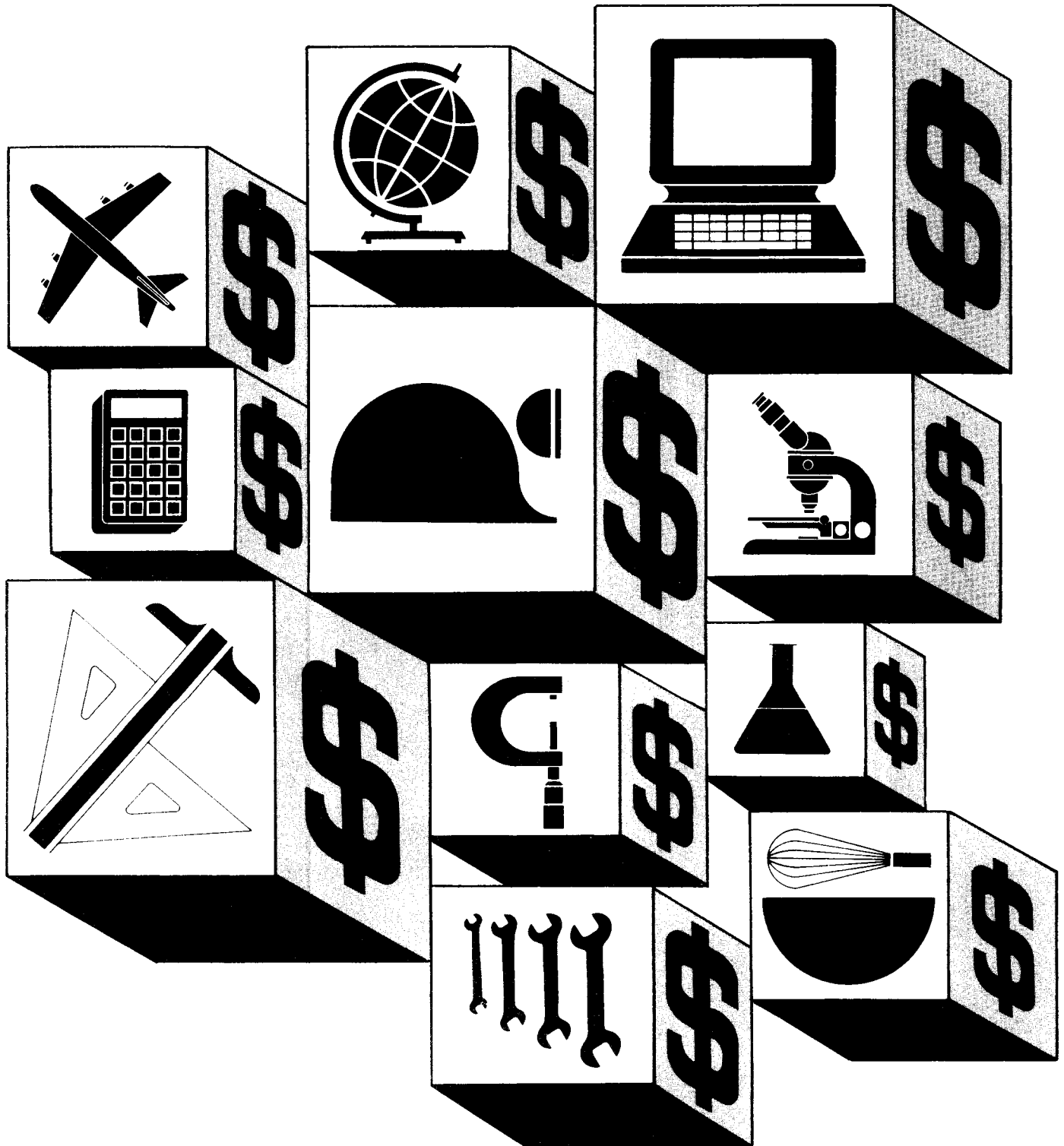


# EMPLOYMENT AND EARNINGS

U.S. Department of Labor  
Bureau of Labor Statistics  
September 1990

In this issue: Establishment data adjusted  
to new benchmarks and the  
1987 SIC





## U.S. DEPARTMENT OF LABOR

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### BUREAU OF LABOR STATISTICS

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## Calendar of Features

In addition to the monthly data appearing regularly in *Employment and Earnings*, special features appear in most of the issues as shown below.

### Household data

Annual averages	Jan.
Union affiliation	Jan.
Earnings by detailed occupation	Jan.
Revised seasonally adjusted series	Jan., Feb.

Quarterly averages: Seasonally adjusted data, persons not in labor force, persons of Hispanic origin, Vietnam-era veterans and nonveterans, family relationship data, weekly earnings data, and metropolitan-nonmetropolitan and poverty-nonpoverty area data Jan., Apr., July, Oct.

### Establishment data

National annual averages:	
Industry divisions (preliminary)	Jan.
Industry detail (final)	Mar.
Women employees (final)	Mar.
National data revised to reflect new benchmarks and new seasonal adjustment factors	June <sup>1</sup>
Revised historical national data	( <sup>2</sup> )
State and area annual averages	May
Area definitions	May

### State and area labor force data

Annual averages	May
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<sup>1</sup> The September 1990 issue will introduce March 1989 benchmarks.

<sup>2</sup> A historical bulletin is forthcoming.

# Employment and Earnings

Vol. 37 No. 9 September 1990

Editors: Gloria Peterson Green, Rosalie K. Epstein

## Editors' Note

Beginning with this issue, national estimates of employment, hours, and earnings from the monthly survey of business establishments have been revised to reflect March 1989 benchmarks (comprehensive counts of employment) and updated seasonal adjustment factors, which incorporate the experience through May 1990. In addition, industry detail is classified in accordance with the 1987 *Standard Industrial Classification Manual*, and all constant-dollar and other 1977-based series have been rebased to 1982=100.

The article, beginning on page 6, discusses the effects of the revisions, and provides new seasonal adjustment factors to be used to calculate establishment-based estimates for August 1990-April 1991. Revised current data appear in tables B-1 through B-7 and C-1 through C-7. Revised historical data (unadjusted and seasonally adjusted) from the earliest dates of availability will be published in a forthcoming bulletin, *Employment, Hours, and Earnings, United States, 1909-90*.

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# Employment and Unemployment Developments, August 1990

Employment continued to be weak in August and unemployment rose slightly. The civilian worker unemployment rate edged up to 5.6 percent in August, after a more substantial increase in July.

Nonfarm payroll employment, as measured by the survey of business establishments, was little changed at 110.7 million in August, the second consecutive month it has failed to show any growth. Total civilian employment, as measured by the survey of households, fell for the second month in a row, to 117.7 million in August.

## Unemployment

Both the number of unemployed persons and the civilian worker unemployment rate edged up in August, after seasonal adjustment, with the number of unemployed reaching 7.0 million and the rate 5.6 percent. Prior to July, the jobless rate had fluctuated around the 5.3-percent mark for nearly 2 years. (See table A-33.)

Over-the-month movements in the jobless rates for most individual worker groups were very small but generally upward. August rates were 5.0 percent for adult men, 4.9 percent for adult women, 16.7 percent for teenagers, 4.8 percent for whites, 11.8 percent for blacks, and 7.8 percent for Hispanics. (See tables A-33 and A-34.)

The number of unemployed persons who lost their last jobs rose by 280,000 in August, while there was little change in the number who voluntarily left their last jobs or in the number who were entering the labor force. The number of newly unemployed persons, those jobless for less than 5 weeks, rose by 200,000 to 3.3 million. (See tables A-40 and A-41.)

## Civilian employment and the labor force

Total civilian employment fell by 300,000, seasonally adjusted, to a level of 117.7 million. Most of this decline occurred among teenagers. Total employment has declined by 730,000 in the last 2 months. As a result, the proportion of the working-age population that is employed (the employment-population ratio) declined to 62.5 percent in August, down by half a percentage point over the past 2 months. (See table A-33.)

The number of persons in the civilian labor force, 124.7 million, and the labor force participation rate, 66.2 percent, were little changed over the month, after seasonal ad-

justment. Over the past year, the labor force has increased by only 570,000, as growth in the working-age population has slowed and the percentage participating in the labor force has diminished. Virtually all of the reduced labor force participation has occurred among teenagers, whose participation rate was down by about 5-1/2 percentage points from a year earlier. (See table A-33.)

## Industry payroll employment

Payroll employment continued to be weak in August, as job declines occurred throughout the goods-producing sector. These losses were only partly offset by small gains in the service-producing sector. Largely because of a further decline in the number of temporary census workers, total payroll employment edged down by 75,000 over the month, following a decrease of 90,000 (as revised) in July. Employment growth in the private sector, which had been slowing since early 1989, has essentially halted during the last 2 months. (See table B-4.)

Goods-producing employment fell by 90,000 in August. The number of manufacturing jobs declined by 45,000, with virtually all of the losses occurring in durable goods industries, particularly in electronic equipment and transportation equipment. Since reaching a post-recession peak in January 1989, the number of factory jobs has declined by 455,000. The industries with the largest losses include electronic equipment (-100,000), motor vehicles (-80,000), apparel (-55,000), fabricated metals (-50,000), and instruments (-40,000).

Construction employment continued its recent downturn with a 40,000 reduction in August and has lost nearly 100,000 jobs in the last 3 months. Employment in mining, which had grown by 60,000 since last July, decreased by 7,000 in August.

In the service-producing sector, the number of services industry jobs rose by 70,000 in August. Much of the gain came from health services, which has accounted for more than a quarter of the total job growth over the past year. In contrast, business services showed no change in August, following a small decline in July; this industry, which had seen rapid job gains during much of the expansion, has had much slower growth since early 1989.

State and local governments continued their employment expansion in August, adding 60,000 jobs. Overall

government employment fell by 65,000 jobs, however, because of further reductions in the number of decennial census workers (which was down by an estimated 120,000 over the month). Retail trade showed little change over the month and has been unusually sluggish for most of this year. The wholesale trade, transportation and public utilities, and finance, insurance, and real estate industries all experienced small job gains in August after incurring small losses in the prior month.

**Weekly hours**

The average workweek of production or nonsupervisory workers on private nonfarm payrolls was unchanged in August at 34.5 hours, seasonally adjusted. In manufacturing, the workweek and overtime each edged up by 0.1 hour to 41.0 and 3.9 hours, respectively. (See table C-5.)

The index of aggregate weekly hours of private production or nonsupervisory workers—which combines the effects of employment and hours—inched downward in August to 124.6 (1982=100), after seasonal adjustment. The index for manufacturing also edged down, to 107.2. Both indexes have shown little change thus far during 1990. (See table C-6.)

**Hourly and weekly earnings**

After seasonal adjustment, average hourly and weekly earnings each edged up 0.2 percent. Prior to seasonal adjustment, average hourly earnings declined 1 cent to \$9.99, while average weekly earnings fell \$1.35 to \$347.65. Over the year, average hourly earnings rose 4.0 percent and average weekly earnings were up 3.7 percent. (See tables C-1 and C-7.)

**Note on temporary census workers**

The number of temporary workers associated with the 1990 census has an impact on the employment levels for the Federal Government, as well as for higher aggregates. The estimate of these workers was 22,000 in January, 27,000 in February, 117,000 in March, 178,000 in April, 378,000 in May, 367,000 in June, and 194,000 in July. For August, the estimated number (preliminary) was 74,000, which may be subject to significant revision.

<b>Scheduled Release Dates</b>			
Employment and unemployment data are scheduled for initial release on the following dates:			
<i>Reference month</i>	<i>Release date</i>	<i>Reference month</i>	<i>Release date</i>
September	October 5	December	January 4
October	November 2	January	February 1
November	December 7	February	March 8

# Establishment Estimates Revised to March 1989 Benchmarks and 1987 SIC Codes

\*Patricia M. Getz

With the release of data for August 1990, the Bureau of Labor Statistics introduced its annual revision of national estimates of employment, hours, and earnings from the monthly sample survey of nonfarm establishments. Each year, the sample estimates are adjusted to new benchmarks, which are comprehensive universe counts of employment based primarily on unemployment insurance reports filed by all employers with State employment security agencies. This year's benchmark revision marks the fourth time during the 1980's that there has been essentially no net revision at the total nonfarm level.

Also effective with this release, all industry series have been converted to 1987 Standard Industrial Classification (SIC) codes.<sup>1</sup> This new structure replaces the 1972 SIC coding structure previously in effect for the industry estimates. The SIC restructuring affected approximately one-third of all published industry series. The impact of SIC restructuring at the total nonfarm and major industry division levels was negligible; however, there were significant effects for some of the detailed industries.

All data from April 1988 forward have been revised to incorporate both the March 1989 benchmarks and the effects of the SIC revision. Historical (pre-1988) data for industry series affected by SIC redefinitions have been reconstructed where possible. Historical data for the industry series unaffected by the SIC revision remain as previously published.

As is the usual practice with the introduction of new benchmarks, the Bureau has also revised all seasonally adjusted series for the previous 5-year period and has introduced new seasonal adjustment factors to be used to adjust data in the months ahead.

In addition, all published constant-dollar and indexed series have been recomputed on a 1982 base, replacing the previously published 1977-based data. This type of rebasing generally accompanies a major SIC redefinition.

\* Patricia M. Getz is a supervisory economist in the Division of Monthly Industry Employment Statistics, Bureau of Labor Statistics.

<sup>1</sup> As defined in the *1987 Standard Industrial Classification Manual*, issued by the Executive Office of the President, Office of Management and Budget.

## Conversion to the 1987 sic coding structure

The SIC coding system is periodically updated to reflect structural and technological changes in the economy. Growing, emerging industries may be recognized with independent SIC codes for the first time, while SIC codes for declining industries may be eliminated by collapsing them with other like industries into a single SIC code.

The 1987 SIC revision marks the first full SIC restructuring since 1972; there were minor updates to the SIC system in 1977.

*Scope of the SIC restructuring.* Approximately two-thirds of the published industry series were unaffected by the SIC revision. There were almost no changes in scope at the major industry division levels, with only very minor shifts between wholesale and retail trade and between the finance, insurance, and real estate division and services. However, there were several significant redefinitions at the 2-digit level. The most notable were in two divisions, manufacturing and services. In manufacturing, a substantial realignment took place between electronic and other electrical equipment (SIC 36) and instruments and related products (SIC 38). Rubber and miscellaneous plastics products (SIC 30) and stone, clay, and glass products (SIC 32) were also noticeably affected, but to a much lesser degree. In services, a new 2-digit code (SIC 87) was established for "engineering and management services." Most of these activities had previously been classified in business services (SIC 73) or miscellaneous services (SIC 89).

At the 3- and 4-digit SIC levels, changes in scope were both more prevalent and more substantial. Table 1 lists all 1987 SIC-based published series which are not equivalent to a 1972 SIC-based series and relates them to the 1972-based series from which they were derived. Ratios indicate the percentage of employment in each old series that was allocated to the new series. Table 1 also lists the beginning year that all-employee data are available for each of these series. Table 2 lists the 44 previously published 1972-based industry series which were deleted in the conversion to the 1987 SIC structure. It indicates which 1987-based series these were converted to and the percentage of employment from the old series which went



to each new series.<sup>2</sup> It should be noted that, in addition to industry stratification changes required by the SIC redefinitions, some changes were made to improve estimating efficiencies.

*Reconstruction of estimates.* All restructured industries were reestimated using the 1987 SIC-coded sample data from January 1988 forward. Some aggregate level industries, without scope changes, have also been affected by the retabulations because they are formed from the summation of restratified, reestimated component industries.

Historical estimates prior to 1988 could not be retabulated from sample data, because sample records carry only 1972 SIC codes. For industries with relatively minor scope changes, historical data were reconstructed back to the inception of the series, wherever possible. The reconstruction of historical series was done by adjusting the existing 1972-based employment series for the percentage of employment lost or the percentage of employment gained from other industries, using ratios derived from first quarter 1988 universe employment data. The first quarter 1988 data represent the only dual SIC-coded data available for developing these adjustment ratios.

Hours and earnings data for restructured series were derived by computing a weighted average of the component series they were derived from. The weights are the percentages of employment each old series contributed to the new series.

### **Effect of the SIC restructuring and the current benchmark adjustment**

The net impact of the SIC restructuring and the adjustment to March 1989 benchmark levels on total nonfarm employment was an upward revision of only 9,000 from the previously published level. Table 3 presents, for March 1989, previously published estimates based on the 1972 SIC codes, retabulated estimates based on the 1987 SIC, and the newly published benchmark levels. It displays separately the revision effects due to SIC restructuring and those due to benchmarking, and shows the net effect, which is the sum of the two.

*Effects due to SIC restructuring.* As table 3 indicates, the SIC revision had a large impact on only a few major industries. For total nonfarm employment, the SIC revision effect, due entirely to restratification and not to any scope change, was 56,000 or less than 0.05 percent. At the major division levels, the impact varied from 1,000 in mining to 65,000 in services. Almost all of the effect at the major division levels was also from the restratification of industries within these aggregates, not from SIC scope changes.

<sup>2</sup> All ratios are based on first quarter 1988 universe employment data. For additional information, see *Employment Data Under the New Standard Industrial Classification, First Quarter 1988, Report 772, October 1989.*

At the detailed industry level, the largest effects of the SIC revision were in business services (-928,000), instruments and related products (+301,000), and electronic and other electrical equipment (-292,000).

*Effects due to 1989 benchmarks.* The benchmark effect shown in table 3 represents a comparison of March 1989 estimates retabulated under the 1987 SIC structure and the March 1989 benchmark levels. Estimates previously published were based on the 1972 SIC coding structure; however, March 1989 benchmark levels were available only on a 1987 SIC basis. Therefore it was necessary to retabulate estimates on the 1987 SIC structure prior to benchmarking. For total nonfarm employment, the benchmark level stands at 107,026,000. This represents a benchmark adjustment of -47,000 or less than 0.05 percent. This is considerably smaller than last year's benchmark error of -326,000 and marks the fourth time during the 1980's that the benchmark error has been virtually zero. (See table 4.)

As in previous years when the aggregate benchmark revision was very small, there were large, but offsetting errors among major divisions. Benchmark revisions were uniformly downward among the goods-producing divisions (mining, construction, and manufacturing), continuing the pattern of overestimation of these industries over the last several years. Within manufacturing, this tendency toward overestimation was widely diffused, with 15 of the 20 2-digit industries revised downward. Altogether, goods-producing industries were revised downward by 286,000.

Offsets to overestimation in the goods-producing sector occurred in the service-producing industries, which were revised upward by a total of 239,000. The two largest revisions occurred in trade and services, 142,000 and 223,000, respectively. Transportation and public utilities, and finance, insurance, and real estate had downward revisions of unusually large magnitudes compared with earlier years.

Revised estimates were computed each month from March 1989 forward (the postbenchmark period), based on the new benchmark levels. On a seasonally adjusted basis, the monthly revision increased from -77,000 in March 1989 to -153,000 by May 1990, with larger differences in some of the intervening months. These revisions reflect restratification effects from the SIC revision and a recomputation of both the bias adjustment and the seasonal adjustment factors. Table 5 shows the extent of the revisions for 1989 and 1990, in both level and change, through a comparison of seasonally adjusted monthly data as previously published and as revised.

Monthly estimates of employment, hours, and earnings are published in considerable industry detail. Table 6 indicates the size of revisions for the 265 published 3-digit industries. Within this group, more than one-fourth had revisions under 1 percent, and two-thirds had revisions under 3 percent. As has generally been the case, the small-

est industries in employment size tended to have the largest percentage revisions. (See table 6.)

### **Effect of revisions on other series**

As with the all-employee data, estimates were recomputed from sample data for women workers and production workers and for hours and earnings in industries affected by the SIC revision, from January 1988 forward. Table 7 shows the results of these recomputations for hours and earnings data for March 1989. As with the all-employee data, there are few significant changes at the published aggregate levels. Among average weekly hours estimates, only transportation and public utilities showed a significant effect from recomputation, a downward revision of 0.6 percent. Among average hourly earnings series, both electronic and other electrical equipment and instruments and related products showed large, partially offsetting changes, due to SIC redefinitions. Other differences were much less significant. At the total private level, hours and earnings were unchanged.

In addition to the SIC revision effect, small revisions, due to the routine benchmarking process, can occur in the series on women workers and production and nonsupervisory workers. Although there are no benchmark employment levels for these series, they are revised by computing ratios of employment for the particular series to all employees prior to revision and then applying the ratios to the revised all-employee figures. Revisions at the basic cell level are added to produce the summary level revisions.

Average weekly hours and average hourly earnings are estimated directly from reported figures at the estimating cell level and are not benchmarked. However, the broader industry groups of the hours and earnings series require a weighting mechanism to yield meaningful averages. The production or nonsupervisory worker employment estimates for the basic cells are used as weights for the hours and earnings estimates for broader industry groupings. Adjustments of the all-employee estimates to new benchmarks may alter the weights, which, in turn, may change the estimates for hours and earnings of production and nonsupervisory workers at higher levels of aggregation.

Generally, new employment benchmarks have little impact on hours and earnings estimates for major groupings. To influence the hours and earnings estimates of a broader group, employment revisions have to be relatively large and must affect industries which have substantially different hours or earnings averages than the other industries in their group. Occasionally, corrections of errors in the reported payroll data for individual establishments may also change the averages of selected industries.

### **Benchmark adjustment procedure**

The annual benchmark adjustment procedure serves both as a measure of the quality of the sample estimates and as a base for producing more accurate future monthly

measures of current industry employment levels from the sample. The benchmark levels are derived primarily from summations of the employment figures on the mandatory unemployment insurance (UI) contribution reports filed with the State employment security agencies by all employers covered by the UI laws. The figures compiled from these reports are adjusted where necessary to reflect minor discrepancies in industry coding between the establishments in the survey and the corresponding establishments in the population. The final benchmark levels are determined by adding to the adjusted UI-based figures estimates of employment in those industries that are not fully covered by UI laws. For the private sector, these are primarily in transportation and services.

Normally, new benchmarks are determined for March of each year for the most detailed industrial classification levels and size groups at which estimates are made, amounting to 1,700 estimating cells. The time required to complete the benchmark process—from the full collection of the UI population data to publication of the revised industry estimates—is usually about 15 months. Revised employment estimates for the period between the prior and the current benchmark are derived by spreading the March 1989 difference over the prior 11 months, adding 11/12's of the difference to the February 1989 estimates, 10/12's to the January 1989 estimates, and so forth. Revised estimates for the postbenchmark period are derived by extrapolating the new benchmark levels using the existing monthly sample links and revised bias adjustment factors. (See the next section.)

### **Why estimates differ from benchmarks**

Differences between population benchmarks and sample-based estimates result from both sampling and nonsampling error. Sampling error occurs any time a sample is used to make inferences about a population. As with any sample-based estimates, a certain amount of error is to be expected in the estimation of employment, hours, and earnings from the establishment survey. A complete monthly count of all establishments would provide the most accurate levels of employment by detailed industry. However, given the more than 5 million employers in the population, the collection of such monthly figures would be prohibitively expensive and too time consuming to compile. The current sample of over 340,000 establishments provides preliminary estimates within a month following the reference period. Additionally, sources of nonsampling error can be more easily controlled in a sample.

Both the benchmark levels and the sample-based estimates are subject to several sources of nonsampling error. Major sources of these nonsampling errors are: (1) an inability to measure employment in new firms from the time of their inception, due to the time lag between the creation of new firms and their inclusion in the sample; (2) proce-

dures for handling changes in industrial classification; (3) the quality of the various source data used to derive the benchmark; (4) an inability to cover completely all firms in the target population; and (5) other errors in coverage, response, processing, and collection.

*Bias adjustment factors.* In order to compensate for the inability of the survey to capture the entry of new firms, the Bureau calculates monthly bias adjustment factors. To do so, each year, 3- to 5-year averages of the relative differences between the March benchmark levels and sample-based estimates are computed for most 3-digit industries. These are average annual bias adjustment factors and are updated to reflect current rates of employment change for the most recent quarter for the same industries. The updated factors are applied to the sample-based estimates for each estimating cell level in the industry. Finally, the estimates for the cells are aggregated to produce the monthly published estimates.

*Changes in industrial classification.* Establishments are classified by industry according to major product or activity. Differences in the classification of establishments between the population and the sample can be an important source of nonsampling error. As part of a continuing quality maintenance program, approximately one-third of all employers are requested to refile industry classification information each year. This information can result in changes in industry classification. In addition, industry codes of establishments in the sample are reviewed each year and are reconciled to the corresponding codes of the establishment in the population file. Since these changes are introduced once a year, at the time of the revision to new benchmarks, they contribute to benchmark adjustment. At the more detailed industry levels, changes in classification can be an important cause of benchmark adjustments. As the estimates are aggregated to higher level industry groupings, these classification changes cancel out, so that the net difference is zero for total nonfarm employment.

*Benchmark source material.* The principal source of benchmark data for private industries is the "ES-202 report," which contains employment data reported to State employment security agencies by employers covered by State UI laws. UI coverage is now extended to approximately 98 percent of employees in the total nonfarm sector and 99 percent of those in the private nonfarm sector. Employment counts for the executive, legislative, and judicial branches of the Federal Government are derived from official summaries prepared by the U.S. Office of Personnel Management (OPM). These summaries are complete counts of Federal workers and are not usually subject to

revision.<sup>3</sup> The official OPM summaries do not provide detail on Federal employment by industry, such as hospitals, on a current monthly basis. These are estimated by BLS from a sample of Federal establishments.

BLS uses several sources to obtain employment counts for the remaining industries partially covered or exempt from mandatory UI coverage. Data on employees covered under Social Security laws, published by the Bureau of the Census in County Business Patterns, are used to augment UI data for nonoffice insurance sales workers and to derive benchmark figures for religious organizations, private schools, and hospitals. Benchmarks for State and local government hospitals and educational institutions are based on the Annual Survey of Governments conducted by the Bureau of the Census. Benchmark data for employees of church-sponsored schools are obtained through State agency surveys. Data for interstate railroads are obtained from the Interstate Commerce Commission.

### Seasonal adjustment procedure

BLS uses the X-11 ARIMA (Auto-Regressive Integrated Moving Average) seasonal adjustment procedure, developed by Statistics Canada,<sup>4</sup> to seasonally adjust establishment-based employment, hours, and earnings data. The ARIMA option is used to project the unadjusted data forward for 1 year prior to seasonally adjusting the series. The use of ARIMA projections lessens the need for revisions of historical data in future seasonal adjustments. ARIMA projections are not used in series where the projections do not meet test requirements.<sup>5</sup>

In June 1989, the Bureau introduced the practice of computing and publishing projected factors twice a year for use in seasonally adjusting establishment-based employment, hours, and earnings data. This schedule was affected by the incorporation of the 1987 SIC revision. Thus, in this issue of *Employment and Earnings*, seasonal adjustment factors are provided for the 9-month period August 1990-April 1991. Factors for the 6-month period May-October 1991 will appear in the June 1991 issue, reestablishing the practice of publishing 6 months of factors.

All published seasonally adjusted series have been revised for the most recent 5 years (1985-90) for the incorporation of new seasonal factors, as usual. In addition, series affected by the SIC revision which were reconstructed for years prior to 1985 have been seasonally adjusted again, based on the 1987 SIC-based estimates.

<sup>3</sup> Employees of the Central Intelligence Agency, the National Security Agency, and those of the Department of Defense paid from nonappropriated funds are not included in the OPM summaries of these series and thus are not counted.

<sup>4</sup> A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estella Bee Dagum, Statistics Canada Catalogue No. 12-564E, January 1983.

<sup>5</sup> The series so affected are identified in tables 9 through 14.

Beginning with the publication of April-July 1990 factors, a new moving-holiday extension of X-11 ARIMA was used to seasonally adjust the average weekly hours series and manufacturing overtime hours series.<sup>6</sup> Historical seasonally adjusted series have been recomputed from January 1980 forward to incorporate this adjustment.

All series are seasonally adjusted using the multiplicative models under X-11 ARIMA. Seasonal adjustment factors are directly applied to the component levels. Seasonally adjusted totals for most of these series are then obtained by taking a weighted average of the seasonally adjusted data for the component series. The seasonal adjustment factors that will be used for the period August 1990 through April 1991 for all published series are shown in tables 9 through 14. Seasonally adjusted data are not published for a small number of series characterized by small seasonal components relative to their trend-cycle

<sup>6</sup> A more detailed description of this adjustment appears in the January 1990 issue of *Employment and Earnings*.

and/or irregular components. These series are identified in tables 10 and 12; they are used, however, in aggregating to broader seasonally adjusted levels.

### **Publication of revised data**

Data for detailed industry categories of employment, hours, and earnings will be presented in a historical bulletin, *Employment, Hours, and Earnings, United States, 1909-90*. It will contain all of the historical data revised as a result of the 1987 SIC revision, the March 1989 benchmarks, updated seasonal adjustment factors, and the re-basing of constant-dollar and indexed series, as well as prior data unaffected by these revisions.

Employment estimates are published monthly in *Employment and Earnings* for most of the significant nonfarm industries. Those industries for which monthly data are not published are either too small or are not represented by a sufficient sample. Table 8 contains the March 1989 benchmark figures for these industries.

**Table 1. Published industries restructured under the 1987 SIC and relationship of employment to the 1972 SIC industries**

1987 SIC industry	1987 SIC code	1972 SIC code	1972 to 1987 ratio <sup>1</sup>	Beginning year for all-employee series
Mining:				
Bituminous coal and lignite mining .....	122	12	94.6666	1939
Construction:				
Heavy construction, except building .....	16	16	96.5214	1972
Highway and street construction .....	161	161	84.7511	1988
Heavy construction, except highway .....	162	161	3.2454	1972
Special trade contractors .....	162	162	100.0000	
Special trade contractors .....	17	16	3.4785	1972
Special trade contractors .....	17	17	100.0000	
Manufacturing:				
Durable goods .....	—	—	<sup>2</sup> 99.6873	1939
Lumber and wood products .....			<sup>3</sup> .9717	
Lumber and wood products .....	24	24	100.0000	1947
Lumber and wood products .....	24	34	.5094	
Lumber and wood products .....	24	26	.6518	
Millwork, plywood, and structural members .....	243	243	100.0000	1972
Millwork .....	243	344	1.7230	
Millwork .....	2431	2431	100.0000	1972
Millwork .....	2431	3442	8.9878	
Miscellaneous wood products .....	249	249	100.0000	1972
Miscellaneous wood products .....	249	266	64.8231	
Furniture and fixtures:				
Office furniture .....	252	252	100.0000	1958
Office furniture .....	252	259	2.1165	
Partitions and fixtures .....	254	254	100.0000	1958
Partitions and fixtures .....	254	259	1.6588	
Miscellaneous furniture and fixtures .....	259	259	96.2246	1958
Stone, clay, and glass products .....	32	32	94.5041	1939
Stone, clay, and glass products .....	32	36	.0816	
Pottery and related products .....	326	326	100.0000	1947
Pottery and related products .....	326	367	.2680	
Miscellaneous nonmetallic mineral products .....	329	329	72.6864	1988
Primary metal industries:				
Aluminum foundries .....	3365	3361	55.6354	1988
Fabricated metal products .....	34	34	99.4321	1947
Fabricated metal products .....	34	35	.0018	
Fabricated metal products .....	34	37	.3067	
Fabricated metal products .....	34	30	.3849	
Cutlery, handtools, and hardware .....	342	342	100.0000	1947
Cutlery, handtools, and hardware .....	342	355	.0229	
Hand and edge tools, and blades and handsaws .....	3423,5	3423,5	100.0000	1972
Hand and edge tools, and blades and handsaws .....	3423,5	3555	.1363	
Plumbing and heating, except electric .....	343	343	98.5898	1972
Plumbing and heating, except electric .....	343	307	.5265	
Plumbing fixture fittings and trim .....	3432	3432	100.0000	1972
Plumbing fixture fittings and trim .....	3432	307	.5265	
Heating equipment, except electric .....	3433	3433	95.9318	1972
Fabricated structural metal products .....	344	344	98.2769	1972
Fabricated structural metal products .....	344	346	.9996	
Metal doors, sash, and trim .....	3442	3442	91.0121	1958
Sheet metal work .....	3444	3444	91.8514	1958
Metal forgings and stampings .....	346	346	99.0003	1972
Metal stampings, nec. ....	3469	3469	97.1998	1972
Miscellaneous fabricated metal products .....	349	349	100.0000	1972
Miscellaneous fabricated metal products .....	349	372	.8923	
Valves and pipe fittings, nec. ....	3494	3494	37.7579	1988
Industrial machinery and equipment .....	35	34	.0584	1947
Industrial machinery and equipment .....	35	35	99.4217	
Industrial machinery and equipment .....	35	36	.8759	
Industrial machinery and equipment .....	35	37	.7329	
Construction machinery .....	3531	3531	100.0000	1972
Construction machinery .....	3531	3536	24.6423	
Industrial trucks and tractors .....	3537	3536	3.0149	1972
Industrial trucks and tractors .....	3537	3537	100.0000	
Metalworking machinery .....	354	354	98.7786	1958
Metalworking machinery .....	354	356	3.7983	
Metalworking machinery .....	354	362	7.4676	

See footnotes at end of table.

**Table 1. Published industries restructured under the 1987 SIC and relationship of employment to the 1972 SIC industries—Continued**

1987 SIC industry	1987 SIC code	1972 SIC code	1972 to 1987 ratio <sup>1</sup>	Beginning year for all-employee series
Durable goods—Continued				
Special industry machinery .....	355	354	1.2213	1958
	355	355	90.8078	
	355	363	1.1304	
Printing trades machinery .....	3555	3555	87.0550	1958
Food products machinery .....	3556	3551	65.6950	1988
General industrial machinery .....	356	343	1.4101	1972
	356	355	7.0169	
	356	356	87.8535	
Pumps and pumping equipment .....	3561	3561	61.9609	1988
Speed changers, drives, and gears .....	3566	3566	90.1076	1972
Computer and office equipment .....	357	357	96.8416	1958
	357	366	.4166	
Electronic computers .....	3571	3573	72.2830	1988
Computer terminals, calculators, and office machines, nec .....	3575,8,9	3573	3.9089	1988
	3575,8,9	3574	100.0000	
	3575,8,9	3572,9	100.0000	
	3575,8,9	3661	2.1568	
Refrigeration and service machinery .....	358	358	100.0000	1958
	358	369	.3433	
Refrigeration and heating equipment .....	3585	3585	100.0000	1972
	3585	3699	4.3273	
Miscellaneous industrial and commercial machinery .....	359	356	8.3480	1972
	359	357	1.4144	
	359	359	100.0000	
	359	372	2.1324	
Scales, balances, and industrial machinery, nec .....	3596,9	3576	100.0000	1982
	3596,9	3599	93.9304	
Electronic and other electrical equipment .....	36	35	4018	1939
	36	36	84.2405	
Electric distribution equipment .....	361	361	95.9258	1958
Switchgear and switchboard apparatus .....	3613	3613	91.8226	1958
Electrical industrial apparatus .....	362	361	4.0741	1958
	362	362	92.5323	
	362	367	.8433	
Relays and industrial controls .....	3625	3613	8.1773	1972
	3625	3622	100.0000	
	3625	3679	2.0574	
Household appliances .....	363	363	98.8695	1958
Electric lighting and wiring equipment .....	364	364	100.0000	1958
	364	369	8295	
Electric lamps .....	3641	3641	100.0000	1972
	3641	3699	10.4550	
Communications equipment .....	366	366	46.9916	1988
Telephone and telegraph apparatus .....	3661	3661	97.8431	1988
	3661	3662	5.7592	
Electronic components and accessories .....	367	367	97.2806	1958
Electron tubes .....	3671	3671-3	100.0000	1988
	3671	3679	1.8918	
Electronic components, nec .....	3679	3679	55.4504	1988
Miscellaneous electrical equipment and supplies .....	369	357	1.7439	1988
	369	366	5.1537	
	369	367	1.6079	
	369	369	78.1093	
Transportation equipment .....	37	37	98.9602	1939
Aircraft and parts .....	372	372	96.9752	1939
Aircraft parts and equipment, nec .....	3728	3728	87.9661	1972
Instruments and related products .....	38	36	14.8019	1947
	38	38	100.0000	
Search and navigation equipment .....	381	366	47.1027	1988
	381	381	62.9508	
Measuring and controlling devices .....	382	366	.3350	1988
	382	381	37.0491	
	382	382	100.0000	
	382	383	100.0000	

See footnotes at end of table.

**Table 1. Published industries restructured under the 1987 SIC and relationship of employment to the 1972 SIC industries—Continued**

1987 SIC industry	1987 SIC code	1972 SIC code	1972 to 1987 ratio <sup>1</sup>	Beginning year for all-employee series
<b>Durable goods—Continued</b>				
Medical instruments and supplies .....	384	369	20.7178	1988
	384	384	100.0000	
Costume jewelry and notions .....	396	396	85.8026	1988
Miscellaneous manufactures .....	399	396	14.1973	1972
	399	399	100.0000	
<b>Nondurable goods .....</b>	-	-	<sup>2</sup> .3127	1939
			<sup>3</sup> 99.0283	
<b>Food and kindred products:</b>				
Poultry slaughtering and processing .....	2015	2016	100.0000	1972
	2015	2017	100.0000	
Preserved fruits and vegetables .....	203	203	95.8883	1972
Canned specialties .....	2032	2032	99.8392	1972
Prepared feeds, nec. ....	2048	2047	20.1742	1972
	2048	2048	100.0000	
<b>Bakery products .....</b>	205	203	3.5699	1972
	205	205	100.0000	
Cookies, crackers, and frozen bakery products, except bread. ....	2052,3	2038	100.0000	1988
<b>Sugar and confectionery products .....</b>	206	203	.5247	1972
	206	206	100.0000	
	206	209	.7356	
Candy and other confectionery products ....	2064	2065	89.1262	1988
Miscellaneous food and kindred products .....	209	203	.0169	1972
	209	209	99.2643	
<b>Textile mill products:</b>				
Knitting mills .....	225	225	100.0000	1958
	225	229	5.3622	
<b>Yarn and thread mills:</b>				
Yarn spinning mills .....	2281	2281	100.0000	1972
	2281	2283	81.6835	
Throwing and winding mills .....	2282	2282	100.0000	1972
	2282	2283	18.1135	
Miscellaneous textile goods .....	229	229	94.6377	1958
<b>Apparel and other textile products:</b>				
Men's and boys' shirts .....	2321	2321	93.9364	1958
Men's and boys' trousers and slacks .....	2325	2327	100.0000	1988
	2325	2328	44.8317	
Men's and boys' work clothing .....	2326	2328	55.1683	1988
<b>Paper and allied products .....</b>				
Paper mills .....	26	26	99.3481	1939
	262	262	100.0000	1972
	262	266	35.1768	
Sanitary food containers .....	2656	2654	69.2511	1988
Folding paperboard boxes .....	2657	2651	100.0000	1988
	2657	2654	30.7489	
Paper, coated and laminated, nec. ....	2672	2641	70.3688	1988
Bags: plastics, laminated, and coated .....	2673	2643	63.3756	1988
<b>Printing and publishing:</b>				
Commercial printing .....	275	275	99.0699	1958
Commercial printing, nec. ....	2759	2751	100.0000	1972
	2759	2753	75.3906	
Printing trade services .....	279	275	.9300	1972
	279	279	100.0000	
<b>Chemicals and allied products:</b>				
Industrial inorganic chemicals .....	281	281	100.0000	1972
	281	286	.1290	
Industrial inorganic chemicals, nec. ....	2819	2819	100.0000	1972
	2819	2861,9	.1621	
Industrial organic chemicals .....	286	286	99.8709	1972
Industrial organic chemicals, nec. ....	2869	2861,9	96.9608	1972
<b>Rubber and miscellaneous plastics products .....</b>				
	30	32	5.4958	1939
	30	35	.1745	
	30	30	99.6150	
Hose, belting, gaskets, and packing .....	305	329	27.3135	1972
	305	303,4	96.9608	
Rubber and plastics hose and belting .....	3052	303,4	95.8367	1972

See footnotes at end of table.

**Table 1. Published industries restructured under the 1987 SIC and relationship of employment to the 1972 SIC Industries—Continued**

1987 SIC industry	1987 SIC code	1972 SIC code	1972 to 1987 ratio <sup>1</sup>	Beginning year for all-employee series
<b>Nondurable goods—Continued</b>				
Fabricated rubber products, nec. ....	306	355	2.1522	1972
	306	303,4	3.3092	
	306	306	100.0000	
Miscellaneous plastics products, nec. ....	308	307	99.4734	1958
<b>Transportation and public utilities:</b>				
Transportation .....	-	-	<sup>4</sup> 99.9567	1964
Water transportation .....	44	44	99.2348	1964
Water transportation of freight, nec. ....	444	443,4	88.6249	1988
	444	445	.6366	
Water transportation services .....	449	445	76.2996	1988
	449	446	98.5600	
Air transportation, scheduled .....	451	451	100.0000	1988
	451	452	54.5385	
Freight transportation arrangement .....	473	471	100.0000	1988
	473	472	21.6219	
Communications and public utilities .....	48,49	48,49	100.0000	1964
	48,49	48,49	<sup>4</sup> .0433	
Radio and television broadcasting .....	483	483	96.1980	1958
Television broadcasting stations .....	4833	4833	92.4351	1982
Cable and other pay television service .....	484	483	3.8019	1988
	484	489	75.7386	
Electric, gas, and sanitary services .....	49	44	.7651	1964
	49	49	100.0000	
Sanitary services .....	495	446	1.4399	1972
	495	495	100.0000	
Wholesale trade .....	50-51	50-51	100.0000	1939
	50-51	52-59	.1156	
Durable goods .....	50	50	100.0000	1972
	50	59	.9010	
Motor vehicles, parts, and supplies .....	501	501	100.0000	1972
	501	593	28.0278	
Motor vehicle supplies and new parts .....	5013	5013	94.7311	1982
Construction materials, nec. ....	5039	5039	43.9563	1988
Professional and commercial equipment .....	504	504	31.4240	1988
	504	508	48.0348	
Computers, peripherals and software .....	5045	5081	55.4221	1988
Electrical goods .....	506	506	98.8809	1958
Electrical apparatus and equipment .....	5063	5063	71.3835	1988
Electronic parts and equipment .....	5065	5065	100.0000	1988
Machinery, equipment, and supplies .....	508	506	1.1190	1982
	508	508	51.9651	
Industrial machinery and equipment .....	5084	5063	2.1547	1982
	5084	5084	100.0000	
Miscellaneous wholesale trade durable goods ...	509	504	68.5759	1988
	509	509	100.0000	
<b>Retail trade</b> .....	52-59	52-59	99.8844	1939
Department stores .....	531	531	97.3542	1958
Miscellaneous general merchandise stores .....	539	531	2.6457	1988
	539	539	100.0000	
Automotive dealers, nec. ....	559	556,9	32.5205	1988
Radio, television, and electronic stores .....	5731	5732	66.2163	1988
Record and prerecorded tape stores .....	5735	5733	64.8882	1988
Miscellaneous retail establishments .....	59	59	99.0989	1972
Fuel dealers .....	598	598	99.4440	1958
Retail stores, nec. ....	599	598	.5559	1972
	599	599	100.0000	
<b>Finance, insurance, and real estate</b> .....	60-65,67	60-67	99.9972	1939
Finance .....	60-62,67	60-62,67	100.0000	1972
	60-62,67	66	4.7158	
Depository institutions .....	60	60	100.0000	1988
	60	61	59.1658	
Commercial banks .....	602	602	98.5649	1972
State commercial banks .....	6022	6022	97.3501	1988
	6022	6023,4	96.1098	

See footnotes at end of table.



**Table 1. Published industries restructured under the 1987 SIC and relationship of employment to the 1972 SIC industries —Continued**

1987 SIC industry	1987 SIC code	1972 SIC code	1972 to 1987 ratio <sup>1</sup>	Beginning year for all-employee series
Finance—Continued				
Savings institutions .....	603	602	1.4350	1988
	603	603	100.0000	
	603	612	100.0000	
Savings institutions, except Federal. ....	6036	6022	2.6498	1988
	6036	603	100.0000	
	6036	6123	100.0000	
	6036	6124,5	100.0000	
Credit unions .....	606	614	48.2236	1988
Nondepository institutions .....	61	61	40.8341	1988
	61	66	4.6990	
Personal credit institutions .....	614	614	51.7763	1988
	614	66	3.2421	
Business credit institutions .....	615	615	99.4323	1972
	615	611,3	38.6389	
	615	66	1.4632	
Commodity contracts brokers, dealers, and exchanges .....	622,3	622,3,8	29.4979	1988
Security and commodity services .....	628	622,3,8	73.7368	1988
Insurance .....	63,64	63	100.0000	1972
	63,64	64	100.0000	
Insurance agents, brokers, and services .....	64	64	100.0000	1972
	64	66	56.2094	
Real estate .....	65	65	100.0000	1972
	65	66	37.2352	
Real estate agents and managers .....	653	653	100.0000	1972
	653	66	37.3684	
Services .....	-	-	<sup>5</sup> 0028	1939
			<sup>5</sup> 100.0000	
Personal services .....	72	72	90.7985	1958
Laundry, cleaning, and garment services .....	721	721	100.0000	1972
	721	725,9	.7028	
Miscellaneous personal services .....	729	725,9	56.8650	1988
Business services .....	73	72	1.6354	1958
	73	73	82.4314	
Personnel supply services .....	736	736	96.4391	1972
Help supply services .....	7363	7362	100.0000	1982
	7363	7369	54.5216	
Prepackaged software .....	7372	7372	28.4660	1988
Data processing and preparation .....	7374	7374	74.5430	1988
Miscellaneous business services .....	738	735	100.0000	1988
	738	739	50.7965	
Detective and armored car services .....	7381	7393	91.8657	1982
Motion pictures .....	78	73	1.8798	1988
	78	78	100.0000	
Amusement and recreation services .....	79	72	7.5660	1988
	79	79	99.2701	
Miscellaneous amusement and recreation services .....	799	725,9	31.6286	1988
	799	793	3.8330	
	799	791,9	90.9632	
Health services:				
Offices and clinics of medical doctors .....	801	801	100.0000	1972
	801	808	38.9567	
Offices and clinics of dentists .....	802	802	100.0000	1982
	802	808	.2670	
Nursing and personal care, nec .....	8059	8059	47.0887	1988
Home health care services .....	808	809	81.4568	1988
Legal services .....	81	66	1.8565	1972
	81	81	100.0000	
Social services:				
Individual and family services .....	832	832	100.0000	1988
	832	839	30.4147	
Museums and botanical and zoological gardens ....	84	79	.7298	1988
	84	84	100.0000	
Engineering and management services .....	87	73	15.6886	1988
	87	89	97.7588	
Research and testing services .....	873	739	16.7540	1988
	873	892	100.0000	
Management and public relations .....	874	736	3.5608	1988
	874	739	20.5757	
Services, nec. ....	89	89	2.2411	1988

<sup>1</sup> Based on microdata files of dual-coded industries for first quarter 1988.

<sup>2</sup> A small portion of durable goods was reassigned to nondurable goods.

<sup>3</sup> A small portion of nondurable goods was reassigned to durable goods.

<sup>4</sup> A small portion of transportation was reassigned to communica-

tions and public utilities.

<sup>5</sup> Services under the 1987 SIC structure comprise all of the 1972 SIC- based components plus a very small portion of finance, insurance, and real estate.

NOTE: Nec is an abbreviation for "not elsewhere classified" and designates broad categories of industries which cannot be more specifically identified.

**Table 2. Disposition of employment in industries deleted from the 1987 SIC structure**

1972 SIC industry	1972 SIC code	1987 SIC code	Disposition in 1987 SIC
Coal mining .....	11,12	12	100.0000
Crude petroleum, natural gas, and natural gas liquids .....	131,2	131 132	97.6203 2.3797
Aluminum foundries .....	3361	3363 3365	44.3646 55.6354
Food products machinery .....	3551	3556 3565	65.6950 34.3050
Electronic computing equipment .....	3573	3571 3572 3575,8,9 3577 3695	72.2830 7.3603 3.9089 14.4659 1.9818
Machinery, except electrical, nec .....	3599	3593 3599	6.0696 93.9304
Industrial controls .....	3622	3625	100.0000
Radio and TV communication equipment .....	3662	3661 3663 3669 3695,9 3812 3829	5.7592 24.2616 4.7948 6.3878 58.3813 .4153
Optical instruments and lenses .....	383	382	100.0000
Poultry dressing plants .....	2016	2015	100.0000
Cookies and crackers .....	2052	2052,3	100.0000
Cane and beet sugar .....	2061,2,3	2061 2062 2063	32.9954 26.3063 40.6983
Confectionery products .....	2065	2064 2068	89.1262 10.8738
Men's and boys' separate trousers .....	2327	2325	100.0000
Men's and boys' work clothing .....	2328	2325 2326	44.8317 55.1683
Paper and pulp mills .....	261,2,6	261 262 249	7.5684 90.1270 2.3046
Paper coating and glazing .....	2641	2671 2672	29.6312 70.3688
Bags, except textile bags .....	2643	2673 2674	63.3756 36.6244
Folding paperboard boxes .....	2651	2657	100.0000
Sanitary food containers .....	2654	2656 2657	69.2511 30.7489
Commercial printing, letterpress .....	2751	2759	100.0000
Gum, wood, and industrial organic chemicals, nec. ....	2861,9	2861 2819 2869	4.2875 .1621 95.5505
Reclaimed rubber, and rubber and plastics hose and belting ....	303,4	305 306	96.9608 3.0392
Miscellaneous plastics products .....	307	308 343	99.4735 .5265
Trucking and trucking terminals .....	421,3	421 423	99.6780 .3220
Local water transportation .....	445	444 448 449	6367 22.1007 77.2626
Water transportation services .....	446	449 495	98.5601 1.4399
Air transportation .....	451,2	451 452	96.6738 3.3262
Freight forwarding .....	471	4731	100.0000

See note at end of table.

**Table 2. Disposition of employment in industries deleted from the 1987 SIC structure—Continued**

1972 SIC industry	1972 SIC code	1987 SIC code	Disposition in 1987 SIC
Commercial machines and equipment .....	5081	5044 5045 5046	35.6186 55.4221 8.9593
Professional equipment and supplies .....	5086	5047 5048 5049	65.0666 11.8969 23.0366
Car dealers .....	551,2	551 552	94.1289 5.8711
Radio and television stores .....	5732	5731 5734	66.2163 33.7837
Music stores .....	5733	5735 5736	64.8882 35.1118
State banks, not Federal Reserve .....	6023,4	6022 6036	96.1098 3.8902
Savings and loan associations .....	612	603	100.0000
State associations, insured. ....	6123	6036	100.0000
Combined real estate, insurance, etc .....	66	61 64 65 81	4.6990 56.2094 37.2352 1.8565
Temporary help supply services .....	7362	7363	100.0000
Miscellaneous business services .....	739	735 738 784 873 874	7.1406 50.7965 4.7332 16.7540 20.5757
Management and public relations .....	7392	8732 8741 8742 8743 8748	16.6894 41.1894 26.7912 5.7954 9.5347
Detective and protective services .....	7393	7381 7382	91.8657 8.1343
Equipment rental and leasing .....	7394	7353 7359 7841	15.3597 44.7777 39.8626
Outpatient care facilities .....	808	801 802 809	38.9567 .2671 60.7762

NOTE: Nec is an abbreviation for "not elsewhere classified" and designates broad categories of industries which cannot be more specifically identified.

**Table 3. Differences between nonfarm employment benchmarks and estimates by industry, March 1989**  
(In thousands)

Industry	1972 SIC-based published estimate (1)	1987 SIC-based estimate (2)	Benchmark (3)	SIC revision effect (2-1) (4)	Benchmark effect (3-2) (5)	Difference between benchmark and estimate (3-1) (6)
Total .....	107,017	107,073	107,026	56	-47	9
Total private .....	89,052	89,108	89,015	56	-93	-37
Goods-producing .....	25,095	25,101	24,815	6	-286	-280
Mining <sup>1</sup> .....	702	703	678	1	-25	-24
Oil and gas extraction .....	391	391	374	0	-17	-17
Construction <sup>1</sup> .....	4,837	4,813	4,741	-24	-72	-96
General building contractors .....	1,287	1,287	1,239	0	-48	-48
Manufacturing .....	19,556	19,585	19,396	29	-189	-160
Durable goods <sup>2</sup> .....	11,550	11,538	11,448	-12	-90	-102
Lumber and wood products <sup>2</sup> .....	755	767	746	12	-21	-9
Furniture and fixtures .....	535	535	530	0	-5	-5
Stone, clay, and glass products <sup>2</sup> .....	592	560	559	-32	-1	-33
Primary metal industries .....	790	789	781	-1	-8	-9
Blast furnaces and basic steel products .....	276	276	281	0	5	5
Fabricated metal products <sup>2</sup> .....	1,451	1,454	1,454	3	0	3
Industrial machinery and equipment <sup>2</sup> ..	2,147	2,166	2,136	19	-30	-11
Electronic and other electrical equipment <sup>2</sup> .....	2,052	1,760	1,762	-292	2	-290
Transportation equipment <sup>2</sup> .....	2,067	2,045	2,071	-22	26	4
Motor vehicles and equipment .....	869	869	871	0	2	2
Instruments and related products <sup>2</sup> .....	774	1,075	1,027	301	-48	253
Miscellaneous manufacturing .....	388	389	383	1	-6	-5
Nondurable goods <sup>2</sup> .....	8,006	8,047	7,948	41	-99	-58
Food and kindred products .....	1,599	1,598	1,583	-1	-15	-16
Tobacco products .....	55	55	51	0	-4	-4
Textile mill products .....	727	727	725	0	-2	-2
Apparel and other textile products .....	1,102	1,106	1,086	4	-20	-16
Paper and allied products <sup>2</sup> .....	693	689	693	-4	4	0
Printing and publishing .....	1,600	1,601	1,560	1	-41	-40
Chemicals and allied products .....	1,084	1,085	1,068	1	-17	-16
Petroleum and coal products .....	158	158	153	0	-5	-5
Rubber and miscellaneous plastics products <sup>2</sup> .....	846	886	893	40	7	47
Leather and leather products .....	142	142	138	0	-4	-4
Service-producing .....	81,922	81,972	82,211	50	239	289
Transportation and public utilities <sup>2</sup> .....	5,607	5,646	5,549	39	-97	-58
Transportation <sup>2</sup> .....	3,404	3,443	3,341	39	-102	-63
Communications and public utilities <sup>2</sup> .....	2,203	2,203	2,208	0	5	5
Wholesale trade <sup>2</sup> .....	6,154	6,145	6,195	-9	50	41
Durable goods <sup>2</sup> .....	3,658	3,654	3,676	-4	22	18
Nondurable goods .....	2,496	2,491	2,519	-5	28	23
Retail trade <sup>1 2</sup> .....	19,059	19,023	19,115	-36	92	56
General merchandise stores .....	2,398	2,386	2,452	-12	66	54
Food stores .....	3,184	3,184	3,121	0	-63	-63
Auto dealers and service stations .....	2,129	2,126	2,084	-3	-42	-45
Eating and drinking places .....	6,164	6,164	6,264	0	100	100
Finance, insurance, and real estate <sup>2</sup> .....	6,723	6,714	6,639	-9	-75	-84
Finance <sup>2</sup> .....	3,306	3,304	3,288	-2	-16	-18
Insurance <sup>2</sup> .....	2,115	2,115	2,089	0	-26	-26
Real estate <sup>2</sup> .....	1,302	1,295	1,262	-7	-33	-40
Services <sup>1 2</sup> .....	26,414	26,479	26,702	65	223	288
Business services <sup>2</sup> .....	5,678	4,750	4,828	-928	78	-850
Health services .....	7,480	7,476	7,401	-4	-75	-79
Government .....	17,965	17,965	18,011	0	46	46
Federal .....	2,976	2,976	2,976	0	0	0
State .....	4,213	4,213	4,257	0	44	44
Local .....	10,776	10,776	10,778	0	2	2

<sup>1</sup> Includes other industries not shown separately.

<sup>2</sup> Industry scope changed due to SIC revision. Other industries were not

directly affected by the SIC revision but some estimates changed as a result of restratification within the industry.

**Table 4. Percent differences between nonfarm employment benchmarks and estimates by industry division, March 1982-89**

Industry division	1982	1983	1984	1985	1986	1987	1988	1989
Total .....	-0.1	(1)	0.4	(1)	-0.5	(1)	-0.3	(1)
Mining .....	2.2	-5.4	-1.6	-3.1	-1.2	-3.2	-1.7	-3.7
Construction .....	.2	.5	3.1	1.4	-6	-1.5	-2.2	-1.5
Manufacturing .....	(1)	-1.2	-9	-5	-1.1	-5	-7	-1.0
Transportation and public utilities .....	.4	.2	.2	-1.0	-.3	(1)	-.7	-1.7
Trade .....	-1.2	.9	1.3	-.3	-.9	.9	-.6	.6
Finance, insurance, and real estate .....	-.2	(1)	.4	.5	-.1	-.5	-.1	-1.1
Services .....	.3	-.1	.4	.1	.3	.1	.5	.8
Government .....	.1	.7	.1	.8	-.4	-.3	-.1	.3

<sup>1</sup> Less than 0.05 percent.

**Table 5. Differences in seasonally adjusted levels and over-the-month changes, total nonfarm employment, January 1989-May 1990 (In thousands)**

	Levels			Over-the-month changes		
	As previously published	As revised	Difference	As previously published	As revised	Difference
1989:						
January .....	107,442	107,430	-12	345	359	14
February .....	107,711	107,648	-63	269	218	-51
March .....	107,888	107,811	-77	177	163	-14
April .....	108,101	107,988	-113	213	177	-36
May .....	108,310	108,135	-175	209	147	-62
June .....	108,607	108,364	-243	297	229	-68
July .....	108,767	108,490	-277	160	126	-34
August .....	108,887	108,628	-259	120	138	18
September .....	109,096	108,868	-228	209	240	31
October .....	109,171	108,980	-191	75	112	37
November .....	109,452	109,245	-207	281	265	-16
December .....	109,570	109,383	-187	118	138	20
1990:						
January .....	109,931	109,654	-277	361	271	-90
February .....	110,304	109,958	-346	373	304	-69
March .....	110,427	110,122	-305	123	164	41
April .....	110,401	110,177	-224	-26	55	81
May .....	110,770	110,617	-153	369	440	71

**Table 6. Distribution of published 3-digit SIC industries by size of industry and percent difference between employment benchmarks and estimates, March 1989**

Percent difference	Total number of industries	Size of industry (number of employees)			
		Under 50,000	50,000 to 99,999	100,000 to 199,999	200,000 and over
Total .....	265	38	46	69	112
0-0.9 .....	73	10	14	20	29
1.0-2.9 .....	102	13	13	23	53
3.0-4.9 .....	47	9	9	15	14
5.0 and over .....	43	6	10	11	16

**Table 7. Differences between hours and earnings benchmarks and estimates, selected industries, March 1989**

Industry	Average weekly hours					
	1972 SIC-based published estimate (1)	1987 SIC-based estimate (2)	Benchmark (3)	SIC revision effect (3-2) (4)	Benchmark effect (3-2) (5)	Difference between benchmark and estimate (3-1) (6)
Total private .....	34.4	34.4	34.4	0.0	0.0	0.0
Mining .....	42.0	42.1	42.1	.1	.0	.1
Construction .....	37.4	37.4	37.4	.0	.0	.0
Manufacturing .....	41.0	40.9	41.0	-.1	.1	.0
Durable goods .....	41.7	41.7	41.7	.0	.0	.0
Lumber and wood products .....	39.8	39.8	39.8	.0	.0	.0
Furniture and fixtures .....	39.6	39.6	39.6	.0	.0	.0
Stone, clay, and glass products .....	41.9	41.9	41.9	.0	.0	.0
Primary metal industries .....	43.5	43.4	43.4	-.1	.0	-.1
Fabricated metal products .....	41.7	41.7	41.7	.0	.0	.0
Industrial machinery and equipment .....	42.6	42.7	42.7	.1	.0	.1
Electronic and other electrical equipment .....	40.5	40.4	40.5	-.1	.1	.0
Transportation equipment .....	43.3	43.2	43.2	-.1	.0	-.1
Instruments and related products ..	41.2	41.1	41.1	-.1	.0	-.1
Miscellaneous manufacturing .....	39.4	39.3	39.3	-.1	.0	-.1
Nondurable goods .....	39.9	39.9	39.9	.0	.0	.0
Food and kindred products .....	39.9	39.9	39.9	.0	.0	.0
Tobacco products .....	36.3	36.3	36.3	.0	.0	.0
Textile mill products .....	41.0	40.9	40.9	-.1	.0	-.1
Apparel and other textile products ..	36.9	36.9	36.9	.0	.0	.0
Paper and allied products .....	43.0	42.9	42.9	-.1	.0	-.1
Printing and publishing .....	37.9	38.0	38.0	.1	.0	.1
Chemicals and allied products .....	42.3	42.3	42.3	.0	.0	.0
Petroleum and coal products .....	43.2	43.2	43.2	.0	.0	.0
Rubber and miscellaneous plastics products .....	41.5	41.5	41.5	.0	.0	.0
Leather and leather products .....	37.4	37.4	37.4	.0	.0	.0
Transportation and public utilities .....	39.2	38.6	38.6	-.6	.0	-.6
Wholesale trade .....	37.9	37.9	37.9	.0	.0	.0
Retail trade .....	28.5	28.5	28.5	.0	.0	.0
Finance, insurance, and real estate .....	35.8	35.7	35.7	-.1	.0	-.1
Services .....	32.4	32.4	32.4	.0	.0	.0

**Table 7. Differences between hours and earnings benchmarks and estimates, selected industries, March 1989**  
**—Continued**

Industry	Average hourly earnings					
	1972 SIC-based published estimate (1)	1987 SIC-based estimate (2)	Benchmark (3)	SIC revision effect (2-1) (4)	Benchmark effect (3-2) (5)	Difference between benchmark and estimate (3-1) (6)
Total private .....	\$9.56	\$9.55	\$9.55	\$-0.01	\$0.00	\$-0.01
Mining .....	13.15	13.17	13.24	.02	.07	.09
Construction .....	13.26	13.32	13.38	.06	.06	.12
Manufacturing .....	10.41	10.41	10.42	.00	.01	.01
Durable goods .....	10.93	10.94	10.95	.01	.01	.02
Lumber and wood products .....	8.68	8.71	8.67	.03	-.04	-.01
Furniture and fixtures .....	8.13	8.13	8.14	.00	.01	.01
Stone, clay, and glass products .....	10.62	10.72	10.72	.10	.00	.10
Primary metal industries .....	12.27	12.27	12.33	.00	.06	.06
Fabricated metal products .....	10.47	10.47	10.50	.00	.03	.03
Industrial machinery and equipment .....	11.25	11.32	11.32	.07	.00	.07
Electronic and other electrical equipment .....	10.30	9.98	9.99	-.32	.01	-.31
Transportation equipment .....	13.65	13.64	13.62	-.01	-.02	-.03
Instruments and related products ..	10.17	10.76	10.70	.59	-.06	.53
Miscellaneous manufacturing .....	8.23	8.21	8.20	-.02	-.01	-.03
Nondurable goods .....	9.66	9.66	9.68	.00	.02	.02
Food and kindred products .....	9.33	9.36	9.39	.03	.03	.06
Tobacco products .....	15.34	15.34	15.32	.00	-.02	-.02
Textile mill products .....	7.59	7.59	7.59	.00	.00	.00
Apparel and other textile products ..	6.34	6.33	6.34	-.01	.01	.00
Paper and allied products .....	11.84	11.84	11.87	.00	.03	.03
Printing and publishing .....	10.79	10.78	10.80	-.01	.02	.01
Chemicals and allied products .....	12.91	12.93	12.95	.02	.02	.04
Petroleum and coal products .....	15.46	15.46	15.43	.00	-.03	-.03
Rubber and miscellaneous plastics products .....	9.33	9.39	9.39	.06	.00	.06
Leather and leather products .....	6.54	6.54	6.56	.00	.02	.02
Transportation and public utilities .....	12.46	12.47	12.49	.01	.02	.03
Wholesale trade .....	10.21	10.23	10.24	.02	.01	.03
Retail trade .....	6.48	6.47	6.47	-.01	.00	-.01
Finance, insurance, and real estate .....	9.43	9.40	9.40	-.03	.00	-.03
Services .....	9.29	9.27	9.27	-.02	.00	-.02

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Total</b> .....		89,566	88,232	92,587	96,042	98,150	100,427	103,834	107,026
<b>Total private</b> .....		73,370	72,043	76,371	79,446	81,204	83,173	86,180	89,015
<b>Goods-producing</b> .....		24,056	22,370	24,017	24,469	24,192	24,037	24,565	24,815
<b>Mining</b> .....		1,205	945	952	933	832	696	711	678
Lead and zinc ores .....	103	5.9	4.0	4.0	3.3	2.9	2.4	2.0	2.3
Gold and silver ores .....	104	8.9	8.6	10.5	9.8	10.4	12.1	16.2	19.5
Other metal ores and mining services .....	106,8,9	25.5	14.0	13.3	11.4	9.1	8.3	8.6	10.2
Bituminous coal and lignite-surface .....	1221	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	59.7	57.3
Bituminous coal-underground .....	1222	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	81.2	78.4
Anthracite mining and coal mining services .....	123,4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.9	9.5
Natural gas liquids .....	132	8.4	6.7	6.6	6.6	6.1	5.7	5.0	4.7
Clay, ceramic, and refractory minerals .....	145	9.4	8.1	8.4	8.6	8.4	7.9	8.3	8.3
Dimension stone and other nonmetallic minerals .....	141,8,9	9.8	9.2	9.9	9.5	10.0	10.8	11.1	10.0
<b>Construction</b> .....		3,638	3,469	3,914	4,241	4,415	4,531	4,686	4,741
Bridge, tunnel, and elevated highway .....	1622	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	43.9	43.8
Water, sewer, and utility lines .....	1623	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	199.1	203.6
Heavy construction, nec .....	1629	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	235.2	246.1
Masonry and other stonework .....	1741	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	155.5	151.7
Plastering, drywall, and insulation .....	1742	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	250.3	257.6
Terrazzo, tile, marble, and mosaic work .....	1743	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	34.8	36.2
Carpentry work .....	1751	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	132.6	149.5
Floor laying and floor work, nec .....	1752	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	45.9	47.8
Concrete work .....	177	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	177.6	190.9
Water well drilling .....	178	16.9	14.6	15.7	16.1	16.2	16.8	17.6	18.8
Miscellaneous special trade contractors .....	179	336.8	314.2	353.1	393.0	416.4	429.6	462.5	472.2
Structural steel erection .....	1791	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	73.3	75.0
Glass and glazing work .....	1793	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	40.0	39.4
Excavation work .....	1794	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	109.7	104.9
Wrecking, demolition, and other special trade contractors .....	1795,6,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	239.5	252.9
<b>Manufacturing</b> .....		19,213	17,956	19,151	19,295	18,945	18,810	19,168	19,396
<b>Durable goods</b> .....		11,427	10,399	11,321	11,534	11,248	11,072	11,270	11,448
<b>Lumber and wood products:</b>									
Special product sawmills, nec .....	2429	3.5	3.6	4.1	3.1	2.7	3.7	3.4	3.5
Structural wood members, nec .....	2439	11.6	14.0	19.0	19.1	22.6	26.3	26.5	27.8
Nailed wood boxes and shooks .....	2441	5.9	5.3	5.6	5.5	5.4	5.8	5.5	4.9
Wood pallets and skids .....	2448	23.0	21.6	25.8	26.9	26.3	27.5	29.9	31.8
Wood containers, nec .....	2449	9.2	8.8	8.7	8.3	8.2	8.0	7.5	7.9
Prefabricated wood buildings .....	2452	16.0	15.8	19.0	18.6	19.7	22.0	22.5	21.8
Wood preserving .....	2491	11.8	11.8	12.3	13.0	12.5	12.6	12.7	12.8
Reconstituted wood products .....	2493	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	15.8	17.1
Wood products, nec .....	2499	56.9	55.3	58.1	55.5	56.2	58.0	62.3	59.1
<b>Furniture and fixtures:</b>									
Wood television and radio cabinets, and household furniture, nec .....	2517,9	12.1	11.1	13.4	13.9	14.0	13.8	12.7	14.3
Wood office furniture .....	2521	24.6	23.9	28.4	32.0	31.4	32.2	35.4	35.5
Office furniture, except wood .....	2522	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	35.7	36.6
Wood partitions and fixtures .....	2541	29.8	28.3	33.9	36.7	38.8	39.8	43.3	43.2
Partitions and fixtures, except wood .....	2542	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	34.1	35.5
Drapery hardware and blinds and shades .....	2591	16.4	16.9	20.4	20.5	22.3	21.7	22.1	22.0
Furniture and fixtures, nec .....	2599	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.7	14.0
<b>Stone, clay, and glass products:</b>									
Brick and structural clay tile .....	3251	13.0	13.9	16.7	16.5	17.1	17.3	17.3	16.7
Clay refractories .....	3255	9.7	7.0	8.1	7.4	7.0	6.4	7.5	7.7
Ceramic tile and structural clay products, nec .....	3253,9	11.0	11.3	12.4	12.4	12.3	13.0	13.4	13.5
Vitreous plumbing fixtures .....	3261	8.5	8.8	10.0	9.5	10.3	9.8	9.6	9.5
Vitreous and semivitreous table and kitchenware .....	3262,3	9.1	7.7	7.4	6.7	7.1	7.1	5.8	5.8
Porcelain electrical supplies .....	3264	12.3	11.1	11.4	12.2	10.7	10.7	11.3	11.7
Pottery products, nec .....	3269	11.3	10.5	11.8	10.7	10.3	10.7	12.1	13.2
Lime .....	3274	6.4	5.3	5.7	5.4	5.3	5.5	5.4	5.2
Gypsum products .....	3275	11.4	11.2	13.5	14.3	14.2	13.8	14.4	14.2
Cut stone and stone products .....	328	10.3	10.7	11.2	12.0	12.4	12.6	13.2	13.9
Minerals, ground or treated .....	3295	14.6	12.8	13.4	13.5	12.5	12.0	12.2	12.8
Nonclay refractories .....	3297	9.9	7.3	8.0	8.2	8.1	7.1	7.8	8.4
Nonmetallic mineral products, nec .....	3299	6.5	6.3	7.2	7.1	7.1	7.2	7.8	8.1

See footnotes at end of table.



