

EMPLOYMENT-UNEMPLOYMENT

HEARINGS
BEFORE THE
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ONE HUNDRED FIRST CONGRESS
FIRST SESSION

PART 35

APRIL 7, MAY 5, AND JUNE 2, 1989

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EMPLOYMENT-UNEMPLOYMENT

FRIDAY, APRIL 7, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m., in room 2359, Rayburn House Office Building, Hon. Lee H. Hamilton (chairman of the committee) presiding.

Present: Representatives Hamilton and Solarz.

Also present: William Buechner, professional staff member.

OPENING STATEMENT OF REPRESENTATIVE HAMILTON, CHAIRMAN

Representative HAMILTON. The meeting of the Joint Economic Committee will come to order. This morning, the Joint Economic Committee welcomes back Commissioner Norwood for her testimony on the employment and unemployment situation for March 1989.

According to the Employment Situation press release that the Bureau of Labor Statistics issued this morning, the unemployment rate declined to 5 percent in March, its lowest level since December 1973, with the largest improvement occurring among adult men, teenagers, and blacks.

The number of people unemployed fell by 200,000. According to the establishment survey, nonfarm employment rose by 180,000 in March. This figure was held down by the 25,000 people affected by the strike against Eastern Airlines, but it was still the smallest monthly growth in employment in more than a year.

There was a decline of 26,000 jobs in goods-producing industries due to a very large decline in employment in the construction industry.

The committee will now hear from Commissioner Norwood for her analysis of the employment and unemployment situation for March. Commissioner Norwood.

**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
JOHN E. BREGGER, ASSISTANT COMMISSIONER, OFFICE OF
CURRENT EMPLOYMENT ANALYSIS**

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

On my right is Kenneth Dalton, our price expert; and on my left is Jack Bregger, who is our employment expert.

We're very pleased to be here. Unemployment edged down further in March, and employment grew moderately. After declining markedly in February, the number of unemployed persons fell by 200,000 in March as the civilian worker unemployment rate reached 5 percent, its lowest point since December 1973.

The overall rate, which takes into account the resident Armed Forces, declined to 4.9 percent in March. Payroll employment in our business survey rose by 180,000 in March after allowance for seasonal movements, a somewhat slower pace of monthly increase than we have seen over the past year.

The extent of the March job gain was held down somewhat by the airline strike, which reduced payroll employment by about 25,000.

The growth in payroll employment from February to March occurred almost entirely in the service sector, where job increases were fairly widespread. In the services industry itself, employment rose by 110,000, in line with average monthly gains over the past year.

The health services industry added 55,000 jobs in March. Employment has been growing rapidly in this industry; fully half a million of its 7.6 million jobs have been added during the past year alone. In contrast, employment in business services, which had grown very rapidly earlier in the current expansion, was about unchanged in March. Elsewhere in the service sector, retail trade jobs continued to expand at a rapid pace, as the March increase brought the total job increase to 260,000 since December. Wholesale trade also continued its recent pace of rapid growth.

In the goods-producing sector, construction employment dropped for the second month in a row, with the largest decline occurring among residential building contractors. The recent rise in interest rates appears to be causing a slowdown in building activity.

The number of factory jobs changed little for the second month in a row, and the factory workweek fell to 40.9 hours. Nevertheless, the new BLS diffusion index for 143 manufacturing industries rose to 56 percent in March, showing improvement relative to the previous month in the number of industries that added jobs.

In mining, a small job increase occurred in the oil and gas industry for the second consecutive month. Employment in that industry had been declining steadily since last summer.

The household survey also showed an increase in civilian employment, especially for adult men. The employment-population ratio edged up to 63 percent in March, a new high.

Over the year, civilian employment has expanded by 3 million, shared about equally by men and women. Much of the March improvement in unemployment occurred among adult men. Their jobless rate fell 0.3 of a percentage point to 4.2 percent, the lowest since September 1979.

The jobless rate for adult women has shown little movement in recent months. The sharp declines in February jobless rates for teenagers and Hispanics, which I discussed with the committee last month, appear to have been sustained by the March data.

In addition, the jobless rate for blacks dropped to 10.9 percent. Although the rates for each of these groups vary considerably from one month to the next, the overall strength in the labor market appears to be reaching even those groups, who historically have had a hard time finding jobs.

Each quarter, we present data on discouraged workers—people who desire a job but are not looking for one because they think their search would be in vain. At an average of 850,000 in the January to March period, the number of discouraged workers declined about 100,000 from the previous quarter. This is the lowest level since late 1979. The number of discouraged had reached a high of 1.8 million workers at the end of 1982.

Another measure that we publish on a quarterly basis is the U-7 series, the broadest, most inclusive measure in the range of alternative unemployment indicators calculated by the Bureau of Labor Statistics. Combining the effects of discouragement, involuntary part-time work, and unemployment, U-7 fell from 8.2 in the October to December period to 7.9 percent in the January to March quarter, the lowest level in nearly 15 years.

Each of the seven alternative measures fell slightly over the period. The narrowest measure—U-1, persons unemployed 15 weeks or longer—is down to just over 1 percent, and U-2, job losers, is only about 2.5 percent.

In summary, the data released today show a relatively strong labor market in March, with improvement in unemployment and moderate job growth.

Mr. Chairman, I have distributed a few charts which perhaps during the discussion period we could review, and now my colleagues and I would be happy to try to answer any questions.

[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)
1988									
March.....	5.9	5.6	5.6	5.6	5.7	5.6	5.5	5.6	.2
April.....	5.3	5.5	5.5	5.5	5.5	5.5	5.5	5.5	-
May.....	5.4	5.6	5.6	5.6	5.6	5.6	5.7	5.6	.1
June.....	5.5	5.4	5.4	5.4	5.3	5.4	5.4	5.3	.1
July.....	5.5	5.4	5.4	5.5	5.4	5.5	5.5	5.4	.1
August.....	5.4	5.6	5.6	5.6	5.5	5.6	5.6	5.6	.1
September...	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	-
October.....	5.0	5.3	5.3	5.3	5.3	5.3	5.4	5.3	.1
November....	5.2	5.4	5.4	5.3	5.4	5.3	5.4	5.4	.1
December....	5.0	5.3	5.3	5.3	5.3	5.3	5.4	5.4	.1
1989									
January.....	6.0	5.4	5.4	5.4	5.5	5.4	5.3	5.5	.2
February....	5.6	5.1	5.2	5.2	5.2	5.2	5.0	5.2	.2
March.....	5.2	5.0	5.0	5.0	5.0	5.0	4.8	5.0	.2

SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
April 1989

- (1) Unadjusted rate. Unemployment rate for all civilian workers, not seasonally adjusted.
- (2) Official procedure (E-11 ARIMA method). The published seasonally adjusted rate for all civilian workers. Each of the 9 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 E-11 portion of the E-11 ARIMA program. The 4-coverage 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, E-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 E-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 1964 would be based, during 1964, on the adjustment of data from the period January 1974 through January 1964.
- (4) Concurrent (revised, E-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 (E-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 E-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 (E-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 E-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 (E-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) E-11 method (official method before 1960). 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 E-11 program is used to perform the seasonal adjustment.

Methods of Adjustment: The E-11 ARIMA method was developed at Statistics Canada by the Seasonal Adjustment and Time Series Staff under the direction of Estela Bee Dagan. The method is described in The E-11 ARIMA Seasonal Adjustment Method, by Estela Bee Dagan, Statistics Canada Catalogue No. 15-544A, February 1966.

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

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8:30 A.M. (EDT), FRIDAY,
APRIL 7, 1989

THE EMPLOYMENT SITUATION: MARCH 1989

Employment grew moderately in March and unemployment edged down, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The overall jobless rate was 4.9 percent and the civilian worker rate was 5.0 percent, compared with 5.1 percent for both measures in February. Both rates were at their lowest points since December 1973.

Nonagricultural payroll employment, as measured by the survey of business establishments, grew by 180,000 in March, well below the monthly average of 300,000 over the prior 12 months. Total civilian employment, as measured by the survey of households, rose by 285,000.

Unemployment (Household Survey Data)

Both the number of unemployed persons and the civilian worker unemployment rate edged down in March after seasonal adjustment, to 6.1 million and 5.0 percent, respectively. Over the past year, the unemployment rate has fallen six-tenths of a percentage point, and the number of unemployed persons has declined by 700,000. (See table A-2.)

The jobless rate for adult men fell to 4.2 percent in March, with improvement concentrated among 20 to 24 year-olds and those 55 and over. Jobless rates for blacks (10.9 percent) and teenagers (13.7 percent) also edged down over the month. Following a substantial drop in February, the unemployment rate for Hispanics (6.5 percent) was little changed in March, as were the rates for adult women (4.6 percent) and whites (4.2 percent). (See tables A-2, A-3, and A-9.)

Both the mean and median duration of unemployment were about unchanged in March. The number of unemployed persons who were jobless for less than 5 weeks declined by 190,000 to a seasonally adjusted level of 3.1 million. Over the year, however, the bulk of the decline in unemployment occurred among persons jobless for 15 weeks or longer—the long-term unemployed. (See table A-7.)

Civilian Employment and the Labor Force (Household Survey Data)

Civilian employment increased by 285,000 in March to a seasonally adjusted level of 117.1 million—3.0 million more than a year earlier. All of the over-the-month increase occurred among men, whereas the over-the-year gain was split about equally among men and women. The proportion of

the population with jobs (the employment-population ratio) reached a new high of 63.0 percent in March. The civilian labor force was little changed over the month, and the labor force participation rate held at 66.3 percent. (See table A-2.)

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

Category	Quarterly averages		Monthly data			Feb.- Mar. change
	1988	1989	1989			
	IV	I	Jan.	Feb.	Mar.	
HOUSEHOLD DATA						
	Thousands of persons					
Labor force <u>1/</u>	124,084	124,979	125,124	124,865	124,948	83
Total employment <u>1/</u> ..	117,539	118,588	118,407	118,537	118,820	283
Civilian labor force...	122,388	123,291	123,428	123,181	123,264	83
Civilian employment..	115,843	116,900	116,711	116,853	117,136	283
Unemployment.....	6,545	6,391	6,716	6,328	6,128	-200
Not in labor force....	62,865	62,482	62,216	62,596	62,633	37
Discouraged workers..	951	855	N.A.	N.A.	N.A.	N.A.
	Percent of labor force					
Unemployment rates:						
All workers <u>1/</u>	5.3	5.1	5.4	5.1	4.9	-0.2
All civilian workers.	5.3	5.2	5.4	5.1	5.0	-1
Adult men.....	4.7	4.5	4.6	4.5	4.2	-3
Adult women.....	4.7	4.6	4.7	4.5	4.6	.1
Teenagers.....	14.6	15.0	16.4	14.8	13.7	-1.1
White.....	4.6	4.4	4.6	4.3	4.2	-1
Black.....	11.3	11.6	12.0	11.9	10.9	-1.0
Hispanic origin....	7.8	7.2	8.4	6.8	6.5	-3
	ESTABLISHMENT DATA					
	Thousands of jobs					
Nonfarm employment....	107,344	p108,312	108,065	p108,345	p108,525	p180
Goods-producing.....	25,827	p26,017	26,048	p26,014	p25,988	p-26
Service-producing....	81,517	p82,295	82,017	p82,331	p82,537	p206
	Hours of work					
Average weekly hours:						
Total private.....	34.8	p34.7	34.8	p34.6	p34.6	p0
Manufacturing.....	41.1	p41.0	41.1	p41.1	p40.9	p-0.2
Overtime.....	3.9	p3.9	3.9	p3.9	p3.9	p0

1/ Includes the resident Armed Forces.
ppreliminary.

N.A.=not available.

Discouraged Workers (Household Survey Data)

The number of discouraged workers--persons who want to work but have not looked for jobs because they believe they cannot find any--edged down by about 100,000 in the first quarter of 1989 to a seasonally adjusted level of 855,000. Blacks accounted for 3 out of 10 discouraged workers, even though they make up only about 1 in 10 of the working-age population. (See table A-14.)

Industry Payroll Employment (Establishment Survey Data)

Employment growth in nonagricultural establishments moderated in March, as payroll jobs increased by 180,000 to 108.5 million, seasonally adjusted. (See table B-1.) The over-the-month gain would have been somewhat larger except for about 25,000 airline workers who were off payrolls because of labor-management disputes.

Virtually all of the employment growth in March was in the service-producing sector, with gains concentrated in the services and trade industries. In the services industry, employment rose by 110,000, about in line with recent average growth for that industry. Within services, employment in the fast-growing health services component increased by 55,000. Retail trade added 75,000 jobs, and employment in wholesale trade increased by 25,000, with most of the gain occurring in durable goods distribution. There was little over-the-month change in finance, insurance, and real estate; government; and in transportation and public utilities, where employment was held down by the airline workers' strike.

In the goods-producing sector, employment in the construction industry declined by 50,000 in March, after seasonal adjustment. There was also a decline in February, following a very large increase in January. Construction employment patterns often vary substantially in the early months of the year owing to changeable weather conditions in many parts of the country. However, some of the recent employment weakness in the industry may reflect a more general slowdown in construction activity, particularly in the residential sector. Manufacturing employment showed little movement for the second straight month, following strong growth in the previous 4 months. In mining, employment in the oil and gas extraction component rose slightly in March.

Weekly Hours (Establishment Survey Data)

Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls were unchanged in March at 34.6, after seasonal adjustment. In manufacturing, the workweek declined by 0.2 hour to 40.9 hours, while overtime was unchanged at 3.9 hours. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls, at 127.9 (1977=100), was little changed in March after seasonal adjustment. The index for the manufacturing industry was unchanged at 97.3. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Both average hourly and average weekly earnings rose by 0.4 percent in March, after seasonal adjustment. Prior to seasonal adjustment, average hourly earnings increased by 2 cents to \$9.56 in March, and average weekly earnings rose by \$1.64 to \$328.86. Over the year, both hourly and weekly earnings increased by 4.1 percent. (See tables B-3 and B-4.)

The Employment Situation for April 1989 will be released on Friday, May 5, at 8:30 A.M. (EDT).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 55,800 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 nonagricultural 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 300,000 establishments employing over 38 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 nonagricultural 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. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

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, DC 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					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
TOTAL									
Noninstitutional population ²	185,847	187,481	187,581	185,847	186,949	187,098	187,340	187,461	187,581
Labor force ³	121,662	123,590	123,907	122,672	124,215	124,259	125,124	124,965	124,948
Participation rate ⁴	65.5	65.9	66.1	66.0	66.4	66.4	66.8	66.6	66.6
Total employed ⁵	114,803	118,707	117,526	115,665	117,652	117,705	118,407	118,537	118,620
Employment-population ratio ⁶	61.7	62.3	62.7	62.3	62.9	62.9	63.2	63.2	63.3
Resident Armed Forces	1,736	1,684	1,684	1,736	1,705	1,696	1,696	1,684	1,684
Civilian employed	112,867	115,023	115,844	114,129	115,947	116,009	116,711	116,853	117,136
Agriculture	2,902	2,795	2,954	3,181	3,238	3,193	3,300	3,223	3,206
Nonagricultural industries	106,964	112,228	112,911	110,948	112,709	112,816	113,411	113,630	113,930
Unemployed	7,090	6,883	6,376	6,807	6,563	6,554	6,716	6,328	6,128
Unemployment rate ⁷	5.8	5.8	5.1	5.5	5.3	5.3	5.4	5.1	4.9
Not in labor force	64,184	63,871	63,674	63,175	62,734	62,839	62,218	62,596	62,633
Men, 16 years and over									
Noninstitutional population ²	89,168	89,973	90,032	89,168	89,716	89,792	89,914	89,973	90,032
Labor force ³	67,521	68,273	68,472	66,194	68,686	68,638	69,032	69,113	69,190
Participation rate ⁴	75.7	75.9	76.1	74.5	76.4	76.4	76.8	76.8	76.9
Total employed ⁵	63,385	64,239	64,675	64,417	65,074	65,055	65,322	65,572	65,620
Employment-population ratio ⁶	71.1	71.4	72.1	72.2	72.5	72.5	72.6	72.9	73.2
Resident Armed Forces	1,573	1,521	1,521	1,573	1,542	1,534	1,532	1,521	1,521
Civilian employed	61,812	62,712	63,354	62,844	63,532	63,521	63,790	64,051	64,399
Unemployed	4,136	4,040	3,597	3,777	3,612	3,583	3,710	3,540	3,270
Unemployment rate ⁷	6.1	5.9	5.3	5.5	5.3	5.2	5.4	5.1	4.7
Women, 16 years and over									
Noninstitutional population ²	96,679	97,488	97,550	96,679	97,234	97,306	97,427	97,488	97,550
Labor force ³	54,173	55,317	55,435	54,478	55,529	55,621	56,091	55,752	55,758
Participation rate ⁴	56.0	56.7	56.8	56.3	57.1	57.2	57.8	57.2	57.2
Total employed ⁵	51,218	52,474	52,654	51,448	52,578	52,650	53,065	52,965	52,900
Employment-population ratio ⁶	53.0	53.8	54.0	53.2	54.1	54.1	54.5	54.3	54.2
Resident Armed Forces	163	163	163	163	163	162	164	163	163
Civilian employed	51,055	52,311	52,491	51,285	52,415	52,488	52,921	52,802	52,737
Unemployed	2,955	2,843	2,781	3,030	2,951	2,971	3,006	2,787	2,658
Unemployment rate ⁷	5.5	5.1	5.0	5.6	5.3	5.3	5.4	5.0	5.1

¹ The population and Armed Forces figures are not adjusted for seasonal variations; 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).

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					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
TOTAL									
Civilian noninstitutional population	184,111	185,777	185,697	184,111	185,244	185,402	185,844	185,777	185,697
Civilian labor force	119,957	121,906	122,223	120,906	122,510	122,563	123,428	123,181	123,284
Participation rate	65.2	65.6	65.7	65.7	66.1	66.1	66.5	66.3	66.3
Employed	112,867	115,023	115,844	114,129	115,947	116,009	116,711	116,553	117,136
Employment-population ratio ²	61.3	61.9	62.3	62.0	62.6	62.6	62.9	62.9	63.0
Unemployed	7,090	6,883	6,378	6,807	6,563	6,554	6,716	6,628	6,126
Unemployment rate	5.9	5.6	5.2	5.6	5.4	5.3	5.4	5.1	5.0
Men, 20 years and over									
Civilian noninstitutional population	80,260	81,256	81,333	80,260	80,924	81,001	81,162	81,256	81,333
Civilian labor force	62,238	63,031	63,210	62,532	62,998	63,002	63,358	63,490	63,557
Participation rate	77.5	77.6	77.7	77.9	77.8	77.8	78.1	78.1	78.1
Employed	58,807	59,681	60,191	58,488	59,999	60,049	60,420	60,536	60,980
Employment-population ratio ²	73.3	73.4	74.0	74.1	74.1	74.1	74.4	74.8	74.8
Agriculture	2,109	2,065	2,166	2,256	2,319	2,292	2,277	2,320	2,317
Nonagricultural industries	56,697	57,616	58,025	57,210	57,686	57,757	58,143	58,318	58,662
Unemployed	3,432	3,350	3,019	3,064	2,999	2,953	2,938	2,953	2,888
Unemployment rate	5.5	5.3	4.8	4.9	4.8	4.7	4.6	4.5	4.2
Women, 20 years and over									
Civilian noninstitutional population	69,261	90,153	90,242	69,261	69,887	69,954	90,072	90,153	90,242
Civilian labor force	50,476	51,675	51,603	50,510	51,256	51,587	51,696	51,821	51,851
Participation rate	58.5	57.3	57.4	56.8	57.4	57.3	57.7	57.5	57.5
Employed	48,051	49,279	49,482	48,060	49,113	49,168	49,543	49,514	49,494
Employment-population ratio ²	53.8	54.7	54.8	53.8	54.6	54.7	55.0	54.9	54.8
Agriculture	575	578	594	641	640	646	715	688	684
Nonagricultural industries	47,476	48,702	48,888	47,419	48,473	48,519	48,827	48,849	48,819
Unemployed	2,425	2,396	2,341	2,450	2,445	2,422	2,455	2,306	2,367
Unemployment rate	4.8	4.6	4.5	4.9	4.7	4.7	4.7	4.5	4.6
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,591	14,387	14,329	14,591	14,433	14,447	14,410	14,367	14,323
Civilian labor force	7,243	7,199	7,210	7,894	7,957	7,974	8,071	7,871	7,856
Participation rate	49.8	50.1	50.3	54.1	55.1	55.2	56.0	54.8	54.9
Employed	6,009	6,062	6,192	6,601	6,635	6,798	6,748	6,703	6,783
Employment-population ratio ²	41.2	42.2	43.2	45.2	47.4	47.0	46.8	46.7	47.4
Agriculture	219	152	174	262	285	295	307	237	224
Nonagricultural industries	5,791	5,910	6,018	6,319	6,550	6,540	6,441	6,466	6,559
Unemployed	1,234	1,137	1,018	1,293	1,122	1,179	1,323	1,168	1,073
Unemployment rate	17.0	15.8	14.1	16.4	14.1	14.8	16.4	14.8	13.7

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.

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					
	Mar. 1988	Feb. 1989	Mar. 1989	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989
WHITE									
Civilian noninstitutional population	157,868	158,047	159,020	157,868	158,603	158,705	158,865	158,947	159,020
Civilian labor force	103,388	104,758	105,100	104,172	105,395	105,411	106,106	105,798	105,988
Participation rate	65.5	65.9	66.1	66.0	66.5	66.4	66.6	66.6	66.7
Employed	98,202	98,747	100,435	99,252	100,543	100,567	101,183	101,278	101,554
Employment-population ratio ²	62.2	62.8	63.2	62.9	63.4	63.4	63.7	63.7	63.9
Unemployed	5,185	5,012	4,664	4,920	4,852	4,844	4,922	4,521	4,434
Unemployment rate	5.0	4.8	4.4	4.7	4.6	4.6	4.8	4.3	4.2
Men, 20 years and over									
Civilian labor force	54,307	54,920	55,070	54,541	54,822	54,886	55,213	55,308	55,382
Participation rate	77.9	78.0	78.2	78.3	78.3	78.2	78.5	78.6	78.6
Employed	51,723	52,399	52,800	52,290	52,624	52,636	53,007	53,187	53,387
Employment-population ratio ²	74.2	74.4	75.0	75.0	75.0	75.0	75.4	75.8	75.8
Unemployed	2,584	2,521	2,270	2,275	2,298	2,282	2,205	2,111	1,995
Unemployment rate	4.8	4.6	4.1	4.2	4.2	4.1	4.0	3.8	3.6
Women, 20 years and over									
Civilian labor force	42,789	43,657	43,767	42,767	43,625	43,644	43,698	43,770	43,780
Participation rate	56.1	56.9	56.9	56.1	56.9	56.9	57.2	56.9	56.9
Employed	41,101	42,008	42,115	41,089	41,889	41,900	42,201	42,177	42,115
Employment-population ratio ²	53.9	54.6	54.7	53.9	54.6	54.6	54.9	54.6	54.7
Unemployed	1,688	1,649	1,652	1,678	1,738	1,714	1,734	1,593	1,665
Unemployment rate	3.9	3.8	3.8	3.9	4.0	3.9	3.9	3.6	3.8
Both sexes, 18 to 19 years									
Civilian labor force	8,312	8,182	8,262	8,684	8,848	8,869	8,958	8,720	8,828
Participation rate	53.1	53.0	53.9	57.7	58.3	58.6	58.8	57.7	58.9
Employed	5,378	5,340	5,520	5,897	6,030	6,001	5,975	5,904	6,052
Employment-population ratio ²	45.2	45.8	47.5	48.6	51.3	51.2	51.1	50.7	52.1
Unemployed	934	841	742	967	818	868	983	816	774
Unemployment rate	14.8	13.6	11.9	14.1	11.9	12.9	14.1	12.1	11.3
Men	17.1	16.4	13.8	15.5	12.6	13.4	16.4	14.0	12.3
Women	12.3	10.6	9.8	12.6	11.3	11.8	11.7	10.2	10.2
BLACK									
Civilian noninstitutional population	20,596	20,905	20,930	20,596	20,811	20,842	20,877	20,905	20,930
Civilian labor force	12,932	13,303	13,243	13,100	13,330	13,405	13,477	13,478	13,425
Participation rate	62.8	63.6	63.3	63.6	64.1	64.3	64.6	64.4	64.1
Employed	11,273	11,855	11,781	11,461	11,831	11,856	11,880	11,873	11,981
Employment-population ratio ²	54.7	55.8	56.2	55.6	56.8	56.9	56.8	56.8	57.1
Unemployed	1,659	1,648	1,463	1,639	1,499	1,549	1,617	1,603	1,444
Unemployment rate	12.8	12.4	11.2	12.5	11.2	11.6	12.0	11.9	10.9
Men, 20 years and over									
Civilian labor force	6,081	6,153	6,187	6,119	6,146	6,179	6,226	6,199	6,230
Participation rate	74.4	74.0	74.3	74.9	74.3	74.6	75.0	74.6	74.8
Employed	5,369	5,432	5,541	5,444	5,545	5,561	5,578	5,549	5,620
Employment-population ratio ²	65.7	65.3	66.6	66.6	67.1	67.1	67.2	66.7	67.5
Unemployed	712	721	646	675	601	618	650	650	611
Unemployment rate	11.7	11.7	10.4	11.0	9.8	10.0	10.4	10.5	9.8
Women, 20 years and over									
Civilian labor force	6,112	6,327	6,281	6,141	6,280	6,316	6,369	6,349	6,315
Participation rate	59.6	60.7	60.2	59.9	60.8	60.9	61.2	61.0	60.5
Employed	5,443	5,689	5,699	5,478	5,683	5,654	5,708	5,687	5,739
Employment-population ratio ²	53.1	54.4	54.6	53.5	54.6	54.5	54.8	54.7	55.0
Unemployed	668	658	582	663	617	662	663	662	576
Unemployment rate	10.9	10.4	9.3	10.8	9.8	10.5	10.4	10.3	9.1
Both sexes, 18 to 19 years									
Civilian labor force	740	822	775	840	904	910	881	828	880
Participation rate	34.0	37.8	35.8	38.6	41.5	41.7	40.5	42.7	40.5
Employed	461	553	521	539	629	641	577	627	602
Employment-population ratio ²	21.2	25.4	24.0	24.7	28.6	29.4	28.5	28.8	27.7
Unemployed	278	269	255	301	281	269	304	301	278
Unemployment rate	37.6	32.7	32.8	35.8	31.1	29.6	34.5	32.4	31.6
Men	40.2	35.2	29.3	37.8	32.1	29.8	36.7	33.1	28.6
Women	35.3	30.0	36.4	33.9	29.9	29.3	32.0	31.6	34.8

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

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					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
HISPANIC ORIGIN									
Civilian noninstitutional population	13,192	13,606	13,649	13,192	13,485	13,533	13,564	13,606	13,649
Civilian labor force	8,726	9,129	9,109	8,818	9,148	9,133	9,205	9,219	9,210
Participation rate	66.1	67.1	66.7	66.8	67.8	67.5	67.9	67.8	67.5
Employed	7,990	8,441	8,504	8,088	8,419	8,441	8,434	8,596	8,607
Employment-population ratio ²	60.6	62.0	62.3	61.3	62.4	62.4	62.2	63.2	63.1
Unemployed	736	688	605	730	729	692	771	624	603
Unemployment rate	8.4	7.5	6.8	8.3	8.0	7.6	8.4	6.8	6.5

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					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
CHARACTERISTIC									
Civilian employed, 16 years and over	112,867	115,023	115,844	114,129	115,947	116,009	116,711	116,853	117,126
Married men, spouse present	40,157	40,314	40,754	40,486	40,407	40,483	40,825	40,828	41,063
Married women, spouse present	28,776	29,265	29,828	28,713	28,995	29,053	29,589	29,412	29,569
Women who maintain families	6,178	6,391	6,275	6,158	6,375	6,399	6,416	6,385	6,256
MAJOR INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,487	1,416	1,517	1,610	1,672	1,896	1,684	1,645	1,656
Self-employed workers	1,309	1,284	1,296	1,416	1,450	1,349	1,387	1,419	1,403
Unpaid family workers	125	95	119	146	125	149	189	150	138
Nonagricultural industries:									
Wage and salary workers	101,514	103,644	104,143	102,339	103,770	103,904	104,510	104,797	104,982
Government	17,195	17,623	17,625	16,952	17,387	17,423	17,383	17,311	17,382
Private industries	84,319	86,021	86,518	85,387	86,383	86,481	87,117	87,486	87,600
Private households	1,086	1,056	1,084	1,167	1,209	1,210	1,196	1,135	1,163
Other industries	83,233	84,965	85,434	84,220	85,174	85,271	85,921	86,350	86,437
Self-employed workers	8,190	8,321	8,420	8,395	8,619	8,602	8,716	8,517	8,645
Unpaid family workers	261	262	347	250	300	266	298	285	332
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	5,129	4,996	4,784	5,331	5,061	5,321	5,097	4,961	4,968
Slack work	2,520	2,554	2,306	2,448	2,279	2,549	2,302	2,303	2,232
Could only find part-time work	2,347	2,153	2,204	2,548	2,375	2,410	2,352	2,333	2,393
Voluntary part time	15,597	15,958	16,510	14,654	15,448	15,393	15,401	15,126	15,561
Nonagricultural industries:									
Part time for economic reasons	4,932	4,725	4,572	5,067	4,819	5,033	4,837	4,697	4,709
Slack work	2,371	2,343	2,148	2,269	2,118	2,377	2,144	2,105	2,046
Could only find part-time work	2,307	2,102	2,155	2,482	2,268	2,307	2,283	2,272	2,317
Voluntary part time	15,131	15,584	16,095	14,203	14,986	14,928	14,970	14,668	15,127

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

(Percent)

Measure	Quarterly averages				Monthly data			
	1988		1989		1989			
	I	II	III	IV	I	Jan.	Feb.	Mar.
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.4	1.3	1.3	1.2	1.1	1.2	1.1	1.1
U-2 Job losers as a percent of the civilian labor force	2.6	2.5	2.5	2.5	2.4	2.5	2.3	2.3
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force	4.4	4.2	4.2	4.1	4.0	4.1	4.0	3.9
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	5.3	5.1	5.1	5.0	4.9	5.0	4.8	4.8
U-5a Total unemployed as a percent of the labor force, including the resident Armed Forces	5.6	5.4	5.4	5.3	5.1	5.4	5.1	4.9
U-5b Total unemployed as a percent of the civilian labor force	5.7	5.5	5.5	5.3	5.2	5.4	5.1	5.0
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	7.9	7.6	7.6	7.5	7.2	7.5	7.2	7.1
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	8.7	8.3	8.4	8.2	7.9	N.A.	N.A.	N.A.

N.A. = not available.

Table A-6. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Mar. 1988	Feb. 1989	Mar. 1989	Mar. 1989	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989
CHARACTERISTIC									
Total, 16 years and over	6,807	6,328	6,126	5.6	5.4	5.3	5.4	5.1	5.0
Men, 16 years and over	3,777	3,540	3,270	5.7	5.4	5.3	5.5	5.2	4.8
Men, 20 years and over	3,064	2,853	2,888	4.9	4.8	4.7	4.6	4.5	4.2
Women, 16 years and over	3,030	2,787	2,858	5.6	5.3	5.4	5.4	5.0	5.1
Women, 20 years and over	2,450	2,306	2,367	4.9	4.7	4.7	4.7	4.5	4.6
Both sexes, 16 to 19 years	1,293	1,168	1,073	16.4	14.1	14.8	16.4	14.8	13.7
Married men, spouse present	1,408	1,289	1,209	3.4	3.3	3.1	3.1	3.1	2.9
Married women, spouse present	1,190	1,028	1,074	4.0	3.8	3.7	3.6	3.4	3.5
Women who maintain families	502	558	533	7.5	7.7	8.2	8.0	8.0	7.9
Full-time workers	5,473	5,024	5,026	5.3	5.0	5.1	5.0	4.8	4.8
Part-time workers	1,350	1,314	1,120	7.8	7.1	7.0	7.9	7.3	8.2
Labor force time lost ²	--	--	--	6.5	6.2	6.3	6.2	5.9	5.8
INDUSTRY									
Nonagricultural private wage and salary workers	5,063	4,749	4,836	5.8	5.5	5.4	5.6	5.1	5.0
Goods-producing industries	1,875	1,784	1,718	6.5	6.4	6.4	6.4	6.1	5.8
Mining	66	57	51	8.2	8.9	7.7	6.1	8.0	7.0
Construction	683	648	610	10.6	10.6	10.4	10.4	10.0	9.4
Manufacturing	1,146	1,079	1,058	5.2	5.1	5.2	5.3	4.9	4.8
Durable goods	688	576	506	5.1	4.9	5.0	5.0	4.4	4.7
Non-durable goods	480	505	450	5.4	5.3	5.5	5.7	5.5	4.9
Service-producing industries	3,188	2,965	2,816	5.2	5.1	4.9	5.2	4.7	4.6
Transportation and public utilities	261	244	254	4.1	4.0	3.8	3.8	3.9	3.9
Wholesale and retail trade	1,550	1,284	1,294	6.7	6.2	6.3	6.3	5.6	5.6
Finance and service industries	1,377	1,437	1,371	4.3	4.6	4.1	4.7	4.3	4.1
Government workers	503	477	468	2.9	2.5	2.7	2.7	2.7	2.6
Agricultural wage and salary workers	200	160	181	11.0	9.3	8.8	9.5	8.9	8.9

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.

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Table A-7. Duration of unemployment

(Numbers in thousands)

Weeks of unemployment	Not seasonally adjusted			Seasonally adjusted					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
DURATION									
Less than 5 weeks	2,759	3,117	2,756	3,057	3,117	3,029	3,181	3,247	3,055
5 to 14 weeks	2,332	2,329	2,072	2,080	1,935	2,039	2,061	1,865	1,821
15 weeks and over	1,999	1,436	1,550	1,693	1,502	1,495	1,512	1,304	1,310
15 to 26 weeks	1,108	768	851	851	787	798	757	685	648
27 weeks and over	891	668	699	842	715	737	755	639	663
Average (mean) duration, in weeks	14.3	12.3	12.9	13.8	12.6	12.8	12.7	12.1	12.4
Median duration, in weeks	8.0	6.0	6.8	6.4	5.8	5.8	5.7	5.3	5.4
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	38.9	45.3	43.2	44.9	47.6	48.2	31.1	50.6	49.4
5 to 14 weeks	32.9	33.8	32.5	30.2	29.5	31.1	30.7	29.1	29.4
15 weeks and over	28.2	20.9	24.3	24.9	22.9	22.8	22.3	20.3	21.2
15 to 26 weeks	15.6	11.2	13.3	12.5	12.0	11.5	11.2	10.4	10.5
27 weeks and over	12.6	9.7	11.0	12.4	10.9	11.2	11.1	10.0	10.7

Table A-8. Reason for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted			Seasonally adjusted					
	Mar. 1968	Feb. 1969	Mar. 1969	Mar. 1968	Nov. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969
NUMBER OF UNEMPLOYED									
Job losers	3,506	3,382	3,176	3,131	3,031	3,086	3,121	2,876	2,831
On layoff	1,263	1,042	998	882	814	819	827	774	806
Other job losers	2,423	2,340	2,180	2,249	2,217	2,247	2,294	2,102	2,023
Job leavers	1,012	1,005	850	1,059	963	996	985	985	985
Reentrants	1,784	1,799	1,721	1,792	1,768	1,725	1,835	1,740	1,730
New entrants	789	696	631	671	799	799	780	765	713
PERCENT DISTRIBUTION									
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	49.5	49.1	49.8	45.7	46.2	46.5	46.4	45.2	46.0
On layoff	15.9	15.1	15.6	12.9	12.4	12.4	12.3	12.2	13.1
Other job losers	34.2	34.0	34.2	32.8	33.8	34.1	34.1	33.0	32.9
Job leavers	14.3	14.8	13.3	15.5	14.7	15.1	14.7	15.5	14.4
Reentrants	25.2	26.1	27.0	26.1	26.9	26.2	27.3	27.3	26.1
New entrants	11.1	10.1	9.9	12.7	12.2	12.1	11.6	12.0	11.6
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE									
Job losers	2.9	2.8	2.6	2.6	2.5	2.5	2.5	2.3	2.3
Job leavers8	.8	.7	.9	.8	.8	.8	.8	.7
Reentrants	1.5	1.5	1.4	1.5	1.4	1.4	1.5	1.4	1.4
New entrants7	.6	.5	.7	.7	.7	.6	.6	.6

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

Sex and age	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Mar. 1988	Feb. 1989	Mar. 1989	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989
Total, 16 years and over	6,807	6,328	6,128	5.6	5.4	5.3	5.4	5.1	5.0
16 to 24 years	2,612	2,316	2,182	11.6	10.6	10.9	11.9	10.5	9.8
16 to 19 years	1,293	1,168	1,073	18.4	14.1	14.8	16.4	14.8	13.7
18 to 17 years	578	572	477	17.7	15.8	16.6	18.3	18.2	15.3
18 to 19 years	714	605	597	15.3	12.9	13.3	15.4	12.7	12.5
20 to 24 years	1,319	1,148	1,109	9.0	8.7	8.7	9.3	8.1	7.7
25 years and over	4,171	4,028	3,921	4.2	4.2	4.1	4.1	4.0	3.9
25 to 54 years	3,742	3,559	3,542	4.5	4.4	4.3	4.2	4.2	4.1
55 years and over	443	466	396	2.9	2.8	3.0	3.1	3.1	2.6
Men, 16 years and over	3,777	3,540	3,270	5.7	5.4	5.3	5.5	5.2	4.8
16 to 24 years	1,400	1,302	1,128	11.9	10.9	11.1	12.8	11.1	9.7
16 to 19 years	713	687	582	17.4	14.8	15.4	18.6	16.7	14.2
18 to 17 years	318	317	258	18.6	17.3	17.3	20.6	19.6	15.8
18 to 19 years	399	379	330	16.6	13.0	13.5	17.9	15.1	13.2
20 to 24 years	690	615	548	9.0	8.6	8.7	9.6	8.1	7.2
25 years and over	2,367	2,246	2,136	4.3	4.2	4.1	4.0	4.0	3.8
25 to 54 years	2,071	1,943	1,890	4.5	4.4	4.3	4.2	4.1	4.0
55 years and over	296	303	246	3.4	3.2	3.3	3.0	3.4	2.8
Women, 16 years and over	3,030	2,787	2,858	5.6	5.3	5.4	5.4	5.0	5.1
16 to 24 years	1,208	1,014	1,054	11.2	10.3	10.7	10.9	9.7	10.0
16 to 19 years	580	491	491	15.2	13.3	14.2	14.0	12.8	13.1
18 to 17 years	260	255	219	16.7	14.1	15.8	15.9	16.8	14.8
18 to 19 years	315	226	267	14.0	12.8	13.1	12.7	10.0	11.7
20 to 24 years	629	533	563	9.0	8.6	8.7	9.1	8.0	8.3
25 years and over	1,804	1,760	1,784	4.1	4.2	4.1	4.1	3.9	4.0
25 to 54 years	1,671	1,618	1,652	4.5	4.4	4.4	4.3	4.2	4.3
55 years and over	147	164	151	2.4	2.4	2.6	3.1	2.5	2.3

¹ Unemployment as a percent of the civilian labor force.

