0	41.3	41.3	41.0	40.9	41.4
Miscellaneous manufacturing.....	40.0	40.2	40.2	39.7	39.3	39.9	39.9	39.8	39.6	39.1
Nondurable goods.....	40.4	40.2	40.3	40.7	40.0	40.2	40.2	40.0	40.0	40.2
Overtime hours.....	3.7	3.8	3.8	3.8	3.6	3.7	3.6	3.6	3.6	3.7
Food and kindred products.....	41.3	41.0	41.1	41.7	40.7	41.0	41.2	40.6	40.7	41.1
Tobacco products.....	38.1	40.8	40.3	41.1	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	40.5	40.2	40.0	40.4	40.2	40.0	40.0	39.9	39.6	40.1
Apparel and other textile products.....	36.7	36.6	36.6	36.9	36.4	36.4	36.4	36.4	36.3	36.6
Paper and allied products.....	43.9	43.6	43.8	44.3	43.2	43.5	43.2	43.5	43.3	43.6
Printing and publishing.....	38.3	38.0	38.1	38.5	37.7	38.2	38.0	37.9	37.8	37.9
Chemicals and allied products.....	43.2	42.5	42.8	43.3	42.6	42.3	42.7	42.6	42.5	42.7
Petroleum and coal products.....	45.4	43.9	46.3	45.7	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products.....	41.4	41.3	41.0	41.6	40.9	41.3	41.4	41.1	40.8	40.9
Leather and leather products.....	37.8	37.4	36.4	37.6	37.4	37.7	37.5	37.2	36.7	37.2
Transportation and public utilities.....	38.7	38.6	38.7	39.0	38.6	38.9	39.1	38.4	38.6	38.9
Wholesale trade.....	38.2	38.1	38.0	38.4	38.1	38.1	38.2	37.9	38.0	38.3
Retail trade.....	29.3	28.4	28.4	29.1	28.8	28.7	28.9	28.4	28.7	28.6
Finance, insurance, and real estate.....	35.6	35.5	35.6	36.2	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.5	32.4	32.4	32.8	32.6	32.5	32.8	32.3	32.5	32.9

^{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 since the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

p = preliminary.

ESTABLISHMENT DATA

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			
	Dec. 1989	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p	Dec. 1989	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p
	Total private.....	\$9.84	\$10.16	\$10.17	\$10.21	\$340.46	\$348.49	\$348.83	$355.31
Seasonally adjusted.....	9.83	10.12	10.14	10.20	338.15	346.10	348.82	352.92
Mining.....	13.46	13.69	13.78	13.80	588.20	610.57	620.10	632.04
Construction.....	13.84	13.92	13.82	13.86	512.08	528.96	527.92	533.61
Manufacturing.....	10.68	10.95	10.98	11.09	441.08	447.86	447.98	460.24
Durable goods.....	11.19	11.50	11.48	11.62	468.86	476.10	472.98	488.04
Lumber and wood products.....	9.01	9.15	9.14	9.20	362.20	367.83	360.12	369.84
Furniture and fixtures.....	8.43	8.62	8.65	8.75	338.89	337.90	336.49	348.25
Stone, clay, and glass products.....	10.96	11.22	11.27	11.34	453.74	470.12	473.34	475.15
Primary metal industries.....	12.59	13.06	13.13	13.25	541.37	558.97	560.65	573.73
Blast furnaces and basic steel products.....	16.43	15.06	15.14	15.24	623.38	654.24	658.59	673.61
Fabricated metal products.....	10.72	10.95	10.94	11.06	450.24	453.33	451.82	466.73
Industrial machinery and equipment.....	11.62	11.90	11.96	12.11	499.66	499.80	502.32	519.52
Electronic and other electrical equipment.....	10.14	10.47	10.51	10.59	420.81	428.22	430.91	446.78
Transportation equipment.....	13.91	14.41	14.21	14.40	591.18	612.43	588.29	613.44
Motor vehicles and equipment.....	14.46	15.01	14.63	14.88	620.33	649.93	695.44	650.91
Instruments and related products.....	11.10	11.47	11.49	11.65	463.98	470.27	474.54	491.63
Miscellaneous manufacturing.....	8.57	8.62	8.66	8.79	342.80	346.52	348.13	348.96
Nondurable goods.....	9.96	10.21	10.31	10.36	402.38	410.44	415.49	421.65
Food and kindred products.....	9.56	9.57	9.77	9.87	394.83	392.37	401.55	411.58
Tobacco products.....	15.33	16.03	16.99	16.62	584.07	654.02	684.70	683.08
Textile mill products.....	7.85	8.12	8.13	8.19	317.93	326.42	325.20	330.88
Apparel and other textile products.....	6.45	6.67	6.64	6.67	236.72	244.12	243.02	246.12
Paper and allied products.....	12.15	12.43	12.57	12.61	532.51	541.95	550.57	558.62
Printing and publishing.....	11.09	11.56	11.58	11.46	424.75	431.68	433.98	441.21
Chemicals and allied products.....	13.32	13.72	13.73	13.69	575.42	583.10	587.64	592.78
Petroleum and coal products.....	15.75	16.40	16.64	16.61	715.05	719.96	770.43	759.08
Rubber and misc. plastics products.....	9.64	9.90	9.93	9.93	389.10	408.87	407.15	411.10
Leather and leather products.....	6.74	6.98	6.98	7.11	254.77	261.05	255.47	267.34
Transportation and public utilities.....	12.76	13.07	13.09	13.16	493.81	504.50	506.58	513.24
Wholesale trade.....	10.63	10.87	10.95	11.08	406.07	414.15	416.10	425.47
Retail trade.....	6.65	6.85	6.87	6.87	194.85	194.54	195.11	199.92
Finance, insurance, and real estate.....	9.73	10.10	10.12	10.21	346.39	358.55	360.27	369.60
Services.....	9.68	9.99	10.05	10.13	314.60	323.68	325.62	332.26

^{1/} See footnote 1, table B-2.

p = preliminary.

Table B-4. Average hourly earnings of production or nonsupervisory workers^{1/} on private nonfarm payrolls by industry, seasonally adjusted

Industry	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p	Percent change from Nov. 1990-Dec. 1990
Total private.....	\$9.83	\$10.09	\$10.13	\$10.12	\$10.14	\$10.20	0.6
Current dollars.....	7.63	7.54	7.50	7.45	7.44	N.A.	(3)
Constant (1982) dollars ^{2/}	13.40	13.73	13.83	13.79	13.84	13.73	-0.8
Mining.....	13.76	13.78	13.82	13.82	13.79	13.78	-0.1
Construction.....	10.62	10.90	10.93	10.97	10.97	11.03	0.6
Manufacturing.....	10.17	10.40	10.44	10.50	10.50	10.56	0.6
Excluding overtime ^{3/}	12.73	13.00	13.02	13.03	13.04	13.15	0.8
Transportation and public utilities.....	10.60	10.84	10.94	10.89	10.94	11.06	1.0
Wholesale trade.....	6.64	6.82	6.83	6.84	6.86	6.86	0
Retail trade.....	6.64	6.82	6.83	6.84	6.86	6.86	0
Finance, insurance, and real estate.....	9.73	10.06	10.17	10.11	10.10	10.23	1.2
Services.....	9.61	9.93	9.98	9.96	9.99	10.06	0.7

^{1/} See footnote 1, table B-2.^{2/} The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.^{3/} Change was -0.1 percent from October 1990 to November 1990, 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

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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, 354 industries ^{1/}												
Over 1-month span:												
1989.....	64.5	58.7	58.0	57.0	55.6	57.3	55.8	57.7	50.0	55.2	59.6	56.6
1990.....	55.6	58.4	53.7	49.9	55.8	49.9	50.8	48.2	45.8	42.3	39.3	42.6
Over 3-month span:												
1989.....	65.3	64.2	60.0	60.1	59.7	58.3	59.7	54.5	55.2	55.8	57.7	60.3
1990.....	58.4	56.7	54.8	53.1	53.7	55.3	50.1	45.2	40.9	36.7	34.1	
Over 6-month span:												
1989.....	67.6	65.4	65.0	61.0	61.2	58.7	57.0	58.1	56.2	58.3	57.4	58.4
1990.....	57.3	56.5	55.5	55.9	51.4	48.5	45.4	39.5	37.5			
Over 12-month span:												
1989.....	67.1	67.7	65.3	64.6	64.9	61.2	60.0	59.8	58.6	57.3	56.7	56.0
1990.....	54.8	54.1	54.1	50.0	47.3	44.1						
Manufacturing payrolls, 139 industries ^{1/}												
Over 1-month span:												
1989.....	60.4	48.6	50.4	47.1	45.3	45.7	45.0	45.7	34.2	48.6	43.5	48.2
1990.....	42.4	45.7	45.3	44.8	45.7	40.5	48.2	40.6	38.1	36.3	24.1	38.8
Over 3-month span:												
1989.....	54.0	54.7	45.3	43.9	43.2	42.8	41.7	33.1	36.3	34.9	41.7	39.2
1990.....	40.3	37.1	44.2	41.4	40.6	44.2	39.9	33.8	29.1	20.5	21.9	
Over 6-month span:												
1989.....	56.5	49.4	49.3	43.5	42.1	37.1	36.7	34.9	34.2	35.3	33.1	36.0
1990.....	37.1	35.6	36.3	43.2	38.1	31.7	28.4	19.1	22.3			
Over 12-month span:												
1989.....	53.4	55.0	49.3	45.3	43.9	39.9	37.1	35.6	33.8	32.4	30.9	31.7
1990.....	31.3	31.3	30.4	27.0	21.6	19.4						

^{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; us one-half of the industries with unchanged employment. Where 50 percent indicates an equal balance between industries with increasing and decreasing employment.

ESTABLISHMENT DATA

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

Industry	Not seasonally adjusted				Seasonally adjusted						
	Dec. 1989	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p	Dec. 1989	Aug. 1990	Sept. 1990	Oct. 1990	Nov. 1990 ^p	Dec. 1990 ^p	
Total private.....	124.6	124.5	124.1	125.6	123.3	124.6	125.3	123.1	123.4	124.2	
Goods-producing industries.....	111.2	111.1	108.9	108.5	110.4	110.5	110.3	108.0	107.0	107.7	
Mining.....	64.2	68.6	69.0	69.9	63.0	66.1	67.3	66.6	67.8	68.7	
Construction.....	134.0	143.9	139.0	132.0	138.1	139.8	139.7	132.1	135.3	136.0	
Manufacturing.....	109.5	106.8	105.0	106.0	107.6	107.1	106.8	105.6	103.5	104.2	
Durable goods.....	109.4	105.5	103.2	104.8	107.1	106.5	105.9	104.6	101.8	102.6	
Lumber and wood products.....	130.7	128.7	122.7	122.9	131.4	129.7	130.5	126.1	122.9	123.8	
Furniture and fixtures.....	131.6	124.2	120.8	122.9	126.6	125.7	123.9	121.4	118.0	118.3	
Stone, clay, and glass products.....	109.0	109.3	107.8	104.2	111.2	109.5	108.7	105.9	106.2	106.2	
Primary metal industries.....	94.2	92.3	91.3	92.2	92.8	93.0	92.9	92.7	90.8	90.6	
Blast furnaces and basic steel products.....	81.2	80.4	80.6	82.2	81.1	80.8	81.6	81.8	81.2	82.0	
Fabricated metal products.....	110.6	107.3	105.6	107.3	107.7	108.1	107.4	105.9	103.5	104.5	
Industrial machinery and equipment.....	102.1	96.2	96.1	97.9	99.5	98.1	96.8	96.8	95.6	95.4	
Electronic and other electrical equipment.....	112.7	107.0	106.5	108.5	109.4	107.2	107.6	106.1	104.7	105.6	
Transportation equipment.....	124.3	120.2	111.8	116.8	120.7	122.2	121.3	120.0	110.0	113.2	
Motor vehicles and equipment.....	133.5	129.1	112.1	120.8	128.7	131.2	129.1	127.2	109.2	117.2	
Motor vehicles and related products.....	90.1	85.4	85.8	87.8	87.5	86.5	86.0	84.8	84.3	85.3	
Miscellaneous manufacturing.....	105.6	107.5	106.2	102.7	104.3	104.8	104.8	103.8	102.5	101.9	
Nondurable goods.....	109.6	108.6	107.6	107.8	108.3	108.0	107.9	106.9	106.0	106.5	
Food and kindred products.....	108.9	114.1	111.8	111.0	108.4	109.7	110.4	108.9	109.0	110.3	
Tobacco products.....	72.1	73.3	70.4	72.2	65.8	68.8	68.5	66.0	64.7	67.0	
Textile mill products.....	103.8	98.6	98.0	97.8	103.1	100.1	99.4	97.6	96.8	97.1	
Apparel and other textiles products.....	96.2	92.5	91.4	91.3	95.3	92.4	92.3	91.3	89.8	90.4	
Paper and allied products.....	112.2	111.8	111.7	113.1	110.2	111.8	110.8	111.4	110.5	111.2	
Printing and publishing.....	130.0	127.7	128.2	129.7	127.0	129.6	128.3	127.8	126.7	126.6	
Chemicals and allied products.....	106.6	103.6	103.7	105.2	105.3	103.2	104.1	103.9	103.5	104.1	
Petroleum and coal products.....	86.9	89.2	94.0	85.8	87.9	88.0	89.9	86.8	93.3	90.3	
Rubber and misc. plastics products.....	127.3	126.3	123.2	122.9	125.4	126.8	126.7	125.2	121.9	121.1	
Leather and leather products.....	63.5	58.4	56.0	56.3	62.6	59.6	58.6	57.1	55.3	56.0	
Service-producing industries.....	130.6	130.6	130.9	133.2	129.1	130.9	132.0	129.9	130.7	131.6	
Transportation and public utilities.....	114.8	116.4	116.1	117.7	113.4	115.2	116.4	114.4	114.9	116.2	
Wholesale trade.....	119.3	119.3	118.6	119.2	119.1	119.5	119.6	118.4	118.4	118.9	
Retail trade.....	130.2	122.7	124.4	129.0	123.8	124.1	124.9	122.5	123.5	122.6	
Finance, insurance, and real estate.....	120.9	121.1	121.2	123.4	121.0	122.9	124.1	121.2	122.0	123.9	
Services.....	141.6	146.5	146.4	147.8	142.8	146.0	147.7	145.7	146.9	148.7	

1/ See footnote 1, table B-2.

p = preliminary.

Senator SARBANES. Thank you very much, Commissioner. Let me first just pick up on something you said towards the close of your statement.

In addition to the rise in the unemployment figure, which you've outlined this morning, now it is 6.1 percent, the number of discouraged workers—in other words people not looking for a job because they don't think a job is to be found—is now almost a million, the highest figure in a couple of years.

And, the number of people working part time—they want to work full time, but they can only find part time work—is that correct?

Mrs. NORWOOD. Yes.

Senator SARBANES. That number has reached over 5½ million.

Mrs. NORWOOD. Yes.

Senator SARBANES. If those figures were factored into the unemployment rate, what would the unemployment rate be?

Mrs. NORWOOD. That's a number that we publish as U-7, and it's 8.9 percent for the fourth quarter of the year.

Senator SARBANES. It is 8.9 percent?

Mrs. NORWOOD. It's a quarterly figure.

Senator SARBANES. What was it last June when unemployment started to rise?

Mrs. NORWOOD. Well, in the second quarter, it was 8.0, so it's up nine-tenths.

Senator SARBANES. It is up almost a point?

Mrs. NORWOOD. Yes.

Senator SARBANES. Now, what do you make of the fact that, as you say, the impact of higher unemployment has been remarkably even? In other words, that it is affecting every major demographic group.

What are the implications of that observation?

Mrs. NORWOOD. Well, I think that it is the result of the widespread impact of the declines in employment that we are seeing. About a third of the unemployed are 16 to 24 years old. And, many of them are working in some of the sales occupations, some of the other parts of the retail trade industry and other services that tend to hire younger people.

It's quite clear that those industries have been losing jobs. If you look at it in terms of whites, blacks and Hispanics, we find that approximately 22 percent of the unemployed are black. And, that's a disproportionate number, since only about 11 percent of the population are black. So, it's nearly double their proportion of the workforce. So, they are obviously, as always in a period of economic distress, affected the most.

The Hispanic group represents about 12 percent of the unemployed, while about three-fourths are white. The unemployment is also spread between men and women. Women's participation rates went up some this month, but they have been leveling off at least if not going down a little bit. But, women represent about 44 percent of the unemployed as well.

So, any way you look at it, it seems to me that most groups of the population are seeing their unemployment rates rise.

Senator SARBANES. Well, we have had eight recessions in the postwar period. Do you have a figure on what the average increase in the unemployment rate was during those recessions?

Mrs. NORWOOD. For all of the recessions?

Senator SARBANES. Well, just generally speaking.

Mrs. NORWOOD. No, I don't.

Senator SARBANES. The figure I have is that the average increase is about 3 percent in the unemployment rate during a recession period.

Would that square with your analysis?

Mrs. NORWOOD. You mean, over the entire period of the recession?

Senator SARBANES. So, when the nation goes into——

Mrs. NORWOOD. It's about right, yes.

Senator SARBANES. —a recession, if you use average figures, you can project that the unemployment rate at the bottom of the recession is going to be about three points above——

Mrs. NORWOOD. That's correct. Absolutely correct, yes.

Senator SARBANES. So, if you project that onto this recession, it is reasonable to assume that we are going to go above 8 percent.

Mrs. NORWOOD. If it's like every other recession.

Senator SARBANES. If it's like the other eight.

Mrs. NORWOOD. The average of the other recessions, yes.

Senator SARBANES. We started at 5.3 percent. If it's not as bad it won't be as much, and if it's worse it will be even more.

Mrs. NORWOOD. That's right.

Senator SARBANES. But, if it's at the average, it is reasonable to anticipate an unemployment rate in excess of 8 percent; would that be correct, on the basis of the——

Mrs. NORWOOD. If that happens.

Senator SARBANES. —past performance?

Mrs. NORWOOD. If that happened, yes.

Senator SARBANES. Even if it were a mild recession, it would be well up above 7 percent, would it not, on the basis of this historical performance?

Mrs. NORWOOD. Perhaps, if the conditions were the same. I've seen a number of forecasts that go up to certainly 6.8 percent. I think that's generally a consensus at the moment, without the data we are putting out today.

Senator SARBANES. That projection is really quite optimistic on the basis of what has occurred in past recessions in the postwar period, isn't it, 6.8 percent?

Mrs. NORWOOD. Well, it's based, I think, on the view that some people have that the recession will be fairly short.

Senator SARBANES. That's right. But, it would be the shortest and the shallowest of the postwar recessions at that figure, would it not?

Mrs. NORWOOD. 1980 was rather short.

Senator SARBANES. Yes, other than 1980, possibly 1980, isn't that correct? I mean, I hope it turns out that way, but if one is just trying to anticipate what is coming, the projection of 6.8 percent as the bottom of the recession is a quite optimistic projection, given what we have experienced in past recessions in the post-World War II period.

Mrs. NORWOOD. It depends partly, Mr. Chairman, on what assumption you are making about when the recession started. And, there is still a good deal of disagreement about that.

But, we do know that considering all of the post-war recessions, the contraction period lasted on average about 11 months and that there was a range that went from about 6 months to 16 months.

So, in part, it depends on whether we are in the second quarter of the recession or the first quarter of the recession.

Senator SARBANES. You have testified in previous hearings that the normal growth in the labor force is about 1½ million a year; is that correct?

Mrs. NORWOOD. That's correct.

Senator SARBANES. Is that the figure you are still using?

Mrs. NORWOOD. The labor force is growing very, very slowly now which, of course, keeps the unemployment rate somewhat lower. There is a lot less upward pressure on the unemployment rate.

We only had about 550,000 growth over the last year; that is, from December to December.

Senator SARBANES. Well, let me ask this question: I have a time frame that from May 1989 to May 1990 the civilian labor force grew about 1½ million; is that correct?

Mrs. NORWOOD. That sounds right. We can check the figure, but that sounds right.

Senator SARBANES. Now, between May and November of this year—in other words up until May of last year, for the previous year the labor force grew by 1½ million—from May to November of this year, a 6-month period, the labor force fell 400,000. It didn't even grow. It actually fell 400,000 people.

What has happened?

Mrs. NORWOOD. Well, we have discussed this several times. I think that several things have happened.

One is, there are fewer teenagers; fewer babies were born 16 to 19 years ago, so fewer young people are coming into the labor force now. In fact, we had a decline in the labor force of 650,000 over the last year for teenagers alone.

The second thing is that the labor force participation rates for women have stopped growing as fast. And, in fact, over the past several months, except for last month, they seemed to have begun going downward.

And, as a result of that, there is considerably less upward pressure on the unemployment rate. And, that's one of the reasons I think that, in analyzing what is going on in the economy, we have to look both at unemployment and at employment to see what is going on.

Senator SARBANES. Well, now the decline in labor force participation of teenagers, that's not a demographic decline. I mean, the teenagers are there; they are simply not entering the labor force; is that correct?

Mrs. NORWOOD. It's both.

Senator SARBANES. Or, is it that the teenagers aren't there because there have been demographic changes and we don't have as many teenagers coming along?

Mrs. NORWOOD. There were changes in the birth rate. But, I think a good part of this is also that many of the kinds of jobs that

formerly were available in large numbers to teenagers are no longer there. Those industries are not hiring.

Senator SARBANES. And, the decline in the participation by women?

Mrs. NORWOOD. I'm not sure what to make of that. For several months, we have seen a decline in that participation rate.

For the month of December, the women's participation rate went up a little. It's now still slightly below the level of September. I believe that that is moving around a little bit.

Senator SARBANES. Is there a greater drop-out from the labor force in this recession than we've seen in the past?

Mrs. NORWOOD. We do have a comparison of the participation rates for this period. If you look at the last 6 months at least and look at 6 months of the July 1981 recession, it's about the same. It's about one-tenth of a point drop in labor force participation.

Senator SARBANES. The unemployment rate can rise rather quickly on the basis of our experience in past recessions; is that correct?

Mrs. NORWOOD. That's right. But, it rises most frequently with a fast growing labor force.

As you know, if the labor force doesn't grow very fast, then there is not going to be a lot of upward pressure on the unemployment rate, even if you are losing jobs.

Senator SARBANES. Suppose you have a situation in which the unemployment rate is not rising that fast but the reason for it is that a lot of people are discouraged right from the beginning and simply drop out of the labor force in terms of looking for a job. In that instance would not the unemployment rate understate the amount of economic distress which existed, because the unemployment rate would be not as high but the reason it's not as high is because more people are simply abdicating out of the labor force or not looking for a job because they don't think a job is there to be found?

Mrs. NORWOOD. There are a number of factors that relate to that situation. One is, of course, that the number of discouraged workers, as we've discussed, goes up. And, that usually happens in a recession period. And, it certainly has happened over the last several months.

Another is that conditions in different parts of the country are somewhat different. The mid-west does not seem to be exhibiting the kind of increase in unemployment rates that other parts of the country are having. And, that may be a variety of reasons, but it may also be that the labor force is not growing as fast.

Perhaps Mr. Plewes can add more to that.

Mr. PLEWES. That was the essential point.

Senator SARBANES. Well, I will come back on another round. I will yield to Senator Symms.

Senator SYMMS. Thank you very much, Mr. Chairman. I would like to welcome Dr. Norwood and the other witnesses.

And, Mr. Chairman, I would also like to take this moment to congratulate you on your designation as chairman of the JEC for this Congress.

Senator SARBANES. Thank you.

Senator SYMMS. I think that I can say certainly for myself and I think for most of the other Republican members that we look forward to working with you in a spirit of cooperation and mutual respect.

Now, having said that, I think you and I know that we don't always agree with the majority on every policy issue. However, we would like to cooperate whenever possible. I think that it will add to the ability of this committee greatly to be able to have a full airing of many of these economic issues that come before this committee.

Now, this unemployment compensation, of course, and unemployment in general, are issues of growing importance in the recession. Perhaps if the payroll tax increases had been less drastic over the past 15 years, faster job growth might have provided more adequate funding in state UI programs.

I find it fascinating that Congress since 1986 really has been hell bent for repealing America's perestroika that seems to have done so well toward adding new jobs and new growth in the economy from 1982. When I look back at what we did last year with additions of regulations on our producers, excessive regulations in many instances that are costly, the failure in my view of the Congress to lower the payroll tax, the failure of the Congress to reduce the rate of capital taxation, we do things that unravel an otherwise growing economy.

Having said that, I am not naive enough to think the business cycle isn't still alive. Consequently, I think that when you do go through periods of sustained economic growth, a downturn is probably natural. Dr. Norwood has seen this, year in and year out, that there is some slow down and some correction of the economy.

I would like to start off with a question, to you, Doctor, or to any of the people here. Do you think that a reduction in the payroll tax which would lower the cost of job creation, would help lessen this deterioration, as you point out in your testimony, of the job market?

Mrs. NORWOOD. I really don't know. And, I think very few people do know exactly what kinds of activities or actions could help in a recession period.

And, I certainly, as you know, do not comment on any specific policy questions. It's quite clear that what we need is more opportunity for investment, for more consumer confidence, than is apparent right now.

There are some very encouraging signs. Exports are improving. The dollar is quite weak, which certainly means that our goods are much easier for foreigners to buy. Interest rates are coming down. And, those are all very important factors.

On the other hand, we don't really know yet what is going to happen in the Middle East. But, we do know that any really large increase in oil prices could have a very depressing effect upon the economy. And, we are also not sure how much credit is going to be available, given the problems that we have in the banking system.

Senator SYMMS. Given the condition of the economy, do you think this is a time when Congress should be imposing large new tax increases so they can continue massive new spending programs, which is what happened in last year's budget which we will now be

living with this year? In addition, do you think this is a time to be passing new burdensome regulations on business in the country?

Mrs. NORWOOD. Well, I have learned as one who is a manager in government who has struggled with trying to work through the kind of budget that the Congress appropriates for us that it is best to leave decisions of that kind to the wisdom of the members of the Congress.

I really can't comment on that.

Senator SYMMS. Well, you are very tactful, Doctor. I don't suppose you have the Idaho specific data, but could you tell us a little bit about the regional patterns of the employment and unemployment trends?

Mrs. NORWOOD. Yes. I think the regional developments are really quite interesting.

It's clear that the economic downturn began some time ago in New England and that if you look at some of the states in New England, Massachusetts in particular, the jobless rate has really gone up quite a bit.

Senator SYMMS. Could I just interject and ask you a point on that?

Mrs. NORWOOD. Yes.

Senator SYMMS. Did it start in New England with the initiation of the cut-backs of the defense budget in 1985?

Mrs. NORWOOD. I don't know. Do you Tom?

Mr. PLEWES. It was tied to a number of things, not only defense but the softening of some of the high tech industries, especially the computer market; those kind of movements tended to cascade.

Senator SYMMS. I always found it interesting that during the buildup in defense spending, during the late 1970's and the early 1980's, there were millions and literally billions of dollars spent in the Boston area at some of the high-tech universities and labs. This was a big underpinning of the economy.

Yet from that region of the country, oftentimes there were the biggest howls about the defense budget. As it has not been increased since 1985 and, as you know, actually it has been reduced if you take out inflation, I wonder how much that had to do with the economy there?

Mrs. NORWOOD. Well, clearly the New England area in general has been a source of well trained people who have gone into high tech industry. And, the high tech industry, as you will recall, began to experience some downturns. And, I think that has been in large part, at least a large part of the issue there.

But, we've had now other areas of the country that—

Senator SYMMS. Go ahead, please. I'm sorry that I interrupted you.

Mrs. NORWOOD. For example, if you look at the west, we've seen an increase in the unemployment rate. We've seen an increase in the unemployment rate of the south, perhaps even more of an increase than we've seen in New England. And, then if you get down to the middle Atlantic states and to the south Atlantic states, you can see fairly large increases. The area that seems to have had the smallest change is the mid-west. And, that's primarily rural, of course.

Senator SYMMS. Do you have the northwest in a regional pattern?

Mrs. NORWOOD. The northwest? We have—

Senator SYMMS. Or, is it all in with the West?

Mrs. NORWOOD. —the Pacific.

Mr. PLEWES. It's in with the Pacific region. And, in the Pacific region as a whole, which includes California and Hawaii as well as the northwest, the unemployment rate increased by 1.4 percentage points over the year.

Senator SYMMS. What is the ratio of employment based on population with historical standards, for example, compared to 1980?

Mrs. NORWOOD. You mean, for the country as a whole? We have had a decline in the employment population ratio in the last 6 months of about six-tenths of a point.

In the first 6 months of the 1981 or 1982 recession, we had a decline in the EP ratio of about nine-tenths.

Senator SYMMS. How does that compare historically with what we've had during past recessions?

Mrs. NORWOOD. Well, slightly less.

Senator SYMMS. This is slightly less?

Mrs. NORWOOD. Than the 1981-82 recession.

Senator SYMMS. Okay.

Mrs. NORWOOD. It's about two-thirds of it.

Senator SYMMS. I was trying to recall the other day how the general premise of the recession and the attitude of the public was in 1980-81 compared to today and compared with what they are being told on the nightly news cast every night about how bad everything is.

Do you recall peoples attitudes?

Mrs. NORWOOD. No, I don't.

Senator SYMMS. But, you are saying this is better at this point?

Mrs. NORWOOD. Than the first 6 months of the beginning of the 1981-82 recession. However, as I commented before in discussion with Senator Sarbanes, employment in manufacturing began to decline at the beginning of 1989. So, we have had really 2 years of decline in employment in manufacturing.

Employment in construction began to decline last spring. So, we've had, say, 9 months or so of decline there.

What we are talking about in terms of an overall economic downturn is really either the fourth quarter or the third and fourth quarter. So, we shouldn't overlook the fact that those two industries at least have really been in recession for some time.

Senator SYMMS. I wonder if I can summarize this—and I think the chairman has another round of questions he wants to ask—you are saying that the employment population ratio by historical standards is not abnormally low, it's basically high?

Mrs. NORWOOD. I'm saying that if we compare the last 6 months to the first 6 months of the 1981-82 recession period, the employment population ratio has declined only about $\frac{2}{3}$ of the earlier amount.

Mr. PLEWES. But, it's still high historically.

Mrs. NORWOOD. Yes. It's still high.

Senator SYMMS. It's still high historically?

Mrs. NORWOOD. Yes.

Senator SYMMS. Thank you very much.

Senator SARBANES. I would just say that I draw small comfort from an observation that these figures compared with the 1981-82 figures are not quite as bad since the 1981-82 recession, if I'm not mistaken, was the worst recession the country has experienced since the Great Depression.

Am I correct in my recollection that the 1981-82 recession was the worst that we had experienced since the 1930s?

Mrs. NORWOOD. Yes, sir. It certainly was in the labor market.

Senator SARBANES. That was when the unemployment rate reached a peak of 10.8 percent, wasn't it?

Mrs. NORWOOD. Yes. In the labor market, it was very steep.

Senator SYMMS. Do you think this is headed for 10.8 percent? Excuse me, Mr. Chairman, but—

Mrs. NORWOOD. I will wait to see where it's headed.

Senator SARBANES. I have a chart. You do a table on aggregate weekly hours of workers. We've tried to do sort of a rough correlation between the decline in aggregate hours and the change in real GNP, and, it is reflected here in this chart.

We have taken these previous recessions and we get a decline in the aggregate hours worked. I think it is your Table B-5 in your report. And, we have gone back and looked at the decline in real GNP that corresponded for that time period. In each instance the decline in GNP exceeded, and in some instances by substantial margins, the decline in the hours worked.

Now, for this quarter, we have had a decline of 4.2 percent; is that correct?

Mrs. NORWOOD. Yes.

Senator SARBANES. Using this correlation, isn't it reasonable to project that the decline in real GNP would be in the 5 percent range or certainly in excess of 4.2 percent?

Mrs. NORWOOD. That's an interesting way to look at this situation, and I think it could be a predictor. It appears, as your chart has shown, to have been in the past.

I would point out, however, as I indicated to Mr. Symms, that there has really been a long lead time into this downturn. The goods producing sector has really been in recession for a considerable period of time.

And, it's possible, therefore, that because of that situation we could be overstating the effects of aggregate hours, because we are looking just at the current hours. I believe what you are doing is looking at the percent change from the third quarter to the fourth quarter. And, since we've had a lot of aggregate hours declining since 1989, I'm not sure that the change from the third to the fourth quarter is as good a predictor as it might have been, say, in 1974 or 1970.

But, I don't really know. It certainly is an interesting approach.

Senator SARBANES. You would have to break with all our past experience. I don't expect you to answer this, but the Chairman of the Council of Economic Advisors estimated that the fourth quarter real GNP will decline at 3.4 percent annual rate.

Mrs. NORWOOD. Yes.

Senator SARBANES. That was Chairman Boskin's estimate. Now, I am increasingly concerned by an unwillingness to come to grips

with economic realities. I mean, people said we are in a recession. We kept hearing denials from Administration officials that we were into a recession. In fact, we got all kinds of rhetoric, different kinds of rhetoric.

Finally, Alfred Kahn said, "Well, it's a banana we are into." Let's say we are in a banana in order to try to address this unwillingness. Now the administration has itself acceded to the fact that we are into a recession. It seems to me you have to come to terms.

Certainly on the basis of this kind of correlation, there is no reason to project a decline in GNP of only 3.4 percent. It just doesn't square with past experience.

We will get those figures later, I take it, but again it's putting a gloss on the situation that may be unwarranted and may delay policy reactions that are important to address the situation. We started this year with 5.3 percent unemployment; is that correct?

Mrs. NORWOOD. Yes.

Senator SARBANES. And, as I recall, with a fairly strong job growth at the beginning of 1990. Could you, Commissioner, just give us an overview of how the employment/unemployment situation then developed over 1990?

We now have in the December figures for 1990, so we have the basis to look at the year. We started the year at 5.3 percent. We started the year with a fairly strong employment growth.

What happened?

Mrs. NORWOOD. I think one needs to look at the data in terms of employment and unemployment, because they are somewhat different. We had a relatively stable unemployment situation for the first 6 months, the first 5 months really, of the year, somewhere around 5.3 percent almost every single month. In fact, people lost interest in the releases BLS were putting out, because they still seemed to say the same thing.

By the middle of the year—

Senator SARBANES. They all thought it was last month's release because the figure was the same.

Mrs. NORWOOD. That's right. By the middle of the year, beginning really in July, the unemployment rate began to creep up first in dribs and drabs, two-tenths, one-tenth, another one-tenth, two-tenths and so on, so that it has, as we discussed before, increased eight-tenths of a percent in 6 months.

The employment situation is somewhat different, because manufacturing peaked late in 1988. And, it began going down and with some exceptions it continued to go down. We have lost a lot of jobs in the manufacturing industry over a 2 year period. It didn't wait until the last half year to begin going down.

Construction also began going down much earlier than other industries. What was keeping things up was basically services.

Along about the fall of the year, perhaps a little bit before that, the service producing sector began to show some signs of change. The services industry itself, which has been a big area of job creation, continued to add jobs but at a much, much slower pace than before. And, it just wasn't enough to compensate for the job loss in the goods producing sector.

Business services, which had been responsible during a good part of the expansion for one in every eight new jobs, began to go down-

hill and has continued down over certainly the last quarter of the year. And, what we have been seeing really is job growth only in public education and health services.

Overall non-agricultural employment continued to grow quite a bit through June, and that's because of the service producing sector, and then began to slow down. The declines picked up in the fall.

Some of that was affected by the Census Bureau hiring and letting go of people. So, in some ways it's a little bit better to look at the total private economy which separates out, of course, both the public education people but also the Census Bureau people coming and then leaving once the census was over.

The total private economy, is down 300,000 jobs over the year.

Senator SARBANES. I want to lead into the next hearing a bit by asking you a few questions about unemployment insurance benefits.

Mrs. NORWOOD. Okay.