**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Durable goods—Continued</b>									
Primary metal industries:									
Electrometallurgical products .....	3313	11.2	8.2	10.2	9.6	9.0	7.6	7.9	6.1
Steel wire and related products .....	3315	19.3	16.7	18.6	18.6	18.7	19.0	19.2	19.5
Cold finishing of steel shapes .....	3316	15.5	13.5	15.4	15.8	15.6	15.6	16.6	19.0
Steel investment foundries .....	3324	12.3	10.9	11.6	13.3	13.1	13.6	14.6	15.1
Primary copper .....	3331	12.7	10.6	9.2	7.0	5.4	5.5	5.3	5.5
Primary nonferrous metals, nec .....	3339	16.2	13.8	15.0	15.3	13.1	12.3	12.5	14.3
Secondary nonferrous metals .....	334	21.3	18.0	19.6	19.7	18.1	16.9	17.9	18.5
Aluminum extruded products .....	3354	29.2	28.2	30.8	33.0	32.6	33.6	33.4	31.7
Aluminum and nonferrous rolling and drawing, nec .....	3355,6	24.5	19.7	20.4	19.8	19.5	18.6	18.0	18.5
Aluminum die-castings .....	3363	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	23.9	29.3
Nonferrous die-castings, except aluminum .....	3364	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	13.6	13.0
Copper foundries .....	3366	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	11.0	11.4
Nonferrous foundries, nec .....	3369	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.7	9.2
Miscellaneous primary metal products .....	339	24.9	21.6	24.5	25.4	24.9	24.9	26.7	27.8
Metal heat treating .....	3398	14.1	11.3	12.7	14.1	13.8	14.0	14.8	15.8
Primary metal products, nec .....	3399	10.8	10.3	11.8	11.3	11.1	10.9	11.9	12.0
Fabricated metal products:									
Metal barrels, drums, and pails .....	3412	12.1	11.9	11.4	11.8	11.1	10.5	10.4	10.3
Cutlery .....	3421	13.4	13.2	13.0	12.7	12.1	11.1	11.0	11.4
Metal sanitary ware .....	3431	9.6	8.7	9.8	10.6	11.2	10.8	13.2	13.6
Prefabricated metal buildings .....	3448	25.0	20.6	22.7	24.9	24.8	23.8	24.9	25.8
Miscellaneous metal work .....	3449	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.4	15.5
Nonferrous forgings, crowns, and closures .....	3463,6	11.7	10.6	10.5	10.9	11.1	10.9	12.7	12.7
Small arms, small arms ammunition, and other ordnance and accessories, nec .....	3482,4,9	37.7	35.8	34.6	36.6	32.7	33.0	33.7	31.7
Industrial valves .....	3491	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	25.4	27.0
Fluid power valves and hose fittings .....	3492	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	26.5	29.4
Steel springs, except wire .....	3493	5.8	4.9	5.6	6.6	5.9	5.9	6.3	6.2
Wire springs .....	3495	13.1	11.9	13.7	14.7	13.5	13.2	13.5	13.7
Fabricated pipe and fittings .....	3498	31.0	21.7	22.9	22.5	21.2	19.0	23.5	24.3
Metal foil and leaf, and fabricated metal products, nec .....	3497,9	43.2	39.5	44.6	45.5	45.2	43.6	48.9	55.0
Industrial machinery and equipment:									
Lawn and garden equipment .....	3524	19.5	21.7	24.0	25.1	25.9	27.3	30.9	28.8
Elevators and moving stairways .....	3534	12.4	11.6	11.7	11.5	11.1	11.9	12.8	11.8
Hoists, cranes, and monorails .....	3536	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.5	8.2
Industrial patterns .....	3543	9.7	8.0	8.3	8.0	9.1	8.6	9.8	9.0
Welding apparatus .....	3548	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.1	19.2
Rolling mill and metalworking machinery, nec .....	3547,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.9	12.5
Woodworking machinery .....	3553	10.3	8.8	9.8	10.2	9.2	10.3	11.1	10.6
Paper industries machinery .....	3554	19.0	15.4	15.7	16.9	16.5	15.9	17.6	18.5
Special industry machinery, nec .....	3559	59.2	48.5	54.2	60.5	56.6	53.8	60.4	64.2
Packaging machinery .....	3565	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.7	21.3
Industrial furnaces and ovens .....	3567	20.4	16.1	17.4	18.4	17.9	17.6	17.1	18.4
General industrial machinery, nec .....	3569	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	36.8	40.1
Computer storage devices .....	3572	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	29.6	36.7
Computer peripheral equipment, nec .....	3577	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	59.6	62.0
Automatic vending machines .....	3581	9.5	8.7	9.1	9.0	8.5	7.8	8.8	8.0
Commercial laundry equipment .....	3582	4.7	4.4	4.8	4.8	5.6	6.0	6.2	5.7
Measuring and dispensing pumps, and service industry machinery, nec .....	3586,9	37.7	35.0	35.1	36.3	36.1	36.9	40.8	43.2
Fluid power cylinders and actuators .....	3593	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.4	19.3
Fluid power pumps and motors .....	3594	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	30.2	31.3
Electronic and other electrical equipment:									
Carbon and graphite products .....	3624	13.6	10.6	11.3	11.5	10.2	9.9	10.2	11.3
Electrical industrial apparatus, nec .....	3629	11.9	10.5	11.5	11.1	11.1	10.5	9.9	9.1
Household cooking equipment .....	3631	22.9	23.9	28.7	22.9	21.6	21.9	21.6	21.6
Household vacuum cleaners and appliances, nec .....	3635,9	25.6	25.0	27.7	27.5	26.3	26.7	25.5	25.7
Commercial lighting fixtures .....	3646	17.2	15.4	17.4	19.2	19.9	19.6	20.6	21.7
Vehicular lighting equipment .....	3647	13.4	13.4	15.6	15.6	17.1	18.1	17.9	19.8
Lighting equipment, nec .....	3648	8.6	9.1	9.4	8.4	9.3	9.9	10.4	11.3
Prerecorded records and tapes .....	3652	21.7	19.2	18.5	17.7	17.4	20.6	21.6	21.6
Radio and television communications equipment .....	3663	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	114.7	107.3

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Durable goods—Continued</b>									
Electronic and other electrical equipment—Continued									
Communications equipment, nec .....	3669	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	22.6	23.1
Printed circuit boards .....	3672	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	80.0	103.2
Electronic capacitors .....	3675	27.2	25.2	33.4	30.1	25.2	24.6	24.2	26.4
Electronic resistors .....	3676	13.2	11.5	12.2	12.3	11.8	11.2	13.3	12.6
Electronic coils and transformers .....	3677	24.5	21.6	26.5	24.1	21.4	21.8	23.3	21.7
Electronic connectors .....	3678	7.8	8.9	10.8	12.0	11.9	12.9	14.5	15.0
Primary batteries, dry and wet .....	3692	15.2	13.7	13.8	14.3	13.4	12.3	13.4	11.2
Magnetic and optical recording media, and electrical equipment and supplies, nec .....	3695,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	59.0	58.7
Transportation equipment:									
Motor homes .....	3716	6.5	9.8	15.0	15.7	16.3	17.6	19.3	22.7
Motorcycles, bicycles, and parts .....	375	17.1	14.5	16.4	13.5	12.4	11.9	12.5	13.8
Space propulsion units and parts, and space vehicle equipment, nec .....	3764,9	26.4	30.1	33.9	37.4	47.8	49.0	57.1	58.2
Tanks and tank components .....	3795	16.3	18.5	18.4	20.0	20.0	19.5	15.6	16.2
Transportation equipment, nec .....	3799	9.2	8.8	10.8	12.2	11.2	13.0	14.2	14.6
Instruments and related products:									
Laboratory apparatus and furniture .....	3821	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.2	8.0
Fluid meters and counting devices .....	3824	17.1	14.3	14.5	15.0	14.2	11.7	11.7	11.4
Analytical instruments .....	3826	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	25.9	29.6
Optical instruments and lenses .....	3827	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.9	19.5
Measuring and controlling devices, nec .....	3829	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	45.8	46.1
Dental equipment and supplies .....	3843	15.7	14.2	14.0	14.1	14.3	13.6	14.0	12.9
X-ray apparatus and tubes .....	3844	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.3	10.9
Electromedical equipment .....	3845	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.5	27.3
Miscellaneous manufacturing industries:									
Silverware and plated ware .....	3914	11.1	9.8	10.1	9.0	8.2	7.4	7.7	7.5
Jewelers' materials and lapidary work .....	3915	7.8	7.6	8.3	8.4	8.2	8.1	7.8	7.3
Pens and mechanical pencils .....	3951	9.9	9.1	9.3	9.0	8.9	9.0	8.8	9.7
Lead pencils and art goods .....	3952	8.2	7.4	7.0	7.2	7.0	6.7	7.2	7.5
Marking devices, carbon paper, and inked ribbons .....	3953,5	15.7	15.1	15.8	16.2	17.0	16.8	18.2	18.6
Fasteners, buttons, needles, and pins .....	3965	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.9	12.6
Brooms and brushes .....	3991	15.2	13.6	14.2	13.5	13.2	12.4	13.5	13.3
Burial caskets .....	3995	11.0	10.2	9.9	9.8	9.5	9.6	9.3	9.3
Hard surface floor coverings and manufacturing industries, nec ..	3996,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	61.2	61.5
<b>Nondurable goods</b> .....		<b>7,794</b>	<b>7,563</b>	<b>7,830</b>	<b>7,760</b>	<b>7,694</b>	<b>7,734</b>	<b>7,898</b>	<b>7,948</b>
Food and kindred products:									
Creamery butter .....	2021	2.3	2.3	2.0	2.0	2.0	2.4	2.3	2.0
Dry, condensed, and evaporated products .....	2023	15.6	15.4	16.0	15.0	15.1	15.6	15.4	15.8
Ice cream and frozen desserts .....	2024	18.1	17.8	18.2	18.6	20.5	21.1	21.3	21.4
Dehydrated fruits, vegetables, and soups .....	2034	14.9	15.5	15.0	15.4	15.6	15.7	15.3	15.1
Pickles, sauces, and salad dressings .....	2035	22.0	18.8	18.7	18.7	19.4	19.7	20.8	20.8
Frozen specialties, nec .....	2038	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	41.0	41.6
Cereal breakfast foods .....	2043	17.2	17.7	17.8	17.9	17.8	19.0	19.2	20.2
Rice milling .....	2044	6.2	5.8	5.5	5.1	4.9	5.4	5.4	5.4
Prepared flour mixes and doughs .....	2045	6.3	7.3	6.9	7.1	7.7	9.1	9.5	9.0
Wet corn milling .....	2046	11.7	10.3	10.3	10.1	9.0	8.7	9.1	9.2
Dog and cat food .....	2047	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.6	15.2
Chocolate and cocoa products and chewing gum .....	2066,7	18.7	18.5	19.8	18.8	18.4	18.8	21.3	21.8
Salted and roasted nuts and seeds .....	2068	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.3	6.3
Cottonseed, soybean, and vegetable oil mills .....	2074,5,6	18.1	19.0	15.4	15.9	15.6	14.5	13.0	12.7
Animal and marine fats and oils .....	2077	9.9	9.3	9.2	8.7	8.2	8.1	8.0	8.1
Edible fats and oils, nec .....	2079	12.3	11.9	11.7	11.3	11.0	11.1	11.3	10.3
Wines, brandy, and brandy spirits .....	2084	13.4	14.9	13.8	14.4	15.0	15.0	15.7	16.2
Distilled and blended liquors .....	2085	15.6	14.6	14.3	13.4	12.3	11.8	11.0	9.8
Malt and flavoring extracts and syrups, nec .....	2083,7	15.6	15.5	16.2	16.6	16.1	16.1	17.1	17.6
Canned and cured fish and seafoods .....	2091	18.0	14.5	13.4	9.4	10.2	9.9	11.4	9.9
Fresh or frozen packaged fish .....	2092	32.1	34.6	33.8	33.1	35.6	35.8	38.8	41.7
Roasted coffee .....	2095	12.4	12.4	12.1	12.3	12.3	12.4	12.4	11.7
Potato chips and similar snacks .....	2096	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	32.1	33.4
Manufactured ice .....	2097	4.9	4.8	5.0	5.0	5.7	5.2	5.1	5.1
Macaroni and spaghetti .....	2098	8.3	8.2	8.0	8.2	8.3	8.7	8.8	8.0
Food preparations, nec .....	2099	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	53.3	56.8
Tobacco products:									
Cigars .....	212	6.7	5.5	5.7	5.4	4.6	3.6	3.7	3.3
Other tobacco products .....	213,4	11.8	13.6	11.4	12.9	12.0	10.1	10.1	10.0

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Nondurable goods—Continued</b>									
Textile mill products:									
Lace and warp knit fabric mills, and knitting mills, nec .....	2258,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.9	19.9
Finishing plants, nec .....	2269	14.0	14.1	18.7	14.2	14.2	13.7	13.9	12.9
Thread mills .....	2284	9.5	9.2	9.2	7.5	6.8	7.7	7.5	6.9
Coated fabrics, not rubberized .....	2295	10.9	9.7	10.8	11.0	10.1	9.4	10.4	9.4
Tire cord and fabrics .....	2296	8.3	7.1	6.9	6.5	5.6	5.5	5.4	6.3
Cordage and twine .....	2298	8.8	8.1	8.2	8.1	7.5	7.6	8.4	7.8
Nonwoven fabrics and other textile goods nec .....	2297,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	28.6	29.0
Apparel and other textile products:									
Men's and boys' underwear and nightwear .....	2322	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	26.5	21.9
Men's and boys' neckwear .....	2323	6.4	6.8	7.2	6.9	7.3	7.8	8.2	7.8
Men's and boys' clothing, nec .....	2329	55.3	48.7	53.7	52.3	49.6	48.3	53.4	54.0
Hats, caps, and millinery .....	235	15.9	14.7	16.2	16.4	15.6	14.5	14.7	15.1
Girl's and children's outerwear, nec .....	2369	36.4	33.0	36.2	35.0	34.4	33.9	36.1	35.6
Fur goods .....	237	3.7	3.2	2.3	2.9	2.7	2.7	2.4	2.3
Fabric dress and work gloves .....	2381	9.9	8.7	8.7	9.4	8.6	7.2	7.3	6.7
Robes and dressing gowns .....	2384	9.0	8.5	8.4	8.0	7.7	7.2	7.2	7.5
Waterproof outerwear .....	2385	10.2	9.5	8.0	8.0	6.8	6.2	6.2	6.5
Leather and sheep-lined clothing .....	2386	4.5	3.8	3.8	3.1	2.3	2.8	3.4	3.6
Apparel belts .....	2387	10.7	10.3	10.7	9.5	8.8	10.6	10.4	10.7
Apparel and accessories, nec .....	2389	6.5	5.8	6.3	6.7	6.7	7.4	7.7	9.6
Textile bags .....	2393	8.3	7.9	8.1	8.0	7.6	7.7	9.0	8.9
Canvas and related products .....	2394	14.9	15.0	16.5	16.9	16.4	17.3	18.2	17.7
Pleating and stitching .....	2395	15.6	14.4	14.8	13.5	14.3	14.9	15.0	15.2
Other fabricated textile products .....	2397,9	26.0	26.8	29.3	30.0	31.3	33.5	34.8	35.7
Paper and allied products:									
Pulp mills .....	261	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.5	16.4
Setup paperboard boxes .....	2652	10.7	10.3	10.5	10.4	10.1	9.2	9.1	8.7
Fiber cans, drums, and similar products .....	2655	16.9	17.2	17.3	16.6	15.8	15.4	16.3	16.7
Paper, coated and laminated, packaging .....	2671	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.5	19.9
Bags: uncoated paper and multiwall .....	2674	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.2	21.3
Die-cut paper and board .....	2675	16.1	15.5	17.9	18.4	15.7	16.1	17.6	18.2
Sanitary paper products .....	2676	27.1	27.7	28.5	30.1	31.4	30.6	30.8	31.6
Stationery and converted paper products, nec .....	2678,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	48.9	45.1
Printing and publishing:									
Commercial printing, gravure .....	2754	12.8	12.8	13.5	15.0	14.9	15.9	13.9	15.5
Greeting cards .....	277	24.4	23.4	23.3	24.0	22.3	23.4	23.4	23.4
Blankbooks and looseleaf binders .....	2782	38.5	39.4	40.8	43.1	44.3	44.7	46.9	47.0
Bookbinding and related work .....	2789	23.1	23.9	26.4	27.9	27.4	27.4	28.1	27.8
Typesetting .....	2791	28.8	28.2	30.6	32.8	33.1	33.8	35.6	34.5
Platemaking services .....	2796	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	25.8	29.8
Chemicals and allied products:									
Alkalies and chlorine .....	2812	20.5	17.6	15.6	15.3	12.4	10.8	10.4	10.7
Industrial gases .....	2813	24.3	23.6	23.1	23.2	23.5	21.3	21.2	22.0
Inorganic pigments .....	2816	10.8	9.7	9.8	10.3	10.6	10.6	10.6	10.3
Synthetic rubber .....	2822	14.5	13.4	13.2	13.4	13.3	13.3	15.3	15.3
Cellulosic synthetic fibers .....	2823	18.5	15.7	19.1	18.0	16.3	13.6	13.0	13.8
Medicinals and botanicals .....	2833	18.6	18.3	18.4	17.8	18.2	17.2	18.4	17.7
Diagnostic and other biological products .....	2835,6	23.8	23.3	22.3	22.3	23.2	26.2	20.6	21.1
Gum and wood chemicals .....	2861	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.0	4.9
Nitrogenous fertilizers .....	2873	14.9	13.0	12.8	12.7	11.7	10.5	9.7	10.1
Phosphatic fertilizers .....	2874	16.5	13.6	13.2	13.6	11.9	10.7	10.9	11.5
Fertilizers, mixing only .....	2875	12.7	13.1	13.0	12.9	11.8	11.5	11.0	10.3
Agricultural chemicals, nec .....	2879	24.8	23.1	22.7	22.5	21.2	19.4	22.0	21.3
Adhesives and sealants .....	2891	20.4	19.7	21.3	22.2	22.3	22.2	24.2	23.9
Explosives .....	2892	15.3	15.6	15.2	16.3	16.9	16.7	15.9	15.2
Printing ink .....	2893	11.8	11.6	11.9	12.0	11.7	13.1	13.8	14.9
Other chemical preparations .....	2895,9	44.6	41.5	41.5	44.0	42.2	42.0	46.3	45.6
Petroleum and coal products:									
Asphalt paving mixtures and blocks .....	2951	9.4	9.2	9.4	9.9	10.4	10.6	10.7	10.3
Asphalt felts and coatings .....	2952	12.7	14.1	15.3	14.1	14.0	13.7	14.0	13.7
Miscellaneous petroleum and coal products .....	299	11.9	11.1	11.1	11.4	11.6	12.0	12.2	11.7
Rubber and miscellaneous plastics products:									
Gaskets, packing and sealing devices .....	3053	26.8	23.5	26.7	27.7	28.6	28.1	31.6	33.9
Mechanical rubber goods .....	3061	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	50.1	50.6
Fabricated rubber products, nec .....	3069	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	54.2	61.2
Unsupported plastics film and sheet .....	3081	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	52.4	53.4

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Nondurable goods-Continued</b>									
<b>Rubber and miscellaneous plastics products-Continued</b>									
Unsupported plastics profile shapes .....	3082	( )	( )	( )	( )	( )	( )	28.5	29.5
Laminated plastics plate and sheet .....	3083	( )	( )	( )	( )	( )	( )	20.0	21.5
Plastics pipe .....	3084	( )	( )	( )	( )	( )	( )	14.7	15.5
Plastics bottles .....	3085	( )	( )	( )	( )	( )	( )	28.4	29.9
Plastics foam products .....	3086	( )	( )	( )	( )	( )	( )	50.2	51.4
Custom compound purchased resins .....	3087	( )	( )	( )	( )	( )	( )	27.1	25.1
Plastics plumbing fixtures and plastic products, nec .....	3088,9	( )	( )	( )	( )	( )	( )	376.4	398.6
<b>Leather and leather products:</b>									
Footwear cut stock .....	313	10.4	9.4	9.4	6.9	6.3	5.8	6.6	6.4
House slippers .....	3142	9.3	7.6	7.0	5.9	5.1	3.9	4.6	4.8
Footwear, except rubber, nec .....	3149	20.6	20.3	18.7	15.1	14.0	12.1	12.8	11.1
Leather gloves and mittens .....	315	4.2	3.4	3.4	3.3	3.2	3.1	2.9	2.7
Women's handbags and purses .....	3171	17.2	14.6	14.2	11.7	10.4	8.5	8.4	6.9
Personal leather goods, nec .....	3172	11.6	10.8	11.0	9.6	9.2	8.3	9.0	8.8
Leather goods, nec .....	319	9.1	8.3	8.2	8.1	7.9	8.4	8.9	9.0
<b>Service-producing .....</b>		<b>65,510</b>	<b>65,862</b>	<b>68,570</b>	<b>71,573</b>	<b>73,958</b>	<b>76,390</b>	<b>79,269</b>	<b>82,211</b>
<b>Transportation and public utilities .....</b>		<b>5,070</b>	<b>4,923</b>	<b>5,063</b>	<b>5,155</b>	<b>5,200</b>	<b>5,274</b>	<b>5,439</b>	<b>5,549</b>
<b>Transportation:</b>									
Other railroads and switching and terminal services .....	4013	32.9	27.9	27.4	36.3	36.1	37.1	38.4	38.7
Bus charter service, and bus terminal and service facilities .....	414,7	18.0	18.6	20.7	22.0	21.0	21.4	25.2	27.0
General warehousing and storage .....	4225	( )	( )	( )	( )	( )	( )	61.7	63.5
Warehousing and storage, nec .....	4221,2,6	( )	( )	( )	( )	( )	( )	47.4	48.5
Trucking terminal facilities .....	423	6.9	5.8	5.9	5.6	5.2	5.2	4.5	3.7
Deep sea and Great Lakes freight transportation .....	441,2,3	( )	( )	( )	( )	( )	( )	32.1	30.9
Water transportation of passengers .....	448	( )	( )	( )	( )	( )	( )	12.3	12.3
Marine cargo handling .....	4491	( )	( )	( )	( )	( )	( )	55.8	58.7
Marinas .....	4493	( )	( )	( )	( )	( )	( )	16.0	16.6
Towing, tugboat, and water transportation services, nec .....	4492,9	( )	( )	( )	( )	( )	( )	35.7	33.4
Air transportation, scheduled .....	4512	( )	( )	( )	( )	( )	( )	456.7	458.2
Air courier services .....	4513	( )	( )	( )	( )	( )	( )	68.4	82.8
Air transportation, nonscheduled .....	452	( )	( )	( )	( )	( )	( )	18.2	23.1
Passenger transportation arrangement .....	472	( )	( )	( )	( )	( )	( )	170.9	179.6
Travel agencies .....	4724	( )	( )	( )	( )	( )	( )	133.2	141.6
Tour operators .....	4725	( )	( )	( )	( )	( )	( )	20.8	22.4
Passenger transport arrangement, nec .....	4729	( )	( )	( )	( )	( )	( )	16.9	15.6
Rental of railroad cars .....	474	8.7	7.4	6.9	7.0	6.4	6.6	6.1	6.0
Miscellaneous transportation services .....	478	13.0	11.7	13.0	15.0	13.6	15.2	16.6	18.4
<b>Communications and public utilities:</b>									
Radiotelephone communications .....	4812	( )	( )	( )	( )	( )	( )	21.3	27.6
Telephone communications, except radio .....	4813	1,053.5	1,000.0	938.9	902.0	880.0	871.8	875.0	873.6
Telegraph and other communications .....	482	( )	( )	( )	( )	( )	( )	17.5	14.1
Communications services, nec .....	489	( )	( )	( )	( )	( )	( )	25.5	23.8
Water supply .....	494	20.7	20.8	21.1	21.8	22.3	22.8	23.9	24.7
Steam and air-conditioning supply, and irrigation systems .....	496,7	3.3	2.7	3.3	3.4	3.4	3.2	3.9	3.8
<b>Wholesale trade .....</b>		<b>5,313</b>	<b>5,173</b>	<b>5,465</b>	<b>5,673</b>	<b>5,715</b>	<b>5,784</b>	<b>5,948</b>	<b>6,195</b>
Tires and tubes .....	5014	31.9	31.4	32.5	31.1	30.1	29.3	29.5	30.2
Motor vehicle parts, used .....	5015	( )	( )	( )	( )	( )	( )	36.3	37.8
Brick, stone, and related materials .....	5032	( )	( )	( )	( )	( )	( )	33.0	36.2
Roofing, siding, and insulation .....	5033	( )	( )	( )	( )	( )	( )	25.0	26.6
Photographic equipment and supplies .....	5043	( )	( )	( )	( )	( )	( )	26.6	31.6
Office equipment .....	5044	( )	( )	( )	( )	( )	( )	193.7	199.7
Commercial equipment, nec .....	5046	( )	( )	( )	( )	( )	( )	49.1	50.6
Medical and hospital equipment .....	5047	( )	( )	( )	( )	( )	( )	112.0	123.7
Ophthalmic goods .....	5048	( )	( )	( )	( )	( )	( )	20.9	21.8
Professional equipment, nec .....	5049	( )	( )	( )	( )	( )	( )	39.2	39.9
Warm air heating and air-conditioning .....	5075	( )	( )	( )	( )	( )	( )	50.8	52.6
Refrigeration equipment and supplies .....	5078	( )	( )	( )	( )	( )	( )	14.6	14.9
Service establishment equipment .....	5087	61.5	63.4	67.1	71.0	73.2	76.0	82.1	85.9
Transportation equipment and supplies .....	5088	34.6	30.1	31.2	32.6	32.7	33.6	38.4	39.1
Sporting and recreational goods .....	5091	( )	( )	( )	( )	( )	( )	40.2	43.4
Toys and hobby goods and supplies .....	5092	( )	( )	( )	( )	( )	( )	21.9	22.9
Jewelry and precious stones .....	5094	36.2	35.9	38.0	40.4	42.9	43.8	46.0	48.0
Wholesale trade durable goods, nec .....	5099	63.3	59.0	60.5	62.0	60.0	63.9	71.1	76.9

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Wholesale trade—Continued</b>									
Printing and writing paper .....	5111	( )	( )	( )	( )	( )	( )	24.6	24.9
Stationery and office supplies .....	5112	( )	( )	( )	( )	( )	( )	107.4	114.9
Industry and personal service paper .....	5113	( )	( )	( )	( )	( )	( )	83.9	87.1
Piece goods and notions .....	5131	( )	( )	( )	( )	( )	( )	52.6	54.7
Men's and boys' clothing .....	5136	( )	( )	( )	( )	( )	( )	40.0	43.8
Women's and children's clothing .....	5137	( )	( )	( )	( )	( )	( )	78.2	83.9
Footwear .....	5139	( )	( )	( )	( )	( )	( )	19.2	19.8
Packaged frozen foods .....	5142	23.1	24.3	25.8	27.0	27.6	28.6	30.3	32.3
Dairy products, except dried or canned .....	5143	39.9	40.7	41.4	43.7	44.1	47.3	47.0	47.6
Poultry and poultry products .....	5144	26.9	27.8	24.8	24.0	23.3	23.6	22.4	21.3
Confectionery .....	5145	34.2	37.0	40.1	40.5	41.8	44.1	45.7	46.6
Fish and seafoods .....	5146	23.4	24.3	25.7	27.1	27.9	29.1	30.8	31.7
Groceries and related products, nec .....	5149	150.9	153.7	163.8	174.1	184.4	193.0	206.3	221.3
Farm-product raw materials .....	515	145.9	139.0	137.0	133.8	127.5	124.4	125.0	124.5
Grain and field beans .....	5153	( )	( )	( )	( )	( )	( )	66.9	67.3
Livestock .....	5154	( )	( )	( )	( )	( )	( )	36.5	36.2
Farm-product raw materials, nec .....	5159	( )	( )	( )	( )	( )	( )	21.6	21.0
Plastics materials and basic shapes .....	5162	( )	( )	( )	( )	( )	( )	22.2	23.2
Chemicals and allied products, nec .....	5169	( )	( )	( )	( )	( )	( )	102.3	104.6
Books, periodicals, and newspapers .....	5192	( )	( )	( )	( )	( )	( )	62.1	65.1
Flowers and florists' supplies .....	5193	( )	( )	( )	( )	( )	( )	41.6	45.1
Tobacco and tobacco products .....	5194	38.6	38.3	40.1	39.1	40.5	40.1	42.3	45.6
Paints, varnishes, and supplies .....	5198	25.6	25.4	26.9	27.8	28.0	29.6	30.4	30.5
Wholesale trade nondurable goods, nec .....	5199	( )	( )	( )	( )	( )	( )	117.8	128.6
<b>Retail trade</b>									
Paint, glass, and wallpaper stores .....	523	14,748	14,954	15,872	16,762	17,307	17,882	18,529	19,115
Retail nurseries and garden stores .....	526	60.4	58.8	63.2	66.1	67.2	66.9	71.3	72.6
Mobile home dealers .....	527	54.0	53.3	56.6	64.2	68.5	71.0	76.8	79.0
Fruit and vegetable markets .....	543	24.1	24.0	28.3	29.1	27.5	27.3	27.7	27.9
Candy, nut, and confectionery stores .....	544	18.2	20.0	21.0	21.2	21.6	21.9	22.4	22.6
Miscellaneous food stores .....	549	24.2	25.3	27.6	29.6	31.5	30.4	30.7	32.5
Used car dealers .....	552	33.6	34.5	37.8	39.5	38.9	39.0	40.5	43.5
Boat dealers .....	555	40.3	41.8	47.5	51.1	52.5	55.4	59.9	62.6
Recreational vehicle dealers .....	556	22.4	23.0	25.2	27.2	30.2	33.7	38.2	40.5
Motorcycle dealers .....	557	( )	( )	( )	( )	( )	( )	19.6	21.3
Women's accessory and specialty stores .....	563	27.8	26.1	27.7	29.8	29.0	27.0	25.9	25.0
Children's and infants' wear stores .....	564	27.2	27.7	29.5	32.7	36.2	40.7	45.4	46.0
Miscellaneous apparel and accessory stores .....	569	31.4	32.3	32.6	33.8	35.0	35.9	36.9	35.4
Floor covering stores .....	5713	45.8	45.6	49.3	51.5	54.5	57.0	63.0	67.7
Drapery, upholstery, and miscellaneous home furnishings .....	5714,9	52.4	52.3	59.6	64.3	68.3	72.5	77.6	80.1
Computer and software stores .....	5734	67.7	68.7	77.2	82.3	86.8	89.6	95.8	100.5
Musical instrument stores .....	5736	( )	( )	( )	( )	( )	( )	60.2	69.5
Used merchandise stores .....	593	( )	( )	( )	( )	( )	( )	25.6	26.4
Hobby, toy, and game shops .....	5945	( )	( )	( )	( )	( )	( )	54.8	60.6
Camera, luggage, and leather goods stores .....	5946,8	43.0	44.1	52.2	56.5	63.8	69.9	82.3	87.6
Direct selling establishments .....	5963	40.1	39.7	39.7	39.9	40.4	42.2	43.0	44.0
Florists, tobacco stores, and newsstands .....	5992,3,4	51.1	52.5	52.3	56.2	61.5	59.4	60.5	57.5
Optical goods stores .....	5995	( )	( )	( )	( )	( )	( )	143.6	149.9
Miscellaneous retail stores, nec .....	5999	( )	( )	( )	( )	( )	( )	50.1	54.6
<b>Finance, insurance, and real estate</b>									
Central reserve depositories .....	601	5,294	5,361	5,588	5,825	6,140	6,443	6,594	6,639
National and commercial banks, nec .....	6021,9	( )	( )	( )	( )	( )	( )	27.9	29.0
Foreign banks and branches and agencies .....	608	800.0	794.7	803.2	827.8	850.5	849.1	879.6	878.4
Functions closely related to banking .....	609	( )	( )	( )	( )	( )	( )	25.8	27.2
Federal and federally sponsored credit agencies .....	611	( )	( )	( )	( )	( )	( )	47.2	51.4
Short-term business credit .....	6153	( )	( )	( )	( )	( )	( )	11.0	10.3
Miscellaneous business credit institutions .....	6159	( )	( )	( )	( )	( )	( )	34.3	40.2
Investment advice .....	6282	( )	( )	( )	( )	( )	( )	30.8	33.4
Security and commodity services, nec .....	6289	( )	( )	( )	( )	( )	( )	44.0	45.3
Holding offices .....	671	( )	( )	( )	( )	( )	( )	24.8	24.9
Bank holding companies .....	6712	63.2	67.6	74.8	80.8	91.1	104.4	103.7	105.1
Holding companies, nec .....	6719	( )	( )	( )	( )	( )	( )	26.9	26.5
Trusts .....	673	( )	( )	( )	( )	( )	( )	76.8	78.6
Investment offices and miscellaneous investing .....	672,9	40.7	38.7	34.4	40.4	55.2	55.5	57.8	77.0
Accident and health insurance .....	6321	27.1	27.5	31.5	36.3	39.1	39.2	42.3	39.5
Hospital and medical service plans .....	6324	( )	( )	( )	( )	( )	( )	52.6	53.9
Pension, health, and welfare funds .....	637	( )	( )	( )	( )	( )	( )	161.5	172.0
Surety insurance and insurance carriers, nec .....	635,9	23.2	25.2	24.6	26.8	27.8	33.5	36.0	36.3
Title abstract offices .....	654	7.6	8.3	8.4	9.4	9.8	12.0	13.0	14.7
		19.2	19.6	23.7	24.8	27.7	32.7	30.9	30.3

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Services</b> .....		18,888	19,262	20,365	21,561	22,650	23,754	25,105	26,702
<b>Agricultural services:</b>									
Veterinary services .....	074	72.9	77.2	81.9	87.0	94.1	100.4	107.6	114.2
Animal services, except veterinary .....	075	34.1	35.4	38.2	39.7	41.4	42.2	44.3	41.6
Landscape and horticultural services .....	078	122.4	131.4	154.2	181.0	199.2	220.4	241.0	249.2
<b>Hotels and other lodging places:</b>									
Camps and recreational vehicle parks .....	703	14.3	15.2	16.8	18.3	18.0	19.2	20.0	21.6
Rooming and boarding houses, and membership-basis organization hotels .....	702,4	15.2	14.6	15.3	15.3	15.5	16.2	16.7	17.9
<b>Personal services:</b>									
Barber shops .....	724	23.9	23.8	23.4	21.2	20.1	19.3	18.5	17.9
Shoe repair shops and shoeshine parlors .....	725	( )	( )	( )	( )	( )	( )	7.0	7.0
Tax return preparation services .....	7291	( )	( )	( )	( )	( )	( )	83.9	88.2
Miscellaneous personal services, nec .....	7299	( )	( )	( )	( )	( )	( )	79.5	91.4
<b>Business services:</b>									
Outdoor, radio, television, and other advertising, nec .....	7312,3,9	40.3	41.8	46.2	48.1	51.9	55.1	63.2	63.1
Adjustment and collection services .....	7322	( )	( )	( )	( )	( )	( )	55.7	62.6
Credit reporting services .....	7323	( )	( )	( )	( )	( )	( )	35.5	37.1
Direct mail advertising services .....	7331	( )	( )	( )	( )	( )	( )	88.4	86.9
Photocopying and duplicating services .....	7334	( )	( )	( )	( )	( )	( )	38.7	45.0
Commercial photography .....	7335	( )	( )	( )	( )	( )	( )	16.3	17.6
Commercial art and graphic design .....	7336	( )	( )	( )	( )	( )	( )	40.7	45.3
Secretarial and court reporting .....	7338	( )	( )	( )	( )	( )	( )	22.8	26.3
Disinfecting and pest control services .....	7342	( )	( )	( )	( )	( )	( )	64.3	67.0
Building maintenance services, nec .....	7349	( )	( )	( )	( )	( )	( )	692.9	723.0
Miscellaneous equipment rental and leasing .....	735	( )	( )	( )	( )	( )	( )	173.2	187.1
Medical equipment rental .....	7352	( )	( )	( )	( )	( )	( )	19.7	20.7
Heavy construction equipment rental .....	7353	( )	( )	( )	( )	( )	( )	39.5	44.1
Equipment rental and leasing, nec .....	7359	( )	( )	( )	( )	( )	( )	114.0	122.3
Computer programming services .....	7371	( )	( )	( )	( )	( )	( )	119.5	137.0
Computer integrated systems design .....	7373	( )	( )	( )	( )	( )	( )	90.6	97.6
Information retrieval services .....	7375	( )	( )	( )	( )	( )	( )	37.6	44.9
Computer facilities management .....	7376	( )	( )	( )	( )	( )	( )	26.0	25.8
Computer rental and leasing .....	7377	( )	( )	( )	( )	( )	( )	10.3	11.7
Computer maintenance and repair .....	7378	( )	( )	( )	( )	( )	( )	30.6	33.1
Computer related services, nec .....	7379	( )	( )	( )	( )	( )	( )	69.8	78.1
Security systems services .....	7382	( )	( )	( )	( )	( )	( )	36.5	39.3
News syndicates .....	7383	7.2	7.7	8.2	8.3	8.5	9.0	10.1	10.5
Business services, nec .....	7389	332.4	349.1	394.0	434.4	457.3	475.6	551.5	610.8
<b>Auto repair, services, and parking:</b>									
Passenger car rental .....	7514	( )	( )	( )	( )	( )	( )	88.6	95.0
Passenger car leasing .....	7515	( )	( )	( )	( )	( )	( )	11.8	11.8
Truck and utility trailer rental .....	7513,9	( )	( )	( )	( )	( )	( )	58.0	62.6
Automobile parking .....	752	38.8	39.9	41.9	43.8	46.9	48.6	53.7	54.8
Auto exhaust system repair shops .....	7533	( )	( )	( )	( )	( )	( )	20.3	20.2
Automotive and tire repair shops .....	7532,4	( )	( )	( )	( )	( )	( )	167.6	175.4
Automotive glass replacement shops .....	7536	( )	( )	( )	( )	( )	( )	14.7	17.6
Automotive transmission repair shops .....	7537	( )	( )	( )	( )	( )	( )	22.8	23.5
General automotive repair shops .....	7538	143.4	149.3	166.7	179.2	183.9	186.6	197.2	208.0
Automotive repair shops, nec .....	7539	( )	( )	( )	( )	( )	( )	49.6	52.5
Automotive services, except repair .....	754	62.8	65.2	76.4	88.0	97.6	115.5	134.1	151.6
Carwashes .....	7542	( )	( )	( )	( )	( )	( )	88.6	98.4
Automotive services, nec .....	7549	( )	( )	( )	( )	( )	( )	45.5	53.2
Reupholstery and furniture repair .....	764	21.1	21.9	23.2	23.3	22.9	23.4	23.5	23.9
Watch and miscellaneous repair shops .....	763,9	181.6	167.9	184.5	191.8	192.5	189.8	211.6	230.7
<b>Motion pictures:</b>									
Motion picture distribution and services .....	782	10.9	10.7	11.8	11.2	12.1	13.0	17.8	12.2
Video tape rental .....	784	( )	( )	( )	( )	( )	( )	101.7	117.2
<b>Amusement and recreational services:</b>									
Dance studios, schools, and halls .....	791	( )	( )	( )	( )	( )	( )	19.8	21.4
Producers, orchestras, and entertainers .....	792	86.3	91.3	92.4	98.4	102.1	107.1	116.2	125.6
Bowling centers .....	793	( )	( )	( )	( )	( )	( )	100.2	100.9
Commercial sports .....	794	64.0	65.2	69.3	68.6	74.0	73.0	74.9	85.8
Physical fitness facilities .....	7991	( )	( )	( )	( )	( )	( )	112.5	123.5
Public golf courses .....	7992	( )	( )	( )	( )	( )	( )	27.2	29.9
Coin-operated amusement devices .....	7993	( )	( )	( )	( )	( )	( )	24.9	25.9
Amusement parks .....	7996	( )	( )	( )	( )	( )	( )	67.8	74.6
Membership sports and recreation clubs .....	7997	( )	( )	( )	( )	( )	( )	208.5	219.8
Amusement and recreation, nec .....	7999	( )	( )	( )	( )	( )	( )	158.5	176.2

See footnotes at end of table.

**Table 8. Employment benchmarks for industries not published monthly, March 1982-89—Continued**

(In thousands)

Industry	1987 SIC Code	1982	1983	1984	1985	1986	1987	1988	1989
<b>Services-Continued</b>									
<b>Health services:</b>									
Offices and clinics of osteopathic physicians .....	803	26.3	27.5	28.7	29.4	30.7	32.3	33.3	34.2
Offices and clinics of other health practitioners .....	804	116.2	129.9	145.6	162.4	176.6	191.9	214.2	240.9
Offices and clinics of chiropractors and optometrists .....	8041,2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	115.5	125.0
Offices and clinics of podiatrists .....	8043	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.0	21.2
Offices and clinics of health practitioners, nec. ....	8049	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	78.7	94.7
Intermediate care facilities .....	8052	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	211.2	191.1
Health and allied services, nec .....	809	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	198.6	218.5
Specialty outpatient clinics, nec. ....	8093	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	136.9	149.0
Kidney dialysis centers and health and allied services, nec .....	8092,9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	61.7	69.5
<b>Educational services:</b>									
Libraries .....	823	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.4	13.9
Schools and educational services, nec. ....	829	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	82.0	90.7
<b>Social services:</b>									
Child day care services .....	835	298.2	302.7	314.7	338.7	360.7	381.0	409.3	439.1
Social services, nec .....	839	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	158.5	168.6
<b>Membership organizations:</b>									
Professional organizations .....	862	35.9	36.6	37.7	39.6	41.8	43.7	46.8	48.6
Religious organizations .....	866	898.5	880.6	855.6	843.9	823.9	851.0	965.5	1,012.7
Political and membership organizations, nec .....	865,9	64.4	64.5	67.3	71.7	87.9	90.2	100.3	104.4
<b>Engineering and management services:</b>									
Engineering services .....	8711	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	539.0	579.1
Architectural services .....	8712	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	119.3	124.7
Surveying services .....	8713	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	49.2	50.9
Commercial nonphysical research .....	8732	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	88.6	94.6
Testing laboratories .....	8734	39.0	36.7	40.5	44.9	46.5	47.1	56.5	64.8
Management services .....	8741	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	219.0	244.9
Management consulting services .....	8742	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	147.0	162.8
Public relations services .....	8743	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	30.6	31.8
Facilities support services .....	8744	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	45.9	54.3
Business consulting, nec .....	8748	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	50.1	62.5
<b>Government</b> .....		<b>16,196</b>	<b>16,189</b>	<b>16,216</b>	<b>16,596</b>	<b>16,946</b>	<b>17,254</b>	<b>17,654</b>	<b>18,011</b>
<b>Federal:</b>									
Small arms ammunition and ordnance .....		21.2	22.1	22.2	19.1	19.1	17.3	17.0	16.9
Other manufacturing .....		30.2	30.3	31.5	31.7	31.9	31.5	31.5	24.6
Trade .....		80.6	79.3	78.2	79.7	77.3	79.2	81.0	74.5
Finance .....		21.5	20.7	20.6	20.6	22.2	24.5	25.4	23.8
Other services .....		153.6	164.3	159.6	158.9	159.2	166.7	172.7	162.7
All other Federal Government, except Postal Service .....		1,513.2	1,528.3	1,530.2	1,434.5	1,451.4	1,422.7	1,404.0	1,502.2
<b>State:</b>									
State government, except education .....		2,198.8	2,197.7	2,217.4	2,263.2	2,300.9	2,341.0	2,418.9	2,479.0
Construction .....		259.8	248.1	237.4	228.3	207.6	189.1	169.3	145.5
Transportation and public utilities .....		41.3	44.0	46.2	45.4	45.6	45.0	47.7	46.4
Services .....		( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2,477.0	2,545.0
Social services .....		191.2	178.0	180.8	183.6	175.3	173.9	184.8	198.9
Services, except hospitals, education, and social services .....		124.4	123.7	122.9	124.2	125.8	119.4	116.1	119.6
<b>Local:</b>									
Local government, except education .....		4,215.1	4,218.3	4,189.6	4,231.4	4,295.8	4,381.3	4,501.2	4,600.7
Services .....		( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6,969.2	7,128.6
Social services .....		136.4	125.8	114.1	117.9	114.7	114.9	112.7	109.4
Services, except hospitals, education, and social services .....		158.7	166.2	166.9	177.9	187.9	198.3	203.0	214.4
<b>Nonclassifiable establishments</b> .....		<b>203.4</b>	<b>144.8</b>	<b>110.3</b>	<b>199.5</b>	<b>187.3</b>	<b>245.7</b>	<b>179.3</b>	<b>214.5</b>

<sup>1</sup> Not available.

N.e.c. is an abbreviation for "not elsewhere classified" and designates broad categories of industries which cannot be more specifically identified.

NOTE: This table includes data for totals and some industry divisions which are published regularly.

**Table 9. Seasonal adjustment factors for employees on nonfarm payrolls by industry**

Industry	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Total<sup>1</sup></b>									
<b>Mining</b> .....	101.8	101.3	101.3	101.0	100.1	98.5	97.9	98.0	98.9
Oil and gas extraction .....	101.1	100.8	100.8	101.1	101.0	99.6	98.8	98.3	98.6
<b>Construction</b> .....	106.6	105.2	104.8	102.7	98.6	92.3	90.3	92.4	97.0
General building contractors .....	105.7	103.7	103.6	102.2	99.8	94.5	92.7	93.8	96.2
<b>Manufacturing<sup>1</sup></b>									
<b>Durable goods<sup>1</sup></b>									
Lumber and wood products .....	102.4	101.8	100.9	100.1	99.1	97.8	97.5	97.8	98.5
Furniture and fixtures .....	99.5	100.2	100.7	101.1	100.9	100.2	100.1	100.1	99.9
Stone, clay, and glass products <sup>2</sup> .....	101.9	102.1	101.3	100.8	99.0	96.6	96.1	97.7	99.7
Primary metal industries .....	99.9	100.3	99.9	100.0	100.2	99.8	99.9	100.1	100.0
Blast furnaces and basic steel products .....	100.5	100.1	99.4	99.4	100.0	100.0	99.7	99.8	99.7
Fabricated metal products .....	99.6	100.4	100.5	100.6	100.5	99.3	99.6	99.8	99.9
Industrial machinery and equipment .....	99.5	99.7	99.7	100.0	100.3	100.0	100.2	100.2	100.1
Electronic and other electrical equipment .....	100.1	100.3	100.5	100.7	100.5	100.0	99.7	99.6	99.5
Transportation equipment .....	98.9	100.2	100.0	100.5	100.8	99.3	99.9	100.0	100.5
Motor vehicles and equipment .....	98.1	100.9	100.4	100.8	101.1	97.7	99.5	99.8	101.1
Instruments and related products .....	100.3	99.9	99.9	100.1	100.3	99.9	99.8	99.8	99.8
Miscellaneous manufacturing .....	101.0	101.5	102.1	101.8	99.5	97.8	98.8	99.6	99.8
<b>Nondurable goods<sup>1</sup></b>									
Food and kindred products .....	104.9	104.9	102.8	101.0	99.4	97.3	96.7	96.5	96.6
Tobacco products .....	99.5	104.6	105.6	103.8	106.3	105.3	102.3	98.1	94.1
Textile mill products .....	100.3	100.5	100.4	100.3	100.0	99.8	99.8	99.8	99.9
Apparel and other textile products .....	100.0	100.4	100.7	100.8	100.2	99.3	100.0	100.1	100.3
Paper and allied products .....	100.6	100.1	100.1	100.1	100.2	99.5	99.5	99.5	99.5
Printing and publishing .....	99.7	99.5	99.8	100.4	100.5	100.0	100.0	100.1	100.1
Chemicals and allied products .....	100.7	100.1	99.8	99.7	99.8	99.4	99.6	99.8	99.7
Petroleum and coal products .....	102.2	101.4	101.1	100.4	98.7	97.2	97.2	98.1	99.1
Rubber and misc. plastics products .....	99.7	100.0	100.3	100.3	100.3	99.6	99.7	99.9	100.3
Leather and leather products .....	101.6	101.3	101.4	101.1	99.8	98.9	99.5	99.6	99.5
<b>Transportation and public utilities<sup>1</sup></b>									
Transportation .....	99.6	101.2	101.4	101.2	101.4	98.5	98.4	98.8	99.4
Communications and public utilities .....	100.9	100.1	100.0	100.0	99.9	99.4	99.4	99.4	99.5
<b>Wholesale trade<sup>1</sup></b>									
Durable goods .....	100.4	99.9	100.0	100.0	100.0	99.5	99.5	99.8	99.8
Nondurable goods .....	100.7	100.6	100.7	100.4	100.0	98.9	98.7	99.0	99.6
<b>Retail trade</b> .....	100.6	100.2	100.1	101.6	103.2	98.6	97.6	98.0	98.9
General merchandise stores .....	97.8	98.0	100.3	106.7	111.7	102.8	97.0	96.4	96.7
Food stores .....	100.1	99.8	100.2	101.2	102.2	99.7	99.1	98.9	98.9
Automotive dealers and service stations .....	101.2	100.7	100.4	99.8	99.4	98.8	98.6	99.0	99.6
Eating and drinking places .....	102.9	102.2	99.8	99.3	99.5	95.6	96.2	97.8	99.5
<b>Finance, insurance, and real estate<sup>1</sup></b>									
Finance .....	100.7	99.8	99.6	99.8	100.0	99.7	99.7	99.8	99.7
Insurance .....	100.3	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9
Real estate .....	104.0	101.7	100.0	99.2	98.8	96.6	96.4	97.2	98.7
<b>Services</b> .....	100.5	100.2	100.3	99.9	99.6	98.3	99.1	99.7	100.3
Business services .....	101.1	101.2	101.2	100.7	100.4	98.3	98.3	98.8	99.1
Health services .....	100.3	100.0	99.9	100.0	99.9	99.7	99.8	99.9	99.8
<b>Government<sup>1</sup></b>									
Federal .....	100.5	99.6	99.4	99.6	99.9	99.3	99.5	99.7	99.9
State .....	94.6	98.5	102.3	102.9	101.9	98.9	102.2	102.7	102.7
Local .....	91.6	98.2	101.4	102.5	102.1	100.5	102.0	102.5	102.2

<sup>1</sup> Seasonally adjusted data are derived by aggregation of the component series.

<sup>2</sup> No ARIMA models were identified to extend the unadjusted

series for one year. Factors shown are projected using X-11 without the ARIMA option.



**Table 10. Seasonal adjustment factors for women employees on nonfarm payrolls by industry**

Industry	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Total<sup>1</sup></b>									
<b>Mining</b> .....	101.4	100.2	99.7	99.8	99.5	98.8	99.1	99.4	99.4
<b>Construction</b> .....	102.3	101.4	101.3	100.5	99.6	97.5	97.1	97.6	98.9
<b>Manufacturing<sup>1</sup></b>									
<b>Durable goods<sup>1</sup></b>									
Lumber and wood products .....	101.6	101.3	100.5	99.6	99.4	98.3	97.7	98.6	99.5
Furniture and fixtures .....	98.8	99.9	100.6	101.2	101.1	100.4	100.1	100.1	100.3
Stone, clay, and glass products .....	101.2	100.7	100.8	100.8	100.3	98.7	98.4	98.5	99.2
Primary metal industries .....	100.5	100.4	100.0	100.1	99.8	99.1	99.6	100.0	100.3
Fabricated metal products .....	99.8	100.3	100.5	100.8	100.3	99.3	99.5	99.8	99.9
Industrial machinery and equipment .....	99.6	99.5	99.7	100.2	100.4	99.9	100.2	100.0	100.0
Electronic and other electrical equipment .....	100.0	100.4	100.6	100.7	100.5	100.0	99.7	99.7	99.6
Transportation equipment .....	99.1	100.1	100.0	100.5	100.6	99.2	100.2	100.0	100.4
Instruments and related products .....	100.2	100.2	100.3	100.5	100.6	99.9	99.7	99.7	99.7
Miscellaneous manufacturing .....	101.3	102.0	103.5	102.7	99.4	96.8	98.3	99.2	99.5
<b>Nondurable goods<sup>1</sup></b>									
Food and kindred products <sup>2</sup> .....	107.3	107.8	104.6	102.1	99.4	96.0	95.2	94.8	94.7
Tobacco products .....	99.0	107.5	109.2	107.3	106.8	106.0	103.8	96.9	91.4
Textile mill products .....	100.3	100.5	100.6	100.5	99.9	99.3	99.6	100.0	99.9
Apparel and other textile products .....	99.7	100.2	100.7	100.7	100.2	99.5	100.2	100.4	100.5
Paper and allied products .....	101.2	100.6	100.7	100.5	100.2	98.6	98.5	99.0	99.2
Printing and publishing .....	99.7	99.4	99.6	100.3	100.4	99.9	100.0	100.1	100.4
Chemicals and allied products <sup>2</sup> .....	101.0	100.5	99.7	99.7	99.6	99.2	99.3	99.5	99.4
Petroleum and coal products .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Rubber and misc. plastics products .....	99.2	99.8	100.5	100.5	100.3	99.7	99.9	100.3	100.2
Leather and leather products .....	101.7	102.0	102.3	101.5	99.6	98.5	99.0	99.2	99.3
<b>Transportation and public utilities</b> .....	98.7	100.4	100.7	100.5	100.5	99.6	99.7	99.8	99.9
<b>Wholesale trade</b> .....	100.0	100.1	100.6	100.7	100.6	99.4	99.4	99.6	99.5
<b>Retail trade</b> .....	100.4	100.2	100.3	102.5	104.4	98.9	97.2	97.5	98.4
<b>Finance, insurance, and real estate</b> .....	100.7	99.9	99.7	99.8	100.1	99.5	99.5	99.7	99.7
<b>Services<sup>2</sup></b> .....	99.8	100.0	100.3	100.1	99.9	99.0	99.7	100.2	100.3
<b>Government<sup>1</sup></b>									
Federal .....	100.7	99.7	100.0	100.1	100.2	99.4	99.2	99.2	99.3
State .....	93.8	98.3	102.4	103.0	102.2	99.4	102.6	103.1	102.9
Local .....	87.2	97.7	102.3	103.7	103.2	101.6	103.3	103.8	103.5

<sup>1</sup> Seasonally adjusted data are derived by aggregation of the component series.

<sup>2</sup> No ARIMA models were identified to extend the unadjusted series for one year. Factors shown are projected using X-11 without the ARIMA option.

<sup>3</sup> Seasonal adjustment factors are not computed because the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

**Table 11. Seasonal adjustment factors for production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by industry**

Industry	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Total private<sup>2</sup></b>									
<b>Mining</b> .....	102.2	101.8	101.6	101.6	100.2	98.0	97.2	97.4	98.8
<b>Construction</b> .....	108.1	106.6	106.0	103.5	98.3	90.6	88.1	90.4	96.3
<b>Manufacturing<sup>2</sup></b>									
<b>Durable goods<sup>2</sup></b>									
Lumber and wood products .....	102.9	102.1	101.0	100.0	98.9	97.6	97.2	97.4	98.3
Furniture and fixtures .....	99.4	100.2	100.8	101.3	101.2	100.3	100.0	100.1	99.9
Stone, clay, and glass products <sup>3</sup> .....	102.3	102.3	101.6	100.9	98.7	96.0	95.3	97.4	99.7
Primary metal industries .....	99.9	100.5	99.9	100.1	100.3	99.7	99.9	100.2	100.1
Blast furnaces and basic steel products .....	100.6	100.3	99.0	99.2	99.9	100.1	99.8	99.9	99.9
Fabricated metal products .....	99.6	100.6	100.8	100.8	100.7	99.0	99.5	99.7	99.8
Industrial machinery and equipment .....	99.0	99.8	99.7	100.0	100.5	100.3	100.4	100.4	100.2
Electronic and other electrical equipment .....	99.7	100.2	100.4	100.7	100.4	100.4	100.0	100.0	99.7
Transportation equipment .....	97.9	100.3	100.1	100.8	101.1	98.8	100.1	100.1	101.0
Motor vehicles and equipment .....	97.4	101.0	100.5	101.2	101.4	97.4	99.4	99.9	101.5
Instruments and related products .....	100.2	100.5	100.7	100.8	101.0	99.8	99.5	99.3	99.3
Miscellaneous manufacturing .....	101.2	102.0	102.5	102.2	99.3	97.1	98.8	98.5	99.9
<b>Nondurable goods<sup>2</sup></b>									
Food and kindred products .....	106.4	106.5	103.9	101.4	99.2	96.5	95.8	95.5	95.7
Tobacco products .....	99.3	105.9	106.9	105.9	107.8	107.4	102.8	98.2	93.0
Textile mill products .....	100.4	100.5	100.4	100.3	99.9	99.8	99.7	99.9	99.9
Apparel and other textile products .....	99.9	100.5	100.8	100.9	100.1	99.2	100.0	100.3	100.4
Paper and allied products .....	100.7	100.1	100.2	100.4	100.2	99.3	99.3	99.3	99.3
Printing and publishing .....	99.4	99.3	99.6	100.4	100.8	100.0	100.1	100.3	100.4
Chemicals and allied products .....	100.9	100.3	99.7	99.5	99.7	99.3	99.6	99.9	99.6
Petroleum and coal products .....	102.9	102.0	101.7	100.6	98.3	96.5	96.1	97.3	98.7
Rubber and misc. plastics products .....	99.6	100.1	100.4	100.4	100.4	99.5	99.6	100.1	100.4
Leather and leather products .....	101.7	101.7	101.4	101.3	99.7	98.8	99.2	99.5	99.5
<b>Transportation and public utilities</b> .....	100.2	101.0	101.1	100.9	101.0	98.6	98.5	98.8	99.4
<b>Wholesale trade<sup>3</sup></b> .....	100.7	100.3	100.3	100.2	100.0	99.0	99.0	99.2	99.7
<b>Retail trade</b> .....	100.7	100.2	100.1	101.8	103.5	98.5	97.4	97.8	98.7
<b>Finance, insurance, and real estate<sup>3</sup></b> .....	101.6	100.2	99.7	99.6	99.8	98.9	98.8	99.1	99.4
<b>Services</b> .....	100.6	100.2	100.3	99.9	99.6	98.1	99.0	99.7	100.3

<sup>1</sup> 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.

<sup>2</sup> Seasonally adjusted data are derived by aggregation of the

component series.

<sup>3</sup> No ARIMA models were identified to extend the unadjusted series for one year. Factors shown are projected using X-11 without the ARIMA option.

**Table 12. Seasonal adjustment factors for average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by industry**

Industry	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Total private<sup>2</sup></b>									
<b>Mining<sup>3</sup></b> .....	100.3	100.9	101.3	100.2	101.6	100.0	98.9	98.9	99.3
<b>Construction</b> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
<b>Manufacturing<sup>2</sup></b>									
<b>Durable goods<sup>2</sup></b>									
Lumber and wood products .....	100.6	100.6	100.9	99.8	100.5	98.8	98.0	99.6	100.3
Furniture and fixtures .....	100.5	101.5	101.5	101.1	102.7	99.3	98.7	99.5	99.0
Stone, clay, and glass products .....	100.9	101.2	101.6	100.6	99.5	97.9	97.3	98.9	100.2
Primary metal industries <sup>3 5</sup> .....	99.1	100.4	99.7	100.5	101.3	100.3	99.6	100.1	99.6
Blast furnaces and basic steel products <sup>5</sup> .....	99.3	100.0	99.3	100.0	100.7	100.3	99.6	99.8	99.7
Fabricated metal products .....	99.2	100.4	100.4	101.2	102.0	99.9	99.2	99.9	99.9
Industrial machinery and equipment .....	98.7	100.2	99.7	100.5	102.1	100.3	99.8	100.2	99.9
Electronic and other electrical equipment .....	99.5	100.3	100.4	101.0	102.4	100.4	99.4	100.0	99.2
Transportation equipment .....	98.2	100.3	100.0	100.8	102.0	99.7	99.5	100.8	100.5
Motor vehicles and equipment .....	97.1	101.1	100.9	101.5	101.6	99.3	99.1	101.1	101.0
Instruments and related products .....	99.1	100.1	100.1	100.9	102.0	100.1	99.9	100.2	100.1
Miscellaneous manufacturing .....	99.6	100.0	101.0	101.4	101.6	99.6	99.3	100.0	99.9
<b>Nondurable goods<sup>2</sup></b>									
Food and kindred products .....	101.2	101.7	100.9	101.1	101.4	99.2	97.9	98.5	98.5
Tobacco products .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Textile mill products <sup>6</sup> .....	100.8	101.2	100.7	100.9	100.8	99.4	99.0	99.5	99.8
Apparel and other textile products <sup>6</sup> .....	100.2	100.2	100.6	100.9	100.9	99.2	99.4	99.7	99.7
Paper and allied products <sup>5</sup> .....	99.3	101.1	100.3	100.7	101.7	100.4	99.3	99.3	99.5
Printing and publishing <sup>5</sup> .....	100.3	101.2	100.2	100.7	101.6	99.3	99.4	100.4	99.8
Chemicals and allied products <sup>3 6</sup> .....	99.3	100.0	99.8	100.7	101.5	100.1	99.8	100.0	100.0
Petroleum and coal products .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Rubber and misc. plastics products .....	99.4	100.5	100.4	100.6	101.2	99.9	99.4	99.9	100.0
Leather and leather products .....	100.9	99.9	100.5	99.7	101.0	99.4	98.9	98.9	99.0
<b>Transportation and public utilities<sup>3 5 6</sup></b> .....	100.7	100.3	100.5	100.3	100.3	98.7	99.1	99.3	99.8
<b>Wholesale trade<sup>3</sup></b> .....	100.0	100.2	100.4	100.1	100.3	99.5	99.4	99.6	100.1
<b>Retail trade<sup>5 6</sup></b> .....	102.6	100.0	99.9	99.1	101.7	97.6	98.0	98.3	99.5
<b>Finance, insurance, and real estate</b> .....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
<b>Services<sup>3 5</sup></b> .....	100.8	99.8	100.2	99.8	99.8	99.6	99.5	99.6	100.1

<sup>1</sup> 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.

<sup>2</sup> Seasonally adjusted data are derived by aggregation of the component series.

<sup>3</sup> No moving-holiday adjustment was done for April because there was no evidence of significant effects associated with the relative timing of Easter and the reference period of the payroll survey.

<sup>4</sup> Seasonal adjustment factors are not computed because the

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

<sup>5</sup> No moving-holiday adjustment was done for September because there was no evidence of significant effects associated with the relative timing of Labor Day and the reference period of the payroll survey.

<sup>6</sup> No ARIMA models were identified to extend the unadjusted series for one year. Factors shown are projected using X-11 without the ARIMA option.

**Table 13. Seasonal adjustment factors for average weekly overtime hours of production workers on manufacturing payrolls**

Industry group	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Manufacturing<sup>1</sup></b>									
<b>Durable goods</b> .....	100.1	108.4	104.2	105.6	108.4	96.1	94.9	98.1	96.3
<b>Nondurable goods<sup>2</sup></b> .....	105.1	112.6	105.5	105.2	103.3	95.8	91.9	95.6	93.2

<sup>1</sup> Seasonally adjusted data are derived by aggregation of the component series.

<sup>2</sup> No moving-holiday adjustment was done for September

because there was no evidence of significant effects associated with the relative timing of Labor Day and the reference period of the payroll survey.

**Table 14. Seasonal adjustment factors for average hourly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by industry**

Industry division	1990					1991			
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<b>Total private<sup>2</sup></b>									
<b>Mining</b> .....	99.3	99.9	99.3	99.6	100.5	100.9	101.0	100.4	100.5
<b>Construction</b> .....	99.7	100.7	100.7	100.2	100.6	100.3	99.7	99.8	99.7
<b>Manufacturing</b> .....	99.3	100.1	99.8	100.1	100.5	100.2	100.1	100.2	100.0
<b>Excluding overtime</b> .....	99.3	99.8	99.6	99.9	100.3	100.3	100.2	100.2	100.3
<b>Transportation and public utilities</b> .....	99.7	100.4	100.3	100.4	100.2	100.1	100.3	99.7	100.0
<b>Wholesale trade<sup>3</sup></b> .....	99.4	100.0	99.8	100.1	100.2	100.4	100.3	99.9	100.4
<b>Retail trade</b> .....	99.0	100.3	100.2	100.2	100.1	100.8	100.4	100.2	100.2
<b>Finance, insurance, and real estate<sup>3</sup></b> .....	99.0	99.5	99.9	100.2	99.8	100.8	101.1	100.2	100.9
<b>Services<sup>3</sup></b> .....	98.5	100.0	100.3	100.6	100.7	101.0	100.8	100.4	100.3

<sup>1</sup> 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.

<sup>2</sup> Seasonally adjusted data are derived by aggregation of the

component series.

<sup>3</sup> No ARIMA models were identified to extend the unadjusted series for one year. Factors shown are projected using X-11 without the ARIMA option.

**A-1. Employment status of the noninstitutional population 16 years and over, 1956 to date**

(Numbers in thousands)

Year and month	Noninstitutional population	Labor force									Not in labor force
		Number	Percent of population	Employed					Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force	
						Total	Agriculture	Nonagricultural industries			
<b>Annual averages</b>											
1956	112,919	68,517	60.7	65,764	1,965	63,799	6,283	57,514	2,750	4.0	44,402
1957	114,213	68,877	60.3	66,019	1,948	64,071	5,947	58,123	2,859	4.2	45,336
1958	115,574	69,486	60.1	64,883	1,847	63,036	5,586	57,450	4,602	6.6	46,088
1959	117,117	70,157	59.9	66,418	1,788	64,630	5,565	59,065	3,740	5.3	46,960
1960 <sup>1</sup>	119,106	71,489	60.0	67,639	1,861	65,778	5,458	60,318	3,852	5.4	47,617
1961	120,671	72,359	60.0	67,646	1,900	65,746	5,200	60,546	4,714	6.5	48,312
1962 <sup>1</sup>	122,214	72,675	59.5	68,763	2,061	66,702	4,944	61,759	3,911	5.4	49,539
1963	124,422	73,839	59.3	69,768	2,006	67,762	4,687	63,076	4,070	5.5	50,583
1964	126,503	75,109	59.4	71,323	2,018	69,305	4,523	64,782	3,786	5.0	51,394
1965	128,459	76,401	59.5	73,034	1,946	71,088	4,361	66,726	3,366	4.4	52,058
1966	130,180	77,892	59.8	75,017	2,122	72,895	3,979	68,915	2,875	3.7	52,288
1967	132,092	79,565	60.2	76,590	2,218	74,372	3,844	70,527	2,975	3.7	52,527
1968	134,281	80,990	60.3	78,173	2,253	75,920	3,817	72,103	2,817	3.5	53,291
1969	136,573	82,972	60.8	80,140	2,238	77,902	3,606	74,296	2,832	3.4	53,602
1970	139,203	84,889	61.0	80,796	2,118	78,678	3,463	75,215	4,093	4.8	54,315
1971	142,189	86,355	60.7	81,340	1,973	79,367	3,394	75,972	5,016	5.8	55,834
1972 <sup>1</sup>	145,939	88,847	60.9	83,966	1,813	82,153	3,484	78,669	4,882	5.5	57,091
1973 <sup>1</sup>	148,870	91,203	61.3	86,838	1,774	85,064	3,470	81,594	4,365	4.8	57,667
1974	151,841	93,670	61.7	88,515	1,721	86,794	3,515	83,279	5,156	5.5	58,171
1975	154,831	95,453	61.6	87,524	1,678	85,846	3,408	82,438	7,929	8.3	59,377
1976	157,818	97,826	62.0	90,420	1,668	88,752	3,331	85,421	7,406	7.6	59,991
1977	160,689	100,665	62.6	93,673	1,656	92,017	3,283	88,734	6,991	6.9	60,025
1978 <sup>1</sup>	163,541	103,882	63.5	97,679	1,631	96,048	3,387	92,661	6,202	6.0	59,659
1979	166,460	106,559	64.0	100,421	1,597	98,824	3,347	95,477	6,137	5.8	59,900
1980	169,349	108,544	64.1	100,907	1,604	99,303	3,364	95,938	7,637	7.0	60,806
1981	171,775	110,315	64.2	102,042	1,645	100,397	3,368	97,030	8,273	7.5	61,460
1982	173,939	111,872	64.3	101,194	1,668	99,526	3,401	96,125	10,678	9.5	62,067
1983	175,891	113,226	64.4	102,510	1,676	100,834	3,383	97,450	10,717	9.5	62,665
1984	178,080	115,241	64.7	106,702	1,697	105,005	3,321	101,685	8,539	7.4	62,839
1985	179,912	117,167	65.1	108,856	1,706	107,150	3,179	103,971	8,312	7.1	62,744
1986 <sup>1</sup>	182,293	119,540	65.6	111,303	1,706	109,597	3,163	106,434	8,237	6.9	62,752
1987	184,490	121,602	65.9	114,177	1,737	112,440	3,208	109,232	7,425	6.1	62,888
1988	186,322	123,378	66.2	116,677	1,709	114,968	3,169	111,800	6,701	5.4	62,944
1989	188,081	125,557	66.8	119,030	1,688	117,342	3,199	114,142	6,528	5.2	62,523
<b>Monthly data, seasonally adjusted<sup>2</sup></b>											
<b>1989:</b>											
August	188,286	125,758	66.8	119,238	1,688	117,550	3,275	114,275	6,520	5.2	62,528
September	188,428	125,725	66.7	119,121	1,702	117,419	3,219	114,200	6,604	5.3	62,703
October	188,580	125,857	66.7	119,294	1,709	117,585	3,197	114,388	6,563	5.2	62,723
November	188,721	126,192	66.9	119,540	1,704	117,836	3,160	114,676	6,652	5.3	62,529
December	188,865	126,246	66.8	119,588	1,700	117,888	3,197	114,691	6,658	5.3	62,619
<b>1990:</b>											
January	188,990	126,094	66.7	119,560	1,697	117,863	3,134	114,728	6,535	5.2	62,896
February	189,090	126,308	66.8	119,713	1,678	118,035	3,079	114,957	6,594	5.2	62,782
March	189,198	126,498	66.9	120,003	1,669	118,334	3,200	115,133	6,495	5.1	62,700
April	189,326	126,543	66.8	119,773	1,657	118,116	3,133	114,983	6,770	5.3	62,783
May	189,467	126,643	66.8	119,989	1,639	118,350	3,305	115,045	6,653	5.3	62,824
June	189,607	126,466	66.7	120,019	1,630	118,389	3,348	115,041	6,447	5.1	63,141
July	189,763	126,394	66.6	119,580	1,627	117,953	3,085	114,867	6,814	5.4	63,369
August	189,901	126,300	66.5	119,298	1,640	117,658	3,137	114,521	7,003	5.5	63,601

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the Explanatory Notes.

<sup>2</sup> The population and Armed Forces figures are not adjusted for

seasonal variation.

NOTE: Revisions of seasonally adjusted monthly and quarterly data (shown in tables A-1 through A-3 and A-32 through A-53) for the most recent 5-year period are made at the end of each calendar year.

**HOUSEHOLD DATA  
HISTORICAL**

**A-2. Employment status of the noninstitutional population 16 years and over by sex, 1979 to date**

(Numbers in thousands)

Sex, year, and month	Noninstitutional population	Labor force									Not in labor force	
		Number	Percent of population	Employed						Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force		
						Total	Agriculture	Nonagricultural industries				
<b>Annual averages</b>												
<b>MEN</b>												
1979 .....	79,509	62,215	78.2	59,096	1,489	57,607	2,686	54,921	3,120	5.0	17,293	
1980 .....	80,877	62,932	77.6	58,665	1,479	57,186	2,709	54,477	4,267	6.8	17,945	
1981 .....	82,023	63,486	77.4	58,909	1,512	57,397	2,700	54,697	4,577	7.2	18,537	
1982 .....	83,052	63,979	77.0	57,900	1,529	56,271	2,736	53,534	6,179	9.7	19,073	
1983 .....	84,064	64,580	76.6	58,320	1,533	56,787	2,704	54,083	6,260	9.7	19,484	
1984 .....	85,156	65,386	76.8	60,642	1,551	59,091	2,668	56,423	4,744	7.3	19,771	
1985 .....	86,025	65,967	76.7	61,447	1,556	59,891	2,535	57,356	4,521	6.9	20,058	
1986 <sup>1</sup> .....	87,349	66,973	76.7	62,443	1,551	60,892	2,511	58,381	4,530	6.8	20,376	
1987 .....	88,478	67,784	76.6	63,684	1,577	62,107	2,543	59,564	4,101	6.1	20,692	
1988 .....	89,404	68,474	76.6	64,620	1,547	63,273	2,493	60,780	3,655	5.3	20,930	
1989 .....	90,283	69,360	76.8	65,835	1,520	64,315	2,513	61,802	3,525	5.1	20,923	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1989:</b>												
August .....	90,384	69,404	76.8	65,919	1,519	64,400	2,592	61,808	3,485	5.0	20,980	
September .....	90,456	69,360	76.7	65,681	1,531	64,150	2,520	61,630	3,679	5.3	21,096	
October .....	90,535	69,599	76.9	66,046	1,533	64,513	2,513	62,000	3,553	5.1	20,936	
November .....	90,606	69,835	76.9	66,011	1,529	64,482	2,477	62,005	3,624	5.2	20,971	
December .....	90,678	69,725	76.9	66,143	1,525	64,818	2,535	62,083	3,582	5.1	20,953	
<b>1990:</b>												
January .....	90,772	69,539	76.6	65,943	1,523	64,420	2,501	61,918	3,597	5.2	21,233	
February .....	90,822	69,639	76.7	66,108	1,506	64,602	2,461	62,141	3,530	5.1	21,183	
March .....	90,874	69,712	76.7	66,208	1,497	64,711	2,499	62,212	3,505	5.0	21,162	
April .....	90,942	69,779	76.7	66,043	1,499	64,544	2,415	62,129	3,735	5.4	21,163	
May .....	91,014	69,737	76.6	66,058	1,472	64,586	2,560	62,026	3,679	5.3	21,277	
June .....	91,087	69,599	76.4	66,000	1,465	64,535	2,601	61,933	3,599	5.2	21,488	
July .....	91,168	69,544	76.3	65,740	1,462	64,278	2,458	61,821	3,804	5.5	21,624	
August .....	91,240	69,459	76.1	65,596	1,475	64,121	2,458	61,663	3,863	5.6	21,781	
<b>Annual averages</b>												
<b>WOMEN</b>												
1979 .....	86,951	44,343	51.0	41,325	108	41,217	661	40,556	3,018	6.8	42,608	
1980 .....	88,472	45,811	51.6	42,241	124	42,117	656	41,461	3,370	7.4	42,861	
1981 .....	89,751	46,829	52.2	43,133	133	43,000	667	42,333	3,696	7.9	42,922	
1982 .....	90,887	47,694	52.7	43,395	139	43,256	665	42,591	4,499	9.4	42,993	
1983 .....	91,827	48,646	53.0	44,190	143	44,047	680	43,367	4,457	9.2	43,181	
1984 .....	92,924	49,855	53.7	46,061	146	45,915	653	45,262	3,794	7.6	43,068	
1985 .....	93,886	51,200	54.5	47,409	150	47,259	644	46,615	3,791	7.4	42,686	
1986 <sup>1</sup> .....	94,944	52,568	55.4	48,661	155	48,706	652	48,054	3,707	7.1	42,376	
1987 .....	96,013	53,818	56.1	50,494	160	50,334	666	49,666	3,324	6.2	42,195	
1988 .....	96,918	54,904	56.6	51,858	162	51,696	676	51,020	3,046	5.5	42,014	
1989 .....	97,798	56,196	57.5	53,195	168	53,027	687	52,341	3,003	5.3	41,601	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1989:</b>												
August .....	97,902	56,354	57.6	53,319	169	53,150	683	52,467	3,035	5.4	41,548	
September .....	97,972	56,365	57.5	53,440	171	53,269	699	52,570	2,925	5.2	41,607	
October .....	98,045	56,258	57.4	53,248	176	53,072	684	52,388	3,010	5.4	41,787	
November .....	98,115	56,557	57.8	53,529	175	53,354	683	52,671	3,028	5.4	41,558	
December .....	98,167	56,521	57.6	53,445	175	53,270	662	52,608	3,076	5.4	41,666	
<b>1990:</b>												
January .....	98,218	56,555	57.6	53,617	174	53,443	633	52,810	2,938	5.2	41,663	
February .....	98,268	56,669	57.7	53,805	172	53,433	618	52,815	3,064	5.4	41,599	
March .....	98,324	56,785	57.8	53,795	172	53,623	702	52,921	2,990	5.3	41,539	
April .....	98,363	56,764	57.7	53,729	158	53,571	718	52,853	3,034	5.3	41,619	
May .....	98,453	56,906	57.8	53,931	167	53,764	745	53,019	2,975	5.2	41,547	
June .....	98,520	56,867	57.7	54,019	165	53,854	747	53,108	2,848	5.0	41,653	
July .....	98,595	56,849	57.7	53,839	165	53,674	628	53,047	3,010	5.3	41,746	
August .....	98,661	56,842	57.6	53,702	165	53,537	679	52,858	3,140	5.5	41,819	

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the Explanatory Notes.

<sup>2</sup> The population and Armed Forces figures are not adjusted for seasonal variation.