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

(Numbers in thousands)

Employment status	Not seasonally adjusted			Seasonally adjusted ¹					
	Mar. 1988	Feb. 1989	Mar. 1989	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989
Civilian noninstitutional population	26,243	26,830	26,877	26,243	26,641	26,697	26,779	26,830	26,877
Civilian labor force	16,569	17,147	17,123	16,783	17,079	17,172	17,283	17,396	17,347
Participation rate	63.1	63.9	63.7	64.0	64.1	64.3	64.5	64.8	64.5
Employed	14,664	15,276	15,409	14,894	15,365	15,457	15,449	15,540	15,651
Employment-population ratio ²	55.9	56.9	57.3	56.8	57.7	57.9	57.7	57.9	58.2
Unemployed	1,905	1,871	1,714	1,889	1,714	1,715	1,833	1,848	1,696
Unemployment rate	11.5	10.9	10.0	11.3	10.0	10.0	10.6	10.6	9.8
Not in labor force	9,674	9,582	9,754	9,460	9,562	9,525	9,496	9,444	9,530

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-11. Occupational status of the employed and unemployed, not seasonally adjusted

(Numbers in thousands)

Occupation	Civilian employed		Unemployed		Unemployment rate	
	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989
	Total, 18 years and over ¹	112,867	115,844	7,090	6,378	5.9
Managerial and professional specialty	26,828	30,520	473	561	1.8	1.8
Executive, administrative, and managerial	13,860	14,804	284	345	2.0	2.3
Professional specialty	15,068	15,717	189	217	1.2	1.4
Technical, sales, and administrative support	35,449	35,402	1,524	1,409	4.1	3.8
Technicians and related support	3,498	3,833	83	56	2.3	1.5
Sales occupations	13,575	13,882	726	643	5.1	4.5
Administrative support, including clerical	18,376	18,087	715	710	3.7	3.8
Service occupations	14,893	15,403	1,118	980	7.0	5.9
Private household	855	873	38	43	4.2	4.7
Protective service	1,855	1,933	75	61	3.9	3.1
Service, except private household and protective	12,183	12,597	1,005	865	7.8	6.4
Precision production, craft, and repair	13,307	13,573	970	883	6.8	6.1
Mechanics and repairers	4,511	4,587	188	191	4.0	4.0
Construction trades	4,758	4,843	546	498	10.3	9.3
Other precision production, craft, and repair	4,038	4,133	238	194	5.8	4.5
Operators, fabricators, and laborers	17,278	17,949	1,868	1,632	9.8	8.3
Machine operators, assemblers, and inspectors	7,996	8,428	708	655	8.1	7.2
Transportation and material moving occupations	4,673	4,768	440	354	8.6	6.8
Handlers, equipment cleaners, helpers, and laborers	4,610	4,754	742	622	13.9	11.8
Construction laborers	881	707	227	195	25.0	21.6
Other handlers, equipment cleaners, helpers, and laborers	3,929	4,046	515	428	11.6	9.8
Farming, forestry, and fishing	3,012	2,996	283	258	8.6	7.9

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			
							Number		Percent of labor force	
	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989	Mar. 1988	Mar. 1989
VIETNAM-ERA VETERANS										
Total, 30 years and over	7,885	7,915	7,271	7,213	6,896	6,934	375	279	5.2	3.9
30 to 44 years	6,009	5,827	5,722	5,332	5,391	5,107	331	225	5.8	4.2
30 to 34 years	786	548	723	501	643	484	80	17	11.1	3.4
35 to 39 years	2,292	1,873	2,179	1,771	2,043	1,875	136	96	8.2	5.4
40 to 44 years	2,951	3,208	2,820	3,000	2,705	2,948	115	112	4.1	3.7
45 years and over	1,878	2,288	1,549	1,881	1,505	1,827	44	54	2.8	2.9
NONVETERANS										
Total, 30 to 44 years	20,129	21,189	18,892	20,008	17,988	19,149	904	859	4.8	4.3
30 to 34 years	8,991	8,297	8,470	8,830	8,024	8,439	446	391	5.3	4.4
35 to 39 years	6,673	7,242	6,273	6,882	5,986	6,586	285	276	4.5	4.0
40 to 44 years	4,465	4,630	4,149	4,318	3,976	4,124	173	192	4.2	4.4

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 30 to 44 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 ¹					
	Mar. 1988	Feb. 1989	Mar. 1989	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989
California									
Civilian noninstitutional population	20,752	21,016	21,037	20,752	20,951	20,973	20,994	21,016	21,037
Civilian labor force	13,885	14,063	14,082	13,913	14,186	14,198	14,220	14,117	14,120
Employed	13,149	13,309	13,434	13,196	13,451	13,524	13,505	13,405	13,480
Unemployed	736	774	657	717	735	674	715	712	640
Unemployment rate	5.3	5.5	4.7	5.2	5.2	4.7	5.0	5.0	4.5
Florida									
Civilian noninstitutional population	9,620	9,960	9,881	9,620	9,798	9,819	9,839	9,860	9,881
Civilian labor force	6,052	6,013	6,181	6,073	6,144	6,085	6,155	6,096	6,179
Employed	5,765	5,702	5,871	5,778	5,823	5,755	5,793	5,782	5,880
Unemployed	287	312	290	297	321	330	362	324	299
Unemployment rate	4.7	5.2	4.7	4.9	5.2	5.4	5.9	5.3	4.8
Illinois									
Civilian noninstitutional population	8,731	8,708	8,702	8,731	8,716	8,712	8,709	8,706	8,702
Civilian labor force	5,652	5,903	5,894	5,738	5,844	5,817	5,837	5,976	5,983
Employed	5,214	5,543	5,531	5,325	5,433	5,429	5,491	5,683	5,648
Unemployed	439	359	363	411	411	388	346	313	335
Unemployment rate	7.8	6.1	6.2	7.2	7.0	6.7	5.9	5.2	5.6
Massachusetts									
Civilian noninstitutional population	4,594	4,598	4,598	4,594	4,598	4,598	4,598	4,598	4,598
Civilian labor force	3,185	3,162	3,156	3,173	3,153	3,150	3,186	3,205	3,180
Employed	3,052	3,038	3,028	3,078	3,032	3,043	3,063	3,094	3,051
Unemployed	114	124	128	95	121	107	103	111	109
Unemployment rate	3.6	3.9	4.1	3.0	3.8	3.4	3.3	3.5	3.4
Michigan									
Civilian noninstitutional population	6,999	7,075	7,081	6,999	7,057	7,063	7,069	7,075	7,081
Civilian labor force	4,483	4,612	4,568	4,516	4,652	4,648	4,687	4,688	4,620
Employed	4,077	4,300	4,243	4,145	4,310	4,308	4,384	4,382	4,316
Unemployed	398	312	324	367	342	342	323	286	304
Unemployment rate	8.6	6.8	7.1	8.1	7.4	7.4	6.9	6.1	6.6
New Jersey									
Civilian noninstitutional population	6,028	6,053	6,055	6,028	6,048	6,050	6,051	6,053	6,055
Civilian labor force	3,976	4,031	4,003	3,981	3,978	4,043	4,046	4,043	4,010
Employed	3,802	3,851	3,867	3,825	3,821	3,875	3,888	3,894	3,890
Unemployed	173	180	136	156	157	168	158	159	120
Unemployment rate	4.4	4.5	3.4	3.9	3.9	4.2	3.9	3.9	3.0
New York									
Civilian noninstitutional population	13,789	13,807	13,806	13,789	13,807	13,807	13,806	13,807	13,806
Civilian labor force	8,438	8,624	8,491	8,491	8,560	8,580	8,621	8,701	8,540
Employed	8,076	8,152	8,099	8,155	8,177	8,177	8,198	8,258	8,173
Unemployed	363	473	392	336	383	403	423	443	367
Unemployment rate	4.3	5.5	4.6	4.0	4.5	4.7	4.9	5.1	4.3
North Carolina									
Civilian noninstitutional population	4,881	4,975	4,983	4,881	4,951	4,959	4,967	4,975	4,983
Civilian labor force	3,276	3,381	3,379	3,310	3,388	3,371	3,435	3,390	3,415
Employed	3,147	3,255	3,269	3,188	3,286	3,254	3,302	3,283	3,311
Unemployed	130	125	110	124	120	117	133	107	104
Unemployment rate	4.0	3.7	3.2	3.7	3.5	3.5	3.9	3.2	3.0
Ohio									
Civilian noninstitutional population	8,221	8,292	8,298	8,221	8,278	8,281	8,286	8,292	8,298
Civilian labor force	5,316	5,390	5,375	5,369	5,386	5,355	5,426	5,432	5,426
Employed	4,898	5,063	5,068	4,974	5,059	5,060	5,094	5,152	5,144
Unemployed	418	317	307	395	307	295	332	280	284
Unemployment rate	7.9	5.9	5.7	7.4	5.7	5.5	6.1	5.2	5.2

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					
	Mar. 1966	Feb. 1969	Mar. 1969	Mar. 1966	Nov. 1966	Dec. 1966	Jan. 1969	Feb. 1969	Mar. 1969
Pennsylvania									
Civilian noninstitutional population	9,349	9,409	9,413	9,349	9,396	9,400	9,404	9,409	9,413
Civilian labor force	5,639	5,614	5,622	5,758	5,779	5,816	5,947	5,932	6,012
Employed	5,324	5,303	5,342	5,459	5,510	5,543	5,669	5,679	5,778
Unemployed	315	281	280	299	269	273	258	253	234
Unemployment rate	5.6	4.8	4.2	5.2	4.7	4.7	4.3	4.3	3.9
Texas									
Civilian noninstitutional population	12,014	11,994	11,991	12,014	12,003	12,000	11,997	11,994	11,991
Civilian labor force	8,139	8,150	8,180	8,254	8,308	8,284	8,303	8,254	8,283
Employed	7,467	7,556	7,642	7,805	7,725	7,693	7,713	7,703	7,786
Unemployed	672	594	518	649	583	591	590	551	496
Unemployment rate	8.3	7.3	6.3	7.9	7.0	7.1	7.1	6.7	6.0

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

identical numbers appear in the unadjusted and the seasonally adjusted columns.

² The population figures are not adjusted for seasonal variation; therefore,

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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				
	1988	1989	1988				1989
			I	II	III	IV	
TOTAL							
Total not in labor force	64,087	63,698	62,922	63,037	62,959	62,865	62,482
Do not want a job now	58,442	58,250	57,490	57,630	58,202	57,491	57,310
Current activity:							
Going to school	8,012	8,035	8,350	8,329	7,022	6,229	6,365
Ill, disabled	4,329	4,550	4,292	4,432	4,453	4,700	4,528
Keeping house	25,277	24,544	25,304	25,339	25,331	24,588	24,550
Retired	18,798	17,089	16,869	16,797	16,825	17,251	17,179
Other activity	4,027	4,032	4,875	4,863	4,571	4,693	4,888
Want a job now	5,645	5,448	5,484	5,318	5,276	5,418	5,313
Reason not looking:							
School attendance	1,518	1,485	1,327	1,266	1,387	1,412	1,279
Ill health, disability	800	859	849	832	794	750	910
Home responsibilities	1,176	1,158	1,193	1,209	1,128	1,145	1,177
Think cannot get a job	1,099	941	990	914	941	951	855
Job-market factors ¹	738	623	687	800	599	597	562
Personal factors ²	361	318	323	314	341	354	293
Other reasons ³	1,053	1,025	1,128	1,078	1,026	1,160	1,063
Men							
Total not in labor force	21,829	21,659	20,868	20,858	20,926	21,084	20,861
Do not want a job now	19,602	19,670	19,012	18,888	19,100	19,062	19,085
Want a job now	2,028	1,989	1,986	1,889	1,920	1,985	1,948
Reason not looking:							
School attendance	736	710	654	677	669	716	632
Ill health, disability	389	375	410	367	379	351	426
Home responsibilities	488	453	440	414	447	446	410
Think cannot get a job	433	451	462	431	425	473	484
Women							
Total not in labor force	42,458	42,039	42,056	42,180	42,035	41,781	41,621
Do not want a job now	38,840	38,580	38,478	38,742	39,103	38,428	38,225
Want a job now	3,618	3,459	3,518	3,429	3,356	3,433	3,387
Reason not looking:							
School attendance	782	756	673	609	718	697	646
Ill health, disability	431	484	439	468	415	398	491
Home responsibilities	1,176	1,158	1,193	1,209	1,128	1,145	1,177
Think cannot get a job	611	487	551	500	494	505	445
Other reasons ³	620	574	663	645	601	688	609
White							
Total not in labor force	54,470	53,985	53,517	53,493	53,447	53,325	52,980
Do not want a job now	50,394	50,118	49,547	49,651	49,728	49,381	49,280
Want a job now	4,077	3,867	4,012	3,888	3,691	3,854	3,844
Reason not looking:							
School attendance	1,050	977	954	917	908	911	885
Ill health, disability	604	664	640	639	556	511	704
Home responsibilities	837	779	848	848	806	828	793
Think cannot get a job	756	630	670	596	600	676	570
Other reasons ³	830	817	900	888	821	928	892
Black							
Total not in labor force	7,613	7,630	7,431	7,561	7,497	7,471	7,445
Do not want a job now	6,249	6,259	6,115	6,340	6,227	6,162	6,134
Want a job now	1,365	1,371	1,301	1,287	1,241	1,259	1,315
Reason not looking:							
School attendance	423	413	346	327	318	374	335
Ill health, disability	169	189	197	187	217	206	206
Home responsibilities	306	339	306	315	270	272	343
Think cannot get a job	283	254	264	276	290	210	253
Other reasons ³	184	177	185	162	147	197	178

¹ Job-market factors include "could not find job" and "thinks no job available."

² Personal factors include "employers think too young or old," "lacks

education or training," and "other personal handicap."

³ Includes small number of men not looking for work because of "home responsibilities."

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Table B-1. Employees on nonagricultural payrolls by industry
(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Mar. 1988	Jan. 1989	Feb. 1989 ^p	Mar. 1989 ^p	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989 ^p	Mar. 1989 ^p
Total.....	104,161	106,531	106,942	107,621	103,020	107,419	107,641	108,065	108,545	108,525
Total private.....	86,490	88,979	89,034	89,633	87,700	89,855	90,100	90,506	90,718	90,895
Goods-producing industries.....	24,812	25,422	25,317	25,448	25,350	25,849	25,849	26,048	26,014	25,988
Mining.....	723	712	706	713	733	722	719	718	717	722
Oil and gas extraction.....	414.7	404.4	400.4	403.8	419	406	402	400	402	407
Construction.....	4,767	5,055	4,950	5,040	5,192	5,413	5,430	5,537	5,515	5,466
General building contractors.....	1,290.6	1,351.3	1,316.1	1,317.7	1,383	1,406	1,414	1,444	1,435	1,411
Manufacturing.....	19,302	19,655	19,655	19,695	19,405	19,714	19,740	19,793	19,782	19,800
Production workers.....	13,165	13,596	13,402	13,453	13,251	13,465	13,481	13,518	13,511	13,545
Durable goods.....	11,377	11,625	11,611	11,636	11,411	11,637	11,631	11,686	11,667	11,679
Production workers.....	7,375	7,749	7,736	7,767	7,598	7,765	7,774	7,799	7,782	7,791
Lumber and wood products.....	736.9	749.4	743.4	745.7	755	767	771	775	768	766
Furniture and fixtures.....	334.4	362.1	363.0	363.7	334	361	360	360	362	364
Stone, clay, and glass products.....	571.0	571.9	568.9	576.9	585	590	592	593	593	591
Primary metal industries.....	774.4	796.5	795.7	797.3	772	796	794	802	804	794
Blast furnaces and basic steel products.....	280.5	280.9	280.7	280.4	281	282	280	281	281	281
Fabricated metal products.....	1,432.9	1,480.7	1,480.4	1,482.4	1,439	1,474	1,479	1,487	1,488	1,489
Machinery, except electrical.....	2,103.4	2,188.2	2,206.4	2,214.7	2,099	2,185	2,190	2,198	2,206	2,208
Electrical and electronic equipment.....	2,108.5	2,119.9	2,109.9	2,104.1	2,115	2,130	2,125	2,118	2,114	2,110
Transportation equipment.....	2,030.3	2,066.0	2,059.1	2,057.3	2,025	2,058	2,051	2,066	2,069	2,051
Motor vehicles and equipment.....	840.3	861.3	859.4	861.7	835	860	858	872	878	857
Instruments and related products.....	704.7	726.7	727.2	729.2	703	721	726	727	728	737
Miscellaneous manufacturing.....	379.9	377.1	380.4	384.3	342	383	385	386	387	387
Non-durable goods.....	7,925	8,030	8,042	8,099	7,994	8,077	8,089	8,107	8,123	8,130
Production workers.....	5,590	5,697	5,666	5,686	5,653	5,700	5,705	5,719	5,729	5,732
Food and kindred products.....	1,589.4	1,612.9	1,604.7	1,603.4	1,647	1,661	1,656	1,663	1,659	1,662
Tobacco manufactures.....	52.1	54.4	52.9	51.2	54	53	53	52	53	53
Textile mill products.....	728.6	722.9	722.8	725.4	729	733	722	727	725	724
Apparel and other textile products.....	1,104.4	1,089.3	1,100.9	1,102.9	1,106	1,093	1,096	1,097	1,102	1,107
Paper and allied products.....	683.8	688.2	687.1	687.6	687	691	692	692	691	691
Printing and publishing.....	1,548.4	1,556.4	1,597.6	1,603.5	1,548	1,583	1,592	1,598	1,599	1,604
Chemicals and allied products.....	1,050.2	1,074.0	1,076.4	1,079.4	1,052	1,075	1,076	1,080	1,082	1,082
Petroleum and coal products.....	161.9	163.3	163.5	164.7	164	169	168	168	167	167
Rubber and misc. plastics products.....	861.0	885.7	891.8	894.9	868	887	890	887	892	894
Leather and leather products.....	145.3	143.2	144.3	144.9	147	144	144	145	146	146
Service-producing industries.....	79,349	81,109	81,625	82,173	76,690	81,570	81,752	82,017	82,331	82,537
Transportation and public utilities.....	5,473	5,629	5,636	5,638	5,530	5,638	5,670	5,692	5,706	5,697
Transportation.....	3,259	3,389	3,396	3,397	3,283	3,408	3,428	3,441	3,453	3,445
Communication and public utilities.....	2,234	2,240	2,240	2,241	2,245	2,231	2,248	2,251	2,251	2,252
Wholesale trade.....	6,016	6,283	6,304	6,336	6,061	6,275	6,301	6,332	6,360	6,385
Durable goods.....	3,373	3,777	3,793	3,822	3,391	3,758	3,776	3,796	3,816	3,835
Non-durable goods.....	2,643	2,506	2,511	2,514	2,670	2,517	2,522	2,536	2,544	2,550
Retail trade.....	18,612	19,263	19,085	19,259	19,650	19,401	19,429	19,356	19,415	19,461
General merchandise stores.....	2,436.0	2,626.6	2,487.9	2,493.4	2,343	2,533	2,344	2,363	2,370	2,403
Food stores.....	3,001.3	3,175.6	3,162.0	3,169.3	3,044	3,203	3,177	3,193	3,197	3,214
Automotive dealers and service stations.....	2,054.1	2,086.1	2,086.3	2,093.0	2,053	2,104	2,106	2,099	2,116	2,114
Eating and drinking places.....	6,142.5	6,168.7	6,213.5	6,338.0	6,319	6,400	6,449	6,466	6,493	6,514
Finance, insurance, and real estate.....	6,599	6,679	6,687	6,705	6,651	6,725	6,741	6,733	6,755	6,758
Finance.....	3,293	3,313	3,313	3,319	3,296	3,314	3,329	3,328	3,330	3,332
Insurance.....	2,538	2,696	2,100	2,101	2,062	2,092	2,111	2,096	2,102	2,105
Real estate.....	1,248	1,272	1,274	1,283	1,283	1,319	1,315	1,317	1,323	1,323
Services.....	24,978	25,701	26,005	26,270	25,078	25,947	26,070	26,145	26,266	26,376
Business services.....	9,345.4	9,499.0	9,520.9	9,555.1	9,403	9,563	9,603	9,583	9,622	9,617
Health services.....	7,081.6	7,478.1	7,522.7	7,582.4	7,088	7,414	7,464	7,494	7,545	7,559
Government.....	17,471	17,552	17,908	17,988	17,320	17,364	17,541	17,599	17,627	17,630
Federal.....	2,964	2,960	2,949	2,978	2,970	2,989	2,990	2,981	2,987	2,984
State.....	6,140	6,035	6,177	6,192	6,031	6,074	6,071	6,062	6,079	6,032
Local.....	18,367	18,557	18,762	18,818	18,319	18,301	18,400	18,515	18,561	18,564

p = preliminary.

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

Industry	Not seasonally adjusted				Seasonally adjusted					
	Mar. 1988	Jan. 1989	Feb. 1989 ^{2/}	Mar. 1989 ^{2/}	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989 ^{2/}	Mar. 1989 ^{2/}
	Total private.....	34.4	34.5	34.3	34.4	34.6	34.8	34.7	34.8	34.6
Mining.....	41.9	42.1	41.9	42.0	(2)	(2)	(2)	(2)	(2)	(2)
Construction.....	37.4	36.4	36.1	37.4	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	40.9	41.0	40.8	40.9	40.9	41.2	40.8	41.1	41.1	40.9
Overtime hours.....	3.6	3.8	3.8	3.8	3.7	3.9	3.9	3.9	3.9	3.9
Durable goods.....	41.6	41.7	41.5	41.7	41.5	41.9	41.5	41.8	41.7	41.6
Overtime hours.....	3.8	4.0	4.0	4.0	3.8	4.2	4.1	4.1	4.1	4.0
Lumber and wood products.....	39.9	39.6	39.0	39.7	40.1	40.3	40.3	40.3	39.5	39.9
Furniture and fixtures.....	39.0	39.3	39.3	39.9	39.3	39.4	39.2	40.1	39.9	40.2
Stone, clay, and glass products.....	42.0	41.5	41.1	42.0	42.3	42.6	42.4	42.6	42.1	42.2
Primary metal industries.....	43.4	43.7	43.4	43.6	43.3	43.7	43.4	43.6	43.3	43.5
Blast furnaces and basic steel products.....	43.7	44.0	43.7	44.0	43.7	44.0	43.7	44.0	43.7	44.1
Fabricated metal products.....	41.6	41.9	41.4	41.6	41.6	42.2	41.7	41.9	41.8	41.6
Machinery, except electrical.....	42.7	42.6	42.4	42.5	42.5	42.5	42.3	42.3	42.5	42.3
Electrical and electronic equipment.....	40.9	41.0	40.6	40.6	40.9	41.0	40.7	40.8	40.9	40.6
Transportation equipment.....	42.5	42.9	43.0	43.2	42.1	43.3	42.6	42.6	43.0	42.8
Motor vehicles and equipment.....	43.0	43.7	43.4	44.1	42.3	44.6	43.0	43.3	43.7	43.6
Instruments and related products.....	41.6	41.4	41.4	41.1	41.4	41.6	41.0	41.6	41.5	40.9
Miscellaneous manufacturing.....	39.2	39.2	39.2	39.3	39.2	39.2	38.9	39.4	39.6	39.3
Nondurable goods.....	40.0	40.0	39.8	39.9	40.1	40.2	39.9	40.1	40.2	40.0
Overtime hours.....	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7	3.7
Food and kindred products.....	39.6	40.0	39.6	39.8	40.1	40.6	40.3	40.1	40.3	40.3
Tobacco manufactures.....	39.3	38.0	37.8	36.4	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	41.0	40.7	40.5	40.8	41.2	41.0	40.5	40.9	40.7	41.0
Apparel and other textile products.....	37.0	36.7	36.9	36.8	37.0	37.0	36.6	37.0	37.2	36.8
Paper and allied products.....	42.9	43.2	43.9	43.8	43.2	43.1	43.1	43.1	43.5	43.1
Printing and publishing.....	38.2	37.7	37.7	38.0	38.1	37.8	37.7	38.0	38.0	38.0
Chemicals and allied products.....	42.5	42.4	42.3	42.2	(2)	(2)	(2)	(2)	(2)	(2)
Petroleum and coal products.....	43.7	43.8	44.1	43.6	41.7	41.7	41.2	41.7	41.7	41.6
Rubber and misc. plastics products.....	37.4	37.9	37.8	37.4	37.9	37.5	37.7	38.3	38.0	37.9
Leather and leather products.....	37.4	37.9	37.8	37.4	37.9	37.5	37.7	38.3	38.0	37.9
Transportation and public utilities.....	38.6	39.3	38.9	39.0	38.8	39.2	39.4	39.7	39.1	39.2
Wholesale trade.....	37.9	37.9	37.7	37.8	38.1	38.0	38.0	38.1	38.0	38.0
Retail trade.....	28.6	28.4	28.3	28.4	29.0	29.0	29.2	29.1	28.9	28.8
Finance, insurance, and real estate.....	35.8	36.1	35.8	35.8	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.3	32.6	32.4	32.3	32.4	32.6	32.6	32.8	32.5	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 nonagricultural 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.

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Table B-5. Average hourly and weekly earnings of production or nonsupervisory workers/ on private nonsgricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	Mar. 1988	Jan. 1989	Feb. 1989 ^{1/}	Mar. 1989 ^{2/}	Mar. 1988	Jan. 1989	Feb. 1989 ^{1/}	Mar. 1989 ^{2/}
	Total private.....	89.18	89.54	89.54	89.56	8315.79	8329.15	8327.22
Seasonally adjusted.....	9.16	9.49	9.50	9.54	316.94	330.25	328.70	330.08
Mining.....	12.59	13.14	13.18	13.10	527.52	553.19	552.24	558.20
Construction.....	12.87	13.22	13.17	13.26	481.34	481.21	475.44	495.92
Manufacturing.....	10.07	10.37	10.37	10.40	411.86	425.17	425.10	425.36
Durable goods.....	10.59	10.89	10.90	10.93	448.54	454.11	452.35	455.78
Lumber and wood products.....	8.45	8.70	8.67	8.72	337.16	344.52	338.13	346.18
Furniture and fixtures.....	7.74	8.08	8.06	8.09	302.44	317.34	316.70	322.79
Stone, clay, and glass products.....	10.36	10.60	10.63	10.63	435.12	439.90	436.49	446.46
Primary metal industries.....	12.07	12.28	12.28	12.28	523.84	536.64	532.95	535.41
Blat furnaces and basic steel products.....	13.89	14.04	14.13	14.18	606.99	617.76	617.48	623.92
Fabricated metal products.....	10.14	10.44	10.44	10.44	421.82	437.44	435.26	436.50
Machinery, except electrical.....	10.84	11.16	11.18	11.21	462.87	475.42	474.03	476.43
Electrical and electronic equipment.....	10.04	10.27	10.25	10.30	410.64	421.07	416.15	418.18
Transportation equipment.....	13.89	14.04	14.13	14.18	561.00	586.30	585.66	590.98
Motor vehicles and equipment.....	13.93	14.27	14.25	14.30	598.99	623.60	624.15	635.49
Instruments and related products.....	9.88	10.09	10.11	10.17	411.01	419.74	418.35	417.99
Miscellaneous manufacturing.....	7.91	8.19	8.20	8.18	310.07	321.05	321.44	321.47
Non-durable goods.....	9.33	9.61	9.62	9.65	373.20	384.40	382.88	383.04
Food and kindred products.....	9.07	9.28	9.28	9.31	359.17	371.20	367.49	370.54
Tobacco manufactures.....	14.82	14.28	14.62	15.22	566.71	542.64	552.44	554.01
Textile mill products.....	7.31	7.60	7.60	7.60	299.71	309.32	307.80	310.08
Apparel and other textile products.....	6.03	6.29	6.28	6.31	223.11	230.84	231.73	232.21
Paper and allied products.....	11.52	11.77	11.80	11.85	494.21	508.66	506.22	506.32
Printing and publishing.....	10.45	10.75	10.75	10.81	399.19	404.32	405.28	410.76
Chemicals and allied products.....	12.53	12.86	12.89	12.93	532.53	545.26	545.25	545.63
Petroleum and coal products.....	14.98	15.31	15.35	15.62	654.63	665.99	665.76	681.03
Rubber and misc. plastics products.....	9.00	9.28	9.26	9.28	373.30	387.00	386.29	386.05
Leather and leather products.....	6.23	6.49	6.51	6.53	233.00	245.97	246.08	244.22
Transportation and public utilities.....	12.19	12.47	12.50	12.48	470.53	490.07	486.25	486.72
Wholesale trade.....	9.78	10.21	10.21	10.21	370.66	386.96	384.92	385.94
Retail trade.....	6.24	6.47	6.46	6.46	178.46	183.75	182.82	183.46
Finance, insurance, and real estate.....	8.97	9.46	9.46	9.47	321.13	341.51	338.67	339.03
Services.....	8.80	9.24	9.25	9.27	284.24	301.22	299.70	299.42

1/ See footnote 1, table B-2.

p = preliminary.

Table B-4. Average hourly earnings of production or nonsupervisory workers/ on private nonsgricultural payrolls by industry, seasonally adjusted

Industry	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989 ^{1/}	Mar. 1989 ^{2/}	Percent change from Feb. 1989-Mar. 1989
Total private ^{3/}	89.16	89.42	89.45	89.49	89.50	89.54	0.4
Current dollars.....	4.85	4.82	4.82	4.81	4.80	N.A.	(4)
Constant (1977) dollars ^{4/}	12.90	13.01	13.09	13.14	13.18	13.29	.8
Construction.....	10.05	10.29	10.31	10.32	10.33	10.38	.4
Manufacturing.....	9.61	9.83	9.84	9.86	9.87	9.91	.4
Excluding overtime ^{5/}	12.21	12.37	12.36	12.46	12.43	12.51	.5
Transportation and public utilities.....	9.76	10.04	10.08	10.18	10.15	10.19	.4
Retail trade.....	6.22	6.42	6.42	6.43	6.43	6.46	.2
Finance, insurance, and real estate.....	8.90	9.26	9.37	9.41	9.34	9.39	.5
Services.....	8.75	9.04	9.09	9.14	9.16	9.21	.5

1/ See footnote 1, table B-2.

2/ Includes mining, not shown separately, because its seasonal component is too small to be separated out with sufficient precision.

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

4/ Change was -0.2 percent from January to February 1989, the latest month available.

5/ 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-5. Indexes of aggregate weekly hours of production or nonsupervisory workers/ on private nonagricultural payroll by industry (1977=100)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Mar. 1988	Jan. 1989	Feb. 1989 ^a	Mar. 1989 ^a	Mar. 1988	Nov. 1988	Dec. 1988	Jan. 1989	Feb. 1989 ^a	Mar. 1989 ^a
Total private.....	121.0	124.5	123.9	125.2	125.6	127.1	127.2	128.3	127.8	127.9
Goods-producing industries.....	98.6	100.6	99.5	101.2	101.6	104.5	103.5	104.4	104.2	104.2
Mining.....	81.1	80.1	79.0	79.9	83.2	80.9	81.2	80.4	81.2	82.2
Construction.....	124.3	127.6	123.3	130.0	139.1	147.5	144.6	146.3	145.4	145.6
Manufacturing.....	94.5	96.3	95.8	96.6	95.2	97.2	96.6	97.4	97.3	97.3
Durable goods.....	92.5	94.9	94.2	95.1	92.7	95.6	94.8	95.7	95.3	95.2
Lumber and wood products.....	99.4	100.4	97.8	100.2	105.1	104.7	105.2	104.8	102.8	103.8
Furniture and fixtures.....	111.6	114.7	114.3	116.5	112.3	114.5	113.9	116.2	116.2	117.6
Stone, clay, and glass products.....	84.4	83.6	82.1	85.3	87.5	88.9	88.9	89.5	88.2	88.5
Primary metal industries.....	67.4	70.2	69.6	70.1	66.9	70.0	69.6	69.8	69.3	69.5
Iron and steel mills and ferroalloy plants.....	56.1	58.7	54.2	56.8	54.1	56.8	54.1	56.8	54.4	54.6
Aluminum rolling mills.....	90.4	94.3	93.2	93.6	90.8	94.6	93.7	94.7	94.4	93.9
Fabricated metal products.....	91.2	95.4	95.5	96.4	90.4	94.3	94.3	95.1	93.7	95.4
Machinery, except electrical.....	101.8	105.1	101.2	101.2	101.9	103.7	102.3	102.2	102.0	101.4
Electrical and electronic equipment.....	98.4	100.7	100.6	101.4	96.8	100.8	98.7	99.9	99.8	99.7
Transportation equipment.....	87.1	90.9	90.6	92.0	84.8	92.6	89.0	91.0	90.1	89.6
Motor vehicles and equipment.....	105.9	109.4	109.1	108.9	105.2	109.0	108.5	109.6	109.3	108.5
Instruments and related products.....	83.5	82.0	83.2	84.4	84.5	83.4	83.6	83.3	84.0	83.4
Miscellaneous manufacturing.....	97.3	98.3	98.2	98.8	98.8	99.7	99.2	99.9	100.3	100.3
Non-durable goods.....	95.0	97.9	96.7	97.2	100.9	103.3	102.1	102.3	102.9	103.2
Food and kindred products.....	71.8	71.5	69.0	63.9	74.8	72.7	73.2	67.8	70.5	67.5
Textile mill products.....	81.1	79.7	79.4	80.0	81.7	80.2	79.1	80.6	80.0	80.6
Apparel and other textile products.....	85.5	83.9	83.4	85.9	85.7	84.9	84.2	85.4	86.2	85.8
Paper and allied products.....	100.1	100.9	99.9	100.1	101.3	101.3	101.3	101.1	101.1	101.3
Printing and publishing.....	136.2	137.4	137.3	139.2	136.0	137.2	137.5	138.7	138.7	139.4
Chemical and allied products.....	97.7	99.4	99.8	100.2	97.9	99.4	99.3	100.3	100.4	100.3
Petroleum and coal products.....	81.2	81.3	82.4	82.3	83.5	84.3	86.7	84.1	86.1	84.1
Rubber and misc. plastics products.....	122.0	126.3	126.5	127.4	121.8	126.0	125.1	126.2	126.9	127.2
Leather and leather products.....	55.7	55.7	56.2	55.8	56.9	55.1	55.6	57.0	58.2	57.3
Service-producing industries.....	133.3	137.8	137.3	138.6	135.8	139.6	140.4	141.3	140.8	141.0
Transportation and public utilities.....	109.4	114.8	113.8	114.2	111.2	115.2	116.2	117.4	116.0	116.0
Wholesale trade.....	121.7	127.3	127.1	128.1	123.6	127.7	128.1	129.1	129.3	129.9
Retail trade.....	119.9	123.2	121.4	123.1	124.8	126.7	127.8	128.2	127.7	127.8
Finance, insurance, and real estate.....	138.2	140.7	139.3	139.3	139.6	140.4	140.0	142.1	140.7	140.9
Services.....	156.1	161.3	162.4	163.9	157.2	163.2	164.1	165.6	164.9	165.1

/ See footnote 1, table B-2.

* = 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 nonagricultural services, 349 industries ^{1/}												
OVER 1-MONTH SPAN:												
1987	57.4	58.3	59.9	64.6	61.3	61.6	68.4	60.6	62.3	67.6	63.9	65.0
1988	69.3	64.6	64.8	63.8	58.9	64.6	62.3	56.2	54.0	62.5	68.9	61.7
1989	65.0	57.2	56.7									
OVER 3-MONTH SPAN:												
1987	61.3	62.2	67.3	68.9	69.3	69.8	71.9	72.5	72.1	73.4	74.5	68.2
1988	70.6	68.8	68.3	67.2	69.1	69.8	68.8	61.9	62.4	68.3	71.9	73.4
1989	68.3	64.2										
OVER 6-MONTH SPAN:												
1987	69.2	66.5	66.3	70.1	72.9	75.2	76.9	77.4	78.3	74.2	76.4	73.6
1988	72.2	71.5	70.8	74.2	72.2	69.1	68.8	74.5	71.1	72.3	73.4	72.8
1989												
OVER 12-MONTH SPAN:												
1987	68.1	70.3	71.1	74.1	74.6	77.2	77.4	77.8	79.1	78.7	77.8	88.5
1988	77.2	78.1	74.2	73.9	75.6	75.6	77.8	76.1	74.4			
1989												
Manufacturing services, 143 industries ^{1/}												
OVER 1-MONTH SPAN:												
1987	44.8	52.3	53.9	56.4	58.9	55.7	67.7	56.8	64.2	64.2	64.2	61.0
1988	58.2	55.7	55.7	48.4	57.4	61.3	68.3	44.0	46.8	61.7	68.1	57.4
1989	61.8	50.7	55.7									
OVER 3-MONTH SPAN:												
1987	50.7	50.7	58.5	63.8	63.5	68.4	69.3	73.8	70.2	74.1	74.5	67.0
1988	64.0	61.8	62.8	64.5	66.7	68.8	61.3	52.1	53.5	63.6	70.9	69.5
1989	61.7	64.2										
OVER 6-MONTH SPAN:												
1987	58.5	57.1	57.1	66.7	69.1	74.5	75.5	76.4	79.4	74.1	72.7	72.3
1988	68.4	67.0	68.0	70.9	68.0	63.8	62.1	68.8	66.0	66.0	66.8	72.3
1989												
OVER 12-MONTH SPAN:												
1987	59.6	63.3	64.5	68.8	73.8	73.8	75.2	75.9	75.9	75.9	75.2	79.1
1988	74.1	72.3	68.8	70.6	72.8	70.9	72.5	70.2	68.4			
1989												

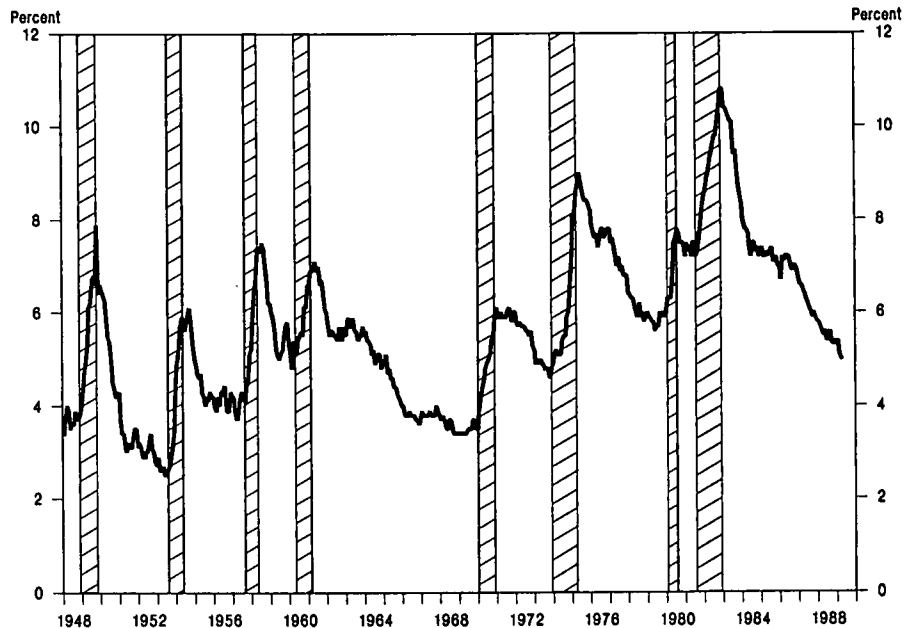
^{1/} Based on seasonally adjusted data for 1-, 3-, and 6-month spans and unadjusted data for the 12-month span. Data are centered within the span.
g = preliminary.

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. Thank you very much, Commissioner Norwood. Without objection, the charts you referred to will be made part of the hearing record at this point.