Senator SARBANES. But, before I do that, let me just ask about regional employment figures. Is the current recession hitting all regions of the country in roughly equal proportions?

Mrs. NORWOOD. I would say that it's hitting the northeast, the south and the west now in about equal proportions if what you are looking at is the unemployment rate. The mid-west is not experiencing the increases in the unemployment rate that the other areas are.

If you look at job loss, however, the northeast has had really the biggest job loss in percentage terms of any of the regions.

Senator SARBANES. And, do you do labor force participation by regions?

Mrs. NORWOOD. We do. I don't know that we have them here. We can supply them for the record.

Do you have them?

Mr. PLEWES. No.

Mrs. NORWOOD. No, we don't. Now, of course, one of the problems—

Senator SARBANES. Do you recollect whether labor force participation varies in any significant degree from region to region?

Mrs. NORWOOD. Well, I know that we have problems of interpretation in the mid-west, because much of that is rural, with farm areas, although a lot of people have jobs in non-agricultural industry as well. We also have a lot of seasonal unemployment.

And, it's not always clear that the kinds of definitions we have do very well in areas of that kind.

Senator SARBANES. Let me just turn to the unemployment insurance system as a prelude to the next panel.

Mrs. NORWOOD. All right.

Senator SARBANES. It is anticipated that during this recession, millions of workers will lose their jobs for some period of time. Do you measure how many of the unemployed are covered by unemployment insurance?

Mrs. NORWOOD. We don't actually measure that in surveys, but we do get information from the unemployment insurance staff of the Employment and Training Administration of the Department

which comes from the administrative records of the unemployment insurance system in most of the states.

So, we do know about coverage of those people.

Senator SARBANES. When do you do your survey in December for the unemployment figures that you have just given us?

Mrs. NORWOOD. The unemployment survey, the household survey usually uses as its reference week the week that includes the 12th day of the month. But in December, the reference week is often moved up a week in order to avoid the Christmas/New Year's period. And, so it really covers a week earlier than usual, which is the 5th to the 8th.

Senator SARBANES. The 5th to the 8th of December?

Mrs. NORWOOD. The second to the eighth. It's usually a week later.

Senator SARBANES. There is an article in this morning's New York Times, in the business section, that says, "Sharp Rise in Claims by Jobless: Applications Highest in Nearly Eight Years. The number of Americans applying for unemployment benefits soared 16.8 percent the week before Christmas, the highest level in nearly 8 years, the Labor Department reported today.

"Normally, the weekly report on initial jobless insurance claims receives little attention. But, the figures tend to move sharply at economic turning points and consequently analysts have begun to monitor them closely for clues as to the severity of the recession that even the Bush administration now acknowledges exists.

"Today's report, which covered the week ending December 22, intensified fears about the economy because the increase was exceptionally large and it followed 2 straight weekly declines."

Now, in your survey and the figures you gave us this morning preceded this report; is that correct?

Mrs. NORWOOD. That's correct.

Senator SARBANES. Is this report any sort of reasonable indicator of what the next month's unemployment figures might show?

Mrs. NORWOOD. The relationships are not as clear as they used to be. There are a number of forecasters who use the insured unemployed. And, I would think that it would be an important element, but not the only element.

What we have seen is an increase in the number of initial claimants and also an increase in the coverage of those claimants by UI, not by a great deal but some. If you look at the CPS reference week, in November we had UI coverage of roughly 34 percent of the CPS total unemployed. In December, considering the week of the 5th, we had unemployment insurance coverage of roughly 41 percent.

And, as you said, the number of initial claimants did go up in the week following.

Senator SARBANES. It went up rather sharply, the highest in eight years.

Mrs. NORWOOD. Some of that is related to the up and down nature of the automobile industry, because many of those auto workers qualify for unemployment insurance.

Senator SARBANES. How many of the workers losing their jobs qualify for unemployment insurance? What percent?

Mrs. NORWOOD. I think that's one of the issues that you are going to discuss with the panel later. We did carry out a supplement to the current population survey which researchers at The Urban Institute have been analyzing.

And, we did ask at least a portion of the unemployed people whether they had applied for unemployment insurance. And, they will be providing you with some of their analysis.

Senator SARBANES. It's fair to say that the number of people covered by unemployment insurance today in percentage terms is significantly less than it was, say, in the 1960s and 1970s; is that correct?

Mrs. NORWOOD. Yes. There has been a trend downward during the 1980s and in 1979 as well.

In the 1975 recession, approximately two-thirds of the total unemployed as measured in our survey were covered by UI benefits. That went down to somewhere around 30, 31, 32 percent.

For the week of the 8th, it's up to 40.9. But, it's still pretty low compared to the 1960s and the 1970s.

Senator SARBANES. So, essentially we have gone from having two-thirds of the unemployed covered by unemployment insurance to having—

Mrs. NORWOOD. To slightly more than one-third.

Senator SARBANES. —only one-third of the unemployed covered?

Mrs. NORWOOD. Yes, that's correct.

Senator SARBANES. Well, that is what we are going to pursue with the next panel.

Thank you very much, Commissioner, and your associates.

Mrs. NORWOOD. Thank you.

Senator SARBANES. Did you have anything more?

Senator SYMMS. No. Thank you very much, Mr. Chairman. Thank you, Madam Commissioner, and all of you. Happy New Year to all of you.

[Whereupon, the hearing was concluded at 10:40 a.m., Friday, January 4, 1991.]

JANUARY EMPLOYMENT SITUATION

FRIDAY, FEBRUARY 1, 1991

U.S. CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met at 9:26 a.m. in room 2359 of the Rayburn House Office Building, the Hon. Lee H. Hamilton (vice chairman of the committee), presiding.

Present: Representative Hamilton.

Also present: William Buechner, professional staff member.

OPENING STATEMENT OF REPRESENTATIVE HAMILTON, VICE CHAIRMAN

Representative HAMILTON. The Joint Economic Committee will come to order. This morning the committee meets to examine the employment and unemployment statistics for January 1991.

Our witness is the Honorable Janet Norwood, Commissioner of the Bureau of Labor Statistics. The employment and unemployment figures you are releasing this morning, Commissioner, and how you interpret them in your testimony will we hope shed some new light on the current state of our economy and help clear up some of the uncertainty about where the economy is going in the months ahead.

I welcome you to the committee, also your colleagues, and you may now proceed with your statement.

STATEMENT OF HON. JANET L. NORWOOD COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, AC- COMPANIED BY KENNETH V. DALTON, ASSOCIATE COMMISS- SIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND THOMAS J. PLEWES, ASSOCIATE COMMISSIONER, OFFICE OF EMPLOYMENT AND UNEMPLOYMENT STATISTICS

Mrs. NORWOOD. Thank you very much, Mr. Chairman.

As is our custom, I have with me on my right Kenneth Dalton who is our price expert; and Thomas Plewes, our employment/unemployment expert on the left. We very much appreciate the opportunity to be here this morning.

Employment continued to decline in January, and unemployment continued the slow rise that began last summer. The civilian unemployment rate was 6.2 percent, nearly a full percentage point higher than last June.

Payroll employment fell by 230,000 in January. Over the past 4 months, an average of 205,000 jobs per month were lost. Durable

goods' manufacturing was again hard hit, with a loss of 60,000 jobs in January. The declines in nondurable goods' employment have moderated in the last 2 months.

Overall, about 900,000 factory jobs have been lost over the last 2 years, half of them in just the last 5 months.

Construction had by far its worst performance of recent months, with employment falling by 155,000 after seasonal adjustment. Some of these losses may stem from the temporary effect of unusually bad weather, however; bad weather certainly contributed to the sharp January decline in hours for this industry. The decline in construction employment is now approaching 10 percent of this industry's employment.

Retail trade showed an increase of 85,000 jobs in January after seasonal adjustment. Nonetheless, I believe that the underlying trend in retail trade employment continues to be quite weak. Pre-Christmas hiring was less than half the average over the past 10 years, and there were therefore fewer workers to be laid off. The seasonal adjustment process, which is based on the holiday buildup and wind-down of prior years, probably has exaggerated recent movements, including that in January.

Employment growth in the services' industry has come to a halt. Losses in business services now total 90,000 jobs over the past 4 months. However, employment in health services continued to grow.

Last month I pointed out that the increase in hours of work might not be sustained in subsequent months and that the number needed to be interpreted with caution. In January, the overall workweek and factory workweek each fell by half an hour, and in fact hours were down in every industry shown in our news release. Given the volatility of these data in recent months, the underlying trend in the workweek is still a bit uncertain.

Total employment—from the household survey—fell following a small gain in the prior month. The employment loss in January was concentrated among adult men. Up until this point, it was actually women who had borne the brunt of employment declines, an unusual pattern during a recessionary period.

Although total unemployment was up only slightly, the number of unemployed persons who had lost their last jobs rose by nearly 300,000 in January. That was partly offset by a decline in the number who had left their last jobs voluntarily. Such hesitation of workers to leave a job and look for a new one is typical during an economic downturn.

There has been less upward pressure on the unemployment rate so far during this recession than in past downturns because we have had so little labor force growth. During the 1981-82 recession, for example, the labor force continued to grow, primarily the result of the long-term trend toward increased participation of women.

Since June, we have had no net labor force growth, and there has been hardly any over the past year. This has at least two causes.

First, there is probably less population pressure than there has been in the past, as the number of persons reaching working age has been on a downtrend.

Second, the trend toward increased participation of women has slowed. In fact, labor force participation rates for women were actually lower in the fourth quarter of 1990 than they were a year earlier, the first such over-the-year decline in three decades. It is still too early to determine whether this decline reflects the reaction of women to the poor job market or a change in their interest in labor market activity.

Any slowdown in labor force growth reduces the pressure on the unemployment rate. The nine-tenths of a percentage point rise in the rate since June is about half that in the first 7 months of the 1981-82 recession.

I would like to take a moment, Mr. Chairman, to call your attention to a cautionary note that we have included with Table A-1 of our release this morning.

Because of the fast-moving changes related to the Gulf conflict, it has not been possible for us to estimate the number of *resident* Armed Forces on a current basis.

Although the effect on the aggregate data is probably quite small, this point should be kept in mind when interpreting the data in Table A-1 which includes the resident Armed Forces as part of the labor force. As the note explains, we believe that there is virtually no effect on the civilian labor market data.

We have also received inquiries about the effect on our payroll data of the callup of reservists. Active members of the Armed Forces are, in concept, excluded from the payroll estimates. However, during this period of rapid change, we have no way of determining the net effect on establishment employment levels.

In summary, the Nation continued to experience substantial employment declines in January, especially in goods-producing industries. Unemployment continued the slow rise that began in the middle of last year.

[The table attached to Mrs. Norwood's statement, together with the Employment Situation press release, follows:]

Unemployment rates of all civilian workers by alternative seasonal adjustment methods

Month and year	Unad-justed rate	X-11 ARIMA method						X-11 method (official method before 1980)	Range (cols. 2-8)
		Official procedure	Concurrent (as first computed)	Concurrent (revised)	Stable	Total	Residual		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1990									
January.....	5.9	5.3	5.3	5.2	5.3	5.3	5.3	5.3	.1
February.....	5.8	5.3	5.3	5.3	5.3	5.3	5.2	5.3	.1
March.....	5.4	5.3	5.3	5.3	5.2	5.2	5.2	5.2	.1
April.....	5.2	5.4	5.4	5.4	5.4	5.3	5.3	5.4	.1
May.....	5.1	5.3	5.3	5.3	5.3	5.3	5.4	5.3	.1
June.....	5.3	5.3	5.3	5.3	5.2	5.3	5.2	5.2	.1
July.....	5.5	5.5	5.5	5.5	5.4	5.5	5.4	5.5	.1
August.....	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	-
September...	5.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
October.....	5.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
November....	5.8	5.9	5.9	5.9	6.0	5.9	5.9	5.9	.1
December....	5.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	-
1991									
January.....	7.0	6.2	6.2	6.2	6.3	6.2	6.3	6.2	.1

SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
February 1991

(1) *Unadjusted rate.* Unemployment rate for all civilian workers, not seasonally adjusted.

(2) *Official procedure (X-11 ARIMA method).* The published seasonally adjusted rate for all civilian workers. Each of the 3 major civilian labor force components—agricultural employment, nonagricultural employment and unemployment—for 4 age-sex groups—males and females, ages 16-19 and 20 years and over—are seasonally adjusted independently using data from January 1974 forward. The date series for each of these 12 components are extended by a year at each end of the original series using ARIMA (Auto-Regressive, Integrated, Moving Average) models chosen specifically for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural employment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. The unemployment rate is computed by summing the 4 seasonally adjusted unemployment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adjusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors, for July-December are computed in the middle of the year after the June data become available. Each set of 6-month factors are published in advance, in the January and July issues, respectively, of *Employment and Earnings*.

(3) *Concurrent (as first computed, X-11 ARIMA method).* The official procedure for computation of the rate for all civilian workers using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-11 ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised only once each year, at the end of the year when data for the full year become available. For example, the rate for January 1984 would be based, during 1984, on the adjustment of data from the period January 1974 through January 1984.

(4) *Concurrent (revised, X-11 ARIMA method).* The procedure used is identical to (3) above, and the rate for the current month (the last month displayed) will always be the same in the two columns. However, all previous months are subject to revision each month based on the seasonal adjustment of all the components with data through the current month.

(5) *Stable (X-11 ARIMA method).* Each of the 12 civilian labor force components is extended using ARIMA models as in the official procedure and then run through the X-11 part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-year and computes final seasonal factors as unweighted averages of all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in 6-month intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.

(6) *Total (X-11 ARIMA method).* This is one alternative aggregation procedure, in which total unemployment and civilian labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the program. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(7) *Residual (X-11 ARIMA method).* This is another alternative aggregation method, in which total civilian employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived unemployment level as a percent of the labor force level. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(8) *12-month extrapolation (X-11 ARIMA method).* This approach is the same as the official procedure except that the factors are extrapolated in 12-month intervals. The factors for January-December of the current year are computed at the beginning of the year based on data through the preceding year. The values for January through June of the current year are the same as the official values since they reflect the same factors.

(9) *X-11 method (official method before 1980).* The method for computation of the official procedure is used except that the series are not extended with ARIMA

models and the factors are projected in 12-month intervals. The standard X-11 program is used to perform the seasonal adjustment.

Methods of Adjustment: The X-11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Times Series Staff under the direction of Estela Bee Dagum. The method is described in *The X-11 ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, February 1980.

The standard X-11 method is described in *X-11 Variant of the Censes Method II Seasonal Adjustment Program*, by Julius Shiskin, Allan Young and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).

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THE EMPLOYMENT SITUATION: JANUARY 1991

Employment declined in January and unemployment continued its upward trend, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The civilian worker unemployment rate was 6.2 percent, compared with 6.1 percent in December and 5.3 percent last June.

Nonfarm payroll employment, as measured by the survey of business establishments, dropped by 230,000 in January and has declined by about 1 million since last June. Total civilian employment, as estimated through the survey of households, fell substantially in January and since June has declined by over 1 million workers.

Unemployment (Household Survey Data)

The number of unemployed persons edged up to 7.7 million, seasonally adjusted, in January, and the civilian worker unemployment rate moved up to 6.2 percent, continuing the uptrend which began last summer. Since June, the jobless count has risen by 1.2 million and the jobless rate has increased by nine-tenths of a percentage point. Both measures were at their highest points in more than 3-1/2 years.

Teenagers accounted for the upward movement in unemployment in January. Their jobless rate rose substantially, from 16.6 to 18.2 percent, while the rates for adult men (5.6 percent) and adult women (5.3 percent) were unchanged over the month. Among the major race-ethnic groups, the jobless rate for whites rose 0.2 percentage point to 5.5 percent in January, the rate for blacks (12.1 percent) was about the same as in December, and the rate for Hispanics (9.3 percent) was unchanged. Rates for each of these groups have increased substantially since mid-1990. (See tables A-2 and A-3.)

The number of unemployed persons who lost their last jobs rose by 270,000 in January to 4.1 million. The number of job losers has increased by about 850,000 since June and now account for 53 percent of the total unemployed. The number of unemployed persons who had voluntarily left their last jobs declined over the month. (See table A-7.)

The number of persons working part time for economic reasons--sometimes referred to as the partially unemployed--was about unchanged but, at 5.5 million in January, was up substantially from the levels that prevailed during the first half of 1990. (See table A-4.)

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

Category	Quarterly averages		Monthly data			Dec.- Jan. change
	1990		1990		1991	
	III	IV	Nov.	Dec.	Jan.	
HOUSEHOLD DATA						
Thousands of persons						
Labor force <u>1/</u>	126,418.	126,525.	126,338.	126,791.	126,253.	-538
Total employment <u>1/</u> ..	119,441.	119,165.	119,001.	119,191.	118,537.	-654
Civilian labor force...	124,795.	124,924.	124,723.	125,174.	124,638.	-536
Civilian employment...	117,818.	117,564.	117,386.	117,574.	116,922.	-652
Unemployment.....	6,976.	7,360.	7,337.	7,600.	7,715.	115
Not in labor force....	63,471.	63,772.	63,974.	63,692.	64,339.	647
Discouraged workers.	831.	941.	N.A.	N.A.	N.A.	N.A.
Percent of labor force						
Unemployment rates:						
All workers <u>1/</u>	5.5.	5.8.	5.8.	6.0.	6.1.	0.1
All civilian workers	5.6.	5.9.	5.9.	6.1.	6.2.	.1
Adult men.....	5.0.	5.4.	5.4.	5.6.	5.6.	.0
Adult women.....	4.9.	5.1.	5.1.	5.3.	5.3.	.0
Teenagers.....	16.0.	16.4.	16.4.	16.6.	18.2.	1.6
White.....	4.8.	5.1.	5.0.	5.3.	5.5.	.2
Black.....	11.6.	12.0.	12.2.	12.2.	12.1.	-.1
Hispanic origin...	8.1.	8.7.	8.6.	9.3.	9.3.	.0
ESTABLISHMENT DATA						
Thousands of jobs						
Nonfarm employment....	110,655.	p110,205.	110,165.	p110,017.	p109,785.	p-232
Goods-producing.....	25,016.	p24,571.	24,511.	p24,426.	p24,197.	p-229
Service-producing....	85,639.	p85,633.	85,654.	p85,591.	p85,588.	p-3
Hours of work						
Average weekly hours:						
Total private.....	34.6.	p34.4.	34.4.	p34.6.	p34.1.	p-0.5
Manufacturing.....	41.0.	p40.6.	40.5.	p40.7.	p40.2.	p-.5
Overtime.....	3.7.	p3.6.	3.5.	p3.6.	p3.4.	p-.2

1/ Includes the resident Armed Forces.
N.A.=not available.

p=preliminary.

Civilian Employment and the Labor Force (Household Survey Data)

Total civilian employment, which had shown a small increase in December, fell by 650,000 in January to a seasonally adjusted level of 116.9 million. The percentage of the population that is employed (the employment-population ratio) dropped by four-tenths of a point in January to 61.9 percent, its lowest level since March 1988. (See table A-2.)

The civilian labor force fell by 540,000 in January to 124.6 million; this followed an increase of 450,000 in December. Over the past year, the labor force has grown only negligibly--by 300,000--while the working-age population has continued to increase at a faster pace. As a result, the civilian labor force participation rate dropped by half a percentage point over the past year to 66.0 percent in January. Most of the decreasing participation has occurred among teenagers. (See table A-2.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment decreased by 230,000 in January to 109.8 million, following a decline of 150,000 in December, as revised. Job losses now total over a million since last June, with about three-fourths of the decline occurring in the private sector. The construction and manufacturing industries were the hardest hit in January. (See table B-1.)

Construction employment fell by 155,000, seasonally adjusted, with some portion of the decline probably resulting from unusually bad weather during the January survey period. This industry has lost 450,000 jobs since last May.

Manufacturing employment declined by 70,000 over the month, continuing a downtrend which has resulted in the loss of 900,000 jobs since the beginning of 1989. Factory employment declines were concentrated in the durable goods industries, with large losses in construction-related industries--lumber and wood products, furniture and fixtures, and stone, clay, and glass products--and in industries engaged in or related to auto manufacturing--motor vehicles and equipment and fabricated metals.

Employment in the service-producing sector was unchanged in January following losses of 60,000 in December. Weakness in many of the service-sector industries was offset by a seasonally adjusted increase in retail trade, where a very weak pre-Christmas buildup led to smaller-than-expected January cutbacks.

Wholesale trade employment edged down in January; the industry has lost 70,000 jobs since it peaked in June. All of the over-the-month decline was in durable goods distribution, mostly in machinery and motor vehicles.

The services industry, which had continued to add jobs through November, now has had 2 consecutive months without further growth. Business services continued to experience large losses, as employment was down more than 30,000 over the month and 90,000 over the past 4 months. Health services added about 40,000 jobs.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls, which has been quite volatile during the economic downturn, decreased by 0.5 hour in January to 34.1 hours, seasonally adjusted, following increases in the prior 2 months. The manufacturing workweek also decreased by half an hour to 40.2 hours, and factory overtime, at 3.4 hours, declined by 0.2 hour. While both the manufacturing workweek and overtime had increased in December, they have been generally trending downward in recent months. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers decreased by 1.9 percent to 121.7 (1982=100) in January, seasonally adjusted, as a result of the sizable declines in both employment and working hours. The index for manufacturing decreased 1.4 percent to 102.2, seasonally adjusted. Over the year, the index for manufacturing was down by 4.4 percent. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers were essentially unchanged in January, on a seasonally adjusted basis, at \$10.18. Average weekly earnings decreased 1.5 percent to \$347.14. Prior to seasonal adjustment, average weekly earnings were down \$8.85. Over the past year, average hourly earnings increased by 3.7 percent and average weekly earnings by 2.5 percent. (See tables B-3 and B-4.)

The Employment Situation for February 1991 will be released on Friday, March 8, at 8:30 A.M. (EST).

Changes in Data Presentation

As announced in last month's issue, this release includes new seasonally adjusted data for broad occupational groupings. These data are incorporated into tables A-4 and A-5 and replace not seasonally adjusted data in old table A-11, which has been discontinued. Data for "black and other" workers (old table A-10) also has been discontinued. The data for more detailed occupational groups and the "black and other" data series will continue to be published in Employment and Earnings and also will be available upon request. Data for specific race and ethnic groups (black, white, and Hispanic) continue to appear in table A-3 of this release.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the population, including Armed Forces in the United States, by sex

(Numbers in thousands)

Employment status and sex	Not seasonally adjusted			Seasonally adjusted ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
	TOTAL								
Noninstitutional population ²	188,990	190,483	190,592	188,990	190,002	190,095	190,312	190,483	190,592
Labor force ³	124,990	128,247	128,200	128,186	128,571	128,445	128,328	128,791	128,253
Participation rate ⁴	66.1	67.3	67.2	67.3	67.5	67.3	67.2	67.5	66.8
Total employed ⁵	117,734	118,904	118,605	118,542	119,484	119,303	119,001	119,191	118,537
Employment-population ratio ⁶	62.3	62.4	61.2	62.3	62.9	62.8	62.5	62.6	62.2
Resident Armed Forces	1,887	1,817	1,815	1,897	1,901	1,870	1,815	1,817	1,815
Civilian employed	116,037	117,287	114,990	117,945	117,883	117,733	117,386	117,574	118,322
Agriculture	2,720	2,843	2,750	3,145	3,194	3,175	3,185	3,253	3,183
Nonagricultural industries	113,317	114,344	112,240	114,800	114,689	114,558	114,201	114,321	113,759
Unemployed	7,256	7,343	8,595	6,544	7,087	7,142	7,337	7,800	7,715
Unemployment rate ⁷	5.8	5.8	8.9	5.2	5.6	5.8	5.8	6.0	6.1
Not in labor force	64,000	64,236	65,392	62,804	63,431	63,650	63,974	63,692	64,339
Men, 18 years and over									
Noninstitutional population ²	90,772	91,537	91,590	90,772	91,271	91,299	91,440	91,537	91,590
Labor force ³	68,844	69,566	68,915	68,698	69,814	69,804	69,929	70,058	69,543
Participation rate ⁴	75.8	76.0	75.2	76.7	76.5	76.5	76.4	76.5	75.9
Total employed ⁵	64,602	65,242	63,825	66,013	66,853	66,822	65,790	65,781	65,251
Employment-population ratio ⁶	71.2	71.3	69.7	72.7	72.2	72.1	71.9	71.9	71.2
Resident Armed Forces	1,523	1,454	1,453	1,523	1,441	1,414	1,453	1,454	1,453
Civilian employed	63,079	63,788	62,372	64,490	64,412	64,408	64,337	64,327	63,798
Unemployed	4,242	4,324	5,090	3,995	3,981	3,982	4,109	4,277	4,292
Unemployment rate ⁷	6.2	6.2	7.4	5.2	5.7	5.7	5.9	6.1	6.2
Women, 18 years and over									
Noninstitutional population ²	98,218	98,946	99,002	98,218	98,731	98,796	98,872	98,946	99,002
Labor force ³	56,145	58,681	56,285	56,578	56,757	56,641	56,439	56,733	56,710
Participation rate ⁴	57.2	57.3	56.9	57.8	57.5	57.3	57.1	57.3	57.3
Total employed ⁵	53,132	53,662	52,780	53,529	53,631	53,481	53,211	53,410	53,287
Employment-population ratio ⁶	54.1	54.2	53.3	54.6	54.3	54.1	53.8	54.0	53.8
Resident Armed Forces	174	163	162	174	190	156	162	163	162
Civilian employed	52,958	53,499	52,618	53,455	53,471	53,325	53,049	53,247	53,125
Unemployed	3,014	3,020	3,505	2,949	3,126	3,160	3,228	3,323	3,423
Unemployment rate ⁷	5.4	5.3	6.2	5.2	5.5	5.6	5.7	5.9	6.0

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

² Includes members of the Armed Forces stationed in the United States.

³ Labor force as a percent of the noninstitutional population.

⁴ Total employment as a percent of the noninstitutional population.

⁵ Unemployment as a percent of the labor force (including the resident Armed Forces).

Note on Armed Forces estimates

Estimates of the labor force including the Armed Forces that appear in table A-1 of this release should be interpreted with caution. The recent transfer of active-duty personnel to the Persian Gulf and the callup of reservists are not fully reflected in the current estimates of the size of the resident Armed Forces. These data come from administrative sources and are affected, among other things, by the practice of most branches of the services to treat current deployments as temporary-duty assignments. In addition, the civilian population estimates may be slightly overstated, because it is not possible for the Bureau of Labor Statistics to reflect fully the recent callup of civilian reservists. The Bureau believes, however, that this situation has had no appreciable effect on the civilian labor market data.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by sex and age
(Numbers in thousands)

Employment status, sex, and age	Not seasonally adjusted			Seasonally adjusted ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
TOTAL									
Civilian noninstitutional population	187,293	188,866	188,077	187,293	186,401	188,525	188,697	188,866	188,977
Civilian labor force	123,293	124,630	123,585	124,489	124,970	124,875	124,723	125,174	124,638
Participation rate	65.8	66.0	65.4	66.5	66.3	66.2	66.1	66.3	66.0
Employed	116,037	117,287	114,990	117,945	117,883	117,793	117,266	117,574	116,922
Employment-population ratio ²	62.0	62.1	60.8	63.0	62.8	62.4	62.2	62.3	61.9
Unemployed	7,256	7,343	8,595	6,544	7,087	7,142	7,337	7,600	7,715
Unemployment rate	5.9	5.9	7.0	5.3	5.7	5.7	5.9	6.1	6.2
Men, 20 years and over									
Civilian noninstitutional population	82,188	83,208	83,271	82,188	82,940	83,013	83,092	83,208	83,271
Civilian labor force	63,654	64,575	64,089	64,031	64,572	64,594	64,682	64,803	64,345
Participation rate	77.5	77.6	77.0	77.9	77.9	77.8	77.8	77.8	77.3
Employed	60,042	60,881	59,887	61,059	61,248	61,245	61,217	61,188	60,734
Employment-population ratio ²	73.1	73.2	71.7	74.3	73.8	73.8	73.7	73.5	72.9
Agriculture	2,040	2,205	2,080	2,258	2,299	2,283	2,307	2,365	2,289
Nonagricultural industries	58,002	58,676	57,827	58,791	58,949	58,962	58,910	58,823	58,445
Unemployed	3,612	3,695	4,402	2,972	3,324	3,349	3,465	3,615	3,611
Unemployment rate	5.7	5.7	6.9	4.6	5.1	5.2	5.4	5.6	5.6
Women, 20 years and over									
Civilian noninstitutional population	91,091	92,042	92,139	91,091	91,765	91,857	91,963	92,042	92,139
Civilian labor force	52,575	53,284	52,971	52,703	53,129	53,047	52,896	53,182	53,097
Participation rate	57.7	57.9	57.5	57.9	57.9	57.7	57.5	57.8	57.6
Employed	50,025	50,697	50,045	50,265	50,564	50,423	50,196	50,359	50,200
Employment-population ratio ²	54.9	55.1	54.3	55.2	55.0	54.9	54.6	54.7	54.6
Agriculture	513	578	557	610	633	628	627	647	664
Nonagricultural industries	49,512	50,119	49,487	49,655	49,871	49,795	49,569	49,742	49,636
Unemployed	2,550	2,586	2,926	2,438	2,625	2,624	2,700	2,793	2,797
Unemployment rate	4.9	4.9	5.5	4.6	4.9	4.9	5.1	5.3	5.3
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,034	13,616	13,567	14,034	13,696	13,655	13,642	13,616	13,567
Civilian labor force	7,063	6,772	6,526	7,755	7,269	7,234	7,145	7,189	7,196
Participation rate	50.3	49.7	48.1	55.3	53.1	53.0	52.4	52.8	53.0
Employed	5,970	5,709	5,259	6,021	6,191	6,065	5,973	5,997	5,889
Employment-population ratio ²	42.5	41.9	38.8	47.2	44.8	44.4	43.6	44.0	43.4
Agriculture	187	160	132	267	282	264	251	241	211
Nonagricultural industries	5,803	5,549	5,126	6,354	5,889	5,801	5,722	5,756	5,678
Unemployed	1,093	1,063	1,267	1,134	1,138	1,169	1,172	1,192	1,307
Unemployment rate	15.5	15.7	19.4	14.6	15.7	16.2	16.4	16.6	18.2

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

² Civilian employment as a percent of the civilian noninstitutional population.

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Table A-3. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	Not seasonally adjusted			Seasonally adjusted ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
WHITE									
Civilian noninstitutional population	159,238	160,942	161,007	159,939	160,640	160,717	160,831	160,942	161,007
Civilian labor force	105,909	106,948	106,962	106,962	107,391	107,277	107,048	107,517	108,962
Participation rate	66.2	66.5	65.9	66.9	66.9	66.7	66.6	66.8	66.4
Employed	100,419	101,505	99,422	102,112	102,192	102,017	101,848	101,843	101,104
Employment-population ratio ²	62.8	63.1	61.8	63.8	63.5	63.5	63.2	63.3	62.8
Unemployed	5,496	5,443	6,670	4,840	5,199	5,260	5,400	5,674	5,856
Unemployment rate	5.2	5.1	6.3	4.5	4.8	4.9	5.0	5.3	5.5
Men, 20 years and over									
Civilian labor force	55,464	56,071	55,663	55,793	56,119	56,123	56,174	56,307	55,836
Participation rate	78.0	78.0	77.4	79.5	78.3	78.3	78.3	78.3	77.6
Employed	52,703	53,213	52,162	53,562	53,675	53,615	53,564	53,497	53,010
Employment-population ratio ²	74.1	74.0	72.5	75.3	74.9	74.8	74.6	74.4	73.7
Unemployed	2,761	2,858	3,501	2,231	2,444	2,508	2,610	2,810	2,826
Unemployment rate	5.0	5.1	6.3	4.0	4.4	4.5	4.6	5.0	5.1
Women, 20 years and over									
Civilian labor force	44,379	45,050	44,764	44,522	44,964	44,918	44,711	44,995	44,888
Participation rate	57.2	57.6	57.2	57.4	57.7	57.6	57.2	57.6	57.4
Employed	42,504	43,229	42,584	42,762	43,101	43,032	42,768	43,001	42,841
Employment-population ratio ²	54.8	55.3	54.4	55.2	55.3	55.1	54.8	55.0	54.8
Unemployed	1,875	1,821	2,180	1,760	1,863	1,886	1,943	1,994	2,047
Unemployment rate	4.2	4.0	4.9	4.0	4.2	4.2	4.3	4.4	4.6
Both sexes, 16 to 19 years									
Civilian labor force	6,063	6,827	5,965	6,637	6,288	6,236	6,163	6,215	6,238
Participation rate	53.6	53.4	52.1	56.7	57.1	56.8	56.3	57.1	57.4
Employed	5,213	5,063	4,676	5,788	5,416	5,370	5,316	5,345	5,253
Employment-population ratio ²	46.1	46.4	43.0	51.2	49.2	49.0	48.8	49.0	48.3
Unemployed	850	764	989	849	872	866	847	870	985
Unemployment rate	14.0	13.1	17.5	12.8	13.9	13.9	13.7	14.0	16.8
Men	15.4	15.3	18.4	13.2	13.0	14.7	14.9	14.9	15.5
Women	12.6	10.8	16.4	12.3	12.6	13.0	12.5	13.0	16.8
BLACK									
Civilian noninstitutional population	21,163	21,448	21,470	21,163	21,261	21,353	21,417	21,448	21,470
Civilian labor force	13,351	13,479	13,341	13,517	13,478	13,493	13,550	13,486	13,501
Participation rate	63.1	62.8	62.1	63.9	63.1	63.1	63.3	62.9	62.9
Employed	11,821	11,859	11,707	11,980	11,869	11,913	11,897	11,836	11,866
Employment-population ratio ²	55.9	55.3	54.5	56.6	56.5	56.7	56.5	56.2	56.3
Unemployed	1,530	1,619	1,634	1,537	1,607	1,580	1,653	1,650	1,635
Unemployment rate	11.5	12.0	12.2	11.4	11.9	11.7	12.2	12.2	12.1
Men, 20 years and over									
Civilian labor force	6,152	6,340	6,272	6,195	6,324	6,339	6,348	6,359	6,313
Participation rate	73.0	73.9	73.0	73.5	74.1	74.1	74.3	74.1	73.5
Employed	5,425	5,641	5,512	5,611	5,597	5,635	5,638	5,664	5,602
Employment-population ratio ²	64.4	65.8	64.1	65.4	65.5	65.9	66.0	66.0	65.2
Unemployed	727	699	760	584	727	704	710	695	712
Unemployment rate	11.8	11.0	12.1	11.0	11.5	11.1	11.2	10.9	11.3
Women, 20 years and over									
Civilian labor force	6,411	6,398	6,391	6,397	6,362	6,345	6,365	6,339	6,374
Participation rate	60.7	59.5	59.4	60.5	59.5	59.3	59.4	59.0	59.3
Employed	5,819	5,729	5,761	5,798	5,716	5,729	5,717	5,699	5,730
Employment-population ratio ²	55.1	53.4	53.8	54.9	53.5	53.5	53.3	52.8	53.4
Unemployed	563	657	630	599	646	617	648	671	636
Unemployment rate	9.2	10.3	9.9	9.4	10.2	9.7	10.2	10.6	10.0
Both sexes, 16 to 19 years									
Civilian labor force	788	761	678	625	700	699	637	788	814
Participation rate	36.3	35.2	31.9	42.6	37.0	36.0	36.9	36.9	36.4
Employed	677	488	434	671	556	650	542	604	526
Employment-population ratio ²	28.6	22.9	20.5	30.9	26.0	29.8	25.2	23.6	24.8
Unemployed	210	263	244	254	234	239	295	284	288
Unemployment rate	26.7	35.0	36.0	27.5	29.8	32.0	35.2	36.0	35.4
Men	30.3	36.6	37.6	29.1	31.4	31.3	33.2	36.4	34.6
Women	22.7	33.3	34.5	25.7	27.6	32.7	37.5	35.6	36.1

See footnotes at end of table.