**A-3. Employment status of the civilian noninstitutional population 16 years and over, 1956 to date**

(Numbers in thousands)

Year and month	Civilian noninstitutional population	Civilian labor force				Unemployment rates		
		Total	Percent of population	Employed	Unemployed	Total	Men	Women
<b>Annual averages</b>								
1956 .....	110,954	66,552	60.0	63,799	2,750	4.1	3.8	4.8
1957 .....	112,265	66,929	59.6	64,071	2,859	4.3	4.1	4.7
1958 .....	113,727	67,639	59.5	63,036	4,602	6.8	6.8	6.8
1959 .....	115,329	68,369	59.3	64,630	3,740	5.5	5.2	5.9
1960 <sup>1</sup> .....	117,245	69,628	59.4	65,778	3,852	5.5	5.4	5.9
1961 .....	118,771	70,459	59.3	65,746	4,714	6.7	6.4	7.2
1962 <sup>1</sup> .....	120,153	70,614	58.8	66,702	3,911	5.5	5.2	6.2
1963 .....	122,416	71,833	58.7	67,762	4,070	5.7	5.2	6.5
1964 .....	124,485	73,091	58.7	69,305	3,786	5.2	4.6	6.2
1965 .....	126,513	74,455	58.9	71,088	3,366	4.5	4.0	5.5
1966 .....	128,058	75,770	59.2	72,895	2,875	3.8	3.2	4.8
1967 .....	129,874	77,347	59.6	74,372	2,975	3.8	3.1	5.2
1968 .....	132,028	78,737	59.6	75,920	2,817	3.6	2.9	4.8
1969 .....	134,335	80,734	60.1	77,902	2,832	3.5	2.8	4.7
1970 .....	137,085	82,771	60.4	78,678	4,093	4.9	4.4	5.9
1971 .....	140,216	84,382	60.2	79,367	5,016	5.9	5.3	6.9
1972 <sup>2</sup> .....	144,126	87,034	60.4	82,153	4,882	5.6	5.0	6.6
1973 <sup>1</sup> .....	147,096	89,429	60.8	85,064	4,365	4.9	4.2	6.0
1974 .....	150,120	91,949	61.3	86,794	5,156	5.6	4.9	6.7
1975 .....	153,153	93,775	61.2	85,846	7,929	8.5	7.9	9.3
1976 .....	156,150	96,158	61.6	88,752	7,406	7.7	7.1	8.6
1977 .....	159,033	99,009	62.3	92,017	6,991	7.1	6.3	8.2
1978 <sup>1</sup> .....	161,910	102,251	63.2	96,048	6,202	6.1	5.3	7.2
1979 .....	164,863	104,962	63.7	98,824	6,137	5.8	5.1	6.8
1980 .....	167,745	106,940	63.8	99,303	7,637	7.1	6.9	7.4
1981 .....	170,130	108,670	63.9	100,397	8,273	7.6	7.4	7.9
1982 .....	172,271	110,204	64.0	99,526	10,678	9.7	9.9	9.4
1983 .....	174,215	111,550	64.0	100,834	10,717	9.6	9.9	9.2
1984 .....	176,383	113,544	64.4	105,005	8,539	7.5	7.4	7.6
1985 .....	178,206	115,461	64.8	107,150	8,312	7.2	7.0	7.4
1986 <sup>1</sup> .....	180,587	117,834	65.3	109,597	8,237	7.0	6.9	7.1
1987 .....	182,753	119,865	65.6	112,440	7,425	6.2	6.2	6.2
1988 .....	184,613	121,669	65.9	114,968	6,701	5.5	5.5	5.6
1989 .....	186,393	123,869	66.5	117,342	6,528	5.3	5.2	5.4
<b>Monthly data, seasonally adjusted<sup>2</sup></b>								
<b>1989:</b>								
August .....	186,598	124,070	66.5	117,550	6,520	5.3	5.1	5.4
September .....	186,726	124,023	66.4	117,419	6,604	5.3	5.4	5.2
October .....	186,871	124,148	66.4	117,585	6,563	5.3	5.2	5.4
November .....	187,017	124,488	66.6	117,836	6,652	5.3	5.3	5.4
December .....	187,165	124,546	66.5	117,888	6,658	5.3	5.3	5.5
<b>1990:</b>								
January .....	187,293	124,397	66.4	117,863	6,535	5.3	5.3	5.2
February .....	187,412	124,630	66.5	118,035	6,594	5.3	5.2	5.4
March .....	187,529	124,829	66.6	118,334	6,495	5.2	5.1	5.3
April .....	187,669	124,886	66.5	118,116	6,770	5.4	5.5	5.4
May .....	187,828	125,004	66.6	118,350	6,653	5.3	5.4	5.2
June .....	187,977	124,836	66.4	118,389	6,447	5.2	5.3	5.0
July .....	188,136	124,767	66.3	117,953	6,814	5.5	5.6	5.3
August .....	188,261	124,660	66.2	117,658	7,003	5.6	5.7	5.5

<sup>1</sup> Not strictly comparable with prior years. For an explanation, see "Historical Comparability" under the Household Data section of the

Explanatory Notes.

<sup>2</sup> The population figures are not adjusted for seasonal variation.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race**

(Numbers in thousands)

Age, sex, and race	August 1990										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
				Number	Percent of labor force						
<b>TOTAL</b>											
16 years and over .....	188,261	126,012	66.9	119,174	6,837	5.4	62,250	27,148	2,258	3,894	28,949
16 to 19 years .....	13,711	8,265	60.3	7,129	1,136	13.7	5,446	816	933	51	3,645
16 to 17 years .....	6,578	3,297	50.1	2,787	510	15.5	3,281	377	488	24	2,392
18 to 19 years .....	7,133	4,968	69.6	4,342	626	12.6	2,165	439	445	28	1,253
20 to 24 years .....	17,808	14,359	80.6	13,167	1,193	8.3	3,449	1,521	710	98	1,119
25 to 54 years .....	105,749	88,035	83.2	84,023	4,012	4.6	17,714	11,832	605	1,617	3,660
25 to 34 years .....	42,794	35,759	83.6	33,788	1,991	5.6	7,035	4,964	429	392	1,250
25 to 29 years .....	20,835	17,408	83.6	16,352	1,056	6.1	3,427	2,336	291	169	631
30 to 34 years .....	21,959	18,351	83.6	17,416	935	5.1	3,608	2,627	138	223	619
35 to 44 years .....	37,469	31,789	84.8	30,460	1,329	4.2	5,680	3,791	124	567	1,198
35 to 39 years .....	19,950	18,897	84.7	18,117	780	4.6	3,053	2,107	88	246	611
40 to 44 years .....	17,519	14,892	85.0	14,343	549	3.7	2,627	1,684	36	321	586
45 to 54 years .....	25,487	20,487	80.4	19,795	891	3.4	5,000	3,077	52	658	1,213
45 to 49 years .....	13,958	11,568	82.9	11,140	428	3.7	2,390	1,501	37	311	541
50 to 54 years .....	11,528	8,919	77.4	8,655	263	3.0	2,609	1,576	15	347	872
55 to 64 years .....	21,218	11,849	55.8	11,480	369	3.1	9,369	4,292	8	842	4,226
55 to 59 years .....	10,537	7,082	67.2	6,858	224	3.2	3,455	1,836	8	403	1,209
60 to 64 years .....	10,681	4,767	44.6	4,622	145	3.0	5,914	2,457	1	439	3,017
65 years and over .....	29,774	3,502	11.8	3,375	127	3.6	26,272	8,688	2	1,285	16,298
65 to 69 years .....	10,164	2,127	20.9	2,035	92	4.3	8,037	2,733	-	319	4,986
70 to 74 years .....	7,950	880	11.1	855	25	2.8	7,070	2,389	-	254	4,448
75 years and over .....	11,661	496	4.3	485	11	2.1	11,165	3,586	3	712	6,864
<b>Men</b>											
16 years and over .....	89,765	69,125	77.0	65,604	3,521	5.1	20,640	701	1,118	2,158	16,662
16 to 19 years .....	6,902	4,352	63.1	3,742	611	14.0	2,550	109	453	35	1,953
16 to 17 years .....	3,374	1,760	52.2	1,477	283	16.1	1,614	69	229	18	1,299
18 to 19 years .....	3,528	2,592	73.5	2,264	327	12.6	936	40	225	17	654
20 to 24 years .....	8,661	7,549	87.2	6,970	579	7.7	1,112	75	368	56	613
25 to 54 years .....	51,760	48,377	93.5	46,337	2,039	4.2	3,383	282	293	1,053	1,776
25 to 34 years .....	21,077	19,905	94.4	18,841	1,064	5.3	1,172	116	230	253	574
25 to 29 years .....	10,231	9,627	94.1	9,054	572	5.9	604	45	159	104	296
30 to 34 years .....	10,847	10,278	94.8	9,787	492	4.8	568	71	71	149	278
35 to 44 years .....	18,331	17,258	94.1	16,629	630	3.6	1,073	98	49	373	553
35 to 39 years .....	9,781	9,260	94.7	8,894	365	3.9	522	54	36	163	269
40 to 44 years .....	8,550	7,999	93.6	7,734	264	3.3	551	44	13	209	284
45 to 54 years .....	12,351	11,213	90.8	10,868	345	3.1	1,138	48	14	428	649
45 to 49 years .....	6,778	6,275	92.6	6,052	223	3.6	503	25	12	203	262
50 to 54 years .....	5,574	4,938	88.6	4,816	122	2.5	635	23	1	225	387
55 to 64 years .....	10,031	6,801	67.8	6,589	212	3.1	3,230	69	3	482	2,677
55 to 59 years .....	5,016	4,010	79.9	3,896	114	2.8	1,006	31	2	242	731
60 to 64 years .....	5,015	2,791	55.7	2,693	98	3.5	2,224	38	1	240	1,946
65 years and over .....	12,411	2,046	16.5	1,966	80	3.9	10,364	187	1	533	9,644
65 to 69 years .....	4,604	1,196	26.0	1,135	62	5.2	3,406	69	1	168	3,171
70 to 74 years .....	3,485	537	15.4	523	14	2.7	2,948	45	-	115	2,788
75 years and over .....	4,321	313	7.2	308	4	1.3	4,009	73	1	250	3,685
<b>Women</b>											
16 years and over .....	98,496	56,887	57.8	53,570	3,316	5.8	41,610	26,447	1,140	1,736	12,286
16 to 19 years .....	6,809	3,913	57.5	3,388	525	13.4	2,896	707	480	17	1,693
16 to 17 years .....	3,204	1,537	48.0	1,310	227	14.7	1,667	308	259	6	1,093
18 to 19 years .....	3,605	2,376	65.9	2,077	299	12.6	1,229	398	221	11	599
20 to 24 years .....	9,148	6,811	74.5	6,197	614	9.0	2,337	1,446	342	42	506
25 to 54 years .....	53,989	39,659	73.5	37,686	1,973	5.0	14,331	11,570	312	564	1,884
25 to 34 years .....	21,717	15,854	73.0	14,927	927	5.6	5,862	4,848	199	140	675
25 to 29 years .....	10,604	7,781	73.0	7,298	483	6.2	2,823	2,291	132	66	335
30 to 34 years .....	11,112	8,073	72.6	7,629	444	5.5	3,040	2,557	68	74	341
35 to 44 years .....	19,138	14,531	75.9	13,831	700	4.8	4,607	3,693	75	194	645
35 to 39 years .....	10,168	7,637	75.1	7,222	415	5.4	2,531	2,053	52	83	343
40 to 44 years .....	8,969	6,894	76.9	6,609	285	4.1	2,075	1,640	22	111	302
45 to 54 years .....	13,135	9,273	70.6	8,927	346	3.7	3,862	3,029	38	230	564
45 to 49 years .....	7,181	5,293	73.7	5,088	205	3.9	1,888	1,476	25	108	279
50 to 54 years .....	5,955	3,980	66.8	3,839	141	3.5	1,974	1,553	14	122	285
55 to 64 years .....	11,187	5,048	45.1	4,891	157	3.1	6,139	4,224	5	361	1,549
55 to 59 years .....	5,521	3,072	55.6	2,962	110	3.6	2,449	1,605	5	161	478
60 to 64 years .....	5,666	1,976	34.9	1,929	47	2.4	3,690	2,419	-	200	1,072
65 years and over .....	17,364	1,456	8.4	1,409	47	3.2	15,908	8,501	1	752	6,654
65 to 69 years .....	5,560	930	16.7	900	30	3.2	4,629	2,664	-	151	1,815
70 to 74 years .....	4,465	342	7.7	332	11	3.1	4,123	2,324	-	140	1,660
75 years and over .....	7,340	183	2.5	177	6	3.5	7,156	3,513	2	462	3,179



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race—Continued**

(Numbers in thousands)

Age, sex, and race	August 1990										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>WHITE</b>											
16 years and over .....	160,550	108,238	67.4	103,217	5,022	4.6	52,311	23,046	1,512	2,881	24,872
16 to 19 years .....	11,040	7,099	64.3	6,273	826	11.6	3,941	572	612	35	2,721
16 to 17 years .....	5,242	2,842	54.2	2,465	377	13.3	2,400	278	309	14	1,799
18 to 19 years .....	5,798	4,257	73.4	3,808	449	10.5	1,541	294	303	21	922
20 to 24 years .....	14,667	12,135	82.7	11,333	802	6.6	2,532	1,125	486	72	850
25 to 54 years .....	89,641	75,369	84.1	72,399	2,970	3.9	14,271	9,761	407	1,189	2,915
25 to 34 years .....	35,785	30,307	84.7	28,896	1,411	4.7	5,478	3,973	283	282	940
25 to 29 years .....	17,337	14,709	84.8	13,976	733	5.0	2,629	1,846	193	123	467
30 to 34 years .....	18,447	15,598	84.6	14,920	678	4.3	2,849	2,127	90	160	472
35 to 44 years .....	31,989	27,341	85.5	26,342	998	3.7	4,649	3,173	88	413	975
35 to 39 years .....	16,885	14,422	85.4	13,843	579	4.0	2,463	1,740	61	176	485
40 to 44 years .....	15,104	12,918	85.5	12,499	419	3.2	2,186	1,433	27	236	490
45 to 54 years .....	21,867	17,722	81.0	17,161	561	3.2	4,145	2,616	35	494	1,000
45 to 49 years .....	11,989	10,018	83.6	9,682	337	3.4	1,970	1,261	28	236	446
50 to 54 years .....	9,878	7,703	78.0	7,479	224	2.9	2,174	1,355	8	258	554
55 to 64 years .....	18,513	10,482	56.6	10,157	325	3.1	8,031	3,707	7	616	3,702
55 to 59 years .....	9,145	6,250	68.3	6,061	188	3.0	2,895	1,561	6	299	1,029
60 to 64 years .....	9,368	4,232	45.2	4,096	136	3.2	5,136	2,145	-	317	2,673
65 years and over .....	26,689	3,153	11.8	3,054	99	3.1	23,536	7,882	1	969	14,685
65 to 69 years .....	8,997	1,911	21.2	1,844	68	3.6	7,085	2,422	-	224	4,440
70 to 74 years .....	7,145	790	11.1	769	21	2.6	6,355	2,171	-	182	4,003
75 years and over .....	10,548	452	4.3	441	10	2.3	10,096	3,289	2	563	6,242
<b>Men</b>											
16 years and over .....	77,161	60,071	77.9	57,446	2,625	4.4	17,090	463	717	1,634	14,275
16 to 19 years .....	5,574	3,749	67.3	3,296	453	12.1	1,825	64	300	23	1,437
16 to 17 years .....	2,683	1,521	56.7	1,316	205	13.5	1,163	51	140	10	961
18 to 19 years .....	2,890	2,228	77.1	1,981	248	11.1	662	13	160	13	476
20 to 24 years .....	7,199	6,415	89.1	6,015	400	6.2	784	46	240	44	455
25 to 54 years .....	44,422	41,966	94.5	40,446	1,519	3.6	2,457	144	173	794	1,347
25 to 34 years .....	17,833	17,060	95.7	16,289	771	4.5	773	57	136	182	398
25 to 29 years .....	8,608	8,209	95.4	7,803	405	4.9	399	26	95	73	206
30 to 34 years .....	9,224	8,851	96.0	8,486	366	4.1	373	32	40	110	191
35 to 44 years .....	15,869	15,067	94.9	14,608	459	3.0	801	63	30	283	425
35 to 39 years .....	8,407	8,042	95.7	7,779	263	3.3	364	36	21	115	192
40 to 44 years .....	7,462	7,025	94.1	6,829	196	2.8	437	27	10	167	233
45 to 54 years .....	10,721	9,838	91.8	9,549	289	2.9	883	23	7	329	524
45 to 49 years .....	5,895	5,502	93.3	5,321	180	3.3	393	9	7	156	221
50 to 54 years .....	4,826	4,337	89.9	4,227	109	2.5	489	14	-	173	303
55 to 64 years .....	8,815	6,066	68.8	5,878	188	3.1	2,749	50	3	353	2,344
55 to 59 years .....	4,396	3,580	81.4	3,483	96	2.7	816	17	2	177	620
60 to 64 years .....	4,419	2,486	56.3	2,394	92	3.7	1,933	33	1	176	1,724
65 years and over .....	11,150	1,876	16.8	1,810	65	3.5	9,274	160	1	421	8,693
65 to 69 years .....	4,113	1,101	26.8	1,053	48	4.3	3,012	55	1	133	2,822
70 to 74 years .....	3,124	486	15.6	473	13	2.7	2,638	41	-	93	2,504
75 years and over .....	3,913	288	7.4	284	4	1.5	3,625	63	1	195	3,366
<b>Women</b>											
16 years and over .....	83,389	48,168	57.8	45,771	2,396	5.0	35,222	22,583	795	1,246	10,597
16 to 19 years .....	5,466	3,350	61.3	2,977	374	11.1	2,116	508	312	12	1,284
16 to 17 years .....	2,558	1,321	51.7	1,149	172	13.0	1,237	226	169	4	838
18 to 19 years .....	2,908	2,029	69.8	1,827	201	9.9	879	282	143	8	446
20 to 24 years .....	7,468	5,720	76.6	5,318	402	7.0	1,747	1,079	245	28	395
25 to 54 years .....	45,218	33,404	73.9	31,953	1,451	4.3	11,815	9,617	234	395	1,568
25 to 34 years .....	17,952	13,247	73.8	12,607	640	4.8	4,705	3,916	147	100	542
25 to 29 years .....	8,729	6,500	74.5	6,173	327	5.0	2,229	1,820	97	50	261
30 to 34 years .....	9,223	6,747	73.2	6,434	313	4.6	2,476	2,095	50	50	281
35 to 44 years .....	16,121	12,273	76.1	11,734	539	4.4	3,847	3,110	58	130	550
35 to 39 years .....	8,478	6,380	75.2	6,064	316	5.0	2,098	1,704	41	61	293
40 to 44 years .....	7,642	5,893	77.1	5,670	223	3.8	1,749	1,405	17	69	257
45 to 54 years .....	11,146	7,883	70.7	7,612	271	3.4	3,262	2,592	29	165	476
45 to 49 years .....	6,094	4,517	74.1	4,360	157	3.5	1,577	1,252	20	80	224
50 to 54 years .....	5,052	3,367	66.6	3,252	115	3.4	1,685	1,340	8	85	251
55 to 64 years .....	9,698	4,416	45.5	4,280	137	3.1	5,282	3,657	4	263	1,358
55 to 59 years .....	4,749	2,670	56.2	2,578	92	3.4	2,079	1,544	4	122	409
60 to 64 years .....	4,949	1,746	35.3	1,701	45	2.6	3,203	2,113	-	141	949
65 years and over .....	15,539	1,277	8.2	1,244	34	2.6	14,262	7,722	-	548	5,992
65 to 69 years .....	4,884	810	16.6	790	20	2.5	4,074	2,366	-	90	1,618
70 to 74 years .....	4,021	304	7.6	296	7	2.5	3,717	2,130	-	89	1,499
75 years and over .....	6,634	163	2.5	157	6	3.8	6,471	3,226	1	368	2,875

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-4. Employment status of the civilian noninstitutional population by age, sex, and race—Continued**

(Numbers in thousands)

Age, sex, and race	August 1990										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>BLACK</b>											
16 years and over .....	21,337	13,584	63.7	12,027	1,557	11.5	7,753	3,125	490	906	3,232
16 to 19 years .....	2,141	951	44.4	864	287	30.2	1,190	208	241	10	730
16 to 17 years .....	1,066	370	34.8	246	124	33.5	895	83	135	5	472
18 to 19 years .....	1,075	581	54.0	418	163	28.1	495	125	106	6	258
20 to 24 years .....	2,439	1,725	70.7	1,374	351	20.4	714	337	151	26	201
25 to 54 years .....	12,111	9,573	79.0	8,718	856	8.9	2,537	1,500	96	361	580
25 to 34 years .....	5,351	4,208	78.6	3,707	501	11.9	1,143	745	70	88	238
25 to 29 years .....	2,873	2,081	77.8	1,799	281	13.5	593	369	55	40	129
30 to 34 years .....	2,677	2,128	79.5	1,908	220	10.3	550	376	15	49	110
35 to 44 years .....	4,101	3,362	82.0	3,102	261	7.7	738	414	20	131	174
35 to 39 years .....	2,285	1,855	81.2	1,697	158	8.5	430	253	14	59	104
40 to 44 years .....	1,815	1,507	83.0	1,405	102	6.8	308	180	6	72	70
45 to 54 years .....	2,859	2,003	75.3	1,909	94	4.7	657	341	6	142	168
45 to 49 years .....	1,413	1,104	78.2	1,033	72	6.5	308	169	5	61	74
50 to 54 years .....	1,248	898	72.1	876	22	2.5	348	172	1	81	94
55 to 64 years .....	2,136	1,049	49.1	1,014	35	3.4	1,086	446	1	212	428
55 to 59 years .....	1,104	645	58.4	617	28	4.3	460	210	1	103	146
60 to 64 years .....	1,031	405	39.3	397	8	1.9	627	236	-	109	281
65 years and over .....	2,511	286	11.4	257	28	9.9	2,225	634	1	297	1,293
65 to 69 years .....	926	170	18.4	147	23	13.7	756	232	-	86	438
70 to 74 years .....	645	74	11.5	69	5	( <sup>1</sup> )	571	159	-	67	344
75 years and over .....	940	41	4.4	41	-	( <sup>1</sup> )	899	243	1	144	511
<b>Men</b>											
16 years and over .....	9,584	6,793	70.9	6,022	771	11.4	2,791	198	241	463	1,889
16 to 19 years .....	1,058	491	46.4	344	148	30.0	567	38	113	7	409
16 to 17 years .....	546	198	36.2	124	74	37.6	348	12	64	3	270
18 to 19 years .....	512	293	57.3	220	73	25.0	218	26	49	4	139
20 to 24 years .....	1,114	871	78.3	712	160	18.3	242	25	81	12	125
25 to 54 years .....	5,436	4,741	87.2	4,310	431	9.1	694	100	47	216	332
25 to 34 years .....	2,425	2,147	88.5	1,900	247	11.5	278	45	37	55	141
25 to 29 years .....	1,214	1,068	88.0	926	142	13.3	145	17	32	27	69
30 to 34 years .....	1,212	1,079	89.0	974	105	9.7	133	28	5	28	72
35 to 44 years .....	1,831	1,816	88.3	1,474	142	8.8	215	31	10	77	97
35 to 39 years .....	1,021	892	87.3	802	90	10.1	129	15	8	44	62
40 to 44 years .....	810	724	89.4	672	52	7.1	86	16	3	33	34
45 to 54 years .....	1,179	978	83.0	936	43	4.4	201	23	-	84	94
45 to 49 years .....	626	546	87.2	510	36	6.6	80	15	-	39	26
50 to 54 years .....	553	432	78.2	426	7	1.5	121	8	-	45	68
55 to 64 years .....	963	548	56.9	531	18	3.2	415	17	-	124	273
55 to 59 years .....	498	333	66.8	321	12	3.6	165	12	-	64	89
60 to 64 years .....	465	216	46.3	210	6	2.7	250	5	-	60	185
65 years and over .....	1,014	141	13.9	126	15	10.6	873	19	-	103	751
65 to 69 years .....	399	78	19.6	65	13	17.0	320	10	-	27	283
70 to 74 years .....	284	42	14.7	40	2	( <sup>1</sup> )	242	2	-	22	218
75 years and over .....	332	21	6.4	21	-	( <sup>1</sup> )	310	6	-	55	249
<b>Women</b>											
16 years and over .....	11,753	6,791	57.8	6,005	786	11.6	4,962	2,927	249	443	1,342
16 to 19 years .....	1,083	480	42.5	321	139	30.3	623	170	128	3	321
18 to 17 years .....	519	173	33.2	123	50	28.8	347	71	71	2	203
18 to 19 years .....	564	287	51.0	198	90	31.2	276	99	57	1	118
20 to 24 years .....	1,326	854	64.4	662	191	22.4	472	312	70	13	77
25 to 54 years .....	6,675	4,832	72.4	4,407	424	8.8	1,843	1,400	49	145	248
25 to 34 years .....	2,926	2,062	70.5	1,807	255	12.3	864	700	34	33	97
25 to 29 years .....	1,460	1,012	69.4	873	139	13.8	447	352	23	13	59
30 to 34 years .....	1,466	1,049	71.6	934	115	11.0	417	348	11	20	38
35 to 44 years .....	2,269	1,746	78.9	1,628	118	6.8	523	383	10	53	77
35 to 39 years .....	1,264	963	76.2	895	68	7.0	301	238	7	15	42
40 to 44 years .....	1,005	783	77.9	733	51	6.5	222	145	3	38	36
45 to 54 years .....	1,480	1,024	69.2	973	51	5.0	456	318	6	59	73
45 to 49 years .....	786	558	71.0	522	36	6.4	228	153	5	22	48
50 to 54 years .....	694	466	67.2	451	15	3.3	228	164	1	36	26
55 to 64 years .....	1,173	501	42.7	484	17	3.5	672	428	1	88	155
55 to 59 years .....	607	312	51.4	296	16	5.0	295	198	1	38	58
60 to 64 years .....	566	189	33.4	188	2	.9	377	230	-	50	97
65 years and over .....	1,496	144	9.6	131	13	9.3	1,352	616	1	194	542
65 to 69 years .....	527	92	17.5	82	10	10.9	435	222	-	59	155
70 to 74 years .....	361	32	8.9	29	3	( <sup>1</sup> )	328	157	-	46	126
75 years and over .....	608	20	3.3	20	-	( <sup>1</sup> )	588	237	1	89	261

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-5. Employment status of the black-and-other civilian noninstitutional population by age and sex**

(Numbers in thousands)

Age and sex	August 1990								Not in labor force
	Civilian noninstitutional population	Civilian labor force							
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
<b>TOTAL</b>									
16 years and over .....	27,711	17,773	64.1	15,958	251	15,707	1,815	10.2	9,938
16 to 19 years .....	2,671	1,166	43.7	856	23	833	310	26.6	1,505
16 to 17 years .....	1,336	455	34.1	323	17	306	132	29.1	881
18 to 19 years .....	1,335	711	53.3	533	6	527	177	25.0	624
20 to 24 years .....	3,141	2,224	70.8	1,833	32	1,801	391	17.6	917
25 to 54 years .....	16,109	12,666	78.6	11,624	146	11,478	1,042	8.2	3,443
25 to 34 years .....	7,009	5,452	77.8	4,872	56	4,816	580	10.6	1,557
25 to 29 years .....	3,497	2,699	77.2	2,376	26	2,351	323	12.0	798
30 to 34 years .....	3,512	2,753	78.4	2,496	30	2,466	257	9.3	759
35 to 44 years .....	5,480	4,449	81.2	4,118	58	4,060	331	7.4	1,031
35 to 39 years .....	3,065	2,475	80.7	2,274	29	2,244	201	8.1	590
40 to 44 years .....	2,415	1,974	81.7	1,844	29	1,815	130	6.6	441
45 to 54 years .....	3,620	2,765	76.4	2,634	32	2,602	131	4.7	855
45 to 49 years .....	1,969	1,550	78.7	1,458	24	1,434	91	5.9	420
50 to 54 years .....	1,651	1,216	73.6	1,176	8	1,168	40	3.3	435
55 to 64 years .....	2,705	1,367	50.8	1,323	27	1,296	44	3.2	1,338
55 to 59 years .....	1,392	833	59.8	797	11	786	36	4.3	560
60 to 64 years .....	1,313	535	40.7	527	17	510	8	1.5	778
65 years and over .....	3,085	349	11.3	321	22	299	29	8.2	2,736
65 to 69 years .....	1,167	215	18.4	191	16	175	24	11.1	952
70 to 74 years .....	805	90	11.1	85	3	83	4	5.0	715
75 years and over .....	1,113	45	4.0	44	3	41	-	( <sup>1</sup> )	1,069
<b>Men</b>									
16 years and over .....	12,604	9,054	71.8	8,158	220	7,939	896	9.9	3,550
16 to 19 years .....	1,329	603	45.4	445	19	426	158	26.2	725
16 to 17 years .....	691	240	34.7	162	14	147	78	32.6	451
18 to 19 years .....	638	364	57.0	284	5	279	60	22.0	274
20 to 24 years .....	1,461	1,134	77.6	955	27	928	179	15.8	328
25 to 54 years .....	7,338	6,411	87.4	5,891	128	5,763	520	6.1	927
25 to 34 years .....	3,245	2,845	87.7	2,552	48	2,503	293	10.3	400
25 to 29 years .....	1,822	1,418	87.4	1,251	21	1,229	167	11.8	205
30 to 34 years .....	1,622	1,427	88.0	1,301	27	1,274	126	8.8	195
35 to 44 years .....	2,463	2,191	89.0	2,020	51	1,969	171	7.8	271
35 to 39 years .....	1,375	1,217	88.6	1,115	25	1,091	102	8.4	157
40 to 44 years .....	1,068	974	90.5	905	26	879	69	7.1	114
45 to 54 years .....	1,630	1,375	84.3	1,319	29	1,290	56	4.1	255
45 to 49 years .....	883	773	87.6	730	22	708	43	5.6	109
50 to 54 years .....	748	602	80.5	589	7	581	13	2.2	146
55 to 64 years .....	1,216	735	60.5	712	23	689	24	3.2	481
55 to 59 years .....	620	430	69.4	413	8	405	18	4.1	190
60 to 64 years .....	596	305	51.2	299	15	284	6	1.9	291
65 years and over .....	1,261	171	13.5	156	22	133	15	8.8	1,090
65 to 69 years .....	492	95	19.4	81	17	65	14	14.6	396
70 to 74 years .....	361	51	14.1	50	3	47	1	( <sup>1</sup> )	310
75 years and over .....	408	24	6.0	24	3	21	-	( <sup>1</sup> )	383
<b>Women</b>									
16 years and over .....	15,107	8,719	57.7	7,799	31	7,768	920	10.5	6,388
16 to 19 years .....	1,342	563	41.9	411	4	407	152	27.0	780
16 to 17 years .....	645	215	33.4	161	2	159	54	25.2	430
18 to 19 years .....	697	347	49.8	250	1	248	98	28.1	350
20 to 24 years .....	1,680	1,090	64.9	879	6	873	212	19.4	589
25 to 54 years .....	8,771	6,255	71.3	5,733	17	5,716	522	8.3	2,516
25 to 34 years .....	3,764	2,607	69.3	2,320	7	2,313	287	11.0	1,157
25 to 29 years .....	1,875	1,282	68.3	1,126	4	1,121	156	12.2	593
30 to 34 years .....	1,889	1,326	70.2	1,195	3	1,192	131	9.9	564
35 to 44 years .....	3,017	2,258	74.8	2,097	7	2,090	160	7.1	759
35 to 39 years .....	1,690	1,257	74.4	1,158	5	1,154	99	7.9	433
40 to 44 years .....	1,327	1,000	75.4	939	3	937	61	6.1	327
45 to 54 years .....	1,990	1,390	69.9	1,315	3	1,313	75	5.4	600
45 to 49 years .....	1,087	776	71.4	728	2	726	48	6.2	311
50 to 54 years .....	903	614	68.0	587	1	587	27	4.3	289
55 to 64 years .....	1,489	632	42.4	611	4	607	21	3.3	857
55 to 59 years .....	772	402	52.1	384	3	381	18	4.6	370
60 to 64 years .....	717	230	32.1	228	1	226	2	1.0	487
65 years and over .....	1,825	179	9.8	165	-	165	13	7.5	1,646
65 to 69 years .....	675	120	17.8	110	-	110	10	8.4	555
70 to 74 years .....	444	39	8.7	35	-	35	3	( <sup>1</sup> )	405
75 years and over .....	705	20	2.8	20	-	20	-	( <sup>1</sup> )	685

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-6. Employment status of the civilian noninstitutional population by race, sex, and age**

(Numbers in thousands)

Employment status and race	Total		Men, 20 years and over		Women, 20 years and over		Both sexes, 16 to 19 years	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
<b>TOTAL</b>								
Civilian noninstitutional population .....	186,598	188,261	81,754	82,862	90,684	91,688	14,160	13,711
Civilian labor force .....	125,444	126,012	64,167	64,773	52,000	52,974	9,276	8,265
Percent of population .....	67.2	66.9	78.5	78.2	57.3	57.8	65.5	60.3
Employed .....	119,092	119,174	61,603	61,862	49,352	50,183	8,137	7,129
Agriculture .....	3,633	3,473	2,529	2,435	682	674	422	364
Nonagricultural industries .....	115,460	115,702	59,074	59,427	48,670	49,509	7,715	6,766
Unemployed .....	6,352	6,837	2,564	2,910	2,648	2,791	1,140	1,136
Unemployment rate .....	5.1	5.4	4.0	4.5	5.1	5.3	12.3	13.7
Not in labor force .....	61,155	62,250	17,587	18,090	38,683	38,714	4,884	5,446
<b>White</b>								
Civilian noninstitutional population .....	159,470	160,550	70,734	71,587	77,235	77,923	11,501	11,040
Civilian labor force .....	107,597	108,238	55,766	56,322	43,886	44,817	7,945	7,099
Percent of population .....	67.5	67.4	78.8	78.7	56.8	57.5	69.1	64.3
Employed .....	102,938	103,217	53,868	54,149	41,948	42,795	7,122	6,273
Agriculture .....	3,407	3,222	2,370	2,235	650	647	388	340
Nonagricultural industries .....	99,531	99,995	51,498	51,915	41,298	42,148	6,734	5,933
Unemployed .....	4,659	5,022	1,898	2,173	1,938	2,023	823	826
Unemployment rate .....	4.3	4.6	3.4	3.9	4.4	4.5	10.4	11.6
Not in labor force .....	51,872	52,311	14,968	15,265	33,348	33,106	3,556	3,941
<b>Black</b>								
Civilian noninstitutional population .....	21,060	21,337	8,384	8,526	10,503	10,670	2,173	2,141
Civilian labor force .....	13,694	13,584	6,263	6,302	6,338	6,331	1,092	951
Percent of population .....	65.0	63.7	74.7	73.9	60.3	59.3	50.3	44.4
Employed .....	12,197	12,027	5,686	5,678	5,710	5,684	801	664
Agriculture .....	184	171	133	137	21	17	30	17
Nonagricultural industries .....	12,013	11,856	5,553	5,541	5,689	5,668	771	647
Unemployed .....	1,497	1,557	578	624	628	646	291	287
Unemployment rate .....	10.9	11.5	9.2	9.9	9.9	10.2	26.6	30.2
Not in labor force .....	7,366	7,753	2,120	2,224	4,165	4,339	1,081	1,190

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-7. Employment status of the civilian noninstitutional population 16 to 24 years of age by school enrollment, years of school completed, sex, race, and Hispanic origin**

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	August 1990									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time <sup>1</sup>	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	
<b>TOTAL ENROLLED</b>										
Total, 16 to 24 years .....	4,879	2,713	55.6	2,435	1,139	1,296	278	93	185	10.2
16 to 19 years .....	2,644	1,306	49.4	1,127	410	717	179	44	135	13.7
20 to 24 years .....	2,235	1,407	62.9	1,308	729	579	99	49	50	7.1
High school .....	1,520	645	42.4	511	128	383	134	26	108	20.8
College .....	3,359	2,067	61.5	1,923	1,010	913	144	67	76	7.0
Full-time students .....	2,704	1,514	56.0	1,398	679	719	116	47	69	7.6
Part-time students .....	656	553	84.4	525	331	194	28	20	8	5.1
Men, 16 to 24 years .....	2,454	1,407	57.4	1,265	609	655	143	47	96	10.1
16 to 19 years .....	1,342	698	52.0	599	208	391	99	24	75	14.2
20 to 24 years .....	1,112	709	63.8	665	401	264	44	23	21	6.2
High school .....	821	389	47.4	306	66	240	83	16	67	21.3
College .....	1,633	1,018	62.4	958	543	415	60	31	29	5.9
Full-time students .....	1,328	750	56.5	704	378	325	47	23	24	6.2
Part-time students .....	305	268	87.8	254	165	90	13	8	5	5.0
Women, 16 to 24 years .....	2,425	1,305	53.8	1,170	530	640	135	46	89	10.4
16 to 19 years .....	1,302	607	46.7	528	202	326	60	20	60	13.1
20 to 24 years .....	1,124	698	62.1	642	328	315	55	26	29	7.9
High school .....	699	256	36.6	205	62	142	51	10	41	20.1
College .....	1,726	1,049	60.8	965	467	498	84	36	48	8.0
Full-time students .....	1,376	764	55.5	694	301	394	69	24	45	9.1
Part-time students .....	350	285	81.5	271	167	104	15	12	3	5.1
<b>White</b>										
Total, 16 to 24 years .....	3,828	2,299	60.1	2,105	1,001	1,104	194	59	135	8.4
16 to 19 years .....	2,051	1,111	54.2	975	371	603	137	35	102	12.3
20 to 24 years .....	1,777	1,187	66.8	1,130	630	500	57	24	33	4.8
Men .....	1,903	1,183	62.2	1,078	535	542	105	30	75	8.9
Women .....	1,925	1,116	58.0	1,027	466	561	89	28	60	8.0
High school .....	1,127	529	47.0	431	112	320	98	19	79	18.5
College .....	2,701	1,769	65.5	1,673	890	784	96	40	56	5.4
Full-time students .....	2,175	1,312	60.3	1,233	610	624	79	30	49	6.0
Part-time students .....	525	457	87.0	440	280	160	17	10	7	3.7
<b>Black</b>										
Total, 16 to 24 years .....	782	309	39.5	236	94	142	73	31	42	23.7
16 to 19 years .....	476	165	34.6	126	30	96	39	8	31	23.4
20 to 24 years .....	306	144	47.1	110	63	46	35	23	12	24.0
Men .....	406	170	42.0	137	49	88	34	16	17	19.9
Women .....	377	139	36.8	99	45	54	39	15	25	28.5
High school .....	320	99	30.8	64	12	52	35	6	29	35.2
College .....	462	210	45.5	172	82	90	39	25	14	18.3
Full-time students .....	367	134	36.4	106	41	65	28	14	14	20.8
Part-time students .....	95	77	80.8	66	41	25	11	11	-	14.1
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	379	182	48.2	165	82	83	17	5	13	9.5
16 to 19 years .....	240	80	33.5	70	23	47	11	3	8	13.3
20 to 24 years .....	139	102	73.6	95	59	36	7	2	5	6.5
Men .....	179	111	62.2	103	42	61	9	1	8	7.7
Women .....	200	71	35.7	62	40	22	9	4	5	( <sup>2</sup> )
High school .....	204	73	35.8	62	19	43	11	1	10	( <sup>2</sup> )
College .....	175	110	62.5	103	64	39	6	4	3	5.8
Full-time students .....	115	59	51.6	53	31	23	6	4	2	( <sup>2</sup> )
Part-time students .....	60	50	( <sup>2</sup> )	50	33	17	1	-	1	( <sup>2</sup> )

See footnotes at end of table.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-7. Employment status of the civilian noninstitutional population 16 to 24 years of age by school enrollment, years of school completed, sex, race, and Hispanic origin—Continued**

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	August 1990									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time <sup>1</sup>	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	
<b>TOTAL NOT ENROLLED</b>										
Total, 16 to 24 years .....	26,640	19,912	74.7	17,862	13,395	4,466	2,051	1,481	570	10.3
16 to 19 years .....	11,067	6,959	82.9	6,002	3,183	2,819	957	537	421	13.8
20 to 24 years .....	15,573	12,953	83.2	11,859	10,212	1,647	1,093	944	149	8.4
Less than 4 years of high school .....	9,384	5,445	58.0	4,538	2,532	2,006	908	545	362	16.7
4 years of high school .....	10,118	8,366	82.7	7,568	6,175	1,394	798	664	134	9.5
1 to 3 years of college .....	5,319	4,406	82.8	4,181	3,270	911	225	164	61	5.1
4 years of college or more .....	1,819	1,695	93.2	1,574	1,419	155	120	108	13	7.1
Men, 16 to 24 years .....	13,109	10,494	80.0	9,447	7,530	1,916	1,047	770	277	10.0
16 to 19 years .....	5,560	3,654	65.7	3,142	1,831	1,311	512	295	216	14.0
20 to 24 years .....	7,549	6,840	90.8	6,305	5,899	805	535	475	60	7.8
Less than 4 years of high school .....	4,910	3,252	66.2	2,742	1,786	956	510	315	196	15.7
4 years of high school .....	4,977	4,454	89.5	4,064	3,509	555	390	348	42	8.8
1 to 3 years of college .....	2,429	2,052	84.5	1,958	1,595	363	94	63	31	4.6
4 years of college or more .....	793	736	92.7	664	641	43	52	44	8	7.1
Women, 16 to 24 years .....	13,531	9,418	89.6	8,415	5,865	2,550	1,004	711	293	10.7
16 to 19 years .....	5,507	3,305	60.0	2,860	1,352	1,508	445	241	204	13.5
20 to 24 years .....	8,024	6,113	76.2	5,555	4,513	1,042	558	470	89	9.1
Less than 4 years of high school .....	4,473	2,193	49.0	1,796	746	1,050	397	231	167	18.1
4 years of high school .....	5,141	3,912	76.1	3,505	2,666	839	407	316	91	10.4
1 to 3 years of college .....	2,891	2,354	81.4	2,224	1,675	548	131	101	30	5.6
4 years of college or more .....	1,026	959	93.5	891	778	113	68	64	5	7.1
<b>White</b>										
Total, 16 to 24 years .....	21,879	16,936	77.4	15,502	11,635	3,866	1,434	1,032	402	8.5
16 to 19 years .....	8,989	5,988	66.6	5,298	2,834	2,465	690	389	300	11.5
20 to 24 years .....	12,890	10,948	84.9	10,203	8,802	1,402	744	643	102	6.8
Men .....	10,870	8,981	82.6	8,233	6,589	1,644	747	547	201	8.3
Women .....	11,009	7,955	72.3	7,268	5,046	2,222	686	485	202	8.6
Less than 4 years of high school .....	7,455	4,625	62.0	3,997	2,257	1,740	628	373	255	13.6
4 years of high school .....	8,281	7,013	84.7	6,464	5,272	1,192	549	460	89	7.8
1 to 3 years of college .....	4,512	3,775	83.7	3,619	2,823	796	157	110	47	4.1
4 years of college or more .....	1,632	1,523	93.3	1,423	1,284	138	100	89	11	6.6
<b>Black</b>										
Total, 16 to 24 years .....	3,798	2,367	62.3	1,802	1,315	488	565	420	144	23.9
16 to 19 years .....	1,665	766	47.2	538	246	292	248	141	108	31.6
20 to 24 years .....	2,133	1,581	74.1	1,265	1,069	196	316	280	37	20.0
Men .....	1,766	1,192	67.5	919	703	215	274	204	69	22.9
Women .....	2,032	1,175	57.8	884	612	272	291	216	75	24.8
Less than 4 years of high school .....	1,560	663	42.5	404	185	219	259	163	97	39.1
4 years of high school .....	1,554	1,137	73.2	902	725	177	235	196	39	20.6
1 to 3 years of college .....	573	459	80.1	399	312	88	59	50	9	12.9
4 years of college or more .....	111	108	97.4	96	93	3	12	12	-	10.9
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	3,054	2,162	70.8	1,910	1,551	359	253	204	48	11.7
16 to 19 years .....	1,192	684	57.3	569	376	193	114	81	33	16.7
20 to 24 years .....	1,862	1,479	79.4	1,340	1,174	166	138	123	15	9.3
Men .....	1,588	1,322	83.3	1,165	998	168	157	124	33	11.9
Women .....	1,466	840	57.3	744	553	192	95	80	15	11.4
Less than 4 years of high school .....	1,756	1,117	63.6	971	772	199	146	113	33	13.1
4 years of high school .....	969	784	80.9	699	594	105	85	74	11	10.8
1 to 3 years of college .....	282	220	77.9	199	148	51	21	17	4	9.4
4 years of college or more .....	47	41	(?)	40	36	5	1	1	-	(?)

<sup>1</sup> Employed persons with a job but not at work and persons at work part time are distributed according to whether they usually work full or part time.

<sup>2</sup> Data not shown where base is less than 75,000.

NOTE: In the summer months, the educational attainment levels of youth not enrolled in school are increased by the temporary movement of high school and

college students into that group. 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.

**A-8. Employment status of male Vietnam-era veterans and nonveterans by age**

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
	Aug. 1989	Aug. 1990	Total		Employed		Unemployed			
			Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Number		Percent of labor force	
							Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
<b>VIETNAM-ERA VETERANS</b>										
Total, 35 years and over .....	7,471	7,658	6,827	6,957	6,625	6,698	202	259	3.0	3.7
35 to 49 years .....	6,482	6,513	6,165	6,155	5,973	5,922	192	232	3.1	3.8
35 to 39 years .....	1,702	1,382	1,598	1,310	1,521	1,242	77	67	4.8	5.2
40 to 44 years .....	3,291	3,283	3,157	3,104	3,086	2,996	72	108	2.3	3.5
45 to 49 years .....	1,489	1,848	1,409	1,741	1,366	1,684	43	57	3.1	3.3
50 years and over .....	989	1,145	662	803	652	776	10	27	1.5	3.3
<b>NONVETERANS</b>										
Total, 35 to 49 years .....	16,309	17,479	15,262	16,340	14,763	15,771	499	570	3.3	3.5
35 to 39 years .....	7,487	8,016	7,094	7,597	6,849	7,321	245	276	3.5	3.6
40 to 44 years .....	4,714	5,256	4,382	4,885	4,230	4,727	152	157	3.5	3.2
45 to 49 years .....	4,108	4,207	3,786	3,859	3,685	3,722	101	137	2.7	3.5

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

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-9. Employed and unemployed full- and part-time workers by sex, age, and race**

(In thousands)

Sex, age, and race	August 1990							
	Employed						Unemployed	
	Full time			Part time			Looking for full-time work	Looking for part-time work
	Total	Full-time schedules <sup>1</sup>	Part time for economic reasons, usually work full time	Total	Voluntary <sup>1</sup>	Part time for economic reasons, usually work part time		
<b>TOTAL</b>								
Total, 16 years and over .....	100,875	98,846	2,029	18,299	14,960	3,339	5,477	1,360
16 to 19 years .....	3,593	3,435	158	3,536	2,746	790	581	555
16 to 17 years .....	828	794	35	1,959	1,600	359	131	379
18 to 19 years .....	2,765	2,641	123	1,577	1,146	431	450	176
20 years and over .....	97,282	95,411	1,871	14,763	12,214	2,549	4,897	804
20 to 24 years .....	10,941	10,614	327	2,226	1,649	577	993	199
25 years and over .....	86,341	84,797	1,544	12,537	10,565	1,972	3,903	605
25 to 54 years .....	75,333	74,002	1,331	8,690	7,065	1,626	3,538	474
55 years and over .....	11,008	10,795	213	3,847	3,500	346	365	131
<b>Men, 16 years and over .....</b>	<b>59,810</b>	<b>58,677</b>	<b>1,133</b>	<b>5,794</b>	<b>4,385</b>	<b>1,409</b>	<b>2,988</b>	<b>533</b>
16 to 19 years .....	2,039	1,965	74	1,702	1,304	399	319	291
20 years and over .....	57,771	56,712	1,059	4,092	3,082	1,010	2,669	241
20 to 24 years .....	6,100	5,920	180	869	623	247	498	81
25 years and over .....	51,670	50,792	879	3,222	2,459	763	2,171	160
25 to 54 years .....	44,681	43,935	746	1,657	1,056	600	1,933	106
55 years and over .....	6,990	6,857	133	1,566	1,403	163	238	54
<b>Women, 16 years and over .....</b>	<b>41,065</b>	<b>40,169</b>	<b>896</b>	<b>12,505</b>	<b>10,575</b>	<b>1,931</b>	<b>2,489</b>	<b>827</b>
16 to 19 years .....	1,554	1,470	84	1,834	1,442	391	261	264
20 years and over .....	39,511	38,699	812	10,671	9,132	1,539	2,228	563
20 to 24 years .....	4,841	4,694	146	1,357	1,026	330	496	118
25 years and over .....	34,671	34,005	665	9,315	8,106	1,209	1,732	445
25 to 54 years .....	30,652	30,067	585	7,034	6,009	1,025	1,605	368
55 years and over .....	4,019	3,938	80	2,281	2,097	183	127	78
<b>White</b>								
<b>Men, 16 years and over .....</b>	<b>52,480</b>	<b>51,568</b>	<b>912</b>	<b>4,965</b>	<b>3,821</b>	<b>1,144</b>	<b>2,209</b>	<b>416</b>
16 to 19 years .....	1,836	1,776	60	1,460	1,118	341	239	214
20 years and over .....	50,644	49,792	852	3,505	2,703	802	1,970	202
20 to 24 years .....	5,288	5,145	143	726	532	195	339	61
25 years and over .....	45,355	44,647	708	2,779	2,171	608	1,632	141
25 to 54 years .....	39,077	38,489	588	1,369	898	471	1,430	89
55 years and over .....	6,278	6,157	121	1,410	1,273	137	202	52
<b>Women, 16 years and over .....</b>	<b>34,607</b>	<b>33,848</b>	<b>759</b>	<b>11,164</b>	<b>9,579</b>	<b>1,584</b>	<b>1,786</b>	<b>610</b>
16 to 19 years .....	1,369	1,292	77	1,608	1,276	332	185	188
20 years and over .....	33,239	32,556	683	9,556	8,304	1,252	1,601	422
20 to 24 years .....	4,143	4,025	118	1,175	900	276	328	74
25 years and over .....	29,096	28,531	565	8,380	7,404	977	1,273	348
25 to 54 years .....	25,594	25,100	494	6,359	5,533	826	1,169	282
55 years and over .....	3,501	3,431	71	2,022	1,871	151	104	66
<b>Black</b>								
<b>Men, 16 years and over .....</b>	<b>5,408</b>	<b>5,221</b>	<b>187</b>	<b>614</b>	<b>405</b>	<b>209</b>	<b>670</b>	<b>102</b>
16 to 19 years .....	143	130	13	201	152	49	75	73
20 years and over .....	5,266	5,091	174	413	253	160	595	29
20 to 24 years .....	610	580	30	102	58	44	146	14
25 years and over .....	4,656	4,511	145	311	195	116	449	15
25 to 54 years .....	4,119	3,986	133	191	94	98	419	12
55 years and over .....	537	525	12	120	101	19	30	2
<b>Women, 16 years and over .....</b>	<b>4,953</b>	<b>4,836</b>	<b>117</b>	<b>1,052</b>	<b>774</b>	<b>278</b>	<b>612</b>	<b>174</b>
16 to 19 years .....	134	128	6	187	139	48	74	66
20 years and over .....	4,819	4,708	111	865	635	230	538	108
20 to 24 years .....	522	496	26	140	93	47	157	34
25 years and over .....	4,297	4,212	84	725	542	183	381	74
25 to 54 years .....	3,898	3,823	75	509	349	161	360	65
55 years and over .....	398	389	9	216	194	22	21	10

<sup>1</sup> Employed persons with a job but not at work are distributed according to whether they usually work full or part time.



**A-10. Employment status of persons in families by family relationship**

(Numbers in thousands)

Family relationship	August 1990									
	Civilian labor force					Not in labor force				
	Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
				Number	Percent of labor force					
Total, 16 years and over <sup>1</sup> .....	100,969	67.6	95,413	5,556	5.5	48,334	21,982	1,942	2,714	21,696
Husbands .....	40,139	78.2	38,950	1,190	3.0	11,189	196	136	1,047	9,810
With employed wife .....	26,126	91.9	25,427	699	2.7	2,317	82	66	377	1,791
With unemployed wife .....	1,185	93.6	1,077	109	9.2	81	5	3	8	65
With wife not in labor force .....	12,828	59.3	12,446	382	3.0	8,791	110	66	661	7,954
Wives .....	29,709	57.9	28,443	1,266	4.3	21,619	16,571	144	454	4,450
With employed husband .....	26,504	68.0	25,427	1,077	4.1	12,446	10,633	114	174	1,525
With unemployed husband .....	808	67.9	699	109	13.4	382	335	5	14	28
With husband not in labor force .....	2,398	21.4	2,317	81	3.4	8,791	5,604	25	266	2,896
Relatives in married-couple families .....	14,067	70.0	12,790	1,276	9.1	6,025	861	1,031	379	3,754
16 to 19 years .....	5,422	62.5	4,814	609	11.2	3,255	283	587	21	2,364
20 to 24 years .....	4,943	81.4	4,557	387	7.8	1,130	149	396	45	540
25 years and over .....	3,699	69.3	3,419	280	7.6	1,640	429	48	313	850
Women who maintain families .....	6,913	61.8	6,301	612	8.9	4,265	2,981	113	248	923
Relatives in families maintained by women .....	5,817	61.9	4,921	896	15.4	3,586	929	411	409	1,836
16 to 19 years .....	1,467	50.6	1,131	337	23.0	1,434	239	262	21	912
20 to 24 years .....	1,611	77.3	1,352	259	16.1	474	135	103	23	212
25 years and over .....	2,738	62.0	2,438	300	11.0	1,678	555	46	365	712
Men who maintain families .....	2,505	80.9	2,376	129	5.1	590	42	20	81	447
Relatives in families maintained by men .....	1,819	63.2	1,632	187	10.3	1,060	402	87	96	474
16 to 19 years .....	357	58.8	297	60	16.7	251	48	33	5	166
20 to 24 years .....	506	78.9	454	52	10.3	135	41	27	11	57
25 years and over .....	956	58.7	881	75	7.8	674	313	27	80	251

<sup>1</sup> Excludes persons living alone or with nonrelatives, persons in families where the husband, wife, or other person maintaining the family is in the Armed Forces, and persons in unrelated subfamilies.

NOTE: Estimates shown in this table for husbands, wives, and women

who maintain families are somewhat different from marital status estimates shown in other tables in this publication because of differences in definitions and weighting patterns used in aggregating the data.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-11. Unemployed persons by marital status, race, age, and sex**

Marital status, race, and age	Men				Women			
	Thousands of persons		Unemployment rates		Thousands of persons		Unemployment rates	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total, 16 years and over .....	3,157	3,521	4.6	5.1	3,195	3,316	5.7	5.8
Married, spouse present .....	1,147	1,298	2.7	3.1	1,304	1,347	4.4	4.4
Widowed, divorced, or separated .....	419	452	5.7	5.9	686	709	6.2	6.2
Single (never married) .....	1,590	1,771	8.1	9.1	1,205	1,260	7.9	8.5
White, 16 years and over .....	2,331	2,625	3.9	4.4	2,328	2,396	4.9	5.0
Married, spouse present .....	909	1,054	2.4	2.8	1,098	1,135	4.1	4.2
Widowed, divorced, or separated .....	314	331	5.2	5.2	488	498	5.5	5.4
Single (never married) .....	1,109	1,240	6.8	7.7	742	763	6.1	6.5
Black, 16 years and over .....	722	771	10.5	11.4	775	786	11.3	11.6
Married, spouse present .....	195	178	6.1	5.7	170	129	7.2	5.6
Widowed, divorced, or separated .....	96	106	9.5	10.0	179	191	9.4	9.6
Single (never married) .....	431	488	16.3	18.7	425	466	16.4	18.5
Total, 25 years and over .....	1,908	2,331	3.4	4.1	2,092	2,177	4.7	4.7
Married, spouse present .....	1,056	1,213	2.6	3.0	1,097	1,171	3.9	4.1
Widowed, divorced, or separated .....	370	439	5.2	5.9	631	643	5.9	5.8
Single (never married) .....	482	679	5.4	7.2	364	364	5.6	5.5
White, 25 years and over .....	1,428	1,773	2.9	3.6	1,556	1,621	4.1	4.1
Married, spouse present .....	833	996	2.3	2.8	922	989	3.8	3.9
Widowed, divorced, or separated .....	277	319	4.7	5.2	444	442	5.2	5.0
Single (never married) .....	317	457	4.3	6.0	190	190	3.9	3.9
Black, 25 years and over .....	419	464	7.8	8.5	473	455	8.8	8.3
Married, spouse present .....	183	155	6.0	5.2	143	108	6.5	5.1
Widowed, divorced, or separated .....	84	105	8.4	10.1	169	182	9.1	9.3
Single (never married) .....	153	203	11.8	14.6	161	165	12.0	11.7

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-12. Unemployed persons by occupation and sex**

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total, 16 years and over .....	6,352	6,837	5.1	5.4	4.6	5.1	5.7	5.8
Managerial and professional specialty .....	642	807	2.1	2.6	1.5	2.1	2.8	3.2
Executive, administrative, and managerial .....	317	364	2.1	2.4	1.5	2.0	2.9	2.8
Professional specialty .....	325	443	2.1	2.8	1.5	2.2	2.8	3.4
Technical, sales, and administrative support .....	1,494	1,681	3.9	4.4	2.9	3.7	4.4	4.8
Technicians and related support .....	83	134	2.2	3.4	2.1	4.1	2.2	2.7
Sales occupations .....	658	646	4.4	4.4	2.7	2.8	6.1	6.0
Administrative support, including clerical .....	753	901	3.9	4.7	4.0	5.1	3.9	4.5
Service occupations .....	1,104	1,105	6.4	6.4	6.0	6.2	6.7	6.5
Private household .....	67	36	6.7	4.1	( <sup>1</sup> )	( <sup>1</sup> )	6.9	3.8
Protective service .....	80	73	3.6	3.3	3.0	3.3	6.1	3.0
Service, except private household and protective .....	958	997	6.9	7.0	7.1	7.2	6.7	6.9
Precision production, craft, and repair .....	659	772	4.5	5.3	4.3	5.1	7.0	7.1
Mechanics and repairers .....	132	178	2.8	3.8	2.7	3.9	6.1	2.7
Construction trades .....	317	377	5.6	6.6	5.5	6.6	8.8	6.5
Other precision production, craft, and repair .....	211	217	4.8	5.1	4.2	4.2	6.9	8.0
Operators, fabricators, and laborers .....	1,490	1,467	7.5	7.4	6.8	7.0	9.5	8.7
Machine operators, assemblers, and inspectors .....	682	715	7.6	7.8	6.0	7.0	9.7	9.0
Transportation and material moving occupations .....	297	250	5.7	4.9	5.7	4.7	5.8	7.0
Handlers, equipment cleaners, helpers, and laborers .....	512	503	9.1	9.0	8.8	9.1	10.4	8.1
Construction laborers .....	147	146	14.8	14.2	14.5	14.0	( <sup>1</sup> )	( <sup>1</sup> )
Other handlers, equipment cleaners, helpers, and laborers .....	366	357	7.9	7.8	7.4	7.8	10.0	7.6
Farming, forestry, and fishing .....	218	223	5.1	5.3	4.7	4.6	6.8	8.5
No previous work experience .....	712	756	-	-	-	-	-	-
16 to 19 years .....	486	523	-	-	-	-	-	-
20 to 24 years .....	123	133	-	-	-	-	-	-
25 years and over .....	103	100	-	-	-	-	-	-

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-13. Unemployed persons by industry and sex**

Industry	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total, 16 years and over .....	6,352	6,837	5.1	5.4	4.6	5.1	5.7	5.8
Nonagricultural private wage and salary workers .....	4,763	5,122	5.1	5.4	4.6	5.2	5.6	5.7
Mining .....	43	34	5.6	4.5	5.8	3.8	4.8	9.2
Construction .....	507	547	7.8	8.6	7.8	8.6	7.4	8.5
Manufacturing .....	1,107	1,220	4.9	5.5	4.0	4.7	6.8	7.1
Durable goods .....	616	739	4.7	5.6	3.9	4.8	6.9	7.6
Lumber and wood products .....	40	46	5.1	5.9	5.9	5.2	.5	9.5
Furniture and fixtures .....	27	35	4.1	4.9	2.9	3.8	7.2	7.2
Stone, clay, and glass products .....	33	28	4.7	3.9	4.0	3.6	7.5	4.6
Primary metal industries .....	45	27	5.0	2.9	5.1	2.6	4.4	5.0
Fabricated metal products .....	80	107	5.8	7.7	4.3	6.2	9.8	12.3
Machinery, except electrical .....	102	126	3.7	4.9	2.8	4.6	6.7	5.9
Electrical machinery, equipment, and supplies .....	99	128	4.8	5.8	3.8	5.1	6.3	6.8
Transportation equipment .....	146	149	5.4	5.6	4.2	4.8	9.8	8.7
Automobiles .....	92	102	7.2	8.5	5.6	7.3	13.2	12.8
Other transportation equipment .....	54	47	3.7	3.3	2.9	2.6	6.7	5.5
Professional and photographic equipment .....	21	34	3.3	4.7	4.3	2.4	2.0	7.7
Other durable goods industries .....	23	59	4.3	10.4	1.4	12.6	7.2	9.3
Nondurable goods .....	491	481	5.3	5.3	4.3	4.4	6.7	6.5
Food and kindred products .....	127	125	6.4	6.2	5.8	5.8	7.7	6.9
Textile mill products .....	34	35	4.5	4.7	2.7	3.5	6.6	6.1
Apparel and other textile products .....	115	106	9.1	8.7	9.0	9.7	9.1	8.4
Paper and allied products .....	30	23	3.8	3.2	2.6	1.6	7.1	8.6
Printing and publishing .....	63	79	3.3	4.4	3.0	4.2	3.7	4.6
Chemicals and allied products .....	37	46	2.9	3.3	2.3	2.2	4.0	5.8
Rubber and miscellaneous plastics products .....	62	46	7.0	5.7	5.9	4.8	9.1	7.5
Other nondurable goods industries .....	25	19	5.8	5.0	5.3	6.3	7.0	3.2
Transportation and public utilities .....	224	244	3.5	3.7	3.3	3.7	3.8	3.9
Transportation .....	172	185	4.5	4.9	4.6	4.9	4.3	4.9
Communications and other public utilities .....	52	59	1.9	2.1	1.2	1.8	3.3	2.9
Wholesale and retail trade .....	1,401	1,464	5.8	6.1	4.7	5.3	7.1	6.9
Wholesale trade .....	189	211	4.3	4.5	3.5	3.9	6.0	6.0
Retail trade .....	1,212	1,254	6.2	6.4	5.0	5.8	7.2	7.0
Finance, insurance, and real estate .....	185	188	2.5	2.6	2.0	2.0	2.7	2.9
Service industries .....	1,297	1,424	4.9	5.2	4.7	5.4	5.0	5.2
Professional services .....	490	566	3.4	3.7	2.8	3.0	3.6	4.0
Other service industries .....	807	858	6.7	7.1	6.1	7.1	7.2	7.2
Agricultural wage and salary workers .....	161	168	7.6	8.1	6.7	6.9	10.9	12.0
Government, self-employed, and unpaid family workers .....	716	792	2.5	2.8	2.2	2.5	2.9	3.1
No previous work experience .....	712	756	-	-	-	-	-	-

**A-14. Unemployed persons by reason for unemployment, sex, and race**

(Numbers in thousands)

Reason for unemployment	Total unemployed		Men, 20 years and over		Women, 20 years and over		Both sexes, 16 to 19 years		White		Black	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
<b>NUMBER OF UNEMPLOYED</b>												
Total unemployed .....	6,352	6,837	2,564	2,910	2,648	2,791	1,140	1,136	4,659	5,022	1,497	1,557
Job losers .....	2,766	3,145	1,600	1,821	971	1,107	196	217	2,066	2,386	628	662
On layoff .....	736	824	414	436	282	349	39	39	606	697	114	113
Other job losers .....	2,030	2,320	1,185	1,384	689	758	157	178	1,460	1,688	514	549
Job leavers .....	1,122	1,078	385	425	504	489	233	164	924	830	167	208
Reentrants .....	1,814	1,935	500	594	1,035	1,069	278	271	1,237	1,348	505	494
New entrants .....	650	680	79	71	138	125	433	484	433	459	197	194
<b>PERCENT DISTRIBUTION</b>												
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	43.5	46.0	62.4	62.6	36.7	39.7	17.2	19.1	44.3	47.5	41.9	42.5
On layoff .....	11.6	12.1	16.2	15.0	10.7	12.5	3.4	3.4	13.0	13.9	7.6	7.3
Other job losers .....	32.0	33.9	46.2	47.6	26.0	27.2	13.8	15.7	31.3	33.6	34.3	35.2
Job leavers .....	17.7	15.8	15.0	14.6	19.0	17.5	20.4	14.4	19.8	16.5	11.1	13.3
Reentrants .....	28.6	28.3	19.5	20.4	39.1	38.3	24.4	23.9	26.5	26.8	33.8	31.7
New entrants .....	10.2	9.9	3.1	2.4	5.2	4.5	38.0	42.6	9.3	9.1	13.2	12.5
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>												
Job losers .....	2.2	2.5	2.5	2.8	1.9	2.1	2.1	2.6	1.9	2.2	4.6	4.9
Job leavers .....	.9	.9	.6	.7	1.0	.9	2.5	2.0	.9	.8	1.2	1.5
Reentrants .....	1.4	1.5	.8	.9	2.0	2.0	3.0	3.3	1.1	1.2	3.7	3.6
New entrants .....	.5	.5	.1	.1	.3	.2	4.7	5.9	.4	.4	1.4	1.4

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-15. Unemployed persons by reason for unemployment, sex, age, and duration of unemployment**

(Percent distribution)

Reason, sex, and age	August 1990						
	Total unemployed		Duration of unemployment				
	Thousands of persons	Percent	Less than 5 weeks	5 to 14 weeks	15 weeks and over		
					Total	15 to 26 weeks	27 weeks and over
Total, 16 years and over .....	6,837	100.0	47.2	32.1	20.7	9.9	10.8
Job losers .....	3,145	100.0	41.1	33.0	25.9	12.8	13.1
On layoff .....	824	100.0	52.2	32.6	15.2	9.0	6.2
Other job losers .....	2,320	100.0	37.2	33.1	29.7	14.1	15.6
Job leavers .....	1,078	100.0	56.8	25.4	17.8	9.3	8.5
Reentrants .....	1,935	100.0	51.8	30.3	18.0	8.0	9.9
New entrants .....	680	100.0	46.8	44.3	8.8	2.4	6.5
Men, 20 years and over .....	2,910	100.0	39.9	30.8	29.3	12.7	16.7
Job losers .....	1,821	100.0	36.6	32.4	31.0	14.3	16.7
On layoff .....	436	100.0	52.5	31.0	16.6	8.8	7.8
Other job losers .....	1,384	100.0	31.6	32.8	35.6	16.0	19.6
Job leavers .....	425	100.0	45.9	30.8	23.2	9.7	13.5
Reentrants .....	594	100.0	46.0	24.9	29.1	10.6	18.5
New entrants .....	71	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 20 years and over .....	2,791	100.0	51.2	31.2	17.6	9.8	7.8
Job losers .....	1,107	100.0	42.8	36.0	21.2	11.4	9.8
On layoff .....	349	100.0	49.4	35.0	15.6	10.3	5.3
Other job losers .....	758	100.0	39.7	36.4	23.8	12.0	11.9
Job leavers .....	489	100.0	60.3	23.8	16.0	10.8	5.2
Reentrants .....	1,069	100.0	55.2	29.6	15.3	8.4	6.9
New entrants .....	125	100.0	56.6	30.8	12.6	3.9	8.8
Both sexes, 16 to 19 years .....	1,136	100.0	56.0	37.9	6.1	2.8	3.3
Job losers .....	217	100.0	70.8	22.3	6.9	6.9	-
On layoff .....	39	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other job losers .....	178	100.0	69.9	21.0	9.1	8.4	.7
Job leavers .....	164	100.0	74.3	16.5	9.2	4.0	5.2
Reentrants .....	271	100.0	50.9	44.7	4.4	1.0	3.3
New entrants .....	484	100.0	46.1	48.3	5.6	1.5	4.1

<sup>1</sup> Data not shown where base is less than 75,000.

**A-16. Unemployed persons by duration of unemployment**

Duration of unemployment	Total				Full-time workers			
	Thousands of persons		Percent distribution		Thousands of persons		Percent distribution	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total, 16 years and over .....	6,352	6,837	100.0	100.0	5,161	5,477	100.0	100.0
Less than 5 weeks .....	3,022	3,225	47.6	47.2	2,248	2,410	43.6	44.0
5 to 14 weeks .....	2,152	2,197	33.9	32.1	1,816	1,780	35.2	32.5
5 to 10 weeks .....	1,599	1,563	25.2	22.9	1,324	1,228	25.7	22.4
11 to 14 weeks .....	554	634	8.7	9.3	491	552	9.5	10.1
15 weeks and over .....	1,178	1,414	18.5	20.7	1,097	1,288	21.3	23.5
15 to 26 weeks .....	612	674	9.6	9.9	565	617	10.9	11.3
27 weeks and over .....	566	741	8.9	10.8	532	671	10.3	12.2
27 to 51 weeks .....	255	349	4.0	5.1	240	321	4.7	5.9
52 weeks and over .....	311	392	4.9	5.7	292	350	5.7	6.4
Average (mean) duration, in weeks .....	11.3	12.1	-	-	12.5	13.2	-	-
Median duration, in weeks .....	5.0	5.2	-	-	5.9	6.1	-	-

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-17. Unemployed persons by sex, age, race, marital status, and duration of unemployment**

Sex, age, race, and marital status	Thousands of persons					Weeks		Percent of unemployed in group			
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over	Average (mean) duration	Median duration	Unemployed less than 5 weeks		Unemployed 15 weeks and over	
								Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
	August 1990										
Total, 16 years and over .....	6,837	3,225	2,197	674	741	12.1	5.2	47.6	47.2	18.5	20.7
16 to 19 years .....	1,136	636	431	32	37	7.0	4.0	55.4	56.0	5.1	6.1
20 to 24 years .....	1,193	638	391	91	72	8.6	4.2	52.9	53.5	12.5	13.6
25 to 34 years .....	1,991	963	613	217	199	11.6	4.9	47.6	48.4	20.5	20.9
35 to 44 years .....	1,329	519	430	189	191	15.1	7.1	43.3	39.1	24.9	28.6
45 to 54 years .....	691	266	193	98	135	18.6	8.7	39.2	38.4	30.6	33.7
55 to 64 years .....	369	152	105	37	75	17.3	6.7	33.5	41.3	30.4	30.2
65 years and over .....	127	50	35	11	32	19.7	6.7	43.4	39.2	21.4	33.4
Men, 16 years and over .....	3,521	1,491	1,130	387	513	14.5	6.5	42.9	42.3	22.6	25.6
16 to 19 years .....	611	331	233	18	28	7.6	4.1	53.1	54.2	4.9	7.7
20 to 24 years .....	579	288	180	55	57	10.8	4.6	46.5	49.7	16.4	19.3
25 to 34 years .....	1,064	450	344	139	132	13.4	6.3	44.3	42.3	24.5	25.4
35 to 44 years .....	630	212	193	95	129	19.1	9.0	35.7	33.7	30.3	35.6
45 to 54 years .....	345	108	99	49	90	22.6	10.6	30.7	31.2	39.6	40.2
55 to 64 years .....	212	71	59	23	58	20.8	9.5	31.6	33.7	40.5	38.5
65 years and over .....	80	31	23	7	19	19.1	6.6	( <sup>1</sup> )	38.2	( <sup>1</sup> )	32.9
Women, 16 years and over .....	3,316	1,734	1,068	287	227	9.7	4.3	52.2	52.3	14.5	15.5
16 to 19 years .....	525	305	198	13	9	6.2	3.9	58.0	58.1	5.4	4.2
20 to 24 years .....	614	351	212	36	15	6.5	3.9	60.4	57.2	8.0	8.3
25 to 34 years .....	927	513	269	78	67	9.6	4.1	50.3	55.4	17.2	15.6
35 to 44 years .....	700	307	237	94	62	11.4	5.8	50.1	43.9	20.0	22.3
45 to 54 years .....	346	158	94	49	45	14.6	6.2	47.3	45.6	22.0	27.2
55 to 64 years .....	157	81	46	13	17	12.6	4.4	36.1	51.4	16.5	19.2
65 years and over .....	47	19	12	4	12	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	5,022	2,492	1,554	490	485	11.4	4.6	49.4	49.6	17.8	19.4
Men .....	2,625	1,175	820	284	346	13.6	5.8	45.0	44.8	22.2	24.0
Women .....	2,396	1,317	734	206	140	9.1	4.1	53.9	55.0	13.3	14.4
Black, 16 years and over .....	1,557	604	575	157	222	14.2	7.0	41.9	38.8	21.0	24.3
Men .....	771	260	279	86	146	17.1	8.4	35.6	33.8	23.6	30.1
Women .....	786	344	296	71	75	11.3	5.7	47.7	43.7	18.6	18.6
Men, 16 years and over:											
Married, spouse present .....	1,298	513	391	168	227	16.2	7.4	37.8	39.5	31.1	30.4
Widowed, divorced, or separated .....	452	153	157	60	83	17.4	8.2	37.0	33.8	31.0	31.6
Single (never married) .....	1,771	825	583	159	204	12.5	5.4	48.2	46.6	14.3	20.5
Women, 16 years and over:											
Married, spouse present .....	1,347	725	412	126	84	9.5	4.2	56.9	53.8	13.6	15.6
Widowed, divorced, or separated .....	709	352	208	69	80	12.3	4.6	42.4	49.6	19.0	21.0
Single (never married) .....	1,260	658	447	92	64	8.4	4.3	52.5	52.2	12.9	12.3

<sup>1</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-18. Unemployed persons by occupation, industry, and duration of unemployment**

Occupation and industry	Thousands of persons					Weeks		Percent of unemployed in group			
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over	Average (mean) duration	Median duration	Unemployed less than 5 weeks		Unemployed 15 weeks and over	
								Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
	August 1990										
<b>OCCUPATION</b>											
Managerial and professional specialty .....	807	331	275	96	105	13.5	6.5	39.4	41.0	24.1	24.9
Technical, sales, and administrative support .....	1,681	827	522	177	156	11.2	4.7	50.1	49.2	16.7	19.8
Service occupations .....	1,105	575	327	88	115	10.9	4.3	51.3	52.0	17.7	18.4
Precision production, craft, and repair .....	772	357	198	115	103	14.1	5.4	43.6	46.2	24.0	28.2
Operators, fabricators, and laborers .....	1,467	641	481	156	189	13.9	6.2	44.9	43.7	21.6	23.5
Farming, forestry, and fishing .....	223	117	72	20	14	9.9	4.3	56.4	52.5	17.0	15.2
<b>INDUSTRY<sup>1</sup></b>											
Agriculture .....	168	93	42	18	15	10.6	4.1	57.1	55.4	13.7	19.6
Construction .....	564	274	163	63	64	12.2	5.0	48.7	48.6	22.7	22.5
Manufacturing .....	1,222	501	386	174	162	13.9	6.7	40.6	41.0	27.5	27.4
Durable goods .....	742	303	231	112	96	14.1	6.5	36.1	40.8	27.5	27.9
Nondurable goods .....	480	198	155	62	66	13.4	7.0	46.2	41.2	27.4	26.7
Transportation and public utilities .....	273	89	103	43	39	16.2	8.2	40.2	32.6	28.1	30.0
Wholesale and retail trade .....	1,471	718	475	128	151	11.3	4.8	47.6	48.8	15.5	18.9
Finance and service industries .....	1,929	942	598	199	188	11.7	5.1	51.0	48.8	15.9	20.1
Public administration .....	206	104	63	13	26	13.3	4.4	42.4	50.5	32.9	18.9
No previous work experience .....	756	368	317	21	50	9.5	4.8	50.3	48.7	8.7	9.4

<sup>1</sup> Includes wage and salary workers only.