[The charts follow:]

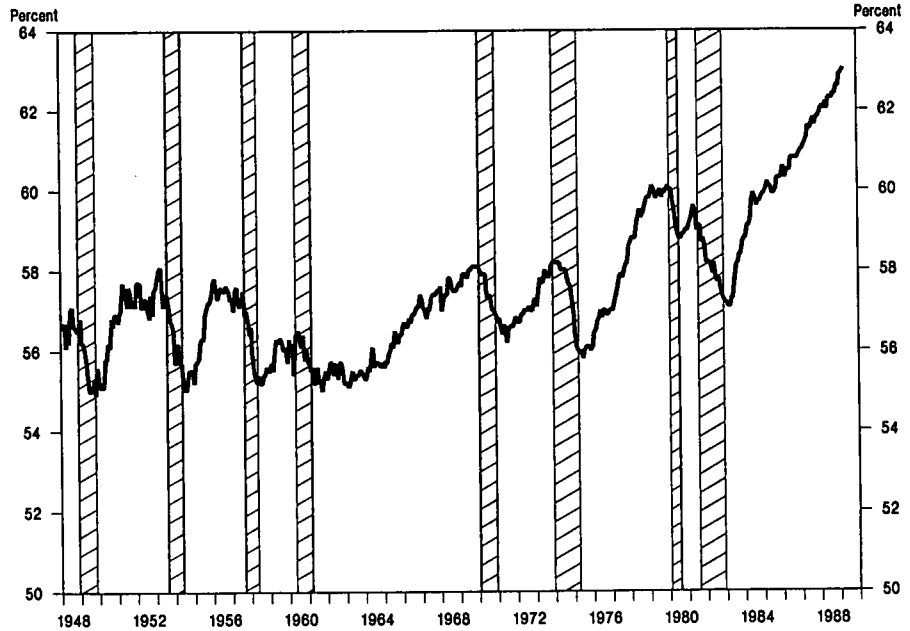
Chart 1. Unemployment rate of all civilian workers, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

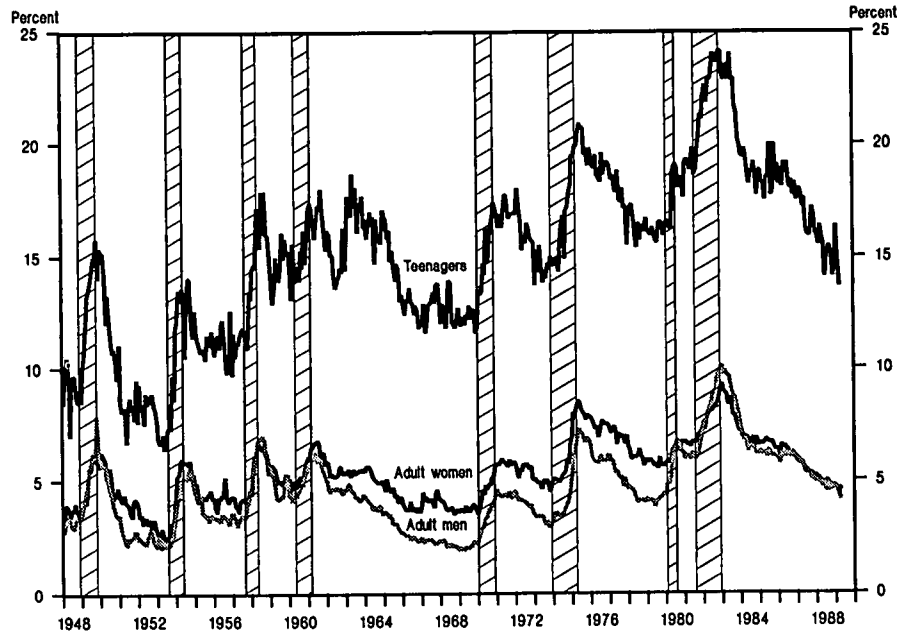
Chart 2. Civilian employment–population ratio, seasonally adjusted, 1948–89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

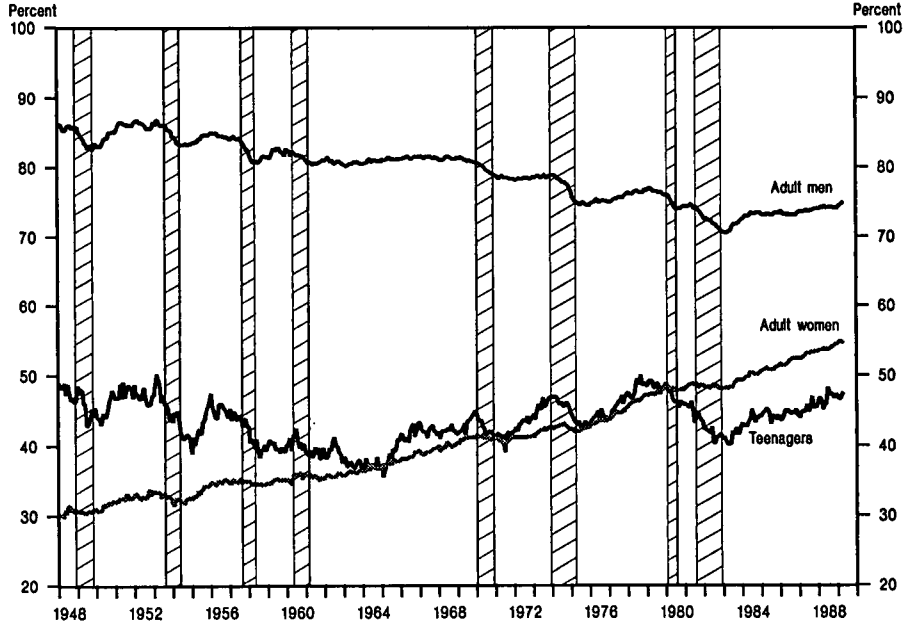
Chart 3. Unemployment rates for major age-sex groups, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

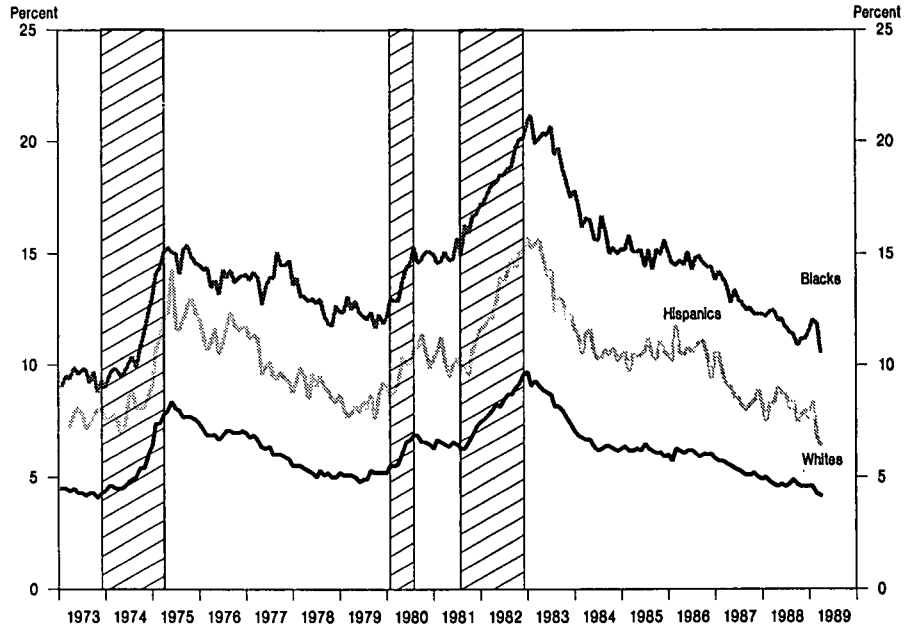
Chart 4. Civillan employment–population ratio for major age–sex groups, seasonally adjusted, 1948–89



Note: Shaded areas represent recessions

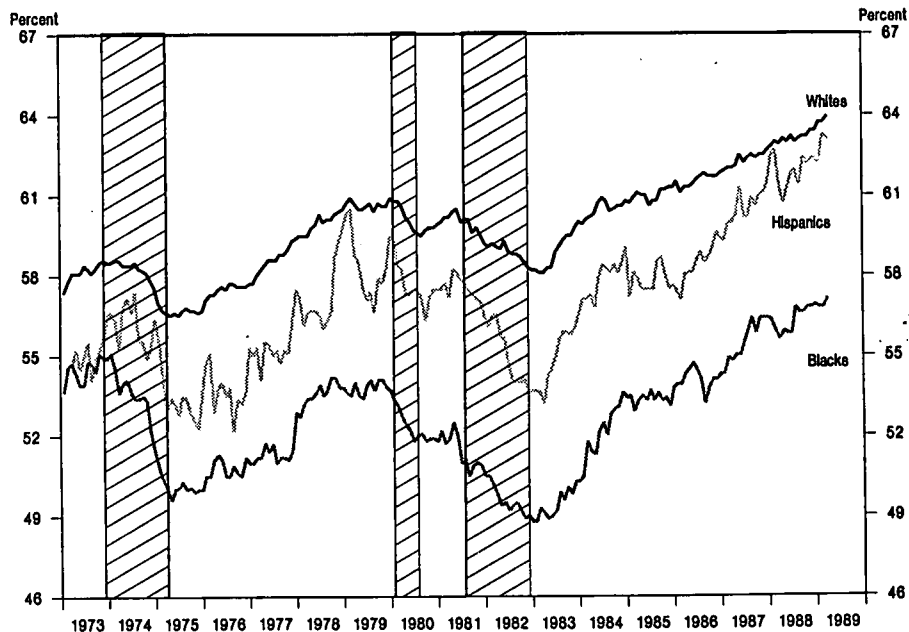
Source: Bureau of Labor Statistics, April 7, 1989

Chart 5. Unemployment rates for whites, blacks, and persons of Hispanic origin, seasonally adjusted, 1973-89



Note: Shaded areas represent recessions
Source: Bureau of Labor Statistics, April 7, 1989

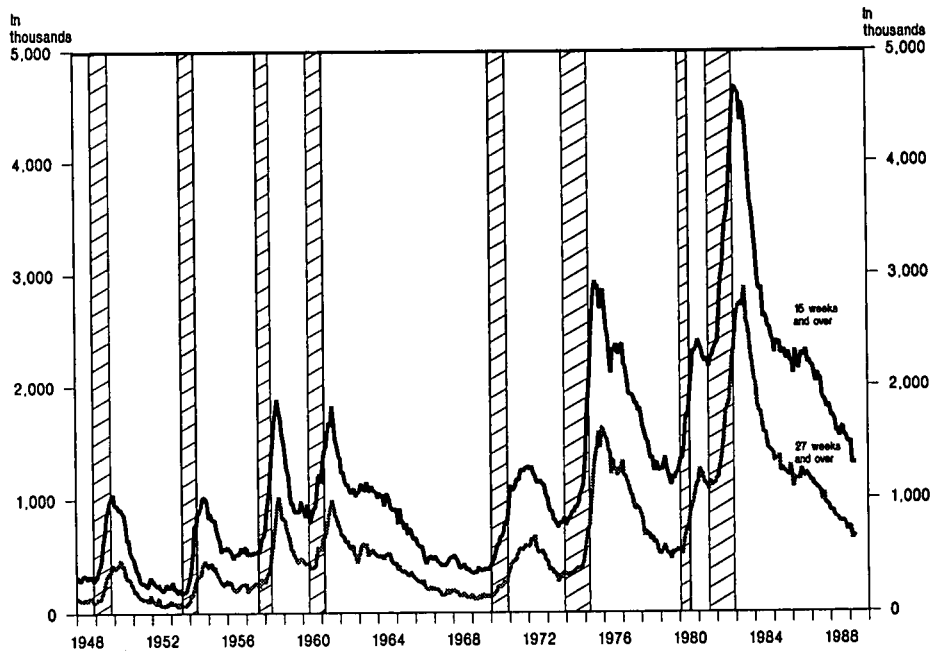
Chart 6. Civilian employment–population ratio for whites, blacks, and persons of Hispanic origin, seasonally adjusted, 1973–89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

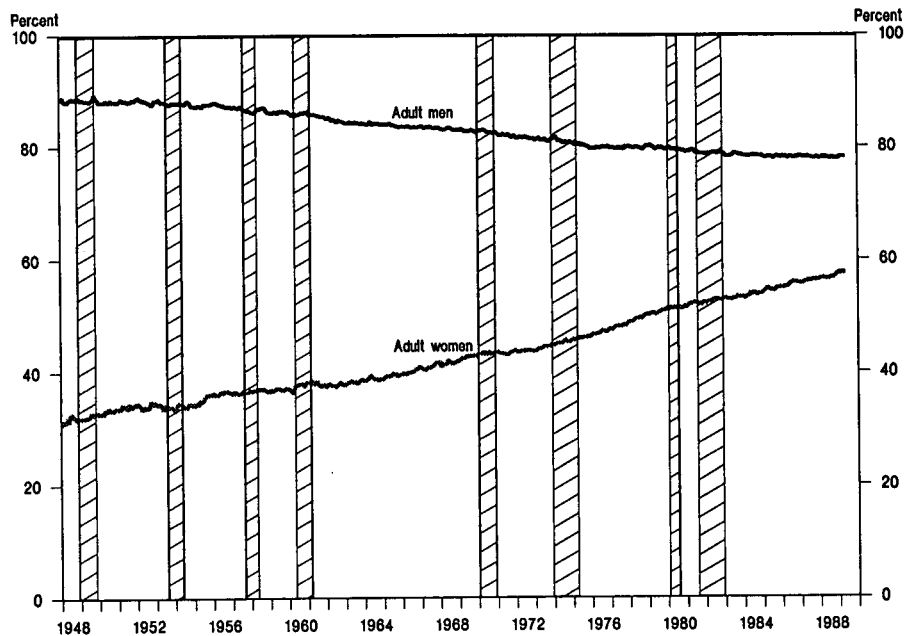
Chart 7. Long-term unemployment, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

Chart 8. Labor force participation rates for adult men and women, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, April 7, 1989

Representative HAMILTON. We thank you for your statement.

One of the things that strikes me in looking at these figures over the past few months is that we've had a steady drop in the growth of payroll employment, 425,000 in January, 280,000 in February, 180,000 in March.

But, while we are having the slowdown in employment growth, we've also had a reduction in the unemployment rate, and a fairly significant one, from 5.4 percent in January to 5 percent this morning.

So you have these two trends. Are they giving us conflicting evidence about the strength of the economy, or are they consistent?

Mrs. NORWOOD. I think that they are consistent. We are seeing, because of demographic changes, a somewhat slower labor force growth.

We've had over the last year, for example, about 2.3 million people entering the labor force. That's somewhat lower than what we had seen years before. And since January, we've had fairly moderate labor force growth. We had a whopping growth in January, and then a negative growth in February.

We have had more moderate growth each month in employment. So I don't see any inconsistency there.

Representative HAMILTON. If the employment growth continues to weaken, will that be translated into a rise in the unemployment rate in time?

Mrs. NORWOOD. It depends on how much it weakens, of course. If the employment is not sufficient to take up the change in labor force growth, obviously, it will have an effect on the unemployment rate.

Representative HAMILTON. How much employment growth does it take to keep the unemployment rate from rising?

Mr. Bregger.

Mr. BREGGER. You need to have an employment growth that would essentially equal the labor force growth.

Mrs. NORWOOD. About 150,000 perhaps?

Mr. BREGGER. 150,000 a month, something like that.

Representative HAMILTON. In any event, the downward trend in the growth of payroll employment is not evidence to you—or is it evidence—of the slowing of the economy?

Mrs. NORWOOD. There's clearly a slowing in employment growth. I don't think there's any doubt about that. Employment in manufacturing, which had been growing pretty fast for several months, has now slowed the last couple of months, February and March. Manufacturing has been really almost unchanged.

And I think that that is clearly a slowdown. Employment growth in services, however, is still continuing. Business services had been producing one in every eight new jobs during much of the expansion. That's no longer true.

But, health service is still chugging along and retail trade as well.

Representative HAMILTON. There's a significant drop in the number of discouraged workers in your statistics?

Mrs. NORWOOD. Yes.

Representative HAMILTON. Maybe you could comment on the significance of that. Is that a particularly large decline? Is it consistent with the improvement in unemployment this month?

Mrs. NORWOOD. The number of discouraged workers is still, as always really, more than we would like to see; 100,000 is not a very large decline. It's barely a statistically different change, if that.

Representative HAMILTON. How good are you at identifying the discouraged workers? How do you do that anyway?

Mrs. NORWOOD. We asked people a series of questions on discouragement and we aggregate the response over a period of 3 months. We ask those who are not working and not looking for a job, if they want a job.

Then we ask them a series of questions about why they are not looking for a job.

Discouragement is difficult to measure because discouragement is really a state of mind. It's not a fact. And it is really for that reason that the several review commissions that have looked at the unemployment data have agreed with us that discouragement should not be included in the official unemployment rate because it's what we in the data business call soft data.

Nevertheless, we do publish a U-7 measure that I mentioned which does include them on a quarterly basis. And, of course, discouragement goes way up during a recession and then comes down after a recession.

Representative HAMILTON. Are the discouraged workers concentrated in any part of the country?

Mrs. NORWOOD. They are certainly disproportionately black. They are disproportionately located in pockets where people have difficulty getting employment. Certainly, central cities would be quite well represented among discouraged workers.

Representative HAMILTON. Your charts on employment and unemployment changes by region show that the East North-Central Region, which includes my State of Indiana, experienced the strongest job growth during the past year, and the second largest decline in employment.

What's happening in those States to explain that kind of performance?

Mrs. NORWOOD. Those charts, by the way, are not in that package. That is related, I believe, to the changes in industry that are going on. Manufacturing certainly was doing a lot better and the particular industries that are affected in those areas—machinery, in particular, Jack Bregger tells me—had an important effect.

Representative HAMILTON. Let me just ask a question or two about inflation. Then I'll turn to Congressman Solarz.

The Producer Price Index rose by 1 percent for the second month in a row. The Consumer Price Index rose by only 0.4 percent. Which of these two more accurately measures inflation?

Mrs. NORWOOD. I think they measure different things. It's quite clear that some of the movement in the Producer Price Index brings some considerable cause for concern because what we can see in the PPI is the trend of inflation through various stages of processing.

The Consumer Price Index, and if you look I think at the third to the last chart in the package that I've given you, which has some

bright red and blue on it, that shows the Consumer Price Index over time and you can see there what I think is one of the most interesting issues.

If you look at the blue part, that's the period of price controls that were instituted during President Nixon's administration and you can see that we are now getting perhaps a little bit above that point, which shows I think an important change in inflationary expectations in this country.

In those days in the early seventies, we were used to the very low inflation of the sixties and we worried about that.

Representative HAMILTON. Inflation went up during the price controls.

Mrs. NORWOOD. That's another interesting point. It didn't work very well.

The following chart is one which attempts to look at a kind of underlying rate of inflation by taking out the things that we know are quite volatile, like energy, food, and shelter.

In some ways, it seems to me that what we're seeing is that if people don't eat and they don't have a house to live in and they don't drive a car, then we'll know what their inflation is.

On the other hand, what this really does is to look at the basic commodities and services that are not affected so much by things like interest rates and weather and the oil embargo.

And if you look at that green line, you can see that in toward the end of that chart, in 1989, it seems to be heading upward. Slight, but it's there. It's an upward trend.

Representative HAMILTON. I'm always amused by this Consumer Price Index less food, shelter, and energy. If you want to get yourself laughed out of a public meeting sometime, you cite that statistic to them. You'll be lucky to walk out of the meeting with all your limbs intact.

Mrs. NORWOOD. That's why we put the two charts together because we recognize that it's pretty silly. Nevertheless, it is useful for economic analysis to be able to take out things like food and oil, which we have very little control.

Representative HAMILTON. I understand the reason for it. But there's a bit of a humorous aspect to it as well.

Congressman Solarz.

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

Mrs. Norwood, I think that this committee is institutionally ill equipped to deal with such unrelenting optimism. Do you have any bad news for us? Are there any clouds on top of the silver lining?

Mrs. NORWOOD. I think there are some areas that quite clearly need to be focused on. I think there are areas where improvement is needed. If you look at these charts and if you look at chart No. 5, you will see the trend in unemployment rates for blacks, Hispanics, and whites. And although that top red line, which is the unemployment rate for the black population, has come down, it's still very high. The chart shows the gap between the whites and the blacks.

Another way of looking at that, by the way, is the next chart, No. 6, which shows the employment-population ratio. That chart shows that Hispanics are doing considerably better, in terms of the proportion of the population that is employed. But, the blacks are still quite low.

Representative SOLARZ. As I look at the chart that compares the unemployment rates for blacks, Hispanics, and whites, what strikes me most is the extent to which from 1973 through 1989 they seemed to more or less move in tandem.

In other words, when the unemployment rate goes up for one group, it goes up for the others. When it goes down for one, it more or less goes down for the others.

I think you would agree with that.

Mrs. NORWOOD. Yes.

Representative SOLARZ. I wonder if you could tell us why that should be the case. In other words, there appears to be a continuing differential in the unemployment relationship and ratio among these three groups at any given point, with blacks having the highest unemployment, then Hispanics and then whites.

And they seem to move up and down in tandem.

What are the main reasons?

Mrs. NORWOOD. First of all, I think one of the things that you can see from this chart is that if you go back to the very early seventies, the gap between those lines was somewhat narrower than it now is. It got very wide during the recession.

Generally speaking, the differences among the groups reflect the location of people, their education, their training, and perhaps some discrimination. Those are the things which affect these groups that generally have a very difficult time in the labor market.

Representative SOLARZ. Is it your feeling that of the several factors which contribute to this differential, that racism is the least significant? You happened to mention it last. I don't know whether that was because you accorded it a lesser significance, or was that just how it came out in relationship to education, location, and the other factors?

Mrs. NORWOOD. No, I would not consider it the least significant. Certainly, I think it is a very significant kind of problem. As you suggested, however, I read a book on the truly disadvantaged this past month. And I think there are some very real insights there into the problem.

As you will recall, the author makes a very definite point about the problem of the lack of jobs for black men in central cities. And I think that is a very serious problem and I think it shows up in some of these data.

Representative SOLARZ. Would you attribute the high-unemployment rate among blacks in central cities to racism or to other factors?

Mrs. NORWOOD. I really can't answer that question. There's certainly a lot of reasons for that. There's a lot of industry that has moved out of the central cities. And what you're getting in its place are services which require a considerable amount of education and training. And some of the black population in the central cities have not had the opportunity to get that kind of training.

Representative SOLARZ. He makes a distinction in the book, as you will recall, between historical discrimination and contemporary discrimination.

Do you by any chance have statistics on the unemployment rate in the inner cities as opposed to the national unemployment rate?

Mrs. NORWOOD. We have some central city data.

Representative SOLARZ. In that book on the truly disadvantaged, as you know, he focused in on high poverty areas with large percentages of the population on welfare and the like, demonstrating a variety of social pathologies in those neighborhoods.

I'm interested in getting the sense of the extent to which this decline in the national unemployment rate is reflected in the unemployment rate in these inner-city areas.

Are you using central city the way I'm using inner city? By inner city, I mean ghetto-type areas, impoverished with a high welfare population, high crime rates, and so on.

Mrs. NORWOOD. We have some. Jack tells me that we have some poverty area data. But, you know, the poverty areas were determined when, in 1980.

Representative SOLARZ. When you talk about central cities, are you talking about the east side of Manhattan or Brooklyn Heights in Brooklyn? Or are you talking about—

Mr. BREGGER. Cities as opposed to the metropolitan areas.

Representative SOLARZ. Could you break out whatever data you have on the poverty areas, to the extent you have definitions for them in terms of the unemployment rate there, compared to the national unemployment rate?

Mr. BREGGER. We could do that but we have them only in the aggregate. We don't have them for individual cities.

Representative SOLARZ. Is it your impression that there has been a comparable and proportionate decline in the unemployment rate in poverty areas compared to the national unemployment rate?

Mrs. NORWOOD. There has been a clear decline in central city unemployment for the most part. There are some exceptions, but there has been a very real decline. There may be a lot of reasons for that, by the way. We may be missing some of those people in the census undercount.

Representative SOLARZ. I'm asking you to focus now on central cities and poverty.

Mrs. NORWOOD. I'm not sure. We will try. We'll take a look at what we have. I'm not sure we can get down to that level of aggregation.

The other problem is that, insofar as our data are determined, they're defined by the census of 1980, so that many of these areas that are in poverty now may not have been there then.

Representative SOLARZ. Do the best you can.

Mrs. NORWOOD. We'll try.

Representative SOLARZ. Do you have any figures on income distribution?

Mrs. NORWOOD. Those are developed by the Census Bureau, but I'm familiar with some of them.

Representative SOLARZ. I saw some indication the other day that the United States has the worst income distribution of any of the major industrialized countries in the world.

Is that true?

Mrs. NORWOOD. Our tax system is very different, and our fringe benefit system is also very different, since many of those countries have public kinds of child support and child care and family allowance systems.

It's a little hard to account for that. It is true certainly that there is a wide disparity of income in this country.

Representative SOLARZ. Could you provide the comparative income distribution data of the OECD countries?

Mrs. NORWOOD. We certainly can try to get that.

Representative SOLARZ. Together with such explanations as you think may be necessary to illuminate the data.

But I'm interested in getting some sense of whether it is, in fact, true that fewer people have a greater share of the national income in our country than in the other industrialized democracies.

And if so, how much greater this maldistribution of income is.

Mrs. NORWOOD. We will certainly look into that. I do want to point out to you, however, that these kinds of comparisons are rather difficult because of the fact that you have, for example, in the United Kingdom, you have universal health insurance. In this country, you don't.

I'm not quite sure where you put those expenditures. It's things like that that worry me.

Representative SOLARZ. Well, do your best and then we'll evaluate your work.

Mrs. NORWOOD. We'll try.

Representative SOLARZ. You have chart No. 7, long-term unemployment versus short-term unemployment. These two also seem to move more or less in tandem. When the one goes up, the other goes up. When one goes down, the other goes down.

Mrs. NORWOOD. But, as you can see, it's really still quite high by historical standards.

Representative SOLARZ. My question is, does the fact that they seem to move in tandem indicate that the cures for unemployment, whether it's short term or long term, tend to be more or less the same, and that differential approaches to the two different problems may perhaps not make that much sense?

They both seem to respond to macroeconomic forces more or less in the same way.

Mrs. NORWOOD. It's probably more that the macroeconomic forces which provide for the overall well-being of the economy are not able to get at some of these people over whatever the period of the expansion, because these are the people who have great difficulty in finding jobs.

They are not a tremendous number in terms of millions, but they are a significant number and they have a problem. And taking care of that issue really requires much more targeting. It cannot be done with macroeconomic policy.

I think that's what that chart says.

Representative SOLARZ. Do we have programs that deal specifically with the problems of long-term unemployment?

Mrs. NORWOOD. As you know, I am not an expert on program policy, but I am aware of a number of programs in the Department of Labor under the Job Training Partnership Act for training and for having the various groups in local areas trying to develop the kinds of training programs that are needed to get more people.

Representative SOLARZ. Do they seem to work?

Mrs. NORWOOD. In some places, they do.

Representative SOLARZ. Could you give us the comparative unemployment rate for Japan, the Federal Republic of Germany, the United Kingdom, France, and Canada in relationship to our own?

Mrs. NORWOOD. Yes. For the month of February, the Canadians and the French, the Germans and the United Kingdom were well above our rate. Canada had 7.6, France had 10.1, Germany 6.4, and the United Kingdom 6.9.

The Scandinavian countries, like Sweden, have very low unemployment rates. They have a very different kind of economic system and Japan is also lower, about 2.4 percent. Although there are some definitional differences among these, they've been adjusted to be as comparable as possible. But there are still some differences, particularly in the retirement of people in Japan and discouragement.

Representative SOLARZ. How do you compare the kind of statistics which your Bureau provides to the comparable kinds of statistics provided by your bureaucratic counterparts in the other industrialized countries?

I assume each nation must have some organization more or less like yours. How do we do compared to that? Do they provide data that we don't, any of them?

Mrs. NORWOOD. We do rather well. I think our data are generally of quite high quality. There are some countries, like Canada, Japan, which have, I believe, a very significant and high-quality statistical system. The Japanese have more data than we have for small kinds of things. They have more family budget information than we do on a regular basis, some larger samples.

But, on the other hand, they don't have as much coverage of the employment for very small establishments and for the contracting out that they do. At least, not integrated into the system as well.

The British have been changing their system quite consistently and like the British, many of the countries of Europe tend to use unemployment insurance and people who come to the labor exchanges as a method for measuring unemployment.

That eliminates a lot of people. And depending upon the way in which those data are tabulated, there are other kinds of problems. I have been chairing for about 10 years a working party of the OECD to try to bring together all of these countries to try to encourage the development of labor force surveys and comparative data.

And I think we've made a lot of progress.

Representative SOLARZ. What is your assessment of the inflationary situation in the country right now? And the prospects for a significant increase in inflation in the months ahead?

Mrs. NORWOOD. Well, as I discussed with the chairman, if you look at those two charts on prices, and perhaps if you look at the one behind it, the last chart—

Representative SOLARZ. Where is this?

Mrs. NORWOOD. If you look at the last chart right now, which is on your employment cost index, what you see is that blue dotted line, which is the cost of employee benefits to the employers. The employer cost for fringe benefits has gone up quite a bit. That was because of the Social Security increase, the employer cost of Social Security and health insurance, which is an increasing cost to em-

ployers, which is going to have some upward pressure certainly on prices.

The red line, which is wages and salaries, is going up but very, very slightly. Those are the basic data underlying all the discussion in the press these days about wage push.

There is clearly some increase in employer costs. There is some increase going on in wages and salaries. But it's really very little. The big push has been in fringe benefits.

Then, if you look at the preceding chart or perhaps two preceding ones, the ones with the little red and blue on it, you can see that the Consumer Price Index, while not way up where it was in the oil crises, nevertheless, has been trending upward a bit. It certainly bears watching, there's no doubt about it.

Representative SOLARZ. What impact do you think the increase in interest rates is likely to have on the employment situation?

Mrs. NORWOOD. I think we're already seeing some effects of that in the curtailment of employment in construction, in residential housing.

How much more of an effect, I don't know. It depends really on whether interest rates turn around. There is a lot of speculation about when that will occur.

I've always believed that anybody who could forecast interest rates really could make millions. It's very difficult to do.

Representative SOLARZ. If we annualized the increases in the cost of living for the last 2 months, the Consumer Price Index, what would the annual inflation rate be?

Mrs. NORWOOD. I don't know if we have 2 months' annual rate with us, but we have the 3 months' annual rate.

Mr. DALTON. The January and February numbers were 0.6 and 0.4 percent. That could come out to around seven.

Mrs. NORWOOD. Something like that.

Representative SOLARZ. We don't have March?

Mrs. NORWOOD. No. March will be out about the 20th or 21st of April.

Representative SOLARZ. Thank you very much, Mrs. Norwood.

Representative HAMILTON. I noted the article in the Wall Street Journal this past week about Mr. Boskin's interest in a special initiative to improve the quality of government economic statistics.

I think you had a meeting, did you not, with him? What can you tell us about that? What was the result of that?

Mrs. NORWOOD. I think that Mr. Boskin is concerned that, in the larger discussion of the budget, the statistical system not be forgotten. And he has had discussions with the President and with others in the system, certainly with Secretary Dole and Secretary Mosbacher, alerting them, sensitizing them to the fact that we have to be very careful about seeing to it that we have certainly efficiency, but also that we have quality of statistics.

Representative HAMILTON. Does this represent a concern on his part that there's been a decline in the quality of the statistics?

Mrs. NORWOOD. I think it represents more his reading of his role as Chairman of the Council of Economic Advisers. The law, the basic underlying law, suggests that one of his responsibilities is to pay some attention to statistics. I think it also represents his visit with your committee in which concerns were expressed.

There is also a concern generally about the fast changes that are going on in the economy. And the fact that it is difficult for the statistical system to adjust to those changes.

As you know, we have a very well-developed set of data in almost every area of commodities.

Representative HAMILTON. So this special initiative he's calling for does not arise from a concern as a professional economist that there has been a decline in the quality of the statistics?

Mrs. NORWOOD. I'm sure he is aware of that. He's had meetings with professional association representatives. I've been present at some of those meetings.

Representative HAMILTON. Is there such a feeling among the professional economists in the country that the quality of the data is slipping?

Mrs. NORWOOD. There is concern about that.

Representative HAMILTON. Now, can we make these improvements without spending a lot more money?

Mrs. NORWOOD. That's always difficult. It's hard to say. We have, for example, in the budget before the Congress a request for funds to begin the redesign of all the household surveys in the Government. It's essential that that work be begun because otherwise the data we're reporting to you will be out of date. That's a budget issue.

And depending on how the Congress deals with that, if, for example, there should be some across-the-board cut, then that gets cut as well as anything else.

Representative HAMILTON. What is your view with regard to circular A-130 and the reported plan by OMB to amend that circular to require OMB approval of statistical publications?

Mrs. NORWOOD. My view of that is a very strong one, that that was unfortunate and I am pleased to report to you that we have had some discussions with OMB and that they are revising that circular.

Representative HAMILTON. They're backing off. Is that it?

Mrs. NORWOOD. They're revising their position.

Representative HAMILTON. Well, they may revise it and make it tougher.

Mrs. NORWOOD. I do not believe they will.

Representative HAMILTON. So they're backing off. All right? [Laughter.]

Mrs. NORWOOD. Yes.

Representative HAMILTON. I'll use the phrase if you don't want to.

Now, the Paperwork Reduction Act is up for renewal this year. Do you have any suggestion with respect to that? That affects you, I presume, in the Bureau of Labor Statistics.

What ought we to do about that?

Mrs. NORWOOD. I do have some strong feelings about that. I think it is a great mistake to consider the burden on respondents for statistics in the same pool with the regulatory and other burdens that are placed upon them. And that's the tradeoff that that act now makes.

I object to that. We, for example, have the smallest burden in the Department of Labor, which is rather interesting.

Representative HAMILTON. The smallest what?

Mrs. NORWOOD. Burden on reporting.

Representative HAMILTON. I'm going to start applying the Paperwork Reduction Act to the JEC staff.

We've revised the Index of Leading Indicators and two of the components were dropped. What's the significance of all of that? Why were they dropped? Both of the ones that were dropped, I guess, relate to, well, one is average weekly hours of production, average weekly initial time for unemployment. Why were they dropped?

Mrs. NORWOOD. For several reasons. First, it was time to revise the Index of Leading Indicators because it was not up to date with what has been going on in the economy. For those two series, it's quite clear that production workers now are a smaller portion of the change in the economy, since so much of the growth is in services. The unemployment insurance benefits, as you know, now cover really a very small portion of the total unemployed, because there are so many entrants and reentrants to the work force, and people who haven't worked long enough to have UI coverage.

So those situations have changed from the earlier period—I don't know, 20 years ago or so—when the leading indicators index was set up.

Representative HAMILTON. The two that were dropped, do they usually point to a recession before one starts?

Do they give you advanced warning that way?

Mrs. NORWOOD. I don't believe so.

Representative HAMILTON. So you think there's an overall improvement in the leading indicators by dropping those two components.

Mrs. NORWOOD. Yes. I think this was done with great care by a very responsible committee, chaired by Geoffrey Moore, who was one of the leading business cycle analysts in the country.

Representative HAMILTON. Let me ask you a question pertaining to my own State. The unemployment rate in Indiana fell from 6.5 percent in January 1988 to 5.1 percent. That's a pretty sharp decline in the State's unemployment record.

What causes that large decline in the last year?

Mrs. NORWOOD. If you look at all of the States, you will find that many of them are having that kind of change. If you just look at the ones that we reported today, the 11 largest ones, the only thing that I can say is that I think the general overall health of the economy is moving to be more widespread and, in particular, that some of the machinery industries and manufacturing industries in particular that are located there have been doing much better in recent months.

Representative HAMILTON. That's very good.

Thank you very much, Mrs. Norwood. The committee stands adjourned.

[Whereupon, at 10:20 a.m., the committee adjourned, subject to the call of the Chair.]

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, MAY 5, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 9:30 a.m., in room 2359, Rayburn House Office Building, Hon. Lee H. Hamilton (chairman of the committee) presiding.

Present: Representatives Hamilton and Snowe.

Also present: William Buechner and Chris Frenze, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE HAMILTON, CHAIRMAN

Representative HAMILTON. The Joint Economic Committee will come to order.

This morning the Joint Economic Committee resumes its monthly hearings on the employment and unemployment situation with an examination of the data for April 1989.

We are very pleased to welcome Janet Norwood, the Commissioner of Labor Statistics and her colleagues.

The employment and unemployment figures released this morning seem to confirm the impression from other recent data that the economy is beginning to cool down.

In April the unemployment rate rose 0.3 to 5.3 percent of the civilian labor force, and the number of people unemployed rose by 420,000. The unemployment rate rose for all labor market groups, except blacks, with an especially large 1.8 percent increase among Hispanics.

Payroll employment rose by only 117,000 in April, the weakest job growth in almost 3 years. All the job growth occurred in service producing industries, with both construction and manufacturing showing no job growth since the beginning of the year.

The main question raised by today's data is whether the long expansion of the 1980's has come to an end.

The committee will now turn to Commissioner Norwood and her colleagues for their analysis of the employment and unemployment situation for April.

You may begin.

**STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER,
BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, AC-
COMPANIED BY THOMAS J. PLEWES, ASSOCIATE COMMISSIONER,
OFFICE OF EMPLOYMENT AND UNEMPLOYMENT STATIS-
TICS; AND THOMAS R. TIBBETTS, ASSISTANT COMMISSIONER,
OFFICE OF INDUSTRIAL PRICES AND PRICE INDEXES**

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

I have with me Thomas Tibbetts, our price expert, and Thomas Plewes, our unemployment expert.

Representative HAMILTON. Glad to have you, gentlemen.

Mrs. NORWOOD. We are very pleased to have an opportunity to explain a bit further some of the developments reported in our release this morning.

The Nation's job market weakened in April, as the unemployment rate rose and employment growth continued to slow. After 2 months of improvement, the civilian unemployment rate increased 0.3 of a percentage point to 5.3 percent, matching the rate of late last year.

The overall rate, which takes into account the resident Armed Forces, also rose by 0.3 of a percentage point.

Payroll employment, as measured by the Bureau's survey of business establishments, changed very little, by about 115,000. March's gain was 170,000. In rather sharp contrast, the average monthly gain over the 12 months ended in February was about 300,000.

The number of unemployed workers, which had declined in the prior 2 months, increased by about 420,000 to 6.5 million. Increases in joblessness primarily affected men and were distributed across the entire age range. The rate for men between the ages of 25 and 54 rose by 0.4 of a percentage point to 4.4 percent. The rate for white workers rose to 4.6 percent, and the Hispanic worker rate rose to 8.3. The rate for blacks was unchanged at 10.8 percent.

Our business survey shows that employment growth began to slow in March. In April, the only real strength was in the services industry. That industry gained 100,000 jobs, about in line with the average monthly growth over the past year for that industry.

Wholesale trade, which consistently had added 25,000 to 30,000 jobs a month since late 1987, had a very small increase in April. Employment in retail trade, which had expanded rapidly in the first quarter, was essentially unchanged, and finance, insurance, and real estate showed weakness in both real estate and mortgage banking.

In the goods-producing sector, only mining showed strength. Employment in oil and gas extraction has risen by 10,000 over the last 3 months. Construction employment was flat in April, following 2 months with a total decline of about 60,000. In manufacturing, the number of jobs changed little for the third consecutive month. This contrasted sharply with the 4 months from October through January during which the number of factory jobs grew by a quarter of a million.

Machinery had paced the manufacturing gains in 1988 but has shown essentially no growth over the past 2 months. An employment slide in the electrical and electronic equipment industry has

gone on for 5 months, totaling about 25,000 jobs. Lumber and wood products has lost more than 15,000 jobs in 3 months.

And, while employment in automobile manufacturing ended a 2-month downturn, that industry did not add significantly to its payroll employment in April.

Two other items are worth mentioning.

The rise of 0.4 an hour in the length of the workweek probably resulted from the inability of the current seasonal adjustment process to deal adequately with the changing presence or absence of religious holidays in the April survey week. Such movements are almost always offset or corrected with the next month's data. We are working on improved methods for handling this problem.

The establishment survey also shows quite a large increase in average hourly earnings in April—0.7 of a percent. Growth in this measure seems to occur in fits and starts, and I would caution against any temptation to annualize this increase. Over the prior 2 months, for example, hourly earnings rose by only 0.3 of a percent.

Mr. Chairman, after so many appearances before this committee, I can anticipate that you will want to know if the April rise in unemployment and the unusually slow job growth associated with it point to an end to this long period of expansion.

Of course, you know that I always resist the temptation to speculate, but the question is a fair one. Let me try to put this month's data into some perspective.

First, the slowdown in employment in March and April is real. While we are not getting net job losses, we are creating far fewer jobs than we were even a few months ago, and a few industries are significantly expanding their employment. But some important industries had experienced unusually large employment increases earlier in the year.

It is important to note that employment growth can slow without heading sharply downward. Given the extraordinary buoyancy of the current expansion, some slowing of job growth is to be expected. In April, that slowdown was accompanied by a 400,000 increase in the labor force and the jobless rate went up.

We had two other occasions during this long expansion when the downward trend in the jobless rate was temporarily reversed by an increase of at least 0.3 of a percentage point.

So April's jobless rate movement, by itself, is not a definitive sign of change. The 2.3 million labor force increase over the past year was quite strong. Demographic data suggest, however, that the rate of labor force growth should be much slower in the future than it has been in the past.

This suggests that, even if employment continues to grow slowly, the unemployment rate need not necessarily rise. Thus, it is the magnitude, as well as the direction, of future changes that will determine the outcome.

In summary, the job market weakened in April, as payroll job growth continued to slow and the unemployment rate rose, returning to the level that prevailed during the last quarter of 1988.

Mr. Chairman, my colleagues and I will now be happy to try to answer any questions you may 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)
1988									
April.....	5.3	5.5	5.5	5.5	5.5	5.5	5.5	5.5	-
May.....	5.4	5.6	5.6	5.6	5.6	5.6	5.7	5.6	.1
June.....	5.5	5.4	5.4	5.4	5.3	5.4	5.4	5.3	.1
July.....	5.5	5.4	5.4	5.4	5.4	5.5	5.5	5.4	.1
August.....	5.4	5.6	5.6	5.5	5.5	5.6	5.6	5.6	.1
September...	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	-
October.....	5.0	5.3	5.3	5.3	5.3	5.3	5.4	5.3	.1
November....	5.2	5.4	5.4	5.3	5.4	5.3	5.4	5.4	.1
December....	5.0	5.3	5.3	5.4	5.3	5.3	5.4	5.4	.1
1989									
January.....	6.0	5.4	5.4	5.4	5.5	5.4	5.3	5.5	.2
February....	5.6	5.1	5.2	5.2	5.2	5.2	5.0	5.2	.2
March.....	5.2	5.0	5.0	5.0	5.0	5.0	4.8	5.0	.2
April.....	5.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	-

SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
May 1989

- (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 row column. 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) 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 Time Series Staff under the direction of Estela See Dagan. The method is described in the X-11 ARIMA Seasonal Adjustment Method, by Estela See Dagan, Statistics Canada Catalogue No. 11-564E, February 1980.

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

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8:30 A.M. (EDT), FRIDAY,
MAY 5, 1989

THE EMPLOYMENT SITUATION: APRIL 1989

Unemployment rose in April and payroll employment showed little growth, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The overall jobless rate was 5.2 percent and the civilian worker rate was 5.3 percent, each three-tenths of a point above March levels.

Nonagricultural payroll employment, as measured by the survey of business establishments, rose by 115,000 in April, the second straight month that the payroll survey has shown relatively small job gains. Total civilian employment, as measured by the survey of households, was about unchanged over the month.

Unemployment (Household Survey Data)

Both the number of unemployed persons and the civilian worker unemployment rate increased in April, after seasonal adjustment, offsetting much of the improvement that had occurred in February and March. The number of unemployed persons increased by 420,000 to a seasonally adjusted level of 6.5 million, and the civilian worker unemployment rate rose by 0.3 percentage point to 5.3 percent. The increase returned both figures to the levels that prevailed in the last quarter of 1988. (See table A-2.)

The unemployment rate for adult men rose four-tenths of a percentage point in April to 4.6 percent. The rate for whites also rose to 4.6 percent; the rate for Hispanics was up sharply over the month to 8.3 percent, reversing a decline of a similar magnitude in February. Jobless rates for adult women (4.7 percent), teenagers (14.4 percent), and blacks (10.8 percent) were little changed in April. (See tables A-2 and A-3.)

The median duration of unemployment, at 5.4 weeks, was unchanged from the previous month. The number of persons working part time for economic reasons--often referred to as the partially unemployed--edged up by 175,000 over the month to a seasonally adjusted level of 5.1 million. (See tables A-7 and A-4.)

Civilian Employment and the Labor Force (Household Survey Data)

Total civilian employment was unchanged in April, after seasonal adjustment, at 117.1 million, and the employment-population ratio--the proportion of the population that is employed--held steady at 63.0 percent, the record high reached in March. (See table A-2.)

The civilian labor force rose by 400,000 over the month to 123.7 million. The labor force participation rate rose to 66.5 percent, returning to the high reached in January. Over the year, the civilian labor force has grown by 2.3 million, three-fifths of which occurred among adult women. (See table A-2.)