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Table A-3. Employment status of the civilian population by race, sex, age, and Hispanic origin—Continued

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	Not seasonally adjusted			Seasonally adjusted ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
HISPANIC ORIGIN									
Civilian noninstitutional population	14,090	14,514	14,553	14,090	14,398	14,435	14,474	14,514	14,553
Civilian labor force	9,322	9,472	9,515	9,488	9,632	9,580	9,500	9,569	9,675
Participation rate	66.2	65.3	65.4	67.4	66.0	66.4	65.6	65.9	66.5
Employed	8,585	8,596	8,577	8,787	8,809	8,793	8,683	8,676	8,779
Employment-population ratio ²	61.0	59.2	58.9	62.4	61.2	60.9	60.0	59.8	60.3
Unemployed	738	867	938	701	823	787	817	893	896
Unemployment rate	7.9	9.4	9.9	7.4	8.5	8.2	8.6	9.3	9.3

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

² Civilian employment as a percent of the civilian noninstitutional

population.

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-4. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
CHARACTERISTIC									
Civilian employed, 16 years and over	116,037	117,287	114,990	117,945	117,883	117,733	117,386	117,574	116,922
Married men, spouse present	40,654	40,795	39,993	41,003	40,833	40,833	40,844	40,728	40,316
Married women, spouse present	29,656	29,951	29,451	29,797	29,789	29,713	29,713	29,775	29,599
Women who maintain families	6,259	6,464	6,405	6,241	6,378	6,354	6,341	6,367	6,386
OCCUPATION									
Managerial and professional specialty	30,824	30,823	30,736	30,794	30,572	30,714	30,732	30,777	30,699
Technical, sales, and administrative support	36,512	36,513	36,033	36,849	36,541	36,447	36,330	36,242	36,360
Service occupations	15,319	15,360	15,504	15,443	15,859	15,880	15,861	15,904	15,746
Precision production, craft, and repair	13,482	13,435	13,091	13,785	13,804	13,547	13,428	13,524	13,399
Operators, laborers, and laborers	17,122	17,656	16,683	17,658	17,514	17,658	17,752	17,895	17,227
Farming, forestry, and fishing	2,803	3,001	2,942	3,390	3,449	3,376	3,360	3,436	3,437
INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,394	1,507	1,361	1,643	1,752	1,714	1,681	1,671	1,603
Self-employed workers	1,250	1,354	1,283	1,361	1,299	1,260	1,266	1,473	1,396
Unpaid family workers	78	82	105	119	108	89	116	102	157
Nonagricultural industries:									
Wage and salary workers	104,510	105,195	103,415	105,841	105,686	105,384	105,267	105,085	104,696
Government	17,620	17,939	17,839	17,691	17,597	17,694	17,533	17,640	17,680
Private industries	86,890	87,256	85,576	88,150	88,089	87,690	87,634	87,455	87,018
Private households	974	1,012	914	1,032	1,067	1,017	992	1,013	967
Other industries	85,716	86,244	84,662	87,118	87,022	86,673	86,642	86,442	86,051
Self-employed workers	8,567	8,927	8,607	8,937	8,808	8,859	8,800	8,896	8,738
Unpaid family workers	340	222	219	256	226	250	255	238	232
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	5,043	5,497	5,694	4,921	5,301	5,409	5,436	5,581	5,510
Slack work	2,717	3,074	3,347	2,368	2,858	2,893	2,796	2,928	2,908
Could only find part-time work	2,052	2,199	2,061	2,210	2,408	2,344	2,340	2,302	2,214
Voluntary part time	15,269	16,119	15,115	15,000	15,250	15,129	15,048	15,081	14,633
Nonagricultural industries:									
Part time for economic reasons	4,814	5,211	5,364	4,661	5,051	5,135	5,183	5,262	5,176
Slack work	2,536	2,850	3,104	2,206	2,482	2,467	2,625	2,742	2,692
Could only find part-time work	2,009	2,140	2,014	2,135	2,339	2,291	2,262	2,218	2,133
Voluntary part time	14,821	15,740	14,794	14,579	14,829	14,715	14,658	14,650	14,461

¹ Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

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Table A-5. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
CHARACTERISTIC									
Total, 16 years and over	8,544	7,800	7,715	5.3	5.7	5.7	5.9	6.1	6.2
Men, 16 years and over	3,595	4,277	4,292	5.3	5.8	5.8	6.0	6.2	6.3
Men, 20 years and over	2,972	3,615	3,611	4.6	5.1	5.2	5.4	5.6	5.6
Women, 16 years and over	2,949	3,323	3,423	5.2	5.5	5.6	5.7	5.9	6.1
Women, 20 years and over	2,438	2,793	2,797	4.6	4.9	4.9	5.1	5.3	5.3
Both sexes, 16 to 19 years	1,134	1,192	1,307	14.6	15.7	16.2	16.4	16.6	16.2
Married men, spouse present	1,424	1,616	1,677	3.4	3.5	3.5	3.7	3.6	4.0
Married women, spouse present	1,158	1,279	1,257	3.7	3.9	3.9	4.1	4.1	4.1
Women who maintain families	516	603	634	7.6	8.7	8.5	8.7	8.7	9.0
Full-time workers	5,306	6,250	6,415	5.0	5.4	5.5	5.7	5.8	6.0
Part-time workers	1,286	1,364	1,371	7.2	7.2	7.1	7.3	7.6	7.7
Labor force time lost ²	-	-	-	6.0	6.4	6.6	6.7	6.9	7.0
OCCUPATION³									
Managerial and professional specialty	595	702	846	1.9	2.3	2.2	2.2	2.2	2.7
Technical sales, and administrative support	1,543	1,631	1,705	4.0	4.3	4.4	4.6	4.8	4.5
Precision production, craft, and repair	755	1,023	1,051	5.2	6.5	6.5	6.9	7.0	7.3
Operators, fabricators, and laborers	1,689	1,861	1,924	8.7	8.2	8.9	9.4	9.6	10.0
Farming, forestry, and fishing	209	255	281	5.8	6.2	5.5	6.2	6.9	7.6
INDUSTRY									
Nonagricultural private wage and salary workers	5,100	5,838	5,957	5.5	5.8	5.9	6.2	6.3	6.4
Goods-producing industries	1,929	2,336	2,346	6.5	7.1	7.3	7.9	8.1	8.2
Mining	53	42	81	6.9	3.8	4.1	4.7	5.8	7.5
Construction	620	670	695	9.4	12.0	13.0	13.3	14.0	14.5
Manufacturing	1,256	1,424	1,390	5.7	5.8	5.8	6.5	6.5	6.4
Durable goods	737	853	864	5.6	6.0	5.9	6.9	6.6	6.8
Non-durable goods	519	571	526	5.7	5.4	5.7	5.9	6.4	5.9
Service-producing industries	3,171	3,502	3,611	5.0	5.3	5.3	5.4	5.4	5.6
Transportation and public utilities	259	273	288	4.1	3.9	4.1	4.1	4.2	4.4
Wholesale and retail trade	1,476	1,571	1,657	6.2	6.6	6.7	6.7	6.6	7.0
Finance and service industries	1,436	1,658	1,667	4.3	4.7	4.5	4.7	4.8	4.9
Government workers	442	495	555	2.4	2.8	2.8	2.8	2.7	3.0
Agricultural wage and salary workers	166	235	216	9.2	9.3	8.5	9.8	12.3	11.9

¹ Unemployment as a percent of the civilian labor force.² Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.³ Seasonally adjusted unemployment data for service occupations are not available because the seasonal components are small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

Table A-6. Duration of unemployment

(Numbers in thousands)

Weeks of unemployment	Not seasonally adjusted			Seasonally adjusted					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
DURATION									
Less than 5 weeks	3,447	3,057	3,754	3,131	3,087	3,139	3,277	3,280	3,410
5 to 14 weeks	2,294	2,614	2,633	2,010	2,452	2,391	2,334	2,518	2,490
15 weeks and over	1,514	1,673	1,968	1,396	1,605	1,691	1,727	1,739	1,829
15 to 26 weeks	833	906	1,065	794	881	893	838	940	981
27 weeks and over	682	765	903	642	744	808	789	799	848
Average (mean) duration, in weeks	11.7	12.7	12.2	11.9	12.4	12.0	12.4	12.4	12.4
Median duration, in weeks	5.1	6.1	5.9	5.0	6.1	5.9	5.9	5.9	5.9
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	47.5	41.6	43.7	47.9	43.2	44.1	44.7	43.5	44.1
5 to 14 weeks	31.6	35.6	33.2	30.7	34.3	33.6	31.8	33.4	32.2
15 weeks and over	20.9	22.8	23.1	21.4	22.5	22.3	23.5	23.1	23.7
15 to 26 weeks	11.5	12.4	12.6	11.5	12.1	12.5	12.8	12.5	12.7
27 weeks and over	9.4	10.4	10.5	9.8	10.4	9.8	10.8	10.6	11.0

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Table A-7. Reason for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted			Seasonally adjusted					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
NUMBER OF UNEMPLOYED									
Job losers	3,819	3,956	5,000	3,116	3,519	3,563	3,756	3,707	4,068
On layoff	1,543	1,264	1,730	1,012	1,111	1,056	1,136	1,150	1,131
Other job losers	2,276	2,692	3,270	2,104	2,408	2,507	2,620	2,547	2,938
Job leavers	1,113	957	983	1,015	954	981	996	1,024	899
Reentrants	1,772	1,898	2,036	1,775	1,952	1,911	1,826	2,128	2,044
New entrants	552	542	576	647	683	684	655	662	672
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	52.6	53.9	56.2	47.6	49.6	49.9	51.2	49.9	53.0
On layoff	21.3	17.2	20.1	16.4	15.7	14.8	15.5	15.1	14.7
Other job losers	31.4	36.7	38.0	32.1	34.0	35.1	35.7	34.8	38.2
Job leavers	15.3	13.0	11.4	15.5	13.5	13.7	13.6	13.5	11.7
Reentrants	24.4	25.7	23.7	27.1	27.5	26.8	26.3	26.0	26.6
New entrants	7.6	7.4	6.7	9.9	9.4	9.8	8.9	8.7	8.7
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers	3.1	3.2	4.0	2.5	2.8	2.9	3.0	3.0	3.3
Job leavers .....	.9	.8	.8	.8	.8	.8	.8	.8	.7
Reentrants	1.4	1.5	1.6	1.4	1.6	1.5	1.5	1.7	1.6
New entrants .....	.4	.4	.5	.5	.5	.5	.5	.5	.5

Table A-8. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measure	Quarterly averages				Monthly data			
	1989	1990			1990		1991	
	IV	I	II	III	IV	Nov.	Dec.	Jan.
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.1	1.1	1.1	1.3	1.3	1.4	1.4	1.5
U-2 Job losers as a percent of the civilian labor force	2.4	2.5	2.5	2.7	3.0	3.0	3.0	3.3
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force for persons 25 years and over	4.1	4.1	4.2	4.4	4.7	4.7	5.0	5.0
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	4.9	6.0	6.0	6.2	5.7	5.7	5.8	6.0
U-4a Total unemployed as a percent of the labor force, including the resident Armed Forces	6.2	6.2	6.2	6.6	6.8	6.8	6.0	6.1
U-4b Total unemployed as a percent of the civilian labor force	6.3	6.3	6.3	6.6	6.9	6.9	6.1	6.2
U-5 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons as a percent of the civilian labor force less 1/2 of the part-time labor force	7.2	7.3	7.3	7.6	8.1	8.1	8.4	8.5
U-7 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less 1/2 of the part-time labor force	7.8	7.9	8.0	8.3	8.9	N.A.	N.A.	N.A.

N.A. = not available.

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Table A-6. Unemployed persons by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
	Total, 16 years and over	8,544	7,600	7,715	5.3	5.7	5.7	5.9	6.1	6.2
16 to 24 years	2,316	2,483	2,617	10.7	11.5	11.7	11.8	11.7	12.4
16 to 17 years	1,134	1,192	1,307	14.6	15.7	16.2	16.4	16.6	16.2
18 to 19 years	448	524	541	15.2	18.4	18.7	18.6	19.1	19.6
20 to 24 years	866	865	745	13.9	14.5	14.6	15.0	15.0	16.7
25 years and over	4,279	5,160	5,162	4.2	4.5	4.6	4.7	5.0	5.5
25 to 54 years	3,746	4,684	4,618	4.3	4.7	4.8	5.0	5.3	5.2
55 years and over	508	501	510	3.3	3.3	3.5	3.3	3.3	3.4
Men, 16 years and over	3,595	4,277	4,292	5.3	5.8	5.9	6.0	6.2	6.3
16 to 24 years	1,275	1,363	1,461	11.2	11.9	12.0	12.1	12.3	13.2
16 to 17 years	623	662	681	15.4	16.6	16.7	17.1	17.4	18.2
18 to 19 years	223	295	278	14.7	18.9	18.4	19.2	20.1	18.7
20 to 24 years	381	366	381	15.1	16.0	15.6	15.8	15.7	16.8
25 years and over	652	701	780	8.9	9.4	9.6	9.5	9.6	10.7
18 to 19 years	2,370	2,637	2,697	4.2	4.6	4.6	4.8	5.1	5.1
25 to 54 years	2,038	2,625	2,535	4.3	4.7	4.7	5.0	5.4	6.2
55 years and over	306	316	319	3.5	3.6	3.6	3.8	3.6	3.7
Women, 16 years and over	2,849	3,323	3,423	5.2	5.5	5.6	5.7	5.9	6.1
16 to 24 years	1,041	1,100	1,156	10.1	11.0	11.4	11.0	11.1	11.6
16 to 17 years	511	530	626	13.8	14.4	15.5	15.6	15.6	18.1
18 to 19 years	226	229	263	15.8	17.8	18.9	17.8	17.9	20.7
20 to 24 years	285	299	364	12.5	12.9	13.4	14.2	14.2	16.7
25 years and over	530	570	530	8.1	9.2	9.2	8.6	8.7	8.1
18 to 19 years	1,909	2,223	2,265	4.1	4.4	4.3	4.6	4.8	4.9
25 to 54 years	1,708	2,039	2,063	4.3	4.6	4.6	4.9	5.1	5.2
55 years and over	202	185	191	3.1	2.7	2.9	2.7	2.8	2.9

¹ Unemployment as a percent of the civilian labor force.

Table A-10. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
	Jan. 1990	Jan. 1991	Jan. 1990	Jan. 1991	Jan. 1990	Jan. 1991	Number		Percent of labor force	
							Jan. 1990	Jan. 1991	Jan. 1990	Jan. 1991
VIETNAM-ERA VETERANS										
Total, 35 years and over	7,556	7,718	6,876	6,976	6,558	6,596	317	378	4.8	5.4
35 to 39 years	6,506	6,483	6,178	6,104	5,895	5,763	281	341	4.6	5.6
40 to 44 years	1,567	1,276	1,486	1,192	1,403	1,093	89	89	5.5	8.3
45 to 49 years	3,318	3,203	3,180	3,024	3,020	2,868	131	186	4.1	5.5
50 years and over	1,833	2,015	1,529	1,888	1,461	1,813	86	76	4.4	4.0
	1,048	1,225	701	672	685	635	36	37	5.1	4.2
NONVETERANS										
Total, 35 to 49 years	16,860	17,630	15,776	16,713	15,047	15,751	726	662	4.6	5.8
35 to 39 years	7,722	8,171	7,288	7,783	6,965	7,310	323	453	4.4	5.8
40 to 44 years	4,962	5,454	4,854	5,064	4,433	4,828	222	257	4.8	5.1
45 to 49 years	4,156	4,205	3,634	3,866	3,650	3,616	164	251	4.8	6.5

NOTE: Male Vietnam-era veterans are men who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are men who have never served in the Armed Forces; published data are limited to

those 35 to 49 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

HOUSEHOLD DATA

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Table A-11. Employment status of the civilian population for eleven large States
(Numbers in thousands)

State and employment status	Not seasonally adjusted ^a			Seasonally adjusted ^b					
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991
California									
Civilian noninstitutional population	21,718	22,166	22,202	21,718	22,039	22,078	22,122	22,166	22,202
Civilian labor force	14,442	14,580	14,503	14,525	14,834	14,833	14,823	14,875	14,890
Employed	13,547	13,822	13,823	13,778	13,764	13,739	13,806	13,872	13,858
Unemployed	794	758	1,080	747	870	894	957	1,003	1,032
Unemployment rate	5.5	5.5	7.4	5.1	5.9	6.1	6.5	6.8	7.0
Florida									
Civilian noninstitutional population	10,015	10,230	10,248	10,015	10,189	10,188	10,209	10,230	10,248
Civilian labor force	6,184	6,389	6,323	6,293	6,420	6,443	6,468	6,434	6,433
Employed	5,823	6,037	5,929	5,932	6,030	6,047	6,085	6,078	6,030
Unemployed	361	352	394	361	390	396	403	356	394
Unemployment rate	5.8	5.5	6.2	5.7	6.1	6.1	6.2	5.5	6.1
Illinois									
Civilian noninstitutional population	8,854	8,894	8,837	8,854	8,882	8,885	8,890	8,894	8,897
Civilian labor force	6,006	6,028	6,003	6,053	6,010	6,040	6,044	6,069	6,050
Employed	5,295	5,372	5,567	5,609	5,587	5,677	5,683	5,707	5,641
Unemployed	412	356	437	384	423	363	361	362	409
Unemployment rate	6.9	5.9	7.3	6.3	7.0	6.0	6.0	6.0	6.8
Massachusetts									
Civilian noninstitutional population	4,819	4,822	4,822	4,819	4,821	4,820	4,821	4,822	4,822
Civilian labor force	3,122	3,115	3,076	3,160	3,167	3,140	3,146	3,152	3,114
Employed	2,967	2,887	2,798	2,915	2,966	2,937	2,926	2,921	2,846
Unemployed	155	218	278	145	201	203	220	231	268
Unemployment rate	5.0	7.0	9.0	4.6	6.3	6.5	7.0	7.3	8.6
Michigan									
Civilian noninstitutional population	6,993	7,009	7,009	6,993	7,003	7,004	7,008	7,009	7,009
Civilian labor force	4,591	4,565	4,512	4,633	4,570	4,538	4,518	4,547	4,553
Employed	4,158	4,237	4,123	4,259	4,238	4,203	4,174	4,214	4,225
Unemployed	433	327	389	374	332	335	342	333	328
Unemployment rate	9.4	7.2	8.6	8.1	7.3	7.4	7.6	7.3	7.2
New Jersey									
Civilian noninstitutional population	6,030	6,028	6,027	6,030	6,027	6,026	6,027	6,028	6,027
Civilian labor force	3,980	4,034	3,990	4,007	4,075	4,103	4,089	4,050	4,015
Employed	3,773	3,807	3,705	3,826	3,882	3,881	3,847	3,818	3,757
Unemployed	207	227	285	181	213	222	222	232	258
Unemployment rate	5.2	5.6	7.1	4.5	5.2	5.4	5.5	5.7	6.4
New York									
Civilian noninstitutional population	13,803	13,803	13,801	13,803	13,801	13,799	13,801	13,803	13,801
Civilian labor force	8,741	8,804	8,639	8,721	8,711	8,629	8,565	8,558	8,510
Employed	8,293	8,098	7,933	8,299	8,257	8,154	8,104	8,085	7,969
Unemployed	478	466	606	422	474	474	461	470	550
Unemployment rate	5.5	5.4	7.1	4.8	5.4	5.5	5.4	5.5	6.5
North Carolina									
Civilian noninstitutional population	4,971	5,028	5,033	4,971	5,012	5,016	5,022	5,028	5,033
Civilian labor force	3,332	3,398	3,344	3,365	3,413	3,391	3,379	3,420	3,376
Employed	3,179	3,222	3,142	3,246	3,282	3,228	3,210	3,242	3,200
Unemployed	153	174	202	119	131	163	169	178	176
Unemployment rate	4.6	5.1	6.0	3.5	3.8	4.6	5.0	5.2	4.9
Ohio									
Civilian noninstitutional population	8,274	8,298	8,290	8,274	8,290	8,291	8,295	8,295	8,299
Civilian labor force	5,391	5,484	5,357	5,418	5,447	5,483	5,453	5,488	5,383
Employed	4,979	5,169	4,968	5,074	5,155	5,148	5,156	5,179	5,065
Unemployed	412	315	389	344	291	315	296	309	318
Unemployment rate	7.6	5.7	7.3	6.3	5.3	5.8	5.4	5.6	5.9

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-11. Employment status of the civilian population for eleven large States—Continued

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ²						
	Jan. 1990	Dec. 1990	Jan. 1991	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	
Pennsylvania										
Civilian noninstitutional population	9,378	9,402	9,402	9,378	9,393	9,395	9,398	9,402	9,402	
Civilian labor force	5,960	5,891	5,831	5,887	5,870	5,905	5,917	5,922	5,853	
Employed	5,513	5,567	5,416	5,582	5,549	5,558	5,574	5,585	5,482	
Unemployed	348	324	415	305	321	347	343	337	371	
Unemployment rate	5.9	5.5	7.1	5.2	5.5	5.9	5.8	5.7	6.3	
Texas										
Civilian noninstitutional population	12,300	12,447	12,458	12,300	12,404	12,416	12,432	12,447	12,458	
Civilian labor force	8,321	8,521	8,422	8,414	8,474	8,416	8,467	8,540	8,511	
Employed	7,840	7,965	7,839	7,970	7,940	7,918	7,898	7,845	7,964	
Unemployed	481	557	583	444	534	500	569	695	547	
Unemployment rate	5.8	6.5	6.9	5.3	6.3	5.9	6.7	7.0	6.4	

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.

NOTE: Seasonally adjusted data have been revised based on the experience through December 1990. Data for 1986-90 are subject to revision.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Earnings on nonfarm payrolls by industry (In thousands)

Industry	Not seasonally adjusted					Seasonally adjusted					
	Jan. 1990	Nov. 1989	Dec. 1989	Jan. 1990*	Jan. 1990	Sept. 1989	Oct. 1989	Nov. 1989	Dec. 1989	Jan. 1990*	
	Total.....	108,150	111,099	110,841	108,316	109,654	110,612	110,432	110,165	110,017	109,785
Total private.....	90,147	92,385	92,218	90,671	91,656	92,306	92,112	91,840	91,705	91,527	
Goods-producing industries.....	24,627	24,737	24,392	25,677	25,188	24,931	24,777	24,511	24,426	24,197	
Mining.....	712	745	741	724	723	736	733	738	740	731	
Oil and gas extraction.....	397.3	418.1	417.3	410.4	398	410	411	414	413	412	
Construction.....	4,884	5,163	4,917	4,460	5,294	5,174	5,093	5,029	4,987	4,832	
General building contractors.....	1,284.1	1,281.3	1,240.1	1,144.9	1,361	1,306	1,278	1,254	1,243	1,214	
Manufacturing.....	19,031	18,827	18,736	18,493	19,171	19,019	18,931	18,764	18,699	18,633	
Production workers.....	12,887	12,749	12,662	12,470	13,009	12,899	12,848	12,671	12,635	12,590	
Durable goods.....	11,123	10,911	10,864	10,706	11,192	11,068	11,026	10,865	10,832	10,772	
Production workers.....	7,362	7,218	7,177	7,034	7,400	7,337	7,308	7,171	7,130	7,111	
Lumber and wood products.....	734.4	717.1	705.4	688.4	753	737	730	716	712	704	
Furniture and fixtures.....	519.5	501.3	498.4	492.3	519	510	507	494	494	491	
Stone, clay, and glass products.....	347.7	345.3	332.3	312.1	367	347	346	341	338	333	
Primary metal industries.....	753.2	743.9	739.3	733.8	754	751	751	744	738	735	
Blast furnaces and basic steel products.....	272.5	269.2	268.8	267.1	272	270	271	271	269	267	
Fabricated metal products.....	1,602.5	1,597.5	1,589.3	1,567.3	1,612	1,610	1,605	1,589	1,582	1,577	
Industrial machinery and equipment.....	2,132.1	2,066.8	2,065.4	2,054.2	2,132	2,082	2,081	2,067	2,037	2,033	
Electronic and other electrical equipment.....	1,721.4	1,663.2	1,653.5	1,637.8	1,722	1,674	1,665	1,632	1,645	1,638	
Transportation equipment.....	1,918.8	1,906.1	1,919.9	1,871.4	1,933	1,921	1,909	1,897	1,905	1,881	
Motor vehicles and equipment.....	720.3	751.3	770.0	731.9	734	804	803	768	742	746	
Instruments and related products.....	1,010.0	983.8	984.0	974.1	1,011	991	988	983	981	975	
Miscellaneous manufacturing.....	380.7	386.4	378.4	374.0	389	385	384	380	380	382	
Nondurable goods.....	7,908	7,916	7,870	7,787	7,979	7,951	7,925	7,879	7,867	7,858	
Production workers.....	5,545	5,533	5,483	5,416	5,609	5,582	5,561	5,500	5,483	5,479	
Food and kindred products.....	1,606.3	1,663.4	1,644.4	1,613.3	1,651	1,652	1,654	1,647	1,654	1,658	
Tobacco products.....	49.7	47.8	49.8	50.0	47	47	46	46	47	47	
Textile mill products.....	713.1	689.3	681.6	679.3	715	697	688	687	682	681	
Apparel and other textile products.....	1,076.8	1,016.8	1,006.9	988.6	1,053	1,027	1,021	1,008	1,003	1,003	
Paper and allied products.....	693.4	694.3	695.7	691.9	697	700	698	694	694	694	
Printing and publishing.....	1,376.5	1,378.7	1,378.3	1,367.3	1,376	1,381	1,379	1,372	1,370	1,368	
Chemical and allied products.....	1,076.8	1,083.3	1,085.7	1,079.1	1,081	1,083	1,087	1,087	1,088	1,086	
Petroleum and coal products.....	153.3	161.4	159.0	155.3	158	161	161	161	161	160	
Rubber and misc. plastic products.....	845.2	838.0	851.8	843.7	849	873	869	855	849	849	
Leather and leather products.....	130.1	121.4	119.0	116.4	132	125	122	120	119	118	
Service-producing industries.....	83,523	86,362	86,449	84,639	84,466	85,681	85,655	85,634	85,391	85,588	
Transportation and public utilities.....	3,724	3,910	3,930	3,818	3,790	3,870	3,870	3,866	3,881	3,886	
Transportation.....	1,516	1,697	1,717	1,617	1,568	1,632	1,632	1,633	1,644	1,672	
Communications and public utilities.....	2,210	2,213	2,213	2,201	2,222	2,238	2,238	2,233	2,237	2,214	
Wholesale trade.....	6,308	6,353	6,328	6,266	6,354	6,370	6,355	6,343	6,328	6,314	
Durable goods.....	3,753	3,742	3,734	3,700	3,773	3,763	3,752	3,742	3,734	3,719	
Nondurable goods.....	2,555	2,611	2,594	2,566	2,581	2,607	2,603	2,599	2,594	2,595	
Retail trade.....	19,518	20,055	20,313	19,491	19,807	19,844	19,792	19,709	19,683	19,748	
General merchandise stores.....	2,600	2,607	2,613	2,489.4	2,329	2,486	2,466	2,466	2,452	2,422	
Food stores.....	3,254	3,135.4	3,138.4	3,137.1	3,263	3,304	3,307	3,317	3,312	3,327	
Automotive dealers and service stations.....	2,091.4	2,124.3	2,123.8	2,081.4	2,117	2,140	2,138	2,128	2,119	2,107	
Eating and drinking places.....	6,251.4	6,374.3	6,411.3	6,354.1	6,358	6,623	6,633	6,620	6,603	6,647	
Finance, insurance, and real estate.....	4,736	4,811	4,813	4,749	4,794	4,831	4,843	4,833	4,821	4,823	
Finance.....	3,517	3,534	3,539	3,517	3,527	3,549	3,546	3,541	3,539	3,527	
Insurance.....	2,122	2,147	2,149	2,135	2,124	2,152	2,152	2,151	2,151	2,157	
Real estate.....	1,297	1,330	1,333	1,297	1,343	1,330	1,343	1,341	1,341	1,339	
Services.....	27,254	28,519	28,442	28,054	27,721	28,440	28,473	28,340	28,356	28,539	
Business services.....	4,909.9	5,081.3	5,033.4	4,899.5	4,993	5,071	5,062	5,046	5,015	4,993	
Health services.....	7,815.6	8,334.7	8,384.4	8,407.0	7,837	8,257	8,296	8,335	8,393	8,432	
Government.....	17,983	18,714	18,623	18,249	17,998	18,306	18,320	18,312	18,312	18,258	
Federal.....	2,980	2,949	2,993	2,921	3,000	2,999	2,983	2,961	2,948	2,942	
State.....	4,122	4,468	4,413	4,261	4,223	4,309	4,323	4,323	4,326	4,308	
Local.....	10,821	11,317	11,228	11,065	10,775	10,998	11,014	11,041	11,056	11,008	

* Preliminary.

Establishment survey data on diskette

Five years of data for all series published in the B tables of this release are now available on diskette. For information on format and costs, contact David R. Miles on 202-523-1172.

ESTABLISHMENT DATA

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					
	Jan. 1990	Nov. 1990	Dec. 1990 ^{2/}	Jan. 1991 ^{2/}	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990 ^{2/}	Jan. 1991 ^{2/}
Total private.....	34.1	34.3	34.7	33.7	34.4	34.7	34.2	34.4	34.6	34.1
Mining.....	43.6	44.9	45.7	43.9	43.6	44.7	44.0	44.8	45.0	43.9
Construction.....	37.6	38.2	38.4	35.9	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	40.6	40.8	41.3	40.1	40.7	41.0	40.7	40.5	40.7	40.2
Overtime hours.....	3.5	3.8	3.8	3.2	3.6	3.7	3.6	3.5	3.6	3.4
Durable goods.....	41.2	41.3	41.9	40.6	41.3	41.7	41.3	40.9	41.2	40.6
Overtime hours.....	3.5	3.7	3.9	3.2	3.4	3.8	3.6	3.5	3.6	3.3
Lumber and wood products.....	39.9	39.4	40.1	38.7	40.4	40.7	39.8	39.5	39.9	39.2
Furniture and fixtures.....	39.5	38.9	39.8	38.1	39.4	39.1	38.6	38.5	38.8	38.4
Stone, clay, and glass products.....	41.4	42.1	41.8	39.9	42.3	42.2	41.2	41.8	42.0	40.8
Primary metal industries.....	42.7	42.8	43.0	41.8	42.6	43.0	42.9	42.6	42.4	41.7
Blast furnaces and basic steel products.....	43.2	43.9	43.9	42.6	43.1	43.9	43.8	43.9	43.6	42.5
Fabricated metal products.....	41.1	41.3	41.9	40.6	41.1	41.4	41.2	40.8	41.1	40.6
Industrial machinery and equipment.....	42.2	42.0	43.0	41.8	42.1	42.1	42.1	41.8	42.1	41.7
Electronic and other electrical equipment.....	41.5	41.1	41.8	40.5	40.9	41.1	40.7	40.7	40.8	40.3
Transportation equipment.....	41.4	41.4	42.4	41.0	41.5	42.8	42.5	41.1	41.6	41.1
Motor vehicles and equipment.....	40.8	40.9	42.0	40.7	41.0	43.5	42.9	40.3	41.3	41.0
Instruments and related products.....	41.0	41.4	42.0	40.7	40.9	41.3	41.0	41.0	41.2	40.7
Miscellaneous manufacturing.....	39.3	40.2	39.9	38.4	39.5	39.9	39.8	39.4	39.3	39.0
Nonurable goods.....	39.8	40.3	40.6	39.5	40.8	40.2	40.0	39.9	40.1	39.7
Overtime hours.....	3.4	3.8	3.7	3.3	3.5	3.6	3.6	3.6	3.6	3.4
Food and kindred products.....	40.3	41.2	41.4	40.3	40.6	41.2	40.6	40.8	40.8	40.4
Tobacco products.....	37.6	40.4	39.9	38.1	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	40.1	39.7	39.8	39.0	40.3	40.0	39.9	39.3	39.3	39.2
Apparel and other textile products.....	34.3	34.6	34.8	33.8	34.6	34.6	34.4	34.3	34.3	34.1
Fiber and allied products.....	43.4	43.7	44.2	43.1	43.2	43.2	43.3	43.4	43.5	42.9
Printing and publishing.....	37.6	38.1	38.5	37.3	37.9	38.0	37.9	37.8	37.9	37.6
Chemicals and allied products.....	42.7	42.9	43.5	42.4	42.7	42.7	42.4	42.4	42.9	42.4
Petroleum and coal products.....	44.0	44.0	44.0	43.1	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products.....	40.8	41.1	41.6	40.9	40.8	41.4	41.1	40.9	41.1	40.9
Leather and leather products.....	37.2	34.7	37.7	34.4	37.4	37.5	37.2	36.8	37.3	36.4
Transportation and public utilities.....	37.8	38.8	39.0	38.1	38.3	39.1	38.4	38.7	38.9	38.4
Wholesale trade.....	37.8	38.0	38.4	37.7	38.0	38.2	37.9	38.0	38.3	37.9
Retail trade.....	28.1	28.4	29.2	27.8	28.8	28.9	28.4	28.7	28.7	28.5
Finance, insurance, and real estate.....	35.6	35.6	36.2	35.4	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.4	32.4	32.7	32.1	32.5	32.8	32.3	32.5	32.8	32.2

^{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 since the seasonal component is small relative to the trans-cyclic and/or irregular components and consequently cannot be separated with sufficient precision.
p = preliminary.

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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			
	Jan. 1990	Nov. 1990	Dec. 1990 ^{2/}	Jan. 1991 ^{3/}	Jan. 1990	Nov. 1990	Dec. 1990 ^{2/}	Jan. 1991 ^{3/}
	Total private.....	89.87	110.17	110.20	110.24	336.57	348.83	353.94	365.09
Seasonally adjusted.....	9.82	10.14	10.19	10.18	337.81	348.82	352.57	367.14
Mining.....	13.46	13.78	13.81	14.04	586.86	618.72	631.12	616.36
Construction.....	13.59	13.82	13.87	13.97	510.98	527.92	532.61	501.52
Manufacturing.....	10.60	10.98	11.07	11.06	430.36	447.98	457.19	443.51
Durable goods.....	11.06	11.48	11.60	11.58	455.67	474.12	486.04	470.15
Lumber and wood products.....	9.00	9.12	9.12	9.09	359.10	359.33	365.71	351.78
Furniture and fixtures.....	8.45	8.64	8.70	8.44	332.09	336.10	346.26	329.18
Stone, clay, and glass products.....	10.96	11.26	11.28	11.31	453.74	474.05	471.50	451.27
Primary metal industries.....	12.56	13.12	13.11	13.10	536.31	561.54	563.73	567.58
Blast furnaces and basic steel products.....	14.47	15.09	14.96	14.94	625.10	662.45	656.74	636.44
Fabricated metal products.....	10.60	10.94	11.06	11.05	435.66	451.82	463.41	460.43
Industrial machinery and equipment.....	11.55	11.96	12.11	12.07	487.41	502.32	520.73	504.53
Electronic and other electrical equipment.....	10.15	10.55	10.57	10.45	415.33	432.78	441.83	431.33
Transportation equipment.....	13.55	14.21	14.42	14.34	560.97	588.29	611.41	587.94
Motor vehicles and equipment.....	13.72	14.61	14.90	14.86	559.78	597.55	625.80	604.80
Instruments and related products.....	11.09	11.49	11.62	11.68	454.69	475.69	488.04	475.38
Miscellaneous manufacturing.....	8.57	8.66	8.78	8.80	336.80	348.13	350.32	341.44
Nondurable goods.....	9.97	10.31	10.55	10.37	396.81	415.49	420.21	409.62
Food and kindred products.....	9.53	9.77	9.85	9.81	384.06	402.32	406.96	395.34
Tobacco products.....	15.49	16.71	16.20	16.36	582.42	679.08	646.38	623.32
Textile mill products.....	7.90	8.13	8.15	8.17	316.79	322.76	324.37	318.63
Apparel and other textile products.....	6.40	6.65	6.66	6.63	232.32	243.59	245.09	237.35
Paper and allied products.....	12.11	12.55	12.53	12.49	325.57	367.56	353.23	338.52
Printing and publishing.....	11.12	11.58	11.45	11.42	418.11	435.58	440.83	423.97
Chemicals and allied products.....	13.34	13.73	13.75	13.82	569.62	589.02	598.13	588.73
Petroleum and coal products.....	15.87	16.60	16.52	16.49	698.28	763.60	726.88	719.34
Rubber and misc. plastics products.....	9.65	9.95	9.99	10.11	393.72	408.93	415.58	413.50
Leather and leather products.....	6.82	7.00	7.08	7.10	253.70	256.90	266.92	258.44
Transportation and public utilities.....	12.79	13.07	13.09	13.15	483.46	507.12	510.51	501.02
Wholesale trade.....	10.61	10.94	11.07	11.07	401.06	415.72	425.09	417.36
Retail trade.....	6.73	6.88	6.86	6.91	189.11	195.39	200.31	192.10
Finance, insurance, and real estate.....	9.80	10.14	10.25	10.25	348.88	360.98	371.05	364.90
Services.....	9.72	10.05	10.14	10.17	314.93	325.62	331.58	326.46

1/ See footnote 1, table B-2.

p = preliminary.