**A-19. Unemployed jobseekers by sex, age, race, and jobsearch methods used**

Sex, age, and race	August 1990								Average number of methods used
	Thousands of persons		Methods used as a percent of total jobseekers					Other	
	Total unemployed	Total jobseekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives		
Total, 16 years and over .....	6,837	5,828	22.2	7.8	72.9	41.8	20.0	4.8	1.69
16 to 19 years .....	1,136	1,082	10.3	2.5	82.9	30.6	17.6	1.6	1.45
20 to 24 years .....	1,193	1,074	25.6	7.7	72.1	42.4	17.6	4.6	1.70
25 to 34 years .....	1,991	1,674	24.2	9.6	70.9	46.7	21.0	5.0	1.77
35 to 44 years .....	1,329	1,096	24.9	9.5	69.8	43.4	20.9	6.1	1.75
45 to 54 years .....	691	544	27.2	8.5	70.1	44.7	23.1	5.8	1.79
55 to 64 years .....	369	259	25.6	11.3	71.5	41.7	24.3	6.0	1.81
65 years and over .....	127	99	17.0	4.4	58.1	38.9	18.2	15.0	1.52
Men, 16 years and over .....	3,521	2,984	22.5	7.6	72.7	40.5	22.0	5.3	1.71
16 to 19 years .....	611	576	8.4	1.7	84.6	28.4	17.5	1.5	1.42
20 to 24 years .....	579	512	23.0	7.7	76.7	39.3	23.3	5.1	1.75
25 to 34 years .....	1,064	874	26.3	9.9	68.8	46.4	22.4	4.9	1.79
35 to 44 years .....	630	533	28.5	8.9	67.7	43.1	22.8	6.8	1.78
45 to 54 years .....	345	275	27.1	6.7	67.1	45.4	30.3	7.7	1.84
55 to 64 years .....	212	151	24.7	15.7	71.9	39.0	16.2	7.9	1.75
65 years and over .....	80	63	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over .....	3,316	2,844	21.9	8.0	73.1	43.1	17.9	4.3	1.68
16 to 19 years .....	525	506	12.5	3.4	80.9	33.1	17.7	1.7	1.49
20 to 24 years .....	614	563	28.0	7.6	67.9	45.2	12.4	4.2	1.65
25 to 34 years .....	927	800	21.8	9.3	73.3	47.0	19.4	5.0	1.76
35 to 44 years .....	700	563	21.4	10.0	71.7	43.7	19.1	5.5	1.71
45 to 54 years .....	346	269	27.2	10.3	73.1	44.0	15.6	3.8	1.74
55 to 64 years .....	157	109	27.0	5.4	71.0	45.5	35.5	3.5	1.88
65 years and over .....	47	35	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	5,022	4,158	21.5	8.2	74.8	43.0	20.0	5.1	1.72
Men .....	2,625	2,170	22.7	8.0	73.8	42.1	21.5	5.6	1.74
Women .....	2,396	1,988	20.2	8.4	75.9	44.0	18.3	4.5	1.71
Black, 16 years and over .....	1,557	1,433	24.1	6.5	69.3	37.0	19.3	3.6	1.60
Men .....	771	697	20.9	6.1	70.0	33.4	23.0	3.7	1.57
Women .....	786	735	27.1	6.9	68.7	40.4	15.7	3.5	1.62

<sup>1</sup> Data not shown where base is less than 75,000.

NOTE: The jobseeker total is less than the total unemployed because it does not include persons on layoff or waiting to begin a new job within

30 days, groups for whom jobseeking information is not collected. The percent using each method will always total more than 100 because many jobseekers use more than one method.

**A-20. Unemployed jobseekers by sex, reason for unemployment, and jobsearch methods used**

Sex and reason	August 1990								Average number of methods used
	Thousands of persons		Methods used as a percent of total jobseekers					Other	
	Total unemployed	Total jobseekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives		
Total, 16 years and over .....	6,837	5,828	22.2	7.8	72.9	41.8	20.0	4.8	1.69
Job losers <sup>1</sup> .....	3,145	2,288	29.4	8.3	74.0	43.5	23.6	4.1	1.83
Job leavers .....	1,078	1,029	19.5	7.4	75.4	44.7	16.0	3.5	1.67
Reentrants .....	1,935	1,843	18.3	8.6	69.1	42.6	17.5	6.3	1.62
New entrants .....	680	669	12.5	4.4	75.7	26.9	20.4	5.1	1.47
Men, 16 years and over .....	3,521	2,984	22.5	7.6	72.7	40.5	22.0	5.3	1.71
Job losers <sup>1</sup> .....	1,964	1,478	27.6	8.1	73.3	42.9	24.1	5.2	1.81
Job leavers .....	513	494	14.4	7.7	77.2	40.0	17.3	3.3	1.60
Reentrants .....	731	705	23.2	8.5	66.0	40.1	21.4	7.2	1.66
New entrants .....	313	307	9.1	3.3	77.8	30.6	20.3	4.3	1.45
Women, 16 years and over .....	3,316	2,844	21.9	8.0	73.1	43.1	17.9	4.3	1.68
Job losers <sup>1</sup> .....	1,181	809	32.7	8.6	75.2	44.8	22.8	1.9	1.86
Job leavers .....	564	535	24.3	7.1	73.7	49.0	14.8	3.8	1.73
Reentrants .....	1,203	1,138	15.2	8.7	71.0	44.1	15.2	5.7	1.60
New entrants .....	368	362	15.3	5.4	74.0	27.6	20.5	5.8	1.49

<sup>1</sup> Data on the number of jobseekers and the jobsearch methods used exclude persons on layoff.

NOTE: The jobseeker total is less than the total unemployed because it does not include persons on layoff or waiting to begin a new job within

30 days, groups for whom jobseeking information is not collected. The percent using each method will always total more than 100 because many jobseekers use more than one method.

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-21. Employed civilians in agriculture and nonagricultural industries by age and sex**

(In thousands)

Industry and age	Total		Men		Women	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
All industries .....	119,092	119,174	65,912	65,604	53,180	53,570
16 to 19 years .....	8,137	7,129	4,308	3,742	3,828	3,388
16 to 17 years .....	3,261	2,787	1,789	1,477	1,472	1,310
18 to 19 years .....	4,875	4,342	2,519	2,264	2,356	2,077
20 to 24 years .....	13,631	13,167	7,142	6,970	6,489	6,197
25 to 54 years .....	82,671	84,023	46,002	46,337	36,670	37,686
25 to 34 years .....	34,061	33,768	19,202	18,841	14,859	14,927
35 to 44 years .....	29,390	30,460	16,111	16,629	13,280	13,831
45 to 54 years .....	19,220	19,795	10,689	10,868	8,531	8,927
55 to 64 years .....	11,372	11,480	6,516	6,589	4,857	4,891
55 to 59 years .....	6,780	6,858	3,895	3,896	2,885	2,962
60 to 64 years .....	4,593	4,622	2,621	2,693	1,972	1,929
65 years and over .....	3,281	3,375	1,944	1,966	1,336	1,409
Agriculture .....	3,633	3,473	2,891	2,743	741	729
16 to 19 years .....	422	364	362	308	59	55
16 to 17 years .....	240	177	218	153	21	24
18 to 19 years .....	182	187	144	155	38	32
20 to 24 years .....	452	419	378	344	74	74
25 to 54 years .....	1,985	1,957	1,500	1,476	485	481
25 to 34 years .....	861	823	683	635	178	187
35 to 44 years .....	664	691	489	509	175	182
45 to 54 years .....	460	443	327	331	133	112
55 to 64 years .....	492	433	401	339	92	93
55 to 59 years .....	260	238	205	179	54	59
60 to 64 years .....	233	195	195	161	38	34
65 years and over .....	282	301	251	276	31	25
Nonagricultural industries .....	115,460	115,702	63,020	62,861	52,439	52,841
16 to 19 years .....	7,715	6,766	3,946	3,433	3,769	3,332
16 to 17 years .....	3,022	2,610	1,571	1,324	1,451	1,287
18 to 19 years .....	4,693	4,155	2,375	2,110	2,318	2,046
20 to 24 years .....	13,179	12,748	6,764	6,626	6,416	6,123
25 to 54 years .....	80,686	82,067	44,502	44,862	36,184	37,205
25 to 34 years .....	33,199	32,945	18,519	18,206	14,681	14,740
35 to 44 years .....	28,727	29,769	15,622	16,120	13,105	13,649
45 to 54 years .....	18,760	19,352	10,362	10,537	8,399	8,816
55 to 64 years .....	10,880	11,048	6,115	6,250	4,765	4,798
55 to 59 years .....	6,520	6,620	3,690	3,717	2,831	2,903
60 to 64 years .....	4,360	4,427	2,425	2,532	1,934	1,895
65 years and over .....	2,999	3,074	1,693	1,690	1,306	1,384

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-22. Employed civilians by occupation, sex, and age**

(In thousands)

Occupation	Total		Men				Women			
	16 years and over		16 years and over		20 years and over		16 years and over		20 years and over	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total .....	119,092	119,174	65,912	65,604	61,603	61,862	53,180	53,570	49,352	50,183
Managerial and professional specialty .....	29,909	30,505	16,557	16,589	16,459	16,510	13,352	13,916	13,193	13,777
Executive, administrative, and managerial .....	15,024	15,112	9,084	9,073	9,038	9,033	5,941	6,039	5,859	5,972
Officials and administrators, public administration .....	625	610	360	355	360	354	265	256	263	256
Other executive, administrative, and managerial .....	10,622	10,690	6,800	6,819	6,775	6,787	3,822	3,870	3,753	3,816
Management-related occupations .....	3,777	3,812	1,923	1,898	1,903	1,893	1,854	1,913	1,842	1,900
Professional specialty .....	14,885	15,393	7,473	7,516	7,421	7,477	7,412	7,877	7,334	7,806
Engineers .....	1,770	1,914	1,624	1,765	1,623	1,766	146	149	145	146
Mathematical and computer scientists .....	856	821	563	481	562	481	293	340	293	340
Natural scientists .....	400	405	280	316	277	316	121	89	121	89
Health diagnosing occupations .....	864	867	724	727	724	727	140	140	140	141
Health assessment and treating occupations .....	2,209	2,375	354	325	353	325	1,855	2,049	1,849	2,049
Teachers, college and university .....	589	607	357	393	358	392	232	214	232	214
Teachers, except college and university .....	3,300	3,466	856	823	841	817	2,443	2,643	2,424	2,627
Lawyers and judges .....	798	759	602	606	602	606	196	152	196	151
Other professional specialty occupations .....	4,100	4,180	2,114	2,080	2,082	2,046	1,986	2,100	1,935	2,048
Technical, sales, and administrative support .....	36,679	36,244	12,953	12,805	12,106	12,126	23,726	23,439	21,755	21,773
Technicians and related support .....	3,735	3,762	2,002	1,917	1,936	1,891	1,733	1,845	1,711	1,830
Health technologists and technicians .....	1,267	1,268	263	195	258	190	1,004	1,073	1,000	1,069
Engineering and science technicians .....	1,195	1,195	940	941	906	929	255	254	245	246
Technicians, except health, engineering, and science .....	1,272	1,299	799	781	772	773	474	518	466	515
Sales occupations .....	14,387	14,021	7,279	7,127	6,791	6,706	7,108	6,894	5,952	5,873
Supervisors and proprietors .....	3,967	3,741	2,611	2,426	2,569	2,411	1,356	1,314	1,324	1,295
Sales representatives, finance and business services .....	2,434	2,431	1,342	1,411	1,320	1,399	1,092	1,021	1,040	992
Sales representatives, commodities, except retail .....	1,594	1,647	1,256	1,287	1,243	1,277	339	360	329	353
Sales workers, retail and personal services .....	6,312	6,100	2,048	1,971	1,638	1,586	4,264	4,129	3,209	3,183
Sales-related occupations .....	80	102	23	33	21	34	57	69	50	50
Administrative support, including clerical .....	18,557	18,461	3,673	3,760	3,379	3,529	14,884	14,700	14,092	14,070
Supervisors .....	737	747	297	319	291	313	440	428	440	425
Computer equipment operators .....	883	848	298	292	285	279	585	557	553	524
Secretaries, stenographers, and typists .....	4,673	4,603	61	67	57	64	4,612	4,536	4,427	4,364
Financial records processing .....	2,431	2,310	222	219	210	210	2,209	2,092	2,154	2,046
Mail and message distributing .....	949	1,008	618	645	589	624	331	363	312	360
Other administrative support, including clerical .....	8,884	8,944	2,177	2,219	1,947	2,038	6,707	6,724	6,207	6,351
Service occupations .....	16,052	16,222	6,392	6,537	5,196	5,474	9,660	9,684	8,340	8,443
Private household .....	925	824	37	32	26	22	888	791	733	649
Protective service .....	2,146	2,145	1,759	1,791	1,658	1,705	387	354	302	297
Service, except private household and protective .....	12,981	13,253	4,595	4,714	3,513	3,747	8,386	8,539	7,305	7,497
Food service .....	5,390	5,599	2,165	2,238	1,364	1,567	3,225	3,360	2,526	2,625
Health service .....	2,057	2,135	187	218	166	201	1,869	1,917	1,754	1,818
Cleaning and building service .....	3,200	3,144	1,810	1,797	1,623	1,627	1,390	1,346	1,296	1,283
Personal service .....	2,334	2,376	434	460	360	352	1,901	1,916	1,728	1,771
Precision production, craft, and repair .....	14,002	13,859	12,818	12,675	12,418	12,332	1,184	1,184	1,128	1,154
Mechanics and repairers .....	4,497	4,492	4,344	4,333	4,245	4,244	153	159	148	158
Construction trades .....	5,360	5,302	5,251	5,192	5,015	4,994	108	110	102	105
Other precision production, craft, and repair .....	4,145	4,065	3,223	3,150	3,158	3,094	923	915	878	891
Operators, fabricators, and laborers .....	18,350	18,351	13,741	13,671	12,479	12,525	4,609	4,680	4,365	4,441
Machine operators, assemblers, and inspectors .....	8,307	8,424	4,928	5,016	4,736	4,788	3,379	3,408	3,259	3,295
Manufacturing industries .....	6,851	6,877	3,999	4,054	3,866	3,873	2,852	2,823	2,752	2,744
Durable goods .....	3,691	3,738	2,493	2,607	2,404	2,500	1,199	1,131	1,166	1,114
Nondurable goods .....	3,159	3,139	1,506	1,447	1,461	1,373	1,653	1,692	1,586	1,630
Nonmanufacturing industries .....	1,456	1,546	929	962	870	915	527	585	507	551
Transportation and material moving occupations .....	4,926	4,821	4,529	4,413	4,361	4,314	397	408	382	401
Motor vehicle operators .....	3,631	3,537	3,288	3,190	3,142	3,112	342	347	331	340
Other transportation and material moving occupations .....	1,295	1,283	1,241	1,223	1,219	1,202	55	61	51	61
Handlers, equipment cleaners, helpers, and laborers .....	5,116	5,107	4,283	4,243	3,382	3,422	833	864	724	745
Construction laborers .....	845	878	821	855	703	730	24	24	16	22
Other handlers, equipment cleaners, helpers, and laborers .....	4,271	4,228	3,462	3,388	2,680	2,693	808	840	708	724
Farming, forestry, and fishing .....	4,100	3,993	3,451	3,326	2,945	2,894	649	667	572	595
Farm operators and managers .....	1,378	1,230	1,171	1,037	1,154	1,020	207	193	204	191
Other farming, forestry, and fishing occupations .....	2,722	2,764	2,280	2,289	1,790	1,875	442	474	369	404

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**A-23. Employed civilians by occupation, race, and sex**

(Percent distribution)

Occupation and race	Total		Men		Women	
	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
<b>TOTAL</b>						
Total, 16 years and over (thousands) .....	119,092	119,174	65,912	65,604	53,180	53,570
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	25.1	25.6	25.1	25.3	25.1	26.0
Executive, administrative, and managerial .....	12.6	12.7	13.8	13.8	11.2	11.3
Professional specialty .....	12.5	12.9	11.3	11.5	13.9	14.7
Technical, sales, and administrative support .....	30.8	30.4	19.7	19.5	44.6	43.8
Technicians and related support .....	3.1	3.2	3.0	2.9	3.3	3.4
Sales occupations .....	12.1	11.8	11.0	10.9	13.4	12.9
Administrative support, including clerical .....	15.6	15.5	5.6	5.7	28.0	27.4
Service occupations .....	13.5	13.6	9.7	10.0	18.2	18.1
Private household .....	.8	.7	.1	-	1.7	1.5
Protective service .....	1.8	1.8	2.7	2.7	.7	.7
Service, except private household and protective .....	10.9	11.1	7.0	7.2	15.8	15.9
Precision production, craft, and repair .....	11.8	11.6	19.4	19.3	2.2	2.2
Operators, fabricators, and laborers .....	15.4	15.4	20.8	20.8	8.7	8.7
Machine operators, assemblers, and inspectors .....	7.0	7.1	7.5	7.6	6.4	6.4
Transportation and material moving occupations .....	4.1	4.0	6.9	6.7	.7	.8
Handlers, equipment cleaners, helpers, and laborers .....	4.3	4.3	6.5	6.5	1.6	1.6
Farming, forestry, and fishing .....	3.4	3.4	5.2	5.1	1.2	1.2
<b>White</b>						
Total, 16 years and over (thousands) .....	102,938	103,217	57,638	57,446	45,300	45,771
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	26.1	26.6	26.3	26.5	25.9	26.9
Executive, administrative, and managerial .....	13.2	13.4	14.6	14.7	11.6	11.8
Professional specialty .....	12.9	13.3	11.8	11.8	14.3	15.1
Technical, sales, and administrative support .....	31.1	30.8	19.8	19.7	45.5	44.7
Technicians and related support .....	3.1	3.2	3.0	3.0	3.2	3.4
Sales occupations .....	12.6	12.2	11.7	11.4	13.8	13.3
Administrative support, including clerical .....	15.4	15.4	5.2	5.3	28.5	28.0
Service occupations .....	12.3	12.4	8.5	8.9	17.0	16.8
Private household .....	.7	.6	-	.1	1.4	1.2
Protective service .....	1.7	1.7	2.4	2.6	.7	.6
Service, except private household and protective .....	9.9	10.1	6.1	6.2	14.9	15.0
Precision production, craft, and repair .....	12.1	12.1	20.0	20.0	2.1	2.1
Operators, fabricators, and laborers .....	14.7	14.5	19.8	19.7	8.1	8.1
Machine operators, assemblers, and inspectors .....	6.6	6.6	7.2	7.3	5.9	5.8
Transportation and material moving occupations .....	4.0	3.8	6.6	6.3	.8	.7
Handlers, equipment cleaners, helpers, and laborers .....	4.0	4.1	6.1	6.1	1.5	1.6
Farming, forestry, and fishing .....	3.7	3.5	5.5	5.2	1.3	1.4
<b>Black</b>						
Total, 16 years and over (thousands) .....	12,197	12,027	6,128	6,022	6,070	6,005
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	15.2	16.0	12.0	12.5	18.4	19.5
Executive, administrative, and managerial .....	7.2	7.3	6.4	6.5	7.9	8.0
Professional specialty .....	8.0	8.7	5.5	6.0	10.4	11.5
Technical, sales, and administrative support .....	28.3	27.4	17.4	17.0	39.3	37.8
Technicians and related support .....	3.2	2.5	2.8	1.7	3.5	3.2
Sales occupations .....	8.0	8.1	5.7	6.1	10.3	10.2
Administrative support, including clerical .....	17.2	16.7	8.9	9.2	25.5	24.3
Service occupations .....	23.3	23.0	19.3	18.8	27.2	27.2
Private household .....	1.9	1.5	.2	-	3.6	3.0
Protective service .....	3.1	2.9	5.1	4.6	1.0	1.2
Service, except private household and protective .....	18.3	18.6	14.0	14.3	22.7	22.9
Precision production, craft, and repair .....	9.1	8.4	15.5	14.5	2.6	2.2
Operators, fabricators, and laborers .....	21.9	23.0	31.8	33.3	11.9	12.7
Machine operators, assemblers, and inspectors .....	9.5	10.3	10.0	10.8	9.1	9.8
Transportation and material moving occupations .....	5.8	6.3	10.7	11.6	.8	1.0
Handlers, equipment cleaners, helpers, and laborers .....	6.6	6.4	11.1	10.9	2.1	1.9
Farming, forestry, and fishing .....	2.2	2.3	3.9	3.9	.6	.6

A-24. Employed civilians by age, sex, and class of worker

(In thousands)

Age and sex	August 1990								
	Nonagricultural industries					Agriculture			
	Wage and salary workers				Self-employed workers	Unpaid family workers	Wage and salary workers	Self-employed workers	Unpaid family workers
	Total	Private household workers	Government	Other					
Total, 16 years and over .....	106,679	1,105	17,164	88,410	8,793	229	1,904	1,441	128
16 to 19 years .....	6,657	218	372	6,067	93	16	275	53	36
16 to 17 years .....	2,573	137	121	2,314	29	9	136	23	18
18 to 19 years .....	4,084	81	251	3,753	64	7	139	30	17
20 to 24 years .....	12,435	122	1,086	11,227	300	13	344	61	13
25 to 34 years .....	31,024	172	4,152	26,699	1,879	43	527	285	10
35 to 44 years .....	27,016	156	5,460	21,400	2,696	57	352	319	20
45 to 54 years .....	17,394	142	3,720	13,532	1,905	53	196	231	15
55 to 64 years .....	9,701	164	1,958	7,579	1,314	33	147	264	22
55 to 59 years .....	5,848	82	1,227	4,540	748	24	94	125	19
60 to 64 years .....	3,852	82	731	3,040	566	9	53	139	3
65 years and over .....	2,453	131	416	1,906	607	14	62	228	11
Men, 16 years and over .....	57,077	196	8,104	48,777	5,746	37	1,487	1,203	53
16 to 19 years .....	3,360	63	209	3,087	62	12	231	49	28
16 to 17 years .....	1,300	41	63	1,196	18	6	115	23	15
18 to 19 years .....	2,059	22	147	1,891	44	6	116	27	12
20 to 24 years .....	6,437	23	521	5,892	181	8	274	58	13
25 to 34 years .....	17,031	29	1,968	15,034	1,166	8	387	248	-
35 to 44 years .....	14,410	25	2,484	11,901	1,708	1	262	247	-
45 to 54 years .....	9,277	28	1,765	7,484	1,258	1	160	168	3
55 to 64 years .....	5,310	17	958	4,335	938	2	116	222	2
55 to 59 years .....	3,162	7	569	2,586	553	3	69	108	2
60 to 64 years .....	2,147	10	388	1,749	385	-	46	114	-
65 years and over .....	1,253	11	198	1,043	433	5	57	212	7
Women, 16 years and over .....	49,602	909	9,060	39,634	3,047	192	417	238	75
16 to 19 years .....	3,297	155	163	2,980	30	4	44	3	8
16 to 17 years .....	1,273	96	58	1,118	11	3	21	-	3
18 to 19 years .....	2,025	59	104	1,861	19	1	23	3	5
20 to 24 years .....	5,998	99	565	5,334	119	5	71	3	1
25 to 34 years .....	13,993	143	2,184	11,665	713	35	140	37	10
35 to 44 years .....	12,606	132	2,975	9,499	988	55	90	72	20
45 to 54 years .....	8,117	114	1,955	6,049	647	51	36	64	12
55 to 64 years .....	4,391	147	1,000	3,244	376	31	31	42	20
55 to 59 years .....	2,686	75	658	1,954	195	22	25	17	17
60 to 64 years .....	1,705	72	343	1,290	181	10	6	25	3
65 years and over .....	1,200	120	217	863	174	10	5	16	4

**HOUSEHOLD DATA  
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**A-25. Employed civilians by industry and occupation**

(In thousands)

Industry	August 1990												
	Total employed	Managerial and professional specialty		Technical, sales, and administrative support			Service occupations		Precision production, craft, and repair	Operators, fabricators, and laborers			Farming, forestry, and fishing
		Executive, administrative, and managerial	Professional specialty	Technicians and related support	Sales	Administrative support, including clerical	Private household	Other service <sup>1</sup>		Machine operators, assemblers, and inspectors	Transportation and material moving	Handlers, equipment cleaners, helpers, and laborers	
Agriculture .....	3,473	100	74	22	19	100	-	17	49	5	43	11	3,031
Mining .....	770	110	69	31	12	59	-	9	272	25	131	47	5
Construction .....	8,009	1,117	129	62	89	427	-	16	4,535	118	513	967	35
Manufacturing .....	21,602	2,499	1,816	749	782	2,390	-	407	3,905	6,877	805	1,221	151
Durable goods .....	12,810	1,510	1,278	517	347	1,398	-	214	2,712	3,738	401	578	118
Nondurable goods .....	8,792	988	538	232	435	992	-	194	1,193	3,139	404	643	33
Transportation and public utilities .....	8,145	870	454	299	328	2,209	-	317	1,261	157	1,795	446	10
Wholesale and retail trade .....	24,667	2,130	515	136	9,935	2,386	-	4,779	1,581	368	951	1,845	38
Wholesale trade .....	4,758	564	98	44	1,800	760	-	39	377	170	476	417	14
Retail trade .....	19,909	1,566	418	92	8,135	1,626	-	4,741	1,205	199	475	1,428	23
Finance, insurance, and real estate .....	7,975	2,071	212	133	1,892	3,048	-	313	151	20	15	23	96
Services .....	38,892	4,998	11,357	2,084	938	6,338	824	8,122	1,867	810	490	491	572
Private households .....	1,114	2	15	3	6	5	824	105	22	-	4	18	111
Other service industries .....	37,778	4,996	11,342	2,081	932	6,333	-	8,017	1,845	810	485	474	461
Professional services .....	24,585	2,743	9,972	1,691	109	4,514	-	4,470	389	237	252	84	124
Public administration .....	5,642	1,215	766	246	25	1,503	-	1,416	238	43	78	55	56

<sup>1</sup> Includes protective service, not shown separately.

**A-26. Employed civilians with a job but not at work by reason, sex, and pay status**

(In thousands)

Reason not working and sex	All industries		Nonagricultural industries					
	Aug. 1989	Aug. 1990	Total		Wage and salary workers <sup>1</sup>			
			Aug. 1989	Aug. 1990	Paid absences		Unpaid absences	
					Aug. 1989	Aug. 1990	Aug. 1989	Aug. 1990
Total, 16 years and over .....	11,939	11,308	11,795	11,120	6,688	6,168	4,321	4,081
Vacation .....	9,266	8,737	9,176	8,626	5,846	5,364	2,824	2,706
Illness .....	1,351	1,284	1,327	1,261	538	500	702	680
Bad weather .....	26	41	17	30	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Industrial dispute .....	161	26	161	25	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
All other reasons .....	1,135	1,220	1,114	1,179	304	305	795	695
Men, 16 years and over .....	5,071	4,800	4,958	4,653	3,198	2,892	1,357	1,283
Vacation .....	3,818	3,638	3,749	3,552	2,799	2,518	703	741
Illness .....	699	649	680	627	289	270	336	318
All other reasons <sup>3</sup> .....	554	513	528	474	110	104	319	224
Women, 16 years and over .....	6,868	6,508	6,837	6,467	3,489	3,277	2,962	2,798
Vacation .....	5,449	5,099	5,427	5,073	3,047	2,846	2,121	1,966
Illness .....	651	635	647	633	249	230	366	362
All other reasons <sup>3</sup> .....	768	774	763	760	194	200	475	471

<sup>1</sup> Excludes private household workers.

<sup>2</sup> Pay status not available separately for bad weather and industrial dispute; these categories are included in all other reasons.

<sup>3</sup> Includes bad weather and industrial dispute, not shown separately.

NOTE: Estimates for "all other reasons" by pay status may be biased because of high response variance; data should be used with caution.

**A-27. Persons at work by hours of work and type of industry**

Hours of work	August 1990					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over .....	107,866	3,284	104,582	100.0	100.0	100.0
1 to 34 hours .....	23,778	928	22,850	22.0	28.2	21.8
1 to 4 hours .....	679	58	620	.6	1.8	.6
5 to 14 hours .....	3,585	181	3,404	3.3	5.5	3.3
15 to 29 hours .....	11,998	436	11,563	11.1	13.3	11.1
30 to 34 hours .....	7,516	253	7,263	7.0	7.7	6.9
35 hours and over .....	84,088	2,356	81,732	78.0	71.7	78.2
35 to 39 hours .....	7,027	171	6,856	6.5	5.2	6.6
40 hours .....	44,711	695	44,016	41.5	21.2	42.1
41 hours and over .....	32,350	1,490	30,859	30.0	45.4	29.5
41 to 48 hours .....	11,140	209	10,931	10.3	6.4	10.5
49 to 59 hours .....	11,721	427	11,295	10.9	13.0	10.8
60 hours and over .....	9,488	855	8,634	8.8	26.0	8.3
Average hours, total at work .....	40.0	44.1	39.9	-	-	-
Average hours, workers on full-time schedules .....	43.7	51.5	43.5	-	-	-

**A-28. Persons at work 1 to 34 hours by reason for working less than 35 hours, type of industry, and usual status**

(Numbers in thousands)

Reason for working less than 35 hours	August 1990					
	All industries			Nonagricultural industries		
	Total	Usually work full time	Usually work part time	Total	Usually work full time	Usually work part time
Total, 16 years and over .....	23,778	8,107	15,671	22,850	7,826	15,024
Economic reasons .....	5,368	2,029	3,339	5,072	1,907	3,164
Slack work .....	2,392	1,435	957	2,195	1,324	871
Material shortages or repairs to plant and equipment .....	52	52	-	51	51	-
New job started during week .....	377	377	-	370	370	-
Job terminated during week .....	165	165	-	162	162	-
Could find only part-time work .....	2,382	-	2,382	2,293	-	2,293
Other reasons .....	18,410	6,078	12,332	17,778	5,918	11,860
Does not want, or unavailable for, full-time work .....	9,786	-	9,786	9,418	-	9,418
Vacation .....	2,924	2,924	-	2,897	2,897	-
Illness .....	1,287	1,127	160	1,246	1,101	145
Bad weather .....	224	224	-	164	164	-
Industrial dispute .....	15	15	-	15	15	-
Legal or religious holiday .....	116	116	-	116	116	-
Full time for this job .....	1,669	-	1,669	1,614	-	1,614
All other reasons .....	2,388	1,671	717	2,310	1,626	684
Average hours:						
Economic reasons .....	22.2	24.2	21.1	22.3	24.1	21.1
Other reasons .....	21.9	24.9	20.4	22.0	24.9	20.5
Worked 30 to 34 hours:						
Economic reasons .....	1,766	882	884	1,668	827	841
Other reasons .....	5,750	2,914	2,836	5,594	2,847	2,747

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-29. Persons at work in nonagricultural industries by class of worker and full- or part-time status**

(Numbers in thousands)

Industry	August 1990								
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules				Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 to 48 hours	49 hours or more		
Total, 16 years and over .....	104,582	5,072	11,860	87,650	56,791	10,931	19,928	39.9	43.5
Wage and salary workers .....	96,365	4,454	10,375	81,536	53,999	10,415	17,122	39.8	43.2
Mining .....	665	7	5	653	348	99	206	47.1	47.6
Construction .....	6,099	383	224	5,491	3,547	665	1,279	41.4	43.6
Manufacturing .....	19,826	465	547	18,813	12,043	2,992	3,778	42.3	43.3
Durable goods .....	11,734	179	252	11,303	7,197	1,803	2,303	42.7	43.4
Nondurable goods .....	8,092	286	295	7,510	4,846	1,189	1,476	41.7	43.3
Transportation and public utilities .....	7,185	151	338	6,696	4,274	822	1,600	42.6	44.2
Wholesale and retail trade .....	21,325	1,657	4,086	15,583	9,661	2,158	3,764	38.0	43.8
Finance, insurance, and real estate .....	6,821	132	513	6,176	4,308	722	1,146	40.3	42.3
Service industries .....	29,277	1,615	4,508	23,154	16,266	2,391	4,497	37.8	42.4
Private households .....	1,043	194	390	459	314	37	108	27.8	44.5
All other industries .....	28,233	1,421	4,117	22,695	15,952	2,354	4,390	38.2	42.4
Public administration .....	5,167	43	154	4,970	3,553	566	851	41.9	42.7
Self-employed workers .....	7,988	606	1,396	5,986	2,717	505	2,764	40.7	48.0
Unpaid family workers .....	229	12	89	128	75	11	42	33.8	43.0



**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-30. Persons at work in nonagricultural industries by sex, age, race, marital status, and full- or part-time status**

(Numbers in thousands)

Sex, age, race, and marital status	August 1990							
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 hours or more		
<b>TOTAL</b>								
Total, 16 years and over .....	104,582	5,072	11,860	87,650	56,791	30,859	39.9	43.5
16 to 19 years .....	6,389	892	2,399	3,098	2,526	572	29.9	39.9
16 to 17 years .....	2,421	365	1,374	682	600	82	24.7	38.4
18 to 19 years .....	3,968	527	1,025	2,416	1,926	490	33.1	40.3
20 years and over .....	98,193	4,180	9,461	84,552	54,265	30,288	40.5	43.6
20 to 24 years .....	12,076	870	1,390	9,817	7,034	2,783	38.5	42.2
25 years and over .....	86,117	3,310	8,071	74,736	47,231	27,505	40.8	43.8
25 to 44 years .....	56,693	2,216	4,237	50,240	31,175	19,065	41.4	44.0
45 to 64 years .....	26,733	961	2,555	23,217	15,151	8,066	40.5	43.5
65 years and over .....	2,691	132	1,279	1,279	905	374	29.5	42.7
<b>Men, 16 years and over</b> .....	58,208	2,302	3,452	52,454	30,308	22,146	42.7	45.0
16 to 19 years .....	3,233	426	1,104	1,703	1,357	347	31.1	40.4
16 to 17 years .....	1,230	181	649	400	358	42	25.8	38.6
18 to 19 years .....	2,003	245	454	1,303	999	304	34.3	41.0
20 years and over .....	54,975	1,876	2,349	50,751	28,952	21,799	43.4	45.2
20 to 24 years .....	6,355	403	501	5,451	3,615	1,836	40.5	43.4
25 years and over .....	48,620	1,473	1,847	45,300	25,337	19,963	43.8	45.4
25 to 44 years .....	31,931	991	641	30,299	16,431	13,868	44.5	45.7
45 to 64 years .....	15,193	422	580	14,191	8,372	5,819	43.3	44.9
65 years and over .....	1,496	59	627	810	532	277	31.8	43.7
<b>Women, 16 years and over</b> .....	46,374	2,770	8,408	35,196	26,483	8,714	36.3	41.2
16 to 19 years .....	3,156	466	1,295	1,395	1,170	225	28.8	39.3
16 to 17 years .....	1,191	184	725	282	243	39	23.6	38.2
18 to 19 years .....	1,965	282	571	1,113	927	186	31.9	39.6
20 years and over .....	43,218	2,304	7,112	33,802	25,313	8,488	36.8	41.3
20 to 24 years .....	5,721	466	889	4,366	3,419	947	36.4	40.7
25 years and over .....	37,497	1,838	6,224	29,436	21,894	7,542	36.9	41.3
25 to 44 years .....	24,762	1,225	3,596	19,941	14,744	5,197	37.4	41.3
45 to 64 years .....	11,540	540	1,975	9,025	6,778	2,247	36.9	41.4
65 years and over .....	1,195	73	653	470	373	97	26.6	40.9
<b>RACE</b>								
White, 16 years and over .....	90,258	4,153	10,597	75,507	47,672	27,835	40.0	43.7
Men .....	50,775	1,857	3,004	45,914	25,753	20,161	43.0	45.3
Women .....	39,482	2,296	7,593	29,593	21,919	7,674	36.1	41.2
Black, 16 years and over .....	10,763	750	952	9,060	6,910	2,151	38.8	42.1
Men .....	5,498	363	324	4,811	3,390	1,420	40.5	43.3
Women .....	5,265	387	628	4,250	3,519	731	37.1	40.8
<b>MARITAL STATUS</b>								
Men, 16 years and over:								
Married, spouse present .....	35,947	882	1,278	33,786	18,418	15,368	44.1	45.6
Widowed, divorced, or separated .....	6,348	283	243	5,821	3,274	2,547	43.6	45.7
Single (never married) .....	15,914	1,136	1,931	12,847	8,616	4,231	39.2	43.4
Women, 16 years and over:								
Married, spouse present .....	24,452	1,168	4,995	18,289	14,001	4,288	35.7	40.7
Widowed, divorced, or separated .....	9,555	592	1,131	7,832	5,609	2,223	38.3	42.1
Single (never married) .....	12,367	1,010	2,282	9,075	6,872	2,203	36.0	41.3

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

**A-31. Persons at work in nonfarm occupations by sex and full- or part-time status**

(Numbers in thousands)

Occupation and sex	August 1990								
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules				Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 to 48 hours	49 hours or more		
Total, 16 years and over <sup>1</sup> .....	104,084	5,015	11,822	87,247	56,388	10,944	19,915	39.9	43.5
Managerial and professional specialty .....	25,939	564	2,072	23,303	13,047	2,942	7,314	42.3	44.9
Executive, administrative, and managerial .....	13,932	219	695	13,019	6,758	1,715	4,546	44.2	45.8
Professional specialty .....	12,007	345	1,378	10,284	6,289	1,226	2,768	40.2	43.7
Technical, sales, and administrative support .....	33,242	1,380	4,800	27,063	18,672	3,266	5,125	38.6	42.6
Technicians and related support .....	3,459	65	290	3,105	2,144	422	539	40.8	42.8
Sales occupations .....	13,052	763	2,307	9,982	5,442	1,298	3,243	39.6	45.2
Administrative support, including clerical .....	16,731	551	2,203	13,976	11,086	1,547	1,343	37.3	40.6
Service occupations .....	14,811	1,468	3,425	9,918	7,289	926	1,703	35.4	42.6
Private household .....	779	126	310	343	242	28	73	27.5	43.5
Protective service .....	1,953	35	137	1,781	1,132	222	427	43.0	45.0
Service, except private household and protective .....	12,079	1,306	2,978	7,795	5,915	676	1,204	34.6	42.0
Precision production, craft, and repair .....	12,993	625	380	11,988	7,582	1,658	2,748	42.2	43.9
Operators, fabricators, and laborers .....	17,099	979	1,146	14,975	9,798	2,152	3,025	40.8	43.5
Machine operators, assemblers, and inspectors .....	7,917	348	307	7,262	5,036	1,099	1,128	41.0	42.6
Transportation and material moving occupations .....	4,345	165	249	3,931	2,007	543	1,381	44.2	46.7
Handlers, equipment cleaners, helpers, and laborers .....	4,837	465	590	3,782	2,755	510	517	37.4	41.9
Men, 16 years and over <sup>1</sup> .....	57,649	2,253	3,379	52,017	29,905	6,887	15,225	42.8	45.1
Managerial and professional specialty .....	14,856	238	622	13,996	6,744	1,712	5,540	45.2	46.7
Executive, administrative, and managerial .....	8,441	118	264	8,059	3,610	980	3,469	46.1	47.4
Professional specialty .....	6,415	120	357	5,938	3,135	731	2,072	43.9	45.9
Technical, sales, and administrative support .....	11,980	322	903	10,754	5,887	1,493	3,375	43.0	45.4
Technicians and related support .....	1,784	28	58	1,698	1,089	228	381	42.7	43.7
Sales occupations .....	6,678	181	570	5,928	2,623	832	2,472	44.5	47.4
Administrative support, including clerical .....	3,518	114	275	3,129	2,174	433	521	40.2	42.6
Service occupations .....	6,099	479	852	4,768	3,316	486	966	38.8	43.6
Private household .....	29	6	4	19	13	3	3	( <sup>2</sup> )	( <sup>2</sup> )
Protective service .....	1,652	24	94	1,534	940	204	390	43.8	45.5
Service, except private household and protective .....	4,418	448	755	3,215	2,363	279	573	36.9	42.7
Precision production, craft, and repair .....	11,887	571	252	11,064	6,893	1,526	2,645	42.6	44.1
Operators, fabricators, and laborers .....	12,827	643	749	11,434	7,065	1,670	2,699	41.9	44.3
Machine operators, assemblers, and inspectors .....	4,726	119	116	4,491	2,861	735	895	42.8	43.8
Transportation and material moving occupations .....	4,082	150	190	3,742	1,893	510	1,339	44.8	46.9
Handlers, equipment cleaners, helpers, and laborers .....	4,018	374	443	3,201	2,311	425	465	37.9	42.0
Women, 16 years and over <sup>1</sup> .....	46,435	2,762	8,443	35,230	26,482	4,057	4,690	36.3	41.2
Managerial and professional specialty .....	11,083	326	1,451	9,307	6,303	1,230	1,774	38.5	42.0
Executive, administrative, and managerial .....	5,492	101	430	4,960	3,148	735	1,077	41.1	43.2
Professional specialty .....	5,592	225	1,020	4,347	3,155	495	697	36.0	40.6
Technical, sales, and administrative support .....	21,262	1,058	3,896	16,309	12,785	1,774	1,750	36.1	40.7
Technicians and related support .....	1,676	37	231	1,407	1,054	194	158	38.7	41.7
Sales occupations .....	6,374	583	1,737	4,054	2,819	465	770	34.5	42.1
Administrative support, including clerical .....	13,213	438	1,928	10,848	8,912	1,114	822	36.6	40.0
Service occupations .....	8,711	989	2,572	5,150	3,973	440	737	32.9	41.6
Private household .....	750	120	306	324	229	25	70	27.3	43.3
Protective service .....	300	11	43	246	192	18	37	38.3	42.0
Service, except private household and protective .....	7,662	858	2,224	4,580	3,553	397	630	33.3	41.5
Precision production, craft, and repair .....	1,106	54	128	924	689	132	103	38.5	41.7
Operators, fabricators, and laborers .....	4,272	335	396	3,540	2,732	482	326	37.6	40.8
Machine operators, assemblers, and inspectors .....	3,191	230	190	2,771	2,175	364	233	38.4	40.7
Transportation and material moving occupations .....	263	14	59	189	114	33	41	35.1	41.9
Handlers, equipment cleaners, helpers, and laborers .....	818	91	146	580	444	85	52	35.1	40.9

<sup>1</sup> Excludes farming, forestry, and fishing occupations.

<sup>2</sup> Data not shown where base is less than 75,000.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-32. Employment status of the noninstitutional population, including Armed forces stationed in the United States, by sex, seasonally adjusted**

(Numbers in thousands)

Employment status and sex	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>TOTAL</b>													
Noninstitutional population <sup>1</sup> .....	188,286	188,428	188,580	188,721	188,865	188,990	189,090	189,198	189,326	189,467	189,607	189,763	189,901
Labor force <sup>1</sup> .....	125,758	125,725	125,857	126,192	126,246	126,094	126,308	126,498	126,543	126,643	126,466	126,394	126,300
Percent of population <sup>2</sup> .....	66.8	66.7	66.7	66.9	66.8	66.7	66.8	66.9	66.8	66.8	66.8	66.7	66.6
Total employed <sup>1</sup> .....	119,238	119,121	119,294	119,540	119,588	119,560	119,713	120,003	119,773	119,989	120,019	119,580	119,298
Employment-population ratio <sup>3</sup> .....	63.3	63.2	63.3	63.3	63.3	63.3	63.3	63.4	63.3	63.3	63.3	63.0	62.8
Resident Armed Forces .....	1,688	1,702	1,709	1,704	1,700	1,697	1,678	1,669	1,657	1,639	1,630	1,627	1,640
Civilian employed .....	117,550	117,419	117,585	117,836	117,888	117,863	118,035	118,334	118,116	118,350	118,389	117,953	117,658
Agriculture .....	3,275	3,219	3,197	3,160	3,197	3,134	3,079	3,200	3,133	3,305	3,348	3,085	3,137
Nonagricultural industries .....	114,275	114,200	114,388	114,676	114,691	114,728	114,957	115,133	114,983	115,045	115,041	114,867	114,521
Unemployed .....	6,520	6,604	6,563	6,652	6,658	6,535	6,594	6,495	6,770	6,653	6,447	6,814	7,003
Unemployment rate <sup>4</sup> .....	5.2	5.3	5.2	5.3	5.3	5.2	5.2	5.1	5.3	5.3	5.1	5.4	5.5
Not in labor force .....	62,528	62,703	62,723	62,529	62,619	62,896	62,782	62,700	62,783	62,824	63,141	63,369	63,601
<b>Men</b>													
Noninstitutional population <sup>1</sup> .....	90,384	90,456	90,535	90,606	90,678	90,772	90,822	90,874	90,942	91,014	91,087	91,168	91,240
Labor force <sup>1</sup> .....	69,404	69,360	69,599	69,635	69,725	69,539	69,639	69,712	69,779	69,737	69,599	69,544	69,459
Percent of population <sup>2</sup> .....	76.8	76.7	76.9	76.9	76.9	76.6	76.7	76.7	76.7	76.6	76.4	76.3	76.1
Total employed <sup>1</sup> .....	65,919	65,681	66,046	66,011	66,143	65,943	66,108	66,208	66,043	66,058	66,000	65,740	65,596
Employment-population ratio <sup>3</sup> .....	72.9	72.6	73.0	72.9	72.9	72.6	72.8	72.9	72.6	72.6	72.5	72.1	71.9
Resident Armed Forces .....	1,519	1,531	1,533	1,529	1,525	1,523	1,506	1,497	1,499	1,472	1,465	1,462	1,475
Civilian employed .....	64,400	64,150	64,513	64,482	64,618	64,420	64,602	64,711	64,544	64,586	64,535	64,278	64,121
Unemployed .....	3,485	3,679	3,553	3,624	3,582	3,597	3,530	3,505	3,735	3,679	3,599	3,804	3,863
Unemployment rate <sup>4</sup> .....	5.0	5.3	5.1	5.2	5.1	5.2	5.1	5.0	5.4	5.3	5.2	5.5	5.6
Not in labor force .....	20,980	21,096	20,936	20,971	20,953	21,233	21,183	21,162	21,163	21,277	21,488	21,624	21,781
<b>Women</b>													
Noninstitutional population <sup>1</sup> .....	97,902	97,972	98,045	98,115	98,187	98,218	98,268	98,324	98,383	98,453	98,520	98,595	98,661
Labor force <sup>1</sup> .....	56,354	56,365	56,258	56,557	56,521	56,555	56,669	56,785	56,764	56,906	56,867	56,849	56,842
Percent of population <sup>2</sup> .....	57.6	57.5	57.4	57.6	57.6	57.6	57.7	57.8	57.7	57.8	57.7	57.7	57.6
Total employed <sup>1</sup> .....	53,319	53,440	53,248	53,529	53,445	53,617	53,605	53,795	53,729	53,931	54,019	53,839	53,702
Employment-population ratio <sup>3</sup> .....	54.5	54.5	54.3	54.6	54.4	54.6	54.5	54.7	54.6	54.8	54.8	54.6	54.4
Resident Armed Forces .....	169	171	176	175	175	174	172	172	158	167	165	165	165
Civilian employed .....	53,150	53,269	53,072	53,354	53,270	53,443	53,433	53,623	53,571	53,764	53,854	53,674	53,537
Unemployed .....	3,035	2,925	3,010	3,028	3,076	2,938	3,064	2,990	3,034	2,975	2,848	3,010	3,140
Unemployment rate <sup>4</sup> .....	5.4	5.2	5.4	5.4	5.4	5.2	5.4	5.3	5.3	5.2	5.0	5.3	5.5
Not in labor force .....	41,548	41,607	41,787	41,558	41,666	41,663	41,599	41,539	41,619	41,547	41,653	41,746	41,819

<sup>1</sup> Includes members of the Armed Forces stationed in the United States.

<sup>2</sup> Labor force as a percent of the noninstitutional population.

<sup>3</sup> Total employment as a percent of the noninstitutional population.

<sup>4</sup> Unemployment as a percent of the labor force (including the resident

Armed Forces).

NOTE: The population and Armed Forces figures are not adjusted for seasonal variation. Detail for the seasonally adjusted data shown in tables A-32 through A-41 will not necessarily add to totals because of the independent seasonal adjustment of the various series.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-33. Employment status of the civilian noninstitutional population by sex and age, seasonally adjusted**

(Numbers in thousands)

Employment status, sex, and age	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>TOTAL</b>													
Civilian noninstitutional population <sup>1</sup> .....	186,598	186,726	186,871	187,017	187,165	187,293	187,412	187,529	187,669	187,828	187,977	188,136	188,261
Civilian labor force .....	124,070	124,023	124,148	124,488	124,546	124,397	124,630	124,829	124,886	125,004	124,836	124,767	124,660
Percent of population .....	66.5	66.4	66.4	66.6	66.5	66.4	66.5	66.6	66.5	66.6	66.4	66.3	66.2
Employed .....	117,550	117,419	117,585	117,836	117,888	117,863	118,035	118,334	118,116	118,350	118,389	117,953	117,658
Employment-population ratio <sup>2</sup> .....	63.0	62.9	62.9	63.0	63.0	62.9	63.0	63.1	62.9	63.0	63.0	62.7	62.5
Unemployed .....	6,520	6,604	6,563	6,652	6,658	6,535	6,594	6,495	6,770	6,653	6,447	6,814	7,003
Unemployment rate .....	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.4	5.3	5.2	5.5	5.6
<b>Men, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	81,754	81,790	81,905	81,968	82,055	82,168	82,248	82,378	82,487	82,581	82,676	82,790	82,862
Civilian labor force .....	63,717	63,771	63,918	63,967	64,071	63,958	64,101	64,183	64,251	64,312	64,364	64,344	64,362
Percent of population .....	77.9	78.0	78.0	78.0	78.1	77.8	77.9	77.9	77.9	77.9	77.9	77.7	77.7
Employed .....	60,861	60,729	61,026	61,033	61,154	60,976	61,172	61,270	61,138	61,265	61,345	61,196	61,143
Employment-population ratio <sup>2</sup> .....	74.4	74.2	74.5	74.5	74.5	74.2	74.4	74.4	74.1	74.2	74.2	73.9	73.8
Agriculture .....	2,340	2,330	2,304	2,292	2,293	2,269	2,254	2,268	2,258	2,388	2,400	2,262	2,246
Nonagricultural industries .....	58,521	58,399	58,722	58,741	58,861	58,706	58,918	59,002	58,879	58,877	58,945	58,934	58,897
Unemployed .....	2,856	3,042	2,892	2,934	2,917	2,983	2,929	2,913	3,113	3,047	3,019	3,148	3,219
Unemployment rate .....	4.5	4.8	4.5	4.6	4.6	4.7	4.6	4.5	4.8	4.7	4.7	4.9	5.0
Not in labor force .....	18,037	18,019	17,987	18,001	17,984	18,210	18,147	18,195	18,236	18,269	18,312	18,446	18,500
<b>Women, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	90,684	90,771	90,860	90,952	91,042	91,091	91,157	91,237	91,330	91,414	91,495	91,581	91,688
Civilian labor force .....	52,352	52,358	52,281	52,541	52,586	52,686	52,814	52,800	52,954	53,146	53,174	53,211	53,315
Percent of population .....	57.7	57.7	57.5	57.8	57.8	57.8	57.9	57.9	58.0	58.1	58.1	58.1	58.1
Employed .....	49,875	49,984	49,796	50,043	50,048	50,255	50,287	50,344	50,427	50,709	50,776	50,719	50,699
Employment-population ratio <sup>2</sup> .....	55.0	55.1	54.8	55.0	55.0	55.2	55.2	55.2	55.2	55.5	55.5	55.4	55.3
Agriculture .....	642	660	641	624	618	594	582	648	669	680	700	585	639
Nonagricultural industries .....	49,233	49,324	49,155	49,419	49,430	49,661	49,704	49,696	49,758	50,029	50,077	50,135	50,060
Unemployed .....	2,477	2,374	2,485	2,498	2,538	2,431	2,527	2,456	2,526	2,438	2,398	2,492	2,616
Unemployment rate .....	4.7	4.5	4.8	4.8	4.8	4.6	4.8	4.7	4.8	4.6	4.5	4.7	4.9
Not in labor force .....	38,332	38,413	38,579	38,411	38,456	38,405	38,343	38,437	38,376	38,268	38,321	38,370	38,373
<b>Both sexes, 16 to 19 years</b>													
Civilian noninstitutional population <sup>1</sup> .....	14,160	14,166	14,107	14,097	14,067	14,034	14,008	13,914	13,852	13,832	13,806	13,764	13,711
Civilian labor force .....	8,001	7,894	7,949	7,980	7,889	7,752	7,715	7,846	7,681	7,545	7,298	7,212	6,983
Percent of population .....	56.5	55.7	56.3	56.6	56.1	55.2	55.1	56.4	55.4	54.6	52.9	52.4	50.9
Employed .....	6,814	6,706	6,763	6,760	6,686	6,631	6,577	6,720	6,551	6,376	6,268	6,038	5,815
Employment-population ratio <sup>2</sup> .....	48.1	47.3	47.9	48.0	47.5	47.3	47.0	48.3	47.3	46.1	45.4	43.9	42.4
Agriculture .....	293	229	252	244	286	270	243	285	206	237	249	239	251
Nonagricultural industries .....	6,521	6,477	6,511	6,516	6,400	6,361	6,334	6,435	6,345	6,139	6,019	5,799	5,564
Unemployed .....	1,187	1,188	1,186	1,220	1,203	1,121	1,138	1,126	1,130	1,169	1,030	1,174	1,168
Unemployment rate .....	14.8	15.0	14.9	15.3	15.2	14.5	14.8	14.4	14.7	15.5	14.1	16.3	16.7
Not in labor force .....	6,159	6,272	6,158	6,117	6,178	6,282	6,293	6,068	6,171	6,287	6,508	6,552	6,728

<sup>1</sup> The population figures are not adjusted for seasonal variation.

population.

<sup>2</sup> Civilian employment as a percent of the civilian noninstitutional

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-34. Employment status of the civilian noninstitutional population by race, sex, age, and Hispanic origin, seasonally adjusted**

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>WHITE</b>													
Civilian noninstitutional population <sup>1</sup>	159,470	159,549	159,644	159,736	159,832	159,938	160,007	160,076	160,170	160,271	160,365	160,468	160,550
Civilian labor force	106,485	106,393	106,618	106,834	106,896	106,884	107,080	107,061	107,133	107,353	107,273	107,230	107,135
Percent of population	66.8	66.7	66.8	66.9	66.9	66.8	66.9	66.9	66.9	67.0	66.9	66.8	66.7
Employed	101,684	101,579	101,862	101,991	102,032	102,074	102,117	102,206	102,027	102,362	102,461	102,260	101,968
Employment-population ratio <sup>2</sup>	63.8	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.7	63.9	63.9	63.7	63.5
Unemployed	4,801	4,814	4,756	4,843	4,864	4,811	4,962	4,856	5,106	4,991	4,812	4,970	5,167
Unemployment rate	4.5	4.5	4.5	4.5	4.6	4.5	4.6	4.5	4.8	4.6	4.5	4.6	4.8
<b>Men, 20 years and over</b>													
Civilian labor force	55,443	55,465	55,626	55,676	55,747	55,771	55,815	55,828	55,826	55,919	55,932	55,895	56,035
Percent of population	78.4	78.3	78.5	78.5	78.5	78.4	78.4	78.4	78.3	78.3	78.3	78.1	78.3
Employed	53,307	53,153	53,483	53,482	53,580	53,560	53,547	53,593	53,425	53,578	53,650	53,576	53,613
Employment-population ratio <sup>2</sup>	75.4	75.1	75.5	75.4	75.5	75.3	75.2	75.2	74.9	75.1	75.1	74.9	74.9
Unemployed	2,136	2,312	2,143	2,194	2,167	2,211	2,268	2,235	2,400	2,341	2,282	2,318	2,423
Unemployment rate	3.9	4.2	3.9	3.9	3.9	4.0	4.1	4.0	4.3	4.2	4.1	4.1	4.3
<b>Women, 20 years and over</b>													
Civilian labor force	44,184	44,198	44,207	44,360	44,469	44,475	44,615	44,523	44,740	44,925	45,055	45,120	45,100
Percent of population	57.2	57.2	57.1	57.3	57.4	57.4	57.5	57.4	57.6	57.8	57.9	57.9	57.9
Employed	42,391	42,520	42,437	42,586	42,641	42,718	42,782	42,765	42,895	43,165	43,292	43,321	43,227
Employment-population ratio <sup>2</sup>	54.9	55.0	54.9	55.0	55.0	55.1	55.2	55.1	55.2	55.5	55.6	55.6	55.5
Unemployed	1,793	1,678	1,770	1,774	1,828	1,757	1,833	1,758	1,844	1,760	1,763	1,799	1,873
Unemployment rate	4.1	3.8	4.0	4.0	4.1	4.0	4.1	3.9	4.1	3.9	3.9	4.0	4.2
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force	6,858	6,730	6,785	6,798	6,680	6,639	6,650	6,710	6,568	6,509	6,286	6,216	5,999
Percent of population	59.6	58.7	59.4	59.7	58.9	58.7	59.0	59.8	58.8	58.4	56.6	56.1	54.3
Employed	5,986	5,906	5,942	5,923	5,811	5,796	5,788	5,847	5,707	5,619	5,519	5,363	5,128
Employment-population ratio <sup>2</sup>	52.0	51.5	52.0	52.0	51.2	51.3	51.4	52.1	51.1	50.4	49.7	48.4	46.4
Unemployed	872	824	843	875	869	843	862	863	861	890	767	853	871
Unemployment rate	12.7	12.2	12.4	12.9	13.0	12.7	13.0	12.9	13.1	13.7	12.2	13.7	14.5
Men	13.1	13.3	13.8	14.3	14.0	12.9	12.7	13.0	13.8	14.2	12.9	15.1	15.7
Women	12.3	11.1	10.9	11.3	11.9	12.4	13.2	12.7	12.4	13.1	11.4	12.3	13.2
<b>BLACK</b>													
Civilian noninstitutional population <sup>1</sup>	21,060	21,085	21,108	21,136	21,164	21,163	21,188	21,211	21,228	21,261	21,289	21,318	21,337
Civilian labor force	13,476	13,518	13,507	13,576	13,522	13,510	13,437	13,581	13,570	13,587	13,472	13,379	13,366
Percent of population	64.0	64.1	64.0	64.2	63.9	63.8	63.4	64.0	63.9	63.9	63.3	62.8	62.6
Employed	11,961	11,938	11,923	11,954	11,920	11,978	12,030	12,148	12,161	12,179	12,064	11,870	11,791
Employment-population ratio <sup>2</sup>	56.8	56.6	56.5	56.6	56.3	56.6	56.8	57.3	57.3	57.3	56.7	55.7	55.3
Unemployed	1,515	1,580	1,584	1,622	1,602	1,532	1,407	1,433	1,409	1,408	1,407	1,510	1,575
Unemployment rate	11.2	11.7	11.7	11.9	11.8	11.3	10.5	10.6	10.4	10.4	10.4	11.3	11.8
<b>Men, 20 years and over</b>													
Civilian labor force	6,198	6,239	6,234	6,247	6,244	6,189	6,172	6,227	6,240	6,241	6,293	6,293	6,235
Percent of population	73.9	74.6	74.2	74.2	74.0	73.5	73.3	73.6	73.7	73.5	74.0	73.9	73.1
Employed	5,584	5,610	5,593	5,587	5,569	5,496	5,603	5,631	5,651	5,672	5,702	5,617	5,572
Employment-population ratio <sup>2</sup>	66.6	67.0	66.6	66.4	66.0	65.2	66.6	66.5	66.8	66.8	67.1	65.9	65.4
Unemployed	614	629	641	660	675	693	569	596	589	569	591	676	663
Unemployment rate	9.9	10.1	10.3	10.6	10.8	11.2	9.2	9.6	9.4	9.1	9.4	10.7	10.6
<b>Women, 20 years and over</b>													
Civilian labor force	6,362	6,360	6,336	6,373	6,311	6,393	6,423	6,456	6,451	6,516	6,377	6,328	6,358
Percent of population	60.6	60.5	60.2	60.4	59.7	60.5	60.7	60.9	60.8	61.3	59.9	59.4	59.6
Employed	5,753	5,743	5,706	5,722	5,681	5,802	5,821	5,872	5,858	5,921	5,812	5,735	5,730
Employment-population ratio <sup>2</sup>	54.8	54.6	54.2	54.2	53.8	54.9	55.0	55.4	55.2	55.7	54.6	53.8	53.7
Unemployed	609	617	630	651	630	591	602	584	594	595	565	592	628
Unemployment rate	9.6	9.7	9.9	10.2	10.0	9.2	9.4	9.0	9.2	9.1	8.9	9.4	9.9

See footnotes at end of table.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-34. Employment status of the civilian noninstitutional population by race, sex, age, and Hispanic origin, seasonally adjusted—Continued**

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>BLACK—Continued</b>													
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	916	919	937	956	967	928	842	898	879	830	802	758	773
Percent of population .....	42.2	41.8	43.0	44.0	44.6	42.8	38.5	41.7	40.8	38.6	37.4	35.4	36.1
Employed .....	624	585	624	645	670	680	606	645	652	586	550	517	489
Employment-population ratio <sup>2</sup> .....	28.7	26.6	28.6	29.7	30.9	31.3	27.7	30.0	30.3	27.3	25.6	24.1	22.8
Unemployed .....	292	334	313	311	297	248	236	253	227	244	252	241	284
Unemployment rate .....	31.9	36.3	33.4	32.5	30.7	26.7	28.0	28.2	25.8	29.4	31.4	31.8	36.7
Men .....	30.3	33.8	32.0	32.3	30.1	29.2	28.5	30.0	27.2	31.1	37.4	32.3	38.4
Women .....	33.6	38.8	34.9	32.7	31.4	24.0	27.5	26.2	24.3	27.6	25.3	31.2	35.0
<b>HISPANIC ORIGIN</b>													
Civilian noninstitutional population <sup>1</sup> .....	13,853	13,894	13,936	13,977	14,019	14,080	14,119	14,159	14,198	14,238	14,277	14,317	14,356
Civilian labor force .....	9,361	9,342	9,339	9,424	9,495	9,440	9,400	9,565	9,618	9,669	9,651	9,665	9,707
Percent of population .....	67.6	67.2	67.0	67.4	67.7	67.0	66.6	67.6	67.7	67.9	67.6	67.5	67.6
Employed .....	8,541	8,564	8,595	8,672	8,691	8,769	8,666	8,831	8,850	8,927	8,967	8,899	8,951
Employment-population ratio <sup>2</sup> .....	61.7	61.6	61.7	62.0	62.0	62.3	61.4	62.4	62.3	62.7	62.8	62.2	62.3
Unemployed .....	820	778	744	752	804	671	734	734	768	742	684	767	757
Unemployment rate .....	8.8	8.3	8.0	8.0	8.5	7.1	7.8	7.7	8.0	7.7	7.1	7.9	7.8

<sup>1</sup> The population figures are not adjusted for seasonal variation.

<sup>2</sup> 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.

**A-35. Employed civilians by selected social and economic categories, seasonally adjusted**

(In thousands)

Category	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>CHARACTERISTIC</b>													
Total .....	117,550	117,419	117,585	117,836	117,888	117,863	118,035	118,334	118,116	118,350	118,389	117,953	117,658
Married men, spouse present .....	40,723	40,649	40,839	40,886	41,041	40,982	41,347	40,989	40,730	40,881	40,554	40,545	40,604
Married women, spouse present .....	29,259	29,506	29,544	29,767	29,695	29,897	29,704	29,618	29,742	30,046	29,856	29,909	29,949
Women who maintain families .....	6,371	6,429	6,354	6,351	6,349	6,215	6,378	6,291	6,325	6,400	6,467	6,380	6,365
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>													
Agriculture:													
Wage and salary workers .....	1,723	1,680	1,678	1,687	1,677	1,634	1,578	1,620	1,621	1,728	1,685	1,628	1,666
Self-employed workers .....	1,410	1,424	1,406	1,373	1,369	1,354	1,375	1,457	1,429	1,502	1,507	1,377	1,357
Unpaid family workers .....	133	132	124	122	125	107	118	115	112	101	106	96	93
Nonagricultural industries:													
Wage and salary workers .....	105,317	105,476	105,504	105,960	105,643	105,747	106,117	106,029	105,938	106,176	105,985	105,885	105,691
Government .....	17,559	17,613	17,595	17,681	17,728	17,626	17,607	17,724	17,816	18,113	17,863	17,788	17,842
Private industries .....	87,758	87,863	87,909	88,279	87,915	88,121	88,510	88,306	88,122	88,063	88,121	88,097	87,849
Private households .....	1,147	1,065	987	1,051	1,077	1,035	1,021	1,003	957	941	1,056	989	1,033
Other industries .....	86,611	86,798	86,922	87,228	86,838	87,086	87,489	87,302	87,165	87,122	87,065	87,108	86,816
Self-employed workers .....	8,621	8,581	8,610	8,528	8,653	8,733	8,628	8,852	8,716	8,783	8,759	8,709	8,629
Unpaid family workers .....	272	279	280	264	251	256	313	261	258	254	226	269	229
<b>PERSONS AT WORK PART TIME<sup>1</sup></b>													
All industries:													
Part time for economic reasons .....	4,802	4,864	4,767	4,803	4,802	4,983	4,887	5,004	4,871	4,831	5,013	4,870	5,036
Slack work .....	2,281	2,321	2,314	2,297	2,277	2,402	2,307	2,476	2,407	2,439	2,499	2,565	2,424
Could only find part-time work .....	2,142	2,161	2,082	2,162	2,106	2,255	2,211	2,127	2,138	2,052	2,224	2,070	2,123
Voluntary part time .....	15,550	15,506	15,368	15,254	15,388	14,931	15,381	15,464	15,193	15,592	15,125	15,311	15,377
Nonagricultural industries:													
Part time for economic reasons .....	4,567	4,605	4,526	4,552	4,554	4,729	4,703	4,747	4,630	4,666	4,734	4,710	4,780
Slack work .....	2,129	2,165	2,166	2,132	2,111	2,240	2,183	2,293	2,218	2,317	2,284	2,408	2,242
Could only find part-time work .....	2,076	2,095	2,021	2,097	2,051	2,172	2,173	2,050	2,096	2,004	2,141	2,048	2,069
Voluntary part time .....	15,071	15,076	14,936	14,805	14,983	14,515	14,924	14,975	14,804	15,064	14,627	14,922	14,899

<sup>1</sup> Excludes persons "with a job but not at work" during the survey

period for such reasons as vacation, illness, or industrial dispute.

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-36. Employed civilians by sex and age, seasonally adjusted**

(In thousands)

Sex and age	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and over .....	117,550	117,419	117,585	117,836	117,888	117,863	118,035	118,334	118,116	118,350	118,389	117,953	117,658
16 to 24 years .....	19,813	19,489	19,487	19,482	19,298	19,309	19,247	19,459	19,196	19,080	18,979	18,702	18,366
16 to 19 years .....	6,814	6,706	6,763	6,760	6,686	6,631	6,577	6,720	6,551	6,376	6,268	6,038	5,815
16 to 17 years .....	2,574	2,571	2,645	2,598	2,518	2,501	2,513	2,557	2,460	2,386	2,300	2,166	2,085
18 to 19 years .....	4,236	4,149	4,130	4,152	4,161	4,132	4,072	4,164	4,086	3,992	3,946	3,878	3,703
20 to 24 years .....	12,999	12,783	12,724	12,722	12,612	12,678	12,670	12,739	12,646	12,704	12,711	12,664	12,551
25 years and over .....	97,809	97,946	98,122	98,345	98,594	98,547	98,722	98,803	98,836	99,285	99,458	99,312	99,415
25 to 54 years .....	83,064	83,170	83,316	83,594	83,680	83,690	83,856	83,938	83,969	84,344	84,452	84,423	84,447
55 years and over .....	14,780	14,825	14,818	14,784	14,849	14,805	14,867	14,870	14,856	14,971	14,934	14,902	15,008
Men, 16 years and over .....	64,400	64,150	64,513	64,482	64,618	64,420	64,602	64,711	64,544	64,586	64,535	64,278	64,121
16 to 24 years .....	10,275	10,070	10,211	10,123	10,128	10,091	10,071	10,110	10,018	9,992	9,883	9,775	9,556
16 to 19 years .....	3,539	3,421	3,487	3,449	3,464	3,444	3,430	3,441	3,407	3,321	3,189	3,083	2,977
16 to 17 years .....	1,372	1,280	1,357	1,329	1,308	1,298	1,315	1,317	1,270	1,224	1,166	1,106	1,047
18 to 19 years .....	2,159	2,138	2,134	2,140	2,153	2,149	2,121	2,126	2,130	2,071	2,009	1,985	1,907
20 to 24 years .....	6,736	6,649	6,724	6,674	6,664	6,647	6,640	6,669	6,611	6,671	6,694	6,692	6,579
25 years and over .....	54,171	54,095	54,302	54,362	54,494	54,335	54,463	54,558	54,475	54,605	54,658	54,517	54,617
25 to 54 years .....	45,708	45,696	45,829	45,938	46,048	45,832	46,013	46,081	46,041	46,099	46,106	46,033	46,052
55 years and over .....	8,462	8,439	8,488	8,432	8,441	8,509	8,485	8,480	8,432	8,498	8,489	8,492	8,578
Women, 16 years and over .....	53,150	53,269	53,072	53,354	53,270	53,443	53,433	53,623	53,571	53,764	53,854	53,674	53,537
16 to 24 years .....	9,538	9,419	9,276	9,359	9,170	9,218	9,176	9,349	9,178	9,088	9,095	8,927	8,810
16 to 19 years .....	3,275	3,285	3,276	3,311	3,222	3,187	3,146	3,279	3,144	3,056	3,078	2,955	2,838
16 to 17 years .....	1,202	1,291	1,288	1,269	1,210	1,203	1,198	1,240	1,190	1,162	1,134	1,060	1,038
18 to 19 years .....	2,077	2,011	1,988	2,012	2,008	1,983	1,951	2,038	1,956	1,921	1,937	1,893	1,796
20 to 24 years .....	6,263	6,134	6,000	6,048	5,948	6,030	6,029	6,070	6,034	6,032	6,017	5,972	5,972
25 years and over .....	43,638	43,851	43,820	43,983	44,100	44,212	44,259	44,245	44,361	44,679	44,800	44,796	44,798
25 to 54 years .....	37,356	37,474	37,487	37,656	37,632	37,859	37,844	37,857	37,928	38,245	38,346	38,389	38,395
55 years and over .....	6,318	6,386	6,330	6,352	6,408	6,296	6,382	6,390	6,424	6,472	6,444	6,410	6,430

**A-37. Unemployed persons by sex and age, seasonally adjusted**

(In thousands)

Sex and age	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and over .....	6,520	6,604	6,563	6,652	6,658	6,535	6,594	6,495	6,770	6,653	6,447	6,814	7,003
16 to 24 years .....	2,437	2,426	2,428	2,472	2,428	2,299	2,294	2,274	2,425	2,349	2,171	2,316	2,387
16 to 19 years .....	1,187	1,188	1,186	1,220	1,203	1,121	1,138	1,126	1,130	1,169	1,030	1,174	1,168
16 to 17 years .....	545	534	536	548	558	434	509	520	519	597	442	457	494
18 to 19 years .....	623	684	645	665	645	683	609	615	609	587	612	693	653
20 to 24 years .....	1,250	1,238	1,242	1,252	1,225	1,178	1,156	1,148	1,295	1,180	1,141	1,142	1,219
25 years and over .....	4,069	4,197	4,144	4,188	4,242	4,279	4,304	4,237	4,347	4,245	4,266	4,456	4,617
25 to 54 years .....	3,568	3,701	3,652	3,688	3,744	3,780	3,781	3,727	3,864	3,832	3,850	3,958	4,028
55 years and over .....	473	465	464	496	494	525	526	515	505	464	433	494	538
Men, 16 years and over .....	3,485	3,679	3,553	3,624	3,582	3,597	3,530	3,505	3,735	3,679	3,599	3,804	3,863
16 to 24 years .....	1,330	1,361	1,349	1,380	1,361	1,267	1,226	1,236	1,343	1,261	1,233	1,279	1,253
16 to 19 years .....	629	637	661	690	665	614	601	592	622	632	580	656	644
16 to 17 years .....	295	311	308	312	319	214	259	267	281	318	228	249	287
18 to 19 years .....	325	340	353	382	346	397	336	336	341	320	350	387	351
20 to 24 years .....	701	724	688	690	696	653	625	644	721	629	653	623	609
25 years and over .....	2,143	2,313	2,214	2,258	2,238	2,373	2,313	2,291	2,387	2,358	2,343	2,499	2,616
25 to 54 years .....	1,821	1,978	1,919	1,967	1,917	2,079	2,018	1,997	2,099	2,089	2,066	2,173	2,234
55 years and over .....	293	310	280	303	314	313	308	300	310	296	275	321	336
Women, 16 years and over .....	3,035	2,925	3,010	3,028	3,076	2,938	3,064	2,990	3,034	2,975	2,848	3,010	3,140
16 to 24 years .....	1,107	1,065	1,079	1,092	1,067	1,032	1,069	1,038	1,082	1,087	938	1,037	1,134
16 to 19 years .....	558	551	525	530	538	507	537	534	508	537	450	518	524
16 to 17 years .....	250	223	228	236	239	220	250	253	238	279	214	208	207
18 to 19 years .....	298	344	292	283	299	286	273	279	268	267	262	306	302
20 to 24 years .....	549	514	554	562	529	525	532	504	574	550	488	519	610
25 years and over .....	1,926	1,884	1,930	1,930	2,004	1,906	1,991	1,945	1,961	1,887	1,923	1,956	2,001
25 to 54 years .....	1,747	1,723	1,733	1,721	1,827	1,701	1,763	1,730	1,765	1,742	1,785	1,785	1,794
55 years and over .....	180	155	184	193	180	212	218	216	195	169	158	173	203

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-38. Unemployment rates by sex and age, seasonally adjusted**

(Civilian workers)

Sex and age	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and over .....	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.4	5.3	5.2	5.5	5.6
16 to 24 years .....	11.0	11.1	11.1	11.3	11.2	10.6	10.7	10.5	11.2	11.0	10.3	11.0	11.5
16 to 19 years .....	14.8	15.0	14.9	15.3	15.2	14.5	14.8	14.4	14.7	15.5	14.1	16.3	16.7
16 to 17 years .....	17.5	17.2	16.9	17.4	18.1	14.8	16.8	16.9	17.4	20.0	16.1	17.4	19.2
18 to 19 years .....	12.8	14.2	13.5	13.8	13.4	14.2	13.0	12.9	13.0	12.8	13.4	15.2	15.0
20 to 24 years .....	8.8	8.8	8.9	9.0	8.9	8.5	8.4	8.3	9.3	8.5	8.2	8.3	8.8
25 years and over .....	4.0	4.1	4.1	4.1	4.1	4.2	4.2	4.1	4.2	4.1	4.1	4.3	4.4
25 to 54 years .....	4.1	4.3	4.2	4.2	4.3	4.3	4.3	4.3	4.4	4.3	4.4	4.5	4.6
55 years and over .....	3.1	3.0	3.0	3.2	3.2	3.4	3.4	3.3	3.3	3.0	2.8	3.2	3.5
Men, 16 years and over .....	5.1	5.4	5.2	5.3	5.3	5.3	5.2	5.1	5.5	5.4	5.3	5.6	5.7
16 to 24 years .....	11.5	11.9	11.7	12.0	11.8	11.2	10.9	10.9	11.8	11.2	11.1	11.6	11.6
16 to 19 years .....	15.1	15.7	15.9	16.7	16.1	15.1	14.9	14.7	15.4	16.0	15.4	17.5	17.8
16 to 17 years .....	17.7	19.5	18.5	19.0	19.6	14.2	16.5	16.9	18.1	20.6	16.4	18.4	21.5
18 to 19 years .....	13.1	13.7	14.2	15.1	13.8	15.6	13.7	13.6	13.8	13.4	14.8	16.3	15.5
20 to 24 years .....	9.4	9.8	9.3	9.4	9.5	8.9	8.6	8.8	9.8	8.6	8.9	8.5	8.5
25 years and over .....	3.8	4.1	3.9	4.0	3.9	4.2	4.1	4.0	4.2	4.1	4.1	4.4	4.6
25 to 54 years .....	3.8	4.1	4.0	4.1	4.0	4.3	4.2	4.2	4.4	4.3	4.3	4.5	4.6
55 years and over .....	3.3	3.5	3.2	3.5	3.6	3.6	3.5	3.4	3.5	3.4	3.1	3.6	3.8
Women, 16 years and over .....	5.4	5.2	5.4	5.4	5.5	5.2	5.4	5.3	5.4	5.2	5.0	5.3	5.5
16 to 24 years .....	10.4	10.2	10.4	10.4	10.4	10.1	10.4	10.0	10.5	10.7	9.3	10.4	11.4
16 to 19 years .....	14.6	14.4	13.8	13.8	14.3	13.7	14.6	14.0	13.9	14.9	12.8	14.9	15.6
16 to 17 years .....	17.2	14.7	15.0	15.7	16.5	15.5	17.3	16.9	16.7	19.4	15.9	16.4	16.6
18 to 19 years .....	12.5	14.6	12.8	12.3	13.0	12.6	12.3	12.0	12.1	12.2	11.9	13.9	14.4
20 to 24 years .....	8.1	7.7	8.5	8.5	8.2	8.0	8.1	7.7	8.7	8.4	7.5	8.0	9.3
25 years and over .....	4.2	4.1	4.2	4.2	4.3	4.1	4.3	4.2	4.2	4.1	4.1	4.2	4.3
25 to 54 years .....	4.5	4.4	4.4	4.4	4.6	4.3	4.5	4.4	4.4	4.4	4.4	4.4	4.5
55 years and over .....	2.8	2.4	2.8	2.9	2.7	3.3	3.3	3.3	2.9	2.5	2.4	2.6	3.1

**A-39. Selected unemployment indicators, seasonally adjusted**

(Unemployment rates)

Category	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>CHARACTERISTIC</b>													
Total (all civilian workers) .....	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.4	5.3	5.2	5.5	5.6
Men, 20 years and over .....	4.5	4.8	4.5	4.6	4.6	4.7	4.6	4.5	4.8	4.7	4.7	4.9	5.0
Women, 20 years and over .....	4.7	4.5	4.8	4.8	4.8	4.6	4.8	4.7	4.8	4.6	4.5	4.7	4.9
Both sexes, 16 to 19 years .....	14.8	15.0	14.9	15.3	15.2	14.5	14.8	14.4	14.7	15.5	14.1	16.3	16.7
White .....	4.5	4.5	4.5	4.5	4.6	4.5	4.6	4.5	4.8	4.6	4.5	4.6	4.8
Black and other .....	9.7	10.2	10.2	10.3	10.2	10.1	9.2	9.4	9.1	9.3	9.4	10.3	10.4
Black .....	11.2	11.7	11.7	11.9	11.8	11.3	10.5	10.6	10.4	10.4	10.4	11.3	11.8
Hispanic origin .....	8.8	8.3	8.0	8.0	8.5	7.1	7.8	7.7	8.0	7.7	7.1	7.9	7.8
Married men, spouse present .....	3.1	3.3	3.0	3.1	3.0	3.4	3.0	3.2	3.3	3.3	3.2	3.3	3.5
Married women, spouse present .....	3.9	3.8	3.9	3.8	3.9	3.7	3.8	3.6	3.5	3.5	3.7	3.5	3.9
Women who maintain families .....	8.0	7.7	7.8	8.2	8.1	7.5	7.5	8.4	7.5	7.4	8.0	8.5	8.5
Full-time workers .....	4.9	5.0	4.9	5.0	5.0	5.0	4.9	4.9	5.1	4.9	4.8	5.0	5.2
Part-time workers .....	7.1	7.3	7.1	7.4	7.5	7.0	7.4	7.2	7.1	7.4	7.6	8.1	7.9
Unemployed 15 weeks and over <sup>1</sup> .....	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.3
Labor force time lost <sup>2</sup> .....	6.0	6.0	5.9	5.9	6.0	6.0	5.9	5.9	6.2	6.0	5.9	6.0	6.3
<b>INDUSTRY</b>													
Nonagricultural private wage and salary workers .....	5.4	5.4	5.3	5.4	5.4	5.5	5.5	5.5	5.7	5.5	5.3	5.5	5.7
Goods-producing industries .....	6.3	6.3	6.2	6.3	6.5	6.7	6.6	6.6	6.9	6.7	5.9	6.6	6.9
Mining .....	6.4	8.4	4.8	6.2	4.4	6.8	4.8	5.9	4.6	3.3	3.6	4.4	4.9
Construction .....	10.2	10.1	9.3	9.8	9.8	9.3	8.9	10.0	10.6	11.5	9.7	10.2	11.1
Manufacturing .....	5.2	5.2	5.4	5.4	5.6	5.9	5.9	5.5	5.9	5.4	4.9	5.7	5.8
Durable goods .....	4.9	4.9	5.2	5.4	5.4	5.8	5.5	5.3	5.7	5.5	4.9	5.6	5.9
Nondurable goods .....	5.7	5.5	5.6	5.3	5.9	5.9	6.4	5.9	6.3	5.2	5.0	5.7	5.6
Service-producing industries .....	4.9	5.0	4.9	5.0	4.9	5.0	5.0	5.0	5.1	5.0	5.0	5.0	5.2
Transportation and public utilities .....	3.7	4.5	3.9	3.6	3.4	4.3	4.0	3.4	4.3	3.2	3.0	3.7	4.1
Wholesale and retail trade .....	6.0	5.9	5.9	6.4	6.3	6.2	6.0	6.2	6.2	6.3	6.2	6.0	6.2
Finance and service industries .....	4.4	4.5	4.3	4.3	4.2	4.3	4.4	4.5	4.5	4.4	4.5	4.5	4.7
Government workers .....	2.7	2.8	2.7	2.7	2.6	2.4	2.5	2.3	2.1	2.5	2.9	2.8	2.8
Agricultural wage and salary workers .....	9.0	7.8	9.8	12.1	9.7	9.2	9.3	10.1	11.0	7.9	10.0	10.6	9.7

<sup>1</sup> Unemployment as a percent of the civilian labor force.