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

Category	Quarterly averages		Monthly data			Mar.- Apr. change
	1988	1989	1989			
	IV	I	Feb.	Mar.	Apr.	
HOUSEHOLD DATA						
Thousands of persons						
Labor force <u>1/</u>	124,084	124,979	124,865	124,948	125,343	395
Total employment <u>1/</u> ..	117,539	118,588	118,537	118,820	118,797	-23
Civilian labor force...	122,388	123,291	123,181	123,264	123,659	395
Civilian employment...	115,843	116,900	116,853	117,136	117,113	-23
Unemployment.....	6,545	6,391	6,328	6,128	6,546	418
Not in labor force....	62,865	62,482	62,596	62,633	62,365	-268
Discouraged workers..	951	855	N.A.	N.A.	N.A.	N.A.
Percent of labor force						
Unemployment rates:						
All workers <u>1/</u>	5.3	5.1	5.1	4.9	5.2	0.3
All civilian workers:	5.3	5.2	5.1	5.0	5.3	.3
Adult men.....	4.7	4.5	4.5	4.2	4.6	.4
Adult women.....	4.7	4.6	4.5	4.6	4.7	.1
Teenagers.....	14.6	15.0	14.8	13.7	14.4	.7
White.....	4.6	4.4	4.3	4.2	4.6	.4
Black.....	11.3	11.6	11.9	10.9	10.8	-.1
Hispanic origin...	7.8	7.2	6.8	6.5	8.3	1.8
ESTABLISHMENT DATA						
Thousands of jobs						
Nonfarm employment....	107,344	p108,306	108,341	p108,512	p108,629	p117
Goods-producing.....	25,827	p26,015	26,011	p25,986	p25,991	p5
Service-producing...	81,517	p82,291	82,330	p82,526	p82,638	p112
Hours of work						
Average weekly hours:						
Total private.....	34.8	p34.7	34.6	p34.6	p35.0	p0.4
Manufacturing.....	41.1	p41.1	41.1	p41.0	p41.3	p.3
Overtime.....	3.9	p3.9	3.9	p3.9	p4.0	p.1

1/ Includes the resident Armed Forces.

N.A.=not available.

p=preliminary

Industry Payroll Employment (Establishment Survey Data)

Employment growth in nonagricultural establishments continued to slow, as payroll jobs increased by 115,000 in April to a seasonally adjusted level of 108.6 million. Payroll employment gains have averaged only 145,000 for the last 2 months, compared to 300,000 per month in the prior 12 months. In addition to being relatively weak, employment growth in April was very narrowly concentrated; the services industry alone accounted for 100,000 of the over-the-month gain.

The number of jobs in the goods-producing sector was unchanged in April, following 2 months of decline. Manufacturing employment was flat for the third consecutive month, in contrast to the October-to-January period when it added some 250,000 jobs. Employment in machinery, which has accounted for a quarter of manufacturing's growth in the last 2 years, has shown little change over the last 2 months. The number of jobs in electrical equipment has fallen by 25,000 in the last 5 months. The lumber and wood products industry has also declined recently, as employment was down by about 15,000 since January, largely a reflection of recent weakness in the construction industry.

Construction employment was unchanged in April, seasonally adjusted, following back-to-back declines in February and March. Employment in mining rose for the second consecutive month, as oil and gas extraction added 10,000 jobs in the last 3 months, following 7 months of job losses.

In the service-producing sector, the only significant employment growth took place in the services industry. Employment in that industry grew by 100,000 in April, even though health services was not as strong as usual (up 35,000) and business services, following an erratic pattern recently, was also weak (up about 15,000). Above-average growth was reported in several other services industries. After rising rapidly in the first quarter, employment in retail trade was unchanged over the month. Wholesale trade added 10,000 jobs in April, much less than its average pace of more than 25,000 per month since the end of 1987. Except for a slight decline in the real estate component, employment in the finance, insurance, and real estate industry was about unchanged.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls showed an increase of 0.4 hour in April, seasonally adjusted, to 35.0 hours. Similarly, the manufacturing workweek increased 0.3 hour to 41.3 hours, while manufacturing overtime edged up 0.1 hour to 4.0 hours. These seasonally adjusted gains in weekly hours are overstated, however, because of the way the seasonal adjustment process is affected by the timing of the Easter week; historically, large April movements in hours (both increases and decreases) have been reversed in May. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls, at 129.5 (1977=100), climbed 1.1 percent in April, after seasonal adjustment. The manufacturing index rose 0.6 percent to 97.7. These increases were also affected by the overstatement in hours discussed above. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Average hourly earnings of private production or nonsupervisory workers increased 0.7 percent in April, seasonally adjusted, following increases totaling only 0.3 percent over the prior 2 months. Average weekly earnings climbed by 1.9 percent, largely reflecting the movement in the hours series. Before seasonal adjustment, average hourly earnings rose by 5 cents to \$9.60, and average weekly earnings jumped \$5.56 to \$334.08. Over the past year, hourly earnings have risen by 4.0 percent and weekly earnings were up 4.3 percent. (See tables B-3 and B-4.)

Revisions in the Establishment Survey Data

The Employment Situation news release of data for May will introduce revisions in the establishment-based series on nonagricultural payroll employment, hours, and earnings to reflect the regular annual benchmark adjustments and updated seasonal adjustment factors.

The Employment Situation for May 1989 will be released on Friday, June 2, at 8:30 A.M. (EDT).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 55,800 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 nonagricultural 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 300,000 establishments employing over 38 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 nonagricultural 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. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

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 culminated 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, DC 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					
	Apr. 1968	Mar. 1969	Apr. 1969	Apr. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969
TOTAL									
Noninstitutional population ²	185,964	187,581	187,706	185,964	187,066	187,340	187,461	187,581	187,706
Labor force ³	121,996	123,907	124,260	123,080	124,259	125,124	124,865	124,946	125,343
Participation rate ⁴	65.6	66.1	66.2	66.2	66.4	66.8	66.6	66.6	66.8
Total employed ⁵	115,837	117,528	118,031	116,392	117,705	118,407	118,537	118,820	118,797
Employment-population ratio ⁶	62.2	62.7	62.9	62.9	62.9	63.2	63.2	63.3	63.3
Resident Armed Forces	1,732	1,684	1,684	1,732	1,696	1,690	1,694	1,694	1,694
Civilian employed	113,905	115,844	116,347	114,660	116,009	116,711	116,853	117,136	117,113
Agriculture	3,183	2,934	3,116	3,187	3,193	3,300	3,223	3,205	3,104
Nonagricultural industries	110,712	112,911	113,231	111,473	112,816	113,411	113,630	113,930	114,009
Unemployed	6,359	6,378	6,229	6,069	6,554	6,716	6,328	6,128	6,546
Unemployment rate ⁷	5.2	5.1	5.0	5.4	5.3	5.4	5.1	4.9	5.2
Not in labor force	63,968	63,674	63,446	62,904	62,639	62,216	62,596	62,633	62,366
Men, 16 years and over									
Noninstitutional population ²	89,225	90,032	90,094	89,225	89,782	89,914	89,973	90,032	90,094
Labor force ³	67,798	68,472	68,684	68,462	68,638	69,032	69,113	69,190	69,360
Participation rate ⁴	76.0	76.1	76.2	76.7	76.4	76.8	76.9	76.9	77.0
Total employed ⁵	64,288	64,875	65,185	64,666	65,055	65,322	65,572	65,820	65,787
Employment-population ratio ⁶	72.1	72.1	72.4	72.7	72.5	72.6	72.9	73.2	73.0
Resident Armed Forces	1,569	1,521	1,521	1,569	1,534	1,532	1,521	1,521	1,521
Civilian employed	62,719	63,354	63,664	63,297	63,521	63,790	64,051	64,309	64,246
Unemployed	3,510	3,597	3,499	3,598	3,583	3,710	3,540	3,270	3,583
Unemployment rate ⁷	5.2	5.3	5.1	5.3	5.2	5.4	5.1	4.7	5.2
Women, 16 years and over									
Noninstitutional population ²	96,739	97,550	97,612	96,739	97,306	97,427	97,488	97,550	97,612
Labor force ³	54,198	55,435	55,576	54,598	55,621	56,091	55,752	55,758	55,983
Participation rate ⁴	56.0	56.8	56.9	56.4	57.2	57.6	57.2	57.2	57.4
Total employed ⁵	51,349	52,654	52,846	51,328	52,650	53,065	52,965	52,900	53,029
Employment-population ratio ⁶	53.1	54.0	54.1	53.3	54.1	54.5	54.3	54.2	54.3
Resident Armed Forces	163	163	163	163	162	164	163	163	163
Civilian employed	51,186	52,491	52,683	51,363	52,488	52,921	52,802	52,737	52,866
Unemployed	2,849	2,781	2,730	3,072	2,971	3,006	2,787	2,858	2,953
Unemployment rate ⁷	5.3	5.0	4.9	5.6	5.3	5.4	5.0	5.1	5.3

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).

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					
	Apr. 1968	Mar. 1969	Apr. 1969	Apr. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969
TOTAL									
Civilian noninstitutional population	184,232	185,897	186,024	184,232	185,402	185,644	185,777	185,897	186,024
Civilian labor force	120,204	122,223	122,576	121,328	122,563	123,428	123,181	123,284	123,659
Participation rate	65.3	66.7	66.9	65.9	66.1	66.5	66.3	66.3	66.5
Employed	113,905	115,844	116,347	114,690	116,009	116,711	116,653	117,136	117,113
Employment-population ratio ²	61.8	62.3	62.5	62.6	62.6	62.9	62.9	63.0	63.0
Unemployed	6,359	6,378	6,229	6,666	6,554	6,716	6,328	6,128	6,546
Unemployment rate	5.3	5.2	5.1	5.5	5.3	5.4	5.1	5.0	5.3
Men, 20 years and over									
Civilian noninstitutional population	80,326	81,333	81,413	80,326	81,001	81,162	81,256	81,333	81,413
Civilian labor force	62,442	63,210	63,370	62,774	63,002	63,258	63,490	63,557	63,709
Participation rate	77.7	77.7	77.8	78.1	77.8	78.1	78.1	78.1	78.3
Employed	59,504	60,191	60,430	59,833	60,049	60,420	60,636	60,869	60,757
Employment-population ratio ²	74.1	74.0	74.2	74.5	74.1	74.4	74.6	74.8	74.8
Agriculture	2,280	2,188	2,277	2,259	2,292	2,277	2,320	2,317	2,252
Nonagricultural industries	57,224	58,025	58,154	57,574	57,757	58,143	58,316	58,552	58,505
Unemployed	2,938	3,019	2,940	2,941	2,963	2,938	2,863	2,688	2,952
Unemployment rate	4.7	4.8	4.8	4.7	4.7	4.8	4.5	4.2	4.8
Women, 20 years and over									
Civilian noninstitutional population	89,307	90,242	90,318	89,307	89,954	90,072	90,153	90,242	90,318
Civilian labor force	50,485	51,803	51,855	50,591	51,587	51,998	51,821	51,851	51,992
Participation rate	56.5	57.4	57.4	56.6	57.3	57.7	57.5	57.5	57.8
Employed	48,162	49,462	49,578	48,120	49,185	49,543	49,514	49,484	49,544
Employment-population ratio ²	53.9	54.8	54.9	53.9	54.7	55.0	54.9	54.8	54.9
Agriculture	637	594	600	653	646	715	666	684	615
Nonagricultural industries	47,525	48,868	48,978	47,467	48,519	48,827	48,849	48,819	48,929
Unemployed	2,303	2,341	2,277	2,471	2,422	2,455	2,306	2,367	2,448
Unemployment rate	4.8	4.5	4.4	4.9	4.7	4.7	4.5	4.8	4.7
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,598	14,323	14,293	14,598	14,447	14,410	14,367	14,323	14,293
Civilian labor force	7,357	7,210	7,350	7,983	7,974	8,071	7,871	7,856	7,958
Participation rate	50.4	50.3	51.4	54.5	55.2	56.0	54.9	54.9	55.7
Employed	6,239	6,182	6,338	6,707	6,795	6,748	6,703	6,783	6,812
Employment-population ratio ²	42.7	43.2	44.3	45.9	47.0	46.8	46.7	47.4	47.7
Agriculture	276	174	240	275	255	307	287	224	237
Nonagricultural industries	5,962	6,018	6,098	6,432	6,540	6,441	6,486	6,559	6,575
Unemployed	1,118	1,018	1,012	1,256	1,179	1,323	1,168	1,073	1,146
Unemployment rate	15.2	14.1	13.8	15.8	14.8	16.4	14.8	13.7	14.4

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.

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					
	Apr. 1968	Mar. 1969	Apr. 1969	Apr. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969
WHITE									
Civilian noninstitutional population	157,943	159,020	159,098	157,943	158,705	158,885	158,947	159,020	159,098
Civilian labor force	103,758	105,100	106,542	104,517	105,411	106,106	106,798	106,988	106,312
Participation rate	65.7	66.1	66.3	66.2	66.4	66.8	66.6	66.7	66.8
Employed	99,141	100,435	100,941	99,693	100,567	101,183	101,278	101,554	101,498
Employment-population ratio ²	62.8	63.2	63.4	63.4	63.4	63.7	63.7	63.9	63.8
Unemployed	4,617	4,664	4,601	4,824	4,844	4,923	4,522	4,434	4,814
Unemployment rate	4.5	4.4	4.4	4.6	4.6	4.6	4.3	4.2	4.6
Men, 20 years and over									
Civilian labor force	54,430	55,070	55,207	54,653	54,898	55,213	55,308	55,382	55,448
Participation rate	78.1	78.2	78.3	78.4	78.2	78.5	78.6	78.6	78.7
Employed	52,275	52,800	53,033	52,478	52,836	53,007	53,197	53,387	53,246
Employment-population ratio ²	75.0	75.0	75.2	75.3	75.0	75.4	75.8	75.8	75.5
Unemployed	2,155	2,270	2,173	2,175	2,282	2,205	2,111	1,995	2,202
Unemployment rate	4.0	4.1	3.9	4.0	4.1	4.0	3.8	3.6	4.0
Women, 20 years and over									
Civilian labor force	42,882	43,787	43,954	42,955	43,644	43,936	43,770	43,780	44,016
Participation rate	56.2	56.9	57.1	56.3	56.9	57.2	56.9	56.9	57.2
Employed	41,297	42,115	42,291	41,233	41,930	42,201	42,177	42,116	42,207
Employment-population ratio ²	54.1	54.7	54.8	54.0	54.8	54.9	54.8	54.7	54.8
Unemployed	1,586	1,652	1,663	1,722	1,714	1,734	1,593	1,665	1,810
Unemployment rate	3.7	3.8	3.8	4.0	3.9	3.9	3.6	3.8	4.1
Both sexes, 16 to 19 years									
Civilian labor force	6,445	6,262	6,382	6,909	6,868	6,958	6,720	6,626	6,548
Participation rate	54.2	53.9	55.0	58.1	58.6	59.6	57.7	56.7	56.0
Employed	5,690	5,520	5,617	5,952	6,001	5,975	5,904	6,052	6,005
Employment-population ratio ²	46.9	47.5	48.4	50.1	51.2	51.1	50.7	52.1	51.8
Unemployed	876	742	765	957	868	983	816	774	843
Unemployment rate	13.6	11.9	12.0	13.9	12.6	14.1	12.1	11.3	12.3
Men	14.1	13.8	12.7	14.4	13.4	16.4	14.0	12.3	13.1
Women	13.1	9.8	11.2	13.3	11.8	11.7	10.2	10.3	11.5
BLACK									
Civilian noninstitutional population	20,622	20,930	20,956	20,622	20,842	20,877	20,905	20,930	20,968
Civilian labor force	12,941	13,243	13,121	13,101	13,405	13,477	13,478	13,425	13,287
Participation rate	62.8	63.3	62.6	63.5	64.3	64.6	64.5	64.1	63.4
Employed	11,394	11,761	11,699	11,534	11,856	11,860	11,873	11,961	11,846
Employment-population ratio ²	55.3	56.2	55.8	55.9	56.9	56.8	56.8	57.1	56.5
Unemployed	1,547	1,483	1,422	1,567	1,549	1,617	1,603	1,464	1,442
Unemployment rate	12.0	11.2	10.8	12.0	11.6	12.0	11.9	10.9	10.8
Men, 20 years and over									
Civilian labor force	8,142	8,187	8,165	8,151	8,179	8,226	8,199	8,230	8,171
Participation rate	75.1	74.3	73.9	75.2	74.8	75.0	74.8	74.8	74.0
Employed	5,467	5,541	5,515	5,510	5,561	5,578	5,549	5,620	5,554
Employment-population ratio ²	66.8	66.8	66.1	67.3	67.1	67.2	66.7	67.5	66.6
Unemployed	675	646	650	641	618	650	650	611	617
Unemployment rate	11.0	10.4	10.5	10.4	10.0	10.4	10.5	9.8	10.0
Women, 20 years and over									
Civilian labor force	6,082	6,281	6,174	6,112	6,318	6,389	6,349	6,315	6,227
Participation rate	59.1	60.2	59.1	59.6	60.9	61.2	61.0	60.5	59.6
Employed	5,412	5,699	5,637	5,444	5,654	5,706	5,697	5,739	5,677
Employment-population ratio ²	52.7	54.8	54.0	53.1	54.5	54.9	54.7	55.0	54.3
Unemployed	650	582	538	668	662	683	651	576	550
Unemployment rate	10.7	9.3	8.7	10.9	10.5	10.4	10.3	9.1	8.8
Both sexes, 16 to 19 years									
Civilian labor force	737	775	783	838	910	881	929	880	889
Participation rate	33.8	35.6	36.0	38.5	41.7	40.5	42.7	40.5	40.9
Employed	516	521	546	580	641	577	627	602	615
Employment-population ratio ²	23.7	24.0	25.1	26.8	29.4	26.5	28.8	27.7	28.3
Unemployed	221	255	236	258	269	304	301	278	274
Unemployment rate	30.0	32.8	30.2	30.8	29.6	34.5	32.4	31.6	30.8
Men	24.8	29.3	33.6	27.9	29.8	36.7	33.1	29.8	35.5
Women	35.8	36.4	26.8	33.9	29.3	32.0	31.8	34.8	26.2

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					
	Apr. 1988	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
HISPANIC ORIGIN									
Civilian noninstitutional population	13,230	13,649	13,690	13,230	13,533	13,564	13,606	13,649	13,690
Civilian labor force	8,773	9,109	9,210	8,829	9,133	9,205	9,219	9,210	9,262
Participation rate	66.3	66.7	67.3	66.7	67.5	67.9	67.8	67.5	67.7
Employed	8,002	8,504	8,481	8,030	8,441	8,434	8,598	8,607	8,495
Employment-population ratio ²	60.5	62.3	61.8	60.7	62.4	62.2	63.2	63.1	62.1
Unemployed	771	605	749	793	692	771	624	603	767
Unemployment rate	8.8	6.6	8.1	9.0	7.6	8.4	6.8	6.5	8.3

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					
	Apr. 1988	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
CHARACTERISTIC									
Civilian employed, 16 years and over	113,905	115,844	116,347	114,660	116,009	116,711	116,853	117,136	117,113
Married men, spouse present	40,338	40,754	40,726	40,494	40,483	40,925	40,928	41,083	40,890
Married women, spouse present	28,888	29,628	29,804	28,772	29,053	29,589	29,412	29,589	29,656
Women who maintain families	6,109	6,275	6,255	6,091	6,399	6,416	6,385	6,256	6,243
MAJOR INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,688	1,517	1,608	1,632	1,698	1,684	1,645	1,656	1,554
Self-employed workers	1,356	1,298	1,385	1,390	1,349	1,387	1,419	1,403	1,419
Unpaid family workers	149	119	123	152	149	189	150	138	124
Nonagricultural industries:									
Wage and salary workers	101,897	104,143	104,301	102,562	103,904	104,510	104,797	104,882	104,885
Government	17,236	17,625	17,403	17,012	17,423	17,393	17,311	17,382	17,180
Private industries	84,660	86,518	86,898	85,550	86,481	87,117	87,486	87,600	87,806
Private households	1,087	1,084	1,091	1,114	1,210	1,196	1,195	1,183	1,117
Other industries	83,573	85,434	85,807	84,436	85,271	85,921	86,350	86,437	86,689
Self-employed workers	8,533	8,420	8,636	8,567	8,602	8,718	8,517	8,645	8,671
Unpaid family workers	283	347	293	272	266	298	285	332	281
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	4,851	4,784	4,783	5,212	5,321	5,097	4,981	4,968	5,143
Slack work	2,167	2,306	2,266	2,264	2,549	2,302	2,303	2,232	2,373
Could only find part-time work	2,287	2,204	2,204	2,519	2,410	2,352	2,333	2,393	2,425
Voluntary part time	16,082	16,510	16,676	14,949	15,363	15,401	15,126	15,561	15,498
Nonagricultural industries:									
Part time for economic reasons	4,824	4,572	4,600	4,953	5,033	4,837	4,697	4,709	4,930
Slack work	2,053	2,148	2,158	2,131	2,377	2,144	2,105	2,048	2,243
Could only find part-time work	2,196	2,155	2,146	2,426	2,307	2,283	2,272	2,317	2,369
Voluntary part time	15,540	16,095	16,205	14,441	14,928	14,970	14,688	15,127	15,060

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-6. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measure	Quarterly averages				Monthly data			
	1988				1989			
	I	II	III	IV	I	Feb.	Mar.	Apr.
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.4	1.3	1.3	1.2	1.1	1.1	1.1	1.2
U-2 Job losers as a percent of the civilian labor force	2.6	2.5	2.5	2.5	2.4	2.3	2.3	2.4
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force	4.4	4.2	4.2	4.1	4.0	4.0	3.9	4.1
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	5.3	5.1	5.1	5.0	4.9	4.8	4.8	5.0
U-5a Total unemployed as a percent of the labor force, including the resident Armed Forces	5.6	5.4	5.4	5.3	5.1	5.1	4.9	5.2
U-5b Total unemployed as a percent of the civilian labor force	5.7	5.5	5.5	5.3	5.2	5.1	5.0	5.3
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	7.9	7.6	7.6	7.5	7.2	7.2	7.1	7.4
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	8.7	8.3	8.4	8.2	7.9	N.A.	N.A.	N.A.

N.A. = not available.

Table A-4. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	Apr. 1989	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
CHARACTERISTIC									
Total, 16 years and over	6,688	6,128	6,546	5.5	5.3	5.4	5.1	5.0	5.3
Men, 16 years and over	3,596	3,270	3,593	5.4	5.3	5.5	5.2	4.9	5.3
Men, 20 years and over	2,941	2,688	2,952	4.7	4.7	4.6	4.5	4.2	4.6
Women, 16 years and over	3,072	2,858	2,953	5.6	5.4	5.4	5.0	5.1	5.3
Women, 20 years and over	2,471	2,367	2,448	4.9	4.7	4.7	4.5	4.6	4.7
Both sexes, 16 to 19 years	1,256	1,073	1,146	15.8	14.8	16.4	14.8	13.7	14.4
Married men, spouse present	1,294	1,209	1,347	3.1	3.1	3.1	3.1	2.9	3.2
Married women, spouse present	1,143	1,074	1,247	3.6	3.7	3.6	3.4	3.5	4.0
Women who maintain families	566	533	519	8.5	8.2	8.0	8.0	7.9	7.6
Full-time workers	5,339	5,026	5,247	5.1	5.1	5.0	4.8	4.8	5.0
Part-time workers	1,311	1,120	1,295	7.5	7.0	7.9	7.3	8.2	7.2
Labor force time lost ²	--	--	--	6.2	6.3	6.2	5.9	5.8	6.0
INDUSTRY									
Nonagricultural private wage and salary workers	4,848	4,638	5,003	5.4	5.4	5.6	5.1	5.0	5.4
Goods-producing industries	1,895	1,718	1,753	6.5	6.4	6.4	6.1	5.9	6.0
Mining	67	51	42	8.1	7.7	6.1	8.0	7.0	5.6
Construction	674	610	618	10.6	10.4	10.4	10.0	9.4	9.7
Manufacturing	1,154	1,058	1,095	5.3	5.2	5.3	4.9	4.8	4.9
Durable goods	628	606	614	4.8	5.0	5.0	4.4	4.7	4.7
Nondurable goods	526	450	481	5.9	5.5	5.7	5.5	4.9	5.2
Service-producing industries	2,953	2,918	3,250	4.8	4.9	5.2	4.7	4.6	5.1
Transportation and public utilities	246	254	265	3.8	3.8	3.8	3.9	3.9	4.0
Wholesale and retail trade	1,335	1,294	1,381	5.9	6.3	6.3	5.6	5.6	5.9
Finance and service industries	1,372	1,371	1,604	4.3	4.1	4.7	4.3	4.1	4.8
Government workers	521	466	485	3.0	2.7	2.7	2.7	2.6	2.7
Agricultural wage and salary workers	202	161	163	11.0	8.8	9.5	8.9	8.9	10.5

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.

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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					
	Apr. 1988	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
Total, 16 years and over	8,668	6,128	6,546	5.5	5.3	5.4	5.1	5.0	5.3
16 to 24 years	2,518	2,182	2,344	11.2	10.9	11.9	10.5	9.8	10.5
16 to 19 years	1,256	1,073	1,146	15.8	14.8	16.4	14.8	13.7	14.4
16 to 17 years	580	477	483	17.7	16.6	18.3	18.2	15.3	14.9
18 to 19 years	658	597	667	14.1	13.3	15.4	12.7	12.5	13.8
20 to 24 years	1,262	1,109	1,198	8.7	8.7	9.3	8.1	7.7	8.4
25 years and over	4,144	3,921	4,191	4.2	4.1	4.1	4.0	3.9	4.1
25 to 54 years	3,696	3,542	3,761	4.4	4.3	4.2	4.2	4.1	4.4
55 years and over	460	396	451	3.0	3.0	3.1	3.1	2.6	2.9
Men, 16 years and over	3,596	3,270	3,593	5.4	5.3	5.5	5.2	4.8	5.3
16 to 24 years	1,321	1,128	1,238	11.2	11.1	12.8	11.1	9.7	10.7
16 to 19 years	655	562	641	15.9	15.4	18.6	18.7	14.2	15.5
16 to 17 years	300	258	274	17.6	17.3	20.6	19.6	15.8	17.0
18 to 19 years	355	330	368	14.7	13.5	17.9	15.1	13.2	14.6
20 to 24 years	666	546	597	8.7	8.7	9.6	8.1	7.2	8.0
25 years and over	2,270	2,136	2,344	4.1	4.1	4.0	4.0	3.8	4.2
25 to 54 years	1,994	1,890	2,076	4.3	4.3	4.2	4.1	4.0	4.4
55 years and over	281	246	283	3.2	3.3	3.0	3.4	2.8	3.2
Women, 16 years and over	3,072	2,858	2,953	5.6	5.4	5.4	5.0	5.1	5.3
16 to 24 years	1,187	1,054	1,106	11.1	10.7	10.9	9.7	10.0	10.4
16 to 19 years	601	491	505	15.6	14.2	14.0	12.8	13.1	13.2
16 to 17 years	280	219	189	17.7	15.8	15.9	16.8	14.8	12.7
18 to 19 years	303	267	299	13.5	13.1	12.7	10.0	11.7	12.8
20 to 24 years	596	563	601	8.6	8.7	9.1	8.0	8.3	8.9
25 years and over	1,974	1,764	1,847	4.3	4.1	4.1	3.9	4.0	4.1
25 to 54 years	1,702	1,652	1,685	4.6	4.4	4.3	4.2	4.3	4.4
55 years and over	179	151	169	2.8	2.6	3.1	2.5	2.3	2.6

¹ Unemployment as a percent of the civilian labor force.

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

(Numbers in thousands)

Employment status	Not seasonally adjusted			Seasonally adjusted ¹					
	Apr. 1988	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
Civilian noninstitutional population	26,289	26,877	26,926	26,289	26,697	26,779	26,830	26,877	26,926
Civilian labor force	16,506	17,123	17,034	16,777	17,172	17,283	17,386	17,347	17,319
Participation rate	62.8	63.7	63.3	63.8	64.3	64.5	64.8	64.5	64.3
Employed	14,764	15,409	15,408	14,998	15,457	15,449	15,540	15,651	15,656
Employment-population ratio ²	56.2	57.3	57.2	57.1	57.9	57.7	57.9	58.2	58.1
Unemployed	1,742	1,714	1,628	1,779	1,715	1,833	1,848	1,696	1,664
Unemployment rate	10.6	10.0	9.8	10.6	10.0	10.6	10.8	9.8	9.6
Not in labor force	9,783	9,754	9,892	9,512	9,525	9,496	9,444	9,530	9,607

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

Occupation	Civilian employed		Unemployed		Unemployment rate	
	Apr. 1988	Apr. 1989	Apr. 1988	Apr. 1989	Apr. 1988	Apr. 1989
	Total, 16 years and over ¹	113,905	116,347	6,359	6,229	5.3
Managerial and professional specialty	29,236	30,569	511	556	1.7	1.8
Executive, administrative, and managerial	14,152	14,777	278	296	1.9	2.0
Professional specialty	15,086	15,791	233	259	1.5	1.6
Technical, sales, and administrative support	35,401	35,837	1,301	1,347	3.5	3.6
Technicians and related support	3,476	3,575	94	86	2.6	2.3
Sales occupations	13,617	13,820	586	600	4.1	4.2
Administrative support, including clerical	18,308	18,441	620	661	3.3	3.5
Service occupations	15,114	15,204	1,032	1,149	6.4	7.0
Private household	832	840	56	66	6.3	7.3
Protective service	1,838	1,918	84	80	3.4	4.0
Service, except private household and protective	12,444	12,446	911	1,003	6.8	7.5
Precision production, craft, and repair	13,552	13,560	782	797	5.3	5.6
Mechanics and repairers	4,522	4,555	153	205	3.3	4.3
Construction trades	4,972	4,905	416	439	7.7	8.2
Other precision production, craft, and repair	4,058	4,099	193	153	4.5	3.6
Operators, fabricators, and laborers	17,196	17,686	1,621	1,503	6.6	7.8
Machine operators, assemblers, and inspectors	7,855	8,257	678	650	7.9	7.3
Transportation and material moving occupations	4,627	4,770	283	302	5.8	5.9
Handlers, equipment cleaners, helpers, and laborers	4,714	4,659	659	552	12.3	10.2
Construction laborers	739	755	208	157	22.0	17.2
Other handlers, equipment cleaners, helpers, and laborers	3,975	4,104	451	394	10.2	8.8
Farming, forestry, and fishing	3,404	3,292	230	221	6.3	6.3

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			
	Apr. 1988	Apr. 1989	Apr. 1988	Apr. 1989	Apr. 1988	Apr. 1989	Number		Percent of labor force	
							Apr. 1988	Apr. 1989	Apr. 1988	Apr. 1989
VIETNAM-ERA VETERANS										
Total, 30 years and over	7,891	7,918	7,290	7,212	6,981	6,939	309	273	4.2	3.8
30 to 44 years	5,964	5,590	5,712	5,270	5,452	5,048	260	222	4.6	4.2
30 to 34 years	750	529	707	482	648	448	59	34	8.3	7.1
35 to 39 years	2,258	1,840	2,152	1,731	2,071	1,639	81	92	3.6	5.3
40 to 44 years	2,978	3,221	2,853	3,057	2,733	2,961	120	96	4.2	3.1
45 years and over	1,907	2,328	1,578	1,942	1,529	1,891	49	51	3.1	2.6
NONVETERANS										
Total, 30 to 44 years	20,208	21,259	19,025	20,100	18,221	19,239	804	861	4.2	4.3
30 to 34 years	8,993	9,303	8,495	8,840	8,114	8,438	381	402	4.5	4.5
35 to 39 years	6,718	7,302	6,351	6,924	6,114	6,624	237	300	3.7	4.3
40 to 44 years	4,495	4,654	4,179	4,336	3,993	4,177	186	159	4.5	3.7

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 30 to 44 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 ^a			Seasonally adjusted ^a					
	Apr. 1968	Mar. 1969	Apr. 1969	Apr. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969
California									
Civilian noninstitutional population	20,777	21,037	21,059	20,777	20,973	20,984	21,016	21,037	21,059
Civilian labor force	13,959	14,062	14,051	14,002	14,196	14,225	14,117	14,120	14,096
Employed	13,283	13,434	13,328	13,278	13,524	13,505	13,405	13,480	13,329
Unemployed	695	627	724	724	674	715	712	640	757
Unemployment rate	5.0	4.7	5.1	5.2	4.7	5.0	5.0	4.5	5.4
Florida									
Civilian noninstitutional population	9,643	9,881	9,902	9,643	9,819	9,839	9,880	9,881	9,902
Civilian labor force	6,045	6,161	6,197	6,095	6,085	6,155	6,096	6,179	6,245
Employed	5,740	5,871	5,880	5,762	5,755	5,780	5,782	5,880	5,922
Unemployed	304	290	316	313	330	362	324	299	323
Unemployment rate	5.0	4.7	5.1	5.1	5.4	5.9	5.3	4.8	5.2
Illinois									
Civilian noninstitutional population	8,729	8,702	8,699	8,729	8,712	8,709	8,706	8,702	8,699
Civilian labor force	5,656	5,894	5,880	5,731	5,817	5,837	5,976	5,963	5,980
Employed	5,237	5,531	5,544	5,327	5,429	5,481	5,663	5,648	5,640
Unemployed	419	363	337	404	388	346	313	335	320
Unemployment rate	7.4	6.2	5.7	7.0	6.7	5.9	5.2	5.6	5.4
Massachusetts									
Civilian noninstitutional population	4,595	4,596	4,596	4,595	4,598	4,598	4,598	4,598	4,598
Civilian labor force	3,133	3,156	3,178	3,151	3,150	3,166	3,205	3,190	3,197
Employed	3,041	3,028	3,061	3,056	3,043	3,063	3,094	3,051	3,077
Unemployed	91	128	116	95	107	103	111	109	120
Unemployment rate	2.9	4.1	3.7	3.0	3.4	3.3	3.5	3.4	3.8
Michigan									
Civilian noninstitutional population	7,007	7,081	7,087	7,007	7,083	7,089	7,075	7,081	7,087
Civilian labor force	4,526	4,566	4,537	4,561	4,648	4,667	4,669	4,620	4,573
Employed	4,187	4,243	4,259	4,221	4,306	4,364	4,382	4,316	4,296
Unemployed	341	324	278	340	342	323	286	304	277
Unemployment rate	7.5	7.1	6.1	7.5	7.4	6.9	6.1	6.6	6.1
New Jersey									
Civilian noninstitutional population	8,031	8,055	8,057	8,031	8,050	8,051	8,053	8,055	8,057
Civilian labor force	3,953	4,003	3,960	3,969	4,043	4,046	4,043	4,010	3,977
Employed	3,828	3,867	3,818	3,826	3,875	3,888	3,884	3,880	3,816
Unemployed	125	136	142	143	168	158	159	120	161
Unemployment rate	3.2	3.4	3.6	3.6	4.2	3.9	3.9	3.0	4.0
New York									
Civilian noninstitutional population	13,792	13,806	13,807	13,792	13,807	13,806	13,807	13,806	13,807
Civilian labor force	8,238	8,461	8,647	8,426	8,580	8,621	8,701	8,540	8,841
Employed	7,955	8,099	8,168	8,113	8,177	8,196	8,256	8,173	8,328
Unemployed	283	362	480	313	403	423	443	367	513
Unemployment rate	3.4	4.6	5.6	3.7	4.7	4.9	5.1	4.3	5.8
North Carolina									
Civilian noninstitutional population	4,890	4,963	4,991	4,890	4,959	4,967	4,975	4,983	4,991
Civilian labor force	3,266	3,379	3,424	3,320	3,371	3,435	3,390	3,415	3,478
Employed	3,156	3,269	3,288	3,187	3,254	3,302	3,283	3,311	3,320
Unemployed	110	110	136	123	117	133	107	104	148
Unemployment rate	3.4	3.2	4.0	3.7	3.5	3.9	3.2	3.0	4.3
Ohio									
Civilian noninstitutional population	8,228	8,298	8,303	8,228	8,281	8,298	8,292	8,298	8,303
Civilian labor force	5,281	5,375	5,357	5,301	5,355	5,426	5,432	5,428	5,381
Employed	4,964	5,068	5,085	4,970	5,060	5,094	5,152	5,144	5,093
Unemployed	317	307	273	331	295	332	280	284	288
Unemployment rate	6.0	5.7	5.1	6.2	5.5	6.1	5.2	5.2	5.4

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

Table A-12. Employment status of the civilian population for eleven large States—Continued

(Numbers in thousands)

State and employment status	Not seasonally adjusted ¹			Seasonally adjusted ¹					
	Apr. 1988	Mar. 1989	Apr. 1989	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989
Pennsylvania									
Civilian noninstitutional population	9,355	9,413	9,418	9,355	9,400	9,404	9,409	9,413	9,418
Civilian labor force	5,680	5,892	5,840	5,778	5,818	5,947	5,932	6,012	5,940
Employed	5,419	5,642	5,808	5,490	5,543	5,889	5,870	5,778	5,677
Unemployed	261	250	234	288	273	258	253	234	263
Unemployment rate	4.6	4.2	4.0	5.0	4.7	4.3	4.3	3.9	4.4
Texas									
Civilian noninstitutional population	12,013	11,991	11,988	12,013	12,000	11,997	11,994	11,991	11,988
Civilian labor force	8,204	8,180	8,242	8,305	8,284	8,303	8,254	8,283	8,350
Employed	7,829	7,642	7,666	7,686	7,693	7,713	7,703	7,768	7,729
Unemployed	575	518	576	619	591	590	551	485	621
Unemployment rate	7.0	6.3	7.0	7.5	7.1	7.1	6.7	6.0	7.4

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

Identical numbers appear in the unadjusted and the seasonally adjusted columns.