Table B-4. Average hourly earnings of production or nonsupervisory workers^{1/} on private nonfarm payrolls by industry, seasonally adjusted

Industry	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990 ^{2/}	Jan. 1991 ^{3/}	Percent change from Dec. 1990-Jan. 1991
Total private.....	89.82	110.13	110.12	110.14	110.19	110.18	-0.1
Current dollars.....	7.94	7.50	7.45	7.46	7.46	N.A.	(3)
Constant (1982) dollars ^{2/}	13.33	13.83	13.79	13.84	13.74	13.91	1.2
Mining.....	13.53	13.82	13.82	13.79	13.79	13.93	1.0
Construction.....	10.57	10.93	10.97	10.97	11.01	11.04	.3
Manufacturing.....	10.13	10.44	10.50	10.50	10.55	10.60	.5
Excluding overtime ^{4/}	12.78	13.02	13.03	13.02	13.06	13.14	.6
Wholesale trade.....	10.57	10.94	10.89	10.93	11.05	11.03	-.2
Retail trade.....	6.68	6.83	6.84	6.87	6.85	6.86	.1
Finance, insurance, and real estate.....	9.73	10.17	10.11	10.12	10.27	10.17	-1.0
Services.....	9.63	9.98	9.96	9.99	10.07	10.07	.0

1/ See footnote 1, table B-2.

2/ The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-U) is used to deflate this series.
3/ Change was 0.5 percent from November 1990 to December 1990, 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.

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

(1982=100)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Jan. 1990	Nov. 1990	Dec. 1990 ^a	Jan. 1991 ^a	Jan. 1990	Sept. 1990	Oct. 1990	Nov. 1990	Dec. 1990 ^a	Jan. 1991 ^a
Total private.....	120.1	124.1	125.4	118.4	123.6	125.3	123.1	123.4	124.0	121.7
Goods-producing industries.....	107.0	108.8	108.0	100.2	111.1	110.3	108.0	107.0	107.2	105.8
Mining.....	63.2	69.1	69.7	64.8	64.4	67.3	66.6	67.9	68.5	66.1
Construction.....	127.8	139.0	131.3	108.5	144.9	139.7	132.1	135.4	135.5	123.0
Manufacturing.....	105.5	104.9	105.5	100.9	106.8	106.8	105.6	103.5	103.7	102.2
Durable goods.....	104.8	103.1	104.2	99.2	105.9	105.9	104.6	101.8	102.0	100.2
Lumber and wood products.....	127.9	122.6	122.6	115.2	135.0	130.5	126.1	122.9	123.3	119.7
Furniture and fixtures.....	127.3	120.6	122.5	116.0	129.2	123.9	121.4	118.0	118.0	116.5
Stone, clay, and glass products.....	106.2	107.9	104.3	95.2	113.5	108.7	105.9	106.2	106.2	101.4
Primary metal industries.....	92.4	91.3	91.1	87.7	92.4	92.9	92.7	90.9	89.7	87.7
Blast furnaces and basic steel products.....	81.1	81.2	81.0	77.9	81.4	81.6	81.8	81.6	80.6	77.8
Fabricated metal products.....	105.2	105.3	106.4	101.3	106.1	107.4	105.9	103.5	103.8	102.2
Industrial machinery and equipment.....	100.2	93.9	97.9	94.7	99.7	96.8	96.8	95.4	95.3	94.4
Electronic and other electrical equipment.....	110.7	106.7	107.7	103.6	110.1	107.6	106.1	104.9	104.7	102.6
Transportation equipment.....	109.4	111.7	115.8	108.2	110.9	121.3	120.0	110.0	112.5	109.8
Motor vehicles and equipment.....	104.2	112.3	118.6	108.1	105.2	129.1	127.2	109.3	113.0	111.8
Instruments and related products.....	88.0	85.8	87.3	84.0	87.9	86.0	84.8	84.3	84.7	84.2
Miscellaneous manufacturing.....	102.3	103.9	102.4	98.1	105.9	104.8	103.8	102.1	101.7	101.7
Nondurable goods.....	106.5	107.3	107.3	103.3	108.2	107.9	106.9	106.0	106.0	105.0
Food and kindred products.....	105.9	111.5	110.5	104.7	108.4	110.4	108.9	109.1	109.7	109.3
Tobacco products.....	70.7	71.4	74.3	70.6	66.9	68.3	66.0	66.8	69.0	67.8
Textile mill products.....	102.1	97.3	96.3	94.3	105.0	99.4	97.6	96.2	95.7	95.0
Apparel and other textile products.....	93.7	91.4	90.7	86.6	95.2	92.3	91.3	89.7	89.8	88.0
Paper and allied products.....	110.0	111.6	112.4	109.5	110.4	110.8	111.4	110.2	110.3	109.8
Printing and publishing.....	126.8	128.3	129.5	124.6	128.0	128.3	127.8	126.7	126.5	125.6
Chemicals and allied products.....	104.8	103.7	103.4	102.4	105.4	106.1	105.9	103.5	103.3	103.2
Rubber and coal products.....	83.1	92.8	84.4	81.5	86.9	89.9	86.8	92.0	86.8	85.4
Rubber and misc. plastics products.....	123.9	123.2	123.5	120.3	124.3	126.7	125.2	122.2	121.5	120.9
Leather and leather products.....	61.6	56.0	55.9	53.0	62.6	58.8	57.1	55.4	55.6	54.0
Service-producing industries.....	126.0	131.0	133.2	126.5	129.3	132.0	129.9	130.8	131.4	129.8
Transportation and public utilities.....	109.9	116.7	118.0	112.8	112.9	116.4	116.4	115.4	116.5	115.9
Wholesale trade.....	117.3	118.8	119.3	115.9	119.2	119.6	118.4	118.4	119.0	117.6
Retail trade.....	119.7	124.3	129.7	117.7	124.4	124.9	122.5	123.3	123.0	122.4
Finance, insurance, and real estate.....	119.9	121.2	123.0	119.9	121.4	124.1	121.2	122.0	123.7	121.3
Services.....	139.6	146.4	147.1	142.0	142.8	147.7	145.7	146.9	148.2	145.3

1/ See footnote 1, table B-2.

p = preliminary.

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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:												
1989	64.5	58.7	58.0	57.0	55.6	57.3	55.8	57.7	50.0	55.2	59.6	56.6
1990	55.4	58.6	53.7	49.9	55.8	49.9	50.8	48.2	45.8	42.5	38.8	41.0
1991	R/45.1											
Over 3-month span:												
1989	65.3	64.2	60.0	60.1	59.7	58.3	59.7	56.5	55.2	55.8	57.7	60.3
1990	58.4	56.7	54.8	53.1	53.7	55.3	50.1	45.2	40.9	36.8	R/54.4	R/56.5
1991												
Over 6-month span:												
1989	67.6	63.4	63.0	61.0	61.2	58.7	57.0	58.1	54.2	58.3	57.4	58.4
1990	57.3	54.5	55.5	55.9	51.4	48.5	45.4	39.9	R/56.7	R/55.0		
1991												
Over 12-month span:												
1989	67.1	67.7	65.3	64.4	64.9	61.2	60.0	59.8	58.6	57.3	56.7	56.0
1990	54.8	54.1	54.1	50.0	46.8	R/43.7	R/42.6					
1991												
Manufacturing payrolls, 139 industries ^{1/}												
Over 1-month span:												
1989	60.4	48.6	50.4	47.1	45.3	45.7	45.0	45.7	34.2	48.6	43.5	48.2
1990	42.4	45.7	45.3	46.8	45.7	40.3	48.2	40.6	38.1	34.3	25.2	R/55.6
1991	R/39.6											
Over 3-month span:												
1989	54.0	54.7	45.3	43.9	43.2	42.8	41.7	33.1	34.3	34.9	41.7	39.2
1990	40.3	37.1	44.2	41.4	40.6	44.2	39.9	33.8	29.1	21.2	R/21.9	R/21.9
1991												
Over 6-month span:												
1989	56.3	49.4	49.3	43.5	42.1	37.1	36.7	34.9	34.2	35.3	33.1	36.0
1990	37.1	35.6	36.3	43.2	38.1	31.7	28.4	19.8	R/22.3	R/18.7		
1991												
Over 12-month span:												
1989	53.6	55.0	49.3	45.3	43.9	39.9	37.1	33.6	33.8	32.4	30.9	31.7
1990	31.3	31.3	30.6	27.0	21.2	R/19.1	R/21.6					
1991												

^{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.
R = 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.

Representative HAMILTON. Is there anything here to suggest that the recession is coming to an end or bottoming out?

Mrs. NORWOOD. Almost all of the labor market data for January suggest we are still heading downward.

Representative HAMILTON. So there is not anything in the employment and labor market conditions which suggest that we have bottomed out.

Mrs. NORWOOD. I do not see anything in these data, except the fact that the employment declines are considerably less diffused throughout the economy than they had been over the last several months.

Representative HAMILTON. I am not sure I understand that.

Mrs. NORWOOD. Well, we have been seeing very widespread, every single industry declining. We are now seeing within manufacturing, as I pointed out in my statement, that non-durable manufacturing is not going down as much as it had before, and that is an encouraging picture. But of course one would not look to the labor market data alone to determine what is happening to the recession—

Representative HAMILTON. Sure.

Mrs. NORWOOD. —but these data are certainly not an encouragement.

Representative HAMILTON. Now let us see. Employment declined by 650,000 in January.

Mrs. NORWOOD. In the household survey.

Representative HAMILTON. In the household survey. The unemployment rate only went up a tenth of a point. Which of those gives you a better picture, a more accurate picture of the state of the economy?

Mrs. NORWOOD. I think that the payroll employment figure, which is down about 230,000, and which has been going down fairly steadily over the last 4 months by about 200,000 each month, is an indication of the difficulties of the labor market.

The household survey provides us with information both on unemployment and the labor force, and also of course employment. You will note that this decline in employment came after an increase in employment, so there is a certain kind of catch-up that exists there and the surveys do not seem to be telling us anything very different. As I indicated, we really are seeing a very slow increase in the unemployment rate considering the kinds of employment declines that we have been getting. The reason for that is that the participation rates and the population increases have been slowing.

So there is a lot less upward pressure than is usual on the unemployment rate. It is much easier to have the lower unemployment rate now than it would be under conditions when the labor force keeps rising.

Representative HAMILTON. So what is this phenomenon of so little labor force growth? When you say "little," how little do you mean? Can you quantify that?

Mrs. NORWOOD. Well, over the last year the labor force grew by only about 300,000. That is pretty much flat.

Representative HAMILTON. For the whole year?

Mrs. NORWOOD. For the whole year.

Representative HAMILTON. What would it have been in say a fairly typical year in the past?

Mrs. NORWOOD. Well, in the 1970's when the baby boom generation was entering the labor force, we were talking about a 2 to 2.5 million a year increase, and we had to keep racing to find jobs for those people. But, there is also a kind of job-creation effect from an increase in the labor force as well. What seems to be happening reflects two developments. One is that the population has grown more slowly. Birth rates were lower some years ago, and so fewer people are reaching labor force age.

We had a decline over the year in teenagers in the labor force of more than 500,000. That is in stark contrast to the 1960s and 1970s when we had teenagers pouring into the labor force. In addition to population declines, there seems to be a decline in participation rates, but we are not quite sure why. So that is one kind of situation that we are seeing. That could be both good and bad.

It could be that they are going to school and spending more time getting trained for the future. But it could also mean that there are not many jobs available for them, since many of the teenagers were employed in services industries which have stopped growing.

The second puzzle is the decline in the rate of labor force participation of women. It is a very small decline, but it is there, and it is the first time in a very long time. I suspect that it will pick up again, but I do not have any statistical basis for believing that.

Representative HAMILTON. Now we have had no labor force growth since June, and that is a period of 7 months. Is that quite unusual?

Mrs. NORWOOD. Yes.

Representative HAMILTON. Very unusual, right, not to have that growth?

Mrs. NORWOOD. Yes.

Representative HAMILTON. And if you had had normal labor force growth since June, you would have added very substantially to the unemployment rate, I presume?

Mrs. NORWOOD. That is right.

Representative HAMILTON. Do you know how much you would have added?

Mrs. NORWOOD. It is about 600,000?

Mr. PLEWES. If you hold everything else constant, you need about 600,000 in employment decline to get a tenth increase in the unemployment rate, or a 100,000 increase in unemployment to get a tenth increase. So if you mix those two together, you are looking at somewhere around 600,000 to 700,000 decline in the labor force for a tenth. Or, the labor force could increase without jobs added, but it does not happen that way. So there are two parts.

Mrs. NORWOOD. The problem is that we do not independently measure the labor force.

The labor force is the sum of employment and unemployment.

Representative HAMILTON. Can you tell us anything from these figures about the nature of the recession, the duration, the intensity, or the characteristics of this recession?

Mrs. NORWOOD. Well, as we have been saying for some time now, our factory employment has been in great difficulty for 2 years.

It is quite clear that durable manufacturing in particular is not doing well, while it is true that inventories are very low.

Representative HAMILTON. Why did construction have such a bad performance?

Mrs. NORWOOD. Well, because basically if you look at all the housing data, housing starts, housing completions, housing permits, they are all down.

So office buildings, multi-family housing units, new houses are not being built.

Part of that is of course related to the banking crisis, I believe.

We are also seeing in manufacturing that employment in construction-related industries is turning down.

There are declines in appliance manufacturing, for example, lumber and wood, and furniture manufacturing.

Representative HAMILTON. If you look at the figures since June, and June was apparently the turning point in the labor market data, what are the chief characteristics that stand out to you? In durable goods' manufacturing, the loss of jobs there? What other things stand out to you, if you try to stand back and get a 6- or 7-month perspective?

Mrs. NORWOOD. Well, I think the big thing that we are seeing is that construction, as you pointed out, is very weak. This is a real estate problem which goes not just to construction but to some of the real estate services, as well—and manufacturing, as we have discussed.

In addition, apart from health services, we are really seeing very little growth in the service-producing industries.

During the first couple of years of the expansion period after the 1981-82 recession, one in every eight new jobs was in business services. Now, we have been seeing consistent declines in business services.

The strength in health services is perhaps more related to the changes in population, than it is to economic activity. So, while I do not want to overlook the importance of employment and health services, it is not quite as encouraging to me as it would be to see a growth in business services, for example.

I do think that the declines that we are seeing in some of the services' industries, including the service industry itself, have stopped growing.

We are seeing at best a flatness I think over several months in retail trade, and that is a place where a lot of our teenagers have been employed in the past.

So that is not very encouraging.

Over the last couple of months we have seen an increase in the unemployment rate of adult men, so that their rate is now really a full percentage point higher than it was a year ago.

And the rate for married men has gone up, as well. That is rather typical of a recession.

For quite awhile we were seeing women affected, and women are being affected more by recession now than they were before perhaps because they have in the last several decades been expanding their work into different kinds of nontraditional jobs and nontraditional activities.

Representative HAMILTON. When you have 6.2 percent of the civilian labor force unemployed, how many people is that?

Mrs. NORWOOD. That is about 7.7 million.

Representative HAMILTON. Now if the unemployment rate stays at that level, how many people would be unemployed at some time during the year?

Mrs. NORWOOD. In normal times, about 2.5 times that number experience some spell of unemployment.

In a period of recession, I am not sure that that multiple would be as high, because more of the same people tend to stay unemployed.

Representative HAMILTON. And how long do people stay unemployed?

Mrs. NORWOOD. We have had, for example, of that 7.7 million, we had, not quite 1 million, 850,000, who were unemployed 6 months or more.

So the others are unemployed less than that.

We do have some—

Representative HAMILTON. What would be a typical period of unemployment for a person, the duration of unemployment?

Mrs. NORWOOD. Pardon me.

Representative HAMILTON. What would be a typical unemployment duration for a person? Is there a way of measuring that? Is that usually just a matter of a few weeks, or months?

Mrs. NORWOOD. If we look at the median—that is, where there are as many with more unemployment as with less—it is close to 6 weeks now.

Representative HAMILTON. And that is lengthening?

Mrs. NORWOOD. Yes, it is a bit more than it has been.

Mr. PLEWES. It is up a week from a year ago.

Representative HAMILTON. The duration of unemployment would usually go up in a recession, I presume.

Mrs. NORWOOD. Yes.

Sure, there are fewer jobs. And, you see fewer people leaving their jobs voluntarily. There is always a lot of churning in the labor market and you expect to see a lot of people changing jobs, but obviously in a period of recession you see a lot less of that.

Representative HAMILTON. Do the people who are unemployed for the short terms, do they tend to be people who had lost their job? Or are they new entrants into the labor force?

Mrs. NORWOOD. I really cannot answer that question fully; there are many factors that affect the situation.

Representative HAMILTON. Now how about the long-term unemployed? First of all, is there a definition for "long-term unemployed" under the statistics you keep?

Mrs. NORWOOD. I consider the long-term unemployed to be 6 months—

Representative HAMILTON. Six months or more?

Mrs. NORWOOD. —or more. But we do have figures for long-term unemployed who have been unemployed for at least 15 weeks, as well; and 5 to 14 weeks, 15 weeks to 26, and then 27 weeks and over. If you include, for example, the 15 weeks and over, that is 1.8 million.

Representative HAMILTON. How many long-term unemployed people do we have now? Let us use that 6-month period.

Mrs. NORWOOD. For the 6 months, we have 850,000.

Representative HAMILTON. Does that tend to go up also in a recession?

Mrs. NORWOOD. Yes, but there are differences in timing.

In a recession, more people lose their jobs so that at first you have more shorter term unemployed people. That affects that median or the mean, if you want to calculate the mean.

Representative HAMILTON. What are the characteristics of the long-term unemployed with regard to skills, sex, race?

Mrs. NORWOOD. Normally in any period of time, whether it is recession or not, the unemployed are disproportionately black, especially minority in general. They tend to be unskilled. They tend to be located in areas of the country where there is difficulty in getting jobs, in central cities, for example. They are the disadvantaged people.

Representative HAMILTON. Are we holding to that pattern in this recession?

Mrs. NORWOOD. Well, certainly they form a core of the long-term unemployed. Do we have any information on others who have been added more recently?

Mr. PLEWES. We can do a comparison of, for example, June and current. I do not have it with me, but that would be instructive.

Mrs. NORWOOD. We could provide that for the committee.

Mr. PLEWES. On a flow basis.

Mrs. NORWOOD. We would be glad to do that.

Representative HAMILTON. Now you have an Unemployment Insurance System with benefits that lasts for 26 weeks.

These long-term unemployed people then run out of benefits, if they ever got them.

Do you have any information at all on how these people survive?

Mrs. NORWOOD. No, we do not.

We do not know what happens to people once they have exhausted their benefits.

We have thought about trying to do something about that, but we have not been able to.

Representative HAMILTON. So as the economy goes deeper into recession, the unemployment rate goes up, and the amount of time a person can be expected to be out of work goes up. Right?

Mrs. NORWOOD. That is right.

Representative HAMILTON. Just looking over your statement, I was impressed by the fact that there is not much good news in there.

Payroll employment down, durable goods manufacturing hard hit, construction the worst performance, retail trade quite weak, unemployment rate up.

Employment growth came to a halt. Hours down. Total employment fell.

It is pretty dismal, is it not?

Mrs. NORWOOD. We always prefer to come to the Joint Economic Committee with a happier set of data, but we present the facts as they are.

Representative HAMILTON. I understand that, but this must be about the worst report I have seen for a long time.

Is it about the worst report you have given?

Mrs. NORWOOD. No, I do not think it is the worst report I have given.

Representative HAMILTON. You have given some worse ones?

Mrs. NORWOOD. Yes. I have been here a long time.

[Laughter.]

Mrs. NORWOOD. But it certainly is a report that is very different from the very long expansionary period that we had.

Representative HAMILTON. Well let us turn to the optimistic side: inflation. Okay?

[Laughter.]

Representative HAMILTON. What is happening on inflation? You did not cover that in your statement.

This is an employment hearing, but let us talk about inflation a little bit.

Where are we there?

Mrs. NORWOOD. Well we have an inflation rate of a bit over 6 percent this past year.

A significant part of that increase really was a temporary kind of acceleration in energy prices due to the crisis in the Gulf.

Representative HAMILTON. Is that receding any now, energy prices?

Mrs. NORWOOD. Yes.

Mr. DALTON. They appear to be, based on private sector information.

Representative HAMILTON. That is within what—the last couple of weeks, or month?

Mr. DALTON. The last several weeks.

Representative HAMILTON. The last several weeks.

Mrs. NORWOOD. But I should point out that the Consumer Price Index, All Items, excluding energy, is still over 5 percent.

If you just take energy out of it completely.

Representative HAMILTON. And the total figure is what?

Mrs. NORWOOD. 6.1. Now part of that does, excluding energy, does include some secondary effects of the increase in the price of energy like increased airline fares, for example, that are energy related.

Representative HAMILTON. Now can you tell so far whether the recession has had any impact on inflation or wage increases? Is that noticeable at this point?

Mrs. NORWOOD. We are seeing less upward pressure on wages and salaries, very clearly.

Representative HAMILTON. So that should begin to be reflected, should it not, in the inflation rate?

Mrs. NORWOOD. Yes. And we are seeing in the producer price level, we are seeing some effect. At the producer level, for example, finished goods over the year is rising at a 5.6 percent rate, and we have seen—we do not see any explosion really in intermediate goods, which would be coming into the finished goods.

Representative HAMILTON. Your Employment Cost Index is your most comprehensive wage earnings index?

Mrs. NORWOOD. That is correct.

Representative HAMILTON. Is that correct?

Mrs. NORWOOD. Yes.

Representative HAMILTON. And that includes fringe benefits and bonuses in addition to wages, and salaries?

Mrs. NORWOOD. Yes.

Representative HAMILTON. And that went up 4.6 percent in 1990. Is that correct?

Mrs. NORWOOD. Yes.

Representative HAMILTON. So compensation went 4.6 percent; inflation during 1990 was what?

Mrs. NORWOOD. It was higher, much higher.

Representative HAMILTON. So workers lost ground.

Mrs. NORWOOD. Yes.

Representative HAMILTON. And that is the most comprehensive measurement then of whether or not workers are losing ground. Is that right?

Mrs. NORWOOD. Well, I think so. You probably would want to look at the wage and salary component—that is, what workers are paid actually—and deflate that. That is a little bit lower than the overall compensation figure because employer costs of things like health insurance and pensions and things of that sort have been rising faster than wage and salaries.

Now of course if the employer were not—

Representative HAMILTON. If you take that 4.6 percent, how much of that is wages and salaries, and how much of that is fringe benefits?

Mrs. NORWOOD. If you look at wages and salaries for the private, non-farm economy, that was 4 percent. Whereas, you had—it was higher, more than half a point higher, if you included the employer cost of fringe benefits.

Representative HAMILTON. Is there anything in the statistics today to tell us about the regional economic situation? You have said in the past that New England was probably hit hardest. Do you notice anything in the statistics today that alters your judgment with respect to regional impact?

Mrs. NORWOOD. Not really. The Midwest has not been hit as hard as the rest of the country, but Mr. Plewes can tell you more about that.

Mr. PLEWES. Basically the story continues to be the same. The unemployment rates are increasing faster in New England than they are in the rest of the country. We are starting to see a wider spread, especially on the West Coast now.

We associate some of that with a slowdown in defense industries, for example.

The Midwest, however, is still benefitting, I guess, if you will, from fairly moderate declines in employment and unemployment rates which are virtually unchanged.

We are seeing I think some reports from Federal Reserve Banks that where the auto slowdown is continuing that could turn around, but that has not happened.

Representative HAMILTON. Your statistics show a more talented work force in the Midwest?

Mrs. NORWOOD. They are able to keep their jobs.

Mr. PLEWES. It shows I think that what happened is there was a tremendous shakeout during the last recession that they have accommodated quite well.

Representative HAMILTON. And state and local governments are cutting back, too, in jobs, right?

Mrs. NORWOOD. Probably. I would like to wait for a little more data on that, because local government as you know has been growing. It has been the only other industry besides health services that has been growing.

Representative HAMILTON. Local government?

Mrs. NORWOOD. Local government.

Representative HAMILTON. Not state?

Mrs. NORWOOD. No. Local government.

Representative HAMILTON. But state and local governments have reduced employment over the last 2 months about 45,000, according to my information.

Mrs. NORWOOD. Yes. I believe that is true. The local government has been the teachers. That is rather hard to measure, and I would like to wait for another month of data.

Representative HAMILTON. They have been hiring more teachers? Is that it?

Mrs. NORWOOD. Yes, because there are a lot more kids in school.

Representative HAMILTON. We have a lot more children coming into the system?

Mrs. NORWOOD. Yes.

Representative HAMILTON. Now you did have a rise in the Composite Index of Leading Indicators in December. Does that come out of BLS?

Mrs. NORWOOD. No. It comes from the Bureau of Economic Analysis, but a number of our measures go into it. And it was somewhat affected by last month's increase in hours, factory hours, and in the overall average work week which as I indicated has gone down again this month.

Representative HAMILTON. So the fact that the composite index of the indicators increased a tenth of a point in December after declining for 4 previous months, what does that mean to you? Much of anything?

Mrs. NORWOOD. That index—

Representative HAMILTON. It does not mean much.

Mrs. NORWOOD. —is frequently revised. In this case—

Representative HAMILTON. Later on revised?

Mrs. NORWOOD. Yes.

Representative HAMILTON. A few months afterwards?

Mrs. NORWOOD. Sure. I think we need a little bit more time. It is certainly encouraging that it did not go down a lot more, but I have already told you that the average workweek which had gone up and had some effect—how much?

Mr. PLEWES. It has had a .23 effect, sir. So if we took that away, the Leading Index would have gone down.

Representative HAMILTON. Do you see anything in the statistics to indicate the impact of the Gulf War?

Mrs. NORWOOD. Not really directly. As I indicated, we cannot see the changes quite at the time that they occur, as one would expect. There is perhaps some effect in say apparel textiles.

Representative HAMILTON. Effect where?

Mrs. NORWOOD. The apparel textile industry where there are more purchases coming from the defense department.

Mr. PLEWES. And food processing, also. We have seen some employment improvement there.

Representative HAMILTON. We get the President's budget Monday.

Do you know how it is going to treat BLS?

Mrs. NORWOOD. Yes, I do.

Representative HAMILTON. Can you say anything about it?

Mrs. NORWOOD. No, I cannot. I will be glad to discuss it with you later.

[Laughter.]

Representative HAMILTON. On Tuesday?

[Laughter.]

Mrs. NORWOOD. Right.

Representative HAMILTON. I think that has got it. Thank you very much.

Mrs. NORWOOD. Thank you.

Representative HAMILTON. We stand adjourned.

[Whereupon, at 10:02 a.m., the committee was adjourned, subject to the call of the Chair.]

[The following answers were subsequently supplied for the record:]

U.S. DEPARTMENT OF LABOR,
February 26, 1991.

HON. LEE H. HAMILTON,
House of Representatives,
Washington, DC.

Dear CONGRESSMAN HAMILTON: This letter is in response to the questions on long-term unemployment that you raised during my February 1 appearance before the Joint Economic Committee.

There are some identifiable patterns that occur in long-term joblessness during the business cycle's upturns and downturns that I will briefly discuss below. For more detail on this topic, I am enclosing an article that analyzes long-term unemployment during every post-World War II recession. Also enclosed are tables showing historical monthly data for total, long-term (15 weeks and over), and very long-term (27 weeks and over) unemployment. The official (NBER) recession peaks and troughs are highlighted on the tables.

During the last seven recessions (starting in the 1950s and continuing through the one in 1982), the total number of unemployed persons nearly doubled on average, and, on average, the number unemployed for 15 weeks or longer more than tripled. Those unemployed more than half a year showed the largest percentage increase of all, rising to nearly five times their pre-recession low. While recessions varied a great deal in how long they lasted and to what degree overall joblessness rose, this pattern of the increase in long-duration joblessness held in each downturn.

It is still too early in the current slowdown for our data to provide us with much insight into what will ultimately happen to long-term unemployment. So far, the downturn has followed the pattern of business cycle dips in the past. That is, the long-term and very long-term unemployed have become the fastest-growing jobless groups. Both now comprise a larger share of total unemployment than they did last June. Of course, the ultimate extent of the increase in long-term joblessness will depend on the final depth and breadth of the downturn.

I would also like to point out that, when recessions in the post-war era have come to an end and total unemployment has begun to fall, long-term joblessness has continued to rise for a period. This is most likely due to the fact that employers typically recall those workers most recently laid off. Workers who lose their jobs early in downturns often have the least skills and seniority and thus may not find new employment until a sustained period of economic recovery. Such workers, already out of work for long periods, generally have the lowest probabilities of finding employment. Thus, long-term joblessness does not immediately fall.

As the enclosed article points out, the time lag between when total and long-term unemployment reach their respective peaks has appeared to lengthen over time. The length and strength of the recoveries that have followed the recessions has played a major role in determining how quickly the ranks of the long-term unemployed were reduced. I hope this information proves useful.

Sincerely yours,

Janet L. Norwood, *Commissioner.*

UNEMPLOYED ALL CIVILIAN WORKERS

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL AVERAGE
ORIGINAL													
1988.....	7,603	7,482	7,090	6,359	6,553	6,819	6,823	6,659	6,368	6,182	6,325	6,142	6,701
1989.....	7,309	6,883	6,378	6,229	6,156	6,850	6,736	6,352	6,330	6,222	6,495	6,300	6,527
1990.....	7,256	7,134	6,697	6,457	6,363	6,702	6,945	6,837	6,818	6,722	7,211	7,343	6,874
SEASONALLY ADJUSTED													
1948.....	2,034	2,328	2,399	2,386	2,118	2,214	2,213	2,350	2,302	2,259	2,265	2,429	-
1949.....	2,596	2,849	3,030	3,260	3,707	3,776	4,111	4,193	4,049	4,044	3,996	4,063	-
1950.....	4,026	3,936	3,876	3,575	3,434	3,367	3,120	2,799	2,774	2,625	2,589	2,639	-
1951.....	2,305	2,117	2,125	1,919	1,856	1,951	1,935	1,935	2,067	2,194	2,178	1,960	-
1952.....	1,972	1,957	1,813	1,811	1,863	1,884	1,991	1,936	1,836	1,839	1,743	1,667	-
1953.....	1,839	1,636	1,647	1,723	1,596	1,607	1,660	1,665	1,821	1,974	2,211	2,818	-
1954.....	3,077	3,331	3,607	3,749	3,551	3,659	3,854	3,854	3,927	3,666	3,402	1,196	-
1955.....	3,157	2,969	2,918	3,049	2,747	2,701	2,632	2,784	2,678	2,830	2,780	2,761	-
1956.....	2,466	2,606	2,764	2,650	2,861	2,882	2,952	2,701	2,635	2,571	2,861	2,790	-
1957.....	2,796	2,622	2,509	2,600	2,710	2,856	2,796	2,747	2,943	3,020	3,454	3,476	-
1958.....	3,875	4,303	4,492	4,494	5,021	4,944	5,079	5,025	4,821	4,570	4,188	4,191	-
1959.....	4,068	3,965	3,801	3,571	3,429	3,429	3,528	3,588	3,775	3,910	4,003	3,653	-
1960.....	3,615	3,329	3,726	3,620	3,569	3,766	3,836	3,946	3,884	4,252	4,330	4,617	-
1961.....	4,671	4,322	4,853	4,893	5,005	4,885	4,928	4,682	4,676	4,573	4,295	4,177	-
1962.....	4,081	3,871	3,921	3,906	3,863	3,844	3,819	4,013	3,961	3,803	4,024	3,907	-
1963.....	4,074	4,238	4,072	4,055	4,217	3,977	4,051	3,878	3,957	3,987	4,151	3,975	-
1964.....	4,029	3,932	3,950	3,918	3,764	3,814	3,608	3,655	3,712	3,726	3,551	3,651	-
1965.....	3,572	3,730	3,510	3,595	3,432	3,387	3,301	3,254	3,216	3,143	3,073	3,031	-
1966.....	2,988	2,820	2,887	2,828	2,929	2,872	2,876	2,900	2,798	2,798	2,770	2,912	-
1967.....	2,968	2,915	2,889	2,895	2,929	2,992	2,944	2,945	2,958	3,143	3,066	3,018	-
1968.....	2,878	3,001	2,877	2,809	2,740	2,938	2,883	2,768	2,686	2,689	2,715	2,685	-
1969.....	2,718	2,692	2,712	2,758	2,713	2,816	2,868	2,856	3,040	3,049	2,856	2,884	-
1970.....	3,201	3,453	3,635	3,797	3,919	4,071	4,175	4,256	4,456	4,591	4,746	5,076	-
1971.....	4,986	4,903	4,987	4,959	4,996	4,949	5,035	5,134	5,042	4,954	5,161	5,154	-
1972.....	5,019	4,928	5,038	4,959	4,922	4,923	4,913	4,939	4,849	4,875	4,602	4,543	-
1973.....	4,326	4,452	4,394	4,459	4,329	4,363	4,305	4,305	4,350	4,144	4,396	4,689	-
1974.....	4,646	4,731	4,634	4,459	4,705	4,927	5,063	5,022	5,437	5,523	6,140	6,636	-
1975.....	7,501	7,520	7,528	7,528	8,210	8,215	8,220	8,127	7,928	7,925	7,797	7,744	-
1976.....	7,534	7,326	7,230	7,330	7,053	7,322	7,490	7,518	7,380	7,430	7,620	7,545	-
1977.....	7,280	7,443	7,307	7,059	6,911	7,134	6,829	6,925	6,751	6,763	6,815	6,386	-
1978.....	6,489	6,318	6,337	6,180	6,127	6,028	6,309	6,080	6,125	5,947	6,077	6,228	-
1979.....	6,109	6,173	6,109	6,069	5,840	5,959	6,320	6,190	6,125	6,296	6,238	6,325	-
1980.....	6,683	6,702	6,729	7,358	7,984	8,098	8,066	8,281	8,021	8,088	8,023	7,718	-
1981.....	8,071	7,982	7,869	7,874	8,178	8,098	7,863	8,036	8,230	8,646	9,029	9,267	-
1982.....	9,597	9,705	9,895	10,244	10,335	10,538	10,849	10,881	11,217	11,529	12,051	12,051	-
1983.....	11,534	11,545	11,408	11,268	11,246	11,544	10,548	10,623	10,282	9,887	9,499	9,351	-
1984.....	9,008	8,791	8,746	8,762	8,456	8,226	8,537	8,519	8,367	8,381	8,198	8,358	-
1985.....	8,423	8,321	8,339	8,395	8,302	8,460	8,513	8,196	8,268	8,128	8,138	8,138	-
1986.....	7,795	8,402	8,383	8,364	8,439	8,508	8,519	8,135	8,510	8,159	7,883	7,883	-
1987.....	7,872	7,858	7,875	7,544	7,580	7,408	7,302	7,273	7,096	7,207	7,009	6,907	-
1988.....	6,928	6,910	6,903	6,600	6,812	6,592	6,663	6,846	6,597	6,531	6,482	6,465	-
1989.....	6,643	6,347	6,252	6,465	6,419	6,662	6,580	6,504	6,579	6,587	6,628	6,585	-
1990.....	6,544	6,579	6,563	6,691	6,662	6,560	6,827	7,015	7,087	7,142	7,337	7,600	-
1991.....		7,115											-

SOURCE: Data are from the Current Population Survey, Bureau of Labor Statistics.