<sup>2</sup> Aggregate hours lost by the unemployed and persons on part time

for economic reasons as a percent of potentially available labor force hours.



**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

**A-40. Unemployed persons by duration of unemployment, seasonally adjusted**

(Numbers in thousands)

Weeks of unemployment	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>DURATION</b>													
Less than 5 weeks .....	3,125	3,169	3,166	3,258	3,302	3,119	3,159	3,194	3,204	3,026	3,046	3,120	3,325
5 to 14 weeks .....	2,002	2,030	1,995	1,991	2,013	2,012	2,079	2,044	2,175	2,236	2,049	2,159	2,048
15 weeks and over .....	1,338	1,359	1,378	1,422	1,362	1,430	1,369	1,333	1,386	1,374	1,406	1,513	1,609
15 to 26 weeks .....	759	769	743	765	730	777	731	702	697	764	763	809	845
27 weeks and over .....	579	590	635	657	632	653	638	631	688	610	643	704	764
Average (mean) duration, in weeks .....	11.4	11.5	11.7	11.6	11.5	12.1	11.7	12.0	12.1	11.6	12.0	12.0	12.3
Median duration, in weeks .....	5.0	5.0	5.0	4.8	4.8	5.1	5.4	5.1	5.0	5.4	5.1	5.2	5.2
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks .....	48.3	48.3	48.4	48.8	49.5	47.5	47.8	48.6	47.4	45.6	46.9	45.9	47.6
5 to 14 weeks .....	31.0	31.0	30.5	29.8	30.1	30.7	31.5	31.1	32.2	33.7	31.5	31.8	29.3
15 weeks and over .....	20.7	20.7	21.1	21.3	20.4	21.8	20.7	20.3	20.5	20.7	21.6	22.3	23.0
15 to 26 weeks .....	11.7	11.7	11.4	11.5	10.9	11.8	11.1	10.7	10.3	11.5	11.7	11.9	12.1
27 weeks and over .....	9.0	9.0	9.7	9.8	9.5	9.9	9.7	9.6	10.2	9.2	9.9	10.4	10.9

**A-41. Unemployed persons by reason for unemployment, seasonally adjusted**

(Numbers in thousands)

Reasons for unemployment	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
<b>NUMBER OF UNEMPLOYED</b>													
Job losers .....	2,964	2,932	2,979	3,092	3,097	3,183	3,103	3,038	3,147	3,171	3,151	3,088	3,367
On layoff .....	865	852	780	969	957	1,033	964	941	999	979	918	960	973
Other job losers .....	2,099	2,080	2,199	2,123	2,140	2,150	2,139	2,097	2,148	2,192	2,233	2,128	2,394
Job leavers .....	1,031	1,034	994	1,049	1,055	1,016	1,006	1,014	1,179	1,014	995	1,027	984
Reentrants .....	1,772	1,920	1,890	1,845	1,853	1,730	1,805	1,859	1,780	1,820	1,789	1,960	1,879
New entrants .....	643	648	685	695	686	640	680	644	617	683	534	687	677
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	46.2	44.9	45.5	46.3	46.3	48.5	47.1	46.3	46.8	47.4	48.7	45.7	48.7
On layoff .....	13.5	13.0	11.9	14.5	14.3	15.7	14.6	14.4	14.9	14.6	14.2	14.2	14.1
Other job losers .....	32.7	31.8	33.6	31.8	32.0	32.7	32.4	32.0	31.9	32.8	34.5	31.5	34.7
Job leavers .....	16.1	15.8	15.2	15.7	15.8	15.5	15.3	15.5	17.5	15.2	15.4	15.2	14.3
Reentrants .....	27.6	29.4	28.9	27.6	27.7	26.3	27.4	28.4	26.5	27.2	27.7	29.0	27.2
New entrants .....	10.0	9.9	10.5	10.4	10.3	9.7	10.3	9.8	9.2	10.2	8.3	10.2	9.8
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>													
Job losers .....	2.4	2.4	2.4	2.5	2.5	2.6	2.5	2.4	2.5	2.5	2.5	2.5	2.7
Job leavers .....	.8	.8	.8	.8	.8	.8	.8	.8	.9	.8	.8	.8	.8
Reentrants .....	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.4	1.5	1.4	1.6	1.5
New entrants .....	.5	.5	.6	.6	.6	.5	.5	.5	.5	.5	.4	.6	.5

**ESTABLISHMENT DATA  
HISTORICAL EMPLOYMENT**

**B-1. Employees on nonfarm payrolls by major industry, 1938 to date**

(In thousands)

Year and month	Total	Total private	Goods-producing				Service-producing						Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Federal	State	Local
Annual averages															
1938 .....	29,194	25,311	11,401	891	1,070	9,440	17,793	2,883	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
1939 .....	30,603	26,608	12,297	854	1,185	10,278	18,306	2,936	1,767	4,659	1,447	3,502	905	( <sup>1</sup> )	( <sup>1</sup> )
1940 .....	32,381	28,159	13,221	925	1,311	10,985	19,140	3,038	1,841	4,909	1,485	3,665	996	( <sup>1</sup> )	( <sup>1</sup> )
1941 .....	36,539	31,877	15,983	957	1,814	13,192	20,574	3,274	1,966	5,244	1,525	3,905	1,340	( <sup>1</sup> )	( <sup>1</sup> )
1942 .....	40,108	34,624	18,470	992	2,198	15,290	21,636	3,460	1,912	5,206	1,509	4,066	2,213	( <sup>1</sup> )	( <sup>1</sup> )
1943 .....	42,434	36,356	20,114	925	1,587	17,602	22,320	3,647	1,828	5,154	1,481	4,130	2,905	( <sup>1</sup> )	( <sup>1</sup> )
1944 .....	41,864	35,822	19,328	892	1,108	17,328	22,536	3,829	1,851	5,208	1,481	4,145	2,928	( <sup>1</sup> )	( <sup>1</sup> )
1945 .....	40,374	34,431	17,507	838	1,147	15,524	22,867	3,906	1,955	5,359	1,481	4,222	2,808	( <sup>1</sup> )	( <sup>1</sup> )
1946 .....	41,652	36,056	17,248	862	1,683	14,703	24,404	4,061	2,298	6,077	1,675	4,697	2,254	( <sup>1</sup> )	( <sup>1</sup> )
1947 .....	43,857	38,382	18,509	955	2,009	15,545	25,348	4,166	2,478	6,477	1,728	5,025	1,892	( <sup>1</sup> )	( <sup>1</sup> )
1948 .....	44,886	39,216	18,774	994	2,198	15,582	26,092	4,189	2,612	8,659	1,800	5,181	1,863	( <sup>1</sup> )	( <sup>1</sup> )
1949 .....	43,754	37,897	17,565	930	2,194	14,441	28,189	4,001	2,610	8,654	1,828	5,239	1,908	( <sup>1</sup> )	( <sup>1</sup> )
1950 .....	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	2,643	6,743	1,888	5,356	1,928	( <sup>1</sup> )	( <sup>1</sup> )
1951 .....	47,819	41,430	19,959	929	2,637	16,393	27,860	4,226	2,735	7,007	1,956	5,547	2,302	( <sup>1</sup> )	( <sup>1</sup> )
1952 .....	48,793	42,185	20,198	898	2,668	16,632	28,955	4,248	2,821	7,184	2,035	5,699	2,420	( <sup>1</sup> )	( <sup>1</sup> )
1953 .....	50,202	43,556	21,074	866	2,659	17,549	29,128	4,290	2,862	7,385	2,111	5,835	2,305	( <sup>1</sup> )	( <sup>1</sup> )
1954 .....	48,990	42,238	19,751	791	2,646	16,314	29,239	4,084	2,875	7,360	2,200	5,969	2,188	( <sup>1</sup> )	( <sup>1</sup> )
1955 .....	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	2,934	7,601	2,298	6,240	2,187	1,168	3,558
1956 .....	52,369	45,091	21,104	822	3,039	17,243	31,266	4,244	3,027	7,831	2,389	6,497	2,209	1,250	3,819
1957 .....	52,853	45,239	20,964	828	2,962	17,174	31,889	4,241	3,037	7,848	2,438	6,708	2,217	1,328	4,071
1958 .....	51,324	43,483	19,513	751	2,817	15,945	31,811	3,978	2,989	7,781	2,481	6,765	2,191	1,415	4,232
1959 <sup>2</sup> .....	53,268	45,186	20,411	732	3,004	16,675	32,857	4,011	3,092	8,035	2,549	7,087	2,233	1,484	4,366
1960 .....	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	3,153	8,238	2,628	7,378	2,270	1,536	4,547
1961 .....	53,999	45,404	19,857	672	2,859	16,326	34,142	3,903	3,142	8,195	2,688	7,619	2,279	1,607	4,708
1962 .....	55,549	46,860	20,451	650	2,948	16,853	35,098	3,908	3,207	8,359	2,754	7,982	2,340	1,668	4,881
1963 .....	56,653	47,429	20,640	635	3,010	16,995	36,013	3,903	3,258	8,520	2,830	8,277	2,358	1,747	5,121
1964 .....	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	3,347	8,812	2,911	8,660	2,348	1,856	5,392
1965 .....	60,765	50,689	21,926	632	3,232	18,062	38,839	4,036	3,477	9,239	2,977	9,038	2,378	1,996	5,700
1966 .....	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	3,608	9,637	3,058	9,498	2,564	2,141	6,080
1967 .....	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	3,700	9,906	3,185	10,045	2,719	2,302	6,371
1968 .....	67,897	56,508	23,737	606	3,350	19,781	44,160	4,318	3,791	10,308	3,337	10,587	2,737	2,442	6,660
1969 .....	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	3,919	10,785	3,512	11,189	2,758	2,533	6,904
1970 .....	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	4,006	11,034	3,645	11,548	2,731	2,664	7,158
1971 .....	71,214	58,331	22,935	609	3,704	18,623	48,278	4,478	4,014	11,338	3,772	11,797	2,696	2,747	7,437
1972 .....	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	4,127	11,822	3,908	12,276	2,884	2,859	7,790
1973 .....	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	4,291	12,315	4,048	12,857	2,863	2,923	8,146
1974 .....	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	4,447	12,539	4,148	13,441	2,724	3,039	8,407
1975 .....	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	4,430	12,830	4,185	13,892	2,748	3,179	8,758
1976 .....	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	4,562	13,193	4,271	14,551	2,733	3,273	8,865
1977 .....	82,471	67,344	24,346	813	3,851	19,682	58,125	4,713	4,723	13,792	4,467	15,302	2,727	3,377	9,023
1978 .....	86,897	71,026	25,585	851	4,229	20,505	61,113	4,923	4,985	14,556	4,724	16,252	2,753	3,474	9,446
1979 .....	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	5,221	14,972	4,975	17,112	2,773	3,541	9,633
1980 .....	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	5,292	15,018	5,160	17,890	2,866	3,810	9,765
1981 .....	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	5,376	15,172	5,298	18,619	2,772	3,840	9,619
1982 .....	89,586	73,729	23,813	1,128	3,905	18,781	65,753	5,082	5,296	15,161	5,341	19,036	2,739	3,640	9,458
1983 .....	90,200	74,330	23,334	952	3,948	18,434	66,866	4,954	5,286	15,595	5,488	19,694	2,774	3,662	9,434
1984 .....	94,496	78,472	24,727	966	4,383	19,378	69,789	5,159	5,574	16,526	5,889	20,797	2,807	3,734	9,482
1985 .....	97,519	81,125	24,859	927	4,673	19,260	72,660	5,238	5,736	17,336	5,955	21,999	2,875	3,832	9,687
1986 .....	99,525	82,832	24,558	777	4,818	18,965	74,967	5,255	5,774	17,909	6,283	23,053	2,899	3,893	9,901
1987 .....	102,200	85,190	24,708	717	4,967	19,024	77,492	5,372	5,865	18,462	6,547	24,235	2,943	3,967	10,100
1988 .....	105,538	88,150	25,173	713	5,110	19,350	80,383	5,527	6,055	19,077	6,849	25,669	2,971	4,076	10,339
1989 .....	108,413	90,644	25,326	700	5,200	19,426	83,087	5,648	6,271	19,580	6,724	27,096	2,988	4,175	10,606
* Monthly data, seasonally adjusted															
1989:															
August .....	108,628	90,797	25,356	706	5,220	19,430	83,272	5,581	6,294	19,620	6,740	27,226	2,996	4,191	10,644
September .....	108,868	90,985	25,304	709	5,225	19,370	83,564	5,656	6,303	19,634	6,753	27,335	2,992	4,215	10,876
October .....	108,980	91,096	25,283	710	5,239	19,334	83,697	5,671	6,313	19,865	6,758	27,408	2,986	4,202	10,696
November .....	109,245	91,344	25,280	716	5,258	19,308	83,965	5,893	6,335	19,714	6,774	27,548	2,962	4,212	10,707
December .....	109,383	91,456	25,218	718	5,216	19,284	84,165	5,776	6,344	19,710	6,785	27,623	2,977	4,206	10,744
1990:															
January .....	109,654	91,656	25,188	723	5,294	19,171	84,466	5,790	6,358	19,807	6,794	27,721	3,000	4,225	10,773
February .....	109,958	91,917	25,339	727	5,368	19,244	84,619	5,804	6,357	19,758	6,817	27,842	3,005	4,239	10,797
March .....	110,122	91,963	25,259	729	5,313	19,217	84,863	5,808	6,361	19,764	6,821	27,950	3,089	4,249	10,821
April .....	110,177	91,922	25,180	734	5,256	19,190	84,997	5,809	6,363	19,778	6,823	27,969	3,151	4,252	10,852
May .....	110,617	92,120	25,191	738	5,286	19,187	85,426	5,833	6,369	19,795	6,838	28,094	3,346	4,262	10,889
June .....	110,829	9													

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Total</b> .....		108,241	108,366	111,774	110,478	110,346	-	-	-	-	-
<b>Total private</b> .....		91,397	91,636	93,150	93,000	93,104	74,150	74,398	75,590	75,428	75,511
<b>Mining</b> .....		689	718	748	750	749	486	515	539	540	538
Metal mining .....	10	58.8	59.0	62.6	62.8	-	46.7	46.8	49.6	49.9	-
Iron ores .....	101	8.1	8.1	8.6	8.8	-	6.7	6.7	7.1	7.3	-
Copper ores .....	102	14.0	14.0	15.3	14.7	-	11.1	11.2	12.4	12.0	-
Coal mining .....	12	125.2	151.3	157.4	156.2	-	96.8	121.8	127.8	126.1	-
Bituminous coal and lignite mining .....	122	115.6	141.5	146.7	145.9	-	89.1	113.9	119.1	117.8	-
Oil and gas extraction .....	13	388.0	390.8	412.1	415.2	413.5	252.8	255.9	273.4	275.9	-
Crude petroleum and natural gas .....	131	196.0	195.1	195.2	196.3	-	95.0	94.3	94.4	94.8	-
Oil and gas field services .....	138	187.5	191.1	213.0	215.1	-	154.3	158.0	176.0	178.1	-
Nonmetallic minerals, except fuels .....	14	117.4	116.9	116.1	116.0	-	90.0	90.0	88.6	88.4	-
Crushed and broken stone .....	142	43.3	43.0	42.9	42.8	-	34.3	34.2	33.6	33.3	-
Sand and gravel .....	144	38.1	38.1	36.8	37.1	-	-	-	-	-	-
Chemical and fertilizer minerals .....	147	16.7	16.6	16.7	16.5	-	-	-	-	-	-
<b>Construction</b> .....		5,510	5,567	5,470	5,534	5,534	4,348	4,408	4,292	4,352	4,352
General building contractors .....	15	1,405.6	1,422.6	1,375.5	1,386.3	1,378.6	1,037.4	1,054.7	1,007.2	1,018.2	-
Residential building construction .....	152	726.0	733.9	703.7	707.7	-	523.4	531.6	500.8	505.0	-
Operative builders .....	153	42.7	43.1	38.8	39.0	-	19.2	19.3	16.6	16.8	-
Nonresidential building construction .....	154	636.9	645.6	633.0	639.6	-	494.8	503.8	489.8	496.4	-
Heavy construction, except building .....	16	847.0	858.9	860.1	866.0	-	713.6	727.0	726.3	731.1	-
Highway and street construction .....	161	279.6	282.4	284.7	293.0	-	235.1	238.0	242.4	250.0	-
Heavy construction, except highway .....	162	567.4	576.5	575.4	573.0	-	478.5	489.0	483.9	481.1	-
Special trade contractors .....	17	3,257.3	3,285.4	3,234.2	3,281.8	-	2,596.7	2,625.8	2,558.2	2,603.1	-
Plumbing, heating, and air conditioning .....	171	674.5	674.1	659.1	668.5	-	501.3	501.7	484.8	493.1	-
Painting and paper hanging .....	172	190.5	192.7	183.9	190.1	-	160.3	163.2	154.5	159.8	-
Electrical work .....	173	567.3	572.5	570.2	581.5	-	441.8	447.3	442.7	454.4	-
Masonry, stonework, and plastering .....	174	531.1	536.9	541.2	552.3	-	459.2	464.5	467.7	477.6	-
Carpentry and floor work .....	175	215.1	218.9	194.9	194.0	-	171.4	174.9	147.8	147.8	-
Roofing, siding, and sheet metal work .....	176	226.9	232.5	222.2	227.1	-	183.3	188.3	177.8	182.8	-
<b>Manufacturing</b> .....		19,368	19,519	19,256	19,064	19,168	13,169	13,324	13,090	12,917	13,030
<b>Durable goods</b> .....		11,368	11,412	11,267	11,122	11,121	7,543	7,592	7,494	7,361	7,372
Lumber and wood products .....	24	770.6	771.8	758.4	756.6	755.7	639.6	640.5	626.1	625.0	624.8
Logging .....	241	92.4	92.7	89.3	91.9	-	76.9	77.3	74.2	76.8	-
Sawmills and planing mills .....	242	204.1	203.9	201.9	201.0	-	178.5	178.2	176.0	175.0	-
Sawmills and planing mills, general .....	2421	165.6	164.9	163.4	162.8	-	145.0	144.2	142.2	141.5	-
Hardwood dimension and flooring mills .....	2426	35.2	35.7	35.4	34.9	-	30.8	31.3	31.2	30.7	-
Millwork, plywood, and structural members .....	243	274.7	274.2	270.6	268.1	-	223.8	223.7	218.6	216.6	-
Millwork .....	2431	111.4	111.1	110.1	108.6	-	88.5	88.5	86.7	85.4	-
Wood kitchen cabinets .....	2434	73.5	73.3	74.0	72.9	-	58.8	58.6	58.9	58.2	-
Hardwood veneer and plywood .....	2435	24.3	24.3	24.0	23.6	-	21.1	21.1	20.6	20.3	-
Softwood veneer and plywood .....	2436	35.0	34.7	34.2	34.2	-	31.6	31.4	30.7	30.6	-
Wood containers .....	244	45.3	45.1	45.0	44.9	-	38.5	38.1	38.0	38.0	-
Wood buildings and mobile homes .....	245	67.1	67.9	64.9	65.3	-	51.1	51.5	49.0	49.4	-
Mobile homes .....	2451	44.2	45.0	44.0	44.9	-	36.3	36.8	35.6	36.5	-
Miscellaneous wood products .....	249	87.0	88.0	86.7	85.4	-	70.8	71.7	70.3	69.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Durable goods—Continued</b>											
Furniture and fixtures .....	25	518.8	522.0	514.1	501.8	510.5	410.9	415.7	406.3	395.5	403.0
Household furniture .....	251	295.2	297.3	292.6	282.3	-	248.3	250.4	244.4	235.1	-
Wood household furniture .....	2511	131.3	132.5	127.9	122.7	-	114.5	115.7	110.1	105.0	-
Upholstered household furniture .....	2512	98.7	99.8	100.4	98.3	-	82.3	83.2	83.7	82.1	-
Metal household furniture .....	2514	22.6	21.6	23.0	21.0	-	17.6	16.7	18.4	16.5	-
Mattresses and bedsprings .....	2515	28.5	29.3	28.7	28.3	-	21.9	22.5	21.9	21.6	-
Office furniture .....	252	72.9	71.6	68.2	68.3	-	53.2	53.2	50.7	50.9	-
Public building and related furniture .....	253	32.2	33.3	32.2	30.4	-	25.1	26.3	25.0	23.3	-
Partitions and fixtures .....	254	81.6	82.6	84.0	84.0	-	59.2	60.3	60.7	60.9	-
Miscellaneous furniture and fixtures .....	259	36.9	37.2	37.1	36.8	-	25.1	25.5	25.5	25.3	-
Stone, clay, and glass products .....	32	578.6	578.9	567.7	561.8	561.5	453.1	453.4	443.3	437.2	437.0
Flat glass .....	321	16.8	16.9	16.5	16.5	-	13.6	13.6	13.0	13.1	-
Glass and glassware, pressed or blown .....	322	86.8	87.2	85.4	83.9	-	74.8	75.2	73.7	71.9	-
Glass containers .....	3221	43.2	43.6	42.8	42.2	-	39.2	39.6	38.6	37.9	-
Pressed and blown glass, nec .....	3229	43.6	43.6	42.6	41.7	-	35.6	35.6	35.1	34.0	-
Products of purchased glass .....	323	57.2	57.7	55.1	54.0	-	44.0	44.5	42.3	41.0	-
Cement, hydraulic .....	324	19.5	19.3	19.4	19.5	-	15.0	14.8	14.9	15.0	-
Structural clay products .....	325	38.1	38.1	37.5	36.9	-	29.7	29.4	29.1	28.5	-
Pottery and related products .....	326	40.5	40.5	39.9	38.8	-	32.0	32.3	31.4	30.6	-
Concrete, gypsum, and plaster products .....	327	222.1	221.5	216.1	215.1	-	171.3	170.8	165.9	165.0	-
Concrete block and brick .....	3271	20.8	20.8	20.1	19.8	-	13.5	13.6	13.3	13.0	-
Concrete products, nec .....	3272	75.0	74.7	72.0	71.5	-	57.3	57.0	54.1	53.9	-
Ready-mixed concrete .....	3273	106.8	106.6	105.0	104.7	-	85.5	85.2	83.9	83.3	-
Misc. nonmetallic mineral products .....	329	83.6	83.7	83.1	82.8	-	61.9	62.0	61.8	61.4	-
Abrasive products .....	3291	22.2	22.1	21.7	21.6	-	15.9	15.8	15.4	15.3	-
Asbestos products .....	3292	7.0	6.9	7.4	7.5	-	5.3	5.2	5.6	5.7	-
Mineral wool .....	3296	24.6	25.2	24.4	24.2	-	-	-	-	-	-
Primary metal industries .....	33	766.2	771.4	760.1	750.9	755.0	582.8	588.0	578.2	569.5	572.6
Blast furnaces and basic steel products .....	331	280.9	279.6	272.2	272.0	273.0	216.4	215.6	209.0	208.2	208.3
Blast furnaces and steel mills .....	3312	211.6	210.8	204.4	204.5	-	164.5	164.2	158.5	157.9	-
Steel pipe and tubes .....	3317	25.2	24.9	25.0	25.2	-	19.0	18.7	18.6	18.8	-
Iron and steel foundries .....	332	134.0	137.2	135.5	132.1	-	106.6	109.9	108.1	105.4	-
Gray and ductile iron foundries .....	3321	80.7	83.8	83.5	80.9	-	65.7	68.8	68.1	66.1	-
Malleable iron foundries .....	3322	8.9	8.9	9.0	8.2	-	6.8	6.9	6.9	6.2	-
Steel foundries, nec .....	3325	29.0	29.1	28.2	28.2	-	22.8	22.8	22.1	22.0	-
Primary nonferrous metals .....	333	46.3	46.0	46.0	46.2	-	34.3	34.1	33.6	33.9	-
Primary aluminum .....	3334	26.2	26.0	25.8	25.8	-	20.2	20.0	19.4	19.5	-
Nonferrous rolling and drawing .....	335	174.3	177.2	176.0	172.7	-	124.4	126.9	127.3	124.0	-
Copper rolling and drawing .....	3351	23.8	24.1	23.2	22.6	-	18.1	18.5	17.7	17.1	-
Aluminum sheet, plate, and foil .....	3353	27.6	27.7	28.6	28.6	-	18.4	18.4	19.3	19.3	-
Nonferrous wire drawing and insulating .....	3357	72.0	74.5	73.8	71.4	-	52.1	54.2	54.3	51.8	-
Nonferrous foundries (castings) .....	336	85.5	86.2	85.9	83.8	-	67.9	68.3	67.7	65.8	-
Aluminum foundries .....	3365	24.8	25.5	23.9	23.1	-	19.6	20.3	18.9	18.0	-
Fabricated metal products .....	34	1,431.0	1,436.8	1,423.2	1,403.4	1,411.4	1,055.6	1,062.6	1,050.8	1,032.7	1,041.2
Metal cans and shipping containers .....	341	53.5	53.3	53.2	53.0	-	46.1	46.1	45.6	45.4	-
Metal cans .....	3411	43.2	42.9	42.8	42.7	-	37.6	37.5	37.2	37.1	-
Cutlery, handtools, and hardware .....	342	130.2	129.8	129.2	127.4	-	95.6	95.5	94.8	92.9	-
Hand and edge tools, and blades and handsaws .....	3423,5	44.1	44.3	44.5	44.0	-	32.1	32.4	32.6	32.2	-
Hardware, nec .....	3429	74.8	73.8	72.7	71.6	-	55.7	54.9	54.0	52.8	-
Plumbing and heating, except electric .....	343	62.7	62.7	62.7	60.5	-	45.2	45.2	44.9	42.8	-
Plumbing fixture fittings and trim .....	3432	27.3	27.3	27.4	26.6	-	20.2	20.3	20.4	19.8	-
Heating equipment, except electric .....	3433	21.8	22.5	21.5	21.9	-	14.7	15.3	14.2	14.6	-
Fabricated structural metal products .....	344	433.5	434.5	427.4	427.4	-	309.8	311.3	303.8	304.0	-
Fabricated structural metal .....	3441	77.8	77.7	77.2	76.8	-	55.8	56.0	55.3	55.4	-
Metal doors, sash, and trim .....	3442	78.9	78.8	76.9	77.5	-	57.8	58.2	56.0	56.7	-
Fabricated plate work (boiler shops) .....	3443	107.3	108.1	108.7	108.9	-	72.1	72.6	73.1	73.1	-
Sheet metal work .....	3444	97.1	96.9	94.1	94.4	-	73.3	73.5	71.1	71.0	-
Architectural metal work .....	3446	30.0	29.9	28.7	28.8	-	21.8	21.7	20.4	20.5	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
<b>Fabricated metal products—Continued</b>											
Screw machine products, bolts, etc .....	345	98.2	98.1	97.5	95.3	-	74.4	74.7	74.8	72.7	-
Screw machine products .....	3451	46.9	46.9	47.0	46.2	-	37.9	38.2	38.1	37.4	-
Bolts, nuts, rivets, and washers .....	3452	51.3	51.2	50.5	49.1	-	36.5	36.5	36.7	35.3	-
Metal forgings and stampings .....	346	222.4	226.1	226.7	220.5	-	175.9	179.0	179.8	174.2	-
Iron and steel forgings .....	3462	32.6	31.8	32.1	31.3	-	25.1	24.4	24.6	23.8	-
Automotive stampings .....	3465	99.9	101.8	103.0	99.7	-	82.8	84.5	86.2	83.2	-
Metal stampings, nec .....	3469	77.3	79.8	79.3	77.4	-	58.4	60.4	59.9	58.1	-
Metal services, nec .....	347	118.4	121.1	121.1	118.1	-	93.7	96.0	95.0	91.9	-
Plating and polishing .....	3471	75.4	78.2	77.5	75.0	-	60.2	62.6	61.1	58.6	-
Metal coating and allied services .....	3479	43.0	42.9	43.6	43.1	-	33.5	33.4	33.9	33.3	-
Ordnance and accessories, nec .....	348	74.8	74.1	68.4	68.4	-	44.6	44.4	42.8	43.4	-
Ammunition, except for small arms, nec .....	3483	43.7	43.4	38.9	38.9	-	22.9	23.0	21.7	22.2	-
Miscellaneous fabricated metal products .....	349	237.3	237.1	237.0	232.8	-	170.3	170.4	169.3	165.4	-
Valves and pipe fittings, nec .....	3494	29.7	29.8	29.6	28.9	-	19.1	19.3	19.0	18.4	-
Misc. fabricated wire products .....	3496	54.0	54.4	54.9	53.5	-	41.0	41.2	41.5	40.2	-
Industrial machinery and equipment .....	35	2,128.8	2,124.8	2,116.2	2,096.8	2,087.4	1,279.5	1,276.0	1,274.7	1,256.7	1,248.1
Engines and turbines .....	351	90.9	90.4	91.9	90.7	-	59.3	58.7	59.8	58.2	-
Turbines and turbine generator sets .....	3511	25.9	26.1	27.8	28.2	-	15.1	15.1	16.1	16.3	-
Internal combustion engines, nec .....	3519	65.0	64.3	64.1	62.5	-	44.2	43.6	43.7	41.9	-
Farm and garden machinery .....	352	99.5	101.8	113.1	108.5	-	70.5	72.3	83.1	78.4	-
Farm machinery and equipment .....	3523	77.4	78.7	82.9	81.6	-	54.0	55.1	59.5	58.0	-
Construction and related machinery .....	353	222.4	221.3	227.3	226.6	-	136.0	135.3	140.1	140.1	-
Construction machinery .....	3531	84.0	82.7	84.8	84.1	-	52.7	51.7	52.6	52.2	-
Mining machinery .....	3532	16.3	16.6	17.3	17.3	-	10.0	10.1	10.8	10.9	-
Oil and gas field machinery .....	3533	39.3	39.4	41.2	41.6	-	22.7	23.0	25.1	25.9	-
Conveyors and conveying equipment .....	3535	35.0	34.7	34.3	34.2	-	19.1	18.7	19.1	19.0	-
Industrial trucks and tractors .....	3537	28.3	28.3	29.1	29.0	-	19.3	19.5	19.8	19.6	-
Metalworking machinery .....	354	336.4	336.4	331.9	328.0	-	240.0	239.8	236.8	233.8	-
Machine tools, metal cutting types .....	3541	49.6	49.3	47.8	46.9	-	31.9	31.6	30.6	30.1	-
Machine tools, metal forming types .....	3542	18.6	18.5	18.6	18.4	-	11.9	11.7	11.6	11.5	-
Special dies, tools, jigs, and fixtures .....	3544	147.2	147.3	147.9	146.1	-	113.1	113.5	114.5	113.0	-
Machine tool accessories .....	3545	58.5	58.6	55.6	55.0	-	41.5	41.5	39.1	38.7	-
Power driven handtools .....	3546	21.1	21.5	20.9	20.2	-	14.9	15.0	14.4	13.7	-
Special industry machinery .....	355	162.1	161.2	159.4	158.3	-	97.3	96.9	94.1	92.8	-
Textile machinery .....	3552	19.1	19.1	18.9	18.9	-	12.6	12.6	12.6	12.5	-
Printing trades machinery .....	3555	26.1	25.5	23.5	23.5	-	15.1	14.8	12.9	12.7	-
Food products machinery .....	3556	24.2	24.1	24.2	23.9	-	14.6	14.5	14.6	14.3	-
General industrial machinery .....	356	243.8	242.5	244.9	244.2	-	157.2	156.0	156.7	155.6	-
Pumps and pumping equipment .....	3561	28.4	28.6	29.1	29.0	-	16.6	16.6	16.5	16.5	-
Ball and roller bearings .....	3562	43.7	43.4	43.6	43.7	-	33.9	33.8	33.7	33.6	-
Air and gas compressors .....	3563	24.5	24.4	25.3	25.2	-	13.8	13.7	14.3	14.3	-
Blowers and fans .....	3564	32.0	31.7	32.3	32.2	-	21.6	21.3	21.9	21.7	-
Speed changers, drives, and gears .....	3566	16.1	16.1	16.3	16.3	-	11.5	11.4	11.5	11.5	-
Power transmission equipment, nec .....	3568	19.4	19.1	18.7	18.8	-	13.3	13.0	12.7	12.6	-
Computer and office equipment .....	357	463.0	463.4	447.4	444.9	-	147.8	148.1	141.4	139.7	-
Electronic computers .....	3571	293.6	292.8	276.7	274.4	-	80.3	79.5	70.6	69.0	-
Computer terminals, calculators, and office machines, nec .....	3575,8,9	70.7	71.2	68.5	68.4	-	21.8	22.2	21.3	21.3	-
Refrigeration and service machinery .....	358	193.6	191.2	185.8	183.9	-	139.8	137.7	131.9	129.8	-
Refrigeration and heating equipment .....	3585	137.4	135.2	131.9	131.0	-	102.5	100.7	96.9	95.8	-
Misc. industrial and commercial machinery .....	359	317.1	316.6	314.5	311.7	-	231.6	231.2	230.8	228.3	-
Carburetors, pistons, rings, valves .....	3592	24.0	23.5	23.3	23.2	-	18.7	18.1	19.0	18.9	-
Scales, balances, and industrial machinery, nec .....	3596,9	241.9	241.9	242.0	239.9	-	183.9	184.0	183.6	181.4	-
Electronic and other electrical equipment .....	36	1,744.2	1,752.4	1,706.1	1,684.3	1,680.7	1,096.1	1,104.7	1,078.1	1,057.3	1,058.3
Electric distribution equipment .....	361	98.9	99.8	96.2	94.1	-	69.7	70.8	66.9	64.9	-
Transformers, except electronic .....	3612	49.5	50.5	48.6	47.0	-	35.3	36.2	34.4	32.6	-
Switchgear and switchboard apparatus .....	3613	49.4	49.3	47.6	47.1	-	34.4	34.6	32.5	32.3	-
Electrical industrial apparatus .....	362	177.9	176.2	173.2	169.6	-	126.6	125.0	121.8	118.3	-
Motors and generators .....	3621	89.6	88.3	86.0	83.4	-	70.6	69.1	67.1	64.6	-
Relays and industrial controls .....	3625	68.1	67.9	67.3	66.4	-	42.1	42.2	40.9	40.1	-
Household appliances .....	363	132.5	134.4	132.2	129.0	-	105.9	107.7	106.3	102.7	-
Household refrigerators and freezers .....	3632	30.4	29.4	29.4	29.5	-	24.8	24.2	24.3	24.4	-
Household laundry equipment .....	3633	20.7	21.4	21.3	21.2	-	16.8	17.1	16.9	16.8	-
Electric housewares and fans .....	3634	35.5	37.4	36.1	35.1	-	27.6	29.2	27.9	26.8	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
<b>Electronic and other electrical equipment—Continued</b>											
Electric lighting and wiring equipment .....	364	192.1	193.0	189.8	186.5	-	137.9	138.8	136.8	134.0	-
Electric lamps .....	3641	26.2	25.5	25.2	25.1	-	22.3	21.7	21.4	21.2	-
Current-carrying wiring devices .....	3643	74.6	74.7	73.9	72.9	-	48.2	48.3	48.1	47.3	-
Noncurrent-carrying wiring devices .....	3644	15.9	16.2	16.1	15.7	-	11.8	12.2	12.0	11.4	-
Residential lighting fixtures .....	3645	25.0	26.1	23.9	23.2	-	18.4	19.4	17.6	17.0	-
Household audio and video equipment .....	365	87.7	89.2	86.7	85.3	-	61.1	63.1	60.7	59.0	-
Household audio and video equipment .....	3651	66.1	67.3	64.7	63.6	-	44.8	46.1	43.4	42.0	-
Communications equipment .....	366	273.1	273.2	260.8	259.6	-	137.8	137.8	132.5	130.9	-
Telephone and telegraph apparatus .....	3661	141.4	142.0	132.1	131.6	-	80.1	79.9	72.7	71.1	-
Electronic components and accessories .....	367	616.1	618.0	601.3	597.3	-	342.8	345.0	339.0	336.0	-
Electron tubes .....	3671	35.0	35.1	34.2	34.1	-	23.2	23.3	22.3	22.4	-
Semiconductors and related devices .....	3674	252.4	252.2	245.9	245.4	-	94.6	95.2	95.3	95.4	-
Electronic components, nec .....	3679	152.3	152.3	147.3	145.4	-	95.2	95.3	92.4	90.9	-
Misc. electrical equipment and supplies .....	369	165.9	168.6	165.9	162.9	-	114.3	116.5	114.1	111.5	-
Storage batteries .....	3691	27.0	29.2	29.1	27.9	-	20.2	22.3	22.5	21.5	-
Engine electrical equipment .....	3694	70.4	70.3	68.5	68.1	-	53.5	53.3	51.6	51.3	-
Transportation equipment .....	37	2,024.7	2,032.3	2,031.4	1,991.8	1,977.7	1,245.3	1,255.1	1,260.5	1,224.5	1,214.7
Motor vehicles and equipment .....	371	829.8	846.9	836.5	804.8	797.5	633.7	651.2	643.6	611.9	606.2
Motor vehicles and car bodies .....	3711	322.9	342.9	333.8	307.8	-	232.9	252.9	246.7	221.7	-
Truck and bus bodies .....	3713	43.6	43.2	42.8	42.9	-	34.0	33.7	33.7	33.8	-
Motor vehicle parts and accessories .....	3714	412.2	412.3	411.4	406.5	-	326.6	326.8	325.6	319.7	-
Truck trailers .....	3715	30.5	30.0	28.1	27.4	-	24.1	23.7	22.2	21.4	-
Aircraft and parts .....	372	714.9	710.2	715.8	710.7	-	344.2	339.7	344.9	342.4	-
Aircraft .....	3721	386.2	386.6	384.3	379.7	-	169.3	169.4	164.7	163.0	-
Aircraft engines and engine parts .....	3724	154.9	151.6	157.0	156.9	-	76.9	73.9	80.3	79.9	-
Aircraft parts and equipment, nec .....	3728	173.8	172.0	174.5	174.1	-	98.0	96.4	99.9	99.5	-
Ship and boat building and repairing .....	373	192.8	188.5	193.3	191.6	-	142.7	139.1	147.0	145.7	-
Ship building and repairing .....	3731	125.3	124.1	130.9	131.8	-	87.4	86.6	95.6	96.5	-
Boat building and repairing .....	3732	67.5	64.4	62.4	59.8	-	55.3	52.5	51.4	49.2	-
Railroad equipment .....	374	33.3	33.6	34.7	35.3	-	24.7	25.0	25.7	26.3	-
Guided missiles, space vehicles, and parts .....	376	193.8	193.4	189.4	188.6	-	59.7	60.1	57.7	57.5	-
Guided missiles and space vehicles .....	3761	137.1	136.9	136.4	136.3	-	38.5	38.9	37.2	37.4	-
Miscellaneous transportation equipment .....	379	47.5	46.8	47.9	47.2	-	31.3	30.7	31.4	30.9	-
Travel trailers and campers .....	3792	17.5	17.4	19.1	18.9	-	13.6	13.5	14.7	14.6	-
Instruments and related products .....	38	1,027.9	1,029.3	1,003.2	996.9	994.8	508.0	509.5	496.2	491.0	491.9
Search and navigation equipment .....	381	299.9	298.7	284.0	282.2	-	99.8	100.1	94.1	92.5	-
Measuring and controlling devices .....	382	331.4	330.9	322.7	320.6	-	186.3	186.0	179.4	177.8	-
Environmental controls .....	3822	51.3	51.1	48.8	48.7	-	34.3	34.2	33.0	33.1	-
Process control instruments .....	3823	66.0	65.8	66.2	65.9	-	35.2	35.2	34.3	34.0	-
Instruments to measure electricity .....	3825	100.1	100.4	95.8	95.0	-	50.2	50.1	48.0	47.4	-
Medical instruments and supplies .....	384	238.8	240.6	244.0	242.0	-	139.8	140.3	143.7	141.8	-
Surgical and medical instruments .....	3841	99.2	99.3	101.0	100.9	-	57.4	57.3	58.5	58.2	-
Surgical appliances and supplies .....	3842	89.7	90.3	92.8	92.0	-	56.3	56.7	58.4	57.8	-
Ophthalmic goods .....	385	38.7	39.6	39.1	38.9	-	26.4	27.5	26.9	26.8	-
Photographic equipment and supplies .....	386	108.0	107.9	102.6	102.4	-	47.5	47.2	43.9	43.9	-
Watches, clocks, watchcases, and parts .....	387	11.1	11.6	10.8	10.8	-	8.2	8.4	8.2	8.2	-
Miscellaneous manufacturing industries .....	39	377.6	392.2	386.9	377.4	385.9	272.3	286.6	279.9	271.4	280.4
Jewelry, silverware, and plated ware .....	391	50.3	53.9	52.0	50.9	-	35.0	38.3	36.3	35.4	-
Jewelry, precious metal .....	3911	36.4	39.1	37.7	36.8	-	25.4	27.6	26.1	25.2	-
Musical instruments .....	393	12.3	12.4	12.0	11.4	-	10.1	10.2	9.8	9.2	-
Toys and sporting goods .....	394	104.9	106.8	105.8	102.6	-	76.3	78.1	76.7	74.2	-
Dolls, games, toys, and children's vehicles .....	3942,4	45.0	47.8	44.6	43.8	-	31.6	34.3	31.1	30.6	-
Sporting and athletic goods, nec .....	3949	59.9	59.0	61.2	58.8	-	44.7	43.8	45.6	43.6	-
Pens, pencils, office, and art supplies .....	395	35.8	35.9	35.2	34.5	-	24.9	25.0	24.6	24.0	-
Costume jewelry and notions .....	396	33.2	38.9	38.4	36.2	-	25.2	31.4	29.1	26.6	-
Costume jewelry .....	3961	21.0	25.0	24.3	23.1	-	15.8	20.3	18.1	16.5	-
Miscellaneous manufactures .....	399	141.1	144.3	143.5	141.8	-	100.8	103.6	103.4	102.0	-
Signs and advertising specialties .....	3993	57.3	57.8	57.2	57.4	-	39.3	39.8	40.0	40.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Nondurable goods</b> .....		8,000	8,107	7,989	7,942	8,047	5,626	5,732	5,596	5,556	5,658
<b>Food and kindred products</b> .....	20	1,688.3	1,729.6	1,644.5	1,686.1	1,731.2	1,214.4	1,255.7	1,176.9	1,218.5	1,262.8
Meat products .....	201	412.5	416.2	418.3	419.3	-	350.1	353.3	355.1	356.2	-
Meat packing plants .....	2011	138.6	139.7	138.2	137.9	-	116.1	117.2	116.0	115.6	-
Sausages and other prepared meats .....	2013	84.5	85.1	85.5	85.8	-	62.4	62.9	63.5	64.2	-
Poultry slaughtering and processing .....	2015	189.4	191.4	194.6	195.6	-	171.6	173.2	175.6	176.4	-
Dairy products .....	202	161.3	160.2	157.6	157.5	-	100.1	98.8	97.2	97.2	-
Cheese, natural and processed .....	2022	43.6	43.1	42.5	42.6	-	33.5	33.3	33.1	32.9	-
Fluid milk .....	2026	75.6	75.7	74.5	74.2	-	38.5	38.3	37.1	37.3	-
Preserved fruits and vegetables .....	203	279.9	310.1	237.6	276.2	-	234.4	263.7	195.9	233.8	-
Canned specialties .....	2032	23.9	25.8	22.8	23.4	-	17.5	19.4	17.4	18.2	-
Canned fruits and vegetables .....	2033	112.1	138.2	75.1	108.5	-	97.1	121.9	62.5	95.6	-
Frozen fruits and vegetables .....	2037	56.0	60.5	55.9	58.1	-	49.4	54.4	49.0	50.7	-
Grain mill products .....	204	124.0	126.0	127.2	126.5	-	85.8	87.2	87.8	87.0	-
Flour and other grain mill products .....	2041	20.8	21.4	22.1	22.2	-	14.2	14.2	13.8	13.9	-
Prepared feeds, nec .....	2048	43.5	43.8	44.0	43.5	-	27.1	27.4	27.7	27.3	-
Bakery products .....	205	214.5	215.0	210.2	209.3	-	133.9	134.4	132.3	131.9	-
Bread, cake, and related products .....	2051	157.3	157.2	153.0	152.4	-	90.2	89.9	88.1	88.0	-
Cookies, crackers, and frozen bakery products, except bread .....	2052,3	57.2	57.8	57.2	56.9	-	43.7	44.5	44.2	43.9	-
Sugar and confectionery products .....	206	92.0	99.8	99.2	100.4	-	70.3	77.8	76.0	77.1	-
Raw cane sugar .....	2061	5.3	6.3	5.6	4.9	-	3.6	4.5	4.0	3.4	-
Cane sugar refining .....	2062	5.4	5.4	5.4	5.5	-	4.1	4.1	4.1	4.1	-
Beet sugar .....	2063	7.3	7.7	7.6	7.5	-	5.8	6.2	6.0	5.9	-
Candy and other confectionery products .....	2064	44.9	50.5	50.0	51.9	-	36.4	42.0	40.0	41.9	-
Fats and oils .....	207	30.4	30.2	29.8	29.5	-	22.3	22.1	21.2	21.1	-
Beverages .....	208	197.5	195.9	188.6	189.2	-	84.7	84.4	79.9	80.3	-
Malt beverages .....	2082	42.0	41.8	40.7	40.6	-	25.8	25.8	24.4	24.5	-
Bottled and canned soft drinks .....	2086	109.8	108.8	106.8	107.6	-	36.7	36.2	35.6	36.2	-
Misc. food and kindred products .....	209	176.2	176.2	176.0	178.2	-	132.8	134.0	131.5	133.9	-
<b>Tobacco products</b> .....	21	46.2	48.4	43.6	43.6	48.0	33.1	35.9	31.4	31.1	35.0
Cigarettes .....	211	36.3	35.8	34.3	34.6	-	26.4	26.4	25.6	25.6	-
<b>Textile mill products</b> .....	22	715.3	726.6	706.0	692.8	704.8	617.6	628.0	606.4	593.8	603.8
Broadwoven fabric mills, cotton .....	221	94.4	95.7	91.1	87.3	-	84.7	86.0	81.4	77.8	-
Broadwoven fabric mills, synthetics .....	222	83.9	84.2	81.9	80.2	-	74.3	74.5	72.0	70.5	-
Broadwoven fabric mills, wool .....	223	18.5	19.2	18.0	17.6	-	14.8	15.5	14.5	14.2	-
Narrow fabric mills .....	224	23.6	25.1	24.2	23.5	-	19.9	21.3	20.4	19.8	-
Knitting mills .....	225	215.1	218.5	210.6	207.8	-	189.0	192.2	183.9	181.2	-
Women's hosiery, except socks .....	2251	32.4	32.7	32.8	32.3	-	29.1	29.3	29.3	28.8	-
Hosiery, nec .....	2252	39.8	40.6	39.1	38.9	-	36.1	36.9	35.1	34.8	-
Knit outerwear mills .....	2253	66.6	67.9	64.5	64.2	-	59.1	60.3	56.6	56.5	-
Knit underwear mills .....	2254	29.8	29.7	27.6	26.4	-	25.1	25.1	23.6	22.4	-
Weft knit fabric mills .....	2257	27.8	28.0	27.6	27.4	-	24.2	24.4	23.8	23.6	-
Textile finishing, except wool .....	226	59.9	61.4	61.1	60.4	-	49.1	50.3	49.6	48.8	-
Finishing plants, cotton .....	2261	24.0	24.9	25.8	25.1	-	19.6	20.3	20.8	20.1	-
Finishing plants, synthetics .....	2262	23.1	23.6	23.1	23.3	-	18.6	18.9	18.6	18.5	-
Carpets and rugs .....	227	63.6	64.1	65.1	65.1	-	51.6	52.1	53.2	53.0	-
Yarn and thread mills .....	228	104.8	106.0	102.9	99.9	-	94.2	95.5	92.1	89.3	-
Yarn spinning mills .....	2281	83.5	84.5	82.2	79.6	-	75.1	76.2	73.9	71.4	-
Throwing and winding mills .....	2282	14.8	15.0	14.3	14.0	-	13.2	13.4	12.5	12.3	-
Miscellaneous textile goods .....	229	51.5	52.4	51.1	51.0	-	40.0	40.6	39.3	39.2	-
<b>Apparel and other textile products</b> .....	23	1,044.4	1,074.8	1,038.6	997.7	1,026.2	876.5	905.8	871.7	832.3	859.9
Men's and boys' suits and coats .....	231	52.5	53.0	49.5	47.6	-	44.9	45.2	41.6	39.7	-
Men's and boys' furnishings .....	232	280.7	287.1	275.8	263.0	-	241.6	248.1	237.4	225.6	-
Men's and boys' shirts .....	2321	67.0	68.6	65.0	60.8	-	56.9	58.3	55.3	51.6	-
Men's and boys' trousers and slacks .....	2325	85.6	87.9	84.8	80.3	-	74.8	77.2	73.8	69.4	-
Men's and boys' work clothing .....	2326	46.2	46.9	44.6	43.9	-	40.1	40.8	38.5	38.0	-
Women's and misses' outerwear .....	233	328.1	341.6	325.3	309.6	-	273.3	285.6	271.7	256.8	-
Women's and misses' blouses and shirts .....	2331	42.5	43.3	40.1	38.2	-	35.0	35.7	32.8	30.9	-
Women's, juniors', and misses' dresses .....	2335	69.7	75.9	72.1	67.0	-	57.4	62.8	59.3	54.6	-
Women's and misses' suits and coats .....	2337	39.2	40.0	39.5	40.4	-	32.7	33.5	32.9	33.6	-
Women's and misses' outerwear, nec .....	2339	176.7	182.4	173.6	164.0	-	148.2	153.6	146.7	137.7	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
<b>Apparel and other textile products—Continued</b>											
Women's and children's undergarments .....	234	64.3	66.4	61.5	60.0	-	53.0	55.0	50.5	49.0	-
Women's and children's underwear .....	2341	51.7	52.9	48.9	48.1	-	44.3	45.7	42.0	41.2	-
Brassieres, girdles, and allied garments .....	2342	12.6	13.5	12.6	11.9	-	8.7	9.3	8.5	7.8	-
Girl's and children's outerwear .....	236	58.4	57.9	57.9	56.8	-	48.8	48.8	48.7	47.6	-
Girl's and children's dresses and blouses .....	2361	22.7	22.2	22.2	21.5	-	19.7	19.3	19.4	18.7	-
Misc. apparel and accessories .....	238	44.2	45.7	43.6	42.5	-	36.5	37.7	35.9	34.8	-
Misc. fabricated textile products .....	239	198.5	205.4	206.3	199.7	-	163.9	171.0	170.5	163.6	-
Curtains and draperies .....	2391	24.8	25.6	24.4	23.1	-	20.5	21.3	20.1	18.9	-
House furnishings, nec .....	2392	52.8	55.4	54.2	53.2	-	44.1	46.6	45.5	44.3	-
Automotive and apparel trimmings .....	2396	45.2	46.3	50.1	47.9	-	37.7	38.7	41.3	39.1	-
Paper and allied products .....	26	703.1	703.9	705.7	704.7	705.8	525.8	527.3	530.3	529.1	531.4
Paper mills .....	262	180.6	180.3	180.8	181.3	-	137.1	136.7	137.2	137.4	-
Paperboard mills .....	263	52.8	52.8	52.5	52.3	-	40.5	40.3	40.1	40.0	-
Paperboard containers and boxes .....	265	209.7	210.6	211.0	209.0	-	162.0	163.0	163.0	161.1	-
Corrugated and solid fiber boxes .....	2653	117.7	118.0	119.1	117.7	-	88.4	88.8	89.4	88.1	-
Sanitary food containers .....	2656	14.8	14.6	15.6	15.3	-	12.4	12.2	13.3	13.0	-
Folding paperboard boxes .....	2657	51.5	51.5	50.9	50.7	-	41.5	41.3	40.9	40.7	-
Misc. converted paper products .....	267	243.2	243.4	244.1	244.8	-	173.0	174.1	176.6	177.2	-
Paper, coated and laminated, nec .....	2672	44.6	44.5	44.7	44.9	-	20.2	20.2	22.0	21.9	-
Bags: plastics, laminated, and coated .....	2673	33.4	33.6	34.1	34.2	-	25.3	25.4	25.3	25.6	-
Envelopes .....	2677	26.7	27.0	27.1	26.3	-	20.6	21.0	21.0	20.4	-
Printing and publishing .....	27	1,560.4	1,561.1	1,584.7	1,576.3	1,578.3	861.9	863.4	878.3	871.9	874.9
Newspapers .....	271	472.2	471.8	480.3	478.6	-	164.3	164.5	166.3	165.2	-
Periodicals .....	272	128.5	129.2	131.9	132.0	-	45.5	45.8	48.3	48.5	-
Books .....	273	121.0	119.4	120.3	120.4	-	65.3	63.7	65.0	65.1	-
Book publishing .....	2731	85.5	84.6	85.3	85.0	-	37.2	35.9	36.7	36.3	-
Book printing .....	2732	35.5	34.8	35.0	35.4	-	28.1	27.8	28.3	28.8	-
Miscellaneous publishing .....	274	82.5	82.1	82.5	82.3	-	41.2	40.7	42.0	42.0	-
Commercial printing .....	275	542.3	543.5	553.5	548.0	-	393.0	395.2	402.6	397.7	-
Commercial printing, lithographic .....	2752	358.3	358.1	367.3	364.2	-	259.0	259.5	267.1	264.3	-
Commercial printing, nec .....	2759	168.6	169.8	170.9	168.8	-	121.7	123.2	123.2	121.5	-
Manifold business forms .....	276	49.5	49.6	48.7	48.4	-	33.6	33.7	33.8	33.6	-
Blankbooks and bookbinding .....	278	76.0	76.7	76.8	75.4	-	59.0	59.6	59.7	58.7	-
Printing trade services .....	279	64.0	64.0	63.9	63.8	-	47.3	47.3	46.7	46.5	-
Chemicals and allied products .....	28	1,078.8	1,083.3	1,094.7	1,091.4	1,091.5	606.3	610.8	605.6	603.6	602.6
Industrial inorganic chemicals .....	281	133.7	133.8	136.2	136.7	-	69.3	69.9	68.1	68.8	-
Industrial inorganic chemicals, nec .....	2819	89.6	89.7	91.7	92.0	-	47.8	47.9	48.2	48.3	-
Plastics materials and synthetics .....	282	185.3	185.6	186.9	186.3	-	120.5	121.2	120.9	120.4	-
Plastics materials and resins .....	2821	89.8	89.9	90.1	89.9	-	52.5	52.8	53.1	52.8	-
Organic fibers, noncellulosic .....	2824	66.3	66.7	66.8	66.2	-	47.3	47.8	46.8	46.4	-
Drugs .....	283	234.8	235.2	239.0	239.8	-	103.1	103.5	106.3	107.0	-
Pharmaceutical preparations .....	2834	195.2	195.6	198.2	198.7	-	85.8	86.2	89.5	90.3	-
Soap, cleaners, and toilet goods .....	284	158.5	162.3	160.6	157.2	-	100.3	102.9	99.4	97.3	-
Soap and other detergents .....	2841	43.1	43.1	43.7	43.7	-	27.1	27.1	28.2	28.2	-
Polishing, sanitation, and finishing preparations .....	2842,3	43.2	43.5	45.0	45.0	-	24.0	24.3	24.5	24.5	-
Toilet preparations .....	2844	72.2	75.7	71.9	68.5	-	49.2	51.5	46.7	44.6	-
Paints and allied products .....	285	63.4	63.9	64.0	64.5	-	32.7	32.6	32.6	33.0	-
Industrial organic chemicals .....	286	149.9	149.9	154.0	154.0	-	88.1	88.6	85.8	85.8	-
Cyclic crudes and intermediates .....	2865	28.5	28.6	29.5	29.3	-	17.5	17.7	17.7	17.6	-
Industrial organic chemicals, nec .....	2869	116.8	116.7	120.2	120.4	-	67.4	67.7	65.2	65.3	-
Agricultural chemicals .....	287	53.1	52.2	53.8	53.1	-	32.8	32.1	33.3	32.6	-
Miscellaneous chemical products .....	289	100.1	100.4	100.2	99.8	-	59.5	60.0	59.2	58.7	-
Petroleum and coal products .....	29	160.4	160.6	163.1	163.7	164.3	105.6	106.0	107.8	108.1	108.4
Petroleum refining .....	291	119.3	119.4	120.8	121.3	-	76.1	76.3	77.6	77.8	-
Asphalt paving and roofing materials .....	295	29.2	29.4	30.1	30.2	-	22.8	23.0	23.3	23.3	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
Rubber and misc. plastics products .....	30	873.4	880.8	877.8	864.6	871.0	677.5	684.8	680.4	667.4	674.9
Tires and inner tubes .....	301	85.6	85.9	83.5	84.1	-	64.4	64.5	61.1	61.3	-
Rubber and plastics footwear .....	302	10.8	10.2	11.0	9.4	-	8.8	8.3	8.9	7.7	-
Hose, belting, gaskets, and packing .....	305	59.1	58.7	58.7	58.7	-	43.0	42.7	42.4	42.3	-
Rubber and plastics hose and belting .....	3052	25.8	25.5	25.2	25.1	-	19.1	18.9	18.8	18.7	-
Fabricated rubber products, nec .....	306	107.1	107.5	105.0	103.2	-	80.5	81.0	79.0	77.5	-
Miscellaneous plastics products, nec .....	308	610.8	618.5	619.6	609.2	-	480.8	488.3	489.0	478.6	-
Leather and leather products .....	31	129.6	137.5	129.9	121.3	126.3	107.5	114.4	107.5	99.9	104.5
Leather tanning and finishing .....	311	14.2	14.8	14.9	12.8	-	11.9	12.4	12.5	10.5	-
Footwear, except rubber .....	314	72.9	77.0	72.6	68.9	-	62.2	65.9	61.8	58.4	-
Men's footwear, except athletic .....	3143	31.9	33.1	31.5	30.2	-	26.2	27.1	25.5	24.5	-
Women's footwear, except athletic .....	3144	26.1	27.9	26.7	25.3	-	23.1	24.8	23.6	22.1	-
Luggage .....	316	10.1	11.3	10.9	9.7	-	7.3	8.4	7.8	7.0	-
Handbags and personal leather goods .....	317	15.2	16.6	14.0	13.2	-	12.0	13.2	11.1	10.4	-
<b>Transportation and public utilities .....</b>		<b>5,675</b>	<b>5,566</b>	<b>5,881</b>	<b>5,842</b>	<b>5,854</b>	<b>4,717</b>	<b>4,634</b>	<b>4,895</b>	<b>4,854</b>	<b>4,866</b>
Transportation .....		3,434	3,453	3,649	3,607	3,615	-	-	-	-	-
Railroad transportation .....	40	296.9	298.0	290.3	288.8	-	-	-	-	-	-
Class I railroads <sup>2</sup> .....	4011	253.0	254.0	245.8	244.8	-	-	-	-	-	-
Local and interurban passenger transit .....	41	272.9	273.8	331.3	277.3	-	245.2	245.3	302.4	250.3	-
Local and suburban transportation .....	411	127.2	127.9	136.2	136.2	-	113.9	113.5	122.7	123.7	-
Taxicabs .....	412	32.4	32.7	33.0	32.5	-	-	-	-	-	-
Intercity and rural bus transportation .....	413	29.0	28.5	18.4	18.3	-	26.2	25.9	15.9	15.8	-
School buses .....	415	57.1	57.2	112.8	61.4	-	-	-	-	-	-
Trucking and warehousing .....	42	1,624.2	1,633.7	1,672.8	1,677.7	-	1,419.8	1,429.6	1,459.8	1,462.0	-
Trucking and courier services, except air .....	421	1,506.8	1,514.5	1,552.6	1,557.1	-	1,322.2	1,330.5	1,360.2	1,362.0	-
Public warehousing and storage .....	422	113.7	115.6	116.5	116.9	-	94.5	96.1	96.4	96.9	-
Water transportation .....	44	183.7	180.7	180.1	182.0	-	-	-	-	-	-
Water transportation of freight, nec .....	444	14.2	14.0	13.9	13.6	-	-	-	-	-	-
Water transportation services .....	449	117.6	115.3	114.4	114.8	-	105.6	103.0	101.5	102.1	-
Transportation by air .....	45	700.2	708.3	792.8	800.0	-	-	-	-	-	-
Air transportation, scheduled .....	451	576.8	584.0	656.4	662.3	-	-	-	-	-	-
Airports, flying fields, and services .....	458	97.1	96.8	105.4	106.5	-	-	-	-	-	-
Pipelines, except natural gas .....	46	19.5	19.5	20.2	20.4	-	14.1	14.1	14.9	15.0	-
Transportation services .....	47	337.0	339.0	361.3	360.6	-	-	-	-	-	-
Freight transportation arrangement .....	473	125.5	127.8	132.2	133.0	-	100.7	102.7	107.4	107.9	-
Communications and public utilities .....		2,241	2,113	2,232	2,235	2,239	-	-	-	-	-
Communications .....	48	1,293.0	1,164.1	1,279.9	1,279.7	-	970.3	870.2	957.7	958.7	-
Telephone communications .....	481	904.7	774.4	883.0	882.6	-	654.0	553.0	636.7	638.0	-
Radio and television broadcasting .....	483	232.1	233.2	233.8	234.3	-	192.0	192.6	193.3	193.5	-
Radio broadcasting stations .....	4832	120.5	121.2	121.1	121.4	-	-	-	-	-	-
Television broadcasting stations .....	4833	111.6	112.0	112.7	112.9	-	-	-	-	-	-
Cable and other pay television services .....	484	118.2	118.8	127.5	127.6	-	99.7	100.3	106.0	105.8	-
Electric, gas, and sanitary services .....	49	947.9	948.8	952.0	955.7	-	751.4	752.6	755.9	758.9	-
Electric services .....	491	447.7	447.0	447.4	447.9	-	343.6	343.5	346.6	347.7	-
Gas production and distribution .....	492	167.6	167.6	169.5	170.6	-	132.2	132.2	133.3	134.1	-
Combination utility services .....	493	193.4	194.1	194.3	195.2	-	157.1	157.7	157.0	156.8	-
Sanitary services .....	495	109.5	110.4	110.6	111.5	-	95.1	95.9	95.4	96.3	-
<b>Wholesale trade .....</b>		<b>6,315</b>	<b>6,327</b>	<b>6,420</b>	<b>6,417</b>	<b>6,416</b>	<b>5,091</b>	<b>5,101</b>	<b>5,166</b>	<b>5,160</b>	<b>5,156</b>
Durable goods .....	50	3,745.0	3,749.0	3,798.0	3,794.0	3,789.0	2,999.0	3,001.0	3,027.0	3,021.0	-
Motor vehicles, parts, and supplies .....	501	457.3	455.6	454.7	455.0	-	370.9	369.3	367.6	368.1	-
Automobiles and other motor vehicles .....	5012	123.5	123.1	121.4	121.9	-	-	-	-	-	-
Motor vehicle supplies and new parts .....	5013	264.4	262.8	263.5	263.5	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Wholesale trade—Continued</b>											
<b>Durable goods—Continued</b>											
Furniture and home furnishings .....	502	155.7	155.8	153.7	152.0	-	126.3	126.5	123.4	123.0	-
Furniture .....	5021	72.7	72.4	69.8	69.4	-	-	-	-	-	-
Home furnishings .....	5023	83.0	83.4	83.9	82.6	-	-	-	-	-	-
Lumber and other construction materials .....	503	240.6	240.9	245.2	247.1	-	197.6	197.6	200.7	202.2	-
Lumber, plywood, and millwork .....	5031	123.5	123.8	127.1	128.0	-	-	-	-	-	-
Construction materials, nec .....	5039	49.7	49.4	49.8	50.6	-	-	-	-	-	-
Professional and commercial equipment .....	504	783.6	787.5	792.0	791.1	-	635.3	638.2	639.5	636.9	-
Computers, peripherals and software .....	5045	309.8	311.4	306.0	303.2	-	-	-	-	-	-
Metals and minerals, except petroleum .....	505	145.9	145.2	143.6	143.4	-	116.1	115.5	114.5	114.2	-
Electrical goods .....	506	524.4	526.4	542.6	543.0	-	397.8	399.1	409.9	408.9	-
Electrical apparatus and equipment .....	5063	202.0	202.5	211.1	210.8	-	-	-	-	-	-
Electrical appliances, television and radio sets .....	5064	68.3	69.6	69.4	69.3	-	-	-	-	-	-
Electronic parts and equipment .....	5065	254.1	254.3	262.1	262.9	-	-	-	-	-	-
Hardware, plumbing, and heating equipment .....	507	290.2	289.3	286.5	286.7	-	235.6	235.3	231.9	231.5	-
Hardware .....	5072	99.1	98.8	97.4	97.5	-	-	-	-	-	-
Plumbing and hydronic heating supplies .....	5074	120.6	120.2	119.3	118.9	-	-	-	-	-	-
Machinery, equipment, and supplies .....	508	839.8	840.1	871.0	869.5	-	670.8	670.7	693.1	692.2	-
Construction and mining machinery .....	5082	86.4	86.4	88.9	88.9	-	-	-	-	-	-
Farm and garden machinery .....	5083	119.8	119.7	124.5	124.5	-	-	-	-	-	-
Industrial machinery and equipment .....	5084	356.3	356.7	368.2	366.4	-	-	-	-	-	-
Industrial supplies .....	5085	148.7	148.8	153.7	153.8	-	-	-	-	-	-
Misc. wholesale trade durable goods .....	509	307.9	308.6	308.4	306.2	-	248.2	248.8	246.3	244.4	-
Scrap and waste materials .....	5093	113.3	112.7	114.9	113.7	-	-	-	-	-	-
Nondurable goods .....	51	2,570.0	2,578.0	2,622.0	2,623.0	2,627.0	2,092.0	2,100.0	2,139.0	2,139.0	-
Paper and paper products .....	511	230.4	230.3	234.0	234.3	-	184.6	184.5	188.6	188.3	-
Drugs, proprietaries, and sundries .....	512	186.1	186.3	188.8	189.0	-	156.1	156.0	158.0	158.5	-
Apparel, piece goods, and notions .....	513	207.7	210.7	216.4	214.6	-	161.9	164.9	170.4	168.7	-
Groceries and related products .....	514	847.2	847.4	862.4	863.9	-	715.7	716.1	726.5	727.1	-
Groceries, general line .....	5141	270.3	270.8	276.4	277.5	-	-	-	-	-	-
Meats and meat products .....	5147	63.9	64.2	63.3	63.3	-	-	-	-	-	-
Fresh fruits and vegetables .....	5148	102.2	99.1	110.5	109.3	-	-	-	-	-	-
Chemicals and allied products .....	516	130.9	130.2	131.1	130.7	-	93.2	92.6	94.5	94.0	-
Petroleum and petroleum products .....	517	213.4	214.2	213.6	213.7	-	167.8	168.9	169.3	169.7	-
Petroleum bulk stations and terminals .....	5171	93.1	93.6	94.9	95.9	-	-	-	-	-	-
Petroleum products, nec .....	5172	120.3	120.6	118.7	117.8	-	-	-	-	-	-
Beer, wine, and distilled beverages .....	518	153.4	152.8	156.3	157.6	-	126.2	125.7	128.5	129.9	-
Beer and ale .....	5181	99.0	98.7	100.6	101.1	-	-	-	-	-	-
Wine and distilled beverages .....	5182	54.4	54.1	55.7	56.5	-	-	-	-	-	-
Misc. wholesale trade nondurable goods .....	519	480.0	479.0	498.9	499.8	-	388.2	387.1	404.2	405.2	-
Farm supplies .....	5191	158.9	156.7	170.2	171.1	-	-	-	-	-	-
<b>Retail trade .....</b>		<b>19,673</b>	<b>19,745</b>	<b>19,981</b>	<b>19,946</b>	<b>19,950</b>	<b>17,453</b>	<b>17,517</b>	<b>17,704</b>	<b>17,671</b>	<b>17,664</b>
Building materials and garden supplies .....	52	811.4	805.0	829.2	817.8	-	675.8	670.1	690.6	680.5	-
Lumber and other building materials .....	521	457.5	455.6	458.5	455.6	-	388.3	386.8	387.2	384.6	-
Hardware stores .....	525	166.0	165.3	173.5	171.9	-	137.5	136.7	143.6	142.0	-
General merchandise stores .....	53	2,476.2	2,481.9	2,438.3	2,435.7	2,435.7	2,309.3	2,316.2	2,282.7	2,281.9	-
Department stores .....	531	2,045.1	2,051.7	2,018.8	2,017.7	-	1,919.5	1,927.1	1,905.0	1,905.8	-
Variety stores .....	533	218.7	218.4	210.5	210.0	-	201.1	201.0	193.1	192.2	-
Miscellaneous general merchandise stores .....	539	212.4	211.8	209.0	208.0	-	188.7	188.1	184.6	183.9	-
Food stores .....	54	3,202.2	3,210.2	3,308.9	3,313.5	3,299.7	2,951.1	2,957.0	3,042.6	3,047.3	-
Grocery stores .....	541	2,842.5	2,849.6	2,932.5	2,941.2	-	2,632.9	2,638.4	2,711.2	2,721.3	-
Meat and fish markets .....	542	55.5	54.7	56.1	55.8	-	-	-	-	-	-
Dairy products stores .....	545	28.3	28.7	25.1	26.2	-	-	-	-	-	-
Retail bakeries .....	546	172.6	173.6	179.9	176.1	-	155.6	156.4	160.0	156.4	-
Automotive dealers and service stations .....	55	2,133.5	2,131.7	2,141.7	2,154.4	2,159.1	1,786.1	1,784.1	1,785.6	1,796.9	-
New and used car dealers .....	551	960.0	959.6	943.7	952.3	-	800.6	799.5	783.1	790.8	-
Auto and home supply stores .....	553	350.3	351.9	363.2	365.8	-	282.0	283.2	291.0	294.1	-
Gasoline service stations .....	554	646.8	645.8	647.5	650.5	-	561.5	560.6	560.7	562.3	-
Automotive dealers, nec .....	559	11.3	11.4	14.4	14.6	-	9.3	9.5	11.8	12.1	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Retail trade—Continued</b>											
Apparel and accessory stores .....	56	1,175.7	1,188.6	1,137.2	1,132.7	-	987.8	1,000.7	949.7	946.2	-
Men's and boys' clothing stores .....	561	107.2	107.0	99.7	99.3	-	86.1	85.9	79.4	79.0	-
Women's clothing stores .....	562	413.9	416.4	393.3	391.1	-	346.8	348.0	326.8	325.2	-
Family clothing stores .....	565	280.5	284.6	273.6	272.6	-	242.5	247.7	236.3	235.5	-
Shoe stores .....	566	223.9	228.8	221.3	221.9	-	185.5	190.5	181.6	182.1	-
Furniture and home furnishings stores .....	57	827.2	827.8	829.0	827.9	-	678.0	678.0	679.4	677.4	-
Furniture and home furnishings stores .....	571	471.9	471.8	473.1	472.2	-	383.9	383.4	385.9	384.4	-
Furniture stores .....	5712	288.5	287.9	288.9	287.8	-	-	-	-	-	-
Household appliance stores .....	572	85.1	85.2	77.8	76.8	-	70.8	71.4	64.0	63.6	-
Radio, television, and computer stores .....	573	270.2	270.8	278.1	278.9	-	223.3	223.2	229.5	229.4	-
Radio, television, and electronic stores .....	5731	119.1	119.2	122.1	122.8	-	99.7	99.9	102.2	103.1	-
Record and prerecorded tape stores .....	5735	55.6	55.7	59.8	59.5	-	48.0	47.5	50.8	50.1	-
Eating and drinking places .....	58	6,611.2	6,652.9	6,803.0	6,783.8	6,805.2	6,023.0	6,060.2	6,185.1	6,164.6	-
Miscellaneous retail establishments .....	59	2,435.8	2,446.5	2,493.2	2,480.0	-	2,041.6	2,050.4	2,088.6	2,075.9	-
Drug stores and proprietary stores .....	591	602.1	605.5	617.6	612.5	-	510.5	512.1	520.3	516.3	-
Liquor stores .....	592	123.8	122.6	123.3	123.6	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	855.4	860.9	877.5	876.3	-	711.5	717.0	730.8	728.2	-
Sporting goods and bicycle shops .....	5941	158.6	160.1	165.1	165.9	-	-	-	-	-	-
Book stores .....	5942	84.4	86.9	89.7	89.5	-	-	-	-	-	-
Stationery stores .....	5943	81.9	82.1	82.1	81.1	-	-	-	-	-	-
Jewelry stores .....	5944	152.6	152.8	156.2	154.3	-	-	-	-	-	-
Gift, novelty, and souvenir shops .....	5947	188.9	188.7	190.2	190.9	-	-	-	-	-	-
Sewing, needlework, and piece goods .....	5949	60.6	60.8	62.5	61.2	-	-	-	-	-	-
Nonstore retailers .....	596	277.2	279.5	266.7	265.5	-	245.7	248.3	234.3	234.1	-
Catalog and mail-order houses .....	5961	141.4	142.3	134.1	133.9	-	-	-	-	-	-
Merchandising machine operators .....	5962	85.2	85.4	83.9	82.7	-	-	-	-	-	-
Fuel dealers .....	598	108.9	109.1	111.4	110.9	-	90.1	90.3	92.3	91.7	-
Retail stores, nec .....	599	404.2	405.1	426.8	421.0	-	330.3	331.0	352.0	346.4	-
<b>Finance, insurance, and real estate<sup>3</sup></b> .....		<b>6,817</b>	<b>6,821</b>	<b>6,915</b>	<b>6,937</b>	<b>6,935</b>	<b>4,961</b>	<b>4,962</b>	<b>5,035</b>	<b>5,056</b>	<b>5,054</b>
Finance .....		3,334	3,334	3,364	3,367	3,365	-	-	-	-	-
Depository institutions .....	60	2,310.5	2,312.4	2,319.8	2,318.0	-	1,680.4	1,680.9	1,688.3	1,687.1	-
Commercial banks .....	602	1,570.4	1,570.7	1,574.7	1,573.3	-	1,119.0	1,118.7	1,123.7	1,122.6	-
State commercial banks .....	6022	674.7	674.2	677.1	677.9	-	-	-	-	-	-
Savings institutions .....	603	493.5	492.7	473.0	470.4	-	-	-	-	-	-
Federal savings institutions .....	6035	246.4	246.4	237.5	236.0	-	-	-	-	-	-
Savings institutions, except federal .....	6036	247.1	246.3	235.5	234.4	-	-	-	-	-	-
Credit unions .....	606	130.9	131.5	136.0	136.4	-	105.2	105.5	109.2	109.4	-
Nondepository institutions .....	61	362.3	364.5	374.1	375.4	-	260.1	262.4	271.7	272.5	-
Personal credit institutions .....	614	127.8	128.1	131.2	131.6	-	96.6	96.9	98.2	98.5	-
Business credit institutions .....	615	76.8	77.8	82.4	82.5	-	-	-	-	-	-
Mortgage bankers and brokers .....	616	147.7	148.9	151.2	152.0	-	-	-	-	-	-
Security and commodity brokers .....	62	433.8	430.2	428.7	430.1	-	-	-	-	-	-
Security brokers and dealers .....	621	335.9	332.2	324.2	325.0	-	-	-	-	-	-
Commodity contracts brokers, dealers, and exchanges .....	622,3	26.2	25.9	26.2	26.1	-	-	-	-	-	-
Security and commodity services .....	628	71.7	72.1	78.3	79.0	-	48.4	48.2	49.2	49.7	-
Holding and other investment offices .....	67	226.9	226.7	241.3	243.7	-	-	-	-	-	-
Insurance .....	63,64	2,117.0	2,116.0	2,152.0	2,159.0	2,161.0	-	-	-	-	-
Insurance carriers .....	63	1,458.8	1,458.4	1,486.4	1,493.0	-	974.8	974.1	998.9	1,001.4	-
Life insurance .....	631	559.9	559.0	561.2	563.1	-	339.5	339.0	343.4	342.6	-
Medical service and health insurance .....	632	231.9	231.8	245.2	247.7	-	187.8	187.7	198.9	201.3	-
Fire, marine, and casualty insurance .....	633	551.7	552.3	559.6	561.5	-	359.2	358.8	363.1	364.0	-
Title insurance .....	636	62.6	62.9	67.3	67.3	-	-	-	-	-	-
Insurance agents, brokers, and service .....	64	657.8	658.0	665.8	665.9	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Finance, insurance, and real estate—Continued</b>											
Real estate .....	65	1,366.0	1,371.0	1,399.0	1,411.0	1,409.0	-	-	-	-	-
Real estate operators and lessors .....	651	572.3	574.6	600.4	606.8	-	-	-	-	-	-
Real estate agents and managers .....	653	591.7	594.2	590.6	595.4	-	-	-	-	-	-
Subdividers and developers .....	655	170.7	170.1	174.5	175.1	-	-	-	-	-	-
<b>Services .....</b>		<b>27,350</b>	<b>27,373</b>	<b>28,479</b>	<b>28,510</b>	<b>28,498</b>	<b>23,925</b>	<b>23,937</b>	<b>24,869</b>	<b>24,878</b>	<b>24,851</b>
Hotels and other lodging places .....	70	1,712.5	1,714.0	1,716.3	1,746.5	-	-	-	-	-	-
Hotels and motels .....	701	1,629.5	1,626.7	1,632.3	1,649.5	-	1,455.8	1,450.6	1,449.7	1,466.7	-
Personal services .....	72	1,050.0	1,049.1	1,077.8	1,067.2	-	-	-	-	-	-
Laundry, cleaning, and garment services .....	721	420.0	417.9	430.8	428.1	-	373.0	371.5	383.4	381.2	-
Photographic studios, portrait .....	722	64.2	65.9	68.9	68.0	-	-	-	-	-	-
Beauty shops .....	723	365.5	364.8	372.2	372.2	-	325.7	325.2	333.0	332.9	-
Funeral service and crematories .....	726	81.2	81.7	85.1	85.2	-	-	-	-	-	-
Miscellaneous personal services .....	729	94.4	94.4	96.8	90.0	-	80.7	80.5	84.2	77.7	-
Business services .....	73	4,962.6	5,005.1	5,090.0	5,081.9	5,107.4	4,370.9	4,410.1	4,467.2	4,458.0	-
Advertising .....	731	237.3	239.3	239.8	240.6	-	176.2	177.7	172.1	172.2	-
Advertising agencies .....	7311	172.7	174.4	173.2	173.7	-	-	-	-	-	-
Credit reporting and collection .....	732	103.7	103.8	105.6	106.6	-	-	-	-	-	-
Mailing, reproduction, and stenographic services .....	733	224.9	227.8	251.6	251.2	-	-	-	-	-	-
Services to buildings .....	734	802.7	805.1	806.1	797.3	-	731.7	734.6	732.1	724.6	-
Personnel supply services .....	736	1,434.4	1,458.3	1,438.6	1,430.0	-	-	-	-	-	-
Employment agencies .....	7361	236.5	236.8	233.3	233.9	-	-	-	-	-	-
Help supply services .....	7363	1,197.9	1,221.5	1,205.3	1,196.1	-	1,161.5	1,185.3	1,167.5	1,157.0	-
Computer and data processing services .....	737	754.2	756.4	800.5	804.4	-	589.1	588.7	624.0	627.4	-
Prepackaged software .....	7372	102.2	103.3	115.2	116.4	-	-	-	-	-	-
Data processing and preparation .....	7374	206.6	204.6	207.6	208.2	-	-	-	-	-	-
Miscellaneous business services .....	738	1,198.4	1,205.6	1,222.9	1,226.6	-	1,060.0	1,067.2	1,082.5	1,085.4	-
Detective and armored car services .....	7381	442.2	445.3	446.1	448.3	-	414.3	418.0	418.4	420.1	-
Photofinishing laboratories .....	7384	81.7	81.8	81.2	81.2	-	-	-	-	-	-
Auto repair, services, and parking .....	75	896.5	896.9	934.9	938.5	-	741.5	742.1	773.4	775.9	-
Automotive rentals, without drivers .....	751	180.0	180.0	195.8	197.1	-	-	-	-	-	-
Automotive repair shops .....	753	514.8	518.6	536.7	541.1	-	422.2	425.9	439.8	443.6	-
Miscellaneous repair services .....	76	378.8	380.1	388.6	391.3	-	312.1	313.1	319.3	321.4	-
Electrical repair shops .....	762	120.6	121.4	130.2	132.1	-	-	-	-	-	-
Motion pictures .....	78	388.7	392.1	405.2	410.9	-	330.0	332.7	343.9	349.1	-
Motion picture production and services .....	781	135.2	142.0	146.6	152.8	-	110.0	116.8	118.8	124.4	-
Motion picture theaters .....	783	125.7	121.2	121.1	122.3	-	-	-	-	-	-
Amusement and recreation services .....	79	1,187.6	1,177.2	1,222.3	1,251.1	-	1,056.8	1,049.0	1,079.9	1,107.7	-
Misc. amusement and recreation services .....	799	857.8	852.4	872.2	907.2	-	768.9	763.2	776.5	809.2	-
Health services .....	80	7,597.7	7,627.8	8,128.8	8,173.5	8,201.3	6,761.2	6,784.3	7,228.8	7,265.9	-
Offices and clinics of medical doctors .....	801	1,295.7	1,303.9	1,413.6	1,425.2	-	1,070.8	1,077.6	1,169.4	1,177.4	-
Offices and clinics of dentists .....	802	504.3	506.5	525.9	524.4	-	441.6	443.0	461.4	459.9	-
Nursing and personal care facilities .....	805	1,376.7	1,385.4	1,457.5	1,464.5	-	1,245.6	1,252.8	1,317.1	1,323.2	-
Skilled nursing care facilities .....	8051	950.9	955.4	1,005.9	1,010.1	-	-	-	-	-	-
Nursing and personal care, nec .....	8059	229.8	232.8	244.0	245.9	-	-	-	-	-	-
Hospitals .....	806	3,497.9	3,504.1	3,686.7	3,706.2	-	3,203.5	3,207.5	3,375.2	3,393.6	-
General medical and surgical hospitals .....	8062	3,231.2	3,237.5	3,408.7	3,427.1	-	-	-	-	-	-
Psychiatric hospitals .....	8063	99.6	99.4	102.3	101.8	-	-	-	-	-	-
Specialty hospitals, excluding psychiatric .....	8069	167.1	167.2	175.7	177.3	-	-	-	-	-	-
Medical and dental laboratories .....	807	164.0	165.2	179.8	181.7	-	-	-	-	-	-
Home health care services .....	808	248.8	250.0	299.8	303.1	-	229.8	230.7	277.0	279.6	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-2. Employees on nonfarm payrolls by detailed industry—Continued**