² The population figures are not adjusted for seasonal variation; therefore,

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table 1-1. Employees on nonagricultural payrolls by industry
(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Apr. 1968	Feb. 1969	Mar. 1969 ^p	Apr. 1969 ^p	Apr. 1968	Dec. 1968	Jan. 1969	Feb. 1969	Mar. 1969 ^p	Apr. 1969 ^p
	Total	105,159	106,937	107,606	108,496	105,281	107,641	108,663	108,541	108,512
Total private	87,505	89,041	89,635	90,544	87,973	90,100	90,506	90,725	90,898	91,029
Goods-producing industries	25,180	25,314	25,444	25,726	25,455	25,829	26,048	26,011	25,986	25,991
Mining	729	705	711	720	737	719	718	716	720	728
Oil and gas extraction	414.9	400.2	401.8	404.3	421	402	400	401	406	410
Construction	5,081	4,957	5,052	5,320	5,258	5,450	5,537	5,514	5,479	5,485
General building contractors	1,348.0	1,317.8	1,321.1	1,354.4	1,400	1,414	1,444	1,437	1,414	1,407
Manufacturing	19,370	19,652	19,681	19,686	19,460	19,740	19,793	19,781	19,787	19,778
Production workers	13,213	13,398	13,425	13,431	13,280	13,481	13,518	13,510	13,512	13,501
Durable goods	11,453	11,610	11,619	11,619	11,459	11,651	11,686	11,667	11,653	11,646
Production workers	7,618	7,734	7,744	7,746	7,632	7,776	7,799	7,781	7,766	7,760
Lumber and wood products	743.7	744.0	744.5	744.3	758	771	775	769	765	759
Furniture and fixtures	534.4	542.6	543.0	544.9	555	540	540	542	544	545
Stone, clay, and glass products	583.8	569.4	576.8	587.4	587	592	593	593	591	590
Primary metal industries	775.7	795.4	798.4	798.3	771	794	796	794	795	796
Iron and steel mills	280.9	288.4	281.2	280.7	281	280	281	281	281	281
Fabricated metal products	1,459.2	1,479.1	1,479.3	1,477.2	1,466	1,479	1,487	1,487	1,485	1,482
Machinery, except electrical	2,115.1	2,206.0	2,210.9	2,210.1	2,111	2,190	2,198	2,204	2,204	2,206
Electrical and electronic equipment	2,108.4	2,109.5	2,102.4	2,095.3	2,117	2,123	2,118	2,114	2,109	2,104
Transportation equipment	2,046.8	2,055.9	2,048.6	2,045.8	2,043	2,051	2,066	2,048	2,042	2,046
Motor vehicles and equipment	846.4	859.3	854.0	853.1	848	858	872	858	849	852
Instruments and related products	705.7	727.7	729.9	750.2	706	724	727	728	731	731
Miscellaneous manufacturing	381.9	361.6	358.9	357.7	383	385	386	388	387	387
Non-durable goods	7,937	8,042	8,062	8,067	8,001	8,089	8,107	8,114	8,136	8,132
Production workers	5,595	5,664	5,681	5,685	5,648	5,705	5,719	5,729	5,746	5,741
Food and kindred products	1,598.8	1,605.0	1,604.4	1,608.0	1,648	1,656	1,663	1,660	1,663	1,666
Tobacco manufactures	50.5	52.9	51.3	48.2	54	53	52	53	53	51
Textile mill products	726.5	723.8	724.3	725.2	727	722	727	726	726	726
Apparel and other textile products	1,181.8	1,181.5	1,187.2	1,185.3	1,180	1,096	1,097	1,103	1,108	1,103
Paper and allied products	684.0	687.1	688.4	688.1	687	692	692	691	692	692
Printing and publishing	1,555.5	1,596.4	1,600.7	1,604.3	1,554	1,572	1,578	1,596	1,601	1,605
Chemicals and allied products	1,052.7	1,077.0	1,080.9	1,082.5	1,056	1,074	1,081	1,082	1,083	1,086
Petroleum and coal products	164.1	165.5	164.8	167.4	165	168	166	167	167	168
Rubber and misc. plastics products	665.6	691.2	695.7	694.8	664	690	687	691	695	693
Leather and leather products	145.1	145.8	144.2	145.4	146	144	145	145	146	144
Service-producing industries	79,979	81,623	82,162	82,779	79,846	81,752	82,017	82,330	82,526	82,438
Transportation and public utilities	5,511	5,635	5,642	5,685	5,563	5,670	5,692	5,705	5,701	5,718
Transportation	5,175	5,396	5,401	5,459	5,298	5,422	5,461	5,455	5,449	5,465
Communication and public utilities	2,256	2,239	2,241	2,246	2,265	2,248	2,251	2,250	2,252	2,255
Wholesale trade	6,065	6,305	6,337	6,373	6,089	6,501	6,332	6,561	6,388	6,399
Durable goods	5,403	5,794	5,815	5,828	5,410	5,779	5,796	5,817	5,838	5,836
Non-durable goods	2,462	2,511	2,522	2,545	2,679	2,522	2,536	2,544	2,550	2,563
Retail trade	18,883	19,089	19,236	19,477	19,093	19,429	19,556	19,619	19,689	19,694
General merchandise stores	2,448.9	2,487.5	2,483.3	2,508.8	2,566	2,544	2,563	2,570	2,592	2,599
Food stores	3,015.1	3,166.8	3,178.5	3,185.8	3,049	3,177	3,193	3,202	3,226	3,221
Automotive dealers and service stations	2,055.4	2,085.2	2,094.5	2,112.0	2,064	2,106	2,109	2,115	2,116	2,120
Eating and drinking places	6,313.3	6,215.5	6,358.0	6,514.6	6,326	6,449	6,466	6,493	6,514	6,528
Finance, insurance, and real estate	6,628	6,689	6,708	6,732	6,658	6,741	6,753	6,757	6,761	6,755
Finance	5,292	5,312	5,318	5,320	5,302	5,329	5,329	5,329	5,331	5,330
Insurance	2,063	2,101	2,101	2,101	2,065	2,101	2,096	2,103	2,103	2,103
Real estate	1,273	1,276	1,289	1,311	1,283	1,315	1,317	1,325	1,327	1,322
Services	25,238	26,009	26,268	26,551	25,143	26,070	26,143	26,272	26,373	26,472
Business services	5,381.9	5,519.5	5,554.8	5,596.4	5,420	5,605	5,583	5,621	5,617	5,630
Health services	7,112.1	7,526.8	7,580.3	7,714.3	7,124	7,466	7,494	7,547	7,596	7,630
Government	17,454	17,894	17,971	17,952	17,308	17,541	17,559	17,618	17,614	17,600
Federal	2,963	2,969	2,973	2,974	2,963	2,990	2,981	2,987	2,979	2,974
State	6,150	6,177	6,194	6,197	6,011	6,071	6,063	6,079	6,084	6,087
Local	10,341	10,750	10,804	10,781	10,336	10,480	10,515	10,550	10,551	10,539

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table 3-2. Average weekly hours of production or nonsupervisory workers/ on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	Apr. 1988	Feb. 1989	Mar. 1989 ^g	Apr. 1989 ^g	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989 ^g	Apr. 1989 ^g
	Total private.....	34.7	34.3	34.4	34.8	34.9	34.7	34.8	34.6	34.6
Mining.....	42.8	41.7	41.9	45.0	(2)	(2)	(2)	(2)	(2)	(2)
Construction.....	37.9	36.1	37.5	37.7	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	41.0	40.8	40.9	41.0	41.2	40.8	41.1	41.1	41.0	41.3
Overtime hours.....	3.7	3.8	3.8	3.7	3.9	3.9	3.9	3.9	3.9	4.0
Durable goods.....	41.7	41.3	41.7	41.7	42.0	41.5	41.8	41.7	41.6	42.0
Overtime hours.....	4.0	4.0	4.0	3.9	4.2	4.1	4.1	4.1	4.0	4.1
Lumber and wood products.....	40.6	39.8	39.8	40.3	40.6	40.3	40.3	39.5	40.0	40.3
Furniture and fixtures.....	39.3	39.1	39.6	39.4	39.5	39.2	40.1	39.7	39.9	39.8
Stone, clay, and glass products.....	42.5	41.1	42.0	42.8	42.5	42.4	42.6	42.1	42.3	42.8
Primary metal industries.....	43.5	43.4	43.5	43.6	43.5	43.4	43.6	43.3	43.4	43.4
Iron and steel mills.....	44.0	43.7	44.0	44.2	43.8	43.7	44.0	43.7	44.1	44.0
Aluminum mills.....	41.7	41.5	41.6	41.6	42.0	41.7	41.9	41.8	41.6	41.9
Machinery, except electrical.....	42.4	42.4	42.5	42.4	42.8	42.5	42.5	42.5	42.5	42.6
Electrical and electronic equipment.....	40.8	40.6	40.5	40.8	41.2	40.7	40.8	40.9	40.3	41.2
Transportation equipment.....	42.9	43.0	43.3	43.2	43.0	42.4	42.6	43.0	42.9	43.3
Motor vehicles and equipment.....	44.1	43.8	44.2	44.0	44.1	43.0	43.5	43.7	43.5	44.0
Instruments and related products.....	41.3	41.3	41.1	41.1	41.8	41.0	41.6	41.6	40.9	41.4
Miscellaneous manufacturing.....	39.1	39.1	39.3	39.5	39.4	38.9	39.4	39.5	39.3	39.8
Nondurable goods.....	39.9	39.8	39.9	39.9	40.5	39.9	40.1	40.2	40.1	40.5
Overtime hours.....	3.4	3.5	3.6	3.5	3.6	3.6	3.6	3.7	3.8	3.8
Food and kindred products.....	39.5	39.6	39.9	39.9	40.1	40.3	40.1	40.3	40.4	40.5
Tobacco manufacturing.....	38.5	37.8	36.3	39.1	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	41.0	40.5	41.0	41.0	41.6	40.5	40.8	40.7	41.2	41.6
Ammunition and other textile products.....	36.8	36.8	36.9	36.9	37.4	36.6	37.0	37.1	36.9	37.5
Paper and allied products.....	45.0	42.9	43.0	43.0	43.3	43.1	43.1	43.2	43.3	43.3
Printing and publishing.....	38.0	37.7	37.9	37.7	38.2	37.7	38.0	38.0	37.9	37.9
Chemicals and allied products.....	42.1	42.4	42.5	42.4	42.1	42.3	42.4	42.5	42.3	42.4
Petroleum and coal products.....	44.4	44.0	43.8	43.5	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastic products.....	41.8	41.5	41.5	41.4	42.0	41.2	41.7	41.7	41.5	41.6
Leather and leather products.....	37.0	37.8	37.4	37.7	37.3	37.7	38.3	38.0	37.9	38.0
Transportation and public utilities.....	39.2	39.1	39.3	39.3	39.5	39.4	39.7	39.3	39.5	39.8
Wholesale trade.....	38.2	37.7	37.8	38.1	38.5	38.0	38.1	38.0	38.0	38.2
Retail trade.....	28.9	28.3	28.5	28.9	29.2	29.2	29.1	28.9	28.9	29.2
Finance, insurance, and real estate.....	36.2	35.8	35.8	36.4	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.6	32.4	32.4	32.8	32.7	32.6	32.8	32.5	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 nonagricultural 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 nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	Apr. 1988	Feb. 1989	Mar. 1989 ^p	Apr. 1989 ^p	Apr. 1988	Feb. 1989	Mar. 1989 ^p	Apr. 1989 ^p
Total private.....	89.25	89.54	89.55	89.60	8320.28	8327.22	8328.52	8334.08
Seasonally adjusted.....	9.23	9.50	9.52	9.59	322.13	328.70	329.39	335.65
Mining.....	12.60	13.16	13.09	13.05	539.28	548.77	548.47	561.15
Construction.....	12.88	13.17	13.22	13.29	488.15	475.44	493.11	501.03
Manufacturing.....	10.12	10.37	10.39	10.40	414.92	423.10	424.95	426.40
Durable goods.....	10.65	10.90	10.92	10.94	444.11	452.35	455.36	456.20
Lumber and wood products.....	8.50	8.68	8.66	8.76	345.19	358.52	364.67	355.03
Furniture and fixtures.....	7.81	8.06	8.10	8.09	305.37	315.15	320.76	318.75
Stone, clay, and glass products.....	10.41	10.63	10.62	10.72	442.43	436.89	446.04	458.82
Primary metal industries.....	12.11	12.28	12.28	12.37	526.79	532.95	534.10	536.86
Blast furnaces and basic steel products.....	13.94	14.13	14.14	14.26	613.36	617.48	622.16	630.29
Fabricated metal products.....	10.22	10.44	10.45	10.49	426.17	435.26	436.72	436.38
Machinery, except electrical.....	10.88	11.19	11.21	11.21	463.49	474.46	476.43	475.30
Electrical and electronic equipment.....	10.09	10.25	10.29	10.29	411.67	416.15	416.75	419.83
Transportation equipment.....	13.28	13.64	13.69	13.65	569.71	586.52	592.78	588.82
Motor vehicles and equipment.....	14.09	14.27	14.34	14.25	621.57	625.03	633.83	627.00
Instruments and related products.....	9.89	10.11	10.13	10.23	410.44	419.57	417.17	420.45
Miscellaneous manufacturing.....	7.92	8.20	8.19	8.19	309.67	320.62	321.87	323.51
Non-durable goods.....	9.37	9.62	9.65	9.64	373.86	382.88	385.04	384.64
Food and kindred products.....	9.14	9.27	9.54	9.31	361.03	367.09	372.67	371.47
Tobacco manufactures.....	14.98	14.62	15.18	15.56	576.73	552.64	551.03	608.40
Textile mill products.....	7.55	7.59	7.59	7.62	301.55	307.40	311.19	312.42
Apparel and other textile products.....	6.04	6.29	6.31	6.31	222.27	231.47	232.84	232.84
Paper and allied products.....	11.60	11.79	11.82	11.78	498.80	503.79	508.26	506.54
Printing and publishing.....	10.40	10.75	10.80	10.76	395.20	405.28	409.32	405.65
Chemicals and allied products.....	12.57	12.89	12.92	12.87	529.20	546.54	546.52	545.69
Petroleum and coal products.....	15.00	15.52	15.54	15.49	666.00	682.88	668.22	675.82
Rubber and misc. plastics products.....	9.04	9.27	9.29	9.32	377.87	384.71	385.54	385.85
Leather and leather products.....	6.29	6.31	6.55	6.54	232.73	246.08	244.97	246.56
Transportation and public utilities.....	12.27	12.51	12.48	12.56	480.98	489.14	490.46	496.12
Wholesale trade.....	9.88	10.21	10.19	10.32	377.42	384.92	385.18	393.19
Retail trade.....	6.26	6.46	6.46	6.48	180.91	182.82	184.11	187.27
Finance, insurance, and real estate.....	9.03	9.47	9.43	9.55	326.89	339.03	337.59	347.62
Services.....	8.82	9.26	9.26	9.30	287.53	300.02	300.02	305.04

1/ See footnote 1, table B-2.

p = preliminary.

Table B-4. Average hourly earnings of production or nonsupervisory workers/ on private nonagricultural payrolls by industry, seasonally adjusted

Industry	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989 ^p	Apr. 1989 ^p	Percent change from Mar. 1989-Apr. 1989
Total private ^{2/}	89.23	89.45	89.49	89.50	89.52	89.59	0.7
Current dollars.....	4.85	4.82	4.81	4.80	4.79	N.A.	(4)
Constant (1977) dollars.....	12.95	13.09	13.14	13.18	13.25	13.36	.7
Construction.....	10.11	10.31	10.32	10.35	10.37	10.39	.2
Manufacturing.....	9.65	9.84	9.86	9.88	9.90	9.92	.2
Excluding overtime ^{3/}	12.29	12.41	12.46	12.46	12.51	12.59	.5
Transportation and public utilities.....	9.88	10.08	10.18	10.15	10.17	10.32	1.5
Retail trade.....	6.25	6.42	6.43	6.43	6.46	6.47	.5
Wholesale trade.....	8.99	9.37	9.41	9.35	9.36	9.50	1.5
Finance, insurance, and real estate.....	8.81	9.09	9.14	9.17	9.20	9.29	1.0
Services.....							

1/ See footnote 1, table B-2.

2/ Includes mining, not shown separately, because its seasonal component is too small to be separated out with sufficient precision.

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

4/ Change was -0.2 percent from February to March 1989, the latest month available.

5/ Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers^{1/} on private nonagricultural payrolls by industry (1977=100)

Industry	Not seasonally adjusted			Seasonally adjusted						
	Apr. 1988	Feb. 1989	Mar. 1989 ^p	Apr. 1989 ^p	Apr. 1988	Dec. 1988	Jan. 1989	Feb. 1989	Mar. 1989 ^p	Apr. 1989 ^p
Total private.....	123.6	123.9	123.4	128.0	125.1	127.2	128.3	127.8	128.1	129.3
Goods-producing industries.....	100.8	99.4	101.1	102.9	102.7	103.5	104.4	104.2	104.1	104.8
Mining.....	83.8	78.4	79.7	83.1	85.9	81.2	80.4	80.7	81.8	85.1
Construction.....	135.4	123.2	130.4	140.3	141.1	144.6	146.3	145.4	145.8	146.0
Manufacturing.....	94.9	93.8	96.4	96.5	96.1	96.6	97.4	97.3	97.1	97.7
Durable goods.....	93.4	94.2	94.8	94.9	94.0	94.8	95.7	95.3	94.8	95.6
Lumber and wood products.....	102.3	97.9	100.2	101.4	104.7	105.2	106.0	103.0	103.8	103.6
Furniture and fixtures.....	111.9	114.0	115.7	114.9	115.2	113.9	116.2	115.3	116.5	116.2
Stone, clay, and glass products.....	87.7	82.3	85.4	88.9	88.3	88.9	89.5	88.4	88.5	89.5
Primary metal industries.....	67.8	69.4	70.0	69.7	67.6	69.6	69.8	69.2	69.3	69.5
Blast furnaces and basic steel products.....	56.7	54.2	54.8	54.7	54.8	54.1	54.8	54.4	54.9	54.8
Fabricated metal products.....	91.0	93.1	93.3	93.1	91.8	93.7	94.7	94.3	93.6	94.0
Machinery, except electrical.....	91.4	95.5	96.1	95.6	91.5	94.3	95.1	95.6	95.1	95.8
Electrical and electronic equipment.....	101.4	101.3	100.4	100.6	102.8	102.3	102.2	102.1	100.6	102.1
Transportation equipment.....	100.0	100.6	101.0	100.8	100.0	98.7	99.9	99.8	99.4	100.6
Motor vehicles and equipment.....	90.3	90.7	91.0	90.5	89.8	89.0	91.0	90.1	88.6	90.1
Instruments and related products.....	105.8	109.3	108.7	109.0	106.5	108.3	109.6	109.6	108.0	109.6
Miscellaneous manufacturing.....	84.0	83.3	84.5	85.4	85.0	83.6	85.3	85.8	85.4	86.3
Nondurable goods.....	97.2	98.2	98.8	98.9	99.1	99.2	99.9	100.2	100.3	100.8
Food and kindred products.....	95.0	96.7	97.4	97.6	101.0	102.1	102.3	102.9	103.4	103.8
Tobacco manufactures.....	66.7	69.0	63.8	63.0	75.8	75.2	67.8	70.5	67.3	71.1
Textile mill products.....	80.9	79.3	80.3	80.5	82.2	79.1	80.6	80.0	80.9	81.8
Apparel and other textile products.....	85.0	85.3	86.0	85.8	86.2	84.2	85.4	86.0	86.1	86.9
Paper and allied products.....	100.2	100.0	100.5	100.5	101.4	101.3	101.1	101.1	101.7	101.7
Printing and publishing.....	136.3	137.3	138.7	138.3	136.5	137.5	138.7	138.7	138.8	138.5
Chemicals and allied products.....	97.2	99.9	100.1	100.8	97.1	99.3	100.3	100.7	100.2	100.9
Petroleum and coal products.....	84.0	82.1	81.2	84.0	84.9	86.7	84.1	85.9	83.0	84.7
Rubber and misc. plastics products.....	122.7	126.4	127.1	126.8	122.9	125.1	126.2	126.9	126.9	127.0
Leather and leather products.....	54.8	56.0	55.4	55.7	55.3	55.6	57.0	58.2	56.9	56.6
Service-producing industries.....	136.1	137.5	138.8	141.9	137.4	140.4	141.5	140.9	141.4	143.2
Transportation and public utilities.....	111.9	114.5	115.0	114.3	113.5	116.2	117.4	116.5	117.0	118.0
Wholesale trade.....	123.8	127.1	128.1	129.8	124.8	128.1	129.1	129.3	129.8	130.7
Retail trade.....	123.2	121.4	123.1	126.3	126.0	127.8	128.2	127.7	128.2	129.3
Finance, insurance, and real estate.....	140.6	139.4	139.6	142.5	141.1	140.0	142.1	140.7	141.0	143.3
Services.....	158.8	162.5	164.2	168.3	159.0	164.1	165.6	164.9	165.6	168.1

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

p = preliminary.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

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 nonagricultural payrolls, 349 industries ^{1/}												
Over 1-month span:												
1987.....	57.4	58.3	59.9	64.6	61.3	61.6	68.6	60.6	62.3	67.6	63.9	63.0
1988.....	60.3	64.6	64.0	63.0	58.9	66.6	62.3	56.2	54.8	62.5	68.9	61.7
1989.....	65.0	57.9	59.0	53.0								
Over 3-month span:												
1987.....	61.3	62.2	67.3	68.9	69.3	69.8	71.5	72.5	72.1	73.4	74.5	68.2
1988.....	70.6	68.8	68.3	67.2	69.1	69.8	68.8	61.9	62.6	68.3	71.9	73.4
1989.....	68.5	67.0	60.2									
Over 6-month span:												
1987.....	69.2	66.3	66.3	70.1	72.3	75.2	76.9	77.4	78.5	74.2	74.4	73.6
1988.....	72.2	71.5	70.8	74.2	72.2	69.1	68.8	74.5	71.1	72.3	72.5	73.6
1989.....	72.9											
Over 12-month span:												
1987.....	68.1	70.3	71.1	74.1	76.6	77.2	77.4	77.8	79.1	78.7	77.8	80.5
1988.....	77.2	78.1	74.2	73.9	75.6	75.6	77.8	76.5	75.2	75.5		
1989.....												
Manufacturing payrolls, 143 industries ^{1/}												
Over 1-month span:												
1987.....	46.8	52.5	53.9	56.4	58.9	55.7	67.7	56.0	64.2	64.2	64.2	61.0
1988.....	58.2	55.7	55.7	60.6	57.4	61.3	60.3	44.0	46.8	61.7	68.1	57.4
1989.....	61.0	51.4	53.5	46.8								
Over 3-month span:												
1987.....	50.7	50.7	58.3	63.8	63.5	68.4	69.5	73.8	70.2	74.1	74.5	67.0
1988.....	65.0	61.0	62.8	64.5	66.7	68.8	61.3	52.1	53.5	65.6	70.9	69.5
1989.....	65.1	61.3	51.8									
Over 6-month span:												
1987.....	58.3	57.1	57.1	66.7	69.1	74.5	75.5	76.6	79.4	74.1	72.7	72.3
1988.....	68.4	67.0	66.0	70.9	66.0	63.8	62.1	68.8	66.0	66.0	67.7	71.6
1989.....	66.7											
Over 12-month span:												
1987.....	59.6	63.5	64.3	68.8	73.0	73.8	75.2	73.2	75.9	73.9	75.2	79.1
1988.....	74.1	72.3	68.8	70.6	72.0	70.9	72.3	71.3	69.5	69.5		
1989.....												

^{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 indicate an equal balance between industries with increasing and decreasing employment.

Representative HAMILTON. Well thank you very much.

This change that you've reported to us this morning with respect to the civilian unemployment rate increasing 0.3 of a percentage point to 5.3, together with other recent data that has come out, does it confirm the fact that the economy is beginning to cool down? Is that a fair statement?

Mrs. NORWOOD. That's absolutely correct.

Representative HAMILTON. Now the broader question, of course, which you raised and I raised in the opening statement, is whether the long expansion of the 1980's has come to an end and, as I understand your statement, you don't want to speculate on that. I would be glad to have you speculate on it if you would like to.

Mrs. NORWOOD. No, I think it's too soon really to know. But, as you can see, the unemployment rate rose in April. In part, that was a result of slower employment growth. It was also the result of the 400,000 increase in the labor force.

Over the prior 2 months the labor force had grown very little. In fact, in February it was down 250,000, and in March up only 80,000. It tends to grow in fits and starts. So we had a 400,000 increase, which more or less corrected for the February and March period.

There are many approaches that one can take to the unemployment data. One is that essentially there have been few ups and downs, but that we have been at or near a plateau, oh, for a good part of the end of last year and into this year. The rate, for example, for the first quarter of this year was 5.2 percent, the civilian rate. April's rate is 5.3 percent.

I think the more important area to focus on is the employment growth, and that clearly has slowed. There is still some, and we are not plunging downward. I think it's important to recognize that.

Representative HAMILTON. That's the payroll employment you're talking about?

Mrs. NORWOOD. Yes.

Representative HAMILTON. Up only 117,000?

Mrs. NORWOOD. Yes, which is pretty flat really.

Representative HAMILTON. That's the weakest in 3 years?

Mrs. NORWOOD. Yes, that's right.

Representative HAMILTON. Now the jump of 0.3 percent breaks the pattern, doesn't it, of recent months where it has been very flat.

Mrs. NORWOOD. Yes.

Representative HAMILTON. But, as you say in your statement, it is not unprecedented. It has happened two times in this expansion; is that correct?

Mrs. NORWOOD. That's right.

Representative HAMILTON. This expansion has run how many months now?

Mrs. NORWOOD. Well, we have data for 77 months. In July 1984 and February 1986 we had a jump in the unemployment rate for a bit and then it plateaued, and then the expansion picked up again.

Representative HAMILTON. If you look at a lot of the financial papers in recent days, what has impressed me at least is that there is so much uncertainty right now about the outlook for the economy. You can read, for example, in the same paper one article sug-

gesting inflationary pressures are increasing and another article suggesting that there is less pressure on prices and so forth.

Does the significance of the report this morning change that so that we now have a little clearer idea in which direction the economy is tending?

Mrs. NORWOOD. It's very clear that the monetary restraint that was imposed by the Fed some months ago is beginning to work. I think that the data this morning really confirmed that. Prices are going up at roughly a 5-percent range, and maybe slightly higher, and that's a pretty hefty rate of price increase. It may well be that the slowing of the economy is necessary to reduce that rate of increase.

Representative HAMILTON. Do you see any regional aspects to this change, this economic slowing down, if you would? Does your data, for example, indicate that the economy is slowing more in the Northeast than other parts of the country?

Mrs. NORWOOD. I think there is slowing generally, but it is true that the South and the North Central regions had a bit more employment growth in February and April than did the Northeast.

Representative HAMILTON. Of the two which is the fastest growing, Southern or North Central, or is there much of a difference?

Mrs. NORWOOD. We will look that up for you.

Representative HAMILTON. All right.

Now the other thing I would like to check with you on is the employment situation among blacks. You have a rise in unemployment for almost all groups except blacks.

Mrs. NORWOOD. Yes.

Representative HAMILTON. And the unemployment rate actually declined for blacks. The unemployment for whites rose because of an increase I guess in the number of whites looking for jobs, but the question is why the unemployment rate for blacks declined in April while unemployment is rising for other groups?

Mrs. NORWOOD. Well, first, the unemployment rate for blacks really is not very different in April from what it was in March. It's a small group of the population and really requires a fairly large change to be a change.

Representative HAMILTON. What is that rate?

Mrs. NORWOOD. The black rate of unemployment is 10.8 percent, it was 10.9 in March, and it needs to be about 0.8 or 0.9 percent in order to be statistically significant.

The point is, however, and your point I think was quite well taken, that the blacks have not had their unemployment experience deteriorate as did the Hispanics and the whites.

The blacks really have had somewhat more success in recent months. Certainly during this recovery they had, for example, a 15-percent increase in the labor force, more than for the whites, which was only about 10 percent, and suggesting that perhaps they see the economy as providing jobs for them and many of them are getting employment. But I would point out that 10 or 11 percent is not a very low rate of unemployment.

Representative HAMILTON. It's very high still, isn't it.

Mrs. NORWOOD. And if you get to black teenagers, you're up in the 31 percent range.

Representative HAMILTON. Now the civilian labor force grew by 395,000 in April. The subcategories show an increase for the number of whites, up 325,000, the number of blacks declined by 140,000 and the number of Hispanics rose by 50,000. That doesn't add up to 395,000. What happens there?

Mrs. NORWOOD. I'll let Mr. Plewes answer that one.

Representative HAMILTON. We have about 140,000 missing.

Mr. PLEWES. That's correct. We individually seasonally adjust the parts, and when we do that they don't always add up to the total.

Representative HAMILTON. Two and two doesn't always make four here?

Mr. PLEWES. Well, in this regard it doesn't. There are parts of it that do add up.

Representative HAMILTON. So the answer is there are seasonal adjustments basically; is that right?

Mr. PLEWES. In this case that is the major explanation.

Mrs. NORWOOD. Yes. I might point out, Mr. Chairman, that this is always a problem in any program when you seasonally adjust. You get much better results if you take each of the pieces separately. You could seasonally adjust the aggregate, but the individual estimates then are not as good. Once in a while we get some sharp user who recognizes that they don't add up and it becomes rather difficult.

Representative HAMILTON. What other categories do you have of workers, other than whites, blacks, and Hispanics. Are there other categories?

Mrs. NORWOOD. Age groups, male and female.

Representative HAMILTON. But there are no other racial groups?

Mrs. NORWOOD. No. The other groups of the population are much too small still for us to measure separately with the size of the household survey we have. That is part of the reason that whites and blacks do not add to the total.

Representative HAMILTON. Now, among other things, we find that the wages of nonunionized workers are rising faster than for unionized workers.

Mrs. NORWOOD. Yes, that's true.

Representative HAMILTON. So what's happening here?

Mrs. NORWOOD. It's quite clear that there are several things happening there.

First, the unions have traditionally been strongest in manufacturing, and weakest in services except for government. The increase in employment that we have been seeing during the period of this expansion has been primarily in services.

The unions, therefore, are spending more of their time I believe being concerned about job security since we are seeing a lot of plant closedowns and displacement, and putting less emphasis on earnings.

In addition, of course, as manufacturing has had difficulty in competing, there has been more pressure by employers to keep labor costs low. And, interestingly, the cost that appears to be increasing most is the employer cost of the benefits that are provided to workers, and those are more prevalent in the union establish-

ments, in manufacturing than elsewhere, things like health insurance.

Representative HAMILTON. Now let me turn your attention to the inflation rate just for a moment. During the first quarter the CPI went up 6.1 percent and the Producer Price Index at a rate of 10.2 percent. Do these figures represent an increase in the inflation rate above the inflation rate of last year?

Mrs. NORWOOD. Yes, indeed.

Representative HAMILTON. What do they tell us about the current inflation situation and about the outlook, can you make any judgment about that?

Mrs. NORWOOD. Well, let me try. It's clear that we are seeing some heating up of prices. Some of it is energy, but not all of it is energy. Where we will be heading is very difficult to determine in part because we do anticipate from things that have already happened that there will be some increase in energy costs, and I'm sure Mr. Tibbetts can say something more about that.

Mr. TIBBETTS. A little bit perhaps. In addition to the energy runup, what is worrying I think is the broad-based characteristic of the first quarter rise. We took some comfort from the third month of that quarter slowing down in industrial prices, and now, as the Commissioner has mentioned, press reports for the succeeding months suggest a faster rise in energy.

I have been looking at the reports as they come in, and I think that is confirmed. So that we can't take too much comfort from that lower rate at the end of the first quarter, but it looks like we're going to return unless there is something very unexpected happening in the foods and agriculture area, which have been published by the Agriculture Department as being somewhat soft. So there will be some offset, but in general I think the outlook is for a return not quite to the first quarter levels, but certainly above last year.

Mrs. NORWOOD. And that's because of energy prices which we already know about.

Representative HAMILTON. So the outlook is for something less than the 6.1 percent; is that right? Is that what you just said?

Mr. TIBBETTS. I was speaking with respect to industrial prices in comparison with the 10.2 percent. Now the 6.1 percent at the consumer level is a little less clear. That survey information is not available.

Representative HAMILTON. I see. You were focusing on the Producer Price Index.

Mr. TIBBETTS. Yes.

Mrs. NORWOOD. But I might point out that one of the changes we have noted is that when there is an event having to do with oil, wherever it is, an explosion in the North Sea or a fire in a refinery, it used to be that it would take some time for that to get to the retail pump. There now seems to be a psychology I'm told, and I've talked to several of the chief economists of oil companies recently, there seems to be a more instant reaction. So you read about it and a few days later the pump price of gasoline goes up.

Mr. TIBBETTS. And we saw that definitely in the CPI, which has already included part of the effect of the oil spill, whereas the PPI has not.

Representative HAMILTON. I see.

Mr. TIBBETTS. You would expect the lead to be on the other side.

Representative HAMILTON. Now some of the papers reported that the Soviet grain purchases would increase the cost of our grain 20 or 30 percent. What is the outlook on food prices, or is that in your category?

Mr. TIBBETTS. We have read those same reports, and whether the numbers are exactly right, there will be large increases and they will have an upward impact on the index. Other food reports that are coming in for the same period are on the downside. So the average for food may in fact be quite flat in spite of this runup in grain prices.

Representative HAMILTON. Congresswoman Snowe.

Representative SNOWE. Thank you, Mr. Chairman.

Mrs. Norwood, when was the last time we had this kind of an increase in the unemployment rate? You mentioned late last year. Did it equal this 0.3 of a percentage point?

Mrs. NORWOOD. We have a 0.5-percent increase, larger than what we have now in February 1986, and a 0.3-percent increase in July 1984, and shortly after each of those the expansion picked up.

Representative SNOWE. So this would be somewhat of the highest increase since 1982, the highest point?

Mrs. NORWOOD. Since 1986. Now, of course, this follows 2 months of declines. We had, if we look at the civilian unemployment rate, 5.4, 5.3, and 5.4 percent, and then we went to 5.1 and 5.0 percent, and now we are back up to 5.3 percent. So you never know whether what you're looking at is the 2 months that went down, that perhaps were an aberration, or the 1 month that is up, with the one important point, that what we are seeing very clearly on the employment side is a very real slowdown in March and April.

Representative SNOWE. What about job creation, that obviously had slowed down in recent months. Do you have any numbers on that?

Mrs. NORWOOD. Yes. We have created in the 77 months of the expansion 19,900,000 jobs.

Representative SNOWE. How does that compare with our last recovery in the 1970's?

Mrs. NORWOOD. Of course, it's a little difficult to compare it with the 1970's recovery because this expansion is so much longer. It's the longest expansion really in peacetime history. So it's a little hard to compare it. We had very vigorous job creation then, and we, of course, have a much larger labor force now. So we have to create jobs in order to keep going. It's a very good performance. There is no doubt about that.

Representative SNOWE. Who makes up the 400,000 increase in the labor force? Do we know where they are coming from and who they are?

Mrs. NORWOOD. We know something about them. They were about half adult men and adult women, there were very few teenagers, and most of them were white, very few black and I guess there weren't many Hispanic.

Representative SNOWE. You mentioned that construction employment remained flat for this last month which contrasted with the

previous 2 months where there was a decline in construction employment.

Mrs. NORWOOD. That's right.

Representative SNOWE. Is there anything that we can discern from that because I know there has been some analysis that this would indicate a slowdown in the economy because of building declining?

Mrs. NORWOOD. The housing market has been quite weak. Housing starts have been down, interest rates, of course, have been up and people have been reluctant in many areas to undertake mortgages at fairly significant rates. As a result, there has been a clear effect on the construction industry.

Mr. PLEWES. This month we saw some increases in highways and other kinds of construction that offset the residential decline.

Representative SNOWE. So we can't really see this as a positive sign of any kind?

Mrs. NORWOOD. Well, not yet. It depends, of course, on whether this will really have much effect on interest rates, because it's the interest rates that are affecting the housing market, and one of the reasons I suppose one might say for the Fed's determination to take some steps to restrain the economy has resulted in higher interest rates, and perhaps there may be some easing of all that now that the economy has slowed. I just don't know.

Representative SNOWE. So you think it's too early to draw any conclusion from this percentage increase in the unemployment rate?

Mrs. NORWOOD. Well, I certainly always believe that you have to wait for more than 1 month's data. It would be very dangerous to draw any definitive conclusions from this 1 month's data.

I think what we can say is that we have had a couple of months of slowing employment growth, that's very clear, but we have not had any declines in employment growth. We still have growth, small, but it's there. It's just that we have been used to having a 300,000 employment increase a month for years, and that is clearly slowing. Now the question, of course, is, is this going to be a temporary slowdown and is it going to go on slower. There are some economists who forecast slow growth and lower GNP, but, nevertheless, positive. I don't know of anyone who at this point at least without these data, of course, is forecasting any real turnaround yet.

Representative SNOWE. What have been the fastest growing occupational categories over the last 12 months?

Mrs. NORWOOD. They have been professional categories and technical kinds of jobs, those that require considerable education. And, by the way, women have been better represented among those kinds of jobs.

Representative SNOWE. Thank you.

Thank you, Mr. Chairman.

Mrs. NORWOOD. Mr. Chairman, we do have an answer to the regional question you asked.

Representative HAMILTON. OK, thank you.

Mr. PLEWES. Just some quick figuring here. We took over the year because that's probably a better way to look if you're comparing two regions because seasonal patterns differ. The growth in the

East North Central and the South Atlantic are almost the same, 700,000 in East North Central, which is the industrialized Midwest, and the South grew by about 600,000. Their employment numbers are fairly close to being the same. So we have seen some resurgence, I guess it's fair to say in the East North Central.

Representative HAMILTON. All right. Thank you.

We have seen a trend that two-worker families have experienced larger income gains during the 1980's than single-earner families, and there has been a long-term growth I guess in the number of two-earner families; is that right?

Mrs. NORWOOD. Yes, certainly. There are now, if we look at multi-earner families, that is married couple families, 57 percent of those households are now multi-earner.

Representative HAMILTON. Why have the incomes of two-earner families risen so much faster than one-income families?

Mrs. NORWOOD. Well, I think there are several reasons. One is partly where they are located and the kind of education that they have.

Representative HAMILTON. They tend to be professionals often, don't they?

Mrs. NORWOOD. Well, many of them certainly are. The single-person family, remember, tends to be concentrated either in very poor areas of the country or in central cities, and the female heading the household tends to be somewhat younger than the married couple household and earns less, has less experience and less education.

Representative HAMILTON. The data also suggest that most of the unemployed live in a family where there is at least one full-time employed worker. Does that mean that unemployment hits single people hardest?

Mrs. NORWOOD. Yes. Unemployment hits anybody, everyone. If you don't have a job, you personally are affected.

Representative HAMILTON. Sure.

Mrs. NORWOOD. If you mean in terms of economic hardship for the family, obviously if there is some other person working in the family—

Representative HAMILTON. That helps to alleviate it somewhat, doesn't it?

Mrs. NORWOOD. That helps, and the single-parent family rarely has another person working in the family.

Representative HAMILTON. Now in the productivity statistics, they rose at 3.5 percent overall in the first quarter of 1989, but productivity in the nonfarm economy rose only 0.5 of a percent. That's a big discrepancy, isn't it?

Mrs. NORWOOD. Yes, it's a big discrepancy, and it is all based on the method that was used by the Bureau of Economic Analysis in the determination essentially of farm activity taking account of the drought and then the response after the drought.

Representative HAMILTON. Why is it that productivity has increased and that we have had such a good record on improving productivity in the manufacturing sector, but not elsewhere?

Mrs. NORWOOD. That's the real question that faces this country, and I don't really know the answer to it. There are probably a number of reasons. One is that clearly we're seeing much more em-

ployment growth in the services, and if you look at manufacturing, what we have seen is the elimination of some of the inefficient production facilities and we have seen employment being held fairly tight. So that you would expect to see some efficiencies as the result of the competition from abroad.

In services there are a number of measurement problems as well. It's much easier to determine how many cars you produce, or how many washing machines, than it is to determine what banking services is or, even more important right now given the effect on our gross national product, how do you really measure medical care and what is the output of a hospital or a physician. There are difficulties there.

Representative HAMILTON. Where has the growth in productivity in the manufacturing sector gone and who has benefited from that? Has the consumer benefited with lower prices or has the worker benefited with higher wages, or can you tell?

Mrs. NORWOOD. There have been some, but very few wage increases. Some of the cost of manufacturers has gone into increased costs of the fringe benefits like health insurance. Some of it has gone into not price reductions, but restraint on price increases. We did see for quite a while, for example, that manufacturers held the line on export prices.

Representative HAMILTON. Did it go to profits then?

Mrs. NORWOOD. Well, I'm not familiar with all the profit figures, but I would expect that there has been an increase in profits, certainly.

Representative HAMILTON. On the issue of statistics that I bring up with you occasionally, we had Professor Kline here from Wharton, and he expressed some concern about the decline in the quality of U.S. economics statistics. Are you satisfied with the quality of data being produced by the Bureau of Labor Statistics? Do you think there has been any decline in it?

Mrs. NORWOOD. We do a pretty good job.

Representative HAMILTON. That's a given, right? [Laughter.]

Mrs. NORWOOD. Well, we do a pretty good job, and many of our data series are as good as we could possibly make them. We have, however, in recent years with budget restraint been forced to cut down on some of the quality measures that we normally take to find out about what we have.

For example, when we collect data we should be out there collecting the data for small samples so that we can measure whether the data collector has really first been there and, second, whether they have done the correct job. We aren't doing very much of that.

Representative HAMILTON. Have professionals who use your Bureau of Labor Statistics data expressed any concern to you about the quality of the data?

Mrs. NORWOOD. There is increasing concern I think about the quality of data, but I must tell you that my experience is that what users want is for BLS to put out something and put its name on it and they really don't think much about the quality. They leave that to us, and that's quite a problem.

Representative HAMILTON. Say that again. You mean they don't care whether you're right or wrong and you're accurate?

Mrs. NORWOOD. Well, certainly they would speak up if they thought we were very wrong, but for the most part if we produce a wage series or an employment series and it's a BLS product, given our reputation, they expect that it is of high quality. You know, quality is relative. It's a judgment that people make, and different people can put that judgment at a different place.

I do believe that we are doing a pretty good job, but that we need to shore up some of the quality measures, and I must tell you that it is hard to get funding for things like that. We can get funding if we come out and say to you, Mr. Chairman, we are going to give you a new measure of wages every month or we'll give you a lot of additional detail, but if we tell you that we need a million dollars to be sure that what we are getting is correct, we don't get anywhere. So it's a basic problem.

I should report to you, however, that as the result I believe of a hearing that this committee had with the Chairman of the Council of Economic Advisers there is a real initiative going on in the Government to look at not just the quantity, but also the quality of economic statistics, and I was at a meeting yesterday in which some of this was discussed.

Representative HAMILTON. We are not at a point where policy-makers should be concerned that we're making policy on the basis of unreliable data?

Mrs. NORWOOD. No, I don't think so, but I think there are some holes in the data. We're spending 11 percent or more of GNP on health care, and we have very little information on the prices of health care. We have a little bit in the Consumer Price Index, but that's just out-of-pocket consumer cost. There is a great deal more that needs to be done.

It's those kinds of things that we're not getting done because we don't have the resources to put on some of the newer kinds of things that need development. It's the developmental work as well as the quality checking that doesn't get done.

Representative HAMILTON. Thank you very much. We appreciate your appearance.

Mrs. NORWOOD. Thank you very much.

Representative HAMILTON. The committee stands adjourned.

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

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, JUNE 2, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 9:36 a.m., in room SD-628, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (vice chairman of the committee) presiding.

Present: Senators Sarbanes and Roth.

Also present: William Buechner and Chris Frenze, professional staff members.)

OPENING STATEMENT OF SENATOR SARBANES, VICE CHAIRMAN

Senator SARBANES. The committee will come to order.

On behalf of the members of the Joint Economic Committee, I am very pleased once again to welcome Commissioner Janet Norwood, along with her colleagues at the Bureau of Labor Statistics, for her monthly testimony on the employment and unemployment situation. We will turn to that, obviously, in the questioning period, but I want to address a somewhat related issue.

Last year the Bureau of Labor Statistics issued a release on the small proportion of temporary workers who are covered by health and pension benefits in the United States, and you discussed those figures at some length during the employment situation hearing actually just a year ago. The issue has recently been raised again in an article by Robert Kuttner in the Post on May 24, entitled "Business' New Craving for Cheap, Disposable Labor Won't Make the U.S. Competitive."

As this morning's release indicates, 21 million people work part time, including 5 million who want full-time jobs. According to the Kuttner article, an additional 2 million work in temporary jobs in business and government and these jobs generally pay far less than full-time jobs and, perhaps more importantly, come without health and retirement benefits. Many are increasingly coming to the view that the fact that health and retirement benefits are provided in the United States by employers rather than on a universal basis, is an incentive, perhaps a powerful incentive, to convert potentially good full-time jobs into part-time contingent jobs. This is in contrast to other industrial countries where health and retirement benefits are universal and, therefore, this incentive to parcel full-time jobs into part-time ones does not exist.

Kuttner observed competitiveness on the cheap will not work. Low wage, unskilled labor equals lower productivity and lower living standards. Real competitiveness requires more productive,

more expensive, better trained workers and a wealthier economy. The "temporary" solution is just that, and this is a subject that I will try to get into, but in the question period.

Finally, before turning to Commissioner Norwood's testimony, the Joint Economic Committee would like officially and on the record this morning to recognize your Associate Commissioner for Productivity and Technology, Jerry Mark, who is retiring from the BLS at the end of this month after 38 years of distinguished service to the Bureau and to the American people. Throughout the years, Mr. Mark has always been very helpful to this committee whenever we have needed assistance on productivity issues. He is a recognized expert, not only in this country but internationally. He is an example, I think, of the career dedication that has made the Federal service work and work well on behalf of the American people, and we will miss him, as we will wish him well in his retirement.