PEAK =
TROUGH =

UNEMPLOYED 15 WEEKS AND OVER													ANNUAL AVERAGE
JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.		
ORIGINAL													
1988.....	1,811	1,907	1,999	1,827	1,765	1,527	1,473	1,470	1,428	1,379	1,335	1,396	1,610
1989.....	1,586	1,436	1,550	1,447	1,440	1,243	1,328	1,178	1,237	1,228	1,298	1,293	1,375
1990.....	1,514	1,511	1,549	1,646	1,485	1,340	1,384	1,414	1,476	1,420	1,630	1,673	1,504
SEASONAL FACTORS....	1.087	1.099	1.128	1.161	1.053	.928	.000	.000	.000	.000	.000	.000	-
SEASONALLY ADJUSTED													
1948.....	311	283	292	324	329	322	295	332	298	324	282	305	-
1949.....	315	374	414	483	602	705	848	917	973	1,000	1,056	961	-
1950.....	947	947	912	920	890	868	749	633	648	565	507	482	-
1951.....	438	386	355	294	269	258	260	249	223	269	316	269	-
1952.....	282	248	234	242	219	210	194	211	249	230	216	238	-
1953.....	268	208	213	180	176	213	168	177	178	190	259	309	-
1954.....	372	532	765	774	880	880	932	1,002	1,017	1,009	975	827	-
1955.....	882	826	816	811	734	668	640	535	558	572	564	581	-
1956.....	561	545	521	476	506	516	523	543	577	530	575	567	-
1957.....	509	530	514	514	538	524	535	542	559	650	674	731	-
1958.....	879	1,005	1,128	1,000	1,493	1,677	1,796	1,888	1,795	1,708	1,570	1,490	-
1959.....	1,396	1,277	1,210	1,039	965	963	889	889	895	883	982	920	-
1960.....	915	841	959	896	797	854	921	927	982	1,189	1,223	1,142	-
1961.....	1,328	1,000	1,463	1,598	1,686	1,651	1,830	1,649	1,531	1,481	1,388	1,361	-
1962.....	1,235	1,244	1,162	1,122	1,134	1,079	1,049	1,081	1,096	1,022	1,051	1,068	-
1963.....	1,122	1,137	1,087	1,071	1,157	1,067	1,070	1,114	1,069	1,071	1,054	1,007	-
1964.....	1,057	1,015	1,039	934	975	1,047	1,002	934	917	903	922	873	-
1965.....	793	919	796	796	736	786	683	733	752	683	645	659	-
1966.....	623	594	583	575	534	475	427	464	488	494	464	485	-
1967.....	489	459	436	428	417	422	412	441	448	472	490	485	-
1968.....	503	468	447	393	395	405	426	393	375	386	357	351	-
1969.....	339	358	353	386	387	368	377	373	391	374	392	413	-
1970.....	431	470	534	602	591	657	662	705	788	771	880	1,102	-
1971.....	1,113	1,068	1,098	1,149	1,173	1,167	1,251	1,261	1,239	1,268	1,277	1,283	-
1972.....	1,237	1,292	1,232	1,203	1,168	1,141	1,154	1,156	1,131	1,123	1,040	1,006	-
1973.....	947	894	889	809	816	779	756	788	785	793	832	767	-
1974.....	799	829	849	889	880	924	924	960	1,021	1,072	1,128	1,326	-
1975.....	1,555	1,841	2,000	2,442	2,643	2,843	2,943	2,862	2,906	2,689	2,789	2,868	-
1976.....	2,713	2,519	2,441	2,210	2,115	2,332	2,316	2,378	2,296	2,292	2,354	2,375	-
1977.....	2,200	2,174	2,057	1,936	1,928	1,918	1,907	1,836	1,853	1,789	1,804	1,717	-
1978.....	1,643	1,584	1,531	1,502	1,420	1,352	1,373	1,242	1,308	1,319	1,242	1,269	-
1979.....	1,250	1,297	1,365	1,272	1,239	1,171	1,123	1,203	1,172	1,119	1,239	1,277	-
1980.....	1,333	1,358	1,457	1,694	1,740	1,760	1,800	2,162	2,309	2,306	2,329	2,406	-
1981.....	2,389	2,364	2,276	2,231	2,221	2,250	2,166	2,241	2,261	2,303	2,345	2,374	-
1982.....	2,409	2,758	2,965	3,086	3,276	3,451	3,555	3,696	3,889	4,185	4,500	4,662	-
1983.....	4,668	4,641	4,612	4,370	4,538	4,470	4,329	4,070	3,854	3,648	3,535	3,379	-
1984.....	3,254	2,991	2,881	2,858	2,884	2,612	2,638	2,604	2,538	2,526	2,438	2,401	-
1985.....	2,284	2,389	2,394	2,393	2,292	2,310	2,329	2,258	2,242	2,295	2,207	2,208	-
1986.....	2,089	2,308	2,261	2,162	2,232	2,320	2,269	2,276	2,318	2,188	2,202	2,161	-
1987.....	2,155	2,105	2,077	2,109	2,106	2,103	1,924	1,878	1,863	1,788	1,786	1,753	-
1988.....	1,693	1,725	1,572	1,576	1,649	1,593	1,610	1,638	1,556	1,544	1,442	1,463	-
1989.....	1,471	1,302	1,365	1,420	1,353	1,317	1,451	1,308	1,345	1,377	1,386	1,348	-
1990.....	1,396	1,374	1,370	1,417	1,404	1,436	1,508	1,568	1,605	1,591	1,727	1,739	-
1991.....	1,849												-

80

SOURCE: Data are from the Current Population Survey
Bureau of Labor Statistics.

PEAK =
TROUGH =

EMPLOYED 27 WEEKS AND OVER
JAN.

	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	ANNUAL AVERAGE	
GINAL													
988.....	907	930	891	864	874	795	788	800	784	719	653	696	809
989.....	770	668	699	769	648	599	616	566	573	605	616	598	646
990.....	682	666	664	731	636	628	689	741	721	653	764	765	695
741	903												
SONAL FACTORS....	1.065	1.044	1.038	1.090	1.006	.948	.000	.000	.000	.000	.000	.000	-
SONALLY ADJUSTED													
948.....	128	121	110	109	109	118	107	128	127	136	95	99	-
949.....	104	130	116	158	192	250	309	359	355	430	409	-	-
950.....	398	406	422	470	415	423	338	298	298	279	260	217	-
951.....	179	198	153	140	130	115	127	117	118	99	155	103	-
952.....	104	88	87	118	83	68	67	62	64	88	67	104	-
953.....	87	81	84	70	48	93	72	66	68	66	96	112	-
954.....	146	152	232	278	317	329	420	432	454	429	393	-	-
955.....	421	439	384	400	354	335	297	275	250	244	275	286	-
956.....	251	276	241	205	201	186	206	235	242	247	237	259	-
957.....	178	225	218	233	239	260	239	232	221	293	277	260	-
958.....	298	348	352	352	571	707	838	962	1,017	930	825	827	-
959.....	802	732	680	631	575	548	495	482	446	447	477	467	-
960.....	465	429	440	431	389	396	400	482	466	566	550	554	-
961.....	640	694	802	859	928	991	900	845	822	766	738	738	-
962.....	674	683	639	623	627	573	565	596	529	506	440	510	-
963.....	544	597	599	591	605	500	548	521	559	530	521	490	-
964.....	504	487	505	470	504	508	523	508	460	433	438	429	-
965.....	389	412	359	368	351	369	324	327	356	336	311	293	-
966.....	290	270	268	251	153	150	151	200	162	178	182	195	-
967.....	203	201	180	174	136	162	159	153	132	134	131	160	-
968.....	190	179	179	149	126	124	160	132	146	136	146	132	-
969.....	130	115	119	133	126	124	160	132	146	136	146	132	-
970.....	143	161	181	202	231	224	234	251	281	259	383	-	-
971.....	430	448	453	454	508	541	567	550	563	591	581	583	-
972.....	593	651	632	673	580	550	519	537	548	522	470	455	-
973.....	410	372	388	340	369	325	282	334	295	336	350	328	-
974.....	332	334	330	354	356	367	387	388	391	398	430	538	-
975.....	625	717	964	964	1,089	1,305	1,401	1,472	1,598	1,448	1,645	1,586	-
976.....	1,581	1,533	1,460	1,409	1,219	1,353	1,250	1,280	1,204	1,231	1,278	1,334	-
977.....	1,211	1,205	1,163	1,120	1,069	973	898	898	939	913	896	858	-
978.....	813	667	714	680	692	640	658	612	624	596	533	510	-
979.....	533	552	592	549	520	521	470	534	532	530	551	544	-
980.....	548	508	622	691	719	773	970	930	966	1,060	1,133	1,147	-
981.....	1,263	1,245	1,217	1,132	1,149	1,123	1,086	1,164	1,114	1,134	1,143	1,171	-
982.....	1,186	1,279	1,358	1,501	1,617	1,784	1,816	1,866	2,018	2,246	2,564	2,564	-
983.....	2,667	2,716	2,746	2,710	2,750	2,885	2,594	2,530	2,441	2,277	2,167	2,061	-
984.....	2,040	1,834	1,780	1,764	1,691	1,576	1,590	1,515	1,451	1,427	1,422	1,393	-
985.....	1,315	1,344	1,349	1,378	1,235	1,281	1,267	1,222	1,233	1,199	1,297	1,205	-
986.....	1,087	1,183	1,173	1,174	1,168	1,280	1,213	1,192	1,237	1,214	1,165	1,150	-
987.....	1,139	1,112	1,121	1,075	1,108	1,085	985	1,056	987	954	920	896	-
988.....	866	888	847	809	845	817	800	809	807	768	687	732	-
989.....	729	638	669	715	633	623	627	570	590	647	641	627	-
990.....	642	637	638	675	628	659	701	746	744	698	789	799	-
1991		848											

PEAK



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Recent recessions swell ranks of the long-term unemployed

During the past seven recessions, joblessness lasting more than half a year has far outpaced the overall increase in unemployment and in 1981-82 reached the highest level of the postwar era

PHILIP L. RONES

The recent recession in the United States produced the highest unemployment rates in more than 40 years. It also produced unusually long periods of unemployment for a workforce that is normally among the most dynamic in the world.

Millions of Americans move into and out of each labor force category (employed, unemployed, or not in the labor force) every month. Generally, about half of the people who are unemployed in one month are no longer unemployed the next, some finding jobs and others ending their job search for other reasons. These people are then replaced by newly unemployed persons. Short-term unemployment is quite normal in a dynamic economy and, within limits, is necessary for the normal functioning of the job search process.

During 1982, however, as in any recessionary year, fewer unemployed people could find jobs, and, consequently, more remained unemployed from one month to the next. As a result, the number of persons out of work 15 weeks or more rose sharply.

Data on long-term unemployment provide a valuable addition to the more frequently reported unemployment data. This article will briefly investigate long-term unemployment and identify those worker groups most affected by this prob-

lem. Particular emphasis will be placed on the most recent recession.¹

While an assessment of the causes of lengthy unemployment is not the focus of this discussion, a few comments are appropriate. What is being examined here is largely a cyclical condition, that is, the sharp rise in long-duration unemployment brought about by the severe 1981-82 recession. It should be noted, however, that some long-term joblessness is structural in nature, a result of some basic problem in the functioning of labor markets unrelated to cyclical changes. For example, the persistently high unemployment rate and unemployment duration of some groups of racial and ethnic minorities are evidence of such structural unemployment.

It should be kept in mind, then, that in regard to long-term joblessness, both structural and cyclical forces may be at work simultaneously. Some cases are fairly obvious, such as joblessness among blacks. Some are not. For example, prior to the two recessions of the 1980's, the incidence of long-term unemployment among workers in the primary metals industries was quite low—half the national average. More recently, long-term unemployment among these workers has become among the worst of any worker group. While the timing corresponds to a cyclical downturn, considerable evidence indicates that the Nation's steel industry is suffering from some basic problems quite unrelated to cyclical declines in demand. Thus, when structural problems appear

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under the "cloak" of recession, unemployment problems will persist after economic recovery is well under way.

Unemployment duration and the unemployment level should not be viewed as completely separate entities. In fact, the unemployment level is really a function of two factors.² The "incidence" of unemployment refers to the number of people who begin a spell of joblessness. Assuming a constant duration, the number unemployed will decline if the incidence declines. Conversely, assuming a constant incidence (a steady flow into unemployment status), the number of jobless will rise as duration increases, that is, persons remain unemployed longer. Thus, the increase in the unemployment levels during the recent recession (or any recession) was due both to increasing duration and incidence.

The most widely used measures of unemployment duration are the mean and median duration of a spell of unemployment.³ While these indicators generally rise with increases in the unemployment rate (with some difference in timing), they may hide increases in long-term unemployment during certain periods of the business cycle. For instance, early in a recession, when there is extensive job loss, the large number of newly unemployed may actually lower these measures. It is not until the number of newly unemployed begins to decline as a proportion of the total that average duration measures begin a sustained rise. Similarly, during recoveries, the number of newly unemployed may begin to decline first, putting upward pressure on the mean and median durations. Thus, the long-term unemployed need to be examined directly.

Duration is key to jobless rise

Table 1 compares the number of newly unemployed (less than 5 weeks) to total unemployment since 1979. The number of persons in the two long-duration categories is also shown. Clearly, the newly unemployed are insufficient to account for the dramatic rise in overall joblessness. Since 1979, the average increase in the newly unemployed never exceeded 13 percent in any year and had totaled 32 percent through 1982. During the same period, total joblessness rose

by 74 percent and, at the extreme, unemployment of longer than half a year more than tripled.

A similar pattern occurs in every period of unemployment increases. During the last seven recessions (starting in the early 1950's), the total of unemployed persons rose, on average, 84 percent from its previous low to its recession high.⁴ However, as table 2 shows, the number unemployed 15 weeks or more rose almost 3 times as fast and the number unemployed more than a half year rose more than 4 times as fast. It should be noted that the recovery from the 1980 recession was so weak (the unemployment rate only improved half a point) that the percentage increase in long-term joblessness in the subsequent (1981-82) recession was somewhat low by historical standards; the actual levels, however, were far higher than those in any previous postwar recession.

Similarly, as a recession comes to an end, long-term unemployment continues to increase. Employers first stop laying off new workers and then begin recalling those workers most recently laid off. This helps to reduce unemployment of short and medium duration. Those workers who had become unemployed early in the downturn often have the least skills and the least seniority, and it typically requires a sustained period of recovery for them to obtain employment.

Thus, there is generally a time lag between when the unemployment rate peaks and when the number of long-term unemployed peaks. The nature of that lag, however, has changed. The following shows the number of months the high in long-duration unemployment followed the peak unemployment rate in the business cycles since 1948:

Peak year	Unemployed 15 weeks and over	Unemployed 27 weeks and over
1949	1	1
1954	0	1
1958	1	2
1961	2	2
1971	1	8
1975	2	6
1980	5	6
1982	0	6

Through the early 1960's, the number of long-term unemployed peaked within 1 or 2 months of the unemployment rate peak. The recessions were followed by relatively rapid and strong recoveries; the unemployment rate declined at least a percentage point, but generally much more, within 6 months of its peak. The recessions since 1970, however, have generally been followed by slower recoveries. In 1971, for instance, the rate did not fall a full point from its peak for a year and a half. After the 1980 recession, the rate did not even fall by as much as a full point (it recovered only six-tenths of a point). These weak recoveries do not provide many job opportunities for people who have experienced considerable unemployment. Thus, the ranks of those jobless at least 15 weeks have not tended to decline sufficiently

Table 1. Total unemployed by selected duration, with percent change from previous year, 1979-82 annual averages
(Numbers in thousands)

Characteristic	1979		1980		1981		1982	
	Number	Percent change	Number	Percent change	Number	Percent change	Number	Percent change
Total	6,137	-1.0	7,637	24.4	8,273	8.3	10,678	29.1
Unemployed less than 5 weeks ..	2,950	3.0	3,295	11.7	3,449	4.7	3,883	12.6
Unemployed 15 to 26 weeks ..	706	-7.8	1,052	49.0	1,122	6.7	1,708	52.2
Unemployed 27 weeks and over ..	535	-17.4	820	53.3	1,162	41.7	1,776	52.8

fast to offset those who become unemployed just prior to the unemployment peak and who subsequently join the ranks of the long-term unemployed. Movement out of the very long-term unemployed (27 weeks and over) is very slow, and hence this group sometimes peaks more than 3 months after the 15-week-and-over group peaks.

Recovery speeds jobless decline after lag

The 1983 recovery was somewhat different than those that preceded it. While the fall in the jobless rate was fairly slow for the first half year, long-term joblessness continued to rise until June. This pattern was similar to the three previous recoveries. In the second half, however, the recovery gained momentum, and by December the 12-month unemployment decline was faster than any previous recovery since the 1960-61 recession. Very long-term joblessness also declined rapidly in the second half to 2.1 million at yearend, compared with a peak of 2.9 million.

The extent of long-duration unemployment during the most recent recession is demonstrated here by comparing data for June 1983 with June 1979. Even though the recession bottomed in November 1982 (according to the National Bureau of Economic Research) and unemployment began to decline in January 1983, the June data are used because they represent the peak of unemployment of 27 or more weeks' duration. June 1979 is used for comparison because it is near the low point in unemployment between the 1975 and 1980 recessions. Because data for specific worker groups are not seasonally adjusted, the same month in any 2 years being compared should be used. This is particularly important in analyzing long-duration unemployment, which has a strong seasonal component. A date between the 1980 and 1982 recessions was not chosen because the recovery from the former recession was so weak, particularly in regard to long-term joblessness, that it could hardly be used as a comparison between relatively good and bad times. In fact, long-term joblessness in mid-1979 was half of what it was at its lowest point in 1981.

No single statistic adequately reflects the extent of long-term unemployment experienced by different labor force groups. For this reason, three types of measures are used which address different aspects of the problem.

1. The long-term unemployed as a proportion of a group's total unemployed answers the question, "If a person was unemployed, what was his or her likelihood of having been jobless at least 15 (or 27) weeks?"
2. The long-term unemployed as a proportion of a group's labor force combines two factors—the likelihood of being unemployed and the likelihood of the unemployment reaching long term. A group could have a high proportion of long-term unemployed under measure 1 (above) but have a low unemployment rate. (See, for example, persons age 55 and over in column 4, table 3.)

3. The percent distribution of the long-term unemployed provides the demographic and industry make-up of this group but is as much a function of the size of the labor force and the unemployment rate of a group as it is a function of the probability of becoming unemployed 15 weeks or more.

Demographic characteristics

In "good times," the long-duration unemployed are composed disproportionately of black workers and workers under 25 years of age, reflecting these groups' high unemployment rates. As a share of the unemployed, the long-term jobless are more likely to be male and over 25 years of age. As the economy worsens, some of these relationships intensify and others moderate. The complexity of these relationships is illustrated by focusing on men.

Once unemployed, men have a higher probability of staying unemployed at least 15 weeks, particularly those of prime working age and older. (See table 3.) This is due to several factors, including their greater likelihood (except for those in the oldest age groups) to be persistent in their job search. The lower duration of unemployment among young workers and women is not a result of their more successful job search. Rather, it is due to their greater tendency to end a period of job search by withdrawing from the job market. For instance, in 1979, 27 percent of women age 25 to 54 who were unemployed in 1 month had left the labor force the next. A comparable figure for persons age 16 to 24 was 25 percent. However, only 11 percent of men 25 to 54 left the labor force from unemployment in any given month. (For 1982, comparable percentages were 22 for women, 23 for youth, and 8 for men.)

For older unemployed persons, the high probability of long-term unemployment reflects the particularly low chance of finding a job for those who do persist in their job search. An unemployed man age 25 to 54 had a 50-percent better chance of finding a job in 1979 than did one age 55 and over. Even when many prime-working age men were out of work during the 1981-82 recession, they still stood a 25-percent better chance of finding a job in 1982 than their older counterparts.⁵

Table 2. Percent change in unemployment¹ between recession peak and previous low, 1954 to 1982
(in percent)

Peak year	Total unemployed	Unemployed 15 weeks or longer	Unemployed 27 weeks or longer
Average, 7 recessions	84	246	394
1954	146	505	846
1958	102	297	471
1961	50	130	150
1971	92	266	466
1975	104	289	483
1980	43	117	149
1982	53	119	174

¹Based on seasonally adjusted data

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The situation for blacks is somewhat different. The problem of long-duration unemployment for blacks is a result of their higher probability of becoming unemployed in the first place. Because the likelihood of reaching 15 (or 27) weeks of unemployment, once jobless, is roughly the same for blacks and whites (columns 5 and 6, table 3), the labor force differences (columns 7 and 8) are proportionate to the white/black differences in their unemployment rates. In both 1979 and 1982, blacks were from 2 to 3 times as likely to be long-term jobless as were whites, roughly the same as the relationship for overall unemployment.

Variations by industry

The statistics by industry show the effects of the recession most dramatically. In 1979, there was little difference among industries in the probability of a worker becoming unemployed for a long time. This probability was generally between 1 and 2 percent for 15 weeks or more and about 0.5 percent for 27 weeks and over. By 1983, there were dramatic differences in the long-term unemployment situation among the major industry groups. Finance and services continued to experience relatively low levels of long-term joblessness, although the levels were triple those in 1979. But some of the changes in other industry statistics were striking, most notably the cyclically sensitive construction and durable goods industries.

While about 4 percent of the civilian labor force was unemployed at least 15 weeks in June 1983, more than 7 percent of the construction and durable goods labor force had reached that level. And while the average worker was 5 times as likely to have been unemployed more than 6 months in June 1983 compared to 4 years earlier, workers

in construction were 8 times as likely and those in durable goods, 9 times. In primary metals (largely steel), a worker was nearly 20 times as likely to be jobless for 15 (or 27) weeks as 4 years earlier. Nearly three-fourths of all jobless workers in this industry had been jobless at least 15 weeks and 6 of 10 were jobless more than one half year. These figures demonstrate the combined effects of both cyclical and structural problems in the employment situation in steel. It should also be noted that auto manufacturing experienced a marked improvement in its unemployment situation during the first half of 1983. The long-term duration figures shown for June 1983, as bad as they are, actually represent a 50-percent improvement over February, the industry's worst month. These developments make it clearer why prime working age men (25-54 year-olds) were hardest hit by long-term unemployment. These men accounted for half of the wage and salary employment in durable goods and construction in 1979, compared with only one-third of wage and salary employment in the service-producing sector.

A job loser was far more likely to remain unemployed for long periods than was a job leaver or a labor force entrant. This makes sense, given the voluntary nature of a quit and the more marginal job market commitment of entrants as a group. Moreover, job losers are likely to have come from the cyclically sensitive goods-producing sector. Between June of 1979 and 1983, job losers had risen from one-half to almost three-fourths of the long-term jobless.

Work experience data

The duration measures discussed thus far come from the responses to the monthly Current Population Survey questionnaire. Another measure of unemployment duration ob-

Table 3. The long-term unemployed by selected characteristics, June 1979 and June 1983, not seasonally adjusted
(Numbers in thousands)

Characteristic	Total unemployed		Unemployed 15 weeks or longer								Unemployed 27 weeks or longer							
	June 1979	June 1983	Total		Percent of unemployed		Percent of labor force		Percent distribution		Total		Percent of unemployed		Percent of labor force		Percent distribution	
			June 1979	June 1983	June 1979	June 1983	June 1979	June 1983	June 1979	June 1983	June 1979	June 1983	June 1979	June 1983	June 1979	June 1983	June 1979	June 1983
Total	6,235	11,570	1,085	4,447	17.4	38.4	1.0	3.9	100.0	100.0	492	2,842	7.9	24.6	5	2.5	100.0	100.0
Men	2,953	6,498	601	2,329	20.1	45.2	.9	4.6	53.4	66.1	288	1,534	9.6	29.8	5	3.3	58.5	68.1
Women	3,242	5,072	484	1,507	14.9	29.7	1.1	3.1	44.6	33.9	204	908	6.3	17.9	5	1.9	41.5	31.9
16 to 19 years	2,034	2,527	136	313	6.7	12.4	1.2	3.2	12.5	7.0	44	148	2.2	5.9	4	1.5	8.9	5.2
20 to 24 years	1,441	2,478	233	814	16.2	32.8	1.5	4.9	21.5	18.3	91	458	6.3	18.5	6	2.7	18.5	16.1
25 to 54 years	2,372	5,780	549	2,809	24.8	50.0	.9	4.0	54.3	65.0	284	1,938	12.0	33.5	5	2.7	57.7	68.2
55 years and over	385	785	128	431	32.9	54.9	.9	2.9	11.8	9.7	73	299	18.8	38.1	5	2.0	14.8	10.5
White	4,877	8,598	790	3,317	16.9	38.6	.9	3.4	72.8	74.6	329	2,104	7.0	24.5	4	2.1	66.9	74.0
Black	1,421	2,959	273	997	19.2	38.4	2.5	8.3	25.2	22.4	119	657	8.4	23.3	1.1	5.5	24.2	23.1
Hispanic origin	432	896	70	240	16.2	26.8	1.4	3.8	6.5	5.4	26	155	6.0	17.3	5	3.0	5.3	5.5
Construction	456	919	97	438	21.3	47.7	1.6	7.0	8.9	9.8	32	262	7.0	28.5	5	4.2	6.5	9.2
Manufacturing	1,158	2,900	304	1,429	26.3	57.2	1.3	6.4	28.0	32.1	128	1,006	11.1	40.2	6	4.5	26.0	35.4
Durable goods	611	1,602	182	993	29.8	62.0	1.3	7.5	16.8	22.3	84	703	13.7	43.9	6	5.3	17.1	24.7
Primary metals	32	195	10	142	31.3	72.8	8	14.0	.9	3.2	7	115	21.9	59.0	5	11.4	1.4	4.0
Autos	54	137	18	91	33.3	66.4	1.3	4.8	1.7	2.0	7	73	13.0	53.3	5	6.7	1.4	2.6
Nondurable goods	547	898	121	436	22.1	48.6	1.3	4.9	11.2	9.8	44	303	8.0	33.7	5	3.4	4.9	10.7
Trade	1,304	2,243	195	816	15.0	36.4	1.0	3.8	18.0	18.3	71	448	5.4	20.0	4	2.1	14.4	15.8
Finance	1,462	2,434	258	860	17.6	35.3	8	2.4	23.8	19.3	134	542	9.2	22.3	4	1.5	27.2	19.1
Job losers	2,096	6,135	577	3,314	27.5	54.0	—	—	53.2	74.5	265	2,173	12.6	35.4	—	—	53.9	76.5
Job leavers	823	748	142	993	29.8	30.9	—	—	13.2	5.2	61	143	7.4	19.1	—	—	12.4	5.0
Entrants	3,314	4,686	363	684	11.0	18.9	—	—	33.5	19.9	165	522	5.0	11.1	—	—	33.5	18.4

tainable from the CPS comes from responses from a set of supplemental questions asked each March regarding the respondent's work experience during the prior calendar year. Each measure has advantages and disadvantages. The duration measure from the monthly CPS relates to a single, continuous spell of unemployment, while the March supplement counts the total weeks of unemployment over the course of a year regardless of the number of spells. The March data, therefore, understate the duration of unemployment for spells that begin before, or continue after, a calendar year. The monthly survey, by contrast, provides more reliable estimates of unemployment primarily because it does not entail the problems of recall associated with work experience questions. However, the monthly CPS may also understate the duration of unemployment when it is broken by a brief period of employment or labor force withdrawal.⁶

While neither the monthly nor the annual work experience data on duration of joblessness are without limitations, when combined, they provide a fairly thorough view of the problem. For a cyclical perspective, the monthly survey is generally better. To assess the extent of the problem on an individual basis, the work experience questionnaire is quite helpful. In this case, unemployment duration for 1982 will be compared to 1979, a year of relatively low unemployment.

Data from the work experience tabulations demonstrate much the same demographic patterns as the monthly surveys. In 1982, being male and being black each added 10 percentage points to the proportion of those jobless 15 weeks or more in each group. (See table 4.) In other words, the proportion of black women and white men jobless this long was about 10 points higher than the lowest group, white women, while the proportion of black men was 20 points higher. Hispanic men and women experienced long-term joblessness in proportions between their white and black counterparts.

Half of all unemployed persons reported at least 15 weeks

Table 4. Proportion of unemployed who experienced at least 15 weeks of unemployment during 1979 and 1982, by sex, race, and Hispanic origin

Characteristic	Duration of unemployment			
	15 weeks and over		27 weeks and over	
	1979	1982	1979	1982
Total	33.4	49.6	13.7	25.5
Men	35.9	54.1	14.9	27.6
White	33.8	52.6	13.3	26.0
Black	48.8	62.8	24.7	36.1
Hispanic origin	38.8	57.8	15.2	26.6
Women	30.5	43.2	12.3	22.6
White	28.2	41.3	11.1	21.5
Black	41.1	52.5	18.4	28.0
Hispanic origin	34.7	47.9	13.5	25.3

of unemployment in 1982. This figure is higher than the figure from the monthly CPS largely because it counts all spells of unemployment. The proportion unemployed 27 weeks or longer is severely limited by the time frame of the March supplement questionnaire—the half-year period had to fall entirely within the particular calendar year.

WHILE SHORT-TERM JOBlessness is often part of the normal functioning of a market economy, long-term joblessness can have profound consequences for the individual and family—financial, emotional, and even physical. The 1981–82 recession resulted in levels of long-term unemployment far higher than any experienced since the Great Depression.

The hardest hit workers were men, who typically work in cyclically sensitive industries and who tend to persevere in their job search. Racial minorities, whose overall joblessness is extensive, experience a similarly large share of long-term unemployment.

Long-term unemployment is a critical policy area not only during recessions but also during expansions, when the focus shifts to the hard-core, or structurally, unemployed. This aspect of the unemployment picture receives less attention than the overall jobless rate or level but bears directly on the question of economic hardship. □

FOOTNOTES

¹The source of data is the Current Population Survey, a monthly survey of about 60,000 households, conducted by the Bureau of the Census for the Bureau of Labor Statistics.

²The mathematical relationship between flow, duration, and the unemployment rate is discussed in Ronald S. Warren, Jr., "Measuring the flow and duration as jobless rate components," *Monthly Labor Review*, March 1977, pp. 71–72.

³For a discussion of the issues involved in measuring the duration of unemployment, see Norman Bowers, "Probing the issues of unemploy-

ment duration," *Monthly Labor Review*, July 1980, pp. 23–32.

⁴The 1949 recession is not included here because BLS data, dating to 1948, cannot be used to identify the "pre-recession low."

⁵Data on the probability of labor force withdrawal and of finding a job come from the Current Population Survey gross flows data. Annual averages are used to improve the reliability of the estimates.

⁶In the monthly CPS, a period of 2 weeks or more during which a person is either employed or ceases job search is considered a break in a spell of unemployment.

FEBRUARY EMPLOYMENT SITUATION

FRIDAY, MARCH 8, 1991

U.S. CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met at 9:35 a.m. in room SD-628 of the Dirksen Senate Office Building, the Hon. Paul S. Sarbanes, (chairman of the committee), presiding.

Present: Senator Sarbanes, Representatives Hamilton and Arney.

Also present: William Buechner, professional staff member.

Senator SARBANES (presiding). The committee will come to order.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

The Joint Economic Committee has two hearings scheduled this morning. The first hearing is our regular monthly hearing focused on the employment and unemployment figures. In this instance, for the month of February, with Janet Norwood, Commissioner of the Bureau of Labor Statistics, as our witness.

This hearing will be followed by a second hearing on the recession and the economic outlook. And we will have four distinguished members of the panel who will be testifying at that hearing, which will take place immediately upon the conclusion of this one.

We'll have Roger Brinner, David Jones, Jeffrey Moore and Richard Rahn, four distinguished economists, to talk about the recession and the economic outlook.

As we know, the nation finds itself with an economy in a recession. Between June of 1990 and this morning, unemployment rose from 5.3 percent to 6.5 percent.

It's my understanding that the three-tenths of a point jump from last month, from 6.2 to 6.5 percent, is the largest 1-month increase in the unemployment rate in 5 years time.

And when we heard from Chairman Boskin, Chairman of the Council of Economic Advisors, last month, testifying on the 1991 Economic Report of the President, he was assuming and the administration was assuming an unemployment rate for the year averaging 6.7 percent.

We have, of course, not yet reached that figure. And, of course, to average 6.7 percent over the year, obviously, since we've been below at these first 2 months, even the Administration, I take it, anticipates going above that.

The Committee has held a number of hearings on the strain which this recession has put on the State Unemployment Insurance System. We are trying to deal with that in the Supplemental

Appropriation Bill, which provides sufficient administrative funds to process the very significant increase in claims for unemployment insurance which have taken place in the course of this recession.

Commissioner, we are looking forward to hearing your testimony this morning from you and your colleagues.

Before I turn to you, I'll turn to my colleagues and see if they have any statements.

We've been joined on the committee by a new member, Congressman Richard Armev of Texas. We're pleased to welcome him to the committee, and I will defer to him now for any opening statement he may wish to make.

Representative ARMEV. Thank you, Senator Sarbanes.

Of course, it's a pleasure for me to be here on the committee and I'm looking forward to the testimony. As the new Ranking Republican member on the Joint Economic Committee, it gives me a great deal of pleasure to join you in welcoming Ms. Norwood and her colleagues this morning.

I look forward to actively participating in these monthly hearings and other committee activities and working with Chairman Sarbanes.

As a Ph.D. Economist and former Economics Professor, I'm sure that the employment hearings will provide me useful information on the current performance of the economy.

The BLS release this morning shows that the recession continued in the month of February, a declining payroll employment; a good coincident economic indicator reflects current economic weakness.

The three-tenths of a percent point rise in the unemployment rate to the level of 6.5 percent is also discouraging news for American workers.

Fortunately, many economists expect the economic expansion to resume in the coming months.

As policy makers, it is our responsibility to avoid policies that undercut economic growth.

In retrospect, it is clear that the huge tax increase of last year was a mistake. It was the wrong approach to our structural problem of congressional deficit spending and could not have been timed worse to effect maximum economic damage.

Other congressional actions taken to increase regulatory burdens on American workers and business will also undermine our struggling American economy.

Fortunately, our market economy has proven quite resilient. On the other hand, there are a number of actions Congress could take to improve economic conditions—cutting the tax burden on investment and the work ethic would be a good place to start.

Thank you, Mr. Chairman. I look forward to hearing the testimony of Dr. Norwood.

Senator SARBANES. Thank you very much, Congressman Armev, and, again, welcome to the committee.

Congressman HAMILTON.

Representative HAMILTON. Thank you, Mr. Chairman.

Just a note to join you in welcoming Congressman Armev to the committee. We're very pleased to have you. We look forward to working with you.

Senator **SARBANES**. Commissioner Norwood, we are prepared to hear from you and your colleagues.