(In thousands)

Industry	1987 SIC Code	All employees					Production workers <sup>1</sup>				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Services—Continued</b>											
Legal services .....	81	912.2	909.9	955.7	955.2	-	757.9	754.3	791.3	790.3	-
Educational services .....	82	1,448.1	1,443.6	1,556.2	1,473.3	-	-	-	-	-	-
Elementary and secondary schools .....	821	401.8	402.5	449.7	418.4	-	-	-	-	-	-
Colleges and universities .....	822	838.4	830.9	899.2	842.4	-	-	-	-	-	-
Vocational schools .....	824	93.4	94.4	91.0	89.1	-	-	-	-	-	-
Social services .....	83	1,699.7	1,694.7	1,829.9	1,816.8	-	-	-	-	-	-
Individual and family services .....	832	439.7	438.2	455.9	463.0	-	-	-	-	-	-
Job training and related services .....	833	262.7	255.2	252.5	260.2	-	-	-	-	-	-
Residential care .....	836	430.4	433.5	476.2	482.6	-	-	-	-	-	-
Museums and botanical and zoological gardens .....	84	67.6	67.1	67.4	68.2	-	-	-	-	-	-
Membership organizations .....	86	1,879.0	1,855.9	1,872.3	1,903.7	-	-	-	-	-	-
Business associations .....	861	103.5	104.2	104.0	103.9	-	-	-	-	-	-
Labor organizations .....	863	134.1	131.1	136.2	134.3	-	-	-	-	-	-
Civic and social associations .....	864	463.1	445.1	444.6	476.5	-	-	-	-	-	-
Engineering and management services .....	87	2,403.8	2,401.0	2,451.7	2,456.5	-	1,850.7	1,845.4	1,874.0	1,870.5	-
Engineering and architectural services .....	871	790.6	790.6	807.5	811.0	-	652.9	652.5	664.4	666.0	-
Accounting, auditing, and bookkeeping .....	872	520.0	519.4	528.2	525.2	-	393.4	393.2	395.5	390.3	-
Research and testing services .....	873	531.6	532.2	551.1	553.4	-	396.9	395.2	400.4	400.7	-
Commercial physical research .....	8731	223.9	223.6	228.1	230.2	-	-	-	-	-	-
Noncommercial research organizations .....	8733	144.8	145.3	148.9	150.9	-	-	-	-	-	-
Management and public relations .....	874	561.6	558.8	564.9	566.9	-	407.5	404.5	413.7	413.5	-
Services, nec .....	89	34.4	36.4	39.3	39.4	-	26.6	27.9	31.5	31.4	-
<b>Government .....</b>		16,844	16,730	18,624	17,478	17,242	-	-	-	-	-
Federal Government <sup>4</sup> .....		3,033	3,011	3,365	3,197	3,053	-	-	-	-	-
Executive, by agency <sup>4</sup> .....		2,971.9	2,951.1	3,303.2	-	-	-	-	-	-	-
Department of Defense .....		983.4	983.3	961.0	-	-	-	-	-	-	-
Postal Service <sup>5</sup> .....		831.8	829.2	819.5	-	-	-	-	-	-	-
Other executive agencies .....		1,156.7	1,138.6	1,522.7	-	-	-	-	-	-	-
Legislative .....		39.3	38.3	39.1	-	-	-	-	-	-	-
Judicial .....		21.4	21.6	22.9	-	-	-	-	-	-	-
Federal Government, by industry .....											
Manufacturing activities .....		112.8	112.9	109.4	108.9	-	-	-	-	-	-
Ship building and repairing .....	3731	70.3	70.3	67.5	67.0	-	-	-	-	-	-
Transportation and public utilities, except Postal Service .....		36.8	37.1	38.0	37.2	-	-	-	-	-	-
Services .....		393.0	394.2	393.0	393.9	-	-	-	-	-	-
Hospitals .....	806	225.6	226.3	228.2	228.6	-	-	-	-	-	-
State government .....		3,958.0	3,963.0	4,171.0	4,082.0	4,098.0	-	-	-	-	-
Hospitals .....	806	453.0	450.0	457.8	456.0	-	-	-	-	-	-
Education .....	82	1,383.8	1,385.0	1,547.8	1,426.9	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions .....		1,583.3	1,589.2	1,626.6	1,655.0	-	-	-	-	-	-
Local government .....		9,853.0	9,756.0	11,088.0	10,199.0	10,091.0	-	-	-	-	-
Transportation and public utilities .....		495.3	495.3	491.0	492.8	-	-	-	-	-	-
Hospitals .....	806	640.7	641.8	674.4	679.5	-	-	-	-	-	-
Education .....	82	4,820.8	4,768.2	6,040.6	4,977.1	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions .....		3,505.0	3,467.6	3,487.2	3,596.4	-	-	-	-	-	-

<sup>1</sup> 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.

<sup>2</sup> Data relate to line-haul railroads with operating revenues of \$50,000,000 or more.

<sup>3</sup> Data for nonoffice sales agents are excluded from the nonsupervisory count for all series in this division.

<sup>4</sup> Prepared by the Office of Personnel Management. Data relate to

civilian employment only and exclude the Central Intelligence Agency and the National Security Agency.

<sup>5</sup> Includes rural mail carriers.

- Data not available.

<sup>P</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial Classification (SIC) system. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
NOT SEASONALLY ADJUSTED**

**B-3. Women employees on nonfarm payrolls by major industry and manufacturing group**

(In thousands)

Industry	May 1989	June 1989	Apr. 1990	May 1990	June 1990
<b>Total</b> .....	50,982	51,126	52,185	52,566	52,716
<b>Total private</b> .....	41,544	41,892	42,289	42,537	42,887
<b>Goods-producing</b> .....	7,046	7,102	6,943	6,952	7,008
<b>Mining</b> .....	95	97	97	98	100
<b>Construction</b> .....	549	558	557	567	573
<b>Manufacturing</b> .....	6,402	6,447	6,289	6,287	6,335
<b>Durable goods</b> .....	3,065	3,077	3,001	2,998	3,013
Lumber and wood products .....	123	125	120	121	123
Furniture and fixtures .....	164	164	161	160	161
Stone, clay, and glass products .....	110	112	108	109	110
Primary metal industries .....	105	106	103	103	104
Fabricated metal products .....	326	327	314	315	316
Industrial machinery and equipment .....	468	471	462	461	461
Electronic and other electrical equipment .....	752	755	730	728	730
Transportation equipment .....	410	410	410	409	412
Instruments and related products .....	425	425	415	414	416
Miscellaneous manufacturing .....	180	182	179	180	181
<b>Nondurable goods</b> .....	3,337	3,370	3,288	3,289	3,322
Food and kindred products .....	512	531	509	514	529
Tobacco products .....	15	15	14	14	14
Textile mill products .....	353	355	342	341	344
Apparel and other textile products .....	864	865	822	818	820
Paper and allied products .....	170	173	171	172	176
Printing and publishing .....	687	690	698	697	700
Chemicals and allied products .....	318	322	325	326	331
Petroleum and coal products .....	25	26	25	26	26
Rubber and misc. plastics products .....	313	313	305	306	308
Leather and leather products .....	80	81	75	75	76
<b>Service-producing</b> .....	43,936	44,024	45,242	45,614	45,708
<b>Transportation and public utilities</b> .....	1,637	1,646	1,691	1,709	1,723
<b>Wholesale trade</b> .....	1,906	1,922	1,940	1,945	1,963
<b>Retail trade</b> .....	10,380	10,482	10,315	10,447	10,557
<b>Finance, insurance, and real estate</b> .....	4,201	4,242	4,291	4,304	4,344
<b>Services</b> .....	16,374	16,498	17,109	17,180	17,292
<b>Government</b> .....	9,438	9,234	9,896	10,029	9,829
Federal .....	1,086	1,107	1,262	1,365	1,373
State .....	2,094	2,002	2,169	2,148	2,066
Local .....	6,258	6,125	6,465	6,516	6,390

NOTE: Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial

Classification (SIC) system. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

**B-4. Employees on nonfarm payrolls by major industry and manufacturing group, seasonally adjusted**

(In thousands)

Industry	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
<b>Total</b> .....	108,828	108,868	108,980	109,245	109,383	109,654	109,958	110,122	110,177	110,617	110,829	110,740	110,665
<b>Total private</b> .....	90,797	90,985	91,096	91,344	91,456	91,656	91,917	91,963	91,922	92,120	92,282	92,291	92,279
<b>Goods-producing</b> .....	25,356	25,304	25,283	25,280	25,218	25,188	25,339	25,259	25,180	25,191	25,162	25,100	25,008
<b>Mining</b> .....	706	709	710	716	718	723	727	729	734	738	744	743	736
Oil and gas extraction .....	387	389	390	394	396	398	402	403	405	408	413	412	409
<b>Construction</b> .....	5,220	5,225	5,239	5,258	5,216	5,294	5,368	5,313	5,256	5,286	5,270	5,231	5,191
General building contractors .....	1,345	1,343	1,338	1,339	1,335	1,361	1,368	1,351	1,338	1,334	1,334	1,319	1,304
<b>Manufacturing</b> .....	19,430	19,370	19,334	19,306	19,284	19,171	19,244	19,217	19,190	19,167	19,148	19,126	19,081
<b>Durable goods</b> .....	11,416	11,369	11,337	11,314	11,296	11,192	11,278	11,261	11,229	11,217	11,201	11,175	11,126
Lumber and wood products .....	753	750	753	752	753	753	751	751	750	748	743	740	738
Furniture and fixtures .....	525	524	521	521	519	519	518	518	516	516	515	512	513
Stone, clay, and glass products .....	568	563	566	567	566	567	568	565	560	559	556	552	551
Primary metal industries .....	772	767	764	760	759	754	756	754	755	755	756	758	756
Blast furnaces and basic steel products .....	278	278	274	272	273	272	272	270	271	271	270	270	272
Fabricated metal products .....	1,442	1,438	1,433	1,429	1,428	1,412	1,418	1,418	1,419	1,417	1,415	1,418	1,417
Industrial machinery and equipment .....	2,135	2,132	2,125	2,129	2,130	2,132	2,128	2,119	2,112	2,112	2,108	2,103	2,098
Electronic and other electrical equipment .....	1,750	1,743	1,737	1,732	1,722	1,722	1,720	1,718	1,713	1,711	1,703	1,693	1,679
Transportation equipment .....	2,056	2,041	2,031	2,023	2,024	1,933	2,023	2,022	2,014	2,010	2,021	2,016	2,000
Motor vehicles and equipment .....	864	843	833	826	828	738	828	825	820	817	826	825	813
Instruments and related products .....	1,027	1,023	1,021	1,018	1,011	1,011	1,009	1,008	1,005	1,002	1,000	997	992
Miscellaneous manufacturing .....	388	388	386	383	386	389	389	388	385	387	384	386	382
<b>Nondurable goods</b> .....	8,014	8,001	7,997	7,992	7,988	7,979	7,968	7,956	7,961	7,950	7,947	7,951	7,955
Food and kindred products .....	1,649	1,653	1,651	1,651	1,650	1,651	1,650	1,648	1,651	1,650	1,643	1,647	1,650
Tobacco products .....	49	48	48	48	47	47	47	46	46	46	47	46	48
Textile mill products .....	724	720	721	718	716	715	711	709	708	703	702	703	703
Apparel and other textile products .....	1,075	1,070	1,066	1,064	1,061	1,053	1,045	1,037	1,036	1,031	1,029	1,027	1,026
Paper and allied products .....	700	697	697	697	698	697	699	698	699	698	699	701	702
Printing and publishing .....	1,566	1,566	1,567	1,571	1,573	1,576	1,576	1,578	1,579	1,581	1,582	1,581	1,583
Chemicals and allied products .....	1,076	1,075	1,076	1,077	1,081	1,081	1,083	1,083	1,084	1,085	1,086	1,085	1,084
Petroleum and coal products .....	157	157	158	158	157	158	159	159	159	159	160	160	161
Rubber and misc. plastics products .....	883	880	878	875	873	889	865	867	869	868	871	874	874
Leather and leather products .....	135	135	135	133	132	132	131	131	130	129	128	127	124
<b>Service-producing</b> .....	83,272	83,564	83,697	83,965	84,165	84,466	84,619	84,863	84,997	85,426	85,667	85,640	85,657
<b>Transportation and public utilities</b> .....	5,561	5,658	5,871	5,893	5,776	5,790	5,804	5,808	5,809	5,833	5,846	5,840	5,849
Transportation .....	3,467	3,483	3,500	3,523	3,548	3,568	3,583	3,589	3,588	3,613	3,627	3,625	3,630
Communications and public utilities .....	2,094	2,173	2,171	2,170	2,228	2,222	2,221	2,219	2,221	2,220	2,219	2,215	2,219
<b>Wholesale trade</b> .....	6,294	6,303	6,313	6,335	6,344	6,356	6,357	6,361	6,363	6,369	6,383	6,377	6,383
Durable goods .....	3,734	3,742	3,744	3,780	3,767	3,773	3,775	3,775	3,771	3,770	3,779	3,775	3,774
Nondurable goods .....	2,560	2,561	2,569	2,575	2,577	2,583	2,582	2,586	2,592	2,599	2,604	2,602	2,609
<b>Retail trade</b> .....	19,620	19,634	19,665	19,714	19,710	19,807	19,758	19,764	19,778	19,795	19,822	19,847	19,831
General merchandise stores .....	2,537	2,534	2,527	2,542	2,519	2,529	2,505	2,495	2,493	2,487	2,496	2,496	2,490
Food stores .....	3,205	3,211	3,230	3,240	3,247	3,263	3,268	3,272	3,287	3,295	3,302	3,304	3,296
Automotive dealers and service stations .....	2,106	2,109	2,115	2,116	2,113	2,117	2,118	2,120	2,118	2,121	2,120	2,129	2,133
Eating and drinking places .....	6,464	6,476	6,491	6,511	6,523	6,538	6,556	6,563	6,573	6,583	6,598	6,618	6,613
<b>Finance, insurance, and real estate</b> .....	6,740	6,753	6,756	6,774	6,785	6,794	6,817	6,821	6,823	6,838	6,844	6,843	6,852
Finance .....	3,312	3,317	3,320	3,327	3,329	3,327	3,340	3,333	3,336	3,338	3,344	3,337	3,342
Insurance .....	2,109	2,111	2,109	2,114	2,119	2,124	2,128	2,135	2,135	2,139	2,143	2,148	2,155
Real estate .....	1,319	1,325	1,327	1,333	1,337	1,343	1,349	1,353	1,352	1,361	1,357	1,358	1,355
<b>Services</b> .....	27,226	27,335	27,408	27,548	27,623	27,721	27,842	27,950	27,969	28,094	28,225	28,284	28,356
Business services .....	4,950	4,980	4,970	4,990	4,986	4,993	5,010	5,021	5,026	5,048	5,060	5,052	5,052
Health services .....	7,605	7,648	7,690	7,743	7,789	7,837	7,889	7,936	7,984	8,040	8,096	8,133	8,177
<b>Government</b> .....	17,831	17,883	17,884	17,901	17,927	17,998	18,041	18,159	18,255	18,497	18,547	18,449	18,386
Federal .....	2,996	2,992	2,986	2,982	2,977	3,000	3,005	3,089	3,151	3,346	3,338	3,161	3,038
State .....	4,191	4,215	4,202	4,212	4,206	4,225	4,239	4,249	4,252	4,262	4,296	4,310	4,332
Local .....	10,644	10,676	10,696	10,707	10,744	10,773	10,797	10,821	10,852	10,889	10,913	10,978	11,016

<sup>P</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks,

conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
SEASONALLY ADJUSTED**

**B-5. Women employees on nonfarm payrolls by major industry and manufacturing group, seasonally adjusted**

(In thousands)

Industry	1989							1990					
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
<b>Total .....</b>	50,923	51,045	51,152	51,279	51,323	51,481	51,607	51,711	51,844	51,968	52,082	52,295	52,507
<b>Total private .....</b>	41,702	41,771	41,808	41,929	41,963	42,099	42,196	42,249	42,347	42,405	42,459	42,538	42,697
<b>Goods-producing .....</b>	7,064	7,068	7,068	7,049	7,040	7,027	7,025	7,001	7,003	6,988	6,983	6,974	6,969
<b>Mining .....</b>	96	95	96	96	95	95	95	96	97	98	98	98	99
<b>Construction .....</b>	550	551	554	553	557	557	558	562	564	563	563	566	565
<b>Manufacturing .....</b>	6,418	6,422	6,418	6,400	6,388	6,375	6,372	6,343	6,342	6,327	6,322	6,310	6,305
<b>Durable goods .....</b>	3,064	3,061	3,058	3,046	3,037	3,028	3,028	3,009	3,017	3,013	3,006	3,001	2,999
Lumber and wood products .....	122	122	121	120	121	120	120	120	120	120	120	120	120
Furniture and fixtures .....	165	165	163	163	162	162	162	161	161	161	160	160	161
Stone, clay, and glass products .....	111	110	110	110	110	110	110	110	110	110	109	109	108
Primary metal industries .....	105	105	105	104	104	103	103	102	102	103	103	103	103
Fabricated metal products .....	325	325	323	322	320	318	317	314	315	315	315	314	314
Industrial machinery and equipment .....	468	469	468	467	465	465	466	466	466	463	462	460	459
Electronic and other electrical equipment .....	754	752	752	749	746	743	740	738	736	735	733	732	729
Transportation equipment .....	409	407	410	407	407	408	411	398	408	408	408	408	411
Instruments and related products .....	424	425	424	422	421	420	418	418	417	417	416	415	415
Miscellaneous manufacturing .....	181	181	182	182	181	179	181	182	182	181	180	180	179
<b>Nondurable goods .....</b>	3,354	3,361	3,360	3,354	3,351	3,347	3,344	3,334	3,325	3,314	3,316	3,309	3,306
Food and kindred products .....	534	542	540	544	541	540	539	539	537	537	538	537	532
Tobacco products .....	16	16	16	16	16	16	16	16	16	16	15	15	16
Textile mill products .....	353	352	352	351	351	350	348	347	346	344	343	341	341
Apparel and other textile products .....	858	857	855	850	847	844	843	836	827	818	818	814	813
Paper and allied products .....	171	173	173	171	172	172	172	172	173	173	173	173	173
Printing and publishing .....	688	689	690	688	690	692	693	694	694	695	696	696	697
Chemicals and allied products .....	318	318	319	319	320	321	323	324	326	326	327	327	327
Petroleum and coal products .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Rubber and misc. plastics products .....	311	310	311	310	309	308	306	303	303	303	304	305	306
Leather and leather products .....	80	79	79	79	79	78	78	77	77	76	76	75	75
<b>Service-producing .....</b>	43,859	43,977	44,084	44,230	44,283	44,454	44,582	44,710	44,841	44,980	45,099	45,321	45,538
<b>Transportation and public utilities .....</b>	1,636	1,642	1,580	1,630	1,635	1,642	1,677	1,680	1,687	1,690	1,692	1,702	1,713
<b>Wholesale trade .....</b>	1,916	1,923	1,928	1,931	1,933	1,943	1,946	1,949	1,947	1,950	1,949	1,950	1,957
<b>Retail trade .....</b>	10,429	10,441	10,468	10,469	10,469	10,489	10,474	10,497	10,484	10,474	10,483	10,482	10,504
<b>Finance, insurance, and real estate .....</b>	4,213	4,220	4,232	4,244	4,246	4,257	4,267	4,278	4,287	4,295	4,303	4,309	4,314
<b>Services .....</b>	16,444	16,477	16,532	16,606	16,640	16,741	16,807	16,844	16,939	17,008	17,049	17,121	17,240
<b>Government .....</b>	9,221	9,274	9,344	9,350	9,360	9,382	9,411	9,462	9,497	9,563	9,623	9,757	9,810
Federal .....	1,098	1,109	1,119	1,127	1,139	1,150	1,161	1,181	1,189	1,234	1,269	1,366	1,362
State .....	2,069	2,074	2,075	2,085	2,077	2,082	2,075	2,088	2,097	2,104	2,107	2,115	2,134
Local .....	6,054	6,091	6,150	6,138	6,144	6,150	6,175	6,193	6,211	6,225	6,247	6,276	6,314

<sup>1</sup> This series is not published seasonally adjusted because the seasonal components are small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

NOTE: Data in this table have been revised to reflect March 1989

benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. See the article in this issue for additional information.



**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

**B-6. Production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry and manufacturing group, seasonally adjusted**

(In thousands)

Industry	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>	Aug. <sup>p</sup>
<b>Total private</b> .....	73,610	73,746	73,838	74,045	74,115	74,300	74,512	74,545	74,496	74,651	74,827	74,787	74,709
<b>Goods-producing</b> .....	17,843	17,786	17,764	17,759	17,696	17,662	17,810	17,742	17,667	17,673	17,651	17,608	17,515
<b>Mining</b> .....	504	505	507	512	514	518	521	523	527	530	537	535	526
<b>Construction</b> .....	4,076	4,077	4,086	4,103	4,058	4,135	4,205	4,158	4,094	4,120	4,107	4,067	4,026
<b>Manufacturing</b> .....	13,263	13,204	13,171	13,144	13,124	13,009	13,084	13,061	13,046	13,023	13,007	13,006	12,963
<b>Durable goods</b> .....	7,615	7,567	7,541	7,519	7,506	7,400	7,488	7,479	7,461	7,450	7,439	7,433	7,388
Lumber and wood products .....	623	620	622	621	621	622	620	620	619	617	612	610	607
Furniture and fixtures .....	419	417	415	414	412	412	411	411	409	408	408	405	405
Stone, clay, and glass products .....	443	440	442	443	442	443	444	440	436	434	432	428	427
Primary metal industries .....	589	584	581	578	576	572	575	573	574	574	574	577	573
Blast furnaces and basic steel products .....	214	212	211	209	210	209	208	207	208	208	207	207	207
Fabricated metal products .....	1,068	1,063	1,059	1,055	1,052	1,039	1,044	1,044	1,047	1,045	1,043	1,046	1,045
Industrial machinery and equipment .....	1,289	1,285	1,277	1,282	1,282	1,284	1,280	1,276	1,274	1,274	1,270	1,269	1,261
Electronic and other electrical equipment .....	1,108	1,104	1,101	1,096	1,090	1,086	1,083	1,084	1,082	1,080	1,078	1,070	1,061
Transportation equipment .....	1,283	1,266	1,257	1,248	1,250	1,154	1,244	1,246	1,239	1,238	1,250	1,255	1,241
Motor vehicles and equipment .....	670	649	639	632	635	543	634	632	628	626	634	633	622
Instruments and related products .....	509	506	505	502	499	503	503	503	502	499	495	493	491
Miscellaneous manufacturing .....	284	282	282	280	282	285	284	282	279	281	277	280	277
<b>Nondurable goods</b> .....	5,648	5,637	5,630	5,625	5,618	5,609	5,596	5,582	5,585	5,573	5,568	5,573	5,575
Food and kindred products .....	1,180	1,183	1,184	1,183	1,182	1,185	1,183	1,183	1,188	1,187	1,179	1,184	1,187
Tobacco products .....	36	36	36	36	35	35	35	35	33	34	34	34	35
Textile mill products .....	626	622	622	619	617	615	612	609	609	604	603	602	601
Apparel and other textile products .....	907	903	898	896	894	886	879	870	869	865	863	861	861
Paper and allied products .....	523	522	522	522	523	524	525	524	525	523	525	526	528
Printing and publishing .....	868	867	867	870	873	875	876	876	875	876	877	878	880
Chemicals and allied products .....	605	604	605	605	605	604	603	601	601	601	600	601	597
Petroleum and coal products .....	103	103	103	104	103	103	104	105	104	104	105	105	105
Rubber and misc. plastics products .....	688	685	682	679	677	673	670	670	673	672	676	678	678
Leather and leather products .....	112	112	111	111	109	109	109	109	108	107	106	104	103
<b>Service-producing</b> .....	55,767	55,960	56,074	56,286	56,419	56,638	56,702	56,803	56,829	56,978	57,176	57,179	57,194
<b>Transportation and public utilities</b> .....	4,626	4,700	4,718	4,737	4,801	4,821	4,826	4,833	4,831	4,848	4,866	4,854	4,856
<b>Wholesale trade</b> .....	5,066	5,071	5,081	5,094	5,099	5,116	5,111	5,111	5,109	5,106	5,130	5,119	5,120
<b>Retail trade</b> .....	17,396	17,402	17,425	17,475	17,465	17,550	17,497	17,506	17,517	17,533	17,563	17,583	17,541
<b>Finance, insurance, and real estate</b> .....	4,882	4,897	4,901	4,914	4,923	4,938	4,958	4,960	4,961	4,970	4,970	4,967	4,974
<b>Services</b> .....	23,797	23,890	23,949	24,066	24,131	24,213	24,310	24,393	24,411	24,521	24,647	24,656	24,703

<sup>1</sup> 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.

<sup>p</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
DIFFUSION INDEXES  
SEASONALLY ADJUSTED**

**B-7. Diffusion indexes of employment change, seasonally adjusted**

(Percent)

Time span	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Private nonfarm payrolls, 356 industries<sup>1</sup></b>												
Over 1-month span:												
1989 .....	64.5	58.7	58.0	57.0	55.6	57.3	55.8	57.7	50.0	55.2	59.6	56.6
1990 .....	55.6	58.6	53.7	49.9	55.8	49.9	<sup>P</sup> 50.4	<sup>P</sup> 46.9				
Over 3-month span:												
1989 .....	65.3	64.2	60.0	60.1	59.7	58.3	59.7	54.5	55.2	55.8	57.7	60.3
1990 .....	58.4	56.7	54.8	53.1	53.7	<sup>P</sup> 54.6	<sup>P</sup> 51.3					
Over 6-month span:												
1989 .....	67.6	65.4	65.0	61.0	61.2	58.7	57.0	58.1	56.2	58.3	57.4	58.4
1990 .....	57.3	56.5	55.5	<sup>P</sup> 54.4	<sup>P</sup> 50.8							
Over 12-month span:												
1989 .....	67.1	67.7	65.3	64.6	64.9	61.2	60.0	59.8	58.6	57.3	56.7	56.0
1990 .....	<sup>P</sup> 54.1	<sup>P</sup> 54.2										
<b>Manufacturing payrolls, 139 industries<sup>1</sup></b>												
Over 1-month span:												
1989 .....	60.4	48.6	50.4	47.1	45.3	45.7	45.0	45.7	34.2	48.6	43.5	48.2
1990 .....	42.4	45.7	45.3	46.8	45.7	40.3	<sup>P</sup> 46.8	<sup>P</sup> 41.4				
Over 3-month span:												
1989 .....	54.0	54.7	45.3	43.9	43.2	42.8	41.7	33.1	36.3	34.9	41.7	39.2
1990 .....	40.3	37.1	44.2	41.4	40.6	<sup>P</sup> 42.8	<sup>P</sup> 40.6					
Over 6-month span:												
1989 .....	56.5	49.6	49.3	43.5	42.1	37.1	36.7	34.9	34.2	35.3	33.1	36.0
1990 .....	37.1	35.6	36.3	<sup>P</sup> 41.0	<sup>P</sup> 37.4							
Over 12-month span:												
1989 .....	53.6	55.0	49.3	45.3	43.9	39.9	37.1	35.6	33.8	32.4	30.9	31.7
1990 .....	<sup>P</sup> 30.2	<sup>P</sup> 32.0										

<sup>1</sup> 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.

<sup>P</sup> = 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. Data in this table have been revised to reflect March 1989 benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Alabama</b> .....	1,585.6	1,605.5	1,605.8	7.4	12.0	12.1	76.9	78.6	78.4
Birmingham .....	409.4	418.7	418.7	3.4	5.6	5.6	23.2	23.1	23.2
Huntsville .....	132.4	134.6	135.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.2	5.2	5.4
Mobile .....	171.0	174.2	175.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.5	10.6	10.5
Montgomery .....	132.9	134.7	135.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.2	7.2	7.2
Tuscaloosa .....	59.3	63.8	63.5	.8	2.6	2.6	3.7	4.3	4.3
<b>Alaska</b> .....	249.0	245.0	251.5	10.5	11.4	11.6	12.5	12.6	13.2
<b>Arizona</b> .....	1,413.3	1,480.5	1,470.3	12.2	12.8	12.3	86.9	84.0	84.3
Phoenix .....	939.1	983.8	977.0	.9	.9	.9	58.4	55.3	55.9
Tucson .....	239.1	248.7	246.5	2.1	2.3	2.2	15.1	14.8	14.6
<b>Arkansas</b> .....	890.1	924.9	912.9	4.2	4.3	4.2	34.9	35.4	35.5
Fayetteville-Springdale .....	53.2	54.7	54.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.7	1.8
Fort Smith .....	79.9	80.3	80.7	.9	1.0	1.0	2.6	2.5	2.6
Little Rock-North Little Rock .....	244.5	249.7	247.1	.4	.4	.4	10.3	10.5	10.8
Pine Bluff .....	33.3	33.6	32.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.6	1.4
<b>California</b> .....	12,455.0	12,869.7	12,773.0	42.4	42.0	42.2	657.9	664.8	666.6
Anaheim-Santa Ana .....	1,197.5	1,228.4	1,221.3	1.3	1.3	1.3	74.4	71.3	71.5
Bakersfield .....	165.2	171.6	168.2	13.7	14.4	14.5	11.0	11.0	11.3
Fresno .....	219.0	232.0	233.6	.7	.7	.7	13.6	14.5	14.8
Los Angeles-Long Beach .....	4,195.5	4,317.5	4,271.0	9.4	9.8	9.9	154.3	158.6	157.0
Modesto .....	118.0	119.3	122.8	.1	.1	.1	8.3	9.2	9.1
Oakland .....	884.0	920.9	916.6	4.1	4.3	4.3	54.1	56.2	56.6
Oxnard-Ventura .....	227.3	235.2	233.9	2.5	2.4	2.4	17.6	18.3	18.3
Riverside-San Bernardino .....	675.1	719.0	711.8	1.4	1.4	1.4	67.0	69.4	70.6
Sacramento .....	597.7	623.9	621.9	.8	.8	.8	37.3	38.9	38.7
San Diego .....	958.4	1,002.7	991.9	.8	.8	.8	64.5	65.0	64.8
San Francisco .....	956.5	974.8	974.6	.6	.6	.6	34.7	34.8	35.2
San Jose .....	831.6	835.0	834.1	.2	.2	.2	34.3	33.8	34.5
Santa Barbara-Santa Maria-Lompoc .....	147.8	152.6	150.1	1.4	1.4	1.4	7.0	7.1	7.1
Santa Rosa-Petaluma .....	133.5	143.7	140.7	.7	.7	.7	11.4	11.2	11.4
Stockton .....	153.9	154.7	156.5	.1	.1	.1	9.1	9.1	9.2
Vallejo-Fairfield-Napa .....	136.0	141.5	142.6	.6	.7	.7	10.5	11.6	11.8
<b>Colorado</b> .....	1,469.5	1,512.9	1,502.1	19.8	19.6	19.8	63.7	62.5	62.8
Boulder-Longmont .....	112.3	115.7	114.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	4.3	4.3
Denver .....	818.7	842.6	836.0	11.7	11.4	11.4	32.9	35.7	35.7
<b>Connecticut</b> .....	1,678.2	1,687.6	1,668.8	1.4	1.3	1.3	81.6	71.0	72.5
Bridgeport-Milford .....	196.6	197.9	193.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	9.1	8.4	8.6
Hartford .....	485.4	491.0	485.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.9	19.1	19.8
New Britain .....	66.7	68.4	65.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.8	4.6	4.6
New Haven-Meriden .....	258.0	256.0	251.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	13.8	11.0	11.2
Stamford .....	126.6	125.5	124.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	5.1	5.2
Waterbury .....	86.1	87.8	83.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	4.5	4.4	4.4
<b>Delaware</b> .....	344.1	353.6	349.1	.1	.1	.1	21.0	20.0	20.0
Wilmington .....	291.1	303.3	295.8	.2	.2	.2	19.1	18.3	18.5
<b>District of Columbia</b> .....	692.3	691.9	697.4	.1	.1	.1	14.5	14.1	14.0
Washington MSA .....	2,252.7	2,271.6	2,263.6	1.1	1.1	1.1	153.0	142.7	143.4
<b>Florida</b> .....	5,195.9	5,497.9	5,429.8	9.4	9.5	9.3	342.9	333.4	331.7
Daytona Beach .....	120.8	124.1	123.0	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	8.2	7.6	7.7
Fort Lauderdale-Hollywood-Pompano Beach .....	496.1	517.7	508.8	.3	.3	.3	35.5	34.1	34.5
Fort Myers-Cape Coral .....	121.9	133.4	131.6	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	13.7	12.5	12.7
Gainesville .....	97.2	100.0	99.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	4.6	4.3	4.2
Jacksonville .....	413.3	428.0	424.1	.7	.7	.7	27.3	27.5	27.3
Lakeland-Winter Haven .....	152.6	157.9	155.9	4.1	4.0	3.9	9.1	8.5	8.6
Melbourne-Titusville-Palm Bay .....	159.9	164.8	164.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	9.6	9.0	9.1
Miami-Hialeah .....	863.3	898.3	890.5	.9	1.0	.9	40.3	40.3	40.4
Orlando .....	540.7	565.4	559.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	36.7	37.1	37.0
Pensacola .....	126.8	130.0	128.2	.4	.4	.4	8.3	8.3	8.2
Sarasota .....	111.6	115.5	113.9	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	10.3	10.3	10.3
Tallahassee .....	118.3	124.5	122.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.1	6.2	6.2
Tampa-St. Petersburg-Clearwater .....	854.5	881.8	876.7	.6	.7	.7	54.3	55.0	55.0
West Palm Beach-Boca Raton-Delray Beach .....	345.1	366.1	356.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	29.0	27.5	27.4

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Alabama</b> .....	382.0	383.9	380.8	80.3	80.8	81.0	348.9	349.6	349.8
Birmingham .....	57.2	58.1	57.1	32.4	32.3	32.5	101.4	101.9	102.0
Huntsville .....	33.0	33.6	33.9	2.8	2.9	2.9	25.3	25.4	25.7
Mobile .....	26.4	28.0	27.6	9.7	10.0	9.9	46.2	47.2	47.4
Montgomery .....	18.6	18.1	18.3	5.3	5.2	5.1	30.4	30.7	30.8
Tuscaloosa .....	10.4	10.7	10.8	2.0	2.2	2.2	12.7	12.9	13.0
<b>Alaska</b> .....	25.3	20.1	26.0	26.0	20.9	21.1	47.5	48.1	48.8
<b>Arizona</b> .....	187.3	189.4	189.2	77.3	80.5	80.6	359.6	376.5	372.6
Phoenix .....	139.0	140.3	140.2	53.7	56.7	56.6	241.8	253.7	251.1
Tucson .....	27.5	27.2	27.2	10.0	9.7	9.8	57.2	59.2	58.5
<b>Arkansas</b> .....	231.4	234.1	232.6	54.8	55.2	55.3	206.7	213.7	214.3
Fayetteville-Springdale .....	13.4	13.7	13.6	5.1	4.9	5.0	12.3	12.6	12.6
Fort Smith .....	26.3	26.7	26.6	4.3	4.3	4.4	16.9	16.7	16.5
Little Rock-North Little Rock .....	33.6	33.2	32.9	16.5	16.1	16.0	80.4	61.5	61.7
Pine Bluff .....	6.5	6.3	6.3	2.7	2.6	2.6	7.4	7.5	7.4
<b>California</b> .....	2,168.9	2,136.2	2,137.2	607.1	610.3	613.3	2,962.9	3,031.6	3,032.0
Anaheim-Santa Ana .....	259.2	258.9	258.0	34.8	35.8	36.0	305.0	311.1	311.1
Bakersfield .....	10.6	10.8	10.8	8.2	8.4	8.4	40.0	39.8	40.1
Fresno .....	25.7	24.8	26.6	12.4	12.4	12.5	56.9	59.6	59.7
Los Angeles-Long Beach .....	885.3	880.0	867.0	214.1	215.2	216.5	961.8	981.4	976.9
Modesto .....	28.7	23.6	28.6	4.7	4.8	4.9	29.5	30.2	30.5
Oakland .....	115.9	116.8	117.7	59.7	61.6	62.6	217.7	224.1	225.2
Oxnard-Ventura .....	30.7	31.2	31.1	11.8	11.4	11.4	56.6	58.7	58.6
Riverside-San Bernardino .....	88.9	89.5	90.4	32.9	34.0	34.2	168.3	174.9	174.7
Sacramento .....	44.6	45.6	47.1	27.3	27.4	28.0	141.6	144.6	145.1
San Diego .....	135.6	135.0	135.4	35.9	36.5	36.5	235.3	242.3	243.0
San Francisco .....	81.6	61.3	61.0	77.7	79.4	79.8	218.6	218.1	218.3
San Jose .....	273.7	265.0	268.1	22.2	22.5	22.5	170.7	170.2	170.6
Santa Barbara-Santa Maria-Lompoc .....	22.9	22.7	22.6	5.3	5.4	5.4	34.6	34.8	35.0
Santa Rosa-Petaluma .....	21.2	21.3	21.2	6.4	6.6	6.7	34.5	37.1	37.5
Stockton .....	26.4	24.3	26.6	9.2	8.6	8.9	36.1	36.3	36.6
Vallejo-Fairfield-Napa .....	13.6	12.8	13.8	4.8	5.3	5.4	33.0	34.7	34.8
<b>Colorado</b> .....	194.2	195.3	195.9	83.3	93.5	93.8	362.2	368.9	371.7
Boulder-Longmont .....	30.9	30.7	30.5	2.4	2.4	2.4	23.9	24.1	24.2
Denver .....	96.6	97.2	97.3	67.6	68.1	68.4	201.0	203.6	204.6
<b>Connecticut</b> .....	353.5	351.6	344.8	71.1	72.5	72.1	383.8	383.6	379.7
Bridgeport-Milford .....	52.3	51.2	49.2	8.4	8.8	8.6	45.4	45.2	44.3
Hartford .....	85.0	86.8	86.0	18.3	18.9	18.7	104.1	102.9	100.8
New Britain .....	19.4	19.7	18.4	3.0	3.7	3.5	13.8	14.4	13.8
New Haven-Meriden .....	46.3	45.2	44.2	16.4	16.4	16.3	59.6	58.1	57.1
Stamford .....	21.2	19.4	19.2	5.8	6.0	6.0	30.0	30.1	29.6
Waterbury .....	20.5	22.4	19.0	3.3	3.4	3.3	17.9	17.0	16.8
<b>Delaware</b> .....	67.6	72.3	69.8	14.2	15.1	15.0	77.7	76.1	77.3
Wilmington .....	56.7	61.5	58.5	15.2	16.6	16.8	61.7	62.2	61.8
<b>District of Columbia</b> .....	16.1	16.3	16.2	24.9	25.0	24.9	63.3	63.7	62.4
Washington MSA .....	90.4	89.5	89.3	110.2	113.3	113.1	439.9	445.2	444.5
<b>Florida</b> .....	533.8	539.4	533.5	264.7	280.9	280.7	1,425.4	1,483.4	1,476.2
Daytona Beach .....	12.3	12.1	12.1	3.9	4.1	4.1	36.2	36.6	36.8
Fort Lauderdale-Hollywood-Pompano Beach .....	45.0	46.0	45.2	22.6	23.8	23.6	146.6	153.0	150.9
Fort Myers-Cape Coral .....	6.2	6.3	6.3	5.2	5.8	5.8	36.1	39.7	39.7
Gainesville .....	5.7	5.4	5.4	1.8	1.9	1.9	21.4	21.6	21.7
Jacksonville .....	38.6	38.5	38.5	28.7	29.3	28.9	111.1	113.7	114.1
Lakeland-Winter Haven .....	22.4	22.6	22.4	6.9	7.2	7.1	42.6	43.7	43.8
Melbourne-Titusville-Palm Bay .....	29.5	30.4	30.4	4.2	4.3	4.3	37.6	38.7	38.6
Miami-Hialeah .....	90.8	91.6	91.0	67.6	73.0	73.2	236.2	244.1	243.3
Orlando .....	55.0	53.6	53.1	27.9	29.0	29.0	142.9	147.1	146.6
Pensacola .....	11.4	11.3	11.2	6.6	6.6	6.5	33.3	33.5	33.6
Sarasota .....	8.6	8.7	8.5	3.6	3.5	3.6	33.0	33.4	33.1
Tallahassee .....	5.0	5.0	5.0	3.0	3.1	3.1	26.2	27.2	27.3
Tampa-St. Petersburg-Clearwater .....	95.3	95.7	95.1	40.6	42.3	42.1	238.3	245.6	245.0
West Palm Beach-Boca Raton-Delray Beach .....	33.5	34.0	33.5	13.6	14.3	14.3	92.1	98.2	95.6

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Alabama</b> .....	71.4	71.7	72.1	304.3	308.6	308.4	314.6	320.3	323.4
Birmingham .....	29.1	28.7	29.0	98.3	101.4	101.6	64.4	67.6	67.7
Huntsville .....	3.9	3.9	3.9	31.8	32.5	32.5	30.4	31.1	30.8
Mobile .....	7.7	7.4	7.3	40.4	41.7	41.3	30.1	29.3	31.0
Montgomery .....	7.8	7.8	7.8	30.5	31.3	31.6	33.1	34.4	34.7
Tuscaloosa .....	2.1	2.2	2.2	9.0	9.8	9.6	18.6	19.1	18.8
<b>Alaska</b> .....	10.8	10.9	10.9	50.6	51.0	51.7	66.0	70.0	68.2
<b>Arizona</b> .....	92.7	94.6	94.6	383.8	410.0	408.2	213.5	232.7	228.5
Phoenix .....	74.3	75.9	75.9	257.6	276.7	274.5	113.4	124.3	121.9
Tucson .....	11.4	11.6	11.6	70.5	74.5	74.5	45.3	49.4	48.1
<b>Arkansas</b> .....	38.8	39.0	39.1	177.2	185.5	186.6	142.1	157.7	145.3
Fayetteville-Springdale .....	1.6	1.6	1.5	8.9	9.4	9.5	10.2	10.8	10.7
Fort Smith .....	3.0	2.9	2.9	18.9	18.0	19.2	7.0	8.2	7.5
Little Rock-North Little Rock .....	15.7	15.7	15.8	62.4	64.4	64.3	45.2	47.9	45.2
Pine Bluff .....	1.3	1.2	1.2	7.0	7.0	7.0	6.9	7.4	6.8
<b>California</b> .....	839.8	861.6	863.7	3,268.1	3,392.7	3,400.0	1,907.9	2,130.5	2,018.0
Anaheim-Santa Ana .....	95.9	98.3	98.7	313.9	321.8	325.2	113.0	129.9	119.5
Bakersfield .....	8.5	6.8	6.8	35.7	35.6	35.4	39.5	44.8	40.9
Fresno .....	12.1	12.8	12.9	53.5	55.8	57.4	44.1	51.4	49.0
Los Angeles-Long Beach .....	292.2	300.3	300.5	1,172.1	1,218.3	1,218.3	506.3	553.9	524.9
Modesto .....	5.1	5.4	5.4	23.6	24.8	25.1	18.0	21.2	19.1
Oakland .....	57.7	58.4	58.5	217.9	227.4	228.7	156.9	172.1	163.0
Oxnard-Ventura .....	11.4	11.9	11.9	54.2	56.6	56.6	42.5	44.7	43.6
Riverside-San Bernardino .....	28.6	30.3	30.4	155.4	167.1	165.7	132.6	152.4	144.4
Sacramento .....	39.0	39.8	40.1	132.6	138.7	139.3	174.5	188.1	182.8
San Diego .....	67.2	68.3	68.6	259.2	274.9	276.3	159.9	179.9	166.5
San Francisco .....	110.1	110.2	110.6	301.5	308.7	310.6	131.5	141.7	138.5
San Jose .....	32.8	32.7	32.7	214.2	219.5	218.2	83.5	91.1	87.3
Santa Barbara-Santa Maria-Lompoc .....	8.6	8.7	8.7	41.7	41.9	42.1	26.3	30.6	27.8
Santa Rosa-Petaluma .....	8.1	8.1	8.1	31.0	33.9	34.1	20.2	24.8	21.0
Stockton .....	9.6	9.5	9.5	32.2	32.8	33.0	31.2	34.0	32.6
Vallejo-Fairfield-Napa .....	5.0	5.2	5.2	30.1	31.9	31.9	38.4	39.3	39.0
<b>Colorado</b> .....	96.8	97.2	97.2	387.3	397.6	401.0	252.2	278.3	259.9
Boulder-Longmont .....	4.2	4.2	4.2	26.3	28.4	28.5	20.4	21.6	20.4
Denver .....	64.7	64.2	64.2	224.2	229.5	230.1	120.0	132.9	124.3
<b>Connecticut</b> .....	153.6	153.5	153.5	431.1	439.4	439.8	202.1	214.7	205.1
Bridgeport-Milford .....	12.6	12.4	12.3	50.7	51.7	51.6	18.1	20.2	18.5
Hartford .....	75.3	75.5	75.8	116.2	119.3	118.9	64.6	68.5	65.2
New Britain .....	3.6	3.4	3.4	14.6	15.8	15.4	6.5	6.8	6.7
New Haven-Meriden .....	16.7	17.4	17.6	74.7	75.5	73.7	30.5	32.4	31.1
Stamford .....	14.2	14.3	14.4	39.4	39.4	39.6	10.3	11.2	10.4
Waterbury .....	4.5	4.2	4.2	22.8	23.3	23.3	12.6	13.1	12.8
<b>Delaware</b> .....	30.8	31.2	31.3	84.7	87.7	86.8	48.0	51.1	48.8
Wilmington .....	27.4	28.0	27.8	73.5	76.4	74.9	37.3	40.1	37.3
<b>District of Columbia</b> .....	33.6	33.5	33.5	253.5	257.2	255.5	286.3	282.0	290.8
Washington MSA .....	132.8	132.5	132.6	742.4	749.3	746.8	582.9	598.0	592.8
<b>Florida</b> .....	373.8	378.6	379.0	1,501.1	1,611.1	1,602.5	744.8	861.6	816.9
Daytona Beach .....	6.0	5.8	5.8	35.3	35.8	36.0	18.9	22.1	20.5
Fort Lauderdale-Hollywood-Pompano Beach .....	41.3	41.6	41.4	144.6	148.0	147.8	60.2	70.9	65.1
Fort Myers-Cape Coral .....	9.1	9.5	9.5	34.6	38.1	37.8	16.9	21.4	19.7
Gainesville .....	4.6	4.6	4.6	25.1	25.8	25.8	33.9	36.4	35.6
Jacksonville .....	40.1	41.1	41.2	109.2	114.5	114.2	57.6	62.7	59.2
Lakeland-Winter Haven .....	9.2	9.2	9.2	38.2	39.5	39.4	20.1	23.2	21.5
Melbourne-Titusville-Palm Bay .....	5.9	5.6	5.6	50.3	52.4	52.3	22.7	24.3	23.8
Miami-Hialeah .....	72.5	72.7	72.8	243.8	252.2	251.2	111.2	123.4	117.7
Orlando .....	33.7	33.5	33.6	186.5	199.7	200.0	55.8	65.3	59.7
Pensacola .....	5.4	5.3	5.3	33.1	34.1	34.0	28.3	30.5	29.0
Sarasota .....	8.1	8.0	8.0	35.8	37.9	37.7	12.2	13.7	12.7
Tallahassee .....	5.2	5.1	5.2	25.9	26.4	26.4	46.7	51.2	49.3
Tampa-St. Petersburg-Clearwater .....	65.9	65.5	65.5	256.6	268.3	266.2	102.9	108.7	107.1
West Palm Beach-Boca Raton-Delray Beach .....	29.1	30.0	29.9	106.7	114.2	111.9	41.1	47.9	43.9

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Georgia</b> .....	2,950.3	3,021.6	3,006.2	8.7	8.7	8.7	149.9	147.3	149.1
Albany .....	47.5	49.2	48.0	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.2	1.9	2.0
Athens .....	67.5	69.4	68.0	.1	.1	.1	2.7	2.8	2.9
Atlanta .....	1,458.8	1,495.0	1,489.9	1.3	1.2	1.1	69.1	68.8	68.9
Augusta .....	170.7	172.4	172.1	.5	.5	.6	15.1	15.6	15.5
Columbus .....	94.2	93.4	93.9	.1	.1	.1	4.8	4.2	4.3
Macon-Warner Robins .....	125.0	126.2	125.5	.1	.1	.2	5.3	5.2	5.2
Savannah .....	108.3	110.3	110.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	8.0	7.8	7.6
<b>Hawaii</b> .....	506.7	520.7	518.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	30.1	29.3	29.2
Honolulu .....	396.9	408.3	404.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	23.1	22.1	22.0
<b>Idaho</b> .....	369.8	389.2	385.4	3.9	3.9	3.9	18.0	19.4	20.4
Boise City .....	100.3	105.5	105.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.2	6.1	6.1
<b>Illinois</b> .....	5,186.6	5,249.4	5,221.0	20.4	20.2	20.2	223.7	215.3	217.9
Aurora-Elgin .....	141.7	145.6	144.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.7	7.6	7.9
Bloomington-Normal .....	62.2	63.4	63.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.1	3.3
Champaign-Urbana-Rantoul .....	85.0	88.5	86.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.9	2.4	2.6
Chicago .....	3,183.9	3,227.3	3,221.2	2.3	2.4	2.3	138.1	135.7	138.8
Davenport-Rock Island-Moline .....	162.1	166.1	164.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.4	6.1	6.3
Decatur .....	52.8	54.5	54.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.3	3.4
Joliet .....	103.1	105.5	104.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.2	8.7	8.8
Kankakee .....	34.2	36.1	35.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	1.8	1.8
Lake County .....	211.2	219.5	217.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.8	11.4	11.9
Peoria .....	144.3	146.5	145.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.1	6.9	6.9
Rockford .....	132.6	138.6	133.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.3	6.4	6.5
Springfield .....	102.8	105.3	104.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.8	4.0	4.0
<b>Indiana</b> .....	2,449.2	2,532.3	2,520.4	6.4	8.1	8.1	124.5	131.3	136.3
Anderson .....	49.2	50.3	49.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.7	1.8
Bloomington .....	52.2	53.9	53.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.5	2.3	2.5
Elkhart-Goshen .....	104.7	109.0	108.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.5	3.9	4.1
Evansville .....	134.6	138.8	139.0	1.9	2.0	2.1	8.4	8.8	9.4
Fort Wayne .....	201.3	208.7	206.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.9	11.3	11.6
Gary-Hammond .....	241.7	246.3	244.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	18.4	18.4	19.1
Indianapolis .....	658.3	669.1	671.1	.8	.8	.8	38.6	37.4	38.7
Kokomo .....	45.7	47.7	47.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.7	1.9
Lafayette-West Lafayette .....	65.3	69.3	68.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	3.0	3.1
Muncie .....	49.6	53.1	52.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	2.0	1.9
South Bend-Mishawaka .....	116.4	121.6	121.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.4	8.5	9.0
Terre Haute .....	54.5	56.2	56.2	.3	.4	.4	2.9	4.0	4.2
<b>Iowa</b> .....	1,198.2	1,236.3	1,219.9	2.2	2.2	2.2	46.0	49.6	52.3
Cedar Rapids .....	93.5	94.3	94.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	4.5	4.6
Des Moines .....	226.9	232.7	230.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.1	9.3	9.4
Dubuque .....	43.9	43.5	43.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.9	2.2
Iowa City .....	51.8	56.6	56.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.1	2.2
Sioux City .....	54.1	54.8	54.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.3	2.2	2.3
Waterloo-Cedar Falls .....	65.7	68.2	68.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.5	2.5	2.5
<b>Kansas</b> .....	1,060.1	1,096.2	1,080.5	9.5	9.9	9.9	44.0	45.4	45.6
Lawrence .....	33.3	34.9	34.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	1.6	1.7
Topeka .....	89.6	92.4	90.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.8	4.1	4.2
Wichita .....	235.8	240.5	236.9	1.7	1.9	1.8	9.9	10.0	9.8
<b>Kentucky</b> .....	1,437.0	1,477.8	1,472.8	34.4	34.2	33.8	71.1	71.0	72.1
Lexington-Fayette .....	195.2	204.6	204.1	.3	.3	.3	11.7	12.4	12.5
Louisville .....	472.2	487.3	486.9	.6	.5	.5	24.3	24.1	24.6
Owensboro .....	35.5	36.6	36.7	.5	.5	.5	2.4	2.1	2.2
<b>Louisiana</b> .....	1,509.2	1,530.4	1,524.4	54.7	54.9	55.1	80.2	81.3	82.0
Alexandria .....	45.5	45.6	45.1	.2	.1	.1	2.8	2.3	2.5
Baton Rouge .....	226.9	231.2	231.7	.9	.8	.8	25.3	26.1	26.0
Houma-Thibodaux .....	55.1	57.8	58.2	5.4	5.6	5.7	1.9	2.0	2.2
Lafayette .....	88.0	90.6	91.9	11.7	11.5	11.8	3.3	3.5	3.6
Lake Charles .....	64.2	64.7	63.7	1.0	1.1	1.1	5.2	4.9	4.5
Monroe .....	56.6	56.4	57.1	.4	.6	.5	2.8	2.5	2.6
New Orleans .....	523.3	528.8	530.8	14.7	14.5	14.6	21.8	22.8	23.3
Shreveport .....	129.9	132.0	130.8	3.1	3.1	3.1	5.4	5.9	6.1

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Georgia</b> .....	570.0	585.0	560.2	184.3	189.5	190.4	756.5	769.9	771.9
Albany .....	7.4	7.7	7.8	2.9	2.9	2.9	12.0	11.8	11.8
Athens .....	15.9	15.1	14.9	2.0	1.9	1.9	14.9	15.7	15.4
Atlanta .....	179.8	178.6	177.6	121.0	126.8	127.6	414.5	417.5	418.6
Augusta .....	38.0	38.4	38.1	4.6	4.8	4.7	36.9	36.5	36.8
Columbus .....	19.2	18.9	18.8	3.3	3.1	3.2	21.7	21.5	21.6
Macon-Warner Robins .....	18.7	18.7	18.4	5.3	5.3	5.4	28.6	28.8	28.9
Savannah .....	17.2	17.7	17.8	9.2	9.8	9.6	26.7	26.5	26.9
<b>Hawaii</b> .....	21.3	20.7	20.9	40.8	41.8	42.2	135.0	134.7	136.1
Honolulu .....	16.2	15.5	15.5	33.3	34.0	34.4	103.3	103.1	104.0
<b>Idaho</b> .....	62.7	63.8	64.4	19.4	19.6	19.5	95.3	100.0	99.6
Boise City .....	15.0	16.7	16.7	5.8	5.9	5.9	26.2	27.6	27.9
<b>Illinois</b> .....	981.6	986.1	977.2	303.5	306.9	307.1	1,273.6	1,288.0	1,287.4
Aurora-Elgin .....	39.9	39.2	39.0	3.4	3.5	3.5	35.5	36.3	36.4
Bloomington-Normal .....	7.6	7.8	7.9	2.7	2.6	2.6	14.0	14.2	14.2
Champaign-Urbana-Ramoul .....	8.1	8.3	8.1	2.2	2.3	2.3	18.9	19.1	18.9
Chicago .....	558.5	555.7	555.9	204.8	205.6	205.2	773.7	787.3	788.4
Davenport-Rock Island-Moline .....	32.5	34.0	33.8	7.3	7.4	7.4	46.6	46.8	47.0
Decatur .....	14.0	14.4	14.4	4.9	5.2	5.1	11.3	11.5	11.6
Joliet .....	18.9	19.0	18.9	8.4	8.8	8.5	23.6	24.5	24.4
Kankakee .....	5.5	5.7	5.6	2.2	2.0	2.0	8.8	9.2	9.3
Lake County .....	47.1	47.4	46.9	5.8	6.1	6.0	59.1	61.0	61.0
Peoria .....	33.8	33.5	33.7	6.8	6.9	6.9	35.4	35.0	35.1
Rockford .....	45.5	47.9	44.5	4.7	4.7	4.7	30.6	31.1	31.2
Springfield .....	3.8	3.9	3.7	4.7	4.7	4.7	23.3	23.4	23.4
<b>Indiana</b> .....	642.7	639.8	638.5	129.1	134.3	134.1	594.2	605.0	603.6
Anderson .....	16.3	16.3	16.1	1.4	1.4	1.4	12.1	11.9	11.9
Bloomington .....	9.6	9.3	9.3	1.7	1.8	1.8	11.5	10.9	10.8
Elkhart-Goshen .....	53.5	53.6	53.2	3.3	3.7	3.6	20.3	20.5	20.5
Evansville .....	31.3	31.9	31.8	8.9	7.1	7.1	35.3	35.4	35.4
Fort Wayne .....	55.0	53.7	53.4	13.7	13.1	13.1	49.2	49.4	49.0
Gary-Hammond .....	57.5	56.7	56.8	15.6	15.0	15.2	58.1	59.1	58.9
Indianapolis .....	109.8	108.8	107.5	42.1	43.1	43.7	173.5	176.1	177.1
Kokomo .....	18.2	18.6	18.3	1.5	1.6	1.6	10.8	10.2	10.3
Lafayette-West Lafayette .....	13.0	13.0	13.1	1.8	1.9	1.8	14.1	14.8	14.9
Muncie .....	11.1	11.5	11.4	2.8	3.2	3.2	12.8	13.2	13.1
South Bend-Mishawaka .....	22.2	22.5	22.0	5.2	5.1	5.2	32.2	32.4	32.6
Terre Haute .....	10.5	10.7	10.8	2.9	2.7	2.8	15.2	15.1	15.2
<b>Iowa</b> .....	236.7	235.6	234.7	56.7	56.2	55.9	310.8	318.1	318.0
Cedar Rapids .....	24.1	21.8	21.8	5.9	5.9	5.9	22.3	22.5	22.4
Des Moines .....	25.3	25.8	25.8	12.8	12.5	12.4	59.3	60.2	60.2
Dubuque .....	12.9	12.5	12.7	1.7	1.8	1.7	10.5	10.3	10.3
Iowa City .....	4.4	4.6	4.5	1.3	1.5	1.4	10.4	10.9	10.9
Sioux City .....	10.7	10.8	10.7	3.4	3.5	3.6	14.2	13.9	13.7
Waterloo-Cedar Falls .....	16.0	16.2	16.5	1.8	2.1	2.0	16.5	17.0	17.3
<b>Kansas</b> .....	185.9	187.0	187.3	86.4	86.7	86.9	268.8	272.3	271.8
Lawrence .....	4.6	4.7	4.7	1.1	1.1	1.1	7.8	8.2	8.1
Topeka .....	9.6	9.9	9.9	7.0	6.8	6.8	20.3	20.2	20.0
Wichita .....	63.5	64.7	65.1	11.3	11.2	11.3	54.2	54.3	53.8
<b>Kentucky</b> .....	286.7	287.4	286.5	78.0	76.8	76.8	350.7	355.0	356.2
Lexington-Fayette .....	33.2	33.5	33.4	9.1	9.1	9.1	44.6	44.2	44.1
Louisville .....	88.7	89.4	89.4	30.7	30.1	30.0	119.7	122.0	122.5
Owensboro .....	6.3	6.6	6.4	2.3	2.3	2.3	9.5	10.0	9.8
<b>Louisiana</b> .....	174.0	175.1	174.2	107.0	106.0	106.3	366.9	367.5	367.7
Alexandria .....	3.5	3.4	3.4	2.4	2.3	2.3	10.7	10.5	10.3
Baton Rouge .....	21.1	21.9	22.1	10.5	10.5	10.4	53.7	54.4	54.5
Houma-Thibodaux .....	4.9	5.2	5.2	6.3	6.5	6.6	14.3	14.6	14.9
Lafayette .....	7.4	8.2	8.3	6.2	6.1	6.1	24.0	24.5	24.8
Lake Charles .....	11.5	11.7	11.4	4.1	4.0	4.2	15.0	15.5	15.1
Monroe .....	7.3	7.8	7.7	3.1	2.9	3.0	14.3	14.4	14.4
New Orleans .....	44.4	43.3	43.9	43.4	43.3	43.2	136.7	135.9	136.5
Shreveport .....	17.6	17.7	17.2	8.5	8.5	8.5	32.5	32.9	33.1

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Georgia</b> .....	165.5	164.5	165.0	614.1	637.9	636.9	501.4	538.6	524.2
Albany .....	2.1	2.1	2.1	8.7	8.9	8.8	12.2	13.8	12.6
Athens .....	2.1	2.0	2.0	11.3	11.8	11.5	18.6	20.0	19.2
Atlanta .....	107.3	106.1	106.8	360.7	374.6	373.8	205.1	221.7	215.4
Augusta .....	5.7	5.5	5.4	35.0	35.4	35.5	34.8	35.7	35.4
Columbus .....	5.9	5.8	5.7	18.3	18.5	18.6	20.8	21.4	21.6
Macon-Warner Robins .....	7.3	7.5	7.6	25.0	24.9	24.9	34.6	35.7	34.9
Savannah .....	5.0	4.9	5.0	26.0	26.4	26.6	16.2	17.2	16.7
<b>Hawaii</b> .....	35.2	36.0	36.2	145.3	150.9	151.0	99.0	107.3	102.5
Honolulu .....	28.6	29.3	29.4	109.9	114.8	115.0	82.5	89.5	84.5
<b>Idaho</b> .....	19.3	19.9	19.8	77.8	79.9	80.8	73.4	82.6	77.0
Boise City .....	7.7	7.8	7.8	22.3	22.5	22.7	17.3	18.9	18.2
<b>Illinois</b> .....	377.8	374.7	375.9	1,298.8	1,312.9	1,318.8	707.2	745.3	718.5
Aurora-Elgin .....	7.2	7.3	7.6	33.2	34.5	34.3	14.8	17.2	15.3
Bloomington-Normal .....	11.0	11.1	11.0	13.5	13.9	13.8	10.1	10.7	10.2
Champaign-Urbana-Rantoul .....	3.2	3.2	3.2	18.1	18.5	18.3	31.6	34.7	33.3
Chicago .....	273.3	274.0	274.6	869.4	881.2	886.9	363.8	385.4	369.1
Davenport-Rock Island-Moline .....	7.7	7.9	7.8	35.8	36.7	36.7	25.8	27.2	25.7
Decatur .....	2.3	2.3	2.3	11.7	11.9	11.8	5.3	5.9	5.6
Joliet .....	3.6	3.6	3.6	23.9	24.1	24.0	15.5	17.0	15.8
Kankakee .....	1.3	1.3	1.3	8.6	9.4	9.4	5.9	6.7	6.0
Lake County .....	10.4	10.3	10.3	44.6	51.1	51.1	29.4	32.2	30.2
Peoria .....	7.3	7.3	7.4	39.7	40.6	40.6	14.2	16.3	15.1
Rockford .....	5.3	5.3	5.3	29.5	30.2	30.2	10.7	13.0	11.3
Springfield .....	8.4	8.3	8.3	28.4	26.7	26.6	32.4	34.3	33.6
<b>Indiana</b> .....	124.6	126.5	126.7	506.0	532.6	534.3	321.6	354.9	338.7
Anderson .....	1.6	1.5	1.5	10.7	11.3	11.4	5.5	6.3	5.7
Bloomington .....	2.0	1.9	1.9	9.7	11.7	11.7	15.3	15.9	15.7
Elkhart-Goshen .....	3.1	3.2	3.2	15.8	17.5	17.4	5.1	6.6	6.5
Evansville .....	5.5	5.6	5.6	34.1	36.2	36.4	11.3	11.9	11.3
Fort Wayne .....	13.1	13.2	13.3	46.4	51.1	51.1	14.0	16.9	15.1
Gary-Hammond .....	8.5	8.5	8.6	54.6	56.7	56.3	28.9	31.7	29.4
Indianapolis .....	50.0	50.2	50.4	155.6	158.8	158.8	87.8	95.9	94.0
Kokomo .....	1.4	1.5	1.5	7.2	8.0	8.0	5.2	6.0	5.7
Lafayette-West Lafayette .....	3.2	3.2	3.2	13.4	15.1	14.8	17.2	18.3	17.5
Muncie .....	1.7	1.7	1.7	11.4	11.6	11.6	7.9	9.9	9.4
South Bend-Mishawaka .....	6.4	6.5	6.4	32.7	34.4	34.6	10.4	12.2	11.8
Terre Haute .....	2.1	2.1	2.1	12.2	12.2	12.2	8.5	8.8	8.8
<b>Iowa</b> .....	69.8	71.8	72.2	273.3	281.7	279.6	202.7	221.1	205.0
Cedar Rapids .....	4.7	4.8	4.9	22.7	23.5	23.6	9.8	11.3	10.6
Des Moines .....	32.1	33.5	33.7	58.3	58.9	57.8	30.0	32.5	30.8
Dubuque .....	1.5	1.6	1.6	12.4	11.9	11.9	3.2	3.5	3.2
Iowa City .....	1.5	1.5	1.5	9.3	9.9	9.6	23.0	26.1	26.1
Sioux City .....	2.6	2.7	2.7	14.2	14.7	14.7	8.7	7.0	6.9
Waterloo-Cedar Falls .....	2.9	3.0	3.0	15.2	15.1	15.2	10.8	12.3	11.5
<b>Kansas</b> .....	58.5	60.0	59.8	235.0	242.4	242.2	192.0	212.5	197.0
Lawrence .....	1.5	1.5	1.6	7.2	7.5	7.4	9.2	10.3	9.7
Topeka .....	6.6	6.6	6.6	21.9	22.5	22.6	20.4	22.3	20.7
Wichita .....	10.8	11.2	11.2	59.5	59.6	59.5	24.9	27.6	24.4
<b>Kentucky</b> .....	61.3	62.4	62.4	314.6	330.1	331.3	240.2	260.9	253.7
Lexington-Fayette .....	9.4	9.5	9.5	47.7	51.9	51.9	39.2	43.7	43.3
Louisville .....	27.8	27.5	27.5	120.9	128.5	129.4	59.5	65.2	63.0
Owensboro .....	1.5	1.4	1.5	8.4	8.4	8.8	4.6	5.3	5.2
<b>Louisiana</b> .....	78.8	78.5	78.4	342.6	349.8	349.8	305.0	317.3	310.9
Alexandria .....	2.5	2.4	2.4	11.4	12.0	11.9	12.0	12.6	12.2
Baton Rouge .....	13.1	13.1	13.2	50.3	50.5	50.5	52.0	53.9	54.2
Houma-Thibodaux .....	2.1	2.1	2.1	9.6	10.4	10.4	10.6	11.4	11.1
Lafayette .....	3.3	3.3	3.2	19.8	20.7	20.7	12.3	12.8	13.4
Lake Charles .....	3.1	3.2	3.0	12.9	13.0	13.0	11.4	11.3	11.4
Monroe .....	4.4	4.3	4.2	12.5	13.0	12.9	11.8	10.9	11.8
New Orleans .....	33.4	32.9	32.9	146.6	148.2	147.6	82.3	87.9	88.8
Shreveport .....	6.5	6.2	6.2	32.0	32.9	33.1	24.3	24.8	23.5

See footnotes at end of table.