And Commissioner, if you have no objection, we would like to ask Mr. Mark to come up and join you and your colleagues at the witness table, and a little later on in this hearing, I will have a few questions for him [laughter] on productivity, so we can get that from him before he departs. We are pleased to have you here this morning.

I am delighted that Senator Roth is with us. I know he has an opening statement, and I would be happy to yield to him before we hear your presentation.

OPENING STATEMENT OF SENATOR ROTH

Senator ROTH. Thank you, Mr. Vice Chairman. I welcome you, Mrs. Norwood, and your companions. I, too, want to join the vice chairman in congratulations to Mr. Mark for his fine public service. I am sorry to see you leave, but I hope you have an enjoyable retirement, whatever that may be.

Today's employment release confirms that the economic expansion continues to benefit American workers. Employment is up, and the civilian unemployment rate declined one-tenth of a percentage point to 5.2 percent. This year the unemployment rate has fallen to a rate lower than in any year since 1974.

The employment-population ratio—an important measure of the economy's ability to create enough new jobs—remains at a record high of 63 percent. The employment to population ratio for adult women also is at a historically high level.

Now in its 79th month, the economic expansion has created 20 million new jobs. However, the recent pace of job growth seems to have slowed with the economy, in keeping with the policy objective of the Federal Reserve. A more moderate rate of economic and employment growth is viewed as containing inflationary pressures. Nonetheless, the economy continues to expand, generating additional employment opportunities for all Americans. Moreover, these opportunities are good ones. Over the last 12 months more than 50 percent of the new jobs have been in managerial and professional occupations. These are the highest paid occupation categories. A transition to high-quality jobs, which would require more education, skills, and training, is already well underway.

Overall, the healthy state of the economy is reflected in a good labor market characterized by relatively low unemployment rates. Some would argue that the unemployment rate is too low for our own good. I am not of that opinion, but it is encouraging to see that economic conditions have improved to the point where there can be such debate.

As policymakers, our task is to avoid measures which can cut the expansion short, and start the unemployment rate going in the opposite direction. Economic conditions are never perfect, but the employment report today reflects a positive tone in the economy. Thank you, Mr. Vice Chairman.

Senator SARBANES. Thank you very much, Senator Roth.

Commissioner, we are very happy to hear from you.

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; THOMAS J. PLEWES, ASSOCIATE COMMISSIONER, OFFICE OF EMPLOYMENT AND UNEMPLOYMENT STATISTICS; JEROME A. MARK, ASSOCIATE COMMISSIONER, OFFICE OF PRODUCTIVITY AND TECHNOLOGY; AND GEORGE L. STELLUTO, ASSOCIATE COMMISSIONER, OFFICE OF COMPENSATION AND WORKING CONDITIONS

Mrs. NORWOOD. Mr. Vice Chairman and members of the committee, once again, I would like to thank you for the opportunity to discuss developments in employment and unemployment with this committee this morning.

The Nation's jobless rate was little changed in May, and employment followed its recent pattern of slowing growth. The civilian unemployment rate was 5.2 percent and the total rate including the resident Armed Forces was 5.1 percent.

Most of the major demographic groups maintained their jobless rates of the month earlier. Adult men, however, showed a decline, reversing their movement of the prior month. Another positive note in the data for May is the fact that the number of workers employed part time who would have preferred full-time work declined by about 300,000 to 4.8 million. Also, the number of persons unemployed for at least half a year fell to only about 600,000, the lowest level since 1980.

However, payroll job growth was quite slow. May showed an increase of only 100,000. In fact, over the last 3 months, an average of only 160,000 jobs a month were added to business payrolls. Through 1987 and 1988, that figure was a robust 270,000 a month.

Those who follow these data regularly will note that we had previously reported job growth during 1987 and 1988 as a bit higher—about 300,000 per month. The new and slightly lower level is the result of our annual benchmark revision for the business survey. The benchmark represents the complete count of employment obtained principally from the State unemployment insurance administrative records. Quite often, the survey estimating procedures hit the benchmark right on the nose. With this benchmark, however, we had a small revision in the data of just about 0.3 percent per

year. These revisions have lowered our estimate of employment growth over the 2 years since March 1987 by about 600,000. I should note also that the new seasonal factors introduced today raised the March-to-April seasonally adjusted job growth to a little over 205,000, still well below the growth rate for last year.

One result of these revisions is that they reduce the difference in employment growth between the two surveys that we report on each month. Later on this year, we expect to know more about possible changes in the rate of dual job holding, a development that may help to explain some of the remaining divergence between the two surveys. Last month, the Bureau of Labor Statistics sponsored a supplement to the labor force survey in which people were asked whether they held more than one job during the survey week. Those data were last collected in 1985. An increase in dual job holding could account for some of the widening gap between the employment count in the two surveys, since multiple jobholders are counted only once in the household survey but are counted in each of the jobs they hold in the business survey.

Let me return to the details of the May employment data. Not only was payroll job growth very slow, but it was confined to a narrow range of industries. We recently began publishing two new diffusion indexes that measure the breadth of employment growth. The one that has the broadest coverage, 349 industries, indicated that in May only slightly more industries registered employment gains than registered losses. That 53 percent is the lowest figure that we have had in that series since mid-1986 and one of the lowest of the expansionary period.

Employment in the goods-producing industries, which had experienced some strength between October and January, slowed considerably between February and April and then edged down by about 35,000 in May. In fact, employment in both construction and manufacturing in May was at about the same level as it was in January. For the last 2 months, the manufacturing diffusion index has been below 50 percent, which means that more of the individual industries were losing jobs than were gaining them. The number of mining jobs was up slightly in March and April but was little changed in May.

Even in the service-producing industries, the overall growth of about 135,000 jobs from April to May was quite slow, and none of the major industry divisions showed particular strength. This sector is especially important in analysis of employment developments now, since it employs 8 out of every 10 nonfarm workers. Retail hiring has been quite sluggish for the past 3 months; job gains in wholesale trade have dropped way off after nearly 2 strong years, and even growth in services was quite slow. The 65,000 increase in employment in that industry was among the smallest of the last 6 years. In the entire service-producing sector, only a few industries, such as transportation and health services, could be said to be maintaining a solid rate of growth.

In summary, the employment situation that I was describing to you today is very similar to that which I described last month. We saw payroll jobs grow in May but that growth was slow. In fact, employment increases in the past few months have been much smaller than during the prior 2 years. The rate of unemployment,

at just above 5 percent, seems to be fluctuating within a fairly narrow range.

My colleagues and I would be glad to try to answer any questions you may have.

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

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)
1988									
May.....	5.4	5.6	5.6	5.6	5.6	5.6	5.7	5.6	.1
June.....	5.5	5.4	5.4	5.3	5.3	5.4	5.4	5.3	.1
July.....	5.5	5.4	5.4	5.4	5.4	5.5	5.5	5.4	.1
August.....	5.4	5.6	5.6	5.6	5.5	5.6	5.6	5.6	.1
September...	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	-
October.....	5.0	5.3	5.3	5.4	5.3	5.3	5.4	5.3	.1
November....	5.2	5.4	5.4	5.4	5.4	5.3	5.4	5.4	.1
December....	5.0	5.3	5.3	5.4	5.3	5.3	5.4	5.4	.1
1989									
January.....	6.0	5.4	5.4	5.4	5.5	5.4	5.3	5.5	.2
February....	5.6	5.1	5.2	5.2	5.2	5.2	5.0	5.2	.2
March.....	5.2	5.0	5.0	5.0	5.0	5.0	4.8	5.0	.2
April.....	5.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	-
May.....	5.0	5.2	5.2	5.2	5.2	5.1	5.3	5.1	.2

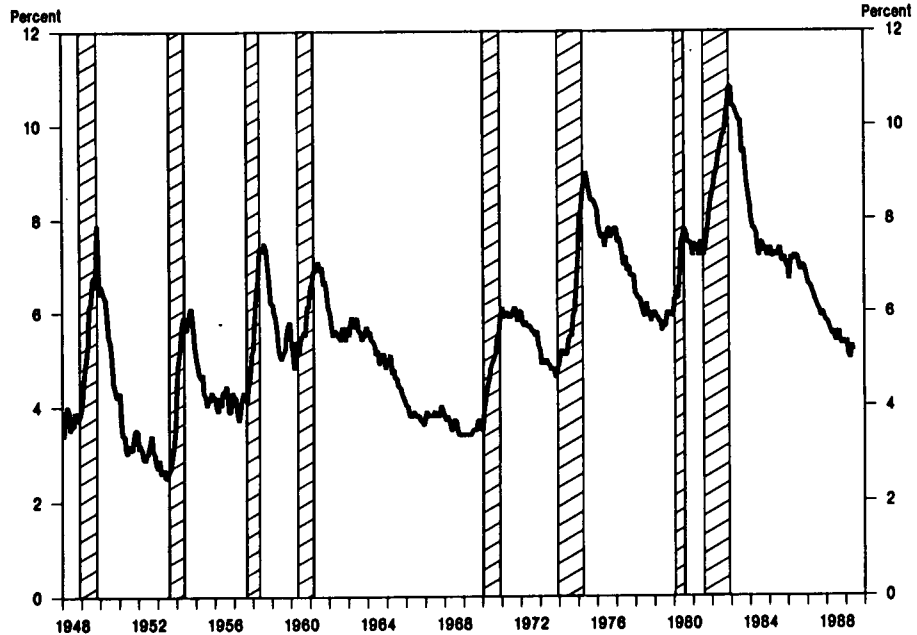
SOURCE: U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
June 1989

- (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) 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 Time 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. 12-364E, February 1980.

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

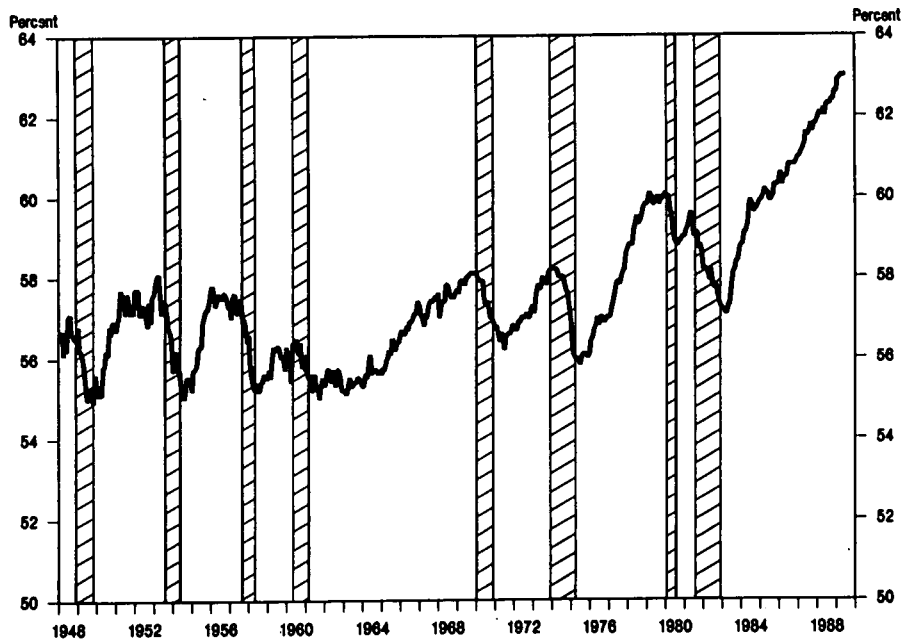
Chart 1. Unemployment rate of all civilian workers, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

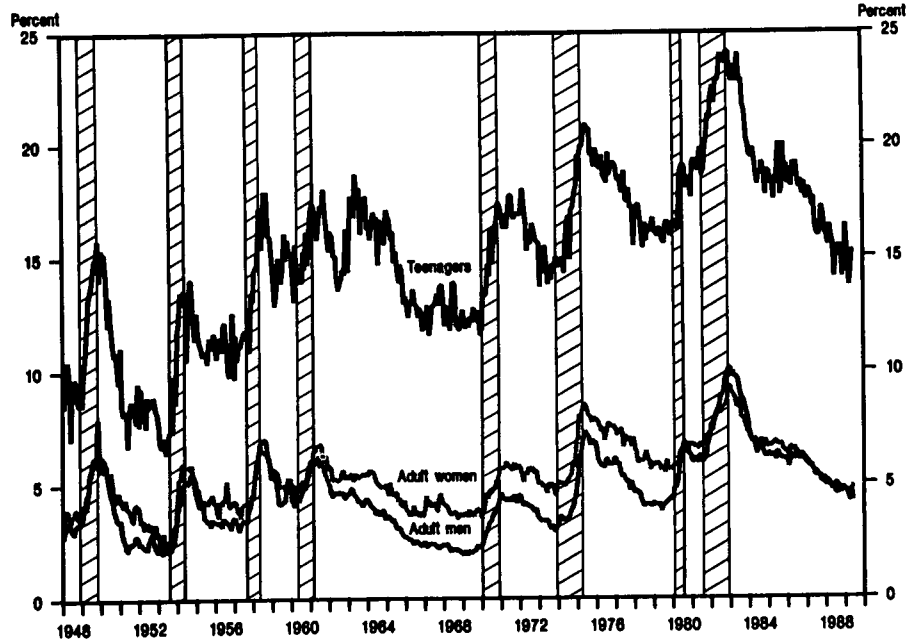
**Chart 2. Civilian employment–population ratio,
seasonally adjusted, 1948–89**



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

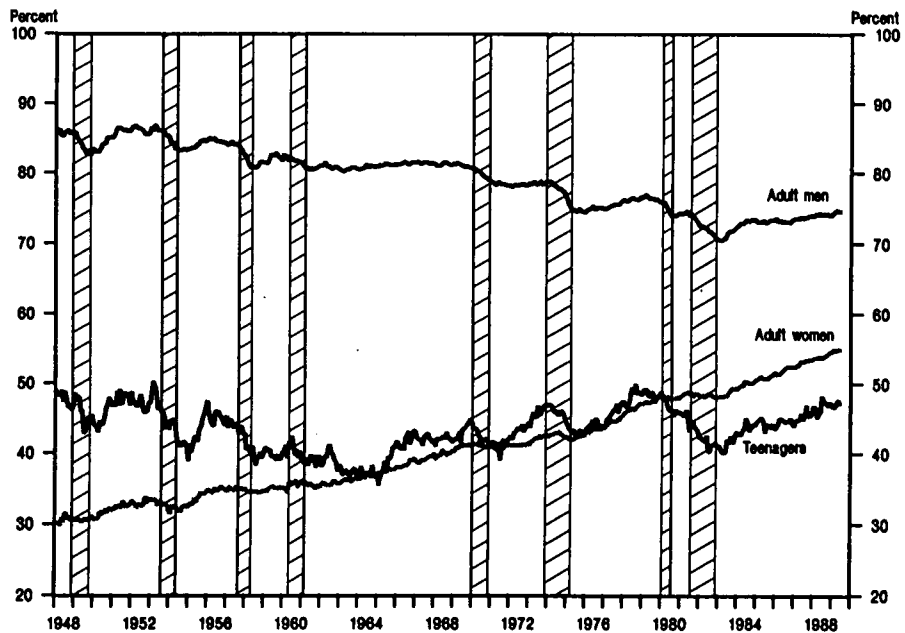
Chart 3. Unemployment rates for major age-sex groups, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

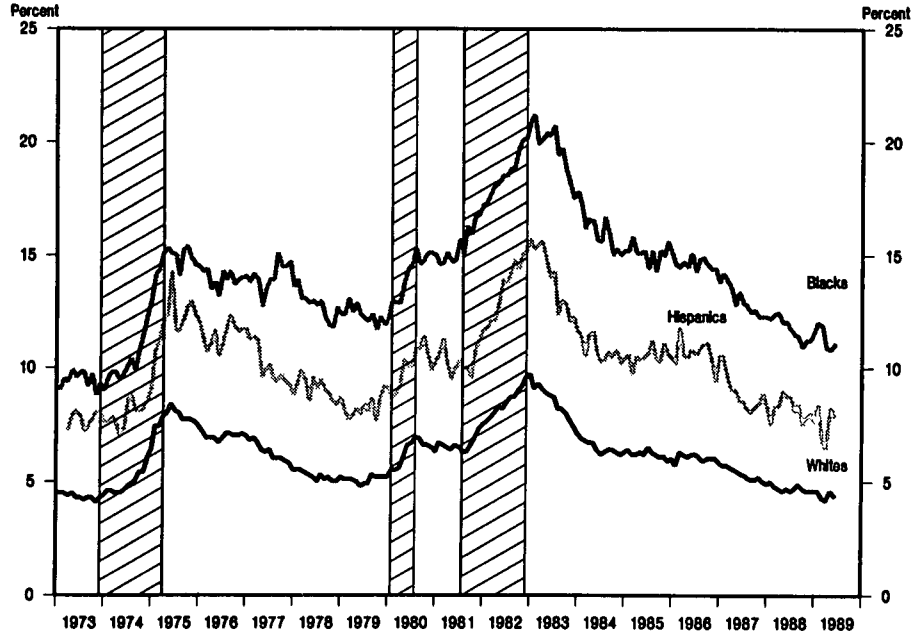
Chart 4. Civilian employment–population ratio for major age–sex groups, seasonally adjusted, 1948–89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

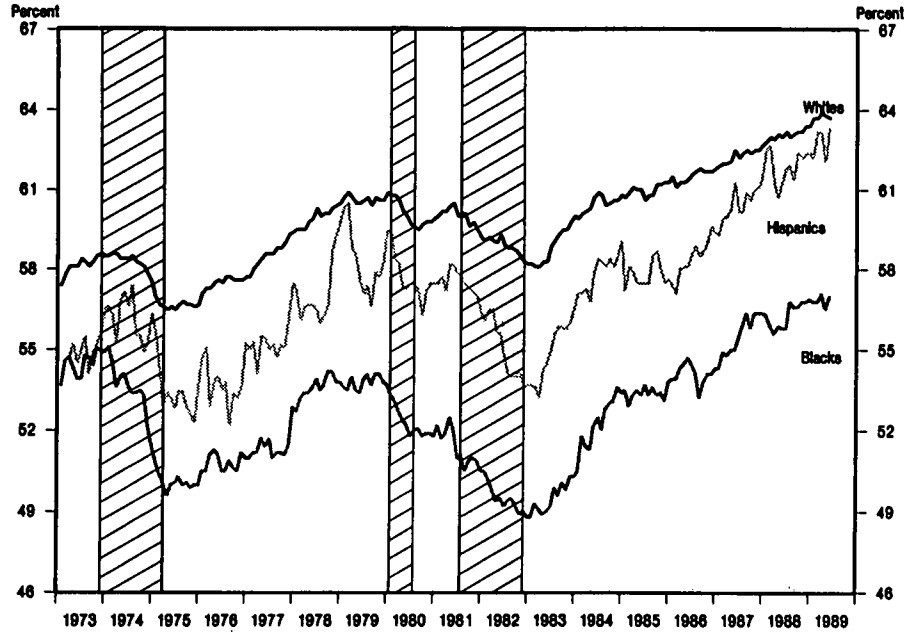
Chart 5. Unemployment rates for whites, blacks, and persons of Hispanic origin, seasonally adjusted, 1973-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

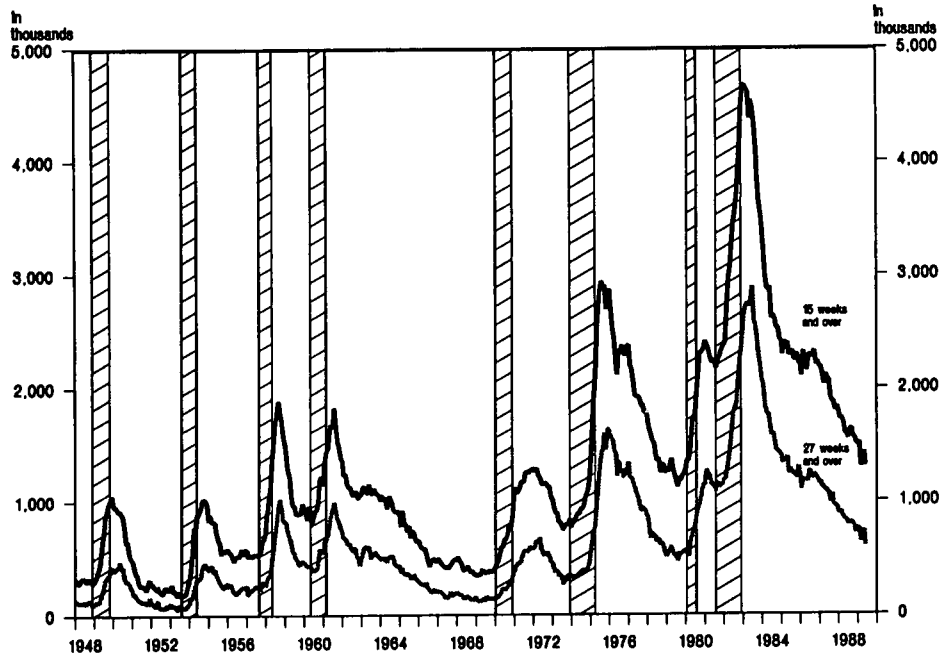
Chart 6. Civilian employment–population ratio for whites, blacks, and persons of Hispanic origin, seasonally adjusted, 1973–89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

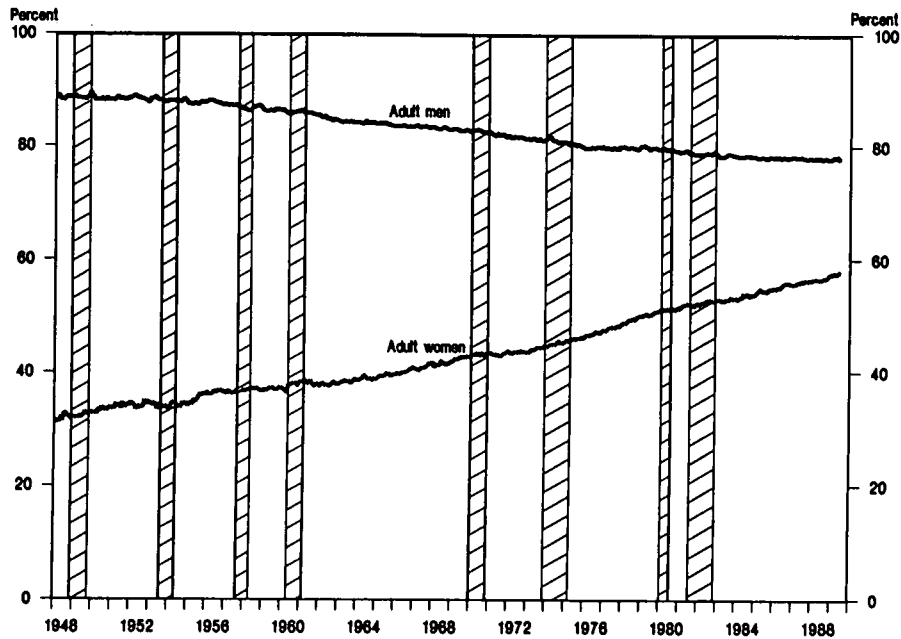
Chart 7. Long-term unemployment, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

Chart 8. Labor force participation rates for adult men and women, seasonally adjusted, 1948-89



Note: Shaded areas represent recessions

Source: Bureau of Labor Statistics, June 2, 1989

News

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8:30 A.M. (EDT), FRIDAY,
JUNE 2, 1989

THE EMPLOYMENT SITUATION: MAY 1989

Employment and unemployment were little changed in May, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The overall unemployment rate was 5.1 percent and the civilian worker rate was 5.2 percent. This compares with 5.2 and 5.3 percent, respectively, in the previous month.

Nonagricultural payroll employment--as measured by the survey of business establishments--edged up by 100,000 in May, after seasonal adjustment, and total civilian employment--as measured by the household survey--showed little growth. Results from both surveys indicate that the pace of employment growth has moderated in recent months.

Unemployment (Household Survey Data)

Both the number of unemployed persons and the civilian worker unemployment rate were little changed in May, after seasonal adjustment. A total of 6.4 million persons were unemployed; the civilian worker jobless rate was 5.2 percent. Both figures are somewhat below those of a year earlier. (See table A-2.)

Jobless rates for adult women (4.8 percent), teenagers (15.2 percent), blacks (11.0 percent), whites (4.4 percent), and Hispanics (7.9 percent) all held about steady from April to May. An exception to this pattern was a three-tenths of a percentage point decrease in the jobless rate for adult men to 4.3 percent; this followed an increase of a similar magnitude in April. (See tables A-2 and A-3.)

Average (mean) duration of unemployment, at 11.8 weeks, declined nearly a full week over the month, as the number of very long-term unemployed--those who are jobless for 6 months or more--declined by 125,000. Median duration, at 5.3 weeks, was about unchanged. (See table A-7.)

The number of persons working part time for economic reasons--often referred to as the partially unemployed--decreased by about 300,000 in May to 4.8 million. (See table A-4.)

Civilian Employment and the Labor Force (Household Survey Data)

Civilian employment was little changed over the month at a seasonally adjusted level of 117.2 million. The employment-population ratio--the proportion

of the population that is employed--maintained its record high 63.0 percent for the third consecutive month. (See table A-2.)

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

Category	Quarterly averages		Monthly data			Apr.- May change
	1988	1989	1989			
	IV	I	Mar.	Apr.	May	
HOUSEHOLD DATA						
Thousands of persons						
Labor force 1/.....	124,084	124,979	124,948	125,343	125,283	-60
Total employment 1/...	117,539	118,588	118,820	118,797	118,888	91
Civilian labor force....	122,388	123,291	123,264	123,659	123,610	-49
Civilian employment...	115,843	116,900	117,136	117,113	117,215	102
Unemployment.....	6,545	6,391	6,128	6,546	6,395	-151
Not in labor force....	62,865	62,482	62,633	62,365	62,571	206
Discouraged workers...	951	855	N.A.	N.A.	N.A.	N.A.
Percent of labor force						
Unemployment rates:						
All workers 1/.....	5.3	5.1	4.9	5.2	5.1	-0.1
All civilian workers	5.3	5.2	5.0	5.3	5.2	-0.1
Adult men.....	4.7	4.5	4.2	4.6	4.3	-0.3
Adult women.....	4.7	4.6	4.6	4.7	4.8	0.1
Teenagers.....	14.6	15.0	13.7	14.4	15.2	0.8
White.....	4.6	4.4	4.2	4.6	4.4	-0.2
Black.....	11.3	11.6	10.9	10.8	11.0	0.2
Hispanic origin.....	7.8	7.2	6.5	8.3	7.9	-0.4
ESTABLISHMENT DATA 2/						
Thousands of jobs						
Nonfarm employment.....	106,799	107,680	107,888	p108,094	p108,195	p101
Goods-producing.....	25,452	25,634	25,646	p25,664	p25,631	p-33
Service-producing.....	81,346	82,047	82,242	p82,430	p82,564	p134
Hours of work						
Average weekly hours:						
Total private.....	34.7	34.7	34.7	p34.9	p34.6	p-0.3
Manufacturing.....	41.1	41.1	41.0	p41.2	p41.0	p -0.2
Overtime.....	3.9	3.9	4.0	p4.0	p3.8	p -0.2

1/ Includes the resident Armed Forces.

2/ Establishment data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

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

After rising substantially in the prior month, the civilian labor force was little changed in May at 123.6 million. Over the year, the civilian labor force rose by 2.4 million, with adult women accounting for 1.7 million of the gain and adult men 800,000. (See table A-2.)

Industry Payroll Employment (Establishment Survey Data)

Growth in nonagricultural employment continued to slow in May, as the number of payroll jobs edged up by 100,000 to a level of 108.2 million, seasonally adjusted. (See table B-1.) Averaging 160,000 over the last 3 months, payroll employment gains have been well off their average pace of 275,000 in the prior 12-month period. Virtually all of May's modest employment growth occurred in the service-producing sector, as the goods-producing industries experienced a small job decline.

Employment in the goods sector lost what small gains it had made between February and April, with a decline of 35,000 in May. Manufacturing employment, off by 30,000 in the last 2 months, returned to its January level. The weakness in manufacturing was widespread, as the number of jobs in most of its major industry groups declined slightly or showed little change. Employment in the electrical equipment industry declined for the sixth consecutive month. Construction hiring was just short of seasonal expectations, and, as a result, the number of construction jobs decreased slightly on a seasonally adjusted basis. Construction employment has shown no consistent growth since January. The number of mining jobs, which had edged up in March and April, was unchanged in May.

Job gains in the service-producing sector have also slowed in recent months. Employment in wholesale trade showed no change in May, following a gain of only 10,000 in April; this is in contrast to monthly gains averaging 20,000 in the prior year. Retail trade has also shown little or no job growth in the last 2 months, after posting strong gains in late 1988 and early this year. Employment in the services industry rose by 65,000 in May, well below its monthly average of about 110,000 over the prior year. Gains in business services (up only 10,000 in May and 40,000 over the last 3 months) have been well off the pace sustained throughout most of the expansion. In contrast, health services, with a job gain of 35,000 in May, has shown steady monthly growth. Another consistent job gainer has been the transportation industry, where a May increase of 15,000 was about average for that industry. Slight employment expansion continued to be registered in finance, insurance, and real estate.

Weekly Hours (Establishment Survey Data)

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls decreased 0.3 hour to 34.6 hours in May, after seasonal adjustment. This marked a return to the levels prevailing in February and March, following an overstated increase in April. Similarly, both the factory workweek and overtime fell 0.2 hour, to 41.0 and 3.8 hours, respectively. (See table B-2.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls, at 127.5 (1977=100), fell 0.9 percent in May, on a seasonally-adjusted basis, reversing a similar increase in April. The manufacturing index declined by 0.7 percent to 96.5. Both movements were responses to the April overstatement in hours. (See table B-5.)

Hourly and Weekly Earnings (Establishment Survey Data)

Following a sizable increase in April, average hourly earnings of private production or nonsupervisory workers were about unchanged in May, seasonally adjusted. Reflecting the drop in the hours series, average weekly earnings showed a seasonally adjusted decline of 0.8 percent. Prior to seasonal adjustment, average hourly earnings were little changed, while average weekly earnings rose 1.0 percent. Over the past year, hourly earnings have risen by 3.7 percent and weekly earnings by 3.4 percent. (See tables B-3 and B-4.)

Revisions in the Establishment Survey Data

In accordance with annual practice, the establishment survey data have been revised to reflect complete counts of employment (benchmarks). These counts are principally derived from unemployment insurance tax records for March 1988. The effects of the benchmark revision on current data are shown in table B, which presents data for February 1989. February data are used because they represent the last month of final published estimates prior to this benchmark revision.

Also in accordance with usual practice, seasonal adjustment factors have been recalculated to incorporate the experience through March 1989. As a result, seasonally adjusted series for the past 5 years are subject to revision. The ELS uses the X-11 ARIMA (Auto-Regressive Integrated Moving Average) seasonal adjustment methodology to seasonally adjust establishment-based employment, hours, and earnings data. In the past, the X-11 ARIMA program has been run once each year after benchmarking and seasonal adjustment factors have been projected and published for 12 months ahead. This year, the Bureau is introducing a modification to this procedure to parallel that used in seasonally adjusting household survey data. Projected seasonal adjustment factors are now calculated only for the first 6 months after benchmarking. A second set of projected seasonal factors, for use during the subsequent period, will be computed based upon data through September and introduced with the release of data for October. Revisions of historical data for the most recent 5 years will continue to be made once a year, coincident with the benchmark revisions.

The ELS is also working on an extension to X-11 ARIMA to allow it to adjust more adequately for the effects of the presence or absence of religious holidays in the April survey reference period (as well as for the occasional effects of Labor Day in the September survey reference period). If this research proves successful, this extension will be introduced for the computation of the seasonal adjustment factors to be published in November 1989.

All unadjusted establishment data series from April 1987 forward and all seasonally adjusted series from January 1984 forward are affected by the annual revisions announced today. The June 1989 issue of Employment and Earnings will contain a discussion of the effects of the benchmark revisions, revised seasonal adjustment factors to be used during April-September 1989, and an explanation of

the seasonal adjustment methodology. This issue will also present revised estimates for all regularly published tables containing national establishment survey data on employment, hours, and earnings. All of the revised historical series will be published in a special supplement to Employment and Earnings, which is expected to be issued in July. This supplement, when combined with the historical volume, Employment, Hours, and Earnings, United States, 1909-84 (BLS Bulletin 1312-12), will comprise the full historical series on national data obtained from the establishment survey.

Table B. Establishment survey employment estimates for February 1989, not seasonally adjusted

(In thousands)

Industry	February 1989 employment estimates		Difference
	Before revision	As revised	
Total nonfarm employment.....	106,937	106,342	-595
Total private.....	89,041	88,463	-578
Mining.....	705	696	-9
Construction.....	4,957	4,747	-210
Manufacturing.....	19,652	19,518	-134
Transportation and public utilities.....	5,635	5,597	-38
Wholesale trade.....	6,305	6,115	-190
Retail trade.....	19,089	18,937	-152
Finance, insurance, and real estate.....	6,689	6,698	9
Services.....	26,009	26,155	146
Government.....	17,896	17,879	-17
Federal.....	2,969	2,969	0
State.....	4,177	4,189	12
Local.....	10,750	10,721	-29

The Employment Situation for June 1989 will be released on Friday, July 7, at 8:30 A.M. (EDT).

Explanatory Note

This news release presents statistics from two major surveys, the Current Population Survey (household survey) and the Current Employment Statistics Survey (establishment survey). The household survey provides the information on the labor force, total employment, and unemployment that appears in the A tables, marked HOUSEHOLD DATA. It is a sample survey of about 55,800 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 nonagricultural 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 300,000 establishments employing over 38 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 nonagricultural 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. The January revision is applied to data that have been published over the previous 5 years. For the establishment survey, updated factors for seasonal adjustment are calculated only once a year, along with the introduction of new benchmarks which are discussed at the end of the next section.

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, DC 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					
	May 1968	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
TOTAL									
Noninstitutional population ²	186,068	187,708	187,854	186,068	187,340	187,461	187,581	187,708	187,854
Labor force ³	122,489	124,280	124,869	122,917	125,124	124,865	124,948	125,343	125,283
Participation rate ⁴	65.8	66.2	66.5	66.1	66.8	66.8	66.8	66.8	66.7
Total employed ⁵	115,836	118,031	118,712	116,117	118,407	118,537	118,820	118,797	118,888
Employment-population ratio ⁶	62.3	62.9	63.2	62.4	63.2	63.2	63.3	63.3	63.3
Resident Armed Forces	1,714	1,584	1,673	1,714	1,690	1,584	1,584	1,584	1,573
Civilian employed	114,222	116,347	117,039	114,403	116,717	116,853	117,138	117,113	117,215
Agriculture	3,292	3,116	3,284	3,110	3,300	3,223	3,206	3,104	3,112
Nonagricultural industries	110,930	113,231	113,755	111,293	113,411	113,630	113,930	114,009	114,102
Unemployed	6,553	6,229	6,156	6,800	6,716	6,328	6,128	6,546	6,395
Unemployment rate ⁷	5.3	5.0	4.9	5.5	5.4	5.1	4.9	5.2	5.1
Not in labor force	63,599	63,448	62,985	63,171	62,218	62,598	62,633	62,366	62,571
Men, 16 years and over									
Noninstitutional population ²	89,287	90,094	90,167	89,287	89,914	89,973	90,032	90,094	90,167
Labor force ³	68,272	68,684	68,980	68,408	69,022	69,113	69,190	69,280	69,114
Participation rate ⁴	76.5	76.2	76.5	76.6	76.8	76.8	76.9	77.0	76.7
Total employed ⁵	64,696	65,185	65,731	64,672	65,322	65,572	65,820	65,787	65,713
Employment-population ratio ⁶	72.5	72.4	72.9	72.4	72.6	72.9	73.2	73.0	72.9
Resident Armed Forces	1,553	1,521	1,511	1,553	1,532	1,521	1,521	1,521	1,511
Civilian employed	63,143	63,664	64,220	63,119	63,790	64,051	64,399	64,248	64,202
Unemployed	3,575	3,489	3,249	3,737	3,710	3,540	3,270	3,593	3,401
Unemployment rate ⁷	5.2	5.1	4.7	5.5	5.4	5.1	4.7	5.2	4.9
Women, 16 years and over									
Noninstitutional population ²	96,801	97,614	97,687	96,801	97,427	97,488	97,550	97,614	97,687
Labor force ³	54,218	55,576	55,889	54,508	56,091	55,752	55,758	55,963	56,169
Participation rate ⁴	56.0	56.9	57.2	56.3	57.8	57.2	57.2	57.4	57.5
Total employed ⁵	51,240	52,848	52,981	51,445	53,085	52,965	52,900	53,029	53,175
Employment-population ratio ⁶	52.9	54.1	54.2	53.1	54.5	54.3	54.2	54.3	54.4
Resident Armed Forces	181	183	182	181	184	183	183	183	182
Civilian employed	51,079	52,663	52,819	51,264	52,921	52,802	52,737	52,886	53,013
Unemployed	2,978	2,730	2,907	3,063	3,006	2,787	2,858	2,953	2,994
Unemployment rate ⁷	5.8	4.9	5.2	5.6	5.4	5.0	5.1	5.3	5.3

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).

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				
	May 1968	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
TOTAL									
Civilian noninstitutional population	184,374	186,024	186,161	184,374	185,844	185,777	185,897	186,024	186,161
Civilian labor force	120,775	122,576	123,196	121,203	123,428	123,181	123,284	123,650	123,610
Participation rate	65.5	65.9	66.2	65.7	66.5	66.3	66.3	66.5	66.4
Employed	114,222	116,347	117,027	114,400	116,711	116,653	117,136	117,119	117,215
Employment-population ratio ²	62.0	62.5	62.9	62.0	62.9	62.9	63.0	63.0	63.0
Unemployed	6,553	6,229	6,156	6,800	6,718	6,328	6,128	6,546	6,395
Unemployment rate	5.4	5.1	5.0	5.6	5.4	5.1	5.0	5.3	5.2
Men, 20 years and over									
Civilian noninstitutional population	80,402	81,413	81,524	80,402	81,162	81,256	81,323	81,413	81,524
Civilian labor force	62,896	63,370	63,500	62,721	63,356	63,490	63,557	63,709	63,503
Participation rate	78.0	77.8	77.9	78.0	78.1	78.1	78.1	78.3	77.9
Employed	59,745	60,430	60,899	59,656	60,420	60,836	60,809	60,757	60,796
Employment-population ratio ²	74.3	74.2	74.7	74.2	74.4	74.8	74.8	74.8	74.8
Agriculture	2,336	2,277	2,395	2,236	2,277	2,320	2,317	2,262	2,284
Nonagricultural industries	57,409	58,154	58,514	57,419	58,143	58,516	58,532	58,525	58,514
Unemployed	2,952	2,940	2,802	3,065	2,938	2,853	2,698	2,952	2,705
Unemployment rate	4.7	4.6	4.1	4.9	4.8	4.5	4.2	4.6	4.3
Women, 20 years and over									
Civilian noninstitutional population	88,362	90,318	90,432	89,282	90,072	90,153	90,242	90,318	90,432
Civilian labor force	50,426	51,855	52,078	50,532	51,996	51,821	51,851	51,992	52,171
Participation rate	56.4	57.4	57.8	56.5	57.8	57.5	57.5	57.6	57.7
Employed	48,018	49,578	49,882	48,040	49,543	49,514	49,484	49,544	49,690
Employment-population ratio ²	53.7	54.9	54.9	53.7	55.0	54.9	54.8	54.9	54.9
Agriculture	644	900	998	904	715	698	694	615	628
Nonagricultural industries	47,373	48,978	48,013	47,436	48,827	48,849	48,819	48,929	49,062
Unemployed	2,408	2,277	2,396	2,492	2,455	2,306	2,367	2,448	2,480
Unemployment rate	4.8	4.4	4.6	4.9	4.7	4.5	4.6	4.7	4.8
Both sexes, 16 to 19 years									
Civilian noninstitutional population	14,590	14,293	14,224	14,590	14,410	14,367	14,223	14,293	14,224
Civilian labor force	7,852	7,350	7,817	7,850	8,071	7,871	7,856	7,808	7,908
Participation rate	52.4	51.4	53.6	54.5	56.0	54.8	54.9	55.7	55.8
Employed	6,459	6,336	6,459	6,707	6,748	6,703	6,783	6,812	6,726
Employment-population ratio ²	44.3	44.3	45.4	46.0	46.8	46.7	47.4	47.7	47.3
Agriculture	312	240	232	298	307	237	224	237	200
Nonagricultural industries	6,147	6,096	6,227	6,409	6,441	6,466	6,559	6,575	6,526
Unemployed	1,193	1,012	1,158	1,243	1,323	1,168	1,073	1,146	1,210
Unemployment rate	15.8	13.8	15.2	15.8	16.4	14.8	13.7	14.4	15.2

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.