STATEMENT OF HON. JANET NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY KENNETH V. DALTON, ASSOCIATE COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND THOMAS J. PLEWES, ASSOCIATE COMMISSIONER, OFFICE OF EMPLOYMENT AND UNEMPLOYMENT STATISTICS

Mrs. NORWOOD. Thank you very much.

I'm joined by Ken Dalton, our price expert, on my right; and Tom Plewes on our left. We're very pleased to be here.

Labor market conditions continued to deteriorate in February. The civilian unemployment rate rose from 6.2 to 6.5 percent and the number of unemployed persons increased by about 450,000 to a total of 8.2 million.

Our business survey shows that the number of non-farm jobs fell by an additional 185,000, for a drop of just over a million since last September.

Durable goods manufacturing industries were the hardest hit, with the loss of an additional 115,000 jobs in February.

These industries have suffered steady cutbacks over the past 2 years, losing more than half a million jobs in the past 7 months alone.

February job cutbacks were especially large in the manufacture of autos and other transportation equipment, fabricated metal products and industrial machinery.

Sizable losses have also occurred in construction-related industries—lumber and furniture, as well as primary metals and electronic equipment.

Job declines also occurred in non-durable goods industries, but they were essentially limited to textiles and rubber and plastics products.

Both of these industries have lost a substantial number of jobs in recent months. This reduction in manufacturing activity continues to affect related industries.

Employment in wholesale trade fell by 25,000 over the month, following an even larger decline in January.

An exceptionally large employment decline took place in the transportation industry in February.

Although most of this job loss occurred in the airline industry, where large employment cutbacks took place, the trucking industry also lost jobs, probably because of the slowdown in manufacturing activity.

Employment in retail trade continued to be very weak. The number of jobs in this industry fell by 70,000 in February. And these job losses were widespread. Even food stores and eating and drinking places, which, typically, remain fairly strong during downturns, experienced job cutbacks.

Retail trade has lost nearly a quarter of a million jobs over the last 7 months. Employment in the construction industry, which has suffered a string of job losses since last May, totaling 425,000 and

was especially hard-hit in January, edged up in February after seasonal adjustment.

I would caution, however, that one should not read too much into this figure. Much of the gain reflected unusually mild weather during the February survey period that came on the heels of exceptionally bad weather in January, when construction jobs declined by 150,000.

Some employment growth did occur in February in the services industry, where health services continued to add jobs.

However, business services, an industry strongly affected by the economic conditions of other industries, continued to lose employment.

Total civilian employment as measured by our household survey was unchanged in February, following a very large drop in January. The civilian unemployment rate, which had edged up only slightly in January, rose sharply in February.

Over the 2-month period, we have had a very sharp decline, both in the number and in the percentage of the population that is employed, as well as a correspondingly substantial increase in unemployment.

Adult men bore the brunt of the February increase in unemployment. Their jobless rate rose sharply by seven-tenths of a percentage point.

Jobless rates were a little changed for adult women, teenagers, blacks and Hispanics, although unemployment has risen for all groups since last June.

The increase during the 8-month period has been sharper for white than for black workers. Nevertheless, the black jobless rate is still twice that of white workers. The jobless rate for Hispanic workers continues to fall between the rates for whites and blacks.

The increase in unemployment over the month was concentrated among those who had lost their last jobs rather than among those who had left jobs voluntarily, or who had entered the labor force.

The number of persons working part-time, either because their hours had been cut back or because they were unable to find full-time work, also rose in February.

At 6.1 million, the number of these workers has increased by a million since last summer and currently is at the highest level since late 1983.

Since last June, the number of unemployed persons has risen by 1.6 million. Adult men accounted for more than three-fifths of this increase.

This is because recessions typically impact most heavily on the goods-producing and distributing sectors of the economy, where men are much more likely than women to be employed.

For example, since last June, jobless rates have risen from 9.8 to 15.5 percent for construction workers and from 5.2 to 7.4 percent for factory workers.

The increase in unemployment has also been much steeper for precision production workers and for operators, fabricators and laborers than for managerial and professional specialty workers.

In addition, of course, as job opportunities have diminished in the service-producing sector, where women are more likely to work, unemployment has also risen among adult women.

In summary, the February data show continued deterioration in the employment situation. Unemployment rose sharply, especially among adult men. Employment declined, particularly in durable manufacturing, but also in the service-producing sector.

The number of unemployed persons has increased by 1.6 million since last June, and the jobless rate has risen from 5.3 to 6.5 percent over this 8-month span.

Mr. Chairman, I have also included in my statement a few comments about our recent productivity release incorporating some revisions in the national accounts. And we'd be glad to try to answer any questions.

Senator SARBANES. Why don't you summarize that productivity piece?

Mrs. NORWOOD. Yes. On Wednesday, as you know, the Bureau of Economic Analysis did a rather major revision of the accounts. We rely on their estimates for output when we go into our productivity measures.

And so we used the new output data and we found that manufacturing productivity grew at an annual rate of 3.5 percent from 1979 to 1990, a result similar to the previous measures showing rapid growth in the 1980s.

The recent performance in manufacturing is somewhat weaker. Productivity grew 3 percent during 1990, including a 1.6 percent decline in the fourth quarter. The fourth quarter estimate reflects an 8.3 percent decline in output and a 6.8 percent decline in hours.

In the broader business sector, productivity fell less than in manufacturing, by about three-tenths of a percent in the fourth quarter. But it has fallen about half a percent in each of the last 2 years.

[The table attached to Mrs. Norwood's statement, together with the Employment Situation press release, follows:]

Unemployment rates of all civilian workers by alternative seasonal adjustment methods

Month and year	Unadjusted rate	X-11 ARIMA method						X-11 method (official method before 1980)	Range (cols. 2-8)
		Official procedure	Concurrent (as first computed)	Concurrent (revised)	Stable	Total	Residual		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1990									
February....	5.8	5.3	5.3	5.2	5.3	5.3	5.2	5.3	.1
March.....	5.4	5.3	5.3	5.2	5.2	5.2	5.2	5.2	.1
April.....	5.2	5.4	5.4	5.4	5.4	5.3	5.3	5.4	.1
May.....	5.1	5.3	5.3	5.3	5.3	5.3	5.4	5.3	.1
June.....	5.3	5.3	5.3	5.2	5.2	5.3	5.2	5.2	.1
July.....	5.5	5.5	5.5	5.5	5.4	5.5	5.4	5.5	.1
August.....	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	-
September...	5.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
October.....	5.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	-
November....	5.8	5.9	5.9	5.9	6.0	5.9	5.9	5.9	.1
December....	5.9	6.1	6.1	6.1	6.1	6.1	6.1	6.1	-
1991									
January.....	7.0	6.2	6.2	6.2	6.3	6.2	6.3	6.2	.1
February....	7.2	6.5	6.5	6.5	6.6	6.6	6.6	6.5	.1

SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
March 1991

(1) *Unadjusted rate.* Unemployment rate for all civilian workers, not seasonally adjusted.

(2) *Official procedure (X-11 ARIMA method).* The published seasonally adjusted rate for all civilian workers. Each of the 3 major civilian labor force components—agricultural employment, nonagricultural employment and unemployment—for 4 age-sex groups—males and females, ages 16-19 and 20 years and over—are seasonally adjusted independently using data from January 1974 forward. The data series for each of these 12 components are extended by a year at each end of the original series using ARIMA (Auto-Regressive, Integrated, Moving Average) models chosen specifically for each series. Each extended series is then seasonally adjusted with the X-11 portion of the X-11 ARIMA program. The 4 teenage unemployment and nonagricultural employment components are adjusted with the additive adjustment model, while the other components are adjusted with the multiplicative model. The unemployment rate is computed by summing the 4 seasonally adjusted unemployment components and calculating that total as a percent of the civilian labor force total derived by summing all 12 seasonally adjusted components. All the seasonally adjusted series are revised at the end of each year. Extrapolated factors for January-June are computed at the beginning of each year; extrapolated factors, for July-December are computed in the middle of the year after the June data become available. Each set of 6-month factors are published in advance, in the January and July issues, respectively, of *Employment and Earnings*.

(3) *Concurrent (as first computed, X-11 ARIMA method).* The official procedure for computation of the rate for all civilian workers using the 12 components is followed except that extrapolated factors are not used at all. Each component is seasonally adjusted with the X-11 ARIMA program each month as the most recent data become available. Rates for each month of the current year are shown as first computed; they are revised only once each year, at the end of the year when data for the full year become available. For example, the rate for January 1984 would be based, during 1984, on the adjustment of data from the period January 1974 through January 1984.

(4) *Concurrent (revised, X-11 ARIMA method).* The procedure used is identical to (3) above, and the rate for the current month (the last month displayed) will always be the same in the two columns. However, all previous months are subject to revision each month based on the seasonal adjustment of all the components with data through the current month.

(5) *Stable (X-11 ARIMA method).* Each of the 12 civilian labor force components is extended using ARIMA models as in the official procedure and then run through the X-11 part of the program using the stable option. This option assumes that seasonal patterns are basically constant from year-to-year and computes final seasonal factors as unweighted averages of all the seasonal-irregular components for each month across the entire span of the period adjusted. As in the official procedure, factors are extrapolated in 6-month intervals and the series are revised at the end of each year. The procedure for computation of the rate from the seasonally adjusted components is also identical to the official procedure.

(6) *Total (X-11 ARIMA method).* This is one alternative aggregation procedure, in which total unemployment and civilian labor force levels are extended with ARIMA models and directly adjusted with multiplicative adjustment models in the X-11 part of the program. The rate is computed by taking seasonally adjusted total unemployment as a percent of seasonally adjusted total civilian labor force. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(7) *Residual (X-11 ARIMA method).* This is another alternative aggregation method, in which total civilian employment and civilian labor force levels are extended using ARIMA models and then directly adjusted with multiplicative adjustment models. The seasonally adjusted unemployment level is derived by subtracting seasonally adjusted employment from seasonally adjusted labor force. The rate is then computed by taking the derived unemployment level as a percent of the labor force level. Factors are extrapolated in 6-month intervals and the series revised at the end of each year.

(8) *12-month extrapolation (X-11 ARIMA method).* This approach is the same as the official procedure except that the factors are extrapolated in 12-month intervals. The factors for January-December of the current year are computed at the beginning of the year based on data through the preceding year. The values for January through June of the current year are the same as the official values since they reflect the same factors.

(9) *X-11 method (official method before 1980).* The method for computation of the official procedure is used except that the series are not extended with ARIMA

models and the factors are projected in 12-month intervals. The standard X-11 program is used to perform the seasonal adjustment.

Methods of Adjustment: The X-11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Times Series Staff under the direction of Estela Bee Dagum. The method is described in *The X-11 ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, February 1980.

The standard X-11 method is described in *X-11 Variant of the Censes Method II Seasonal Adjustment Program*, by Julius Shiskin, Allan Young and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).

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THE EMPLOYMENT SITUATION: FEBRUARY 1991

Employment continued to decline in February and unemployment rose sharply, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The civilian worker unemployment rate was 6.5 percent, up from 6.2 percent in January and 5.3 percent last June.

Nonfarm payroll employment, as measured by the survey of business establishments, fell by 185,000 in February, as manufacturing, transportation, and retail trade experienced particularly large job losses. Total civilian employment, as measured through the household survey, was unchanged, following a large decline in January.

Unemployment (Household Survey Data)

The number of unemployed persons increased by 440,000 in February to a level of 8.2 million (after seasonal adjustment), and the civilian worker unemployment rate rose to 6.5 percent. This was the highest rate since March 1987. Since June of last year, the number of jobless workers has climbed by 1.6 million, and the unemployment rate has risen by 1.2 percentage points. (See table A-2.)

Adult men accounted for the upward movement in unemployment in February. Their jobless rate rose sharply, from 5.6 to 6.3 percent, while the rates for adult women (5.4 percent) and teenagers (17.1 percent) were little changed. Among the race-ethnic groups, the unemployment rate for whites rose from 5.5 to 5.9 percent, while those for blacks (11.8 percent) and Hispanics (9.5 percent) were essentially unchanged. The jobless rates in two male-dominated industries--construction and durable goods manufacturing--continued to rise in February. Over the past year, the workers in these industries experienced by far the greatest increases in unemployment. (See tables A-2, A-3, and A-5.)

The number of unemployed persons who lost their last jobs rose by 450,000 in February to 4.5 million. This figure has risen by 1.4 million since last July. Job losers now comprise 55.5 percent of the unemployed, the highest proportion since October 1983. (See table A-7.)

The number of persons working part time for economic reasons--sometimes called the underemployed or partially unemployed--increased by 550,000 to 6.1 million in February. This figure has risen substantially from the 4.9 million level that generally prevailed throughout the first half of 1990. (See table A-4.)

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

Category	Quarterly averages		Monthly data			Jan.- Feb. change
	1990		1990	1991		
	III	IV	Dec.	Jan.	Feb.	
	HOUSEHOLD DATA					
Thousands of persons						
Labor force <u>1/</u>	126,418	126,525	126,791	126,253	126,678	425
Total employment <u>1/</u> ..	119,441	119,165	119,191	118,537	118,520	-17
Civilian labor force..	124,795	124,924	125,174	124,638	125,076	438
Civilian employment..	117,818	117,564	117,574	116,922	116,918	-4
Unemployment.....	6,976	7,360	7,600	7,715	8,158	443
Not in labor force....	63,471	63,772	63,692	64,339	64,039	-300
Discouraged workers..	831	941	N.A.	N.A.	N.A.	N.A.
Percent of labor force						
Unemployment rates:						
All workers <u>1/</u>	5.5	5.8	6.0	6.1	6.4	0.3
All civilian workers	5.6	5.9	6.1	6.2	6.5	.3
Adult men.....	5.0	5.4	5.6	5.6	6.3	.7
Adult women.....	4.9	5.1	5.3	5.3	5.4	.1
Teenagers.....	16.0	16.4	16.6	18.2	17.1	-1.1
White.....	4.8	5.1	5.3	5.5	5.9	.4
Black.....	11.6	12.0	12.2	12.1	11.8	-.3
Hispanic origin...	8.1	8.7	9.3	9.3	9.5	.2
ESTABLISHMENT DATA						
Thousands of jobs						
Nonfarm employment....	110,655	110,200	110,004	p109,771	p109,587	p-184
Goods-producing.....	25,016	24,568	24,416	p24,184	p24,086	p-98
Service-producing....	85,639	85,632	85,588	p85,587	p85,501	p-86
Hours of work						
Average weekly hours:						
Total private.....	34.6	34.4	34.6	p34.1	p34.3	p0.2
Manufacturing.....	41.0	40.6	40.7	p40.4	p40.2	p-.2
Overtime.....	3.7	3.6	3.6	p3.4	p3.3	p-.1
<u>1/</u> Includes the resident Armed Forces.						p=preliminary.
N.A.=not available.						

Civilian Employment and the Labor Force (Household Survey Data)

Following a decline of 650,000 in January, total civilian employment was unchanged in February at 116.9 million, seasonally adjusted. The percentage of the working-age population that is employed (the employment-population ratio) was 61.8 percent in February, down from 63.0 percent a year earlier. (See table A-2.)

The civilian labor force, which has shown erratic movements in recent months, increased by 440,000 in February to 125.1 million. Over the past year, however, the civilian labor force has grown by a modest 630,000--an increase of only 0.5 percent. The labor force participation rate--the proportion of the working-age population that is either employed or actively seeking employment--was 66.1 percent in February, little different from the previous month and 0.4 percentage point lower than a year earlier. (See table A-2.)

Industry Payroll Employment (Establishment Survey Data)

Nonfarm payroll employment decreased by 185,000 in February to 109.6 million. The bulk of the decline occurred in manufacturing, and there were also substantial losses in retail and wholesale trade and in transportation and public utilities. For the seventh consecutive month, more industries had declines than increases. (See tables B-1 and B-6.)

Manufacturing employment fell by 125,000 in February, continuing a downward trend which started 2 years ago. Since January 1989, the number of factory jobs has decreased by over 1 million. Manufacturing job losses in February continued to be concentrated in durable goods, particularly in industrial machinery, autos and other transportation equipment, and fabricated metals. Smaller declines occurred among industries tied to construction--lumber and wood products and furniture and fixtures--as well as in primary metals and electronic equipment. In nondurable goods, small job losses took place in textiles and rubber and plastics. The only manufacturing industry in which there was an over-the-month employment gain was food processing, which has added more than 20,000 jobs in the last 8 months.

Despite relatively mild weather in February, construction employment showed only a slight rebound from the drop of 150,000 in the prior month (seasonally adjusted). The recent string of job losses in this industry totals about 425,000 since last May.

The service-producing sector also lost jobs in February. Employment in retail trade fell by 70,000, after seasonal adjustment. In transportation, there was a 35,000 cutback, reflecting temporary layoffs and job terminations in the airline industry and continued declines in trucking. Also, employment declined by 25,000 in wholesale trade and 10,000 in finance, insurance, and real estate. Retail and wholesale trade combined has lost a total of 350,000 jobs since last summer.

The services industry, which had been growing robustly until late last year, has shown only small employment gains for the past 3 months. Health services has continued to grow, but at a more moderate pace, with an increase of 30,000 jobs in February. There was a further job decline (20,000) in business services, where reductions have totaled 75,000 since last September.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonfarm payrolls edged up by 0.2 hour in February to 34.3 hours, seasonally adjusted, following a decline of 0.5 hour in January. The manufacturing workweek declined by 0.2 hour from its revised January level to 40.2 hours, and factory overtime edged down to 3.3 hours. The manufacturing workweek and overtime have been trending downward in recent months. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers increased by 0.3 percent to 122.3 (1982=100) in February, seasonally adjusted, as a result of the slight increase in hours. The index for manufacturing declined by 1.2 percent to 101.0, seasonally adjusted. Over the year, the index for manufacturing was down by 6.1 percent. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers were unchanged at \$10.20, seasonally adjusted. Average weekly earnings increased by 0.6 percent to \$349.86. Prior to seasonal adjustment, average weekly earnings were up by \$1.03. Over the past year, average hourly earnings increased by 3.3 percent and average weekly earnings by 2.4 percent. (See tables B-3 and B-4.)

The Employment Situation for March 1991 will be released on Friday, April 5, at 8:30 A.M. (EST).

Explanatory Note

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

The establishment survey provides the information on the employment, hours, and earnings of workers on nonfarm payrolls that appears in the B tables, marked ESTABLISHMENT DATA. This information is collected from payroll records by BLS in cooperation with State agencies. The sample includes over 340,000 establishments employing over 40 million people.

For both surveys, the data for a given month are actually collected for and relate to a particular week. In the household survey, unless otherwise indicated, it is the calendar week that contains the 12th day of the month, which is called the survey week. In the establishment survey, the reference week is the pay period including the 12th, which may or may not correspond directly to the calendar week.

The data in this release are affected by a number of technical factors, including definitions, survey differences, seasonal adjustments, and the inevitable variance in results between a survey of a sample and a census of the entire population. Each of these factors is explained below.

Coverage, definitions, and differences between surveys

The sample households in the household survey are selected so as to reflect the entire civilian noninstitutional population 16 years of age and older. Each person in a household is classified as employed, unemployed, or not in the labor force. Those who hold more than one job are classified according to the job at which they worked the most hours.

People are classified as *employed* if they did any work at all as paid civilians; worked in their own business or profession or on their own farm; or worked 15 hours or more in an enterprise operated by a member of their family, whether they were paid or not. People are also counted as employed if they were on unpaid leave because of illness, bad weather, disputes between labor and management, or personal reasons. Members of the Armed Forces stationed in the United States are also included in the employed total.

People are classified as *unemployed*, regardless of their eligibility for unemployment benefits or public assistance, if they meet all of the following criteria: They had no employment during the survey week; they were available for work at

that time; and they made specific efforts to find employment sometime during the prior 4 weeks. Persons laid off from their former jobs and awaiting recall and those expecting to report to a job within 30 days need not be looking for work to be counted as unemployed.

The *labor force* equals the sum of the number employed and the number unemployed. The *unemployment rate* is the percentage of unemployed people in the labor force (civilian plus the resident Armed Forces). Table A-5 presents a special grouping of seven measures of unemployment based on varying definitions of unemployment and the labor force. The definitions are provided in the table. The most restrictive definition yields U-1 and the most comprehensive yields U-7. The overall unemployment rate is U-5a, while U-5b represents the same measure with a civilian labor force base.

Unlike the household survey, the establishment survey only counts wage and salary employees whose names appear on the payroll records of nonfarm firms. As a result, there are many differences between the two surveys, among which are the following:

- The household survey, although based on a smaller sample, reflects a larger segment of the population; the establishment survey excludes agriculture, the self-employed, unpaid family workers, private household workers, and members of the resident Armed Forces;

- The household survey includes people on unpaid leave among the employed; the establishment survey does not;

- The household survey is limited to those 16 years of age and older; the establishment survey is not limited by age;

- The household survey has no duplication of individuals, because each individual is counted only once; in the establishment survey, employees working at more than one job or otherwise 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 the 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. For example, the labor force increases by a large number each June, when schools close and many young people enter the job market. The effect of such seasonal variation can be very large; over the course of a year, for example, seasonality 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. To return to the school's-out example, the large number of people entering the labor force each June is likely to obscure any other changes that have taken place since 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.

Measures of labor force, employment, and unemployment contain components such as age and sex. Statistics for all employees, production workers, average weekly hours, and average hourly earnings include components based on the employer's industry. All these statistics can be seasonally adjusted either by adjusting the total or by adjusting each of the components and combining them. The second procedure usually yields more accurate information and is therefore followed by BLS. For example, the seasonally adjusted figure for the labor force is the sum of eight seasonally adjusted civilian employment components, plus the resident Armed Forces total (not adjusted for seasonality), and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the overall unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the labor force.

The numerical factors used to make the seasonal adjustments are recalculated regularly. 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 also calculated twice a year. In both surveys, revisions to historical data are made once a year.

Sampling variability

Statistics based on the household and establishment surveys are subject to sampling error, that is, the estimate of the number of people employed and the other estimates drawn from these surveys probably differ from the figures that would be obtained from a complete census, even if the same questionnaires and procedures were used. In the household survey, the amount of the differences can be expressed in terms of standard errors. The numerical value of a standard error depends upon the size of the sample, the results of the survey, and other factors. However, the numerical value is always such that the chances are approximately 68 out of 100 that an estimate based on the sample will differ by no more than the standard error

from the results of a complete census. The chances are approximately 90 out of 100 that an estimate based on the sample will differ by no more than 1.6 times the standard error from the results of a complete census. At approximately the 90-percent level of confidence—the confidence limits used by BLS in its analyses—the error for the monthly change in total employment is on the order of plus or minus 358,000; for total unemployment it is 224,000; and, for the overall unemployment rate, it is 0.19 percentage point. These figures do not mean that the sample results are off by these magnitudes but, rather, that the chances are approximately 90 out of 100 that the "true" level or rate would not be expected to differ from the estimates by more than these amounts.

Sampling errors for monthly surveys are reduced when the data are cumulated for several months, such as quarterly or annually. Also, as a general rule, the smaller the estimate, the larger the sampling error. Therefore, relatively speaking, the estimate of the size of the labor force is subject to less error than is the estimate of the number unemployed. And, among the unemployed, the sampling error for the jobless rate of adult men, for example, is much smaller than is the error for the jobless rate of teenagers. Specifically, the error on monthly change in the jobless rate for men is .25 percentage point; for teenagers, it is 1.29 percentage points.

In the establishment survey, estimates for the 2 most current months are based on incomplete returns; for this reason, these estimates are labeled preliminary in the tables. When all the returns in the sample have been received, the estimates are revised. In other words, data for the month of September are published in preliminary form in October and November and in final form in December. To remove errors that build up over time, a comprehensive count of the employed is conducted each year. The results of this survey are used to establish new benchmarks—comprehensive counts of employment—against which month-to-month changes can be measured. The new benchmarks also incorporate changes in the classification of industries and allow for the formation of new establishments.

Additional statistics and other information

In order to provide a broad view of the Nation's employment situation, BLS regularly publishes a wide variety of data in this news release. More comprehensive statistics are contained in *Employment and Earnings*, published each month by BLS. It is available for \$8.50 per issue or \$25.00 per year from the U.S. Government Printing Office, Washington, D.C., 20204. A check or money order made out to the Superintendent of Documents must accompany all orders.

Employment and Earnings also provides approximations of the standard errors for the household survey data published in this release. For unemployment and other labor force categories, the standard errors appear in tables B through J 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 M, O, P, and Q of that publication.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-1. Employment status of the population, including Armed Forces in the United States, by sex

(Numbers in thousands)

Employment status and sex	Not seasonally adjusted			Seasonally adjusted ¹					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
TOTAL									
Noninstitutional population ²	189,090	190,592	190,717	189,090	190,095	190,312	190,483	190,592	190,717
Labor force ²	125,120	125,200	125,672	125,331	126,445	126,338	126,791	126,253	126,678
Participation rate ³	66.2	65.7	65.9	66.8	66.5	66.4	66.6	66.2	66.4
Total employed ²	117,986	116,605	116,753	119,752	119,303	119,001	119,191	118,537	118,520
Employment-population ratio ⁴	62.4	61.2	61.2	63.3	62.8	62.5	62.6	62.2	62.1
Resident Armed Forces	1,578	1,615	1,602	1,678	1,570	1,815	1,817	1,815	1,602
Civilian employed	116,308	114,990	115,151	118,074	117,733	117,286	117,374	116,722	116,918
Agriculture	2,693	2,750	2,786	3,119	3,175	3,185	3,253	3,163	3,222
Nonagricultural industries	113,615	112,240	112,366	114,955	114,558	114,201	114,321	113,559	113,696
Unemployed	7,134	8,595	8,919	6,579	7,142	7,337	7,600	7,715	8,158
Unemployment rate ⁵	5.7	6.9	7.1	5.2	5.6	5.8	6.0	6.1	6.4
Not in labor force	63,970	65,392	65,045	62,759	63,650	63,974	63,692	64,339	64,039
Men, 16 years and over									
Noninstitutional population ²	90,822	91,590	91,650	90,822	91,299	91,440	91,537	91,590	91,650
Labor force ²	68,285	68,915	69,183	69,548	69,804	69,899	70,059	69,543	69,749
Participation rate ³	75.8	75.2	75.5	76.7	76.5	76.4	76.5	75.9	76.1
Total employed ²	64,799	63,825	63,735	66,086	65,822	65,790	65,781	65,251	65,043
Employment-population ratio ⁴	71.3	69.7	69.5	72.8	72.1	71.9	71.9	71.2	71.0
Resident Armed Forces	1,506	1,453	1,439	1,506	1,414	1,453	1,454	1,453	1,439
Civilian employed	63,293	62,372	62,296	64,580	64,408	64,337	64,327	63,798	63,604
Unemployed	4,087	5,090	5,427	3,562	3,982	4,109	4,277	4,292	4,706
Unemployment rate ⁵	5.9	7.4	7.8	5.1	5.7	5.9	6.1	6.2	6.7
Women, 16 years and over									
Noninstitutional population ²	98,288	99,002	99,067	98,268	98,796	98,872	98,946	99,002	99,067
Labor force ²	56,235	56,285	56,509	56,883	56,641	56,439	56,733	56,710	56,929
Participation rate ³	57.2	56.9	57.0	57.7	57.3	57.1	57.3	57.3	57.5
Total employed ²	53,188	52,780	53,018	53,666	53,481	53,211	53,410	53,287	53,477
Employment-population ratio ⁴	54.1	53.3	53.5	54.6	54.1	53.8	54.0	53.8	54.0
Resident Armed Forces	172	162	163	172	156	162	163	162	163
Civilian employed	53,016	52,618	52,855	53,494	53,325	53,049	53,247	53,125	53,314
Unemployed	3,047	3,505	3,491	3,017	3,160	3,228	3,323	3,423	3,452
Unemployment rate ⁵	5.4	6.2	6.2	5.3	5.6	5.7	5.9	6.0	6.1

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

² Includes members of the Armed Forces stationed in the United States.

³ Labor force as a percent of the noninstitutional population.

⁴ Total employment as a percent of the noninstitutional population.

⁵ Unemployment as a percent of the labor force (including the resident Armed Forces).

Note on Armed Forces estimates

Estimates of the labor force including the Armed Forces that appear in table A-1 of this release should be interpreted with caution. The recent transfer of active-duty personnel to the Persian Gulf and the callup of reservists are not fully reflected in the current estimates of the size of the resident Armed Forces. These data come from administrative sources and are affected, among other things, by the practice of most branches of the services to treat current deployments as temporary-duty assignments. In addition, the civilian population estimates may be slightly overstated, because it is not possible for the Bureau of Labor Statistics to reflect fully the recent callup of civilian reservists. The Bureau believes, however, that this situation has had no appreciable effect on the civilian labor market data.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-2. Employment status of the civilian population by sex and age

(Numbers in thousands)

Employment status, sex, and age	Not seasonally adjusted			Seasonally adjusted ¹					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
TOTAL									
Civilian noninstitutional population	187,412	188,977	189,115	187,412	188,525	188,897	188,866	188,977	189,115
Civilian labor force	123,442	123,585	124,070	124,653	124,875	124,723	125,174	124,638	125,076
Participation rate	65.9	65.4	65.8	66.5	66.2	66.1	66.3	66.0	66.1
Employed	116,308	114,990	115,151	118,074	117,733	117,386	117,574	116,922	116,918
Employment-population ratio ²	62.1	60.8	60.9	63.0	62.4	62.2	62.3	61.9	61.8
Unemployed	7,134	8,595	8,919	6,579	7,142	7,337	7,600	7,715	8,158
Unemployment rate	5.8	7.0	7.2	5.3	5.7	5.9	6.1	6.2	6.5
Men, 20 years and over									
Civilian noninstitutional population	82,248	83,271	83,392	82,248	83,013	83,092	83,208	83,271	83,392
Civilian labor force	63,760	64,089	64,404	64,111	64,594	64,882	64,803	64,345	64,577
Participation rate	77.5	77.0	77.2	77.9	77.8	77.8	77.9	77.3	77.4
Employed	60,286	59,887	59,640	61,160	61,245	61,217	61,188	60,734	60,533
Employment-population ratio ²	73.3	71.7	71.5	74.4	73.8	73.7	73.5	72.9	72.8
Agriculture	2,015	2,060	2,063	2,262	2,283	2,307	2,365	2,289	2,315
Nonagricultural industries	58,270	57,827	57,577	58,898	58,962	58,910	58,823	58,445	58,217
Unemployed	3,474	4,402	4,764	2,951	3,349	3,465	3,615	3,611	4,044
Unemployment rate	5.4	6.9	7.4	4.6	5.2	5.4	5.6	5.6	6.3
Women, 20 years and over									
Civilian noninstitutional population	91,157	92,139	92,198	91,157	91,857	91,963	92,042	92,139	92,198
Civilian labor force	52,689	52,971	53,179	52,822	53,047	52,896	53,182	53,097	53,284
Participation rate	57.8	57.5	57.7	57.9	57.7	57.5	57.8	57.6	57.8
Employed	50,129	50,045	50,209	50,340	50,423	50,196	50,389	50,300	50,404
Employment-population ratio ²	55.0	54.3	54.5	55.2	54.9	54.8	54.7	54.6	54.7
Agriculture	524	557	580	609	628	627	647	664	675
Nonagricultural industries	49,605	49,487	49,629	49,731	49,795	49,569	49,742	49,636	49,728
Unemployed	2,560	2,926	2,970	2,482	2,624	2,700	2,793	2,797	2,881
Unemployment rate	4.9	5.5	5.6	4.7	4.9	5.1	5.3	5.3	5.4
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,008	13,567	13,525	14,008	13,655	13,642	13,616	13,567	13,525
Civilian labor force	6,993	6,526	6,487	7,720	7,234	7,145	7,189	7,196	7,215
Participation rate	49.9	48.1	48.0	55.1	53.0	52.4	52.6	53.0	53.3
Employed	5,893	5,259	5,302	6,574	6,065	5,973	5,997	5,889	5,982
Employment-population ratio ²	42.1	38.8	39.2	46.9	44.4	43.8	44.0	43.4	44.2
Agriculture	154	132	142	248	264	251	241	211	232
Nonagricultural industries	5,740	5,126	5,160	6,326	5,801	5,722	5,756	5,678	5,750
Unemployed	1,100	1,267	1,185	1,146	1,169	1,172	1,192	1,307	1,233
Unemployment rate	15.7	19.4	18.3	14.8	16.2	16.4	16.6	18.2	17.1

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

² Civilian employment as a percent of the civilian noninstitutional population.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-3. Employment status of the civilian population by race, sex, age, and Hispanic origin

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	Not seasonally adjusted				Seasonally adjusted ¹				
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
WHITE									
Civilian noninstitutional population	160,007	161,007	161,097	160,007	160,717	160,831	160,942	161,007	161,097
Civilian labor force	108,113	106,092	106,656	107,090	107,277	107,048	107,517	106,962	107,432
Participation rate	68.3	65.9	66.2	66.9	66.7	66.6	66.8	66.4	66.7
Employed	100,689	99,422	99,698	102,145	102,017	101,848	101,843	101,104	101,141
Employment-population ratio ²	62.9	61.8	61.9	63.8	63.5	63.2	63.3	62.8	62.8
Unemployed	5,425	6,670	6,958	4,945	5,260	5,400	5,674	5,858	6,291
Unemployment rate	5.1	6.3	6.5	4.6	4.9	5.0	5.3	5.5	5.9
Men, 20 years and over									
Civilian labor force	55,554	55,663	55,921	55,830	56,123	56,174	56,307	55,836	56,000
Participation rate	76.1	77.4	77.7	78.4	78.3	78.3	77.8	77.8	77.8
Employed	52,851	52,182	52,115	53,558	53,615	53,564	53,497	53,010	52,801
Employment-population ratio ²	74.3	72.5	72.4	75.3	74.8	74.8	74.4	73.7	73.3
Unemployed	2,703	3,501	3,806	2,272	2,508	2,810	2,810	2,826	3,198
Unemployment rate	4.9	6.3	6.8	4.1	4.5	4.8	5.0	5.1	5.7
Women, 20 years and over									
Civilian labor force	44,513	44,794	45,100	44,834	44,918	44,711	44,995	44,888	45,211
Participation rate	57.4	57.2	57.5	57.5	57.8	57.2	57.6	57.4	57.8
Employed	42,654	42,584	42,947	42,622	43,022	42,766	43,001	42,841	43,019
Employment-population ratio ²	55.0	54.4	54.7	55.2	55.1	54.8	55.0	54.8	55.0
Unemployed	1,860	2,180	2,253	1,812	1,896	1,943	1,994	2,047	2,192
Unemployment rate	4.2	4.9	5.0	4.1	4.2	4.3	4.4	4.6	4.8
Both sexes, 16 to 19 years									
Civilian labor force	6,046	5,665	5,638	6,626	6,236	6,163	6,215	6,238	6,222
Participation rate	53.7	52.1	52.1	58.8	56.9	56.3	57.0	57.4	57.5
Employed	5,184	4,876	4,737	5,775	5,376	5,316	5,345	5,323	5,321
Employment-population ratio ²	46.0	43.0	43.8	51.2	49.0	48.8	49.0	49.3	49.2
Unemployed	862	989	899	861	866	847	870	965	901
Unemployment rate	14.3	17.5	18.0	13.0	13.9	13.7	14.0	15.8	14.5
Men	15.1	18.4	17.9	13.1	14.7	14.9	14.9	15.8	15.4
Women	13.3	16.4	13.9	12.9	13.0	12.5	13.0	15.8	13.4
BLACK									
Civilian noninstitutional population	21,188	21,470	21,493	21,188	21,383	21,417	21,448	21,470	21,493
Civilian labor force	13,292	13,341	13,255	13,484	13,493	13,550	13,486	13,501	13,421
Participation rate	62.7	62.1	61.7	63.5	63.1	63.3	62.9	62.9	62.4
Employed	11,798	11,707	11,605	12,026	11,913	11,897	11,836	11,866	11,839
Employment-population ratio ²	55.7	54.5	54.0	56.8	55.7	55.5	55.2	55.3	55.1
Unemployed	1,494	1,634	1,651	1,438	1,580	1,653	1,650	1,635	1,582
Unemployment rate	11.2	12.2	12.5	10.7	11.7	12.2	12.2	12.1	11.8
Men, 20 years and over									
Civilian labor force	6,132	6,272	6,312	6,195	6,339	6,348	6,359	6,313	6,396
Participation rate	72.8	73.0	73.3	73.8	74.1	74.3	74.1	73.5	73.9
Employed	5,474	5,512	5,513	5,605	5,635	5,638	5,684	5,602	5,649
Employment-population ratio ²	63.0	64.1	64.0	66.6	65.9	66.0	66.0	65.2	65.6
Unemployed	658	760	799	590	704	710	695	712	717
Unemployment rate	10.7	12.1	12.7	9.5	11.1	11.2	10.9	11.3	11.3
Women, 20 years and over									
Civilian labor force	6,417	6,391	6,288	6,414	6,345	6,365	6,339	6,374	6,286
Participation rate	60.7	59.4	58.4	60.6	59.3	59.4	59.0	59.3	58.4
Employed	5,792	5,781	5,671	5,813	5,728	5,717	5,668	5,738	5,694
Employment-population ratio ²	54.7	53.6	52.7	54.9	53.5	53.3	52.8	53.4	52.9
Unemployed	625	610	617	601	617	648	671	636	693
Unemployment rate	9.7	9.9	9.8	9.4	9.7	10.2	10.6	10.0	9.4
Both sexes, 16 to 19 years									
Civilian labor force	744	678	656	855	809	837	788	814	769
Participation rate	34.0	31.9	31.1	39.1	38.0	38.9	36.9	38.4	36.4
Employed	532	434	420	606	550	542	504	526	497
Employment-population ratio ²	24.9	20.5	19.9	27.8	25.9	25.2	23.6	24.8	23.5
Unemployed	211	244	236	247	259	295	284	288	272
Unemployment rate	28.4	36.0	35.9	28.9	32.0	35.2	36.0	35.4	35.4
Men	31.2	37.6	39.4	29.2	31.3	33.2	36.4	34.6	35.5
Women	25.5	34.5	32.7	28.5	32.7	37.5	35.6	36.1	35.2

See footnotes at end of table.