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Maine</b> .....	550.2	544.3	533.8	0.2	0.1	0.2	36.2	30.6	30.8
Lewiston-Auburn .....	40.5	41.7	40.1	(?)	(?)	(?)	2.6	2.2	2.2
Portland .....	133.7	134.8	133.7	(?)	(?)	(?)	8.9	8.2	8.2
<b>Maryland</b> .....	2,162.2	2,191.7	2,184.3	1.7	1.7	1.7	166.2	168.2	168.3
Baltimore MSA .....	1,145.1	1,162.7	1,156.3	.3	.3	.3	80.5	78.6	78.0
Baltimore City .....	482.5	485.5	488.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.2	20.6	20.2
Suburban Maryland-D.C. ....	775.1	785.8	779.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	73.3	72.4	73.1
<b>Massachusetts</b> .....	3,114.9	3,092.6	3,021.8	1.5	1.5	1.6	136.2	112.5	112.3
Boston .....	1,735.0	1,730.3	1,688.2	.7	.8	.8	69.5	55.8	55.6
Brockton .....	73.8	74.3	72.4	(?)	(?)	(?)	3.8	3.2	2.9
Fall River .....	55.8	56.5	54.3	(?)	(?)	(?)	2.7	2.6	2.5
Fitchburg-Leominster .....	41.0	41.0	39.0	(?)	(?)	(?)	2.3	1.8	1.8
Lawrence-Haverhill .....	164.4	166.0	163.4	(?)	(?)	(?)	7.5	6.7	6.7
Lowell .....	104.2	103.3	99.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.2	4.7	4.6
New Bedford .....	67.6	67.4	65.5	(?)	(?)	(?)	3.1	2.8	2.8
Pittsfield .....	43.6	43.8	43.3	.1	.1	.1	2.5	1.8	1.8
Springfield .....	241.7	240.2	234.3	.2	.1	.1	10.1	7.8	8.0
Worcester .....	201.6	203.2	199.9	.2	.3	.3	9.3	8.3	8.3
<b>Michigan</b> .....	3,881.6	3,947.1	3,883.3	11.4	11.0	10.9	151.8	143.5	147.5
Ann Arbor .....	165.8	175.9	169.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.6	5.6	5.9
Battle Creek .....	58.8	61.1	60.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.7	2.9
Benton Harbor .....	67.0	68.0	67.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	1.9	1.9
Detroit .....	1,927.9	1,948.4	1,925.0	1.3	1.1	1.1	71.8	61.5	63.7
Flint .....	163.0	170.4	168.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.4	5.9	6.0
Grand Rapids .....	339.9	352.5	347.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.4	17.6	17.8
Jackson .....	53.7	55.4	54.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	2.6	2.7
Kalamazoo .....	108.6	111.4	110.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	4.3	4.3
Lansing-East Lansing .....	208.3	216.1	208.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.0	6.3	6.3
Muskegon .....	58.8	58.8	59.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.5	2.5	2.7
Saginaw-Bay City-Midland .....	157.3	164.7	163.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.6	8.8	9.2
<b>Minnesota</b> .....	2,099.8	2,165.6	2,134.9	8.1	8.5	8.7	91.6	88.9	91.7
Duluth .....	96.9	96.8	96.0	5.5	5.6	5.7	4.2	3.5	3.7
Minneapolis-St. Paul .....	1,359.7	1,394.9	1,381.1	(?)	(?)	(?)	57.9	56.3	57.6
Rochester .....	63.8	65.6	65.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.5	2.2	2.3
St. Cloud .....	75.7	82.0	79.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.8	4.6	4.8
<b>Mississippi</b> .....	918.0	935.2	925.1	5.8	6.5	6.5	37.3	35.4	35.3
Jackson .....	183.6	189.2	186.3	.7	.6	.6	8.0	7.6	7.7
<b>Missouri</b> .....	2,314.6	2,344.3	2,325.6	5.4	5.4	5.4	105.3	101.6	104.5
Kansas City .....	775.4	801.7	795.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	34.7	35.3	35.5
St. Louis .....	1,177.9	1,191.2	1,188.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	66.3	60.2	62.0
Springfield .....	116.0	119.1	118.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.1	4.6	4.7
<b>Montana</b> .....	292.1	301.4	296.5	6.7	6.5	6.6	11.9	10.3	10.9
<b>Nebraska</b> .....	702.7	731.9	718.9	1.7	1.7	1.8	25.8	26.4	27.0
Lincoln .....	117.6	122.7	120.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.1	4.6	4.7
Omaha .....	321.7	331.6	329.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.4	12.9	13.2
<b>Nevada</b> .....	587.9	624.0	627.7	14.4	15.5	15.9	47.3	51.2	51.8
Las Vegas .....	342.1	370.9	374.1	.3	.3	.3	32.3	35.5	35.9
Reno .....	142.8	147.2	146.6	1.6	1.6	1.6	7.8	8.2	8.2
<b>New Hampshire</b> .....	519.8	520.1	501.3	.4	.6	.6	33.8	26.8	27.0
Manchester .....	86.5	84.2	81.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.0	4.6	4.5
Nashua .....	92.9	91.1	86.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	2.6	2.6
Portsmouth-Dover-Rochester .....	112.4	109.2	104.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.9	4.6	4.8
<b>New Jersey</b> .....	3,741.6	3,779.2	3,753.9	2.6	2.5	2.5	175.8	161.9	161.8
Atlantic City .....	188.6	190.8	196.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.4	9.6	9.4
Bergen-Passaic .....	673.0	680.2	674.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	33.5	31.7	32.1
Camden .....	454.4	464.1	459.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	26.5	26.4	26.3
Jersey City .....	252.1	253.0	251.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.3	7.0	7.0
Middlesex-Somerset-Hunterdon .....	542.2	546.1	540.0	.7	.7	.7	24.3	23.1	23.3
Monmouth-Ocean .....	353.3	352.9	355.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	22.0	18.4	18.5
Newark .....	979.4	991.7	986.9	.8	.8	.8	40.5	39.0	39.4
Trenton .....	197.2	201.2	196.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	5.0	5.1
Vineland-Millville-Bridgeton .....	58.8	60.3	60.1	.4	.4	.4	2.5	2.5	2.5

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Maine</b> .....	103.9	106.0	102.6	22.8	22.5	22.4	146.0	136.6	137.6
Lewiston-Auburn .....	9.4	9.8	8.9	1.4	1.4	1.4	10.7	10.6	10.7
Portland .....	16.7	17.2	17.3	5.6	5.3	5.5	41.3	40.6	40.9
<b>Maryland</b> .....	210.1	206.2	205.0	101.2	102.4	103.1	546.8	547.1	548.8
Baltimore MSA .....	130.7	128.0	126.7	55.6	57.6	57.1	279.8	282.3	282.3
Baltimore City .....	44.9	44.7	44.3	28.4	28.8	28.8	95.9	95.8	95.4
Suburban Maryland-D.C. ....	38.5	38.3	38.1	31.2	32.0	32.0	200.4	201.0	202.4
<b>Massachusetts</b> .....	556.6	534.1	522.4	130.0	131.2	127.1	751.0	738.6	725.4
Boston .....	258.6	248.2	245.4	75.5	76.6	76.2	389.6	386.8	379.3
Brockton .....	9.7	9.6	9.4	4.8	4.6	4.5	24.2	24.0	24.1
Fall River .....	14.6	14.9	14.0	1.9	1.9	1.9	15.7	14.8	14.6
Fitchburg-Leominster .....	11.9	11.9	11.4	1.4	1.3	1.2	10.0	9.7	9.1
Lawrence-Haverhill .....	47.4	45.9	45.2	6.5	6.4	5.9	37.7	37.0	37.3
Lowell .....	34.7	31.7	31.2	4.4	4.9	4.4	22.3	22.2	21.6
New Bedford .....	17.4	17.0	16.0	2.7	2.8	2.4	16.9	16.8	16.7
Pittsfield .....	10.8	10.9	10.7	1.3	1.4	1.4	10.2	10.1	10.1
Springfield .....	48.4	46.3	45.7	9.6	10.2	9.6	59.8	59.1	58.5
Worcester .....	44.6	43.7	43.5	9.0	9.3	9.1	49.5	50.4	50.0
<b>Michigan</b> .....	953.5	951.3	934.1	153.4	155.3	155.7	935.4	938.0	939.1
Ann Arbor .....	35.3	38.7	35.5	4.8	5.1	5.0	29.7	30.7	30.3
Battle Creek .....	16.6	16.5	16.1	1.7	1.6	1.6	11.9	12.1	12.0
Benton Harbor .....	21.9	20.9	20.8	2.5	2.6	2.7	15.1	15.5	15.4
Detroit .....	451.1	446.1	439.5	87.3	89.7	89.2	471.2	471.9	472.2
Flint .....	50.3	52.5	51.4	4.4	4.3	4.3	41.9	42.4	42.2
Grand Rapids .....	101.7	103.4	102.5	11.5	11.4	11.4	90.1	94.6	93.7
Jackson .....	13.1	12.8	12.5	4.1	4.0	3.9	13.1	13.0	13.0
Kalamazoo .....	30.1	30.4	30.1	3.3	3.3	3.4	25.6	26.1	26.1
Lansing-East Lansing .....	33.1	33.0	32.3	5.5	5.8	5.8	45.7	45.5	45.0
Muskegon .....	17.0	16.4	16.4	2.2	2.2	2.2	13.8	14.0	14.1
Saginaw-Bay City-Midland .....	44.6	44.7	44.9	6.3	6.2	6.1	38.7	39.9	40.3
<b>Minnesota</b> .....	406.1	401.0	401.7	105.4	110.0	108.7	525.2	534.3	532.1
Duluth .....	8.6	8.6	8.5	6.0	5.9	5.9	25.0	24.7	24.7
Minneapolis-St. Paul .....	266.8	262.5	262.4	74.4	77.9	77.5	334.8	340.7	339.4
Rochester .....	12.0	12.1	12.3	1.9	1.9	1.9	13.0	12.9	12.8
St. Cloud .....	15.0	15.4	15.2	3.8	3.9	3.9	24.0	26.4	26.3
<b>Mississippi</b> .....	244.0	244.1	241.3	45.9	47.3	47.0	199.2	202.0	202.4
Jackson .....	21.5	22.0	21.8	14.1	14.8	14.8	43.7	43.9	43.9
<b>Missouri</b> .....	437.9	440.0	434.7	152.1	151.4	151.0	578.4	577.3	578.7
Kansas City .....	110.8	111.6	111.8	63.9	65.1	65.0	203.5	209.6	209.5
St. Louis .....	223.0	224.8	221.9	77.3	78.3	78.5	291.5	295.9	295.2
Springfield .....	21.5	21.2	21.1	7.4	7.7	7.7	33.6	34.7	34.6
<b>Montana</b> .....	22.5	22.5	23.2	20.3	19.8	19.8	80.1	81.9	82.1
<b>Nebraska</b> .....	95.0	96.9	95.7	45.8	47.1	47.0	184.4	186.9	186.8
Lincoln .....	14.1	14.2	13.8	6.6	6.8	6.8	27.2	27.4	27.4
Omaha .....	35.8	36.3	36.3	24.2	25.0	24.9	83.0	85.1	85.2
<b>Nevada</b> .....	25.6	26.3	26.2	30.9	32.3	32.3	121.5	127.9	129.0
Las Vegas .....	10.1	10.7	10.5	18.0	19.3	19.3	73.4	78.9	79.5
Reno .....	8.5	8.7	8.7	9.5	9.1	9.1	32.5	33.9	34.2
<b>New Hampshire</b> .....	109.0	109.0	103.1	17.8	18.9	17.6	138.7	132.4	131.8
Manchester .....	11.4	11.1	10.8	4.9	4.9	4.8	22.6	21.6	20.9
Nashua .....	34.0	33.0	31.7	3.4	3.4	3.3	23.2	22.4	21.7
Portsmouth-Dover-Rochester .....	19.6	19.2	16.7	2.9	2.8	2.8	30.4	27.3	27.7
<b>New Jersey</b> .....	650.3	640.8	629.8	240.7	245.2	239.6	900.7	903.6	904.9
Atlantic City .....	8.5	8.6	8.2	6.9	6.9	6.9	48.4	44.2	48.5
Bergen-Passaic .....	148.9	147.5	144.4	29.6	29.8	29.4	193.0	192.6	192.4
Camden .....	72.8	70.0	69.5	19.6	20.5	19.8	123.0	126.0	125.2
Jersey City .....	42.9	43.3	41.7	33.2	33.7	33.3	61.1	61.1	60.2
Middlesex-Somerset-Hunterdon .....	112.7	112.1	110.1	41.7	42.5	41.8	131.1	130.6	129.8
Monmouth-Ocean .....	27.7	27.2	27.1	17.4	17.5	17.3	98.4	96.5	99.3
Newark .....	174.4	171.3	168.7	81.3	84.4	83.6	197.6	197.3	195.9
Trenton .....	29.1	28.4	27.6	6.8	6.7	6.6	31.5	31.9	31.9
Vineland-Millville-Bridgeton .....	16.9	16.9	16.9	2.2	2.3	2.3	11.3	11.4	11.5

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>
<b>Maine</b> .....	26.0	25.6	25.6	130.6	126.2	130.0	84.5	96.7	84.6
Lewiston-Auburn .....	2.4	2.3	2.3	10.3	11.2	10.8	3.7	4.2	3.8
Portland .....	11.9	11.4	11.5	34.9	36.3	36.3	14.4	15.8	14.0
<b>Maryland</b> .....	133.7	134.3	134.5	601.5	612.8	612.7	401.0	419.0	410.2
Baltimore MSA .....	78.0	77.4	77.4	315.0	322.5	322.5	205.2	216.0	212.0
Baltimore City .....	46.2	45.9	46.0	150.8	152.8	153.6	95.1	96.9	99.8
Suburban Maryland-C.C. ....	46.5	46.7	47.1	231.1	231.6	232.5	154.1	163.8	154.0
<b>Massachusetts</b> .....	221.0	221.2	221.1	925.3	942.8	928.3	393.3	410.7	383.6
Boston .....	150.1	149.9	149.4	593.8	604.1	588.2	197.2	208.1	193.3
Brockton .....	3.6	3.6	3.6	16.0	16.4	16.2	11.7	12.9	11.7
Fall River .....	3.5	3.5	3.6	11.2	11.6	11.5	6.2	7.2	6.2
Fitchburg-Leominster .....	1.6	1.6	1.6	9.4	9.5	9.5	4.4	5.2	4.4
Lawrence-Haverhill .....	6.6	6.6	6.5	38.5	40.8	41.5	20.2	22.6	20.3
Lowell .....	3.9	3.5	3.4	21.9	22.6	22.0	11.8	13.7	11.9
New Bedford .....	2.6	2.5	2.4	15.3	15.5	15.8	9.6	10.0	9.4
Pittsfield .....	2.0	2.0	2.0	12.2	12.6	12.7	4.5	4.9	4.5
Springfield .....	15.8	15.1	14.9	60.1	61.9	61.4	37.7	39.7	36.1
Worcester .....	14.4	14.1	14.2	51.8	52.9	51.9	22.8	24.2	22.6
<b>Michigan</b> .....	191.4	193.8	194.3	909.5	925.6	922.8	575.1	628.6	579.0
Ann Arbor .....	4.7	4.8	4.8	37.5	39.3	39.8	47.2	51.8	48.4
Battle Creek .....	3.3	3.5	3.5	12.1	13.1	13.4	10.5	11.6	11.0
Benton Harbor .....	2.6	2.8	2.8	14.8	15.5	15.5	8.2	8.8	8.4
Detroit .....	112.2	114.5	114.6	509.4	523.1	519.9	223.8	241.4	224.8
Flint .....	6.0	6.3	6.4	33.7	35.9	36.0	21.3	23.1	22.5
Grand Rapids .....	15.9	16.1	16.1	73.1	75.8	75.3	30.1	33.6	31.1
Jackson .....	1.8	1.8	1.8	10.1	10.6	10.6	9.4	10.6	9.9
Kalamazoo .....	4.9	5.2	5.4	25.7	25.8	26.1	14.6	16.3	15.1
Lansing-East Lansing .....	13.0	12.9	12.8	42.2	43.1	43.4	61.9	69.5	63.0
Muskegon .....	1.5	1.5	1.5	12.6	12.5	12.7	9.1	9.6	9.3
Saginaw-Bay City-Midland .....	6.4	6.1	6.2	35.2	37.7	37.6	17.5	21.2	19.3
<b>Minnesota</b> .....	122.1	124.0	124.6	536.6	559.1	559.7	304.7	339.8	307.7
Duluth .....	3.3	3.2	3.2	24.1	24.1	24.0	20.2	21.2	20.3
Minneapolis-St. Paul .....	94.0	95.2	95.8	360.3	373.7	374.1	170.8	188.1	173.8
Rochester .....	1.6	1.7	1.7	27.3	28.4	28.9	5.5	6.6	5.4
St. Cloud .....	2.5	2.4	2.4	15.9	16.6	16.7	9.7	12.7	9.8
<b>Mississippi</b> .....	39.4	38.7	38.8	159.2	164.1	162.9	187.3	197.2	190.8
Jackson .....	14.9	14.6	14.6	42.5	43.7	43.5	38.3	42.0	39.5
<b>Missouri</b> .....	136.9	136.8	136.6	564.8	571.6	573.3	333.8	360.2	341.4
Kansas City .....	59.4	59.9	59.8	191.7	197.1	197.1	111.5	123.1	117.0
St. Louis .....	75.3	74.6	75.1	309.9	318.8	320.6	134.6	138.6	134.7
Springfield .....	5.5	5.7	5.6	29.8	30.6	30.3	13.1	14.6	14.1
<b>Montana</b> .....	13.4	13.5	13.5	73.1	74.6	75.6	64.1	72.3	64.8
<b>Nebraska</b> .....	48.9	48.7	48.4	166.7	174.5	172.8	134.4	149.7	139.4
Lincoln .....	8.6	8.4	8.5	27.0	29.0	28.4	30.0	32.3	30.5
Omaha .....	29.5	29.4	29.4	91.6	95.6	95.2	45.2	47.3	45.6
<b>Nevada</b> .....	26.0	27.4	27.6	256.5	269.5	274.5	65.7	73.9	70.4
Las Vegas .....	16.7	17.2	17.3	158.4	171.8	176.0	32.9	37.2	35.3
Reno .....	6.7	7.1	7.1	60.1	60.6	60.8	16.1	18.0	16.9
<b>New Hampshire</b> .....	33.4	32.6	32.7	127.2	128.6	127.8	59.5	71.2	60.7
Manchester .....	8.9	8.9	9.0	24.7	24.0	23.5	8.0	9.1	8.0
Nashua .....	3.5	3.3	3.3	18.4	18.2	17.5	6.4	8.2	6.2
Portsmouth-Dover-Rochester .....	7.3	7.1	7.2	25.3	24.2	24.7	21.0	24.0	20.7
<b>New Jersey</b> .....	247.3	244.9	245.7	976.2	999.7	1,006.5	548.2	580.6	563.1
Atlantic City .....	7.3	7.2	7.2	80.6	86.9	89.2	26.5	27.4	27.2
Bergen-Passaic .....	39.9	39.7	39.7	160.6	167.2	167.0	67.5	71.7	69.5
Camden .....	25.7	25.1	25.1	116.3	118.3	120.6	70.5	77.8	72.8
Jersey City .....	16.7	16.2	16.4	50.1	51.0	51.4	40.8	40.7	41.2
Middlesex-Somerset-Hunterdon .....	39.9	38.9	39.0	120.4	120.7	122.5	71.4	77.5	72.8
Monmouth-Ocean .....	19.7	19.7	19.7	105.0	106.1	108.9	63.1	67.5	64.9
Newark .....	80.6	80.5	80.5	265.2	274.2	275.8	139.0	144.2	142.2
Trenton .....	10.8	10.8	11.0	58.3	60.9	58.7	55.0	57.5	56.0
Vineland-Millville-Bridgeton .....	3.8	3.9	3.9	10.2	10.5	10.6	11.5	12.4	12.0

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>New Mexico</b> .....	555.9	571.1	566.7	14.5	14.7	14.6	32.2	29.3	29.5
Albuquerque .....	239.8	243.6	242.0	(?)	(?)	(?)	14.0	12.7	12.7
Las Cruces .....	40.3	43.3	41.2	(?)	(?)	(?)	2.5	2.5	2.5
Santa Fe .....	58.0	60.4	60.4	(?)	(?)	(?)	2.9	2.8	2.8
<b>New York</b> .....	8,281.7	8,401.7	8,292.9	6.1	6.1	6.1	357.9	328.2	328.1
Albany-Schenectady-Troy .....	429.8	440.8	434.4	.6	.8	.8	23.2	22.3	22.6
Binghamton .....	119.4	121.4	118.8	(?)	(?)	(?)	6.1	5.5	5.8
Buffalo .....	459.6	471.2	464.5	(?)	(?)	(?)	20.2	18.6	19.3
Elmira .....	41.9	42.6	42.0	(?)	(?)	(?)	1.9	1.6	1.7
Glens Falls .....	52.6	51.4	52.7	(?)	(?)	(?)	2.9	3.0	3.1
Nassau-Suffolk .....	1,147.1	1,164.4	1,139.1	(?)	(?)	(?)	60.6	55.3	55.3
New York PMSA .....	4,136.2	4,185.4	4,136.7	(?)	(?)	(?)	156.4	146.5	145.3
New York City .....	3,598.9	3,639.4	3,594.3	.4	.2	.2	123.1	114.1	112.6
Niagara Falls .....	85.5	87.9	86.8	(?)	(?)	(?)	4.4	4.4	4.6
Orange County .....	107.7	110.7	107.8	(?)	(?)	(?)	5.4	5.1	5.2
Poughkeepsie .....	120.4	122.7	120.3	(?)	(?)	(?)	7.0	6.6	6.6
Rochester .....	488.4	497.1	488.7	.8	.7	.7	21.0	20.7	20.9
Rockland County .....	104.0	104.9	104.5	(?)	(?)	(?)	5.4	5.4	5.3
Syracuse .....	311.1	319.1	314.8	(?)	(?)	(?)	18.2	17.3	17.7
Utica-Rome .....	129.1	131.1	129.7	(?)	(?)	(?)	5.2	4.2	4.5
Westchester County .....	413.8	421.5	418.6	(?)	(?)	(?)	25.7	24.9	25.2
<b>North Carolina</b> .....	3,037.2	3,128.8	3,066.1	4.9	5.0	5.0	168.8	165.3	166.2
Asheville .....	84.5	90.3	89.1	(?)	(?)	(?)	4.7	4.5	4.5
Charlotte-Gastonia-Rock Hill .....	611.0	636.0	625.8	(?)	(?)	(?)	37.1	38.0	38.5
Greensboro-Winston-Salem-High Point .....	476.2	486.8	473.4	(?)	(?)	(?)	25.2	25.0	24.9
Raleigh-Durham .....	417.6	427.9	425.3	(?)	(?)	(?)	22.5	22.2	22.2
<b>North Dakota</b> .....	261.5	269.3	265.7	4.3	4.3	4.5	11.8	11.6	11.8
Bismarck .....	39.0	40.7	40.2	(?)	(?)	(?)	1.9	2.2	2.3
Fargo-Moorhead .....	73.4	77.0	76.2	(?)	(?)	(?)	4.5	4.6	4.8
Grand Forks .....	30.3	31.4	30.8	(?)	(?)	(?)	1.7	1.5	1.6
<b>Ohio</b> .....	4,815.3	4,977.7	4,932.6	15.4	18.4	18.5	209.6	209.5	216.3
Akron .....	281.6	291.1	289.8	.6	.6	.6	10.9	11.1	11.2
Canton .....	165.2	169.1	168.1	.8	.8	.8	7.9	8.0	8.2
Cincinnati .....	727.7	758.8	753.8	.4	.5	.5	36.3	37.1	37.6
Cleveland .....	943.5	969.3	966.3	.8	.9	.9	35.7	36.3	37.3
Columbus .....	699.0	734.0	724.6	.8	.9	.9	31.4	31.8	32.5
Dayton-Springfield .....	444.9	461.5	456.5	.5	.5	.5	18.9	18.9	19.2
Toledo .....	289.8	299.4	294.7	.3	.2	.3	12.6	13.1	13.4
Youngstown-Warren .....	193.6	205.0	196.4	.4	.5	.5	8.7	8.5	8.7
<b>Oklahoma</b> .....	1,150.9	1,172.3	1,159.7	44.0	45.5	46.0	36.6	36.9	37.2
Enid .....	21.4	21.8	21.7	.9	.9	.9	.6	.6	.7
Lawton .....	34.3	34.9	34.5	.3	.2	.3	1.1	1.0	1.0
Oklahoma City .....	417.8	431.0	426.5	10.8	10.5	10.5	12.1	12.9	13.4
Tulsa .....	305.4	318.7	317.7	12.7	12.4	12.5	10.7	11.6	11.9
<b>Oregon</b> .....	1,209.1	1,261.5	1,245.6	1.6	1.4	1.5	48.2	50.3	52.0
Eugene-Springfield .....	113.0	121.3	118.0	.2	.2	.2	4.2	4.3	4.6
Portland .....	614.8	641.6	636.2	.4	.4	.4	26.9	27.3	27.8
Salem .....	105.3	108.3	109.2	.1	.1	.1	4.6	4.5	4.9
<b>Pennsylvania</b> .....	5,114.7	5,160.9	5,131.5	21.2	27.7	27.3	253.5	241.4	251.8
Allentown-Bethlehem .....	278.3	284.7	279.6	.7	.6	.6	14.4	13.6	13.7
Altoona .....	52.7	53.7	53.0	(?)	(?)	(?)	2.8	2.8	2.8
Beaver County .....	49.2	50.3	49.6	(?)	(?)	(?)	2.6	2.5	2.6
Erie .....	118.1	120.8	120.7	(?)	(?)	(?)	4.4	4.4	4.6
Harrisburg-Lebanon-Carlisle .....	314.1	322.4	322.5	.4	.4	.4	15.2	15.7	16.1
Johnstown .....	79.6	81.3	81.1	1.6	2.6	2.6	3.3	3.2	3.3
Lancaster .....	169.3	190.7	189.8	.4	.5	.5	12.7	12.6	13.1
Philadelphia PMSA .....	2,194.3	2,214.0	2,193.8	1.1	1.1	1.1	108.2	105.5	106.5
Philadelphia City .....	763.6	764.5	762.4	(?)	(?)	(?)	18.4	18.0	17.9
Pittsburgh .....	899.5	916.3	912.1	3.5	4.5	4.5	45.1	42.0	43.5

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>
<b>New Mexico</b> .....	41.6	43.3	42.9	28.0	27.8	27.9	135.5	136.3	136.2
Albuquerque .....	21.2	21.2	21.2	12.3	12.3	12.1	60.7	61.4	61.2
Las Cruces .....	3.5	3.6	3.4	1.3	1.3	1.3	8.8	9.3	9.3
Santa Fe .....	1.7	1.8	1.8	.9	.9	.9	11.2	11.5	11.5
<b>New York</b> .....	1,184.5	1,187.8	1,147.5	417.2	428.8	420.0	1,743.3	1,742.3	1,730.9
Albany-Schenectady-Troy .....	47.1	47.5	47.0	17.4	17.8	17.5	92.6	93.9	93.5
Binghamton .....	35.0	34.1	34.0	4.4	4.6	4.6	25.5	25.8	25.7
Buffalo .....	78.6	76.7	75.8	22.2	22.8	22.0	116.9	119.9	118.9
Elmira .....	9.2	8.6	8.6	1.5	1.4	1.4	10.8	11.1	11.0
Glens Falls .....	10.8	10.1	10.1	1.9	1.9	2.0	13.3	13.0	13.5
Nassau-Suffolk .....	161.3	155.5	151.9	48.4	51.9	49.7	305.5	304.8	302.1
New York PMSA .....	431.9	426.8	417.9	244.6	247.9	243.1	750.0	752.3	745.2
New York City .....	355.8	351.0	342.2	218.8	222.1	218.0	627.6	629.1	622.8
Niagara Falls .....	23.8	23.8	23.5	4.0	4.4	4.1	20.6	21.5	21.3
Orange County .....	14.5	13.4	13.1	6.5	7.0	6.9	30.1	30.3	30.1
Poughkeepsie .....	30.5	29.6	29.6	3.7	3.8	3.8	22.5	22.6	22.4
Rochester .....	139.9	133.6	133.7	15.2	15.7	15.5	106.1	109.4	108.6
Rockland County .....	15.1	14.4	14.4	5.2	5.2	4.9	24.1	23.9	23.8
Syracuse .....	53.3	53.3	52.3	19.1	19.4	19.3	75.8	77.7	77.2
Utica-Rome .....	24.5	24.0	23.4	4.5	4.5	4.4	28.7	29.2	29.1
Westchester County .....	58.9	59.4	59.4	20.0	19.8	19.5	93.7	94.8	94.1
<b>North Carolina</b> .....	865.2	853.2	844.3	152.4	155.4	155.8	714.9	732.6	733.9
Asheville .....	19.8	20.0	19.4	4.2	4.3	4.3	20.7	22.2	22.3
Charlotte-Gastonia-Rock Hill .....	154.0	154.0	151.7	50.1	51.0	51.0	153.4	158.0	158.0
Greensboro-Winston-Salem-High Point .....	150.0	145.4	144.2	26.2	26.0	25.8	111.4	111.6	111.4
Raleigh-Durham .....	63.0	63.5	63.4	20.3	21.3	21.2	90.3	91.4	91.3
<b>North Dakota</b> .....	16.5	17.3	17.0	17.0	17.2	17.2	70.5	71.2	70.8
Bismarck .....	2.3	2.4	2.3	2.8	3.0	3.1	10.5	10.5	10.5
Fargo-Moorhead .....	5.5	5.8	5.8	4.7	4.8	4.8	21.5	21.7	21.7
Grand Forks .....	1.8	1.6	1.2	1.6	1.7	1.7	8.8	9.4	9.4
<b>Ohio</b> .....	1,118.2	1,129.7	1,118.8	217.5	220.7	221.4	1,176.2	1,219.9	1,218.4
Akron .....	68.5	68.0	67.7	13.1	13.8	13.6	70.5	73.4	73.0
Canton .....	45.9	45.4	45.5	5.7	5.7	5.7	41.3	42.7	42.5
Cincinnati .....	146.4	148.8	148.7	39.5	41.3	41.2	190.7	201.6	201.6
Cleveland .....	206.0	208.1	207.3	42.5	43.4	43.4	227.2	235.6	235.5
Columbus .....	105.1	105.7	104.3	30.9	31.6	31.8	180.2	189.8	189.1
Dayton-Springfield .....	104.5	105.9	105.5	17.5	18.5	18.6	100.9	104.7	103.7
Toledo .....	61.2	60.3	59.9	14.4	14.7	14.7	74.4	77.2	76.8
Youngstown-Warren .....	45.7	50.1	43.7	7.8	8.0	8.0	53.4	55.8	55.9
<b>Oklahoma</b> .....	163.0	165.1	165.0	65.8	66.5	66.7	278.0	283.3	282.0
Enid .....	1.6	1.5	1.5	2.2	2.1	2.1	6.4	6.4	6.3
Lawton .....	3.4	3.5	3.5	1.9	1.7	1.7	8.6	8.6	8.6
Oklahoma City .....	48.9	47.9	47.4	21.0	21.1	21.2	103.6	104.2	104.8
Tulsa .....	52.4	54.5	54.6	24.4	25.2	25.3	73.0	75.8	75.9
<b>Oregon</b> .....	225.4	221.4	226.4	62.9	64.6	63.8	313.3	323.0	326.4
Eugene-Springfield .....	21.3	20.7	20.8	4.5	4.6	4.5	29.0	30.9	30.8
Portland .....	103.5	104.5	105.1	37.5	38.0	37.8	165.5	171.6	173.0
Salem .....	17.4	15.9	18.9	2.8	2.8	2.7	23.7	24.1	23.9
<b>Pennsylvania</b> .....	1,051.3	1,034.9	1,029.2	251.3	255.7	249.5	1,175.6	1,177.6	1,175.0
Allentown-Bethlehem .....	75.1	74.8	73.7	14.2	14.1	13.9	61.6	62.7	62.1
Altoona .....	10.4	10.1	10.1	4.7	4.5	4.5	13.9	14.3	14.2
Beaver County .....	9.2	9.2	9.1	5.1	5.1	5.1	11.6	11.8	11.7
Erie .....	36.2	37.0	37.0	4.4	4.6	4.6	25.6	26.0	25.8
Harrisburg-Lebanon-Carlisle .....	52.5	51.3	51.4	19.2	19.5	19.0	71.5	72.8	72.8
Johnstown .....	14.9	14.8	14.8	4.8	5.0	4.8	17.3	17.5	17.6
Lancaster .....	59.6	57.6	57.3	7.5	7.4	7.3	47.5	48.0	48.3
Philadelphia PMSA .....	363.9	356.2	353.8	98.9	100.5	98.8	507.8	509.6	504.4
Philadelphia City .....	85.9	82.9	82.2	41.6	41.7	41.2	146.6	147.0	146.1
Pittsburgh .....	124.9	123.6	123.9	48.1	50.4	49.5	226.2	229.1	228.5

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>New Mexico</b> .....	26.7	26.8	26.7	142.0	145.8	146.2	135.4	147.1	142.7
Albuquerque .....	14.4	14.5	14.3	70.7	72.8	72.7	46.4	48.6	47.7
Las Cruces .....	1.7	1.7	1.7	7.6	7.7	7.7	14.8	17.1	15.2
Santa Fe .....	2.1	2.1	2.1	16.2	16.4	16.7	22.9	24.8	24.5
<b>New York</b> .....	804.0	795.5	798.2	2,365.0	2,429.2	2,425.1	1,403.7	1,503.9	1,437.1
Albany-Schenectady-Troy .....	25.2	25.4	25.5	114.3	115.9	116.6	109.4	117.2	111.0
Binghamton .....	4.2	4.2	4.3	25.2	25.4	25.1	19.0	21.7	19.5
Buffalo .....	28.7	28.8	28.8	122.1	128.1	126.5	73.1	76.4	73.3
Elmira .....	1.5	1.5	1.5	10.6	11.0	11.1	8.6	7.5	6.8
Glens Falls .....	1.8	1.7	1.7	13.3	12.1	13.4	8.8	9.7	9.1
Nassau-Suffolk .....	84.4	85.0	85.8	313.3	318.4	318.8	173.5	193.5	175.7
New York PMSA .....	571.8	562.2	562.8	1,301.1	1,342.8	1,330.6	680.5	706.9	691.6
New York City .....	534.5	525.4	525.9	1,140.3	1,177.4	1,163.2	598.4	619.9	609.3
Niagara Falls .....	2.0	2.1	2.1	18.0	18.4	18.2	12.9	13.3	13.0
Orange County .....	4.9	4.9	5.0	24.0	24.5	24.5	22.2	25.5	23.1
Poughkeepsie .....	5.0	4.9	5.0	28.5	29.2	29.1	23.2	26.0	23.8
Rochester .....	23.7	23.7	23.6	121.3	124.5	124.1	64.4	68.9	61.5
Rockland County .....	5.6	5.6	5.6	28.1	27.9	29.3	20.6	22.5	21.2
Syracuse .....	20.4	20.3	20.4	74.2	76.5	76.9	50.2	54.6	51.0
Utica-Rome .....	7.5	7.8	7.8	28.4	28.9	29.2	30.3	32.5	31.3
Westchester County .....	30.9	30.4	30.5	127.0	132.0	132.5	57.6	60.2	57.4
<b>North Carolina</b> .....	134.4	134.5	134.4	568.3	588.1	591.2	428.3	494.7	435.3
Asheville .....	2.8	2.9	2.9	20.9	22.7	23.0	11.4	13.7	12.7
Charlotte-Gastonia-Rock Hill .....	38.2	38.7	38.7	115.4	121.9	122.8	62.8	74.4	65.1
Greensboro-Winston-Salem-High Point .....	23.7	23.8	23.4	96.8	98.6	99.1	42.9	56.4	44.6
Raleigh-Durham .....	23.7	24.0	24.2	107.4	110.4	109.9	90.4	95.1	93.1
<b>North Dakota</b> .....	12.5	12.6	12.7	66.4	69.3	69.4	62.5	65.8	62.3
Bismarck .....	1.6	1.5	1.5	11.4	12.0	11.9	8.5	9.1	8.6
Fargo-Moorhead .....	4.5	4.6	4.6	20.4	21.4	21.5	12.3	14.1	13.0
Grand Forks .....	1.1	1.2	1.2	7.0	7.3	7.1	8.5	8.7	8.6
<b>Ohio</b> .....	255.9	259.3	260.5	1,158.8	1,196.9	1,199.6	663.8	723.4	679.1
Akron .....	10.5	10.7	10.8	69.1	72.9	74.0	38.3	40.7	38.9
Canton .....	6.9	6.9	6.9	38.6	40.2	39.9	18.2	19.5	18.7
Cincinnati .....	43.4	43.4	43.7	186.8	193.5	193.6	84.2	92.6	86.9
Cleveland .....	57.6	58.3	58.6	254.8	263.3	262.9	118.8	123.4	120.4
Columbus .....	60.5	61.4	61.9	172.2	180.9	181.6	117.9	131.9	122.4
Dayton-Springfield .....	18.1	17.7	17.8	113.4	117.5	117.5	71.2	77.9	73.7
Toledo .....	12.3	12.1	12.1	77.0	79.4	79.5	37.7	42.3	37.9
Youngstown-Warren .....	8.8	8.9	8.8	47.3	48.8	48.8	21.5	24.3	22.0
<b>Oklahoma</b> .....	59.0	55.8	55.7	264.2	265.4	265.0	240.3	253.8	242.1
Enid .....	.9	.9	.9	5.2	5.4	5.4	3.6	4.0	3.9
Lawton .....	1.7	1.8	1.8	6.3	6.2	6.6	11.0	11.9	11.0
Oklahoma City .....	24.9	24.3	24.4	103.7	108.6	107.8	92.8	101.5	97.0
Tulsa .....	16.8	17.9	17.9	79.5	83.0	83.3	35.9	38.3	36.3
<b>Oregon</b> .....	76.8	77.3	78.0	282.8	291.0	292.1	198.1	232.5	205.4
Eugene-Springfield .....	5.6	5.9	5.9	27.6	29.0	29.0	20.6	25.7	22.2
Portland .....	50.0	50.6	50.9	155.3	161.2	162.1	75.7	88.0	79.1
Salem .....	5.4	5.6	5.6	21.8	22.8	22.7	29.5	32.5	30.4
<b>Pennsylvania</b> .....	301.1	299.9	300.3	1,390.5	1,422.2	1,423.1	670.2	701.5	675.3
Allentown-Bethlehem .....	14.5	14.5	14.5	69.9	71.5	70.9	27.9	32.9	30.2
Altoona .....	1.9	2.0	2.0	11.8	12.1	12.0	7.2	7.9	7.4
Beaver County .....	1.7	1.6	1.7	11.5	11.8	11.7	7.5	8.3	7.7
Erie .....	5.6	5.7	5.7	28.8	29.8	29.9	13.1	13.3	13.1
Harrisburg-Lebanon-Carlisle .....	20.0	21.7	21.8	70.5	73.7	74.8	64.8	67.3	66.2
Johnstown .....	4.5	4.4	4.4	20.6	21.0	20.9	12.6	12.8	12.7
Lancaster .....	7.4	7.6	7.6	40.2	41.2	41.3	14.0	15.8	14.4
Philadelphia PMSA .....	161.6	161.2	162.0	655.4	668.4	663.8	297.4	311.5	303.4
Philadelphia City .....	70.6	69.7	70.0	255.9	259.6	258.7	144.6	145.6	146.3
Pittsburgh .....	54.2	55.3	55.4	293.3	303.3	302.9	104.2	110.1	103.9

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	153.4	157.1	153.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.7	8.0	8.1
Scranton—Wilkes-Barre .....	306.9	309.6	308.3	0.6	0.6	0.6	16.3	15.8	16.2
Sharon .....	42.4	44.0	43.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.6	1.7
State College .....	57.3	57.8	58.1	.3	.3	.3	3.7	3.8	3.9
Williamsport .....	51.7	52.4	52.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.8	2.9
York .....	179.3	181.3	179.5	.5	.5	.5	11.7	11.8	12.1
<b>Rhode Island</b>									
Pawtucket—Woonsocket—Attleboro .....	130.3	132.7	128.2	.2	.2	.2	5.7	4.9	4.9
Providence .....	325.5	331.4	323.5	.1	.1	.1	16.3	15.3	15.5
<b>South Carolina</b>									
Charleston .....	195.6	210.1	208.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	13.6	15.4	15.4
Columbia .....	236.9	242.2	237.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.1	16.2	15.9
Greenville—Spartanburg .....	328.9	340.4	334.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	24.4	24.6	24.5
<b>South Dakota</b>									
Rapid City .....	38.3	39.3	39.0	.3	.4	.3	2.1	2.1	2.1
Sioux Falls .....	70.9	74.7	74.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.8	3.7	3.9
<b>Tennessee</b>									
Chattanooga .....	195.2	198.7	197.5	.8	.8	.8	7.9	8.6	8.7
Johnson City—Kingsport—Bristol .....	165.0	172.1	171.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.9	8.0	8.1
Knoxville .....	267.8	265.5	264.3	1.8	1.9	1.9	15.4	15.1	15.2
Memphis .....	458.7	466.5	465.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.4	20.0	20.1
Nashville .....	489.1	495.9	492.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	25.7	25.1	25.3
<b>Texas</b>									
Abilene .....	47.3	48.2	47.6	1.5	1.5	1.4	1.6	1.6	1.6
Amarillo .....	76.4	77.3	76.7	1.3	1.1	1.1	3.5	3.5	3.6
Austin .....	356.5	368.9	361.7	.7	.7	.6	11.4	11.1	11.2
Beaumont—Port Arthur .....	134.8	139.7	139.3	1.5	1.7	1.7	9.7	10.7	10.7
Brazoria .....	61.8	65.5	64.7	2.1	2.1	2.1	8.1	9.9	9.7
Brownsville—Harlingen .....	72.6	76.7	75.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.2	2.2
Bryan—College Station .....	49.7	50.5	51.7	.5	.5	.5	1.5	1.7	1.7
Corpus Christi .....	127.2	129.7	129.7	3.4	3.4	3.3	9.1	10.5	10.3
Dallas .....	1,345.9	1,365.5	1,363.3	17.6	17.4	17.5	48.8	46.1	46.8
El Paso .....	202.0	207.5	206.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.4	8.4	8.4
Ft. Worth—Arlington .....	566.3	580.1	578.1	3.9	3.9	4.0	21.6	21.2	21.3
Galveston—Texas City .....	76.3	76.8	76.7	.5	.6	.6	6.3	6.4	6.4
Houston .....	1,507.5	1,557.5	1,557.4	65.0	68.2	68.9	97.1	101.0	102.1
Killeen—Temple .....	73.6	75.4	74.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.4	3.2	3.2
Laredo .....	41.8	44.2	44.3	1.6	1.7	1.7	1.2	1.2	1.2
Longview—Marshall .....	67.5	69.1	68.9	3.5	3.5	3.5	3.0	3.6	3.7
Lubbock .....	94.8	95.4	95.8	.3	.2	.2	3.4	3.3	3.6
McAllen—Edinburg—Mission .....	94.1	100.2	98.5	.9	.9	.9	4.2	4.4	4.7
Midland .....	44.1	44.7	44.8	8.8	8.6	8.6	1.3	1.4	1.4
Odessa .....	42.0	42.4	42.6	5.1	4.9	4.9	1.9	2.0	2.1
San Angelo .....	36.8	36.1	35.8	.5	.6	.6	1.2	1.1	1.1
San Antonio .....	509.3	517.3	512.8	2.2	2.1	2.2	21.8	21.3	21.4
Sherman—Denison .....	36.7	36.5	36.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.6	1.7
Texarkana .....	45.9	47.2	46.0	.1	.1	.1	1.6	1.5	1.5
Tyler .....	61.3	62.3	62.1	1.7	1.7	1.6	1.7	1.7	1.7
Victoria .....	27.2	28.5	28.6	1.2	1.5	1.5	1.5	2.0	2.0
Waco .....	79.3	81.5	80.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.1	3.1	3.2
Wichita Falls .....	50.5	50.4	50.0	1.5	1.4	1.4	1.6	1.6	1.6

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	47.8	47.0	45.2	6.5	6.8	6.4	34.6	35.4	35.7
Scranton-Wilkes-Barre .....	70.4	70.2	68.5	15.7	16.5	16.1	73.1	74.0	74.1
Sharon .....	11.3	11.7	11.9	1.9	2.0	2.0	10.6	10.5	10.5
State College .....	8.2	7.9	7.9	1.6	1.7	1.7	11.3	11.5	11.5
Williamsport .....	16.2	15.8	15.6	1.8	1.9	1.9	11.7	11.9	11.9
York .....	60.7	58.3	58.0	7.1	7.2	7.0	43.4	44.6	44.7
<b>Rhode Island</b> .....	104.4	105.5	100.0	15.4	15.8	15.7	108.6	107.9	106.5
Pawtucket-Woonsocket-Attleboro .....	47.6	48.3	46.0	3.7	4.0	3.8	33.4	34.6	34.0
Providence .....	67.9	68.3	64.9	11.0	11.9	11.9	73.0	72.9	72.4
<b>South Carolina</b> .....	389.8	389.2	384.7	64.3	65.2	65.5	347.0	354.6	355.2
Charleston .....	21.0	21.2	21.2	10.3	10.5	10.5	50.4	53.7	54.1
Columbia .....	28.7	28.9	28.6	11.0	11.3	11.2	54.6	54.1	53.9
Greenville-Spartanburg .....	103.5	101.1	100.4	13.4	13.6	13.5	77.5	80.5	80.5
<b>South Dakota</b> .....	32.1	32.7	32.7	13.5	13.4	13.3	75.1	76.6	76.8
Rapid City .....	3.7	3.9	3.9	2.2	2.0	2.1	11.8	11.7	12.1
Sioux Falls .....	8.3	8.5	8.6	5.2	5.1	5.0	19.8	20.8	21.0
<b>Tennessee</b> .....	524.1	522.7	520.0	116.5	116.7	116.4	513.4	512.8	514.0
Chattanooga .....	47.5	47.2	46.4	8.0	8.0	8.0	46.7	46.2	46.4
Johnson City-Kingsport-Bristol .....	54.1	54.3	54.4	6.2	6.2	6.2	38.4	39.0	39.5
Knoxville .....	51.8	49.0	48.6	10.8	10.9	10.9	70.5	68.6	69.2
Memphis .....	62.2	61.6	62.0	47.2	47.1	47.4	125.5	127.2	127.2
Nashville .....	89.0	89.6	89.3	26.8	26.7	26.6	120.6	119.2	119.0
<b>Texas</b> .....	973.9	965.2	963.4	401.9	416.3	419.7	1,692.8	1,709.8	1,712.1
Abilene .....	4.8	4.6	4.6	2.6	2.7	2.7	13.1	13.2	13.2
Amarillo .....	8.8	8.7	8.7	5.5	5.6	5.5	22.2	21.9	21.8
Austin .....	44.6	45.5	45.7	11.1	11.1	11.1	78.7	78.0	78.1
Beaumont-Port Arthur .....	24.8	25.3	25.1	9.6	9.7	9.7	32.4	32.6	32.9
Brazoria .....	16.2	16.5	16.6	2.6	2.6	2.6	11.5	11.9	11.9
Brownsville-Harlingen .....	10.5	10.9	10.9	3.2	3.2	3.2	19.8	20.4	20.3
Bryan-College Station .....	3.8	3.7	3.8	1.3	1.5	1.5	11.2	11.5	11.6
Corpus Christi .....	11.4	11.7	11.9	6.8	6.6	6.7	32.7	32.1	32.2
Dallas .....	225.9	221.3	221.6	78.0	80.2	80.5	346.5	358.0	358.2
El Paso .....	42.1	39.8	39.7	10.4	10.5	10.9	51.3	53.2	53.3
Ft. Worth-Arlington .....	120.2	119.7	117.2	52.3	55.9	56.2	145.9	147.2	147.3
Galveston-Texas City .....	9.0	9.0	8.9	4.8	5.2	5.4	14.3	14.4	14.4
Houston .....	163.7	164.6	165.4	107.0	107.5	108.1	368.8	375.0	374.8
Killeen-Temple .....	8.9	8.8	9.0	2.7	2.6	2.6	16.8	17.0	16.9
Laredo .....	1.6	1.8	1.8	5.8	6.2	6.1	13.7	14.1	14.3
Longview-Marshall .....	16.2	16.4	16.4	3.4	3.4	3.4	17.1	17.0	17.0
Lubbock .....	7.2	7.1	7.2	4.9	5.6	5.5	27.8	27.9	28.2
McAllen-Edinburg-Mission .....	13.1	12.8	12.5	3.1	2.9	2.9	29.3	31.1	31.3
Midland .....	2.4	2.3	2.3	2.3	2.3	2.3	10.8	11.1	11.0
Odessa .....	4.1	4.2	4.2	1.9	1.9	1.9	12.5	12.7	12.8
San Angelo .....	5.5	4.9	5.0	2.8	2.6	2.5	9.1	8.8	8.8
San Antonio .....	48.8	46.1	46.0	19.7	19.8	19.9	130.0	132.6	132.8
Sherman-Denison .....	11.1	10.9	10.9	1.6	1.3	1.3	8.0	8.1	8.1
Texarkana .....	7.2	7.2	7.1	2.4	2.4	2.4	10.8	10.8	10.9
Tyler .....	10.9	10.9	11.1	2.8	2.8	2.8	16.2	16.4	16.4
Victoria .....	3.0	3.1	3.1	1.3	1.3	1.3	7.5	7.7	7.8
Waco .....	15.5	16.0	15.8	3.4	3.5	3.5	18.6	18.8	18.8
Wichita Falls .....	8.5	8.0	8.0	2.6	2.6	2.6	11.9	11.8	11.8

See footnotes at end of table.



**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Pennsylvania-Continued</b>									
Reading .....	9.0	9.1	9.0	32.3	33.3	33.1	15.5	17.5	15.9
Scranton-Wilkes-Barre .....	13.3	13.7	13.8	77.9	77.5	79.2	39.6	41.3	39.8
Sharon .....	1.4	1.4	1.4	11.2	11.6	11.6	4.5	5.2	4.7
State College .....	1.9	1.9	2.0	10.8	11.2	11.2	19.5	19.3	19.6
Williamsport .....	2.4	2.4	2.4	10.5	10.7	10.9	6.4	6.9	6.5
York .....	5.2	5.2	5.2	33.5	34.8	34.6	17.2	18.9	17.4
<b>Rhode Island</b>									
Pawtucket-Woonsocket-Attleboro .....	27.1	26.7	26.5	122.5	125.9	123.4	58.1	59.9	56.8
Providence .....	3.8	4.1	4.1	26.1	26.8	26.1	9.8	9.8	9.1
	22.5	22.0	21.7	91.4	95.4	94.3	43.3	45.5	42.7
<b>South Carolina</b>									
Charleston .....	70.2	72.5	72.8	280.2	291.8	293.0	251.6	287.0	270.8
Columbia .....	9.0	9.1	9.1	42.5	45.7	45.6	48.8	54.5	52.9
Greenville-Spartanburg .....	18.8	18.9	18.7	47.9	47.8	47.2	61.8	65.0	62.0
	12.3	12.5	12.4	61.3	66.2	66.1	36.5	41.9	37.1
<b>South Dakota</b>									
Rapid City .....	16.0	16.5	16.6	68.4	69.7	68.8	56.8	63.8	57.3
Sioux Falls .....	1.7	1.5	1.5	10.2	10.4	10.4	6.3	7.3	6.6
	7.5	7.9	7.9	19.2	19.8	19.9	7.1	8.9	7.7
<b>Tennessee</b>									
Chattanooga .....	104.9	104.4	104.5	472.9	484.1	483.8	318.5	336.4	321.2
Johnson City-Kingsport-Bristol .....	12.6	13.2	13.2	39.0	41.2	41.2	32.7	33.4	32.8
Knoxville .....	5.5	5.4	5.3	29.9	33.6	33.4	22.9	25.6	24.9
Memphis .....	10.1	10.1	10.3	58.2	58.5	58.7	49.2	51.4	49.5
Nashville .....	26.2	26.6	26.7	109.2	112.5	112.6	69.0	71.5	69.8
	32.2	32.4	32.3	130.1	135.7	135.6	64.7	67.2	64.3
<b>Texas</b>									
Ablene .....	434.4	434.1	433.6	1,623.8	1,672.3	1,677.2	1,185.3	1,254.0	1,221.5
Amarillo .....	2.3	2.2	2.2	13.0	13.6	13.5	8.4	8.8	8.4
Austin .....	4.1	3.9	3.9	17.6	17.8	17.9	13.4	14.8	14.2
Beaumont-Port Arthur .....	23.9	24.0	24.1	92.4	93.8	94.1	93.7	102.7	96.8
Brazoria .....	5.3	5.4	5.4	31.9	33.2	33.3	19.6	21.1	20.5
Brownsville-Harlingen .....	1.8	1.8	1.8	8.8	9.3	9.2	10.7	11.4	10.8
Bryan-College Station .....	3.6	3.8	3.8	17.1	18.4	18.2	16.2	17.8	16.7
Corpus Christi .....	1.7	1.8	1.7	9.2	9.2	9.5	20.5	20.6	21.4
Dallas .....	6.4	6.2	6.2	30.0	30.6	30.6	27.4	28.6	28.5
El Paso .....	130.7	128.8	128.7	349.8	351.3	352.3	148.6	162.4	157.7
Ft. Worth-Arlington .....	8.5	8.3	8.5	41.9	43.3	43.7	39.4	44.0	42.2
Galveston-Texas City .....	28.0	27.9	27.8	126.5	129.9	130.0	67.9	74.4	74.3
Houston .....	4.7	4.5	4.6	14.2	14.3	14.3	22.5	22.4	22.1
Killeen-Temple .....	101.3	102.8	102.8	417.6	434.0	436.6	187.0	204.4	198.7
Laredo .....	3.1	3.3	3.3	17.3	17.7	17.5	21.4	22.8	22.2
Longview-Marshall .....	1.8	1.9	1.9	7.0	7.4	7.4	9.1	9.9	9.9
Lubbock .....	2.7	2.7	2.7	13.0	13.6	13.7	8.6	8.9	8.5
McAllen-Edinburg-Mission .....	5.5	5.4	5.4	23.8	23.8	23.8	21.9	22.1	21.9
Midland .....	4.1	4.3	4.3	15.8	16.8	16.6	23.6	27.0	25.3
Odessa .....	2.4	2.4	2.4	9.7	9.7	9.8	6.4	6.9	7.0
San Angelo .....	1.6	1.5	1.5	7.6	7.8	7.8	7.3	7.4	7.4
San Antonio .....	1.7	1.7	1.7	9.1	8.7	8.8	6.9	7.7	7.3
Sherman-Denison .....	41.1	40.8	40.5	133.8	135.2	135.4	111.9	119.4	114.6
Texarkana .....	1.9	1.9	1.9	8.3	8.4	8.5	4.1	4.3	4.1
Tyler .....	1.8	1.8	1.8	10.4	11.0	10.9	11.6	12.4	11.3
Victoria .....	3.5	3.5	3.5	15.4	15.3	15.5	9.1	10.0	9.5
Waco .....	1.6	1.5	1.5	6.0	5.9	5.8	5.1	5.5	5.6
Wichita Falls .....	5.1	5.1	5.1	21.6	22.1	22.0	12.0	12.9	12.0
	2.3	2.3	2.4	12.5	12.7	12.6	9.6	10.0	9.6

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Total			Mining			Construction		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Utah</b> .....	686.7	731.0	718.7	8.2	8.8	8.8	28.3	28.9	29.0
Provo-Orem .....	84.6	89.4	88.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.0	3.0	3.0
Salt Lake City-Ogden .....	478.2	499.4	493.9	2.7	2.8	2.8	19.3	20.5	20.6
<b>Vermont</b> .....	260.2	259.1	253.0	.6	.6	.5	19.7	16.3	16.4
Barre-Montpelier .....	33.8	34.4	32.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.5	2.3
Burlington .....	80.0	80.2	78.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.9	4.6	4.7
<b>Virginia</b> .....	2,875.7	2,960.3	2,934.5	14.8	16.6	16.6	204.9	198.0	199.6
Bristol .....	32.2	33.7	33.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.2	1.1	1.1
Charlottesville .....	71.8	76.4	75.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.6	4.4	4.4
Danville .....	41.4	41.8	41.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.4	2.2	2.3
Lynchburg .....	75.7	78.3	76.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.8	3.9	3.9
Norfolk-Virginia Beach-Newport News .....	590.9	604.1	597.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	38.8	37.8	37.6
Northern Virginia .....	785.0	794.4	787.4	.6	.8	.6	65.7	56.8	56.8
Richmond-Petersburg .....	471.0	478.4	476.2	.8	.8	.8	32.1	31.4	32.1
Roanoke .....	125.6	127.9	127.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.3	7.9	8.2
<b>Washington</b> .....	2,053.7	2,163.9	2,136.5	3.7	3.9	3.9	113.9	121.2	125.5
Seattle .....	1,067.6	1,112.7	1,106.9	.5	.6	.6	62.9	59.9	63.3
<b>West Virginia</b> .....	604.9	629.7	631.2	17.9	36.2	36.2	25.3	24.7	24.6
Charleston .....	108.9	113.0	113.8	1.1	2.0	2.0	4.1	5.2	5.3
Huntington-Ashland .....	108.9	111.3	110.9	1.1	1.6	1.6	5.5	5.7	5.5
Parkersburg-Marietta .....	61.9	62.8	62.7	.5	.5	.5	3.2	3.5	3.4
Wheeling .....	59.4	62.3	62.6	.8	2.5	2.5	2.2	2.3	2.3
<b>Wisconsin</b> .....	2,240.3	2,302.6	2,284.6	2.6	2.7	2.7	89.5	88.8	91.4
Appleton-Oshkosh-Neenah .....	157.7	182.2	181.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.7	8.0	8.2
Eau Claire .....	60.1	62.4	61.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	2.9	2.8
Green Bay .....	101.6	105.5	104.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.7	5.8	5.9
Janesville-Beloit .....	58.2	59.7	59.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	2.0	1.9
Kenosha .....	39.5	41.0	40.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.6	1.7	1.6
La Crosse .....	52.9	53.9	53.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.0	2.1
Madison .....	213.1	219.7	220.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.1	9.0	9.3
Milwaukee .....	746.3	770.5	762.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	28.9	27.8	28.5
Racine .....	76.9	79.5	78.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.9	2.5	2.5
Sheboygan .....	52.8	54.2	54.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.4	1.5
Wausau .....	52.8	54.9	54.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.1	2.3
<b>Wyoming</b> .....	198.7	205.2	200.1	17.7	17.7	17.9	11.6	11.6	11.7
Casper .....	27.8	28.7	28.2	2.4	2.4	2.4	1.7	1.6	1.7
<b>Puerto Rico</b> .....	858.2	877.3	874.9	.9	.9	.9	43.8	46.5	46.7
Caguas .....	54.0	54.5	54.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.2	1.2
Mayaguez .....	62.7	61.6	61.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.8	2.2	2.1
Ponce .....	59.7	61.7	61.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.9	5.0	5.0
San Juan .....	519.7	530.5	528.1	.5	.6	.5	32.0	33.4	33.4
<b>Virgin Islands</b> .....	43.8	41.6	41.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.4	2.7	2.6

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Utah</b> .....	103.3	106.7	106.3	41.1	43.3	43.2	167.5	178.3	177.3
Provo-Orem .....	13.4	13.4	13.6	2.8	2.7	2.8	20.1	20.8	20.7
Salt Lake City-Ogden .....	67.1	68.4	68.2	31.4	32.9	32.8	120.4	124.6	123.7
<b>Vermont</b> .....	48.1	45.5	44.6	10.8	11.0	10.8	62.6	61.3	61.4
Barre-Montpelier .....	4.6	4.8	4.6	.9	.9	.9	7.7	7.4	7.3
Burlington .....	16.5	15.4	15.3	3.6	3.7	3.8	20.3	20.3	20.1
<b>Virginia</b> .....	427.8	424.1	421.2	150.5	155.2	154.6	659.5	672.7	674.3
Bristol .....	10.4	10.6	10.5	1.2	1.2	1.2	8.6	8.9	9.0
Charlottesville .....	9.1	9.0	8.8	2.7	2.8	2.8	14.7	15.0	15.1
Danville .....	16.5	15.6	15.6	1.0	1.0	1.0	9.2	9.3	9.4
Lynchburg .....	23.9	23.7	23.8	2.9	2.6	2.6	17.0	17.6	17.5
Norfolk-Virginia Beach-Newport News .....	68.9	68.9	68.9	27.6	27.8	28.1	146.7	147.5	146.4
Northern Virginia .....	35.8	35.3	35.0	54.2	56.4	56.3	176.2	180.6	179.8
Richmond-Petersburg .....	64.6	63.0	62.8	24.5	24.3	24.3	111.7	111.9	111.6
Roanoke .....	19.7	19.6	19.3	8.1	7.9	7.9	33.8	34.0	34.5
<b>Washington</b> .....	367.7	365.2	365.9	110.1	113.6	114.0	505.9	536.9	536.9
Seattle .....	217.9	218.6	219.2	67.1	70.5	71.5	258.9	269.8	271.1
<b>West Virginia</b> .....	88.2	88.5	87.8	36.9	37.3	37.2	146.7	146.6	147.1
Charleston .....	10.8	11.1	11.1	9.0	9.2	9.2	29.2	30.0	30.0
Huntington-Ashland .....	20.5	20.6	20.7	8.2	8.1	8.1	27.4	28.0	28.0
Parkersburg-Marietta .....	14.6	14.3	14.2	2.6	2.6	2.6	15.2	15.5	15.5
Wheeling .....	7.4	7.6	7.6	3.5	3.5	3.5	16.6	17.0	17.1
<b>Wisconsin</b> .....	563.8	564.3	568.1	98.8	101.2	99.9	538.8	552.9	552.9
Appleton-Oshkosh-Neenah .....	55.8	55.4	55.5	5.2	5.6	5.6	34.1	35.5	35.5
Eau Claire .....	11.7	10.8	10.9	3.4	3.6	3.6	16.6	17.1	17.0
Green Bay .....	25.8	25.1	25.7	7.5	7.5	7.6	26.2	26.9	26.5
Janesville-Beloit .....	17.8	17.8	17.7	2.3	2.2	2.2	14.0	14.1	14.0
Kenosha .....	10.2	9.6	8.7	1.5	1.9	2.0	10.4	10.8	11.0
La Crosse .....	10.5	10.3	10.3	2.3	2.5	2.5	14.4	14.1	14.0
Madison .....	25.4	26.2	26.6	6.7	6.7	6.5	48.7	51.0	51.0
Milwaukee .....	172.3	173.7	172.8	35.6	37.0	36.0	173.4	160.2	180.1
Racine .....	25.4	26.5	25.3	2.4	2.2	2.2	18.6	19.0	19.3
Sheboygan .....	22.5	22.7	23.2	1.6	1.6	1.6	9.8	10.1	10.1
Wausau .....	15.6	15.6	15.7	2.9	3.1	3.1	13.4	14.0	14.0
<b>Wyoming</b> .....	9.0	9.0	9.0	14.8	14.7	14.8	47.4	47.6	48.7
Casper .....	1.7	1.7	1.7	1.7	1.8	1.9	8.0	7.9	7.9
<b>Puerto Rico</b> .....	156.5	155.9	154.0	18.4	19.5	19.3	150.3	156.2	155.3
Caguas .....	15.3	14.6	14.5	.4	.4	.4	10.8	11.3	11.3
Mayaguez .....	21.3	20.4	20.0	.4	.6	.5	8.2	8.5	8.4
Ponce .....	10.0	10.2	9.9	2.0	2.0	1.8	8.8	8.8	8.8
San Juan .....	65.9	68.2	67.4	14.1	14.5	14.4	102.7	104.8	104.1
<b>Virgin Islands</b> .....	2.4	2.3	2.3	2.5	2.3	2.2	10.1	10.5	10.4

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

**B-8. Employees on nonfarm payrolls in States and selected areas by major industry—Continued**

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	July 1989	June 1990	July 1990 <sup>1</sup>	July 1989	June 1990	July 1990 <sup>1</sup>	July 1989	June 1990	July 1990 <sup>1</sup>
<b>Utah</b> .....	33.4	34.4	34.6	168.0	179.7	178.8	136.9	150.9	140.7
Provo-Orem .....	2.3	2.4	2.3	30.1	32.8	32.6	12.9	14.3	13.2
Salt Lake City-Ogden .....	27.7	27.6	27.6	115.7	122.9	123.0	91.9	99.7	95.2
<b>Vermont</b> .....	13.4	13.5	13.5	67.6	66.5	67.4	37.4	44.4	38.4
Barre-Montpelier .....	3.2	3.1	2.9	8.0	8.0	8.0	6.7	7.7	6.8
Burlington .....	4.1	4.3	4.3	19.3	18.6	19.6	10.3	12.3	11.0
<b>Virginia</b> .....	155.6	157.7	158.6	719.7	749.4	748.7	542.9	586.6	560.9
Bristol .....	1.2	1.2	1.2	4.9	5.1	4.8	4.7	5.6	5.6
Charlottesville .....	4.5	4.7	4.7	13.9	14.3	14.1	22.3	26.2	25.2
Danville .....	1.3	1.3	1.3	6.3	6.7	6.7	4.7	5.7	4.8
Lynchburg .....	3.8	3.8	3.8	15.0	16.7	14.9	9.3	10.0	9.5
Norfolk-Virginia Beach-Newport News .....	27.3	28.0	28.1	151.9	156.0	156.1	129.7	138.1	132.2
Northern Virginia .....	52.5	52.2	52.1	257.5	260.3	258.8	142.5	152.2	148.0
Richmond-Petersburg .....	39.6	40.2	40.1	106.0	109.5	109.9	91.7	97.3	94.6
Roanoke .....	9.0	8.9	8.9	31.8	33.1	33.1	14.9	16.5	15.2
<b>Washington</b> .....	113.7	117.4	118.0	477.9	502.7	504.6	360.8	403.0	367.7
Seattle .....	72.1	73.5	73.7	256.4	268.1	268.5	131.8	151.7	139.0
<b>West Virginia</b> .....	24.2	24.7	24.6	139.6	145.6	145.3	126.1	126.1	128.4
Charleston .....	6.2	6.2	6.2	27.7	28.7	28.8	20.8	20.6	21.2
Huntington-Ashland .....	3.9	3.9	3.9	24.3	24.6	24.7	18.0	18.8	18.4
Parkersburg-Marietta .....	2.2	2.3	2.3	14.3	14.5	14.4	9.3	9.6	9.8
Wheeling .....	2.9	3.1	3.1	16.6	16.7	16.7	9.4	9.6	9.8
<b>Wisconsin</b> .....	119.9	121.7	122.3	514.2	529.0	528.1	312.7	342.2	319.1
Appleton-Oshkosh-Neenah .....	7.5	7.7	7.7	31.6	32.2	32.4	15.7	17.9	16.4
Eau Claire .....	1.9	1.9	2.0	14.3	15.3	15.3	10.1	10.8	10.3
Green Bay .....	4.0	4.3	4.4	23.4	24.5	24.2	10.1	11.4	10.4
Janesville-Beloit .....	1.7	1.6	1.7	13.4	14.0	14.1	7.1	8.0	7.8
Kenosha .....	1.3	1.3	1.3	8.7	9.6	9.8	5.7	6.2	5.8
La Crosse .....	1.6	1.7	1.7	15.2	16.1	15.9	6.5	7.2	6.8
Madison .....	19.1	19.3	19.4	47.2	49.0	49.0	56.7	58.4	58.5
Milwaukee .....	51.2	51.6	52.0	205.1	212.4	213.0	79.3	87.5	79.9
Racine .....	2.4	2.4	2.4	17.0	18.0	17.9	8.2	8.8	8.5
Sheboygan .....	2.8	2.5	2.5	9.8	10.4	10.3	5.0	5.4	5.0
Wausau .....	3.4	3.4	3.4	9.7	10.7	10.6	5.6	6.1	5.6
<b>Wyoming</b> .....	7.4	7.4	7.4	41.7	41.4	42.1	49.1	55.8	48.5
Casper .....	1.4	1.4	1.4	6.4	6.5	6.5	4.5	5.4	4.7
<b>Puerto Rico</b> .....	36.9	36.6	36.7	125.8	134.1	133.8	325.6	327.6	328.2
Caguas .....	1.3	1.4	1.4	6.1	6.6	6.7	18.6	19.0	19.0
Mayaguez .....	1.3	1.3	1.4	7.6	7.5	7.4	21.0	21.1	21.6
Ponce .....	1.9	1.8	1.8	10.5	11.3	11.5	22.5	22.7	23.0
San Juan .....	29.8	29.9	29.9	89.4	94.1	93.8	185.3	185.2	184.5
<b>Virgin Islands</b> .....	2.0	1.9	1.9	9.7	8.5	8.4	14.7	13.4	13.7

<sup>1</sup> Combined with construction.