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					
	May 1968	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
WHITE									
Civilian noninstitutional population	158,034	159,098	159,200	158,034	158,885	158,947	159,020	159,098	159,200
Civilian labor force	104,125	105,542	105,898	104,433	106,108	105,798	105,988	106,312	106,184
Participation rate	65.9	66.3	66.5	66.1	66.8	66.6	66.7	66.8	66.7
Employed	99,414	100,941	101,412	99,506	101,183	101,278	101,554	101,458	101,466
Employment-population ratio ²	62.9	63.4	63.7	63.0	63.7	63.7	63.9	63.8	63.7
Unemployed	4,711	4,801	4,486	4,925	4,923	4,521	4,434	4,854	4,699
Unemployment rate	4.5	4.4	4.2	4.7	4.6	4.3	4.2	4.6	4.4
Men, 20 years and over									
Civilian labor force	54,703	55,207	55,265	54,722	55,213	55,306	55,382	55,448	55,249
Participation rate	78.4	78.3	78.3	78.4	78.5	78.6	78.6	78.7	78.3
Employed	52,523	53,033	53,354	52,443	53,007	53,197	53,387	53,248	53,248
Employment-population ratio ²	75.3	75.2	75.6	75.2	75.4	75.6	75.8	75.5	75.5
Unemployed	2,180	2,173	1,911	2,279	2,205	2,111	1,995	2,202	2,001
Unemployment rate	4.0	3.9	3.5	4.2	4.0	3.8	3.6	4.0	3.6
Women, 20 years and over									
Civilian labor force	42,806	43,954	44,039	42,868	43,938	43,770	43,780	44,016	44,084
Participation rate	56.0	57.1	57.1	57.1	56.9	56.9	57.2	57.2	57.2
Employed	41,145	42,291	42,324	41,124	42,201	42,177	42,115	42,207	42,282
Employment-population ratio ²	53.9	54.8	54.9	53.8	54.9	54.8	54.7	54.8	54.9
Unemployed	1,663	1,663	1,716	1,744	1,734	1,593	1,665	1,810	1,803
Unemployment rate	3.9	3.8	3.9	4.1	3.9	3.6	3.8	4.1	4.1
Both sexes, 16 to 19 years									
Civilian labor force	6,614	6,382	6,593	6,843	6,958	6,720	6,828	6,848	6,831
Participation rate	55.7	55.0	57.0	57.8	59.8	57.7	58.7	59.0	59.0
Employed	5,746	5,617	5,734	5,941	5,975	5,904	6,052	6,005	5,936
Employment-population ratio ²	48.4	48.4	49.8	50.0	51.1	50.7	52.1	51.8	51.3
Unemployed	868	765	859	902	983	816	774	843	895
Unemployment rate	13.1	12.0	13.0	13.2	14.1	12.1	11.3	12.3	13.1
Men	13.0	12.7	13.9	14.0	16.4	14.0	12.3	13.1	14.8
Women	13.2	11.2	12.0	12.3	11.7	10.2	10.2	11.5	11.2
BLACK									
Civilian noninstitutional population	20,650	20,958	20,988	20,650	20,877	20,905	20,930	20,958	20,988
Civilian labor force	13,042	13,121	13,372	13,102	13,477	13,478	13,425	13,287	13,444
Participation rate	63.2	62.6	63.7	63.4	64.6	64.5	64.1	63.4	64.1
Employed	11,440	11,699	11,882	11,514	11,980	11,873	11,981	11,848	11,988
Employment-population ratio ²	55.4	55.8	56.6	55.8	56.8	56.8	57.1	56.5	57.0
Unemployed	1,602	1,422	1,491	1,588	1,617	1,603	1,444	1,442	1,476
Unemployment rate	12.3	10.8	11.1	12.1	12.0	11.9	10.9	10.8	11.0
Men, 20 years and over									
Civilian labor force	6,123	6,166	6,222	6,107	6,226	6,199	6,230	6,171	6,207
Participation rate	74.7	73.9	74.5	74.5	75.0	74.6	74.8	74.0	74.3
Employed	5,485	5,515	5,616	5,469	5,576	5,549	5,620	5,554	5,622
Employment-population ratio ²	68.7	68.1	67.2	66.7	67.2	66.7	67.5	66.8	67.3
Unemployed	659	650	606	638	650	650	611	617	586
Unemployment rate	10.7	10.5	9.7	10.4	10.4	10.5	9.8	10.0	9.4
Women, 20 years and over									
Civilian labor force	6,061	6,174	6,293	6,099	6,369	6,349	6,315	6,227	6,340
Participation rate	59.0	59.1	60.2	59.4	61.2	61.0	60.5	59.6	60.6
Employed	5,414	5,637	5,694	5,453	5,706	5,697	5,739	5,677	5,740
Employment-population ratio ²	52.7	54.0	54.4	53.1	54.9	54.7	55.0	54.3	54.9
Unemployed	647	536	599	646	663	651	576	550	600
Unemployment rate	10.7	8.7	9.5	10.6	10.4	10.3	9.1	8.8	9.5
Both sexes, 16 to 19 years									
Civilian labor force	857	783	857	896	881	928	880	889	897
Participation rate	39.3	36.0	39.4	41.1	40.5	42.7	40.5	40.9	41.3
Employed	590	546	572	592	577	627	602	615	606
Employment-population ratio ²	25.7	25.1	26.3	27.2	26.5	28.8	27.7	28.3	27.9
Unemployed	297	236	285	304	304	301	278	274	291
Unemployment rate	34.6	30.2	33.3	33.9	34.5	32.4	31.6	30.8	32.4
Men	33.1	33.6	37.0	33.2	36.7	33.1	28.6	35.5	36.9
Women	36.7	26.8	29.5	34.8	32.0	31.6	34.8	26.2	28.4

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					
	May 1988	Apr. 1989	May 1989	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989	May 1989
HISPANIC ORIGIN									
Civilian noninstitutional population	13,288	13,690	13,731	13,288	13,564	13,606	13,649	13,690	13,731
Civilian labor force	8,819	9,210	9,334	8,910	9,205	9,219	9,210	9,252	9,428
Participation rate	66.5	67.3	68.0	67.2	67.9	67.6	67.5	67.7	68.7
Employed	6,058	6,461	6,608	6,128	6,434	6,506	6,607	6,495	6,688
Employment-population ratio ²	50.7	51.6	52.7	51.3	52.2	53.2	53.1	52.1	53.3
Unemployed	762	749	725	782	771	624	603	767	742
Unemployment rate	8.6	8.1	7.8	8.8	8.4	6.8	6.5	8.3	7.9

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					
	May 1988	Apr. 1989	May 1989	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989	May 1989
CHARACTERISTIC									
Civilian employed, 16 years and over	114,222	116,347	117,039	114,403	116,711	116,853	117,136	117,113	117,215
Married men, spouse present	40,368	40,726	40,984	40,317	40,825	40,928	41,083	40,890	40,902
Married women, spouse present	28,681	29,504	29,798	28,632	29,589	29,412	29,569	29,656	29,739
Women who maintain families	6,034	6,255	6,356	6,000	6,416	6,385	6,256	6,243	6,331
MAJOR INDUSTRY AND CLASS OF WORKER									
Agriculture:									
Wage and salary workers	1,685	1,608	1,718	1,574	1,684	1,645	1,658	1,554	1,610
Self-employed workers	1,419	1,385	1,411	1,385	1,387	1,419	1,403	1,419	1,358
Unpaid family workers	188	123	155	155	189	150	138	124	127
Nonagricultural industries:									
Wage and salary workers	101,786	104,301	104,678	102,145	104,510	104,797	104,922	104,985	105,345
Government	17,080	17,403	17,368	16,948	17,309	17,311	17,382	17,180	17,230
Private industries	84,698	86,898	87,310	85,199	87,117	87,486	87,600	87,806	88,015
Private households	1,180	1,091	1,158	1,152	1,196	1,135	1,163	1,117	1,126
Other industries	83,518	85,807	86,352	84,047	85,921	86,350	86,437	86,689	86,887
Self-employed workers	8,646	8,638	8,559	8,816	8,716	8,517	8,645	8,671	8,516
Unpaid family workers	297	293	318	301	298	285	332	281	322
PERSONS AT WORK PART TIME¹									
All industries:									
Part time for economic reasons	4,674	4,783	4,624	4,678	5,097	4,961	4,968	5,143	4,837
Slack work	2,096	2,268	2,115	2,267	2,302	2,303	2,232	2,373	2,296
Could only find part-time work	2,215	2,204	2,200	2,353	2,352	2,333	2,393	2,425	2,343
Voluntary part time	15,544	16,676	16,062	14,813	15,401	15,126	15,561	15,498	15,316
Nonagricultural industries:									
Part time for economic reasons	4,484	4,600	4,411	4,676	4,837	4,697	4,708	4,930	4,609
Slack work	2,008	2,158	1,970	2,198	2,144	2,105	2,048	2,243	2,102
Could only find part-time work	2,126	2,146	2,142	2,278	2,263	2,272	2,317	2,389	2,201
Voluntary part time	15,012	16,205	15,650	14,376	14,970	14,688	15,127	15,060	14,976

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-6. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measure	Quarterly averages				Monthly data			
	1989				1989			
	I	II	III	IV	Mar.	Apr.	May	
U-1 Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.4	1.3	1.3	1.2	1.1	1.1	1.2	1.1
U-2 Job losers as a percent of the civilian labor force	2.6	2.5	2.5	2.5	2.4	2.3	2.4	2.2
U-3 Unemployed persons 25 years and over as a percent of the civilian labor force	4.4	4.2	4.2	4.1	4.0	3.9	4.1	4.0
U-4 Unemployed full-time jobseekers as a percent of the full-time civilian labor force	5.3	5.1	5.1	5.0	4.9	4.8	5.0	4.8
U-5a Total unemployed as a percent of the labor force, including the resident Armed Forces	5.8	5.4	5.4	5.3	5.1	4.9	5.2	5.1
U-5b Total unemployed as a percent of the civilian labor force	5.7	5.5	5.5	5.3	5.2	5.0	5.3	5.2
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	7.9	7.6	7.6	7.5	7.2	7.1	7.4	7.1
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	6.7	6.3	6.4	6.2	7.9	N.A.	N.A.	N.A.

N.A. = not available.

Table A-8. Selected unemployment indicators, seasonally adjusted

Category	Number of unemployed persons (in thousands)			Unemployment rates ¹					
	May 1988	Apr. 1989	May 1989	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989	May 1989
CHARACTERISTIC									
Total, 16 years and over	6,800	6,546	6,295	5.8	5.4	5.1	5.0	5.3	5.2
Men, 16 years and over	3,737	3,593	3,401	5.8	5.5	5.2	4.8	5.3	5.0
Men, 20 years and over	3,065	2,952	2,706	4.9	4.6	4.5	4.2	4.6	4.3
Women, 16 years and over	3,063	2,953	2,994	5.8	5.4	5.0	5.1	5.3	5.3
Women, 20 years and over	2,482	2,448	2,480	4.9	4.7	4.5	4.6	4.7	4.8
Both sexes, 16 to 19 years	1,243	1,146	1,210	15.6	16.4	14.8	13.7	14.4	15.2
Married men, spouse present	1,365	1,347	1,221	3.3	3.1	3.1	2.9	3.2	2.9
Married women, spouse present	1,174	1,247	1,189	3.9	3.8	3.4	3.5	4.0	3.8
Women who maintain families	547	513	576	8.4	8.0	8.0	7.9	7.8	8.3
Full-time workers	5,413	5,247	5,104	5.2	5.0	4.8	4.8	5.0	4.8
Part-time workers	1,342	1,295	1,242	7.7	7.9	7.3	6.2	7.2	6.9
Labor force time lost ²	--	--	--	6.4	6.2	5.9	5.8	6.0	5.9
INDUSTRY									
Nonagricultural private wage and salary workers	5,089	5,003	4,832	5.6	5.6	5.1	5.0	5.4	5.2
Goods-producing industries	1,901	1,753	1,704	6.5	6.4	6.1	5.8	6.0	5.8
Mining	74	42	38	9.4	8.1	8.0	7.0	5.8	4.5
Construction	659	616	586	10.5	10.4	10.0	9.4	9.7	9.3
Manufacturing	1,168	1,095	1,078	5.3	5.3	4.9	4.8	4.9	4.9
Durable goods	635	614	577	4.9	5.0	4.4	4.7	4.7	4.6
Non-durable goods	533	481	500	5.9	5.7	5.5	4.9	5.2	5.5
Service-producing industries	3,168	3,250	3,128	5.2	5.2	4.7	4.6	5.1	4.9
Transportation and public utilities	272	255	252	4.2	3.8	3.9	3.9	4.0	4.0
Wholesale and retail trade	1,429	1,381	1,292	6.3	6.3	5.6	5.6	5.9	5.5
Finance and service industries	1,467	1,604	1,573	4.6	4.7	4.3	4.1	4.6	4.7
Government workers	512	485	520	2.9	2.7	2.7	2.6	2.7	2.9
Agricultural wage and salary workers	222	183	196	12.4	9.5	6.9	6.0	10.5	10.3

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.

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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					
	May 1969	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
Total, 16 years and over	6,800	6,546	6,395	5.6	5.4	5.1	5.0	5.3	5.2
16 to 24 years	2,513	2,344	2,303	11.2	11.9	10.5	9.9	10.5	10.4
16 to 19 years	1,243	1,146	1,210	15.6	16.4	14.8	13.7	14.4	15.2
16 to 17 years	536	483	500	18.7	18.3	18.2	15.3	14.9	16.2
18 to 19 years	700	667	701	14.8	15.4	12.7	12.5	13.6	14.5
20 to 24 years	1,270	1,198	1,093	6.8	9.3	6.1	7.7	6.4	7.7
25 years and over	4,253	4,191	4,074	4.3	4.1	4.0	3.9	4.1	4.0
25 to 54 years	3,765	3,781	3,628	4.5	4.2	4.2	4.1	4.4	4.2
55 years and over	496	451	453	3.3	3.1	3.1	2.6	2.9	2.9
Men, 16 years and over	3,737	3,593	3,401	5.6	5.5	5.2	4.8	5.3	5.0
16 to 24 years	1,352	1,238	1,270	11.5	12.8	11.1	9.7	10.7	11.0
16 to 19 years	672	641	696	16.3	16.6	16.7	14.2	15.5	17.0
16 to 17 years	291	274	301	17.4	20.6	19.8	15.8	17.0	18.9
18 to 19 years	377	368	390	15.3	17.9	15.1	13.2	14.8	15.7
20 to 24 years	690	597	574	8.9	9.8	8.1	7.2	6.0	7.7
25 years and over	2,348	2,344	2,099	4.3	4.0	4.0	3.8	4.2	3.7
25 to 54 years	2,051	2,078	1,845	4.4	4.2	4.1	4.0	4.4	3.9
55 years and over	304	283	258	3.5	3.0	3.4	2.8	3.2	2.9
Women, 16 years and over	3,063	2,953	2,994	5.6	5.4	5.0	5.1	5.3	5.3
16 to 24 years	1,161	1,106	1,034	10.8	10.9	9.7	10.0	10.4	9.8
16 to 19 years	571	505	514	15.0	14.0	12.8	13.1	13.2	13.4
16 to 17 years	245	189	199	16.0	15.9	16.8	14.8	12.7	13.4
18 to 19 years	323	299	311	14.2	12.7	10.0	11.7	12.8	13.3
20 to 24 years	560	601	520	8.6	9.1	8.0	8.3	8.9	7.7
25 years and over	1,905	1,847	1,975	4.4	4.1	3.9	4.0	4.1	4.4
25 to 54 years	1,714	1,885	1,782	4.6	4.3	4.2	4.3	4.4	4.6
55 years and over	194	169	195	3.1	3.1	2.5	2.3	2.6	3.0

¹ Unemployment as a percent of the civilian labor force.

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

(Numbers in thousands)

Employment status	Not seasonally adjusted			Seasonally adjusted ¹					
	May 1968	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
Civilian noninstitutional population	26,340	26,828	26,981	26,340	26,779	26,830	26,877	26,826	26,981
Civilian labor force	16,650	17,034	17,298	16,711	17,283	17,386	17,347	17,319	17,364
Participation rate	63.2	63.3	64.1	63.4	64.5	64.8	64.5	64.3	64.4
Employed	14,807	15,406	15,627	14,882	15,449	15,540	15,651	15,656	15,707
Employment-population ratio ²	56.2	57.2	57.9	56.5	57.7	57.9	58.2	58.1	58.2
Unemployed	1,843	1,628	1,671	1,829	1,253	1,846	1,596	1,654	1,657
Unemployment rate	11.1	9.6	9.7	10.8	10.6	10.8	9.8	9.6	9.5
Not in labor force	9,690	9,892	9,683	9,629	9,496	9,444	9,530	9,607	9,617

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-11. Occupational status of the employed and unemployed, not seasonally adjusted

(Numbers in thousands)

Occupation:	Civilian employed		Unemployed		Unemployment rate	
	May 1988	May 1989	May 1988	May 1989	May 1988	May 1989
	Total, 18 years and over ¹	114,222	117,039	6,553	6,156	5.4
Managerial and professional specialty	29,113	30,627	499	588	1.7	1.9
Executive, administrative, and managerial	14,289	15,041	299	323	2.0	2.1
Professional specialty	14,824	15,586	200	295	1.3	1.7
Technical, sales, and administrative support	34,740	35,786	1,477	1,470	4.1	3.9
Technicians and related support	3,363	3,613	105	98	3.0	2.8
Sales occupations	13,483	14,005	637	594	4.5	4.1
Administrative support, including clerical	17,914	18,168	734	779	3.9	4.1
Service occupations	15,250	15,434	1,118	1,089	6.8	6.8
Private household	905	878	51	94	5.4	9.7
Protective service	1,884	1,916	94	85	4.8	3.3
Service, except private household and protective	12,461	12,640	970	930	7.2	6.9
Precision production, craft, and repair	13,859	13,551	749	721	5.1	5.1
Mechanics and repairers	4,553	4,650	183	154	3.4	3.2
Construction trades	5,180	4,949	364	385	6.6	7.2
Other precision production, craft, and repair	4,126	3,953	223	182	5.1	4.4
Operators, fabricators, and laborers	17,540	16,037	1,598	1,342	8.3	6.9
Machine operators, assemblers, and inspectors	7,988	6,312	642	641	7.4	7.2
Transportation and material moving occupations	4,823	4,925	283	206	5.5	4.0
Handlers, equipment cleaners, helpers, and laborers	4,729	4,800	671	493	12.4	9.3
Construction laborers	717	713	186	126	20.8	15.0
Other handlers, equipment cleaners, helpers, and laborers	4,011	4,087	485	368	10.8	8.3
Farming, forestry, and fishing	3,720	3,604	242	205	6.1	5.4

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			
							Number		Percent of labor force	
							May 1988	May 1989	May 1988	May 1989
	May 1988	May 1989	May 1988	May 1989	May 1988	May 1989	May 1988	May 1989	May 1988	May 1989
VIETNAM-ERA VETERANS										
Total, 30 years and over	7,900	7,827	7,290	7,231	6,984	7,012	306	219	4.2	3.0
30 to 44 years	5,975	5,570	5,898	5,278	5,440	5,106	258	172	4.5	3.3
30 to 34 years	718	505	677	460	618	430	59	30	8.7	6.5
35 to 39 years	2,214	1,789	2,095	1,685	2,005	1,821	90	64	4.3	3.8
40 to 44 years	3,043	3,276	2,924	3,133	2,817	3,055	107	78	3.7	2.5
45 years and over	1,925	2,357	1,584	1,953	1,544	1,906	50	47	3.1	2.4
NONVETERANS										
Total, 30 to 44 years	20,284	21,342	19,115	20,218	18,334	19,474	781	742	4.1	3.7
30 to 34 years	9,048	9,348	8,539	8,922	8,187	8,567	372	355	4.4	4.0
35 to 39 years	6,751	7,358	6,409	6,973	6,167	6,721	242	252	3.8	3.6
40 to 44 years	4,485	4,636	4,167	4,321	4,000	4,188	167	135	4.0	3.1

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 30 to 44 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					
	May 1968	Apr. 1969	May 1969	May 1968	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May 1969
California									
Civilian noninstitutional population	20,803	21,059	21,085	20,803	20,994	21,016	21,037	21,059	21,085
Civilian labor force	13,981	14,051	14,259	14,057	14,220	14,117	14,120	14,098	14,231
Employed	13,171	13,326	13,524	13,193	13,505	13,405	13,480	13,339	13,546
Unemployed	810	724	736	864	715	712	640	757	785
Unemployment rate	5.8	5.1	5.2	6.1	5.0	5.0	4.5	5.4	5.5
Florida									
Civilian noninstitutional population	9,885	9,802	9,824	9,885	9,839	9,880	9,881	9,902	9,924
Civilian labor force	6,115	6,197	6,247	6,086	6,155	6,086	6,179	6,245	6,227
Employed	5,826	5,890	5,861	5,793	5,793	5,782	5,890	5,822	5,827
Unemployed	289	316	387	303	362	304	289	323	400
Unemployment rate	4.7	5.1	6.2	5.0	5.9	5.3	4.8	5.2	6.4
Illinois									
Civilian noninstitutional population	6,728	6,699	6,698	6,728	6,709	6,706	6,702	6,699	6,698
Civilian labor force	5,700	5,890	5,878	5,718	5,837	5,876	5,863	5,890	5,899
Employed	5,307	5,544	5,530	5,336	5,491	5,563	5,548	5,540	5,563
Unemployed	393	337	348	380	346	313	335	330	336
Unemployment rate	6.9	5.7	5.9	6.6	5.9	5.2	5.6	5.4	5.7
Massachusetts									
Civilian noninstitutional population	4,598	4,598	4,598	4,598	4,598	4,598	4,598	4,598	4,598
Civilian labor force	3,103	3,178	3,170	3,127	3,168	3,205	3,187	3,177	3,198
Employed	3,019	3,081	3,082	3,035	3,083	3,094	3,051	3,073	3,080
Unemployed	84	118	108	92	103	111	109	120	118
Unemployment rate	2.7	3.7	3.4	2.9	3.3	3.5	3.4	3.8	3.6
Michigan									
Civilian noninstitutional population	7,014	7,087	7,096	7,014	7,069	7,075	7,081	7,087	7,096
Civilian labor force	4,825	4,837	4,878	4,825	4,887	4,888	4,820	4,873	4,881
Employed	4,220	4,259	4,285	4,215	4,284	4,282	4,316	4,296	4,273
Unemployed	296	278	293	310	323	296	304	277	308
Unemployment rate	6.5	6.1	6.4	6.9	6.9	6.1	6.6	6.1	6.7
New Jersey									
Civilian noninstitutional population	6,034	6,057	6,059	6,034	6,051	6,053	6,055	6,057	6,059
Civilian labor force	3,898	3,990	3,972	3,945	4,048	4,043	4,010	3,977	3,982
Employed	3,817	3,818	3,852	3,798	3,888	3,884	3,890	3,818	3,834
Unemployed	148	142	120	147	158	159	120	161	148
Unemployment rate	3.8	3.6	3.0	3.7	3.9	3.9	3.0	4.0	3.0
New York									
Civilian noninstitutional population	13,794	13,807	13,809	13,794	13,808	13,807	13,808	13,807	13,809
Civilian labor force	8,284	8,547	8,587	8,482	8,821	8,701	8,540	8,841	8,770
Employed	7,943	8,186	8,139	8,109	8,198	8,258	8,173	8,328	8,307
Unemployed	341	480	448	353	423	443	367	513	463
Unemployment rate	4.1	5.6	5.2	4.2	4.9	5.1	4.3	5.8	5.3
North Carolina									
Civilian noninstitutional population	4,899	4,991	5,000	4,899	4,987	4,975	4,983	4,991	5,000
Civilian labor force	3,308	3,424	3,441	3,231	3,435	3,390	3,415	3,478	3,467
Employed	3,196	3,289	3,324	3,213	3,302	3,283	3,311	3,330	3,340
Unemployed	110	136	118	118	133	107	104	148	127
Unemployment rate	3.3	4.0	3.4	3.5	3.9	3.2	3.0	4.3	3.7
Ohio									
Civilian noninstitutional population	8,235	8,303	8,310	8,235	8,286	8,292	8,298	8,303	8,310
Civilian labor force	5,299	5,357	5,419	5,294	5,426	5,432	5,428	5,381	5,434
Employed	4,968	5,095	5,143	4,980	5,094	5,152	5,144	5,083	5,138
Unemployed	303	273	276	324	332	280	284	298	296
Unemployment rate	5.8	5.1	5.1	6.1	6.1	5.2	5.2	5.4	5.4

See footnotes at end of table.

HOUSEHOLD DATA

HOUSEHOLD DATA

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					
	May, 1966	Apr. 1969	May, 1969	May, 1969	Jan. 1969	Feb. 1969	Mar. 1969	Apr. 1969	May, 1969
Pennsylvania									
Civilian noninstitutional population	9,361	9,418	9,424	9,361	9,404	9,409	9,413	9,418	9,424
Civilian labor force	5,981	5,940	5,954	5,724	5,947	5,932	6,012	5,940	5,929
Employed	5,380	5,908	5,598	5,430	5,689	5,679	5,778	5,677	5,649
Unemployed	281	234	256	294	258	253	234	263	271
Unemployment rate	5.0	4.0	4.4	5.1	4.3	4.3	3.9	4.4	4.6
Texas									
Civilian noninstitutional population	12,012	11,968	11,987	12,012	11,997	11,994	11,991	11,989	11,987
Civilian labor force	8,300	8,242	8,233	8,323	8,303	8,254	8,263	8,350	8,250
Employed	7,696	7,666	7,744	7,721	7,713	7,703	7,788	7,729	7,762
Unemployed	602	576	489	602	590	551	495	621	488
Unemployment rate	7.3	7.0	5.9	7.2	7.1	6.7	6.0	7.4	5.9

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

Table B-1. Employees on nonagricultural payrolls by industry (in thousands)

ESTABLISHMENT DATA

Industry	Not seasonally adjusted				Seasonally adjusted					
	May 1988	Mar. 1989	Apr. 1989 ^p	May 1989 ^p	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989 ^p	May 1989 ^p
	Total.....	105,533	107,017	107,936	108,629	105,091	107,442	107,711	107,888	108,094
Total private.....	87,861	89,052	89,971	90,433	87,564	89,897	90,124	90,291	90,472	90,561
Goods-producing industries.....	25,171	25,095	25,404	25,622	25,179	25,426	25,629	25,646	25,664	25,631
Mining.....	722	762	711	714	725	711	711	714	720	719
Oil and gas extraction.....	406.8	390.3	394.1	393.9	412	393	394	397	401	399
Construction.....	5,143	4,837	5,117	5,303	5,100	5,267	5,270	5,252	5,275	5,261
General building contractors.....	1,362.7	1,287.3	1,330.4	1,368.9	1,367	1,484	1,398	1,380	1,376	1,373
Manufacturing.....	19,508	19,556	19,576	19,405	19,554	19,648	19,648	19,680	19,669	19,631
Production workers.....	15,186	15,348	15,363	15,390	15,221	15,423	15,426	15,442	15,433	15,428
Durable goods.....	11,395	11,550	11,570	11,580	11,399	11,605	11,594	11,604	11,599	11,586
Production workers.....	7,612	7,710	7,728	7,741	7,610	7,758	7,749	7,749	7,745	7,740
Lumber and wood products.....	761.2	755.0	757.4	770.8	742	784	778	777	772	772
Furniture and fixtures.....	326.7	354.8	354.6	336.1	329	332	334	333	336	333
Stone, clay, and glass products.....	696.5	592.2	603.0	609.4	599	607	608	607	605	604
Primary metal industries.....	749.9	789.4	788.3	786.3	749	786	786	788	788	788
blast furnaces and basic steel products.....	277.5	276.4	275.0	274.4	271	274	276	274	275	275
Fabricated metal products.....	1,423.9	1,451.3	1,449.4	1,451.4	1,426	1,458	1,458	1,457	1,454	1,453
Machinery, except electrical.....	2,070.3	2,147.2	2,147.1	2,148.8	2,067	2,154	2,158	2,163	2,163	2,165
Electrical and electronic equipment.....	2,056	2,125.7	2,148.4	2,061.9	2,066	2,045	2,062	2,062	2,059	2,052
Transportation equipment.....	2,056	2,125.7	2,076.3	2,076.0	2,034	2,079	2,067	2,071	2,074	2,076
Motor vehicles and equipment.....	859.5	868.6	877.5	881.3	845	883	871	869	876	878
Instruments and related products.....	741.7	774.0	775.9	776.4	743	776	772	774	777	778
Miscellaneous manufacturing.....	384.0	387.9	389.8	390.7	384	390	391	390	391	391
Nondurable goods.....	7,913	8,006	8,006	8,023	7,935	8,043	8,058	8,076	8,070	8,065
Production workers.....	5,574	5,638	5,635	5,649	5,611	5,665	5,677	5,693	5,688	5,688
Food and kindred products.....	1,592.8	1,598.6	1,600.4	1,614.8	1,632	1,650	1,650	1,653	1,657	1,655
Tobacco manufactures.....	51.8	54.5	51.2	49.4	53	56	56	56	54	55
Textile mill products.....	732.7	727.2	727.0	729.0	732	728	728	728	728	728
Apparel and other textile products.....	1,099.2	1,102.3	1,099.5	1,096.0	1,095	1,092	1,096	1,101	1,097	1,094
Paper and allied products.....	698.1	693.1	692.3	694.3	692	696	696	697	696	696
Printing and publishing.....	1,553.7	1,599.8	1,601.7	1,600.1	1,553	1,595	1,595	1,600	1,600	1,602
Chemicals and allied products.....	1,058	1,104.4	1,106.4	1,108.3	1,061	1,104	1,105	1,108	1,100	1,091
Petroleum and coal products.....	162.4	158.1	161.2	163.7	161	169	161	161	162	163
Rubber and misc. plastics products.....	827.5	845.5	844.4	842.1	827	839	843	845	843	841
Leather and leather products.....	164.7	162.4	161.4	162.2	165	163	164	164	163	162
Service-producing industries.....	80,362	81,922	82,532	83,007	79,912	81,816	82,082	82,242	82,430	82,564
Transportation and public utilities.....	5,522	5,607	5,649	5,693	5,522	5,654	5,667	5,666	5,682	5,694
Transportation.....	3,312	3,404	3,443	3,483	3,308	3,459	3,455	3,452	3,467	3,482
Communication and public utilities.....	2,210	2,203	2,206	2,208	2,214	2,215	2,214	2,214	2,215	2,212
Wholesale trade.....	5,998	6,154	6,187	6,204	6,004	6,146	6,171	6,197	6,207	6,209
Durable goods.....	3,545	3,658	3,648	3,679	3,544	3,638	3,657	3,676	3,675	3,679
Nondurable goods.....	2,453	2,496	2,539	2,525	2,459	2,508	2,514	2,521	2,532	2,530
Retail trade.....	19,040	19,059	19,277	19,508	19,036	19,407	19,460	19,488	19,491	19,508
General merchandise stores.....	1,184	1,198.0	1,197.5	1,218.1	1,187	1,212	1,211	1,211	1,211	1,211
Food stores.....	3,052.9	3,184.3	3,195.0	3,217.5	3,069	3,200	3,212	3,223	3,231	3,234
Automotive dealers and service stations.....	2,075.5	2,129.4	2,147.4	2,157.2	2,075	2,143	2,150	2,158	2,158	2,153
Eating and drinking places.....	6,385.8	6,184.2	6,316.8	6,440.4	6,271	6,323	6,332	6,322	6,335	6,344
Finance, insurance, and real estate.....	6,452	6,723	6,754	6,788	6,454	6,746	6,765	6,774	6,781	6,788
Finance.....	5,277	5,506	5,508	5,513	5,284	5,508	5,511	5,516	5,518	5,520
Insurance.....	2,075	2,115	2,116	2,122	2,074	2,199	2,116	2,117	2,118	2,122
Real estate.....	1,302	1,302	1,330	1,353	1,296	1,329	1,336	1,341	1,345	1,346
Services.....	25,478	26,434	26,700	26,818	25,364	26,318	26,434	26,520	26,647	26,711
Business services.....	5,515.4	5,678.2	5,718.0	5,758.9	5,520	5,707	5,729	5,756	5,758	5,764
Health services.....	7,067.7	7,480.1	7,513.0	7,548.4	7,080	7,596	7,642	7,648	7,528	7,544
Government.....	17,672	17,963	17,963	17,996	17,335	17,543	17,587	17,587	17,622	17,634
Federal.....	2,949	2,974	2,975	2,973	2,942	2,978	2,982	2,982	2,975	2,984
State.....	4,118	4,233	4,222	4,200	4,059	4,084	4,095	4,102	4,111	4,118
Local.....	10,585	10,776	10,768	10,824	10,314	10,483	10,510	10,513	10,536	10,532

p = preliminary.

NOTE: Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers¹ in private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	May 1988	Mar. 1989	Apr. 1989 ²	May 1989 ²	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989 ²	May 1989 ²
Total private.....	34.6	34.4	34.8	34.5	34.7	34.8	34.6	34.7	34.9	34.6
Mining.....	42.2	42.0	42.9	41.9	(2)	(2)	(2)	(2)	(2)	(2)
Construction.....	38.3	37.4	37.9	37.7	(2)	(2)	(2)	(2)	(2)	(2)
Manufacturing.....	41.9	41.0	41.0	40.9	41.1	41.1	41.1	41.0	41.2	41.0
Overtime hours.....	5.7	5.8	5.8	5.7	5.9	5.9	5.9	4.0	4.0	3.8
Durable goods.....	41.7	41.7	41.7	41.5	41.8	41.8	41.8	41.7	41.8	41.5
Overtime hours.....	4.0	4.0	3.9	3.8	4.2	4.1	4.1	4.1	4.1	3.9
Lumber and wood products.....	40.5	39.8	40.5	40.1	40.1	40.5	39.6	40.0	40.3	39.7
Furniture and fixtures.....	39.1	39.6	39.3	39.1	39.4	39.8	39.7	39.8	39.9	39.5
Stone, clay, and glass products.....	42.8	41.9	42.7	42.4	42.5	42.5	42.2	42.2	42.6	42.1
Primary metal industries.....	43.4	43.5	43.5	43.3	43.7	43.6	43.4	43.5	43.4	43.4
Blast furnaces and basic steel products.....	43.9	44.0	43.7	44.1	43.9	44.0	43.8	44.1	43.6	44.1
Fabricated metal products.....	41.8	41.7	41.6	41.6	42.0	41.9	41.9	41.8	41.8	41.8
Machinery, except electrical.....	42.4	42.6	42.5	42.5	42.4	42.5	42.6	42.5	42.7	42.5
Electrical and electronic equipment.....	40.7	40.5	40.7	40.3	41.0	40.9	40.9	40.6	41.0	40.8
Transportation equipment.....	45.0	45.5	45.0	42.5	42.8	42.8	45.1	45.1	42.8	42.1
Motor vehicles and equipment.....	44.2	44.2	43.7	42.7	43.7	43.6	43.9	43.9	43.3	42.2
Instruments and related products.....	41.2	41.2	41.5	40.9	41.5	41.5	41.5	41.1	41.5	41.2
Miscellaneous manufacturing.....	39.1	39.4	39.4	39.5	39.3	39.4	39.5	39.5	39.8	39.7
Nondurable goods.....	39.9	39.9	40.1	40.0	40.8	40.1	40.2	40.1	40.4	40.2
Overtime hours.....	3.4	3.6	3.5	3.5	3.4	3.4	3.7	3.8	3.8	3.7
Food and kindred products.....	40.8	39.9	40.0	40.5	40.1	40.1	40.5	40.6	40.7	40.6
Tobacco manufacturing.....	39.4	36.3	38.9	40.5	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products.....	40.7	41.0	41.2	41.3	40.9	40.9	40.8	41.1	41.7	41.5
Apparel and other textile products.....	36.4	36.9	37.1	36.9	36.9	37.0	37.1	36.9	37.6	37.0
Paper and allied products.....	45.1	43.8	43.0	43.2	43.3	45.1	43.2	43.3	43.3	43.4
Printing and publishing.....	37.5	37.9	37.8	37.5	37.8	38.0	38.0	37.9	37.6	37.8
Chemicals and allied products.....	42.1	42.3	42.5	42.3	42.1	42.3	42.3	42.3	42.6	42.3
Petroleum and coal products.....	44.1	43.2	44.2	43.6	(2)	(2)	(2)	(2)	(2)	(2)
Rubber and misc. plastics products.....	41.7	41.5	41.4	41.2	41.8	41.7	41.7	41.6	41.5	41.2
Leather and leather products.....	37.6	37.4	37.9	37.5	37.4	38.0	38.6	38.0	38.4	37.1
Transportation and public utilities.....	39.1	39.2	39.7	39.5	39.3	39.6	39.4	39.4	40.0	39.7
Wholesale trade.....	38.0	37.9	38.2	38.0	38.0	38.1	38.1	38.1	38.3	38.0
Retail trade.....	28.9	28.5	28.9	28.8	29.0	29.1	28.9	28.9	29.1	28.9
Finance, insurance, and real estate.....	35.8	35.8	36.3	35.6	(2)	(2)	(2)	(2)	(2)	(2)
Services.....	32.4	32.4	32.8	32.4	32.5	32.7	32.5	32.6	32.8	32.5

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

²/This 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.

NOTE: Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers^{1/} on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	May 1988	Mar. 1989	Apr. 1989 ^{2/}	May 1989 ^{2/}	May 1988	Mar. 1989	Apr. 1989 ^{2/}	May 1989 ^{2/}
Total private.....	89.26	89.56	89.61	89.60	8320.40	8328.86	8354.43	8331.20
Seasonally adjusted.....	9.26	9.56	9.60	9.61	321.32	331.04	335.04	332.51
Mining.....	12.60	13.15	13.17	13.10	531.72	552.30	564.99	548.89
Construction.....	12.91	13.26	13.30	13.33	494.45	495.92	504.07	502.54
Manufacturing.....	10.14	10.41	10.41	10.41	415.74	426.81	426.81	425.77
Durable goods.....	10.68	10.93	10.93	10.93	445.36	455.78	455.78	453.60
Lumber and wood products.....	8.54	8.68	8.76	8.80	345.87	345.46	353.03	352.88
Furniture and fixtures.....	7.89	8.13	8.11	8.15	308.50	321.95	318.72	318.67
Stone, clay, and glass products.....	10.44	10.62	10.72	10.70	446.83	444.98	457.74	455.82
Primary metal industries.....	12.12	12.27	12.27	12.27	528.43	535.73	531.29	531.29
Blast furnaces and basic steel products.....	13.95	14.13	14.06	14.04	612.41	621.72	614.42	619.16
Fabricated metal products.....	10.25	10.47	10.48	10.48	428.45	436.60	435.97	435.97
Machinery, except electrical.....	10.94	11.25	11.26	11.27	463.86	479.25	478.55	476.72
Electrical and electronic equipment.....	10.12	10.30	10.29	10.31	411.88	417.15	418.80	417.56
Transportation equipment.....	13.26	13.65	13.60	13.54	570.18	591.05	584.80	572.74
Motor vehicles and equipment.....	14.03	14.28	14.19	14.08	620.15	631.18	620.10	601.22
Instruments and related products.....	9.90	10.17	10.22	10.21	407.88	419.00	422.09	417.59
Miscellaneous manufacturing.....	7.97	8.23	8.23	8.27	311.63	324.26	325.91	326.67
Non-durable goods.....	9.38	9.66	9.65	9.68	374.26	385.43	386.97	387.20
Food and kindred products.....	9.14	9.33	9.30	9.32	365.60	372.27	372.00	377.46
Tobacco manufactures.....	15.38	15.36	15.80	16.09	605.97	556.84	614.62	648.43
Textile mill products.....	7.31	7.59	7.61	7.61	297.32	311.19	313.33	314.29
Apparel and other textile products.....	6.07	6.34	6.33	6.33	225.58	233.95	234.84	233.54
Paper and allied products.....	11.66	11.84	11.82	11.94	502.55	509.12	508.26	515.81
Printing and publishing.....	10.43	10.79	10.73	10.77	391.13	408.94	405.59	403.88
Chemicals and allied products.....	12.58	12.91	12.90	12.93	529.62	546.09	548.25	546.94
Petroleum and coal products.....	14.86	15.46	15.49	15.36	635.33	667.87	684.66	678.42
Rubber and misc. plastics products.....	9.07	9.33	9.34	9.36	378.22	387.20	386.68	385.63
Leather and leather products.....	6.26	6.54	6.53	6.54	235.38	244.60	246.25	246.69
Transportation and public utilities.....	12.28	12.46	12.51	12.51	480.15	488.43	496.65	494.15
Wholesale trade.....	9.90	10.21	10.35	10.24	376.20	386.96	393.37	389.12
Retail trade.....	6.28	6.48	6.51	6.51	181.49	184.68	188.14	187.49
Finance, insurance, and real estate.....	9.08	9.43	9.59	9.53	325.06	337.59	348.12	339.27
Services.....	8.85	9.29	9.33	9.31	286.74	301.00	306.02	301.64

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

NOTE: Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

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

Industry	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989 ^{2/}	May 1989 ^{2/}	Percent change from Apr. 1989-May 1989
Total private ^{2/}	89.26	89.49	89.52	89.56	89.60	89.61	0.1
Current dollars.....	4.83	4.81	4.81	4.80	4.80	4.80	(4)
Constant (1977) dollars ^{3/}	12.94	13.18	13.22	13.26	13.35	13.37	.3
Construction.....	10.14	10.33	10.37	10.40	10.40	10.41	.1
Manufacturing.....	9.69	9.87	9.89	9.92	9.92	9.96	.4
Excluding overtime ^{4/}	12.34	12.45	12.48	12.50	12.52	12.56	.4
Transportation and public utilities.....	9.90	10.19	10.18	10.21	10.35	10.24	-1.1
Retail trade.....	6.28	6.44	6.45	6.47	6.50	6.51	.2
Finance, insurance, and real estate.....	9.06	9.40	9.35	9.36	9.54	9.50	-4
Services.....	8.88	9.15	9.19	9.24	9.31	9.34	.3

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

^{2/} Includes mining, not shown separately, because its seasonal component is too small to be separated out with sufficient precision.

^{3/} The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate this series.

^{4/} Real earnings were unchanged from March to April 1989, the latest month available.

^{5/} Derived by assuming that overtime hours are paid at the rate of time and one-half.