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Table A-3. Employment status of the civilian population by race, sex, age, and Hispanic origin — Continued

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	Not seasonally adjusted			Seasonally adjusted ¹					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
HISPANIC ORIGIN									
Civilian noninstitutional population	14,119	14,553	14,593	14,119	14,435	14,474	14,514	14,553	14,593
Civilian labor force	9,347	9,515	9,493	9,440	9,580	9,500	9,569	9,575	9,578
Participation rate	66.2	65.4	65.1	66.9	66.4	65.6	65.9	66.5	65.6
Employed	8,562	8,577	8,534	8,694	8,793	8,683	8,678	8,779	8,684
Employment-population ratio ²	60.6	58.9	58.5	61.8	60.9	60.0	59.6	60.3	59.4
Unemployed	785	938	959	746	787	817	893	896	914
Unemployment rate	8.4	9.9	10.1	7.9	8.2	8.6	9.3	9.3	9.5

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

² Civilian employment as a percent of the civilian noninstitutional population.

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-4. Selected employment indicators

(In thousands)

Category	Not seasonally adjusted			Seasonally adjusted					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
CHARACTERISTIC									
Civilian employed, 16 years and over	116,306	114,990	115,151	118,074	117,733	117,386	117,574	116,922	116,918
Married men, spouse present	40,788	39,993	40,037	41,256	40,833	40,844	40,728	40,316	40,482
Married women, spouse present	29,615	29,451	29,561	29,727	29,789	29,713	29,776	29,590	29,680
Women who maintain families	6,394	6,405	6,403	6,368	6,354	6,341	6,367	6,366	6,364
OCCUPATION									
Managerial and professional specialty	30,812	30,736	31,127	30,587	30,714	30,732	30,777	30,869	31,060
Technical, sales, and administrative support	36,777	36,033	35,847	37,053	36,447	36,390	36,242	36,350	36,100
Service occupations	15,279	15,804	15,883	15,379	15,680	15,881	15,904	15,746	15,773
Precision production, craft, and repair	13,431	13,091	13,053	13,724	13,547	13,426	13,524	13,399	13,333
Operators, fabricators, and laborers	17,506	16,683	16,809	17,903	17,858	17,752	17,695	17,227	16,997
Farming, forestry, and fishing	2,703	2,842	2,852	3,314	3,378	3,360	3,436	3,437	3,499
INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,363	1,361	1,368	1,817	1,714	1,681	1,671	1,803	1,829
Self-employed workers	1,253	1,293	1,306	1,389	1,350	1,386	1,473	1,396	1,448
Unpaid family workers	77	105	112	116	99	116	102	157	168
Nonagricultural industries:									
Wage and salary workers	104,930	103,415	103,542	106,056	105,384	105,267	105,095	104,698	104,569
Government	17,908	17,839	18,041	17,699	17,694	17,833	17,840	17,690	17,792
Private industries	87,024	85,576	85,500	88,400	87,690	87,434	87,455	87,018	86,777
Private households	956	914	885	1,029	1,017	992	1,013	957	953
Other industries	86,068	84,662	84,615	87,371	86,673	86,442	86,442	86,051	85,824
Self-employed workers	8,404	8,607	8,610	8,655	8,850	8,800	8,898	8,738	8,876
Unpaid family workers	282	218	214	315	250	255	238	232	239
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	4,897	5,664	6,092	4,965	5,409	5,438	5,581	5,510	6,062
Slack work	2,551	3,347	3,574	2,318	2,863	2,786	2,928	2,908	3,252
Could only find part-time work	2,036	2,061	2,240	2,184	2,344	2,340	2,302	2,214	2,401
Voluntary part time	16,196	15,115	15,779	15,371	15,129	15,048	15,081	14,833	14,971
Nonagricultural industries:									
Part time for economic reasons	4,712	5,364	5,849	4,669	5,135	5,163	5,262	5,178	5,803
Slack work	2,404	3,104	3,371	2,183	2,467	2,625	2,742	2,692	3,067
Could only find part-time work	2,010	2,014	2,210	2,138	2,281	2,262	2,218	2,133	2,349
Voluntary part time	15,804	14,794	15,385	14,921	14,715	14,658	14,650	14,461	14,528

¹ Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial dispute.

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Table A-5. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
CHARACTERISTIC									
Total, 16 years and over	6,579	7,715	8,158	5.3	5.7	5.9	6.1	6.2	6.5
Men, 16 years and over	3,562	4,292	4,706	5.2	5.8	6.0	6.2	6.3	6.9
Men, 20 years and over	2,951	3,611	4,044	4.8	5.2	5.4	5.6	5.6	6.3
Women, 16 years and over	3,017	3,423	3,452	5.3	5.8	5.7	5.9	6.1	6.1
Women, 20 years and over	2,482	2,797	2,881	4.7	4.9	5.1	5.3	5.3	5.4
Both sexes, 16 to 19 years	1,146	1,307	1,230	14.8	16.2	16.4	16.6	18.2	17.1
Married men, spouse present	1,316	1,677	1,808	3.1	3.5	3.7	3.8	4.0	4.3
Married women, spouse present	1,183	1,257	1,353	3.8	3.8	4.1	4.1	4.1	4.4
Women who maintain families	525	634	636	7.6	8.5	8.7	8.7	9.0	9.1
Full-time workers	5,274	6,415	6,877	5.0	5.5	5.7	5.8	6.0	6.4
Part-time workers	1,339	1,371	1,347	7.4	7.1	7.3	7.8	7.7	7.6
Labor force time lost ²	—	—	—	5.9	6.8	6.7	6.9	7.0	7.5
OCCUPATION³									
Managerial and professional specialty	599	848	773	1.9	2.2	2.2	2.2	2.7	2.4
Technical, sales, and administrative support	1,589	1,705	1,893	4.1	4.4	4.6	4.8	4.5	5.0
Precision production, craft, and repair	775	1,051	1,091	5.3	6.5	6.9	7.0	7.3	7.6
Operations, laborers, and laborers	1,580	1,924	2,222	8.1	8.9	9.4	9.8	10.0	11.8
Farming, forestry, and fishing	220	281	298	6.2	5.5	6.2	6.9	7.6	7.9
INDUSTRY									
Nonagricultural private wage and salary workers	5,096	5,957	6,438	5.5	5.9	6.2	6.3	6.4	6.9
Goods-producing industries	1,910	2,346	2,602	6.5	7.3	7.9	8.1	8.2	9.1
Mining	35	61	46	4.7	4.1	4.7	5.8	7.5	6.0
Construction	609	895	948	9.2	13.0	13.3	14.0	14.5	15.5
Manufacturing	1,296	1,390	1,605	5.7	5.8	6.5	6.5	6.4	7.4
Durable goods	714	894	1,027	5.5	5.9	6.9	6.8	6.8	8.1
Non-durable goods	552	526	578	6.1	5.7	5.9	6.4	5.9	6.5
Service-producing industries	3,186	3,611	3,835	5.0	5.3	6.4	5.4	5.8	6.8
Transportation and public utilities	250	288	349	3.8	4.1	4.1	4.2	4.4	5.3
Wholesale and retail trade	1,459	1,657	1,772	6.1	6.7	6.7	6.8	7.0	7.4
Finance and service industries	1,477	1,667	1,715	4.4	4.5	4.7	4.8	4.9	5.0
Government workers	454	555	594	2.5	2.8	2.8	2.7	3.0	3.2
Agricultural wage and salary workers	169	218	212	9.5	8.5	9.8	12.3	11.9	11.5

¹ Unemployment as a percent of the civilian labor force.² Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.³ Seasonally adjusted unemployment data for service occupations are not

available because the seasonal components are small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

Table A-6. Duration of unemployment

(Numbers in thousands)

Weeks of unemployment	Not seasonally adjusted			Seasonally adjusted					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
DURATION									
Less than 5 weeks	3,067	3,754	3,376	3,157	3,139	3,277	3,280	3,410	3,473
5 to 14 weeks	2,555	2,853	3,373	2,070	2,301	2,304	2,518	2,490	2,736
15 weeks and over	1,511	1,988	2,170	1,374	1,591	1,727	1,739	1,829	1,975
15 to 26 weeks	845	1,085	1,207	737	893	938	940	961	1,053
27 weeks and over	666	903	962	637	698	789	799	848	921
Average (mean) duration, in weeks	11.7	12.2	12.8	11.7	12.0	12.4	12.4	12.4	12.8
Median duration, in weeks	5.9	5.9	7.0	5.2	5.9	5.9	5.9	5.9	6.1
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	43.0	43.7	37.9	47.8	44.1	44.7	43.5	44.1	42.4
5 to 14 weeks	35.8	33.2	37.8	31.4	33.6	31.8	30.4	32.2	33.4
15 weeks and over	21.2	23.1	24.3	20.8	22.3	23.5	23.1	23.7	24.1
15 to 26 weeks	11.8	12.6	13.5	11.2	12.5	12.8	12.5	12.7	12.9
27 weeks and over	9.3	10.5	10.8	9.7	9.8	10.8	10.6	11.0	11.3

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Table A-7. Reason for unemployment
(Numbers in thousands)

Reason	Not seasonally adjusted			Seasonally adjusted					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
	NUMBER OF UNEMPLOYED								
Job losers	3,848	5,000	5,319	3,095	3,563	3,756	3,797	4,068	4,515
On layoff	1,282	1,730	1,988	957	1,056	1,136	1,150	1,131	1,485
Other job losers	2,365	3,270	3,331	2,138	2,507	2,620	2,647	2,938	3,031
Job leavers	1,030	983	1,004	1,012	981	996	1,024	899	989
Reentrants	1,837	2,036	2,014	1,815	1,911	1,826	2,128	2,044	1,994
New entrants	619	576	581	672	684	655	662	672	633
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	51.1	58.2	59.6	48.9	49.9	51.2	49.9	53.0	55.5
On layoff	18.0	20.1	22.3	14.5	14.8	15.5	15.1	14.7	18.3
Other job losers	33.2	38.0	37.3	32.4	35.1	35.7	34.8	38.2	37.3
Job leavers	14.4	11.4	11.3	15.3	13.7	13.6	13.5	11.7	12.2
Reentrants	25.8	23.7	22.6	27.5	26.8	26.3	28.0	26.6	24.5
New entrants	8.7	6.7	6.5	10.2	9.6	8.9	8.7	8.7	7.8
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers	3.0	4.0	4.3	2.5	2.9	3.0	3.0	3.3	3.6
Job leavers .....	.8	.8	.8	.8	.8	.8	.8	.7	.8
Reentrants	1.5	1.6	1.6	1.5	1.5	1.5	1.7	1.6	1.6
New entrants .....	.5	.5	.5	.5	.5	.5	.5	.5	.5

Table A-8. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measure	Quarterly averages					Monthly data		
	1989	1990				1990	1991	
	IV	I	II	III	IV	Dec.	Jan.	Feb.
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.1	1.1	1.1	1.3	1.3	1.4	1.5	1.6
U-2 Job losers as a percent of the civilian labor force	2.4	2.5	2.5	2.7	3.0	3.0	3.3	3.6
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force for persons 25 years and over	4.1	4.1	4.2	4.4	4.7	5.0	5.0	5.3
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	4.9	5.0	5.0	5.2	5.7	5.8	6.0	6.4
U-5a Total unemployed as a percent of the labor force, including the resident Armed Forces	5.2	5.2	5.2	5.5	5.8	6.0	6.1	6.4
U-5b Total unemployed as a percent of the civilian labor force	5.3	5.3	5.3	5.6	5.9	6.1	6.2	6.5
U-6 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons as a percent of the civilian labor force less 1/2 of the part-time labor force	7.2	7.3	7.3	7.6	8.1	8.4	8.5	9.1
U-7 Total full-time jobseekers plus 1/2 part-time jobseekers plus 1/2 total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less 1/2 of the part-time labor force	7.8	7.9	8.0	8.3	8.9	N.A.	N.A.	N.A.

N.A. = not available.

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

Sex and age	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
	Total, 16 years and over	6,578	7,715	8,158	5.3	6.7	5.9	6.1	6.2	6.5
16 to 24 years	2,320	2,617	2,682	10.8	11.7	11.6	11.7	12.4	12.8
16 to 19 years	1,148	1,307	1,233	14.8	16.2	16.4	16.6	18.2	17.1
16 to 17 years	518	541	480	17.1	18.7	18.5	19.1	19.8	18.9
18 to 19 years	618	745	741	13.2	14.6	15.0	15.0	16.7	16.9
20 to 24 years	1,174	1,310	1,449	8.5	9.4	9.1	9.2	9.5	10.5
25 years and over	4,278	5,182	5,501	4.2	4.5	4.7	5.0	5.0	5.3
25 to 54 years	3,777	4,618	4,940	4.3	4.6	5.0	5.3	5.2	5.6
55 years and over	517	510	562	3.4	3.5	3.3	3.3	3.4	3.8
Men, 16 years and over	3,582	4,292	4,708	5.2	5.8	6.0	6.2	6.3	6.9
16 to 24 years	1,247	1,461	1,520	11.0	12.0	12.1	12.3	13.2	13.8
16 to 19 years	611	691	662	15.2	16.7	17.1	17.4	18.2	17.7
16 to 17 years	270	278	267	17.2	18.4	19.2	20.1	18.7	19.1
18 to 19 years	340	361	375	13.5	15.5	15.8	15.7	16.8	16.8
20 to 24 years	636	780	858	8.7	9.6	9.5	9.6	10.7	11.8
25 years and over	2,325	2,897	3,201	4.1	4.6	4.8	5.1	5.1	5.6
25 to 54 years	2,022	2,535	2,847	4.2	4.7	5.0	5.4	5.2	5.9
55 years and over	310	319	357	3.5	3.9	3.8	3.8	3.7	4.2
Women, 16 years and over	3,017	3,423	3,452	5.3	5.6	5.7	5.9	6.1	6.1
16 to 24 years	1,073	1,156	1,162	10.5	11.4	11.0	11.1	11.6	11.7
16 to 19 years	535	626	571	14.5	15.8	15.6	15.6	16.1	16.4
16 to 17 years	246	263	193	17.0	18.9	17.8	17.9	20.7	14.4
18 to 19 years	278	364	366	12.4	13.4	14.2	14.2	16.7	17.1
20 to 24 years	538	530	591	8.2	9.2	8.6	8.7	8.1	9.1
25 years and over	1,953	2,285	2,300	4.2	4.5	4.6	4.8	4.9	4.9
25 to 54 years	1,755	2,083	2,092	4.4	4.5	4.9	5.1	5.2	5.2
55 years and over	207	191	214	3.1	2.9	2.7	2.8	2.9	3.3

¹ Unemployment as a percent of the civilian labor force.

Table A-10. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force								
			Total		Employed		Unemployed				
	Feb. 1990	Feb. 1991	Feb. 1990	Feb. 1991	Feb. 1990	Feb. 1991	Feb. 1990	Feb. 1991	Feb. 1990	Feb. 1991	
VIETNAM-ERA VETERANS											
Total, 35 years and over	7,573	7,728	6,887	7,002	6,559	6,528	329	474	4.8	6.8	
35 to 49 years	6,514	6,484	6,168	6,103	5,865	5,678	304	425	4.9	7.0	
35 to 39 years	1,528	1,255	1,443	1,185	1,380	1,056	83	127	5.8	10.7	
40 to 44 years	3,324	3,176	3,175	2,963	3,023	2,802	151	191	4.8	6.4	
45 to 49 years	1,662	2,053	1,551	1,928	1,482	1,818	99	107	4.4	5.6	
50 years and over	1,059	1,244	719	899	694	650	25	49	3.5	5.5	
NONVETERANS											
Total, 35 to 49 years	16,820	17,894	15,784	16,788	15,178	15,832	606	956	3.8	5.7	
35 to 39 years	7,707	8,184	7,331	7,740	7,070	7,278	261	482	3.6	6.0	
40 to 44 years	4,943	5,531	4,612	5,190	4,422	4,932	190	258	4.1	5.0	
45 to 49 years	4,170	4,199	3,842	3,858	3,687	3,622	155	236	4.0	6.1	

NOTE: Male Vietnam-era veterans are men who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are men who have never served in the Armed Forces; published data are limited to those 35 to 49

years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

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Table A-11. Employment status of the civilian population for eleven large States

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ²					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
California									
Civilian noninstitutional population	21,756	22,202	22,242	21,756	22,078	22,122	22,168	22,202	22,242
Civilian labor force	14,433	14,803	14,722	14,555	14,833	14,823	14,875	14,890	14,855
Employed	13,882	13,523	13,579	13,855	13,799	13,886	13,872	13,858	13,783
Unemployed	772	1,080	1,143	720	884	957	1,003	1,032	1,062
Unemployment rate	5.3	7.4	7.8	4.9	6.1	6.5	6.8	7.0	7.4
Florida									
Civilian noninstitutional population	10,034	10,248	10,287	10,034	10,188	10,209	10,230	10,248	10,267
Civilian labor force	6,270	6,323	6,311	6,236	6,443	6,466	6,434	6,435	6,376
Employed	5,905	5,929	5,896	5,891	6,047	6,065	6,078	6,038	5,923
Unemployed	365	394	444	375	396	403	356	394	453
Unemployment rate	5.8	6.2	7.0	5.9	6.1	6.2	5.5	6.1	7.1
Illinois									
Civilian noninstitutional population	8,867	8,867	8,900	8,857	8,885	8,890	8,894	8,897	8,900
Civilian labor force	5,979	6,003	6,038	6,029	6,040	6,044	6,069	6,060	6,086
Employed	5,687	5,687	5,653	5,667	5,677	5,683	5,707	5,641	5,729
Unemployed	362	437	385	362	363	361	362	409	357
Unemployment rate	6.5	7.3	6.4	6.0	6.0	6.0	6.0	6.8	5.9
Massachusetts									
Civilian noninstitutional population	4,619	4,622	4,622	4,619	4,620	4,621	4,622	4,622	4,622
Civilian labor force	3,174	3,076	3,103	3,189	3,140	3,146	3,152	3,114	3,114
Employed	2,991	2,798	2,798	3,023	2,937	2,926	2,921	2,846	2,825
Unemployed	183	278	307	166	203	220	231	268	289
Unemployment rate	5.8	9.0	9.9	5.2	6.5	7.0	7.3	8.6	9.3
Michigan									
Civilian noninstitutional population	6,963	7,009	7,010	6,963	7,004	7,008	7,000	7,009	7,010
Civilian labor force	4,656	4,612	4,639	4,601	4,638	4,616	4,647	4,653	4,682
Employed	4,186	4,123	4,074	4,247	4,203	4,174	4,214	4,225	4,132
Unemployed	370	389	465	354	335	342	333	328	450
Unemployment rate	6.1	8.6	10.2	7.7	7.4	7.6	7.3	7.2	9.8
New Jersey									
Civilian noninstitutional population	6,029	6,027	6,026	6,029	6,026	6,027	6,026	6,027	6,026
Civilian labor force	4,038	3,990	3,982	4,026	4,103	4,089	4,050	4,015	3,947
Employed	3,838	3,705	3,694	3,846	3,881	3,847	3,818	3,757	3,696
Unemployed	200	285	288	180	222	222	232	258	249
Unemployment rate	5.0	7.1	6.8	4.5	5.4	5.5	5.7	6.4	6.3
New York									
Civilian noninstitutional population	13,801	13,801	13,801	13,801	13,799	13,801	13,803	13,801	13,801
Civilian labor force	8,680	8,639	8,662	8,726	8,626	8,665	8,658	8,619	8,607
Employed	8,206	7,833	7,966	8,286	8,154	8,104	8,088	7,966	8,077
Unemployed	474	605	567	438	474	461	470	550	530
Unemployment rate	5.5	7.1	6.8	5.0	5.5	5.4	5.5	6.5	6.2

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-11. Employment status of the civilian population for eleven large States — Continued

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ²					
	Feb. 1990	Jan. 1991	Feb. 1991	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991	Feb. 1991
North Carolina									
Civilian noninstitutional population	4,975	5,033	5,038	4,975	5,016	5,022	5,028	5,033	5,038
Civilian labor force	3,371	3,344	3,410	3,397	3,381	3,379	3,420	3,376	3,436
Employed	3,239	3,142	3,214	3,277	3,226	3,210	3,242	3,209	3,253
Unemployed	132	202	195	120	155	169	178	167	183
Unemployment rate	3.9	6.0	5.7	3.5	4.6	5.0	5.2	4.9	5.3
Ohio									
Civilian noninstitutional population	8,275	8,299	8,301	8,275	8,291	8,295	8,298	8,299	8,301
Civilian labor force	5,344	5,357	5,341	5,386	5,463	5,452	5,488	5,383	5,384
Employed	4,998	4,968	4,932	5,073	5,148	5,156	5,179	5,065	5,007
Unemployed	346	389	409	313	315	296	309	318	377
Unemployment rate	6.5	7.3	7.7	5.8	5.8	5.4	5.6	5.9	7.0
Pennsylvania									
Civilian noninstitutional population	9,379	9,402	9,404	9,379	9,395	9,398	9,402	9,402	9,404
Civilian labor force	5,883	5,831	5,876	5,941	5,905	5,917	5,922	5,853	5,925
Employed	5,510	5,418	5,432	5,510	5,558	5,574	5,585	5,482	5,528
Unemployed	373	415	443	331	347	343	337	371	397
Unemployment rate	6.3	7.1	7.5	5.8	5.9	5.8	5.7	6.3	6.7
Texas									
Civilian noninstitutional population	12,312	12,458	12,471	12,312	12,416	12,432	12,447	12,458	12,471
Civilian labor force	8,375	8,422	8,444	8,475	8,418	8,467	8,540	8,511	8,541
Employed	7,788	7,839	7,821	7,838	7,918	7,898	7,945	7,884	8,071
Unemployed	588	583	623	637	500	569	595	627	470
Unemployment rate	7.0	6.9	6.2	6.3	5.9	6.7	7.0	6.4	5.5

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.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-1. Employees on nonfarm payrolls by industry
(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Feb. 1990	Dec. 1990	Jan. 1991 ^g	Feb. 1991 ^g	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991 ^g	Feb. 1991 ^g
	Total.....	108,673	110,826	108,306	108,367	109,958	110,432	110,165	110,004	109,771	109,587
Total private.....	90,335	92,212	90,039	89,762	91,917	92,112	91,840	91,701	91,491	91,283
Goods-producing industries.....	24,677	24,381	23,667	23,477	25,339	24,777	24,511	24,416	24,184	24,086
Mining.....	112	741	726	723	727	733	738	740	737	739
Oil and gas extraction.....	397.9	418.2	413.3	411.9	462	411	414	414	415	417
Construction.....	4,866	4,913	4,461	4,389	5,368	5,093	5,029	4,983	4,833	4,860
General building contractors.....	1,246.9	1,240.7	1,155.2	1,130.8	1,368	1,278	1,254	1,243	1,222	1,220
Manufacturing.....	19,119	18,727	18,480	18,365	19,244	19,551	18,744	18,693	18,614	18,487
Durable goods.....	12,977	12,636	12,447	12,359	13,084	12,849	12,671	12,626	12,563	12,466
Production workers.....	11,224	10,863	10,707	10,604	11,278	11,026	10,865	10,831	10,773	10,654
Production workers.....	7,463	7,174	7,048	6,965	7,448	7,308	7,171	7,142	7,104	7,006
Lumber and wood products.....	731.3	705.3	688.4	674.3	791	730	716	712	704	692
Furniture and fixtures.....	518.6	498.1	492.3	482.7	518	507	496	491	481	482
Stone, clay, and glass products.....	366.1	352.7	350.8	346.0	368	346	341	338	329	327
Primary metal industries.....	755.5	739.9	736.8	727.4	756	731	744	738	728	728
Iron and steel mills.....	270.8	268.9	266.8	262.3	272	271	271	269	267	263
Aluminum rolling mills.....	1,412.8	1,389.4	1,367.9	1,348.5	1,418	1,405	1,389	1,382	1,374	1,356
Fabricated metal products.....	2,136.1	2,066.2	2,054.6	2,044.4	2,126	2,081	2,067	2,058	2,055	2,040
Industrial machinery and equipment.....	1,715.9	1,652.0	1,638.2	1,623.9	1,720	1,665	1,652	1,644	1,638	1,629
Electronic and other electrical equipment.....	2,021.7	1,919.1	1,871.1	1,850.9	2,023	1,949	1,897	1,894	1,884	1,853
Transportation equipment.....	824.5	770.3	756.4	752.1	828	803	788	782	772	758
Motor vehicles and equipment.....	1,007.2	924.3	915.0	911.4	1,009	988	983	982	976	971
Instruments and related products.....	384.4	377.5	372.1	373.7	389	384	380	379	380	378
Miscellaneous manufacturing.....	7,895	7,864	7,773	7,761	7,966	7,925	7,870	7,862	7,841	7,831
Non-durable goods.....	5,334	5,480	5,399	5,394	5,594	5,561	5,500	5,480	5,461	5,438
Production workers.....	1,595.9	1,644.1	1,612.7	1,611.8	1,650	1,654	1,647	1,654	1,657	1,644
Food and kindred products.....	67.9	69.3	68.8	67.5	67	66	66	66	67	66
Tobacco products.....	709.7	679.9	674.1	667.1	711	688	687	680	675	668
Textile mill products.....	1,044.9	1,002.5	988.5	995.1	1,045.5	1,021	1,008	1,001	995	995
Apparel and other textile products.....	694.9	694.9	690.4	690.3	699	692	696	696	694	696
Paper and allied products.....	1,374.6	1,377.6	1,365.4	1,362.5	1,376	1,379	1,372	1,370	1,369	1,365
Printing and publishing.....	1,074.4	1,085.6	1,077.4	1,081.0	1,085	1,087	1,087	1,088	1,084	1,085
Chemicals and allied products.....	154.3	139.1	135.6	135.8	159	161	161	161	160	160
Plastics and rubber products.....	842.1	831.6	842.6	834.3	865	869	858	861	866	857
Leather and leather products.....	139.4	118.9	117.3	118.1	131	122	120	119	119	117
Service-producing industries.....	83,996	86,445	86,639	86,890	84,619	85,655	85,634	85,588	85,587	85,501
Transportation and public utilities.....	5,730	5,931	5,816	5,777	5,804	5,878	5,866	5,882	5,884	5,848
Transportation.....	3,323	3,719	3,683	3,586	3,583	3,652	3,653	3,668	3,658	3,624
Communications and public utilities.....	2,207	2,212	2,213	2,211	2,221	2,218	2,213	2,214	2,226	2,224
Wholesale trade.....	6,304	6,331	6,280	6,222	6,357	6,355	6,343	6,331	6,297	6,274
Durable goods.....	3,756	3,733	3,691	3,676	3,775	3,752	3,742	3,735	3,710	3,694
Non-durable goods.....	2,548	2,598	2,589	2,546	2,582	2,603	2,601	2,596	2,587	2,580
Retail trade.....	19,276	20,299	19,411	19,147	19,758	19,782	19,739	19,670	19,647	19,618
General merchandise stores.....	2,429	2,485	2,460	2,329	2,505	2,466	2,444	2,402	2,394	2,402
Food stores.....	3,238.3	3,385.5	3,304.4	3,279.2	3,268	3,307	3,317	3,313	3,314	3,309
Automotive dealers and service stations.....	2,088.5	2,108.6	2,085.1	2,067.4	2,118	2,119	2,125	2,121	2,108	2,097
Eating and drinking places.....	6,304.9	6,594.1	6,337.0	6,342.0	6,356	6,633	6,620	6,627	6,629	6,613
Finance, insurance, and real estate.....	6,755	6,811	6,743	6,750	6,817	6,843	6,833	6,829	6,820	6,810
Finance.....	3,328	3,336	3,322	3,318	3,340	3,346	3,341	3,341	3,332	3,328
Insurance.....	2,127	2,150	2,154	2,164	2,128	2,152	2,151	2,152	2,154	2,156
Real estate.....	1,300	1,325	1,267	1,278	1,349	1,345	1,341	1,341	1,332	1,326
Services.....	27,593	28,459	28,132	28,389	27,842	28,475	28,548	28,573	28,619	28,647
Business services.....	4,922	5,037	4,927	4,899	5,010	5,062	5,066	5,078	5,012	4,994
Health services.....	7,870	8,186	8,409	8,500	7,899	8,284	8,333	8,319	8,358	8,467
Government.....	18,338	18,614	18,267	18,485	18,961	18,280	18,325	18,303	18,240	18,304
Federal.....	2,991	2,940	2,908	2,918	3,005	2,983	2,961	2,963	2,928	2,933
State.....	4,334	4,407	4,285	4,430	4,239	4,323	4,323	4,325	4,333	4,335
Local.....	11,013	11,267	11,074	11,257	10,787	11,014	11,041	11,035	11,019	11,036

^g = preliminary.

Establishment survey data on diskette

Five years of data for all series published in the B tables of this release are now available on diskette. For information on format and costs, contact David R. Miles on 202-523-1172.

ESTABLISHMENT DATA

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					
	Feb. 1988	Dec. 1988	Jan. 1991 ^{2/}	Feb. 1991 ^{2/}	Feb. 1988	Oct. 1988	Nov. 1988	Dec. 1988	Jan. 1991 ^{2/}	Feb. 1991 ^{2/}
Total private.....	34.2	34.7	33.8	33.9	34.4	34.2	34.4	34.6	34.1	34.3
Mining.....	45.3	45.4	44.3	44.4	45.7	44.0	44.8	44.7	44.3	45.1
Construction.....	37.3	38.3	36.0	37.0	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	40.4	41.3	40.2	39.8	40.8	40.7	40.5	40.7	40.4	40.2
Overtime hours.....	3.4	3.8	3.2	3.0	3.4	3.4	3.5	3.6	3.4	3.3
Durable goods.....	41.0	41.9	40.7	40.3	41.3	41.3	40.9	41.2	40.8	40.4
Overtime hours.....	3.4	3.9	3.2	3.0	3.4	3.4	3.5	3.4	3.3	3.2
Lumber and wood products.....	39.3	40.1	38.9	38.4	40.1	39.8	39.5	39.9	39.4	39.2
Furniture and fixtures.....	38.8	39.8	38.2	37.0	39.3	38.6	38.5	38.8	38.5	37.5
Stone, clay, and glass products.....	41.0	41.8	40.1	40.5	42.2	41.2	41.8	42.0	41.0	41.4
Primary metal industries.....	42.5	42.9	42.2	41.6	42.3	42.9	42.6	42.3	42.1	41.8
Blast furnaces and basic steel products.....	42.7	43.7	42.9	42.1	42.9	43.8	43.9	43.4	42.8	42.3
Fabricated metal products.....	41.1	41.9	40.7	40.3	41.1	41.2	40.8	41.1	40.7	40.4
Industrial machinery and equipment.....	42.0	41.0	41.8	41.4	42.1	42.1	41.8	41.1	41.7	41.5
Electronic and other electrical equipment.....	40.9	41.8	40.4	39.9	41.1	40.7	40.7	40.8	40.2	40.1
Transportation equipment.....	41.4	42.5	41.4	40.8	41.6	42.5	41.1	41.5	41.5	41.8
Motor vehicles and equipment.....	41.2	42.0	41.2	40.2	41.5	42.9	40.3	41.3	41.5	40.6
Instruments and related products.....	41.8	42.0	41.0	41.1	41.0	41.0	41.0	41.2	41.0	41.1
Miscellaneous manufacturing.....	39.2	39.8	38.9	38.9	39.3	39.4	39.4	39.2	39.1	39.2
Nonurable goods.....	39.4	40.5	39.4	39.3	40.0	40.0	39.9	40.0	39.8	39.7
Overtime hours.....	3.2	3.7	3.3	3.1	3.3	3.4	3.4	3.4	3.4	3.4
Food and kindred products.....	39.8	41.5	40.3	39.5	40.4	40.4	40.8	40.9	40.6	40.3
Tobacco products.....	37.7	39.9	39.1	37.5	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	39.8	39.7	38.2	38.7	40.2	39.9	39.3	39.4	39.4	39.1
Apparel and other textile products.....	36.4	36.9	36.0	36.3	36.4	36.4	36.3	36.6	36.3	36.5
Paper and allied products.....	42.8	44.2	43.1	42.5	43.3	43.5	43.4	43.5	42.9	42.8
Printing and publishing.....	37.7	38.4	37.3	37.3	37.9	37.8	37.8	37.8	37.4	37.5
Chemicals and allied products.....	42.3	43.4	42.4	42.3	42.4	42.6	42.6	42.8	42.4	42.4
Petroleum and coal products.....	40.0	41.9	42.9	44.4	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products.....	40.9	41.5	40.9	40.5	41.2	41.1	40.9	41.0	40.9	40.7
Leather and leather products.....	37.3	37.8	36.7	36.5	37.7	37.2	36.8	37.4	36.9	36.9
Transportation and public utilities.....	38.4	39.0	38.2	38.2	38.7	38.4	38.7	38.9	38.7	38.5
Wholesale trade.....	37.8	38.4	37.7	37.8	38.0	37.9	38.0	38.3	37.9	38.0
Retail trade.....	28.3	29.3	27.7	28.1	28.9	28.4	28.7	28.8	28.4	28.7
Finance, insurance, and real estate.....	35.7	36.2	35.7	35.8	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.4	32.7	32.2	32.4	32.6	32.5	32.5	32.8	32.3	32.4

^{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 since the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.
p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

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

Industry	Average hourly earnings				Average weekly earnings			
	Feb. 1990	Dec. 1990	Jan. 1991 ^{1/}	Feb. 1991 ^{2/}	Feb. 1990	Dec. 1990	Jan. 1991 ^{1/}	Feb. 1991 ^{2/}
	Total private.....	\$9.91	\$10.20	\$10.24	\$10.24	\$338.92	\$353.94	\$346.11	$367.14
Seasonally adjusted.....	9.88	10.19	10.20	10.20	341.85	352.57	347.82	369.86
Mining.....	13.46	13.84	14.17	14.12	582.82	628.34	627.73	629.75
Construction.....	13.59	13.87	13.96	13.86	506.91	531.22	502.56	512.82
Manufacturing.....	10.68	11.06	11.06	11.04	431.47	456.78	444.61	439.39
Durable goods.....	11.18	11.59	11.58	11.57	458.38	485.62	471.31	466.27
Lumber and wood products.....	8.95	9.12	9.12	9.10	351.74	365.71	354.77	369.44
Furniture and fixtures.....	8.42	8.70	8.63	8.68	326.70	346.26	329.67	321.16
Stone, clay, and glass products.....	10.93	11.28	11.28	11.26	448.13	471.50	452.33	456.03
Primary metal industries.....	12.66	13.11	13.17	13.04	535.52	562.42	555.77	542.46
Blast furnaces and basic steel products.....	14.62	14.94	15.05	14.81	624.27	652.88	645.65	623.50
Fabricated metal products.....	10.70	11.05	11.01	11.03	459.77	465.00	448.11	444.31
Industrial machinery and equipment.....	11.60	12.11	12.04	12.04	487.20	520.73	503.27	498.46
Electronic and other electrical equipment.....	10.16	10.57	10.60	10.58	415.34	441.83	428.24	422.14
Transportation equipment.....	13.88	14.42	14.40	14.36	574.63	605.97	596.16	585.89
Motor vehicles and equipment.....	14.30	14.89	14.86	14.69	589.16	625.38	612.23	590.54
Instruments and related products.....	11.13	11.62	11.67	11.68	456.33	488.04	478.47	480.05
Miscellaneous manufacturing.....	8.56	8.81	8.81	8.75	335.55	350.64	342.71	339.64
Nondurable goods.....	9.97	10.35	10.35	10.35	394.81	419.18	409.86	406.76
Food and kindred products.....	9.54	9.83	9.80	9.76	379.69	407.93	394.94	385.52
Tobacco products.....	15.73	16.18	16.14	16.26	593.02	649.88	631.07	609.75
Textile mill products.....	7.90	8.16	8.17	8.14	314.62	323.95	320.26	315.02
Apparel and other textile products.....	6.45	6.67	6.65	6.63	234.78	246.12	239.40	240.67
Paper and allied products.....	12.11	12.56	12.51	12.53	518.31	556.27	539.18	522.53
Printing and publishing.....	11.13	11.45	11.38	11.39	419.60	439.68	424.47	424.85
Chemicals and allied products.....	13.27	13.75	13.83	13.78	561.52	596.75	586.39	582.89
Petroleum and coal products.....	15.90	16.91	16.65	17.23	699.60	728.79	714.29	765.01
Rubber and misc. plastics products.....	9.64	9.98	10.02	10.08	394.28	414.17	412.27	408.24
Leather and leather products.....	6.84	7.09	7.10	7.12	255.13	268.00	260.57	259.88
Transportation and public utilities.....	12.87	13.13	13.19	13.16	494.21	512.07	503.86	502.71
Wholesale trade.....	10.66	11.05	11.06	11.09	402.95	424.32	416.96	419.20
Retail trade.....	6.72	6.86	6.93	6.91	190.18	201.00	191.96	194.17
Finance, insurance, and real estate.....	9.87	10.25	10.27	10.32	352.36	371.05	366.64	369.46
Services.....	9.75	10.14	10.16	10.18	315.90	331.58	327.15	329.83

1/ See footnote 1, table B-2.

p = preliminary.