N.A. = not available.

p = preliminary.

NOTE: Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers/ on private nonagricultural payrolls by industry (1977=100)

Industry	Not seasonally adjusted				Seasonally adjusted					
	May 1988	Mar. 1989	Apr. 1989 ^{1/}	May 1989 ^{1/}	May 1988	Jan. 1989	Feb. 1989	Mar. 1989	Apr. 1989 ^{1/}	May 1989 ^{1/}
	Total private.....	124.0	124.7	127.4	127.5	124.0	127.4	127.2	127.6	128.7
Goods-producing industries.....	101.2	99.8	101.8	102.5	101.1	103.0	102.9	102.9	103.4	102.3
Mining.....	81.9	78.5	81.8	80.2	82.5	79.9	80.1	81.1	83.6	80.8
Construction.....	139.4	125.1	135.8	141.2	136.0	141.2	140.5	140.3	140.8	137.6
Manufacturing.....	94.7	95.9	96.2	96.0	95.2	96.7	96.7	96.7	97.2	96.5
Durable goods.....	93.3	94.4	94.7	94.3	93.4	95.2	95.0	94.9	95.2	94.4
Lumber and wood products.....	104.7	101.5	103.4	104.8	104.0	107.0	104.5	105.3	105.4	104.0
Furniture and fixtures.....	109.9	113.6	112.7	110.9	112.4	113.8	113.7	114.3	114.6	113.2
Stone, clay, and glass products.....	91.7	87.5	91.0	92.1	89.4	91.4	90.9	90.5	91.2	90.0
Primary metal industries.....	67.5	69.1	68.6	68.2	67.6	69.1	68.7	68.9	68.8	68.4
Iron and steel mills and ferroalloy plants.....	34.0	33.8	33.0	33.4	33.9	33.8	33.4	33.6	32.5	32.9
Fabricated metal products.....	90.3	91.7	91.3	91.5	90.9	93.0	92.8	92.5	92.0	92.1
Machinery, except electrical.....	89.4	94.2	93.8	93.5	89.7	93.0	93.7	93.4	93.9	93.7
Electrical and electronic equipment.....	99.0	98.1	98.5	97.7	100.3	100.2	99.9	98.8	99.7	98.9
Transportation equipment.....	100.9	101.9	102.1	100.4	99.9	101.0	101.0	101.5	101.2	99.5
Motor vehicles and equipment.....	91.7	92.5	92.5	90.5	90.3	91.8	91.1	91.7	91.2	88.9
Instruments and related products.....	110.3	115.1	116.0	115.1	111.2	115.3	115.4	115.0	116.7	116.1
Miscellaneous manufacturing.....	84.4	85.2	86.3	86.6	85.1	85.9	86.4	86.1	87.1	87.2
Nondurable goods.....	96.8	98.1	98.3	98.5	97.8	98.9	99.3	99.5	100.1	99.5
Food and kindred products.....	96.7	97.4	97.7	99.8	100.2	101.5	102.2	102.9	103.8	103.5
Tobacco manufactures.....	69.6	67.4	66.5	65.0	76.7	73.4	74.1	69.6	74.5	70.9
Textile mill products.....	80.7	80.7	81.1	81.4	81.1	80.6	80.4	81.0	82.1	81.7
Apparel and other textile products.....	84.7	85.7	85.7	85.2	84.6	84.9	85.5	85.4	86.7	85.1
Paper and allied products.....	101.1	101.0	100.9	101.8	101.9	101.7	101.9	102.3	102.1	102.6
Printing and publishing.....	134.0	138.7	138.6	137.2	136.9	138.3	138.4	138.5	138.4	138.2
Chemicals and allied products.....	87.1	100.1	100.6	100.4	97.3	99.9	100.0	100.4	100.9	100.5
Petroleum and coal products.....	83.4	78.4	83.2	84.3	83.1	81.2	83.3	82.2	84.3	84.5
Rubber and misc. plastics products.....	117.0	120.1	119.8	118.9	117.2	119.3	120.0	119.9	119.6	118.8
Leather and leather products.....	55.8	54.6	55.0	54.3	53.7	56.1	57.0	56.1	56.2	53.8
Service-producing industries.....	136.6	138.5	141.6	141.3	136.6	140.9	140.6	141.2	142.6	141.4
Transportation and public utilities.....	112.2	114.3	114.9	117.1	112.6	116.4	116.2	116.2	118.4	117.7
Wholesale trade.....	122.0	124.6	126.2	126.4	122.0	125.3	125.9	126.4	127.2	126.2
Retail trade.....	124.2	122.1	125.2	126.6	124.6	127.2	126.7	126.9	127.7	126.9
Finance, insurance, and real estate.....	139.7	140.3	143.0	141.4	140.3	142.1	140.8	141.8	143.9	141.9
Services.....	160.0	165.5	169.3	167.7	159.4	166.4	166.1	167.3	168.9	167.5

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

NOTE: Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

ESTABLISHMENT DATA

ESTABLISHMENT DATA

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 nonagricultural payrolls, 349 industries ^{1/}												
Over 1-month span:												
1987.....	55.6	59.3	61.0	61.9	58.6	59.7	65.3	66.6	65.0	67.8	64.5	68.7
1988.....	60.7	63.5	63.0	62.8	61.3	67.2	63.6	58.0	55.4	63.9	68.2	64.6
1989.....	68.5	60.5	61.0	p/58.0	p/52.7							
Over 3-month span:												
1987.....	60.7	62.0	66.6	65.2	65.8	65.9	67.8	71.1	71.2	72.3	70.9	63.9
1988.....	64.8	63.6	69.5	70.2	71.1	71.9	71.2	64.2	65.3	70.1	73.4	74.6
1989.....	71.6	70.1	p/63.5	p/59.3								
Over 6-month span:												
1987.....	67.3	65.8	64.8	66.8	67.4	69.5	71.3	75.5	73.2	71.5	71.8	72.2
1988.....	69.9	70.2	71.5	73.9	73.9	69.1	70.2	74.6	73.5	73.9	74.5	75.8
1989.....	p/74.4	p/66.9										
Over 12-month span:												
1987.....	66.6	68.2	68.2	71.8	71.9	72.5	72.2	74.1	75.4	72.5	73.8	76.9
1988.....	76.2	76.1	74.8	74.6	75.8	74.9	78.1	75.5	75.5	p/74.6	p/74.8	
1989.....												
Manufacturing payrolls, 143 industries ^{1/}												
Over 1-month span:												
1987.....	44.3	53.9	54.3	55.7	53.3	54.3	62.8	59.9	63.8	59.9	65.6	56.4
1988.....	58.5	56.0	55.0	59.9	58.3	61.7	59.6	51.1	49.5	62.8	64.9	58.5
1989.....	62.4	55.5	55.2	p/48.9	p/45.0							
Over 3-month span:												
1987.....	52.1	51.4	59.6	61.3	58.9	62.8	67.0	71.6	68.4	70.6	67.7	64.3
1988.....	65.1	61.0	62.4	64.9	67.4	67.0	64.5	58.2	62.1	66.7	71.5	70.9
1989.....	67.4	63.8	p/56.6	p/47.5								
Over 6-month span:												
1987.....	57.4	56.7	55.3	62.4	64.9	67.0	67.4	70.6	71.3	69.5	69.5	68.1
1988.....	66.3	66.3	67.7	69.5	66.7	64.2	66.0	70.9	68.8	69.9	71.6	74.1
1989.....	p/68.8	p/57.8										
Over 12-month span:												
1987.....	55.3	58.5	58.5	63.5	66.3	67.4	71.6	72.7	71.6	69.1	68.4	72.3
1988.....	75.8	70.2	70.9	71.6	72.0	69.9	70.9	69.1	71.6	p/69.9	p/69.5	
1989.....												

^{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 60 percent indicates an equal balance between industries with increasing and decreasing employment. Data have been revised to reflect March 1988 benchmarks and updated seasonal adjustment factors.

Senator SARBANES. Thank you very much, Commissioner.

First of all, I want to just clear up in my own mind references Senator Roth made to the increase in jobs in the managerial and professional categories.

Is that a self-assessed description in your surveys, or is that an objective criteria. Do you place people in that category, or do people place themselves as a manager or as a professional?

Mrs. NORWOOD. In the household survey, which is where these data come from, it is a self-described occupation.

Senator SARBANES. In other words, it is a characterization that the individual himself attaches to his job?

Mrs. NORWOOD. That is correct.

Senator SARBANES. So it may or may not coincide with objective criteria. We just don't know.

Mrs. NORWOOD. Well, that's true. However, we do have some data from our occupational wage programs and some data from our Federal-State programs which are collected from business establishments, and it seems clear that there is an increase in managerial professional and technical jobs.

Senator SARBANES. By their characterization?

Mrs. NORWOOD. Yes.

Senator SARBANES. Is there a tendency to upgrade job titles in our society?

Mrs. NORWOOD. There may well be. I think that one of the things that is happening in some business establishments now is a new approach to using workers, and so there is a kind of blending of occupations. It is a very small proportion of establishments that are doing that now, but it is a trend that is emerging, so that the employer can make better use of the total skills of the individual.

Senator SARBANES. I think we are even aware of some of the pressure. A secretary would not be a managerial-professional category.

Mrs. NORWOOD. No.

Senator SARBANES. Would an executive assistant be a managerial-professional category?

Mrs. NORWOOD. Yes.

Senator ROTH. What about an executive secretary?

Mr. PLEWES. No. It would be classified as a secretary still.

Senator SARBANES. That would have to be an executive assistant to cross the line.

Mr. PLEWES. That is correct. They go into the administrative category at that point.

Senator ROTH. Maybe there is a little lack of classification in some of those jobs, I can say from experience.

Senator SARBANES. I want to pursue the survey of the dual jobholders which you mentioned in your report. As I understand it, during the past couple of years the payroll survey has reported many more new jobs than has the household survey.

Mrs. NORWOOD. Correct.

Senator SARBANES. And I take it, there is now the hypothesis that some of this difference is due to the growth of dual job holding because the person holds more than one job. The payroll survey counts each job, whereas the household survey counts a person only once, that person as being employed.

Are any of the results of your survey in, and if not, when will they be available?

Mrs. NORWOOD. They are not in. This is a supplement to the current population survey, which is the only way at the moment that we can do household surveys, and it will take some months.

Senator SARBANES. Do you know when?

Mr. PLEWES. We will have the data, in September, and have analyzed it by a month or so after, sir.

Mrs. NORWOOD. There is a long leadtime for these kinds of things. That is one of the reasons why I have been interested in trying to develop a capability to do quick response surveys on the household side as well as on the business side where we already have done them.

Senator SARBANES. Concerning the issue of health and retirement benefits which I raised in this morning's opening statement, will this survey review in any way the extent to which part-time employees receive normal work-related benefits such as health insurance or pensions?

Mrs. NORWOOD. This survey will not do that, but we do have information from our regular labor force survey which gives us data on coverage of people and whether they get health insurance from their employers. We also have in our benefits surveys of business establishments, a good deal of information on who is covered and in what kinds of business establishments. Obviously, the larger establishments have a great deal of coverage. The very small establishments have much less.

Senator SARBANES. This is on the part-time workers?

Mrs. NORWOOD. It would include both.

Mr. STELLUTO. It now includes only the full time. We are moving into the part-time area within the next 2 years.

Senator SARBANES. With respect to full-time workers, what is the extent of coverage with respect to the benefits? Do you have any rough figures on that?

Mr. STELLUTO. The survey covers what we call intermediate or large establishments, those with employment of 100 workers or more. Full-time employment in these establishments is about 31 million. As far as health insurance, where the employer pays some part of it, either all or some part of it, that is fairly widespread. Probably over 90 percent coverage. This is for full-time workers.

Senator SARBANES. Some coverage, but we don't know the extent of the coverage.

Mr. STELLUTO. Well, we get into pretty much the details of the coverage—hospitalization, surgical schedules, inpatient, and outpatient services. This survey gets into all of the very fine details of those kinds.

Mrs. NORWOOD. Let me point out that half of the people in this country work in establishments that have 100 or less.

Senator SARBANES. And there you don't have the figure?

Mrs. NORWOOD. No, but we are moving in that direction.

Senator SARBANES. How about on pensions?

Mr. STELLUTO. On pensions, the coverage is somewhat less than health insurance. It is probably in the area of 75 percent or so in defined benefit plans.

Senator SARBANES. Again, you're talking about the half of the population employed in these intermediate and large establishments.

Mr. STELLUTO. Yes, along with State and local governments.

Senator SARBANES. Not the other half.

Mrs. NORWOOD. That is pensions other than Social Security.

Mr. STELLUTO. Yes. And what we have seen in the pension area, there has been an increase in what they are calling now defined contribution plans. This is where employers are setting aside money as opposed to defined benefit plans where you actually get an annuity based on some formula.

Senator SARBANES. Is it reasonable to presume that in the establishments of under 100, in other words, below the intermediate categories, the coverage for full-time employees would drop off considerably—

Mr. STELLUTO. I would consider that a reasonable assumption. We have not yet surveyed those areas.

Senator SARBANES. In the Kuttner article, is it correct that when you shift from full-time employees to part-time employees, the drop off in coverage on health and pension benefits would be very substantial, indeed?

Mr. STELLUTO. I am not sure it would be substantial. I think there would be a drop off.

Mrs. NORWOOD. We did a survey of the temporary help industry, which hires workers and places them for temporary periods of time. And we found that there were a larger number, than we had thought at least, that worked for these companies week after week and who did receive the fringe benefits, but it is still far less than those in the larger establishments. There is no doubt about that.

Senator SARBANES. Mr. Plewes.

Mr. PLEWES. If I could just add, the Pension Benefit Guaranty Corporation has sponsored a supplement to the Current Population Survey which gives some of this information on full-time and part-time employment. I do not know they are available yet, but we can make them available, certainly, to the committee, if you would like.

Senator SARBANES. I think it would be helpful to do that.

Mr. PLEWES. We will certainly do that.

[The following information was subsequently supplied for the record:]

U. S. Department of Labor

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

JUN 22 1989

Honorable Paul Sarbanes
United States Senate
Washington, D.C. 20510

Dear Senator Sarbanes:

At our June 2 Joint Economic Committee hearing, you raised a question about the relative benefit coverages of full- and part-time workers. To answer at least a part of your question, we have tabulated some summary data from the March 1988 Current Population Survey (CPS). These data show the extent to which the persons who worked during 1987 were covered by employer-sponsored or other types of health insurance plans. As shown, the persons who worked part time were much less likely to have employer-sponsored coverage than were full-time workers.

Much more detailed data on the extent and nature of benefits for full- and part-time workers will soon be available from a special CPS supplement conducted in May 1988 under the sponsorship of the Department of Labor and the Employee Benefits Research Institute. In the meantime, I hope that the enclosed table will shed some light on this issue.

If I may be of further assistance in this area, please let me know.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Janet".

JANET L. NORWOOD
Commissioner

Enclosure

Health insurance status of persons with employment
in 1987, by whether they usually worked full or part time

Health insurance status	Usually worked full-time	Usually worked part time
Total	100.0	100.0
Percent with employer- or union- sponsored group health plan.....	64.2	16.1
Percent with health insurance coverage through a relative.....	11.6	40.1
Percent with other coverage.....	11.1	27.1
Percent with no coverage whatsoever.....	13.1	16.7

SOURCE: March 1988 Current Population Survey

Senator SARBANES. I am going to yield to Senator Roth here in just a second, although I have a couple of other major areas that I want to go into. But I did want to ask you, on the inflation question, about a Wall Street Journal article on May 26, with the headline being "Personal Inflation Can Top U.S.'s Rates: Official Data Failed To Measure Many Living Costs." And then it goes on to cast some doubt on the CPI. "Consumers who think that the rise in their own personal cost of living is pinching more harshly than government statistics indicate may be right."

What is your response to someone who says that the prices he or she pays have been going up much faster than the inflation rate measured by the CPI, and therefore, seek to cast doubt on the CPI?

Mrs. NORWOOD. My response is that the CPI is clearly defined as an average, and to the extent that an individual differs from the average in his or her expenditures or the stores they go into or the quality of items that they buy, their experience is going to differ from the average. If, for example, someone happens to have three children going through university, their college tuition in their expenditures will be—and that family's expenditures will be much higher than the average. People have different spending habits, and we do have a consumer expenditure survey in which we can look at the buying habits of different kinds of people, different groups, but we have really only two CPI's. One that relates to wage earners and clerical workers and the other to all urban consumers. There are not great differences between them.

Senator SARBANES. Well, now, I think that is a good response, and actually, one of the examples used here was an elderly person with very high medical bills or a middle-aged parent with children in college, both of whom you can say is not the typical case. But they do make the argument that the housing costs, which are a component, are understated because they do not take into account the adjustable rate mortgages which are now still a minority but fairly prevalent.

So that leads to the question, are there major living costs or prices that households incur which are not included in the CPI or included in the CPI in such a way that they would be consistently understated?

Mrs. NORWOOD. Our research has shown that probably the most difficult aspect is the need to look at the quality of the particular item and to measure items of the same quality from one year to the next. The work that was done some years ago by BLS has shown that if there were bias, the bias was not in one direction. It was both up and down.

On the housing issue, some years ago we made a change, in part because of adjustable rate mortgages, in order to reflect what we think properly belongs in the CPI, which is the cost of the shelter that is actually used by the consumer and to eliminate the investment costs. We think we have a pretty good measure of the cost of shelter through a rental equivalent. It is not perfect, but we think that it does really a pretty good job. It would be possible, of course, to look at the development of the CPI for various groups of the population. And in fact, we have thought about that.

If you look at the elderly, for example, however you define them, and that is a big issue, you may or may not have a difference. It is

true that older people spend more of their income on medical costs, and on the other hand, a much larger proportion may be paid through Medicare. But quite apart from that, they also spend less money on gasoline and gasoline prices have been rising very steadily. So it is really not just the difference in the expenditure patterns but also the relative differences in price changes among the categories that would affect the index. It would be very expensive to develop separate indexes for each group of the population, and we would not know whether when we got all through, we really had an index that was at all statistically different from the average.

Senator SARBANES. Well, I have some other areas, but I will defer to Senator Roth and come back to them after he has had his round.

Senator ROTH. Thank you, Mr. Vice Chairman.

Going back to the question of mandated benefits, I have to say that I share the concern of the vice chairman that there are large groups that go unprotected, but I think one of the problems in Europe where many of these benefits are mandated—isn't that correct—pensions and your health insurance?

Mrs. NORWOOD. Yes. In Europe, most of those are paid for out of tax revenue.

Senator ROTH. That is the good news, but the bad news is that they have not had the employment growth that this country has enjoyed.

Mrs. NORWOOD. That is true. There are lots of reasons for that, I think.

Senator ROTH. And obviously, there is no single reason. I understand that. But the fact is that their unemployment is significantly higher than in this country; is that correct?

Mrs. NORWOOD. In many—in some countries that is true. Japan, for example, and the Scandinavian countries, of course, have very low unemployment.

Senator ROTH. What about Germany and France?

Mrs. NORWOOD. We have a lower unemployment rate now than France—even than Germany, and certainly lower than the United Kingdom.

Senator ROTH. Now the Federal Reserve made no secret of its desire to slow the economy. Would you say that the data released this morning is consistent with the hypothesis that the Fed has succeeded in slowing down the economy?

Mrs. NORWOOD. The economy—certainly, the labor market certainly has slowed. There is no doubt about that. The employment growth has slowed considerably.

Senator ROTH. Going back to the unemployment rate now, the United States is 5.2 percent. Do you have the figures for France, Germany, and the United Kingdom, and Italy?

Mrs. NORWOOD. Yes. Let's see. Canada is 7.7 percent. These are data for April. Japan is about 2.4 percent for the last quarter of last year. France has a 10 percent rate. Germany is 6.3 percent. Italy, the first quarter was 7.6 percent. The United Kingdom was 6.6 percent and Sweden was 1.6 percent.

Senator ROTH. In the case of Japan, it has been my understanding that while their lifetime employment with many benefits of the large companies, the fact is that the way they take care of unem-

ployment is that there are many employees or many individuals employed by small companies that move up and down as required, so that their situation isn't quite as positive as it on the surface appears to be.

Mrs. NORWOOD. That is correct, Senator. The data that I quoted to you had been adjusted to the extent that we can find data to use to adjust them to U.S. concepts.

In the case of Japan, in part because of the custom of people retiring at a fairly early age and the differences between temporary and permanent workers, if you use the definition of discouragement that we use when we measure discouraged workers which we do not include in the unemployment rate, if you apply that kind of a definition both to Japan and to the United States, our work shows that the Japanese rate would be much closer to that of the United States. These people are not looking for work.

Senator ROTH. I see. Yes.

Mrs. Norwood, what is the most comprehensive measure of employee compensation and how much has this measure increased since 1981?

Mrs. NORWOOD. The best measure, we believe, is the Bureau of Labor Statistics employment cost index, and since 1981, it has gone up about 7 percent.

Senator ROTH. Why is this a better measure than real hourly earnings? What items are left out of the index?

Mrs. NORWOOD. First of all, the ECI includes employer cost of fringe benefits as well as wages and salaries. Hourly earnings do not include the employer cost of fringes.

Second, the ECI is a sample survey that is designed essentially to be to wages and compensation what the CPI is to prices. It measures earnings by occupation and it is base weighted, so that you can see the differences. We no longer publish the hourly earnings index, but the hourly earnings data are useful because they are the only data that we have each month that give us the dollars and cents paid to workers. It is not really a cost, but the earnings exclusive of the cost of fringe benefits. That can be looked at for a broad group of industries. In addition, the hourly earnings data do not reflect the increasing tendency for employers to bargain with employees and to provide for a lump-sum payment. Lump-sum payments are included in the employment cost index. They are excluded from the hourly earnings data.

We have looked at that, because the hourly earnings data are used so extensively, to see whether it would be possible for us to develop an approach to including lump-sum payments since they seem to be an increasing method of remuneration of employees. We are doing some pilot work, but it could be expensive to get at this, and it would be very hard to obtain it every month. In any case, we would have to have an annual way of doing it. So, there are uses for the monthly hourly earnings figures, but people should understand how they are defined and what they are. As a general indicator of wage and compensation trends in the economy as a whole, the ECI is a better measure.

Senator ROTH. Going back to your 7 percent figure since 1981, is that gain real or nominal?

Mrs. NORWOOD. I'm sorry. I gave you the wrong figure. It is—

Mr. STELLUTO. 47.3 from June 1981, which is the base.

Mrs. NORWOOD. I apologize. 47.3.

Senator ROTH. That is nominal.

Mrs. NORWOOD. Nominal; that's right.

Senator ROTH. And what is the real gain?

Mrs. NORWOOD. About 7 percent, for private industry workers.

Senator ROTH. About 7 percent. OK. Thank you, Mrs. Norwood, and thank you, Mr. Vice Chairman.

Senator SARBANES. That is 7 percent over 8 years; right?

Mrs. NORWOOD. Right.

Senator SARBANES. It is a little less than 1 percent a year.

Mrs. NORWOOD. Over the last year it has been negative.

Senator SARBANES. It is negative in this last year by what margin?

Mrs. NORWOOD. It's about four-tenths.

Senator SARBANES. So in other words, average compensation has actually declined in real terms in the last year?

Mrs. NORWOOD. Yes.

Senator SARBANES. I want to ask—

Senator ROTH. Would the vice chairman yield?

Senator SARBANES. Sure. I think it is an important point.

Senator ROTH. How does this compare with the rate of increase from 1977 to 1980?

Mrs. NORWOOD. Do you have that, George?

Mr. STELLUTO. In real terms?

Senator ROTH. In real terms.

Mr. STELLUTO. I will have to look it up.

Mrs. NORWOOD. I think we will have to supply that for the record. We have only data back to 1980 here.

Senator ROTH. Did it go up or did it decline in that period, do you know that?

Mrs. NORWOOD. I would expect—I don't know but I do know that there was a huge CPI in 1979 and 1980, which was somewhat exaggerated, we believe, because of the old treatment of home ownership that would affect those data, but in the seventies, certainly, the early seventies, the increases were pretty fast, and then they slowed down during that period. I can supply that for the record.

Senator ROTH. OK. Thank you.

[The following information was subsequently supplied for the record:]

The ECI movement in real terms (wages and salaries for private industry workers adjusted by the CPI-U) was 7.1 for the period March 1977 to March 1981; and 4.0 percent for March 1981 to March 1989.

Senator SARBANES. Commissioner, when Michael Boskin was before the committee for the annual report, we brought up with him the subject of the statistical infrastructure of the National Government and got out of him a commitment to undertake an initiative in that area and to assume some responsibility to bring it personally to the President's attention. I understand that within the last month the Bush administration has established an inter-agency working group to implement this commitment that Mr. Boskin made to this committee to improve the quality of U.S. economic statistics.

I gather you are part of that working group, and I wonder if you could give us a brief overview of what kind of progress it is making and the issues it is looking at.

Mrs. NORWOOD. First, let me tell you that Mr. Boskin has, as he told you he would, visited with the President and the Chairman of the Fed, the Secretary of Commerce and the Secretary of Labor to emphasize the importance of good statistical information and that has been very helpful, I think. The working group has just been set up, has had one meeting, and will be having another shortly. It is looking at some of the criticisms that have been made of the statistical system, and it is looking both at the issue of quality and the issue of areas where data are not adequate. That is where there are no data and should be. What will happen with that, I cannot tell you at this point, but that is the direction in which it is heading.

Senator SARBANES. Is the working group going to have regular meetings where they interact with the public or those interested in this particular infrastructure in the private sector in any way, as it develops its agenda?

Mrs. NORWOOD. I believe so. I don't know what the exact plans are, but I certainly will report at the meeting next week on our discussion and indicate that that was the question that was raised. I do believe that Mr. Boskin expects to have some discussions with the public, and as a matter of fact, he has already been out and talked to a number of groups about his concerns.

Senator SARBANES. Well, we may give some thought as to how the committee may interact more directly with the interagency working group. We are very anxious that its agenda prove to be a positive one.

Do you have any information on whether we are going to get a nominee for the Director of the Bureau of the Census?

Mrs. NORWOOD. I have no information at all. No one has talked to me about that in any way.

Senator SARBANES. Just in the abstract, what do you think are the important qualifications that a Director of the Bureau of the Census should have, just as a hypothetical?

Mrs. NORWOOD. I believe—

Senator SARBANES. I thought we would test you a little bit here this morning before the summer vacation.

Mrs. NORWOOD. I believe very strongly that the Director of the Bureau of the Census should be someone who is outside of politics. It is particularly important. Because of the data the Bureau is responsible for, I would like to see someone who understands and knows something about statistics as well as management, and I hope that there is action pretty quickly. I think it is very important at this stage of the decennial census program, and may I say, it is extremely important for us at the Bureau of Labor Statistics, because the labor force survey for us is done by the Census Bureau. So we have a very direct interest in seeing to it that the quality of work at the Census Bureau is maintained.

Senator SARBANES. On the Paperwork Reduction Act, there has been a tendency, I think, to see the effort to gain information for statistics in the same way that one sees regulatory requirements which I think completely misses the point. I think there is a very sharp distinction between the two, and I wondered what the devel-

opments are there. I gather that the OMB has receded from some proposals that they have previously put forward in this area; is that correct?

Mrs. NORWOOD. OMB has receded from several proposals that were put forward to restrict the dissemination of information. I think they have recognized that they were going down the wrong road and the Statistical Office at OMB that has been reconstituted has been extremely helpful in that regard. There are, as you probably know, hearings being held on the Paperwork Reduction Act and its need to be relegislated, and I am going to be testifying next week on our experience under it.

I agree that the existing act, by definition, relates regulation burdens to statistical information burdens. That can be useful or not useful, depending on where you happen to be as an agency. The Department of Labor, for example, has a very large regulatory responsibility. The Bureau of Labor Statistics has less than 3 percent of the total hours burden of the Department of Labor, and yet our whole business is collecting information. So the regulatory burden really completely swamps the statistical information burden, and I think that the provision in the act which requires a 5-percent reduction every year could, if it were fully implemented, and were implemented in a way to apply to statistical agencies, could be a very serious problem for us.

I don't see, for example, how we could reduce the samples of the CPI, if we need to reduce burden, when we consider the uses of the CPI in many of our other programs. But, it is a problem that we have been able to work within the confines of that act so far.

Senator SARBANES. I guess it is important to get the private sector to develop within its own membership a greater understanding that furnishing statistical information has important benefits for the private sector. They, in effect, ought to view it in a somewhat different light than these other requirements, because without it a lot of information that is very important to business and corporate planning in their future developments will not be available to them.

Mrs. NORWOOD. That is correct, and that is really our approach at BLS. I am probably the only statistical agency head that believes strongly in voluntary reporting. My view is that the data we collect are, of course, tremendously important to the public, but they should also be useful to the companies and the people who are providing the data to us. It should be our responsibility to help people to use our data, and that gets a little bit difficult when much of our information resources have been eliminated from our budget. We have retained a small number of them. Our regional offices, for example, spend a good deal of time as do our people in Washington, helping other people to make use of the data that we provide. And I spend a lot of time out in the country talking to people about why the BLS data are important to the country as a whole and to them individually. And I think we need to do a better job of getting that across.

Senator SARBANES. Are the unemployment figures that you gave earlier to Senator Roth for those various countries comparable figures?

Mrs. NORWOOD. They have been adjusted to U.S. definitions to the extent that it has been possible for us to do, yes.

Senator SARBANES. Am I correct that in most of those countries the level of unemployment assistance is significantly higher than in this country?

Mrs. NORWOOD. It is often for a much longer period, and in some countries, it is a higher proportion of their salaries and certainly a much larger group of people are eligible for unemployment benefits than in this country, in most cases.

Senator SARBANES. In fact, what percent of the unemployed in this country are now receiving unemployment compensation?

Mrs. NORWOOD. It generally has been running about one-third. I can give you the exact figure in a moment. If we look at total unemployed, unemployment insurance as a percentage of the total unemployed in the current population survey, it is 31.2 percent for the week of the 13th of May.

Senator SARBANES. Wasn't it even in this country at one point well above half?

Mrs. NORWOOD. Yes. Back in 1975, it was 67, 67.2 percent.

Senator SARBANES. So in 1975, 67 percent of the unemployed were drawing unemployment compensation?

Mrs. NORWOOD. Yes.

Senator SARBANES. And today that has been cut to 31 percent of the unemployed; is that correct?

Mrs. NORWOOD. Yes. That is correct. Now, of course, some of that is because of a difference in economic conditions, but some of it is also because of the tightening of UI eligibility in the administration of the laws.

Senator SARBANES. Now in these European countries, in addition to having a much higher percentage of their workers covered by unemployment insurance, it is my understanding that they are covered at a higher percentage of their wages than in this country. So you have more people covered, and the people covered are covered at a higher percentage. They, of course, continue to be covered for health care, do they not, since the system is structured differently?

Mrs. NORWOOD. I believe so. I am not up on that, however, but they do, because, for the most part, in most Western European countries, in any case, and certainly in Scandinavia, the health benefits are not job related.

Senator SARBANES. Right.

Mrs. NORWOOD. So they would continue to have health benefits, yes.

Senator SARBANES. Now a question was asked about why employment growth in those countries was less than in this country, and the response was given that there were a number of reasons for that. But we never were able to lay on the record what those reasons were, and I would be interested in putting those on the record.

Mrs. NORWOOD. The point I was trying to make is that I do not believe that the basic reason was the increased tax costs of health insurance. I think that part of it is the labor force itself. Their labor force has been growing very slowly compared to ours, and they have a very special problem with their youth, and as a result, there hasn't been the push for jobs that we have had.

Senator **SARBANES**. Let me ask you this question. If the country has a stable or declining population—

Mrs. **NORWOOD**. Yes.

Senator **SARBANES** [continuing]. Why would it have any growth in jobs? Suppose you have a country with a stable or declining population. Let's assume it has a low-unemployment rate. Why wouldn't it, without any increase in the number of jobs, be able to continue to have a low-unemployment rate in each subsequent year?

Mrs. **NORWOOD**. That was the point that I was making. The labor force increases tend to push job creation. So we had enormous job creation in the seventies, as we had the numbers of people coming into the labor force. On the other hand, it is true that economic policies have a lot to do with it too. I was in Germany a couple of years ago with a group of people discussing labor market issues with a tripartite group of labor, government, and business. And their view was that they had to keep a very tight lid on what was happening in Germany, and above all, not create jobs unless they were extremely productive jobs. I think our view is that jobs are important. We want them to be productive, but it is better for somebody to be working than not working at all. There was a real difference, I think, in that.

Now one of the things that is going to be happening in the future is that Europe is now beginning to get the kinds of labor force pressures that we have been through. Their women are beginning to come more and more into the labor force although their participation rates are still lower than ours. They have new minority groups because their guest workers have stayed. The people who came, stayed and had children, and now these people are growing up. So I think that many of the kinds and issues and problems that we have had in the past, Europe is going to be facing in the future.

Senator **SARBANES**. Let us turn to productivity for just a few minutes, if we can.

Mrs. **NORWOOD**. All right.

Senator **SARBANES**. Mr. Mark, you have worked on productivity issues at the BLS now for almost four decades, and I give you a very open-ended question. What are your thoughts on what has caused the slowdown in the productivity growth in the American economy since the early 1970's? First of all, is it correct that there has been a discernible slowdown in productivity in the American economy since the early 1970's?

Mr. **MARK**. I think there is no question about it.

First of all, before I start, I want to thank you for your opening remarks, Senator Sarbanes.

There is no question that there has been a slowdown. There has been some recovery since the 1982 recession. This has been largely cyclical, but there has been in manufacturing, perhaps, a longer term impact, which is more positive. But in general, in the early seventies, we started to have a tremendous slowdown, a dropoff from the golden age of the fifties and the sixties, where we were running at the rate of about 3 percent per year down to less than one-half percent per year. We have come back to about 1 percent per year, which is still not anything like the period that we had before.

As far as the causes of it, I think it is a bit of a puzzle still. There have been many causes mentioned. If you add them all up, they sometimes overexplain the slowdown, and yet each one of them alone does not seem to indicate that this is the major source, but I think it is probably the cumulative effect of a lot of changes which were taking place in the early seventies, including the energy price increases and the increased government regulations which were useful for social purposes, but as far as productivity was concerned, they were somewhat costly.

The specific impact of each of these was not particularly great, but I think when you add them up, and the uncertainties that the price increases during the seventies created in terms of dislocations throughout the economy, I think you had a continuing pressure for smaller productivity gains.

The one area which I think has gone through a change in my view is the service sector. For many years, I never thought that the service sector alone was a source of the productivity deceleration. This has been argued many times, and the data that we are looking at did not seem to support it. However, I would say that I think the movement to service has had more of an impact in the recent years than it did previously.

Senator SARBANES. Why do you think that is the case?

Mr. MARK. I don't know. I think that in some of the high productivity service areas, there has been probably a tapering off of growth and the traditionally low productivity growth service areas have been increasing in importance, so that this is affecting the service sector probably more than anything. I am optimistic a little bit about the future in the sense that I do think that many of the factors that have been operating will probably have less of an impact over the next decade than they had over the previous decade, but I do not believe that we are going to come back to the period where we had everything going for us as we did in the fifties and sixties.

Senator SARBANES. In your examination of productivity in other countries, have you ever come upon any programs or approaches that seem positive for them that might work here to improve U.S. productivity?

Mr. MARK. Not really. I think the other countries—in part, it is a function of the economic climate to a very large extent, and the stimulation of the introduction of the technology and the facilitating of that. Now in many countries, this is fairly easy, in other countries, it is more difficult. I think—I haven't seen anything, even the worker productivity centers for the last 40 years has not had an awful lot of impact in terms of the overall pattern of productivity improvement. I think it is mostly the major factors of increasing the education of the work force, facilitating the impact and the development and use of new technology, and the improvement of investment, so that capital can have a greater role. These are the three things that have major impacts. The conditions that lend to the improvement of these things, I think, are the sources of the productivity growth.

Senator SARBANES. A month ago, BLS reported that nonfarm productivity rose half a percent.

Mr. MARK. Right.

Senator SARBANES. At an annual rate in the first quarter of 1989. Then just yesterday, the Bureau issued revised figures that, in fact, it had declined in the first quarter at an annual rate of 1.1 percent.

Mr. MARK. That's right.

Senator SARBANES. You also revised the productivity growth in manufacturing from 3.8 percent to 2.1 percent. I am interested, obviously, in what accounts for this substantial revision in the productivity figures for the first quarter.

Mr. MARK. The major source was a downward revision in the GNP data which came from later information that they received, so that there was a drop in nonfarm business output from a previously reported 3.6 percent annual rate in the first quarter to 2.2 percent. That was enough to shift the productivity growth from a positive half a percent per year to a negative 1 percent.

Senator SARBANES. That is the Commerce Department's figure?

Mr. MARK. That is right. We start with the GNP data, and we take out those parts of the GNP, real GNP, for which we feel you really cannot derive productivity measures. For example, some parts of the national accounts—which they have to include to get a complete framework sometimes use input measures of output. Government is a good case in point. The output measure of general government is wages and salaries of government employees which, in real terms, is the change in employment times the base of wages and salaries. There is an implied cost of productivity assumption underlying that.

So therefore, we don't feel that that would be a realistic picture, if we were to include it. So we take it out. That is why we only have the largest level of aggregation being the business sector, and we exclude households and institutions for that reason and general government. And there are parts of the national accounts that they have to develop measures for, for which they get income or production, like income from abroad, but we don't have the labor components associated with that generation of the income. So we take that out. We do, of course, have domestic products excluding households and institutions and general government.

For those reasons, we have a limited measure, and there are revisions within that business sector measure which take place because they get later data on overtime, and then they revise the data down like they did in this case, downward, because the labor input adjustment was very small. It was 3.1 and 3.4. So there was a very small difference in the two measures as far as the input side was concerned. It was entirely from the output. As far as the input side was concerned, it was entirely from hours.

As far as manufacturing is concerned, the same thing took place. There was a revision in the output growth downward from 4.6 to 2.8, which is very substantial and caused the fallout from the manufacturing productivity growth.

Senator SARBANES. Well, Commissioner, I think this is an object lesson for the interagency task force. It is a matter of some concern, if the revision is as extensive as it has had to be here because of the revision in the GNP figures. In the meantime, you are operating on one set of assumptions about the economy and how it is working, and then all of a sudden, those assumptions get literally turned around. It seems to me that for Mr. Boskin and his group, it

is an instance that could be corrected by the commitment of more resources into the statistical agencies.

Mrs. NORWOOD. Not entirely. I think part of the problem is that the GNP estimates are issued and must be issued before all of the data for the quarter to which they were referred are in. I know on the price side, they have 1 or 2 months' data, and they don't have the third month. So they are forced to revise this afterwards.

Senator SARBANES. Shouldn't we either get the data sooner or not issue the figure as quickly, if the gap is going to be this great? And do other countries do the same thing?

Mrs. NORWOOD. It is certainly possible, but when you have started and you have a program which says that you are going to release data at particular times and you have a lot of people in and out of the Government who say we don't really care whether you have to revise it, we need it early even if it isn't complete, it is very difficult. But the Commerce Department has eliminated the so-called "flash GNP estimate," which really had almost no data in it or very little, and I think they have a very difficult job.

The Boskin working group is looking at the question of what data are needed to improve the national accounts. In many cases, however, those data are not very easy to develop, and part of it is cost, but it is not entirely cost. There are a lot of things that we really don't know how to do very well. We have products in our case, for example, we have a lot of products which have fast-shifting technology, and it is very difficult, say, in the medical care area to determine how to develop measures of output that are realistic, and that is true of much of the price measurement in the service-producing area.

So what we need to do is to develop more data, but we also need to try to find out better approaches to—and do research on the conceptual needs for data as well.

Senator SARBANES. Mr. Mark, let me put this final question to you.

What, in your view, would be the most effective things that the U.S. Government could do to improve productivity?

Mr. MARK. The Government's role, I think, is to create an economic climate. I think that is the principal Government role, in my view, to enhance productivity growth, that a climate which is stable and a climate which is one in which expectations can be realistic and would encourage business and labor to hasten the introduction of new technology, because basically, the major source of productivity growth, the largest growth by far is improved technology. And anything that stimulates that is going to be a source—and if the Government creates a climate in various ways, an economic climate of stability that would be the most important thing that we could do.

Senator SARBANES. Earlier, you said on improving productivity that new technology, worker training, as I recall, and there was one other item—

Mr. MARK. There are three things, it seems to me, which are the sources of long-term productivity growth—new technology, the education and quality of the work force, basically, is the second one, and the third is the extent, the amount and the quality of the capital that is available, that the work force has available to work

with. That, in conjunction with the technology, the new technology, it seems to me, are the major sources that we are going to have for enhancing productivity growth.

Senator SARBANES. When you talk about the education and quality of the work force, are you including management in that as well as the workers?

Mr. MARK. Yes.

Senator SARBANES. Because I think there is a tendency to overlook that. I don't know how episodic this evidence is, but there are often stories about how the same workers and roughly the same capital plant, a new management turns around the whole productivity performance in a particular facility. And so I was curious about that.

Mr. MARK. Yes. Of course, because management is part of the generation of outputs, we feel that it is very important, and also, the quality of the management determines how the technology is going to be utilized. So it is very central, the whole argument about short-term horizons that management has to operate under in this country, I think, has some validity to it, but also it is not the longer term things to me. The longer term is the general quality of the work force in general and the quality of the management.

Senator SARBANES. Well, we thank you very much. We wish you well in your retirement.

And Commissioner, we are most appreciative to you and your colleagues for being with us today.

Mrs. NORWOOD. Thank you very much.

Senator SARBANES. The committee stands adjourned.

[Whereupon, at 10:47 a.m., the committee adjourned, subject to the call of the Chair.]

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