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

Industry	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991 ^{1/}	Feb. 1991 ^{2/}	Percent change from: Jan. 1991- Feb. 1991
	Total private:						
Current dollars.....	\$9.88	\$10.12	\$10.14	\$10.19	\$10.20	\$10.20	0
Constant (1982) dollars ^{3/}	7.56	7.45	7.44	7.45	7.43	N.A.	(3)
Mining.....	13.33	13.79	13.84	13.77	14.04	\$13.98	-0.4
Construction.....	13.63	13.82	13.79	13.79	13.92	13.90	-1
Manufacturing.....	10.67	10.97	10.97	11.00	11.04	11.03	-1
Excluding overtime ^{4/}	10.22	10.50	10.50	10.58	10.63	10.62	-1
Transportation and public utilities.....	12.83	13.03	13.02	13.10	13.18	13.12	-5
Wholesale trade.....	10.62	10.89	10.93	11.03	11.02	11.06	4
Retail trade.....	6.49	6.84	6.87	6.83	6.88	6.88	0
Finance, insurance, and real estate.....	9.77	10.11	10.12	10.27	10.19	10.21	-2
Services.....	9.67	9.96	9.99	10.07	10.06	10.10	4

1/ See footnote 1, table B-2.

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

3/ Change was -0.3 percent from December 1990 to January 1991, 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.

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

Industry	Not seasonally adjusted				Seasonally adjusted							
	Feb. 1990	Dec. 1990	Jan. 1991 ^{1/}	Feb. 1991 ^{1/}	Feb. 1990	Oct. 1990	Nov. 1990	Dec. 1990	Jan. 1991 ^{1/}	Feb. 1991 ^{1/}		
	Total private.....	120.5	125.4	118.5	118.6	124.4	123.1	123.4	124.0	121.9	122.3	
Goods-producing industries.....	106.8	107.8	100.4	99.3	112.1	108.0	107.0	107.0	104.0	104.1		
Mining.....	62.6	69.2	65.6	65.8	64.9	66.6	67.9	68.1	67.0	68.4		
Construction.....	125.3	131.0	109.0	109.7	147.7	132.1	135.4	135.0	123.5	129.4		
Manufacturing.....	105.8	105.4	101.0	99.3	107.6	105.6	103.5	103.5	102.2	101.0		
Durable goods.....	105.8	104.1	99.4	97.3	107.2	104.6	101.8	101.9	100.4	98.6		
Lumber and wood products.....	125.2	122.5	115.9	111.6	131.5	126.1	122.9	123.3	120.3	117.4		
Furniture and fixtures.....	125.6	122.1	116.0	109.9	127.0	121.4	118.0	117.7	116.5	111.4		
Stone, clay, and glass products.....	104.8	104.3	95.2	95.2	113.3	105.9	106.2	106.2	101.4	102.6		
Primary metal industries.....	92.1	91.1	89.0	86.3	92.6	92.7	90.9	89.5	89.2	86.7		
Blast furnaces and basic steel products.....	79.7	80.7	78.5	75.1	80.3	81.8	81.4	80.2	78.6	75.6		
Fabricated metal products.....	106.0	106.5	101.4	98.7	107.4	105.9	103.5	103.8	102.5	100.0		
Industrial machinery and equipment.....	99.7	98.0	96.7	93.1	99.4	96.8	95.4	95.5	94.3	93.0		
Electronic and other electrical equipment.....	109.8	107.5	103.0	100.8	110.5	106.1	104.9	104.6	102.0	101.4		
Transportation equipment.....	119.4	115.6	109.4	106.5	119.8	120.0	110.0	112.0	111.1	107.1		
Motor vehicles and equipment.....	125.4	118.3	109.9	106.7	125.5	127.2	109.3	114.8	115.8	108.4		
Instruments and related products.....	87.6	87.3	84.1	84.2	88.2	84.8	84.3	85.7	84.5	84.5		
Miscellaneous manufacturing.....	105.4	101.8	97.6	98.4	105.6	103.8	102.1	102.7	100.8	100.3		
Non-durable goods.....	105.8	107.2	103.1	102.2	108.0	106.9	106.0	105.8	104.6	104.5		
Food and kindred products.....	101.7	110.4	104.8	102.8	108.3	108.9	109.1	109.9	109.3	109.5		
Tobacco products.....	68.0	74.3	70.6	65.1	67.6	66.0	66.8	69.0	67.5	65.1		
Textile mill products.....	101.0	95.9	94.0	91.8	102.2	97.6	96.2	95.3	94.8	93.1		
Apparel and other textile products.....	93.9	90.7	86.9	88.3	94.4	91.3	89.7	89.8	88.2	88.8		
Paper and allied products.....	108.8	112.2	109.0	107.3	110.3	111.4	110.2	110.3	109.2	108.9		
Printing and publishing.....	127.3	129.1	124.5	123.9	128.1	127.8	126.7	126.2	125.3	124.4		
Chemicals and allied products.....	103.9	105.1	101.2	101.8	104.4	103.9	103.5	103.9	101.8	102.5		
Petroleum and coal products.....	83.7	85.9	81.7	84.6	88.4	86.8	92.0	86.4	85.6	89.6		
Rubber and misc. plastics products.....	123.6	123.3	119.8	117.2	125.0	125.2	122.2	121.4	120.4	118.3		
Leather and leather products.....	62.1	56.0	53.9	52.8	63.1	57.1	55.4	55.7	55.0	53.9		
Service-producing industries.....	126.7	133.2	126.6	127.3	129.9	129.9	130.8	131.7	129.9	130.5		
Transportation and public utilities.....	111.7	118.0	112.6	111.9	114.2	114.4	115.4	116.4	115.8	114.6		
Wholesale trade.....	117.2	119.3	115.7	115.0	119.1	118.4	118.4	119.1	117.3	116.9		
Retail trade.....	118.6	129.7	116.7	116.4	124.4	122.5	123.3	123.3	121.5	122.2		
Finance, insurance, and real estate.....	120.9	123.0	120.0	120.3	122.2	121.2	122.0	123.6	121.5	121.6		
Services.....	141.3	147.2	142.9	145.3	143.8	145.7	146.9	148.2	146.3	147.7		

1/ See footnote 1, table B-2.

p = preliminary.

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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:												
1989.....	64.5	58.7	58.0	57.0	55.4	57.3	55.8	57.7	50.0	55.2	59.4	54.6
1990.....	55.6	58.6	53.7	49.9	55.8	49.9	50.8	48.2	45.8	42.3	38.6	41.4
1991.....	p/41.2	p/59.7										
Over 3-month span:												
1989.....	65.3	64.2	60.0	60.1	59.7	58.3	59.7	54.5	55.2	55.8	57.7	60.3
1990.....	58.4	56.7	54.8	53.1	53.7	55.1	50.1	45.2	40.9	36.8	35.0	p/34.3
1991.....	p/51.7											
Over 6-month span:												
1989.....	47.6	45.4	45.0	41.0	41.2	58.7	57.0	58.1	56.2	58.3	57.4	58.4
1990.....	57.3	56.5	55.5	55.9	51.4	48.3	45.4	39.9	34.8	p/35.4	p/31.5	
1991.....												
Over 12-month span:												
1989.....	67.1	67.7	65.3	64.4	64.9	61.2	60.0	59.8	58.6	57.3	56.7	56.0
1990.....	54.8	54.1	54.1	50.0	46.8	45.3	p/40.4	p/38.1				
1991.....												
Manufacturing payrolls, 139 industries ^{1/}												
Over 1-month span:												
1989.....	60.4	48.6	50.4	47.1	45.3	45.7	45.0	45.7	34.2	48.4	43.5	48.2
1990.....	62.4	45.7	45.3	46.8	45.7	40.5	48.2	40.6	38.1	36.3	25.2	34.2
1991.....	p/36.7	p/35.1										
Over 3-month span:												
1989.....	54.0	54.7	43.3	43.9	43.2	42.8	41.7	33.1	36.3	34.9	41.7	39.2
1990.....	40.3	37.1	44.2	41.4	40.6	44.2	39.9	33.8	29.1	21.2	20.5	p/19.4
1991.....	p/22.7											
Over 6-month span:												
1989.....	36.5	49.6	49.3	45.5	42.1	37.1	36.7	34.9	34.2	35.3	35.1	34.0
1990.....	37.1	35.4	34.3	43.2	38.1	31.7	28.4	19.8	21.4	p/17.3	p/17.6	
1991.....												
Over 12-month span:												
1989.....	55.6	55.0	40.3	45.1	43.9	39.9	37.1	35.4	33.8	32.4	30.9	31.7
1990.....	31.5	31.5	30.4	27.0	21.2	18.0	p/19.4	p/15.8				
1991.....												

^{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.

Senator SARBANES. Thank you very much, Commissioner.

We're at 6.5 percent unemployment for the month of February. That's the highest rate since when?

When was the unemployment rate last at that figure, or higher?

Mrs. NORWOOD. March 1987, when it was 6.6 percent.

Senator SARBANES. Now, you say on page 4 that adult men bore the brunt of the February increase in unemployment, and that the jobless rate rose sharply, by seven-tenths of a percentage point to 6.3 percent.

In historical terms, is a seven-tenths of a percent jump in the unemployment rate for adult men . . . is that at the high end of the scale in terms of a jump?

Mrs. NORWOOD. Yes, it certainly is.

I think it should be noted, however, that it only went up one-tenth last month, and then two-tenths the month before.

And so what we are having, I would say, is kind of a catch-up of some of the tremendous declines we've seen, particularly in manufacturing jobs, which clearly affected adult men.

Senator SARBANES. Then, you say the jobless rates were little changed for adult women, teenagers, blacks and Hispanics.

What are those rates?

Mrs. NORWOOD. For women, they're 5.4 percent. And for teenagers, 17.1. The white rate, which did go up this month, is 5.9 percent. It was 5.5 the month before.

The black rate is 11.8. It's been around 12 percent for a long time. And the Hispanic rate is 9.5.

Senator SARBANES. Now, this is a recession that is now reaching all sectors of the work force, I take it, is what these figures show. Is that correct? Particularly now with the significant jump in the jobless rate for adult men.

Mrs. NORWOOD. That's correct.

I think what we are seeing also is, first, a slowdown and now some declines in the service-producing sector, which usually is not as much affected.

Senator SARBANES. Now, would you expect in a downturn for the unemployment rate to be moving the way it's been moving?

In other words, we tend to use June as the reference figure, with 5.3 percent. That's the lowest it's been in recent times.

I notice that it went to 5.5 in July, 5.6 in August, 5.7 in September, 5.7 in October. And then it really has started to move from there. It's gone from 5.7 to 6.5 percent in 4 months' time.

Is that correct?

Mrs. NORWOOD. Yes.

Senator SARBANES. Is the kind of pattern you ordinarily encounter in a downturn?

Mrs. NORWOOD. As we've discussed before several times, what is different this year is the very slow growth in the labor force, which of course has a downward pull on the unemployment rate.

Over the last year, for example, from February to February, we only had a little more than 438,000 increase in the labor force.

Adult women, in particular, seemed to be showing some change in their labor force behavior. I'm not sure how long that will last. But, it is clear from our review that our staff has done, and the change in birth rates by age cohort, that there seems to be at least

some correlation between the child-bearing ages and the increase in the birth rate.

And, therefore, I would suppose the decline in the labor force—I believe it's temporary.

So I think the fact that we have had fewer women and, clearly, many fewer teenagers than we have had for the last decade or more, has meant that we haven't had to create as many jobs for as many people to put to work. And, as a result, we haven't seen the kind of unemployment rate increases that would have occurred under different conditions in the sixties and seventies.

Senator SARBANES. What that means though, I take it, is that the unemployment figures then are reflecting people who have had jobs and lost them. If, in comparison to the previous downturns, you now have not as many people coming into the work force, being drawn into the work force, so the unemployment figures are not related as closely to additions to the work force, that the unemployment figure is then more closely related to people who have had jobs and lost them.

Would that be correct?

Mrs. NORWOOD. Clearly, the most recent data are showing that it is the job losers who are responsible for most of the change.

You know, if you look at this recession and compare it, say, to the 1981-82 recession, you find that the unemployment rate in the 1981-82 recession went up about 1 point to 8 points. In this recession, it's gone up 1 point to 2 points.

The adult men have not yet had as large an increase as they had then. Neither have the adult women. In fact, many of the groups have not had as large because we haven't had as large an increase overall.

Senator SARBANES. My time is up. Let me just put one other question to you.

The part-time workers, of course, are not included within this unemployment rate figure, as I understand it. So, that the people who want to work fulltime and are working part-time, that's not reflected in the unemployment figures.

You say they now stand at over 6 million, the number of such workers?

Mrs. NORWOOD. Yes.

Senator SARBANES. And that's the highest level since 1983?

Mrs. NORWOOD. That's right. They are, of course, included with fulltime job seekers in one of the unemployment rates, you know. We have a whole range of unemployment rates, what we call U-6.

In February, that number was 9.1 percent.

Senator SARBANES. What would it have been, say, 6 months ago?

Mrs. NORWOOD. In December, it was 8.4 and it was somewhere around 7.3 in the first quarter of 1990. And it ranged in there and began going up in the third quarter of 1990.

In 1989, it was 7.2 percent. So, it's gone up a couple of points. But, that's what you would expect as the economy turns down, that the part-time for economic reasons, that is, the employers cutting back on hours a bit, even though we have higher hours in manufacturing than we have seen in very early periods of business cycles.

That is, in cycles in earlier periods.

Well, I guess that's it.

Senator **SARBANES**. Congressman **ArmeY**.

Representative **ARMEY**. Thank you, Mr. Chairman.

Mrs. Norwood, I have just, in fact, today joined this committee. And although I know our Republican staff could have given me some of these answers, I'm sort of playing catch-up, since it's been some time since I looked at labor statistics.

But, I recall, in my old days, that we used to always begin by looking at unemployment by first sort of defining what we called structural unemployment.

Has that number changed?

What are the terms we are using now?

Mrs. **NORWOOD**. As you well know, there are many different definitions of structural unemployment. Clearly, one might look at the job losers as a percent of the work force. And that's a little bit under 4 percent.

Or, one might look at older workers, 25 and older, and that's about 5.3 percent.

Another way to look at that is to try to look at the minority population, many of whom have very serious structural problems. We've got black youth with unemployment rates in the 35 percent range.

So, there are a series of problems that are very hard to separate out.

Representative **ARMEY**. What you're saying is that there is a certain level of unemployment beyond which you cannot go. And, certainly, one of the components in there, which I suppose was the good news component, was the voluntary unemployed workers, moving between jobs.

I would have guessed, for example, in good times, your number of unemployed that are these voluntary workers would be a greater percentage of the whole than it would be in bad times.

But, we used to also pick some numbers. As I recall, something around 4.5 percent, which was sort of the minimum achievable level of unemployment.

Do you still have or operate on such a base number as this?

Mrs. **NORWOOD**. Some people do. We don't operate on any base. We just operate with what we get.

Representative **ARMEY**. I was struck by the fact, as you pointed out, that at this level of unemployment, where we see the change, that the increased unemployment of some 450,000 was more out of job losers.

Mrs. **NORWOOD**. That's right.

Representative **ARMEY**. My point is, when you get to this level, that's what you would expect, isn't it?

Mrs. **NORWOOD**. Yes, it is. And there has been a corresponding decline in the number of job leavers.

Representative **ARMEY**. That's right.

I'm also a little curious and, again, I'm playing a little bit of catch-up. I wonder, are you able to give me sort of a thumbnail sketch on how you measure productivity.

Is this, I mean, how sophisticated is your model?

What are the variables?

Mrs. NORWOOD. Sure. We'd be glad to do that. I think perhaps the best way to do that would be for me to submit a statement to you in a letter or for the record, or both.

Basically, we get the data for output. We rely on the national accounts, the people in the Bureau of Economic Analysis, and, at times, the Federal Reserve Board Indexes.

We use the basic survey data, both from the current population survey and our business survey, to get at the labor costs.

Representative ARMEY. Is it essentially then an effort to find output per manhour by way of dollar measures?

Mrs. NORWOOD. Traditionally, our productivity measures have focused on labor productivity. But, several years ago, we began a very important program in looking at multi-factor productivity. And there we include things like capital, energy and we are expanding that work to include raw materials.

Representative ARMEY. It has been my contention and, again, remember, I have moved from the classroom to something adjacent to the real world when I came to Washington, so I understand perhaps there are some foibles in my own thinking.

But, my impression has been over the years that there is a secular trend in the American economy for productivity to increase. Add that the impetus for that comes primarily from technological innovation and is somewhat mitigated by what I call sociopolitical innovations, such as the mandates on the work force, and so forth, that would essentially give you people getting the same or more money for less work by virtue of some such thing.

Therefore, I'd be very interested in how that works out, in fact. And, perhaps if you could put a study in the record to help me test this out?

Mrs. NORWOOD. Sure.

[The information was furnished directly to Representative Arme.]

Representative ARMEY. I want to express my appreciation for the good work that you do. And I'm sure your staff has developed a lot of good innovations. And I'll be real pleased perhaps if you could share some of that.

I will continue to be fascinated with this whole question of measuring productivity.

Mrs. NORWOOD. I'll be very happy to do that.

And, also, if it would be of value to you, we'd be glad to come over and talk to you about it.

May I also say that it's a pleasure to have someone from Texas on the committee to appear before. I have very strong ties in Texas, since I have a son whose living there.

Representative ARMEY. Where?

Mrs. NORWOOD. In Austin.

Representative ARMEY. Unfortunately, he doesn't have the benefit of my representation.

[Laughter.]

Representative ARMEY. But he does have Jake Pickle. And I think we'll all agree it's hard to improve on that.

So, your son is in good hands. Thank you.

Senator SARBANES. He has the benefit of Texas.

Congressman Hamilton.

Representative HAMILTON. Thank you, Mr. Chairman.

Mrs. Norwood, I've often had the experience of coming here and listening to your rather antiseptic and surgical analysis of these numbers. And then I go out and listen to the television and the newspaper reporters, and they get an awful lot more out of it than I do in hearing you give the numbers.

I'm trying to understand just what the significance of this jump is—6.2 to 6.5. Is that something that was totally expected?

Is it grim news? Is it going to send the stock market plunging tomorrow?

What's going to happen with this news?

Mrs. NORWOOD. I must say that I am always perplexed about the movement of the stock market. Frequently, I think things look pretty good and the stock market plunges, and vice-versa.

So I have no way of knowing what will happen in the financial markets.

Senator SARBANES. If I could just interject, we often get the ultimate demonstration of the separation of Wall Street from Main Street. We get employment news that one would think would show difficulties in the economy, and the market goes up.

They figure: If you get bad economic situations, the Fed is going to ease the interest rates, and the cost of money is going to go down. And, therefore, the market goes up. Because more people are going to be off work, money is going to be cheaper and, therefore, the stock market is going to go up. And, vice-versa.

It's often a very, as I perceive it at least, perverse correlation.

But, I don't expect you to respond to that.

[Laughter.]

Mrs. NORWOOD. Let me say about unemployment that I would prefer not to focus on this 1 month jump because I believe that some of that really happened a month or so ago. I think that the survey moves in fits and starts. But, the important point is that, a year ago, the unemployment rate was 5.2 percent. And it's now—or 5.3 rather, the civilian rate—and it's now 6.5. And that's a lot of unemployment. Eight point two million people is a lot of people who are unemployed. We've lost a lot of jobs.

And the goods-producing sector has been losing jobs really for several years, particularly manufacturing.

And when you see the service-producing sector flattening out and, in many cases, going downward, it becomes somewhat worrying.

Representative HAMILTON. What does this report tell us with regard to the current recession?

Does it give us any information about that recession?

Is it continuing? Is it coming to an end? Is it going to go deeper?

Can you read anything about the recession into these unemployment figures?

Mrs. NORWOOD. We have to remember that the data we're reporting on today refer to the week containing the 12th of the month of February. And I think all they say is that the economy, at least the labor market, is reflecting the economy where it was continuing to head downward at that time.

That doesn't mean that that will continue all month. We'll have to wait until next month's set of data to see.

Representative HAMILTON. Would you call this news this morning grim news?

Mrs. NORWOOD. It's certainly not good news, yes.

Representative HAMILTON. Who is it that's bearing the brunt of this unemployment?

You singled out adult males in your statement this time. But, let's take a look at that 5.2 to 6.5 you mentioned a moment ago, or 5.3.

Who is it that really bears the brunt of that?

Mrs. NORWOOD. You can look at it in several ways. One way is to look at what has happened during the last 8 months. If you look at that, you see that everybody has suffered unemployment, that adult men and whites have had a bigger increase than blacks, for example, and than women.

On the other hand, if you look, as I think you should, at the whole set of unemployment data, and you see that the unemployment rate for blacks in the population is around 12 percent, 11.8 percent, and has been there for a very long time. And the black teenage rate is in the 35 percent range. And if you look at the converse and look at the employment population ratios, you see that you have some very real difficulties there. Whether they have been exacerbated more by the recession, they have somewhat.

So, I don't think that we can just look at what is happening in the recession. We have to look at where we start.

Representative HAMILTON. Is this recession like other recessions in that the people that are hurt most—I think this is correct. Correct me if I'm wrong—are the young, unskilled workers, the young workers, the minority workers?

Are they the ones who are really taking it on the chin here, as usual, in a recession?

Mrs. NORWOOD. I believe that unskilled workers are taking it on the chin, generally, and will continue to do so because I think that the growth of jobs in this country is going to be for those who have more education and training rather than for those in the jobs that require less education.

It is true, however, that during the last 8 months, there has been a larger increase in unemployment for whites than for blacks, for example.

Representative HAMILTON. What are the regional implications of your statistics with respect to unemployment? What sections of the country are doing relatively well? And which ones are not?

You mentioned Texas a moment ago. The release shows the highest unemployment areas are in metropolitan areas in California and Texas.

What are your general observations with regard to the regional impact of these unemployment statistics?

Mr. PLEWES. I can try that, sir.

I think, in terms of Texas, just over this last month or 2, in fact, the Texas economy has gotten better. And I think it is because of fallout from what's happening in the Gulf in terms of both the oil and gas machinery and the oil and gas industry itself.

But there has been a differential impact certainly among the States and among the Regions. And what that has tended to do is to bring together to limit the dispersion in the unemployment rates together for most parts of the country.

We've gotten to that by having very large differences in the employment loss numbers. For example, we've lost 1 percent of the jobs over the last year in the nation. The Northeast has lost 2.6 percent of its jobs; New England, 3.1 percent; the Middle-Atlantic States, 2.5 percent.

Representative HAMILTON. What State has the highest unemployment rate in the country?

Mr. PLEWES. Right now, I think it's probably still West Virginia, sir. But, I could look that up.

Representative HAMILTON. That's all right.

Mr. PLEWES. The East North-Central wasn't affected for a while. That's the Illinois, Michigan, Ohio, Indiana area. Now, that's gone up 1.3 percent.

West North-Central—I'm sorry—we've lost 1.3 percent of their jobs.

The bread basket of the country has actually gained jobs over this period. It's gained about 1 percent in jobs.

The South Atlantic has lost about 2 percent.

South Central—

Representative HAMILTON. The bread basket is what? The Great Plains States?

Mr. PLEWES. Yes, sir. We're talking about Iowa, Kansas, Missouri, Nebraska, North Dakota.

Mrs. NORWOOD. That's mainly because the changes in unemployment rates are usually very much affected by whatever happens in the economic conditions in particular industries.

In this country, industries are located in particular parts of the country.

Representative HAMILTON. Before concluding, let me ask you some questions along the lines of Mr. Arme's questions on productivity.

The data released on Wednesday show productivity in the non-farm business sector down in 1990. It was down in 1989.

Is that correct? Two years in a row, you've had a decline in productivity?

Mrs. NORWOOD. Yes.

Representative HAMILTON. How long in this country has it been since we've had 2 years in a row decline in productivity?

Mrs. NORWOOD. Let me ask Dr. Guinn.

Mr. GUINN. I suspect it was in the middle seventies, but it would take a minute to dig that out.

Representative HAMILTON. See if it's 1979 and 1980.

Anyway, it's a fairly unusual event, right?

Mrs. NORWOOD. Yes.

Representative HAMILTON. Why is it that productivity went down these last 2 years? What happens there?

Mrs. NORWOOD. Part of it, I think, is that we have such a vigorous increase in jobs in the service-producing sector during the expansionary period. We've done much better in manufacturing be-

cause, in manufacturing, we were reducing employment faster than we were reducing production.

So, we produced more with fewer people.

Representative HAMILTON. You don't have the rise in productivity in the service sector that you have in the manufacturing sector.

Is that right?

Mrs. NORWOOD. I think probably not within the service sector as a whole. We should be careful, however, not to characterize that as all one, because there are parts of the service-producing sector, like the telephone industry, which are doing extremely well.

Representative HAMILTON. If you look at these productivity figures, does it tell you anything about future growth in productivity? Are there figures here that would suggest to you that we're going to have a very strong or a very weak or whatever productivity performance in the next several years?

Mrs. NORWOOD. I believe that, when you look at the productivity figures for manufacturing and you also look at what has been done in eliminating inefficient plants, for example, and methods of production, that we are somewhat tighter. And, therefore, I think becoming more competitive in that area.

I think that has been reflected to some extent in the increase in our exports.

The rest of the economy, it seems to me, is more spotty. It depends upon the particular industries. Some of them are doing well and others are not.

Obviously, the most labor-intensive are the ones that labor costs are a very high proportion of total costs.

Representative HAMILTON. Thank you.

Senator SARBANES. Commissioner, I had just a couple of more questions I wanted to put to you.

How long does a downturn usually last on the basis of our historical experience?

Mrs. NORWOOD. You're having as one of your witnesses, I recollect, Jeffrey Moore, who is certainly an expert in that area. But, generally speaking, the expansion periods on average have lasted about 3 years, and the contractions about 1 year.

But, that's an average, and there are a lot of differences from one period to another.

Senator SARBANES. How long did the 1981-82 downturn last? That's the last one we've had.

Is that correct?

Mrs. NORWOOD. About 18 months. The average is a little more than a year.

Senator SARBANES. How long on that downturn did it take us before we got back to the unemployment level at the beginning of the downturn?

In other words, I'm interested not only in how long it takes to reach the bottom, but then how long, in addition, it takes to come back up to where you were before the downward trend began.

[Pause.]

Mrs. NORWOOD. Fourteen months, something like that.

Senator SARBANES. Fourteen additional months.

Mrs. NORWOOD. After you first noticed this.

Senator SARBANES. So, in effect, you're talking about almost a 3-year period from the time you go down to get back up to where you were.

Is that correct?

Mrs. NORWOOD. Yes. Perhaps, longer.

Senator SARBANES. Longer?

Mrs. NORWOOD. A bit longer.

Senator SARBANES. When did the 1981 downturn begin according to your calculations?

Mrs. NORWOOD. July.

Senator SARBANES. July of 1981? What was the unemployment figure then?

Mr. PLEWES. Seven point two percent. It got up to 10.8 percent at the trough in November of 1982.

Senator SARBANES. So, in July of 1981, it was 7.2 percent. And, in November or December?

Mr. PLEWES. November or December, November was the official trough, and that was 10.8 percent.

Senator SARBANES. So it went from 7.2 to 10.8 percent over that roughly 18-month period.

When did it next get back to 7.2 percent?

Mr. PLEWES. June 1984.

Senator SARBANES. June of 1984. So that's 3 years. Is that about standard, or is that longer than standard?

Mrs. NORWOOD. Contraction periods vary. You have the 1980 period. If it isn't added to the 1981-82 period, the 1980 period was 6 months early. We've had some at 8 months. We've had some at 10 months, and longer.

So, they vary.

Mr. PLEWES. In the 1975-76 recession, we never got back to where we were in the beginning, before we went into that 1980 recession.

Senator SARBANES. Congressman Armev.

Representative ARMEY. Thank you, Senator Sarbanes.

I still remain intrigued with productivity. And I want to thank Mr. Hamilton for keeping the discussion alive. I know that I tend to be fairly conceptual and do need to catch up with your data base and your data analysis. But, it is fascinating to me that we have apparently a sort of dramatic, recent change in productivity.

Let's see if I understand correctly.

Productivity is increasing at a decreasing rate for the first time since perhaps the late seventies.

Is that right?

Mrs. NORWOOD. 1973.

Representative ARMEY. If I am correct in my understanding that the practice of science and engineering increases productivity and the practice of law and politics decreases productivity, and if, in fact, then productivity gains come from the bringing on line of new technology through new capital investments, wouldn't the repeal of the preferential capital gains tax in 1986 have a big impact then on our ability to sustain a consistently respectable growth in productivity?

Mrs. NORWOOD. Well, I leave it to you, Congressman, to determine the effects of those acts.

Representative ARMEY. But, the statistical data correlations would be there, in which case, I, as a politician, can draw whatever conclusion fits my pre-conceived position.

I really am very fascinated.

Apparently, then, you also have a regression model and a data base by which you can—

Mrs. NORWOOD. Absolutely.

Representative ARMEY. I'm very fascinated to see that, and I'm sure our Republican staff probably has a good deal of that already.

Mrs. NORWOOD. Yes, I believe so.

Representative ARMEY. Can I ask you back more on the data base, it's my understanding that the manufacturing industry, as a share of the American economy, has remained quite constant throughout the eighties.

Is that correct?

Mrs. NORWOOD. We have discussed this many, many times. One has to distinguish between employment in manufacturing and production in manufacturing.

We have seen a larger decline in employment certainly than we have in production.

Representative ARMEY. But if, in fact, there is an increase in production and productivity is increasing and employment is going down, these would all fit pretty well?

Mrs. NORWOOD. Yes.

Representative ARMEY. How about inflation? And I'm sorry. I keep going back to productivity.

Mrs. NORWOOD. We're responsible for inflation measurement, too.

Representative ARMEY. You obviously have to make some indication of the input of labor capital against the value of output. If inflation is in there, do you somehow adjust for inflation in that process on both sides?

Mrs. NORWOOD. Yes.

Representative ARMEY. If you repealed capital gains, the preferential rate of the cost of capital goes up. So you would obviously have to adjust on that side.

And, of course, if you impose new mandates on employment, then you raise your labor costs.

One other thing. Another thing you said that intrigued me. One of the other ways in which we would obtain productivity gains would be to shut down obsolete plants, obsolete bases, or things of this nature. And thereby leave more of the production burden on the hands of the more modern plant.

Would passage of such a law as plant closing, which would impede our ability to retire obsolete facilities, have this perverse impact on productivity that we are seeing showing up?

Mrs. NORWOOD. I'm not aware of any data which really show that. I have no opinion.

Representative ARMEY. We could gather the data on plant closings, and so forth, to see if, in fact, there's been some recent change.

Mrs. NORWOOD. One could do that, but I'm not sure that you can determine a causal relationship among many of these variables.

Representative ARMEY. My experience is as an academic, that one gets the correlation. The causal relationship depends on the

strength of the assertion, which one has had the privilege of dealing with.

Thank you.

Thank you, Mr. Chairman.

Mrs. NORWOOD. May I just say, for those of us in the statistical system, that's one of our problems.

Representative ARMEY. I appreciate that.

Senator SARBANES. I just had this note of warning. As I listened to Congressman Armeay, particularly this last thing, if you can show some kind of correlation behind the statistics, you can then assert your causal relationship.

There's a wonderful story about, in England, at the end of the War, they'd had no bananas because they couldn't ship bananas into the country, because of the blockade.

And they got in a shipment of bananas. And a mother gave her daughter and son, who were going up to London, the first bananas they'd ever seen.

And she said, "This is a big treat, and you're to eat this banana at the end of your lunch on the train."

So they were riding up to London on the train and they ate their sandwich. And then, the girl, who was the older one, was in charge, peeled her banana. And she took a bite of her banana just as the train went into the tunnel, and everything went dark.

And she screamed in a loud voice to her brother. She said, "My God, Billy," she says, "don't eat your banana. You'll go blind."

[Laughter.]

Senator SARBANES. So much for causal connections.

We thank you very much for your testimony.

[Whereupon, at 10:30 a.m., the committee was adjourned.]



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