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: Area definitions are published annually in the May issue of this publication.

All State and area data have been adjusted to March 1989 benchmarks, and industry detail are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry, 1964 to date**

Year and month	Total private <sup>1</sup>			Mining			Construction		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>									
1964 .....	38.7	\$2.36	\$91.33	41.9	\$2.81	\$117.74	37.2	\$3.55	\$132.06
1965 .....	38.8	2.46	95.45	42.3	2.92	123.52	37.4	3.70	138.38
1966 .....	38.6	2.56	98.82	42.7	3.05	130.24	37.6	3.89	146.26
1967 .....	38.0	2.68	101.84	42.6	3.19	135.89	37.7	4.11	154.95
1968 .....	37.8	2.85	107.73	42.6	3.35	142.71	37.3	4.41	164.49
1969 .....	37.7	3.04	114.61	43.0	3.60	154.80	37.9	4.79	181.54
1970 .....	37.1	3.23	119.83	42.7	3.85	164.40	37.3	5.24	195.45
1971 .....	36.9	3.45	127.31	42.4	4.06	172.14	37.2	5.69	211.67
1972 .....	37.0	3.70	136.90	42.6	4.44	189.14	36.5	6.06	221.19
1973 .....	36.9	3.94	145.39	42.4	4.75	201.40	36.8	6.41	235.89
1974 .....	36.5	4.24	154.76	41.9	5.23	219.14	36.6	6.81	249.25
1975 .....	36.1	4.53	163.53	41.9	5.95	249.31	36.4	7.31	266.08
1976 .....	36.1	4.86	175.45	42.4	6.46	273.90	36.8	7.71	283.73
1977 .....	36.0	5.25	189.00	43.4	6.94	301.20	36.5	8.10	295.65
1978 .....	35.8	5.69	203.70	43.4	7.67	332.88	36.8	8.66	318.69
1979 .....	35.7	6.16	219.91	43.0	8.49	365.07	37.0	9.27	342.99
1980 .....	35.3	6.66	235.10	43.3	9.17	397.06	37.0	9.94	367.78
1981 .....	35.2	7.25	255.20	43.7	10.04	438.75	36.9	10.82	399.26
1982 .....	34.8	7.68	267.26	42.7	10.77	459.88	36.7	11.63	426.82
1983 .....	35.0	8.02	280.70	42.5	11.28	479.40	37.1	11.94	442.97
1984 .....	35.2	8.32	292.86	43.3	11.63	503.58	37.8	12.13	458.51
1985 .....	34.9	8.57	299.09	43.4	11.98	519.93	37.7	12.32	464.46
1986 .....	34.8	8.76	304.85	42.2	12.46	525.81	37.4	12.48	466.75
1987 .....	34.8	8.98	312.50	42.4	12.54	531.70	37.8	12.71	480.44
1988 .....	34.7	9.28	322.02	42.3	12.80	541.44	37.9	13.08	495.73
1989 .....	34.6	9.66	334.24	43.0	13.25	569.75	37.9	13.52	512.41
<b>Monthly data, not seasonally adjusted</b>									
<b>1989:</b>									
August .....	34.9	\$9.61	\$335.39	43.5	\$13.22	\$575.07	38.9	\$13.51	\$525.54
September .....	34.7	9.77	339.02	44.0	13.29	584.76	38.6	13.65	526.89
October .....	34.8	9.81	341.39	44.1	13.23	583.44	39.2	13.71	537.43
November .....	34.5	9.81	338.45	43.8	13.27	581.23	38.0	13.69	520.22
December .....	34.6	9.84	340.46	43.7	13.46	588.20	37.0	13.84	512.08
<b>1990:</b>									
January .....	34.1	9.87	336.57	43.6	13.46	586.86	37.6	13.59	510.98
February .....	34.2	9.91	338.92	43.3	13.46	582.82	37.3	13.59	506.91
March .....	34.3	9.93	340.60	43.0	13.57	583.51	37.9	13.63	516.58
April .....	34.4	9.97	342.97	43.1	13.66	588.75	37.3	13.58	506.53
May .....	34.4	9.97	342.97	43.2	13.56	585.79	38.2	13.68	522.58
June .....	34.8	9.98	347.30	44.4	13.66	606.50	39.1	13.63	532.93
July <sup>p</sup> .....	34.9	10.00	349.00	43.6	13.65	595.14	38.3	13.70	524.71
August <sup>p</sup> .....	34.8	9.99	347.65	44.0	13.59	597.96	39.0	13.74	535.86

See footnotes at end of table.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry, 1964 to date—Continued**

Year and month	Manufacturing				Transportation and public utilities			Wholesale trade		
	Weekly hours	Hourly earnings	Hourly earnings, excluding overtime	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>										
1964 .....	40.7	\$2.53	\$2.43	\$102.97	41.1	\$2.89	\$118.78	40.7	\$2.52	\$102.36
1965 .....	41.2	2.61	2.50	107.53	41.3	3.03	125.14	40.8	2.60	106.27
1966 .....	41.4	2.71	2.59	112.19	41.2	3.11	128.13	40.7	2.73	111.08
1967 .....	40.6	2.82	2.71	114.49	40.5	3.23	130.82	40.3	2.87	115.85
1968 .....	40.7	3.01	2.88	122.51	40.6	3.42	138.85	40.1	3.04	121.89
1969 .....	40.6	3.19	3.05	129.51	40.7	3.63	147.74	40.2	3.23	129.74
1970 .....	39.8	3.35	3.23	133.33	40.5	3.85	155.93	39.9	3.43	136.91
1971 .....	39.9	3.57	3.45	142.44	40.1	4.21	168.82	39.4	3.64	143.68
1972 .....	40.5	3.82	3.66	154.71	40.4	4.65	187.86	39.4	3.85	151.42
1973 .....	40.7	4.09	3.91	166.46	40.5	5.02	203.31	39.2	4.07	159.74
1974 .....	40.0	4.42	4.25	176.80	40.2	5.41	217.48	38.8	4.38	170.11
1975 .....	39.5	4.83	4.67	190.79	39.7	5.88	233.44	38.6	4.72	182.42
1976 .....	40.1	5.22	5.02	209.32	39.8	6.45	256.71	38.7	5.02	194.15
1977 .....	40.3	5.68	5.44	228.90	39.9	6.99	278.90	38.8	5.39	208.76
1978 .....	40.4	6.17	5.91	249.27	40.0	7.57	302.80	38.8	5.88	227.87
1979 .....	40.2	6.70	6.43	269.34	39.9	8.16	325.58	38.8	6.39	247.65
1980 .....	39.7	7.27	7.02	288.62	39.6	8.87	351.25	38.4	6.95	267.13
1981 .....	39.8	7.99	7.72	318.00	39.4	9.70	382.18	38.5	7.55	290.75
1982 .....	38.9	8.49	8.25	330.26	39.0	10.32	402.48	38.3	8.08	309.23
1983 .....	40.1	8.83	8.52	354.08	39.0	10.79	420.81	38.5	8.54	328.25
1984 .....	40.7	9.19	8.82	374.03	39.4	11.12	438.13	38.5	8.88	341.78
1985 .....	40.5	9.54	9.16	386.37	39.5	11.40	450.30	38.4	9.15	351.08
1986 .....	40.7	9.73	9.34	396.01	39.2	11.70	458.64	38.3	9.34	357.57
1987 .....	41.0	9.91	9.48	406.31	39.2	12.03	471.58	38.1	9.59	365.30
1988 .....	41.1	10.19	9.73	418.81	38.8	12.26	475.69	38.1	9.98	380.24
1989 .....	41.0	10.49	10.02	430.09	38.9	12.61	490.53	38.0	10.39	394.82
<b>Monthly data, not seasonally adjusted</b>										
<b>1989:</b>										
August .....	40.9	\$10.46	\$9.99	\$427.81	38.9	\$12.61	\$490.53	38.0	\$10.36	\$393.68
September .....	41.2	10.56	10.06	435.07	38.9	12.73	495.20	38.1	10.48	399.29
October .....	40.9	10.54	10.06	431.09	39.0	12.74	496.86	38.2	10.51	401.48
November .....	41.1	10.59	10.11	435.25	38.7	12.71	491.88	38.1	10.56	402.34
December .....	41.3	10.68	10.20	441.08	38.7	12.76	493.81	38.2	10.63	406.07
<b>1990:</b>										
January .....	40.6	10.60	10.16	430.36	37.8	12.79	483.46	37.8	10.61	401.06
February .....	40.4	10.68	10.25	431.47	38.4	12.87	494.21	37.8	10.66	402.95
March .....	40.7	10.75	10.30	437.53	38.7	12.83	496.52	37.9	10.66	404.01
April .....	39.8	10.75	10.37	427.85	38.9	12.96	504.14	38.1	10.78	410.72
May .....	40.9	10.81	10.36	442.13	38.9	12.82	498.70	38.0	10.73	407.74
June .....	41.1	10.85	10.37	445.94	39.4	12.86	506.68	38.2	10.76	411.03
July <sup>a</sup> .....	40.5	10.88	10.41	440.64	39.4	12.96	510.62	38.3	10.83	414.79
August <sup>b</sup> .....	40.9	10.84	10.34	443.36	39.4	12.95	510.23	38.0	10.75	408.50

See footnotes at end of table.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry, 1964 to date—Continued**

Year and month	Retail trade			Finance, insurance, and real estate			Services		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>									
1964 .....	37.0	\$1.75	\$64.81	37.3	\$2.30	\$85.77	36.1	\$1.94	\$70.05
1965 .....	36.6	1.82	66.65	37.2	2.39	88.85	35.9	2.05	73.60
1966 .....	35.9	1.91	68.50	37.3	2.47	92.21	35.5	2.17	76.92
1967 .....	35.3	2.01	70.86	37.1	2.58	95.70	35.1	2.29	80.30
1968 .....	34.7	2.16	74.93	37.0	2.75	101.70	34.7	2.42	84.08
1969 .....	34.2	2.30	78.67	37.1	2.93	108.56	34.7	2.61	90.62
1970 .....	33.8	2.44	82.31	36.7	3.07	112.79	34.4	2.81	96.52
1971 .....	33.7	2.60	87.51	36.6	3.22	118.02	33.9	3.04	103.04
1972 .....	33.4	2.75	92.03	36.6	3.36	122.94	33.9	3.27	110.62
1973 .....	33.1	2.91	96.45	36.6	3.53	129.34	33.8	3.47	117.49
1974 .....	32.7	3.14	102.55	36.5	3.77	137.68	33.6	3.75	126.22
1975 .....	32.4	3.36	108.63	36.5	4.06	147.89	33.5	4.02	134.73
1976 .....	32.1	3.57	114.56	36.4	4.27	155.51	33.3	4.31	143.53
1977 .....	31.6	3.85	121.54	36.4	4.54	165.42	33.0	4.65	153.59
1978 .....	31.0	4.20	130.14	36.4	4.89	178.03	32.8	4.99	163.89
1979 .....	30.6	4.53	138.83	36.2	5.27	190.92	32.7	5.36	175.36
1980 .....	30.2	4.88	147.24	36.2	5.79	209.68	32.6	5.85	190.98
1981 .....	30.1	5.25	157.99	36.3	6.31	228.73	32.6	6.41	209.16
1982 .....	29.9	5.48	163.83	36.2	6.78	245.68	32.6	6.92	225.87
1983 .....	29.8	5.74	171.13	36.2	7.29	263.68	32.7	7.31	239.04
1984 .....	29.8	5.85	174.47	36.5	7.63	278.04	32.6	7.59	247.25
1985 .....	29.4	5.94	174.81	36.4	7.94	289.20	32.5	7.90	256.49
1986 .....	29.2	6.03	175.80	36.4	8.36	304.49	32.5	8.18	265.93
1987 .....	29.2	6.12	178.80	36.3	8.73	316.37	32.5	8.49	276.03
1988 .....	29.1	6.31	183.62	35.9	9.06	325.25	32.6	8.88	289.49
1989 .....	28.9	6.53	188.72	35.8	9.54	341.53	32.6	9.39	306.11
<b>Monthly data, not seasonally adjusted</b>									
<b>1989:</b>									
August .....	29.6	\$6.49	\$192.10	35.8	\$9.47	\$339.03	32.8	\$9.30	\$305.04
September .....	28.9	6.59	190.45	35.6	9.60	341.76	32.5	9.49	308.43
October .....	28.9	6.61	191.03	36.1	9.70	350.17	32.8	9.58	314.22
November .....	28.6	6.63	189.62	35.6	9.67	344.25	32.5	9.61	312.33
December .....	29.3	6.65	194.85	35.6	9.73	346.39	32.5	9.68	314.60
<b>1990:</b>									
January .....	28.1	6.73	189.11	35.6	9.80	348.88	32.4	9.72	314.93
February .....	28.3	6.72	190.18	35.7	9.87	352.36	32.4	9.75	315.90
March .....	28.5	6.74	192.09	35.6	9.84	350.30	32.4	9.76	316.22
April .....	29.0	6.75	195.75	36.1	9.97	359.92	32.6	9.82	320.13
May .....	28.8	6.75	194.40	35.5	9.90	351.45	32.3	9.77	315.57
June .....	29.3	6.75	197.78	35.8	9.90	354.42	32.7	9.75	318.83
July <sup>p</sup> .....	29.7	6.74	200.18	36.2	10.00	362.00	33.0	9.78	322.74
August <sup>p</sup> .....	29.4	6.75	198.45	35.7	9.93	354.50	32.9	9.76	321.10

<sup>1</sup> 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.

<sup>p</sup> = preliminary.  
NOTE: Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial Classification (SIC) system. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Total private</b> .....		35.0	34.9	34.8	34.9	34.8	-	-	-	-	-
<b>Mining</b> .....		43.0	43.5	44.4	43.6	44.0	-	-	-	-	-
Metal mining .....	10	43.9	43.3	42.9	42.9	-	-	-	-	-	-
Iron ores .....	101	43.0	42.5	43.0	41.9	-	-	-	-	-	-
Copper ores .....	102	49.1	46.9	44.9	47.2	-	-	-	-	-	-
Coal mining .....	12	41.6	44.0	44.1	42.1	-	-	-	-	-	-
Bituminous coal and lignite mining .....	122	41.4	44.0	44.1	42.2	-	-	-	-	-	-
Oil and gas extraction .....	13	41.9	41.9	44.0	43.6	-	-	-	-	-	-
Crude petroleum and natural gas .....	131	43.0	41.6	44.9	42.4	-	-	-	-	-	-
Oil and gas field services .....	138	41.2	42.2	43.5	44.2	-	-	-	-	-	-
Nonmetallic minerals, except fuels .....	14	47.2	47.5	46.7	46.2	-	-	-	-	-	-
Crushed and broken stone .....	142	48.6	48.9	47.8	47.2	-	-	-	-	-	-
<b>Construction</b> .....		38.9	38.9	39.1	38.3	39.0	-	-	-	-	-
General building contractors .....	15	38.0	38.2	38.3	37.8	-	-	-	-	-	-
Residential building construction .....	152	37.1	37.3	37.6	37.2	-	-	-	-	-	-
Operative builders .....	153	38.5	39.7	37.1	36.3	-	-	-	-	-	-
Nonresidential building construction .....	154	38.9	39.0	39.0	38.5	-	-	-	-	-	-
Heavy construction, except building .....	16	43.4	43.2	43.2	42.0	-	-	-	-	-	-
Highway and street construction .....	161	45.1	45.5	44.9	43.8	-	-	-	-	-	-
Heavy construction, except highway .....	162	42.6	42.1	42.4	41.1	-	-	-	-	-	-
Special trade contractors .....	17	38.1	38.0	38.2	37.5	-	-	-	-	-	-
Plumbing, heating, and air conditioning .....	171	39.2	39.0	39.2	39.1	-	-	-	-	-	-
Painting and paper hanging .....	172	36.2	36.7	36.3	35.6	-	-	-	-	-	-
Electrical work .....	173	39.2	39.2	39.4	39.1	-	-	-	-	-	-
Masonry, stonework, and plastering .....	174	35.2	35.2	35.8	34.9	-	-	-	-	-	-
Carpentry and floor work .....	175	35.2	35.6	35.9	35.3	-	-	-	-	-	-
Roofing, siding, and sheet metal work .....	176	36.2	35.8	36.2	34.4	-	-	-	-	-	-
<b>Manufacturing</b> .....		40.6	40.9	41.1	40.5	40.9	3.7	3.8	3.8	3.6	3.9
<b>Durable goods</b> .....		41.0	41.3	41.7	41.0	41.3	3.7	3.9	3.9	3.7	4.0
Lumber and wood products .....	24	39.6	40.4	40.8	40.0	40.6	3.6	3.7	3.7	3.6	-
Logging .....	241	40.6	41.9	42.4	41.3	-	5.2	5.5	5.8	5.0	-
Sawmills and planing mills .....	242	39.7	41.2	41.5	40.4	-	4.1	4.4	4.3	4.2	-
Sawmills and planing mills, general .....	2421	40.1	41.5	41.9	40.8	-	4.4	4.7	4.6	4.5	-
Hardwood dimension and flooring mills .....	2426	38.4	40.0	40.5	39.2	-	2.8	3.3	3.3	2.9	-
Millwork, plywood, and structural members .....	243	39.4	39.9	40.4	39.3	-	3.1	3.2	3.1	3.1	-
Millwork .....	2431	38.9	39.3	40.0	39.1	-	2.0	2.3	2.6	2.4	-
Wood kitchen cabinets .....	2434	39.5	39.1	39.6	38.9	-	2.9	3.0	2.8	2.9	-
Hardwood veneer and plywood .....	2435	38.9	40.4	41.2	39.0	-	2.9	3.6	3.6	3.3	-
Softwood veneer and plywood .....	2436	40.7	42.5	42.1	40.4	-	5.5	5.1	4.5	4.9	-
Wood containers .....	244	38.8	38.6	39.7	39.4	-	3.2	3.2	3.5	3.4	-
Wood buildings and mobile homes .....	245	38.5	39.2	39.2	39.5	-	2.2	2.2	2.1	2.3	-
Mobile homes .....	2451	38.0	39.1	39.2	39.4	-	1.8	1.9	1.9	2.2	-
Miscellaneous wood products .....	249	40.1	40.5	40.6	40.1	-	3.2	3.2	3.1	3.3	-
Furniture and fixtures .....	25	38.7	39.7	39.2	38.8	39.4	2.4	2.9	2.5	2.5	-
Household furniture .....	251	38.0	39.2	38.4	37.9	-	1.8	2.5	2.2	2.0	-
Wood household furniture .....	2511	38.8	39.8	38.8	38.4	-	2.2	2.7	2.2	2.1	-
Upholstered household furniture .....	2512	36.4	37.9	37.0	36.4	-	1.1	1.8	1.6	1.4	-
Metal household furniture .....	2514	38.8	39.7	39.5	41.1	-	2.0	2.7	2.7	3.4	-
Mattresses and bedsprings .....	2515	39.6	40.8	40.1	38.2	-	3.0	3.9	3.6	3.1	-
Office furniture .....	252	38.7	39.6	40.6	40.1	-	2.3	2.3	2.9	3.0	-
Public building and related furniture .....	253	39.5	41.1	40.7	40.4	-	3.5	4.0	3.4	3.2	-
Partitions and fixtures .....	254	40.9	41.3	40.6	40.6	-	4.3	4.3	3.0	3.3	-
Miscellaneous furniture and fixtures .....	259	39.6	39.8	40.0	39.9	-	2.6	3.0	2.7	3.1	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Total private</b> .....		\$9.64	\$9.61	\$9.98	\$10.00	\$9.99	\$337.40	\$335.39	\$347.30	\$349.00	\$347.65
<b>Mining</b> .....		13.06	13.22	13.66	13.65	13.59	561.58	575.07	606.50	595.14	597.96
Metal mining .....	10	13.61	13.56	14.00	14.18	-	597.48	587.15	600.60	608.32	-
Iron ores .....	101	14.35	14.42	14.69	14.84	-	617.05	612.85	631.67	621.80	-
Copper ores .....	102	11.72	11.77	11.83	12.28	-	575.45	552.01	531.17	579.62	-
Coal mining .....	12	15.80	16.20	16.62	16.82	-	657.28	712.80	732.94	708.12	-
Bituminous coal and lignite mining .....	122	15.90	16.33	16.77	16.97	-	658.26	718.52	739.56	716.13	-
Oil and gas extraction .....	13	12.62	12.44	12.94	12.83	-	528.78	521.24	569.36	559.39	-
Crude petroleum and natural gas .....	131	15.44	15.38	16.34	16.20	-	663.92	639.81	733.67	686.88	-
Oil and gas field services .....	138	10.75	10.65	11.01	11.06	-	442.90	449.43	478.94	488.85	-
Nonmetallic minerals, except fuels .....	14	11.31	11.32	11.56	11.64	-	533.83	537.70	539.85	537.77	-
Crushed and broken stone .....	142	10.86	10.84	11.20	11.21	-	527.80	530.08	535.36	529.11	-
<b>Construction</b> .....		13.49	13.51	13.63	13.70	13.74	524.76	525.54	532.93	524.71	535.86
General building contractors .....	15	12.59	12.64	12.80	12.82	-	478.42	482.85	490.24	484.60	-
Residential building construction .....	152	12.01	12.03	12.02	12.03	-	445.57	448.72	451.95	447.52	-
Operative builders .....	153	12.10	11.81	12.69	12.82	-	465.85	468.86	470.80	465.37	-
Nonresidential building construction .....	154	13.20	13.28	13.58	13.60	-	513.48	517.92	529.62	523.60	-
Heavy construction, except building .....	16	13.35	13.37	13.36	13.44	-	579.39	577.58	577.15	564.48	-
Highway and street construction .....	161	13.06	13.12	13.22	13.29	-	589.01	596.96	593.58	582.10	-
Heavy construction, except highway .....	162	13.50	13.51	13.44	13.52	-	575.10	568.77	569.86	555.67	-
Special trade contractors .....	17	13.89	13.90	14.04	14.14	-	529.21	528.20	536.33	530.25	-
Plumbing, heating, and air conditioning .....	171	14.16	14.13	14.33	14.39	-	555.07	551.07	561.74	562.65	-
Painting and paper hanging .....	172	12.98	12.90	12.86	12.94	-	469.88	473.43	466.82	460.66	-
Electrical work .....	173	14.91	14.78	14.97	15.03	-	584.47	579.38	589.82	587.67	-
Masonry, stonework, and plastering .....	174	13.97	14.04	14.26	14.20	-	491.74	494.21	510.51	495.58	-
Carpentry and floor work .....	175	13.86	13.91	13.93	14.09	-	487.87	495.20	500.09	497.38	-
Roofing, siding, and sheet metal work .....	176	12.17	12.24	12.05	12.33	-	440.55	438.19	436.21	424.15	-
<b>Manufacturing</b> .....		10.49	10.46	10.85	10.88	10.84	425.89	427.81	445.94	440.64	443.36
<b>Durable goods</b> .....		11.00	10.99	11.37	11.38	11.38	451.00	453.89	474.13	466.58	469.99
Lumber and wood products .....	24	8.90	8.90	9.09	9.17	9.16	352.44	359.56	370.87	366.80	371.90
Logging .....	241	11.36	11.40	11.41	11.62	-	461.22	477.66	483.78	479.91	-
Sawmills and planing mills .....	242	9.12	9.03	9.16	9.20	-	362.06	372.04	380.14	371.68	-
Sawmills and planing mills, general .....	2421	9.47	9.38	9.51	9.54	-	379.75	389.27	398.47	389.23	-
Hardwood dimension and flooring mills .....	2426	7.35	7.35	7.51	7.61	-	282.24	294.00	304.16	298.31	-
Millwork, plywood, and structural members .....	243	8.71	8.75	9.01	9.09	-	343.17	349.13	364.00	357.24	-
Millwork .....	2431	8.86	8.91	9.28	9.35	-	344.65	350.16	371.20	365.59	-
Wood kitchen cabinets .....	2434	8.02	8.22	8.48	8.54	-	316.79	321.40	335.81	332.21	-
Hardwood veneer and plywood .....	2435	7.29	7.42	7.67	7.73	-	283.58	299.77	316.00	301.47	-
Softwood veneer and plywood .....	2436	10.42	10.18	10.20	10.44	-	424.09	432.65	429.42	421.78	-
Wood containers .....	244	6.43	6.43	6.62	6.61	-	249.48	248.20	262.81	260.43	-
Wood buildings and mobile homes .....	245	8.26	8.30	8.62	8.60	-	318.01	325.36	337.90	339.70	-
Mobile homes .....	2451	8.30	8.36	8.70	8.67	-	315.40	326.88	341.04	341.60	-
Miscellaneous wood products .....	249	7.97	7.93	8.20	8.29	-	319.60	321.17	332.92	332.43	-
Furniture and fixtures .....	25	8.26	8.30	8.52	8.52	8.58	319.66	329.51	333.98	330.58	338.05
Household furniture .....	251	7.57	7.67	7.87	7.85	-	287.66	300.66	302.21	297.52	-
Wood household furniture .....	2511	7.16	7.20	7.38	7.39	-	277.81	286.56	286.34	283.78	-
Upholstered household furniture .....	2512	8.15	8.33	8.51	8.47	-	296.66	315.71	314.87	308.31	-
Metal household furniture .....	2514	7.97	8.04	7.95	8.14	-	309.24	319.19	314.03	334.55	-
Mattresses and bedsprings .....	2515	7.91	8.07	8.29	8.13	-	313.24	329.26	332.43	310.57	-
Office furniture .....	252	9.42	9.34	9.63	9.58	-	364.55	369.86	390.98	384.16	-
Public building and related furniture .....	253	8.64	8.74	9.08	9.05	-	341.28	359.21	369.56	365.62	-
Partitions and fixtures .....	254	9.66	9.60	9.72	9.73	-	395.09	396.48	394.63	395.04	-
Miscellaneous furniture and fixtures .....	259	8.58	8.57	8.83	8.80	-	339.77	341.09	353.20	351.12	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
Stone, clay, and glass products .....	32	42.7	42.9	42.7	42.1	42.7	5.4	5.6	5.4	5.0	-
Flat glass .....	321	44.7	43.7	46.0	44.3	-	4.4	4.8	7.0	5.1	-
Glass and glassware, pressed or blown .....	322	41.4	41.8	41.5	41.6	-	4.7	4.9	4.4	4.6	-
Glass containers .....	3221	41.7	42.0	41.8	42.1	-	5.8	6.0	5.3	5.6	-
Pressed and blown glass, nec .....	3229	41.0	41.6	41.2	41.0	-	3.4	3.7	3.4	3.4	-
Products of purchased glass .....	323	41.5	41.3	40.9	39.8	-	3.6	3.3	3.6	2.7	-
Cement, hydraulic .....	324	41.0	41.7	41.5	41.6	-	2.9	3.6	3.7	4.0	-
Structural clay products .....	325	41.2	41.6	41.1	41.2	-	3.8	3.8	3.9	4.1	-
Pottery and related products .....	326	39.7	40.6	39.3	38.6	-	2.8	3.3	2.5	2.4	-
Concrete, gypsum, and plaster products .....	327	44.6	44.8	44.7	43.7	-	7.6	7.9	7.3	6.7	-
Concrete block and brick .....	3271	44.2	44.9	46.0	44.9	-	7.3	7.6	7.7	7.2	-
Concrete products, nec .....	3272	44.1	44.5	43.5	43.3	-	6.7	6.8	6.0	6.0	-
Ready-mixed concrete .....	3273	44.6	44.7	44.8	43.4	-	8.2	8.4	7.8	6.9	-
Misc. nonmetallic mineral products .....	329	42.4	42.7	42.8	42.1	-	5.2	5.3	5.2	4.7	-
Abrasive products .....	3291	42.7	42.9	42.5	41.8	-	3.5	3.3	3.4	2.9	-
Asbestos products .....	3292	40.7	41.7	41.2	39.8	-	3.5	4.8	5.1	4.2	-
Primary metal industries .....	33	42.6	42.4	43.2	42.8	42.5	5.0	5.1	5.5	5.3	-
Blast furnaces and basic steel products .....	331	43.2	43.0	43.8	44.1	43.3	5.3	5.5	5.9	6.2	-
Blast furnaces and steel mills .....	3312	43.5	43.3	44.0	44.7	-	5.6	5.6	6.1	6.6	-
Steel pipe and tubes .....	3317	40.7	41.3	44.0	42.7	-	3.5	5.4	6.1	5.4	-
Iron and steel foundries .....	332	42.0	41.5	43.1	41.7	-	4.5	4.4	5.5	4.7	-
Gray and ductile iron foundries .....	3321	42.3	41.6	43.8	41.6	-	4.7	4.5	6.1	4.5	-
Malleable iron foundries .....	3322	41.0	40.2	43.7	45.3	-	3.1	3.0	6.3	7.2	-
Steel foundries, nec .....	3325	41.2	41.1	42.1	41.4	-	4.3	4.4	4.6	4.8	-
Primary nonferrous metals .....	333	43.0	43.1	43.2	43.5	-	4.9	4.9	4.8	5.2	-
Primary aluminum .....	3334	42.5	42.7	42.9	43.0	-	5.0	4.9	5.2	5.3	-
Nonferrous rolling and drawing .....	335	43.4	43.3	43.6	43.1	-	5.9	6.2	6.2	5.9	-
Copper rolling and drawing .....	3351	43.3	44.4	43.1	43.6	-	5.7	6.3	5.9	5.9	-
Aluminum sheet, plate, and foil .....	3353	45.6	42.7	44.3	44.0	-	8.1	7.4	8.1	7.8	-
Nonferrous wire drawing and insulating .....	3357	41.9	42.5	42.8	41.9	-	5.1	5.6	5.5	5.3	-
Nonferrous foundries (castings) .....	336	40.0	40.3	40.9	39.8	-	2.9	3.0	3.4	2.8	-
Aluminum foundries .....	3365	40.2	40.8	41.7	41.1	-	3.2	3.4	3.7	2.8	-
Fabricated metal products .....	34	40.7	41.2	41.8	41.0	41.3	3.5	3.7	3.9	3.7	-
Metal cans and shipping containers .....	341	44.6	44.1	44.5	44.5	-	6.3	6.0	5.8	5.8	-
Metal cans .....	3411	44.8	44.1	44.6	45.1	-	6.3	5.9	5.8	6.0	-
Cutlery, handtools, and hardware .....	342	39.7	40.9	41.3	40.1	-	2.7	3.1	3.2	2.9	-
Hand and edge tools, and blades and handsaws .....	3423,5	39.8	40.6	41.0	39.7	-	2.5	2.7	2.8	2.6	-
Hardware, nec .....	3429	39.2	40.6	41.1	40.0	-	2.7	3.0	3.3	2.9	-
Plumbing and heating, except electric .....	343	39.9	40.6	40.7	39.6	-	3.0	3.1	3.1	2.9	-
Plumbing fixture fittings and trim .....	3432	39.9	40.0	40.2	38.8	-	2.8	2.5	2.9	2.1	-
Heating equipment, except electric .....	3433	39.9	41.1	39.8	39.3	-	2.8	3.5	2.3	2.8	-
Fabricated structural metal products .....	344	41.0	41.2	41.2	41.2	-	3.7	3.8	3.7	4.0	-
Fabricated structural metal .....	3441	42.0	42.4	42.3	42.7	-	4.5	4.7	4.4	5.0	-
Metal doors, sash, and trim .....	3442	39.5	39.6	39.8	40.2	-	2.5	2.6	2.5	2.9	-
Fabricated plate work (boiler shops) .....	3443	41.3	42.0	42.2	41.8	-	4.1	4.1	4.5	4.4	-
Sheet metal work .....	3444	40.5	40.3	40.8	40.9	-	3.2	3.3	3.4	3.7	-
Architectural metal work .....	3446	41.0	41.3	39.1	38.1	-	4.6	4.8	3.3	3.1	-
Screw machine products, bolts, etc .....	345	41.3	41.6	42.5	41.7	-	4.3	4.4	4.7	4.6	-
Screw machine products .....	3451	40.7	40.5	41.0	40.8	-	3.5	3.6	3.5	3.4	-
Bolts, nuts, rivets, and washers .....	3452	41.8	42.8	44.0	42.7	-	5.2	5.3	6.0	5.8	-
Metal forgings and stampings .....	346	40.4	41.2	42.8	40.7	-	3.3	3.7	4.7	3.5	-
Iron and steel forgings .....	3462	41.4	42.0	43.1	42.2	-	4.1	4.4	4.8	4.5	-
Automotive stampings .....	3465	40.1	41.5	44.1	40.4	-	3.2	3.8	5.4	3.4	-
Metal stampings, nec .....	3469	39.9	40.3	40.9	40.5	-	2.9	3.3	3.6	3.0	-
Metal services, nec .....	347	39.9	40.5	41.3	40.9	-	3.2	3.4	3.9	3.6	-
Plating and polishing .....	3471	39.4	39.9	40.7	40.3	-	2.9	2.9	3.3	3.0	-
Metal coating and allied services .....	3479	40.9	41.6	42.4	41.9	-	3.7	4.3	5.0	4.7	-
Ordnance and accessories, nec .....	348	40.9	40.7	41.2	39.9	-	2.9	3.2	3.3	2.9	-
Ammunition, except for small arms, nec .....	3483	40.4	39.6	40.1	38.7	-	2.9	3.0	2.8	2.5	-
Misc. fabricated metal products .....	349	40.5	40.9	41.6	40.6	-	3.2	3.2	3.4	3.3	-
Valves and pipe fittings, nec .....	3494	40.8	40.9	43.2	42.9	-	2.9	3.1	3.5	3.4	-
Misc. fabricated wire products .....	3496	39.0	40.1	40.7	40.0	-	2.7	3.2	3.0	3.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
Stone, clay, and glass products .....	32	\$10.84	\$10.85	\$11.17	\$11.20	\$11.19	\$462.87	\$465.47	\$476.96	\$471.52	\$477.81
Flat glass .....	321	14.87	14.65	15.37	14.97	-	664.69	640.21	707.02	663.17	-
Glass and glassware, pressed or blown .....	322	12.13	12.12	12.42	12.59	-	502.18	506.62	515.43	523.74	-
Glass containers .....	3221	12.75	12.77	13.14	13.37	-	531.68	536.34	549.25	562.88	-
Pressed and blown glass, nec .....	3229	11.43	11.40	11.61	11.70	-	468.63	474.24	478.33	479.70	-
Products of purchased glass .....	323	9.43	9.37	9.89	9.78	-	391.35	386.98	404.50	389.24	-
Cement, hydraulic .....	324	13.57	13.65	13.59	13.76	-	556.37	569.21	563.99	572.42	-
Structural clay products .....	325	9.17	9.11	9.55	9.58	-	377.80	378.98	392.51	394.70	-
Pottery and related products .....	326	9.41	9.45	9.64	9.68	-	373.58	383.67	378.85	373.65	-
Concrete, gypsum, and plaster products .....	327	10.58	10.63	10.87	10.86	-	471.87	476.22	485.89	474.58	-
Concrete block and brick .....	3271	9.65	9.63	9.76	9.74	-	426.53	432.39	448.96	437.33	-
Concrete products, nec .....	3272	9.60	9.54	9.77	9.82	-	423.36	424.53	425.00	425.21	-
Ready-mixed concrete .....	3273	11.34	11.47	11.70	11.68	-	505.76	512.71	524.16	506.91	-
Misc. nonmetallic mineral products .....	329	11.34	11.34	11.60	11.65	-	480.82	484.22	496.48	490.47	-
Abrasive products .....	3291	10.12	10.09	10.24	10.22	-	432.12	432.86	435.20	427.20	-
Asbestos products .....	3292	11.02	11.23	11.21	11.15	-	448.51	468.29	461.85	443.77	-
Primary metal industries .....	33	12.46	12.42	12.90	13.03	12.91	530.80	526.61	557.28	557.68	548.68
Blast furnaces and basic steel products .....	331	14.35	14.29	14.74	14.92	14.76	619.92	614.47	645.61	657.97	639.11
Blast furnaces and steel mills .....	3312	15.12	15.01	15.52	15.69	-	657.72	649.93	682.88	701.34	-
Steel pipe and tubes .....	3317	11.09	11.31	11.85	11.89	-	451.36	467.10	521.40	507.70	-
Iron and steel foundries .....	332	11.07	11.04	11.69	11.58	-	464.94	458.16	503.84	482.89	-
Gray and ductile iron foundries .....	3321	11.60	11.51	12.19	11.96	-	490.68	478.82	533.92	497.54	-
Malleable iron foundries .....	3322	12.01	11.96	12.59	12.97	-	492.41	480.79	550.18	587.54	-
Steel foundries, nec .....	3325	10.34	10.43	11.00	11.09	-	426.01	428.67	463.10	459.13	-
Primary nonferrous metals .....	333	13.68	13.67	14.31	14.49	-	588.24	589.18	618.19	630.32	-
Primary aluminum .....	3334	14.00	13.88	14.73	14.79	-	595.00	592.68	631.92	635.97	-
Nonferrous rolling and drawing .....	335	11.83	11.89	12.33	12.38	-	513.42	514.84	537.59	533.58	-
Copper rolling and drawing .....	3351	11.26	11.12	11.76	11.71	-	487.56	493.73	506.86	510.56	-
Aluminum sheet, plate, and foil .....	3353	14.22	14.33	15.14	15.10	-	648.43	611.89	670.70	664.40	-
Nonferrous wire drawing and insulating .....	3357	11.98	12.09	12.24	12.39	-	501.96	513.83	523.87	519.14	-
Nonferrous foundries (castings) .....	336	9.87	9.80	10.27	10.39	-	394.80	394.94	420.04	413.52	-
Aluminum foundries .....	3365	9.49	9.31	9.87	9.95	-	381.50	379.85	411.58	408.95	-
Fabricated metal products .....	34	10.57	10.54	10.85	10.86	10.87	430.20	434.25	453.53	445.26	448.93
Metal cans and shipping containers .....	341	14.05	13.91	14.30	14.39	-	626.63	613.43	636.35	640.36	-
Metal cans .....	3411	14.93	14.78	15.17	15.23	-	668.86	651.80	676.58	686.87	-
Cutlery, handtools, and hardware .....	342	10.44	10.42	10.88	10.83	-	414.47	426.18	449.34	434.28	-
Hand and edge tools, and blades and handsaws .....	3423,5	9.63	9.64	10.05	10.00	-	383.27	391.38	412.05	397.00	-
Hardware, nec .....	3429	10.81	10.78	11.27	11.18	-	423.75	437.67	463.20	447.20	-
Plumbing and heating, except electric .....	343	9.48	9.37	9.72	9.68	-	378.25	380.42	395.60	383.33	-
Plumbing fixture fittings and trim .....	3432	9.03	8.99	9.19	9.15	-	360.30	359.60	369.44	355.02	-
Heating equipment, except electric .....	3433	9.30	9.38	9.65	9.55	-	371.07	385.52	384.07	375.32	-
Fabricated structural metal products .....	344	9.95	9.95	10.13	10.19	-	407.95	409.94	417.36	419.83	-
Fabricated structural metal .....	3441	10.44	10.46	10.36	10.36	-	438.48	443.50	438.23	442.37	-
Metal doors, sash, and trim .....	3442	8.23	8.23	8.49	8.57	-	325.09	325.91	337.90	344.51	-
Fabricated plate work (boiler shops) .....	3443	10.60	10.70	11.01	10.99	-	437.78	449.40	464.62	459.38	-
Sheet metal work .....	3444	10.39	10.31	10.45	10.61	-	420.80	415.49	426.36	433.95	-
Architectural metal work .....	3446	9.33	9.29	9.73	9.85	-	382.53	383.68	380.44	375.29	-
Screw machine products, bolts, etc .....	345	10.30	10.31	10.70	10.78	-	425.39	428.90	454.75	449.53	-
Screw machine products .....	3451	9.70	9.74	10.06	10.15	-	394.79	394.47	412.46	414.12	-
Bolts, nuts, rivets, and washers .....	3452	10.91	10.87	11.32	11.43	-	456.04	465.24	498.08	488.06	-
Metal forgings and stampings .....	346	12.49	12.40	12.87	12.70	-	504.60	510.88	550.84	516.89	-
Iron and steel forgings .....	3462	13.33	13.20	13.08	13.12	-	551.86	554.40	563.75	553.66	-
Automotive stampings .....	3465	14.17	13.91	14.60	14.37	-	568.22	577.27	643.86	580.55	-
Metal stampings, nec .....	3469	9.68	9.86	10.07	10.12	-	386.23	397.36	411.86	409.86	-
Metal services, nec .....	347	8.54	8.54	8.97	9.04	-	340.75	345.87	370.46	369.74	-
Plating and polishing .....	3471	8.51	8.48	8.90	8.97	-	335.29	338.35	362.23	361.49	-
Metal coating and allied services .....	3479	8.58	8.66	9.09	9.17	-	350.92	360.26	385.42	384.22	-
Ordnance and accessories, nec .....	348	11.60	11.77	11.88	11.88	-	474.44	479.04	489.46	474.01	-
Ammunition, except for small arms, nec .....	3483	11.41	11.60	11.48	11.67	-	460.96	459.36	460.35	451.63	-
Misc. fabricated metal products .....	349	9.98	9.97	10.09	10.21	-	404.19	407.77	419.74	414.53	-
Valves and pipe fittings, nec .....	3494	10.51	10.52	10.29	10.41	-	428.81	430.27	444.53	446.59	-
Misc. fabricated wire products .....	3496	8.59	8.44	8.71	8.76	-	335.01	338.44	354.50	350.40	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
Industrial machinery and equipment .....	35	42.0	41.8	42.1	41.7	41.5	4.1	4.0	4.0	3.8	-
Engines and turbines .....	351	43.2	41.7	42.0	43.0	-	3.6	3.7	3.5	3.2	-
Turbines and turbine generator sets .....	3511	41.1	43.0	43.6	42.8	-	5.2	5.8	5.6	5.6	-
Internal combustion engines, nec .....	3519	43.9	41.3	41.4	43.1	-	3.1	3.0	2.7	2.3	-
Farm and garden machinery .....	352	40.6	40.3	41.4	40.2	-	3.7	3.4	3.5	3.2	-
Farm machinery and equipment .....	3523	41.5	41.0	41.6	41.0	-	4.4	3.8	3.8	4.0	-
Construction and related machinery .....	353	42.1	42.0	42.9	42.4	-	3.8	4.1	4.1	3.8	-
Construction machinery .....	3531	42.4	42.0	42.3	41.5	-	3.7	4.4	3.4	2.5	-
Mining machinery .....	3532	41.0	41.1	42.2	41.2	-	4.0	3.8	4.3	4.0	-
Oil and gas field machinery .....	3533	41.5	41.9	46.2	46.4	-	3.5	4.0	6.3	6.6	-
Conveyors and conveying equipment .....	3535	43.9	43.2	42.5	42.5	-	5.4	5.1	4.7	4.6	-
Industrial trucks and tractors .....	3537	40.1	41.1	40.0	38.9	-	2.4	3.1	2.2	1.9	-
Metalworking machinery .....	354	42.9	42.7	42.6	42.4	-	5.0	4.8	4.6	4.7	-
Machine tools, metal cutting types .....	3541	42.9	43.0	41.7	40.8	-	4.9	4.9	3.8	3.4	-
Machine tools, metal forming types .....	3542	43.8	43.3	43.0	42.8	-	5.4	5.2	4.4	4.6	-
Special dies, tools, jigs, and fixtures .....	3544	43.6	43.5	43.2	43.5	-	5.8	5.6	5.4	5.7	-
Machine tool accessories .....	3545	41.6	40.5	41.5	40.7	-	4.3	3.9	3.4	3.4	-
Power driven handtools .....	3546	42.5	42.4	41.7	41.5	-	3.5	3.6	3.7	3.5	-
Special industry machinery .....	355	41.4	41.6	42.3	41.0	-	4.3	4.5	4.2	3.5	-
Textile machinery .....	3552	42.2	42.2	42.8	42.0	-	3.8	3.7	4.0	3.3	-
Printing trades machinery .....	3555	37.1	37.4	39.3	38.1	-	4.0	4.7	3.8	3.0	-
Food products machinery .....	3556	41.8	42.4	41.7	40.3	-	4.3	4.7	3.7	3.4	-
General industrial machinery .....	356	41.5	41.4	42.2	41.5	-	4.3	4.0	4.2	4.0	-
Pumps and pumping equipment .....	3561	39.1	39.7	41.4	40.2	-	2.4	2.7	3.8	3.3	-
Ball and roller bearings .....	3562	42.8	42.6	43.4	42.8	-	5.7	5.4	5.7	5.5	-
Air and gas compressors .....	3563	42.0	42.3	43.6	43.2	-	4.3	4.4	4.1	4.2	-
Blowers and fans .....	3564	40.7	40.6	40.2	39.4	-	3.4	3.4	3.4	3.3	-
Speed changers, drives, and gears .....	3566	41.1	41.1	42.0	41.7	-	4.4	4.4	5.1	4.6	-
Power transmission equipment, nec .....	3568	41.7	41.1	41.8	40.8	-	4.9	4.2	4.4	3.7	-
Computer and office equipment .....	357	41.8	42.0	42.2	42.1	-	2.6	3.1	3.1	2.6	-
Electronic computers .....	3571	41.4	42.1	42.0	41.2	-	2.8	3.3	3.0	2.7	-
Computer terminals, calculators, and office machines, nec .....	3575,8,9	40.9	41.5	40.3	40.5	-	1.9	2.3	2.8	1.9	-
Refrigeration and service machinery .....	358	41.6	40.9	40.7	39.8	-	4.0	3.1	2.9	2.9	-
Refrigeration and heating equipment .....	3585	42.4	41.2	40.9	40.5	-	4.6	3.4	3.1	3.3	-
Misc. industrial and commercial machinery .....	359	42.3	42.2	42.2	41.8	-	4.5	4.4	4.5	4.4	-
Carburetors, pistons, rings, valves .....	3592	40.5	42.3	42.1	40.8	-	4.0	3.5	4.6	4.0	-
Scales, balances, and industrial machinery, nec .....	3596,9	42.1	42.0	42.0	41.6	-	4.5	4.4	4.4	4.5	-
Electronic and other electrical equipment .....	36	40.2	40.8	41.0	40.2	40.6	3.0	3.2	3.2	3.0	-
Electric distribution equipment .....	361	40.9	41.3	41.3	40.9	-	2.8	2.8	2.9	3.2	-
Transformers, except electronic .....	3612	40.8	41.6	41.7	41.5	-	2.7	2.9	3.4	3.7	-
Switchgear and switchboard apparatus .....	3613	41.0	41.0	40.9	40.3	-	2.9	2.8	2.3	2.7	-
Electrical industrial apparatus .....	362	41.5	41.1	42.3	41.6	-	3.7	3.0	3.7	3.2	-
Motors and generators .....	3621	41.6	41.1	42.2	40.9	-	4.3	3.2	3.9	3.2	-
Relays and industrial controls .....	3625	41.1	40.8	42.2	42.3	-	2.8	2.4	3.1	3.0	-
Household appliances .....	363	39.6	39.8	40.2	39.7	-	2.9	3.0	2.6	2.4	-
Household refrigerators and freezers .....	3632	38.1	38.5	38.8	39.5	-	3.8	3.0	2.8	2.8	-
Household laundry equipment .....	3633	41.0	40.6	41.0	39.8	-	2.4	2.5	3.4	3.4	-
Electric housewares and fans .....	3634	39.8	41.1	41.4	39.9	-	2.9	3.6	2.2	1.9	-
Electric lighting and wiring equipment .....	364	39.0	40.0	40.5	39.3	-	2.5	2.8	2.9	2.5	-
Electric lamps .....	3641	38.9	39.9	40.8	39.6	-	2.1	2.3	3.0	2.3	-
Current-carrying wiring devices .....	3643	39.5	39.3	40.0	39.5	-	3.2	2.8	2.8	2.9	-
Noncurrent-carrying wiring devices .....	3644	38.9	41.7	40.1	39.3	-	2.5	3.3	2.1	1.8	-
Residential lighting fixtures .....	3645	36.3	38.3	38.3	37.0	-	1.3	2.4	2.3	2.0	-
Household audio and video equipment .....	365	39.1	39.6	40.9	41.4	-	2.8	3.4	3.4	3.8	-
Household audio and video equipment .....	3651	38.6	38.9	42.1	42.5	-	2.2	2.7	3.6	3.8	-
Communications equipment .....	366	41.8	42.6	42.2	41.4	-	2.6	2.9	2.8	2.8	-
Telephone and telegraph apparatus .....	3661	42.4	43.9	43.6	42.8	-	2.5	3.2	3.1	3.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
Industrial machinery and equipment .....	35	\$11.39	\$11.37	\$11.75	\$11.78	\$11.82	\$478.38	\$475.27	\$494.68	\$491.23	\$490.53
Engines and turbines .....	351	14.16	14.03	14.41	14.49	-	611.71	585.05	605.22	623.07	-
Turbines and turbine generator sets .....	3511	14.27	14.43	14.65	14.96	-	586.50	620.49	638.74	640.29	-
Internal combustion engines, nec .....	3519	14.13	13.88	14.32	14.31	-	620.31	573.24	592.85	616.76	-
Farm and garden machinery .....	352	10.88	10.93	10.96	11.04	-	441.73	440.48	453.74	443.81	-
Farm machinery and equipment .....	3523	11.62	11.61	12.08	12.03	-	482.23	476.01	502.53	493.23	-
Construction and related machinery .....	353	11.48	11.42	11.85	11.88	-	483.31	479.64	508.37	503.71	-
Construction machinery .....	3531	12.75	12.63	13.40	13.45	-	540.60	530.46	566.82	558.18	-
Mining machinery .....	3532	11.22	11.38	11.73	11.80	-	460.02	467.72	495.01	486.16	-
Oil and gas field machinery .....	3533	11.19	11.11	11.17	11.09	-	464.39	465.51	516.05	514.58	-
Conveyors and conveying equipment .....	3535	10.38	10.35	10.73	10.86	-	455.68	447.12	456.03	461.55	-
Industrial trucks and tractors .....	3537	10.11	10.14	10.38	10.48	-	405.41	416.75	415.20	407.67	-
Metalworking machinery .....	354	11.86	11.85	12.24	12.31	-	508.79	506.00	521.42	521.94	-
Machine tools, metal cutting types .....	3541	11.70	11.68	12.23	12.12	-	501.93	502.24	509.99	494.50	-
Machine tools, metal forming types .....	3542	12.03	11.99	12.39	12.39	-	526.91	519.17	532.77	530.29	-
Special dies, tools, jigs, and fixtures .....	3544	12.64	12.58	12.87	12.97	-	551.10	547.23	555.98	564.20	-
Machine tool accessories .....	3545	10.57	10.52	10.83	10.90	-	439.71	426.06	449.45	443.63	-
Power driven handtools .....	3546	9.35	9.41	10.06	10.09	-	397.38	398.98	419.50	418.74	-
Special industry machinery .....	355	11.56	11.52	11.85	11.86	-	478.58	479.23	501.26	486.26	-
Textile machinery .....	3552	9.73	9.72	10.19	10.18	-	410.61	410.18	436.13	427.56	-
Printing trades machinery .....	3555	13.29	13.37	13.83	13.73	-	493.06	500.04	543.52	523.11	-
Food products machinery .....	3556	11.43	11.52	11.57	11.68	-	477.77	488.45	482.47	470.70	-
General industrial machinery .....	356	10.84	10.82	11.32	11.32	-	449.86	447.95	477.70	469.78	-
Pumps and pumping equipment .....	3561	11.06	11.17	11.73	11.69	-	432.45	443.45	485.62	469.94	-
Ball and roller bearings .....	3562	11.56	11.43	12.20	12.05	-	494.77	486.92	529.48	515.74	-
Air and gas compressors .....	3563	10.69	10.86	11.56	11.65	-	448.98	459.38	504.02	503.28	-
Blowers and fans .....	3564	9.65	9.70	10.02	10.02	-	392.76	393.82	402.80	394.79	-
Speed changers, drives, and gears .....	3566	11.59	11.33	11.69	11.77	-	476.35	465.66	490.98	490.81	-
Power transmission equipment, nec .....	3568	10.57	10.41	10.81	10.81	-	440.77	427.85	451.86	441.05	-
Computer and office equipment .....	357	11.01	11.01	11.53	11.60	-	460.22	462.42	486.57	488.36	-
Electronic computers .....	3571	11.32	11.35	12.13	12.17	-	468.65	477.84	509.46	501.40	-
Computer terminals, calculators, and office machines, nec .....	3575,8,9	10.49	10.31	10.97	10.80	-	429.04	427.87	442.09	437.40	-
Refrigeration and service machinery .....	358	10.61	10.57	11.00	10.92	-	441.38	432.31	447.70	434.62	-
Refrigeration and heating equipment .....	3585	10.70	10.62	11.19	11.07	-	453.68	437.54	457.67	448.34	-
Misc. industrial and commercial machinery .....	359	11.29	11.31	11.56	11.58	-	477.57	477.28	487.83	484.04	-
Carburetors, pistons, rings, valves .....	3592	13.05	12.99	12.63	12.58	-	528.53	549.48	531.72	513.26	-
Scales, balances, and industrial machinery, nec .....	3596,9	10.93	10.91	11.20	11.26	-	460.15	458.22	470.40	468.42	-
Electronic and other electrical equipment .....	36	10.08	10.06	10.27	10.34	10.34	405.22	410.45	421.07	415.67	419.80
Electric distribution equipment .....	361	9.54	9.58	10.14	10.25	-	390.19	395.65	418.78	419.23	-
Transformers, except electronic .....	3612	9.20	9.28	9.87	9.89	-	375.36	386.05	411.58	410.44	-
Switchgear and switchboard apparatus .....	3613	9.89	9.90	10.42	10.63	-	405.49	405.90	426.18	428.39	-
Electrical industrial apparatus .....	362	9.88	9.82	10.00	10.07	-	410.02	403.60	423.00	418.91	-
Motors and generators .....	3621	10.05	10.02	9.92	9.98	-	418.08	411.82	418.62	408.18	-
Relays and industrial controls .....	3625	9.59	9.49	10.11	10.25	-	394.15	387.19	426.64	433.58	-
Household appliances .....	363	10.32	10.19	10.16	10.25	-	408.67	405.56	408.43	406.93	-
Household refrigerators and freezers .....	3632	11.82	11.85	11.30	11.30	-	450.34	456.23	438.44	446.35	-
Household laundry equipment .....	3633	12.18	11.99	12.53	12.68	-	499.38	486.79	513.73	504.66	-
Electric housewares and fans .....	3634	7.44	7.47	7.47	7.49	-	296.11	307.02	309.26	298.85	-
Electric lighting and wiring equipment .....	364	9.91	9.80	10.19	10.18	-	386.49	392.00	412.70	400.07	-
Electric lamps .....	3641	11.22	11.24	11.36	11.58	-	436.46	448.48	463.49	458.57	-
Current-carrying wiring devices .....	3643	9.88	9.77	9.94	9.91	-	390.26	383.96	397.60	391.45	-
Noncurrent-carrying wiring devices .....	3644	9.47	9.41	9.57	9.53	-	368.38	392.40	383.76	374.53	-
Residential lighting fixtures .....	3645	7.34	7.27	7.66	7.61	-	266.44	278.44	293.38	281.57	-
Household audio and video equipment .....	365	9.60	9.67	9.76	9.89	-	375.36	382.93	399.18	409.45	-
Household audio and video equipment .....	3651	9.99	10.10	10.09	10.32	-	385.61	392.89	424.79	438.60	-
Communications equipment .....	366	11.16	11.05	10.98	11.03	-	466.49	470.73	463.36	456.64	-
Telephone and telegraph apparatus .....	3661	11.62	11.55	11.55	11.60	-	492.69	507.05	503.58	496.48	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Durable goods—Continued</b>											
Electronic and other electrical equipment—Continued											
Electronic components and accessories .....	367	39.5	40.3	40.5	39.5	-	3.1	3.5	3.5	3.3	-
Electron tubes .....	3671	40.1	41.5	41.4	40.8	-	2.9	3.9	4.0	3.8	-
Semiconductors and related devices .....	3674	39.1	39.7	40.5	39.3	-	3.6	3.9	4.2	4.1	-
Electronic components, nec .....	3679	39.2	40.0	39.9	38.9	-	2.5	2.8	2.6	2.1	-
Misc. electrical equipment and supplies .....	369	40.7	42.5	41.4	39.7	-	2.9	3.8	3.3	2.8	-
Storage batteries .....	3691	40.9	42.9	40.0	39.2	-	3.6	4.4	2.2	3.4	-
Engine electrical equipment .....	3694	40.1	42.9	42.1	39.4	-	2.7	4.2	4.3	2.6	-
Transportation equipment .....	37	41.6	41.8	42.8	41.9	42.3	4.1	4.3	4.7	4.0	-
Motor vehicles and equipment .....	371	41.4	41.6	44.0	42.3	42.8	3.8	4.1	5.4	4.1	-
Motor vehicles and car bodies .....	3711	41.0	40.8	43.9	42.4	-	4.1	3.9	5.4	3.8	-
Truck and bus bodies .....	3713	43.0	43.0	42.5	41.8	-	3.8	4.6	4.0	3.8	-
Motor vehicle parts and accessories .....	3714	41.8	42.4	44.7	42.5	-	3.8	4.5	5.9	4.5	-
Truck trailers .....	3715	37.9	39.4	41.2	42.3	-	2.1	2.2	3.2	3.8	-
Aircraft and parts .....	372	42.5	42.7	42.2	41.8	-	5.3	5.3	4.5	4.3	-
Aircraft .....	3721	42.9	42.9	41.7	41.0	-	5.4	5.4	4.1	3.7	-
Aircraft engines and engine parts .....	3724	42.0	42.2	42.8	43.2	-	5.2	5.4	5.3	5.5	-
Aircraft parts and equipment, nec .....	3728	42.3	42.6	42.6	42.0	-	5.1	5.0	4.4	4.4	-
Ship and boat building and repairing .....	373	39.9	40.5	40.5	40.4	-	2.9	3.0	3.0	3.1	-
Ship building and repairing .....	3731	41.1	41.3	40.9	42.0	-	3.1	3.3	2.9	3.5	-
Boat building and repairing .....	3732	38.0	39.0	39.8	37.3	-	2.6	2.5	3.2	2.3	-
Railroad equipment .....	374	44.3	43.1	41.4	42.7	-	4.8	4.5	3.4	3.7	-
Guided missiles, space vehicles, and parts .....	376	42.3	43.0	42.2	42.5	-	4.0	4.4	3.8	3.8	-
Guided missiles and space vehicles .....	3761	42.4	42.8	42.6	42.8	-	4.3	4.5	4.3	4.2	-
Misc. transportation equipment .....	379	39.3	38.9	39.6	40.5	-	2.4	2.3	2.5	3.2	-
Travel trailers and campers .....	3792	39.2	37.8	38.1	39.7	-	1.7	1.7	2.0	3.2	-
Instruments and related products .....	38	40.5	40.7	41.2	40.7	40.8	2.6	2.7	2.8	2.6	-
Search and navigation equipment .....	381	40.0	40.9	40.5	40.3	-	2.4	2.8	2.1	2.1	-
Measuring and controlling devices .....	382	40.9	40.8	41.5	41.3	-	2.4	2.5	2.8	2.5	-
Environmental controls .....	3822	38.9	39.4	40.4	39.7	-	2.4	2.1	2.4	2.7	-
Process control instruments .....	3823	41.7	41.7	43.5	42.2	-	3.2	3.2	4.3	3.7	-
Instruments to measure electricity .....	3825	41.4	40.4	40.9	41.4	-	1.9	2.2	2.1	1.5	-
Medical instruments and supplies .....	384	39.7	40.3	41.4	40.0	-	2.6	2.9	3.1	3.0	-
Surgical and medical instruments .....	3841	39.8	40.6	41.6	39.3	-	2.7	3.4	3.0	3.0	-
Surgical appliances and supplies .....	3842	39.4	39.9	40.9	40.0	-	2.4	2.4	3.0	2.8	-
Ophthalmic goods .....	385	39.6	39.4	40.6	39.7	-	2.5	3.1	2.5	2.4	-
Photographic equipment and supplies .....	386	43.2	42.4	41.9	42.0	-	3.6	2.9	3.4	3.5	-
Watches, clocks, watchcases, and parts .....	387	40.2	39.0	40.1	38.8	-	1.3	1.3	2.8	2.0	-
Miscellaneous manufacturing industries .....	39	38.6	39.2	39.5	38.7	39.2	2.2	2.6	2.4	2.1	-
Jewelry, silverware, and plated ware .....	391	36.5	37.7	37.9	37.1	-	1.4	2.0	1.3	.9	-
Jewelry, precious metal .....	3911	35.9	37.2	37.3	36.3	-	1.3	1.9	1.1	.8	-
Musical instruments .....	393	37.8	39.0	39.6	38.7	-	1.2	1.9	2.4	1.3	-
Toys and sporting goods .....	394	38.5	39.2	39.5	39.0	-	2.0	2.7	2.4	2.1	-
Dolls, games, toys, and children's vehicles .....	3942,4	37.6	38.5	39.4	38.8	-	1.2	1.7	1.7	1.7	-
Sporting and athletic goods, nec .....	3949	39.2	39.8	39.6	39.2	-	2.6	3.4	2.9	2.4	-
Pens, pencils, office, and art supplies .....	395	39.7	40.2	40.4	41.0	-	2.3	2.2	2.4	3.1	-
Costume jewelry and notions .....	396	37.6	38.8	41.0	38.5	-	2.9	3.4	3.0	2.1	-
Costume jewelry .....	3961	37.6	38.3	42.0	39.0	-	3.2	3.8	3.6	2.3	-
Miscellaneous manufactures .....	399	39.4	39.6	39.4	38.6	-	2.6	2.8	2.6	2.4	-
Signs and advertising specialties .....	3993	39.5	39.8	39.6	39.3	-	2.5	3.0	3.0	3.2	-
<b>Nondurable goods</b> .....		40.0	40.3	40.3	39.8	40.3	3.6	3.8	3.6	3.6	3.9
Food and kindred products .....	20	41.0	41.2	40.9	40.7	41.6	4.9	5.0	4.5	4.8	-
Meat products .....	201	41.3	41.2	40.3	40.0	-	4.8	4.8	4.4	4.0	-
Meat packing plants .....	2011	41.1	41.6	41.3	41.2	-	5.4	5.5	5.0	4.8	-
Sausages and other prepared meats .....	2013	41.6	41.6	41.7	41.8	-	4.9	5.2	5.2	5.1	-
Poultry slaughtering and processing .....	2015	41.4	40.8	39.1	38.5	-	4.5	4.1	3.7	3.2	-
Dairy products .....	202	41.3	40.6	41.3	41.6	-	4.6	4.3	4.9	5.0	-
Cheese, natural and processed .....	2022	39.7	38.8	39.6	39.7	-	3.6	3.4	3.8	3.5	-
Fluid milk .....	2026	42.0	41.4	41.9	42.1	-	5.0	4.7	5.0	5.2	-
Preserved fruits and vegetables .....	203	40.5	41.7	40.0	39.9	-	5.7	6.2	4.1	5.2	-
Canned specialties .....	2032	40.9	44.2	44.0	41.8	-	4.6	7.3	4.0	2.8	-
Canned fruits and vegetables .....	2033	42.1	42.8	38.9	39.2	-	7.1	6.9	4.1	6.2	-
Frozen fruits and vegetables .....	2037	37.7	39.3	38.1	39.6	-	4.4	5.9	3.8	5.7	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Durable goods—Continued</b>											
<b>Electronic and other electrical equipment—Continued</b>											
Electronic components and accessories .....	367	\$9.62	\$9.61	\$9.95	\$10.07	-	\$379.99	\$387.28	\$402.98	\$397.77	-
Electron tubes .....	3671	11.26	11.16	12.06	12.14	-	451.53	463.14	499.28	495.31	-
Semiconductors and related devices .....	3674	11.84	11.81	12.19	12.39	-	462.94	468.86	493.70	486.93	-
Electronic components, nec .....	3679	9.04	9.06	9.35	9.41	-	354.37	362.40	373.07	366.05	-
Misc. electrical equipment and supplies .....	369	10.92	11.04	11.22	11.20	-	444.44	469.20	464.51	444.64	-
Storage batteries .....	3691	11.86	11.80	12.06	12.35	-	485.07	506.22	482.40	484.12	-
Engine electrical equipment .....	3694	11.68	11.90	12.18	11.93	-	468.37	510.51	512.78	470.04	-
Transportation equipment .....	37	13.58	13.67	14.20	14.04	\$14.15	564.93	571.41	607.76	588.28	\$598.55
Motor vehicles and equipment .....	371	14.04	14.16	14.85	14.56	14.68	581.26	589.06	653.40	615.89	628.30
Motor vehicles and car bodies .....	3711	16.53	16.46	17.39	17.15	-	677.73	671.57	763.42	727.16	-
Truck and bus bodies .....	3713	11.81	11.97	12.52	12.47	-	507.83	514.71	532.10	521.25	-
Motor vehicle parts and accessories .....	3714	13.09	13.17	13.74	13.54	-	547.16	558.41	614.18	575.45	-
Truck trailers .....	3715	9.37	9.40	9.59	9.63	-	355.12	370.36	395.11	407.35	-
Aircraft and parts .....	372	14.23	14.25	14.72	14.70	-	604.78	608.48	621.18	614.46	-
Aircraft .....	3721	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-	-	-	-	-	-
Aircraft engines and engine parts .....	3724	\$14.60	\$14.58	\$14.57	\$14.69	-	\$613.20	\$615.28	\$623.60	\$634.61	-
Aircraft parts and equipment, nec .....	3728	12.83	12.85	13.32	13.37	-	542.71	547.41	567.43	561.54	-
Ship and boat building and repairing .....	373	10.76	10.71	10.85	10.99	-	429.32	433.76	439.43	444.00	-
Ship building and repairing .....	3731	11.75	11.68	11.81	11.82	-	482.93	482.38	483.03	496.44	-
Boat building and repairing .....	3732	9.05	9.02	9.01	9.17	-	343.90	351.78	358.60	342.04	-
Railroad equipment .....	374	12.68	12.77	13.30	13.42	-	561.72	550.39	550.62	573.03	-
Guided missiles, space vehicles, and parts .....	376	13.68	13.79	14.29	14.45	-	578.66	592.97	603.04	614.13	-
Guided missiles and space vehicles .....	3761	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	( <sup>b</sup> )	-	-	-	-	-	-
Misc. transportation equipment .....	379	\$10.54	\$10.70	\$10.88	\$10.75	-	\$414.22	\$416.23	\$430.85	\$435.38	-
Travel trailers and campers .....	3792	8.83	9.33	9.55	9.33	-	346.14	352.67	363.86	370.40	-
Instruments and related products .....	38	10.86	10.90	11.27	11.36	\$11.32	439.83	443.63	464.32	462.35	\$461.86
Search and navigation equipment .....	381	13.75	13.91	14.71	14.74	-	550.00	568.92	595.76	594.02	-
Measuring and controlling devices .....	382	10.26	10.28	10.63	10.68	-	419.63	419.42	441.15	441.08	-
Environmental controls .....	3822	9.30	9.28	9.31	9.27	-	361.77	365.63	376.12	368.02	-
Process control instruments .....	3823	9.70	9.72	10.39	10.41	-	404.49	405.32	451.97	439.30	-
Instruments to measure electricity .....	3825	10.35	10.35	10.70	10.83	-	428.49	418.14	437.63	448.36	-
Medical instruments and supplies .....	384	9.43	9.49	9.74	9.90	-	374.37	382.45	403.24	396.00	-
Surgical and medical instruments .....	3841	9.43	9.55	9.83	9.92	-	375.31	387.73	408.93	389.86	-
Surgical appliances and supplies .....	3842	9.18	9.15	9.47	9.60	-	361.69	365.09	387.32	384.00	-
Ophthalmic goods .....	385	7.80	7.79	8.15	8.15	-	308.88	306.93	330.89	323.56	-
Photographic equipment and supplies .....	386	13.47	13.35	14.15	14.21	-	581.90	566.04	592.89	596.82	-
Watches, clocks, watchcases, and parts .....	387	7.46	7.33	7.75	7.79	-	299.89	285.87	310.78	302.25	-
Miscellaneous manufacturing industries .....	39	8.28	8.20	8.61	8.61	8.64	319.61	321.44	340.10	333.21	338.69
Jewelry, silverware, and plated ware .....	391	9.00	8.94	9.23	9.23	-	328.50	337.04	349.82	342.43	-
Jewelry, precious metal .....	3911	9.05	8.97	9.17	9.14	-	324.90	333.68	342.04	331.78	-
Musical instruments .....	393	8.26	8.18	8.62	8.90	-	312.23	319.02	341.35	344.43	-
Toys and sporting goods .....	394	7.56	7.59	7.96	7.91	-	291.06	297.53	314.42	308.49	-
Dolls, games, toys, and children's vehicles .....	3942,4	7.39	7.24	7.72	7.68	-	277.86	278.74	304.17	297.98	-
Sporting and athletic goods, nec .....	3949	7.68	7.85	8.12	8.08	-	301.06	312.43	321.55	316.74	-
Pens, pencils, office, and art supplies .....	395	8.07	8.06	8.84	9.16	-	320.38	324.01	357.14	375.56	-
Costume jewelry and notions .....	396	7.31	7.17	7.46	7.42	-	274.86	278.20	305.86	285.67	-
Costume jewelry .....	3961	6.55	6.37	6.71	6.60	-	246.28	243.97	281.82	257.40	-
Miscellaneous manufactures .....	399	8.86	8.75	9.17	9.07	-	349.08	346.50	361.30	350.10	-
Signs and advertising specialties .....	3993	9.36	9.45	9.83	9.80	-	369.72	376.11	389.27	385.14	-
<b>Nondurable goods</b> .....		9.78	9.73	10.12	10.19	10.12	391.20	392.12	407.84	405.56	407.84
Food and kindred products .....	20	9.39	9.32	9.67	9.67	9.51	384.99	383.98	395.50	393.57	395.62
Meat products .....	201	7.79	7.77	7.98	7.99	-	321.73	320.12	321.59	319.60	-
Meat packing plants .....	2011	8.74	8.68	8.79	8.76	-	359.21	361.09	363.03	360.91	-
Sausages and other prepared meats .....	2013	9.26	9.20	9.37	9.36	-	385.22	382.72	390.73	391.25	-
Poultry slaughtering and processing .....	2015	6.62	6.61	6.88	6.91	-	274.07	269.69	269.01	266.04	-
Dairy products .....	202	10.24	10.16	10.47	10.53	-	422.91	412.50	432.41	438.05	-
Cheese, natural and processed .....	2022	9.50	9.49	9.60	9.56	-	377.15	368.21	380.16	379.53	-
Fluid milk .....	2026	10.73	10.60	11.00	11.05	-	450.66	438.84	460.90	465.21	-
Preserved fruits and vegetables .....	203	8.71	8.60	8.98	8.97	-	352.76	358.62	359.20	357.90	-
Canned specialties .....	2032	10.68	10.51	11.47	11.23	-	436.81	464.54	504.68	469.41	-
Canned fruits and vegetables .....	2033	9.00	8.79	9.39	9.44	-	378.90	376.21	365.27	370.05	-
Frozen fruits and vegetables .....	2037	7.67	7.48	7.97	8.00	-	269.16	293.96	303.66	316.80	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
<b>Food and kindred products—Continued</b>											
Grain mill products .....	204	44.1	44.2	45.5	45.3	-	5.5	5.8	6.4	6.4	-
Flour and other grain mill products .....	2041	45.9	47.4	49.0	48.7	-	6.5	8.1	7.2	7.1	-
Prepared feeds, nec .....	2048	43.1	42.3	42.1	42.2	-	5.4	5.1	5.2	5.3	-
Bakery products .....	205	39.7	39.8	39.6	39.2	-	4.2	4.3	3.9	4.3	-
Bread, cake, and related products .....	2051	39.1	39.0	39.5	39.1	-	4.5	4.4	4.5	4.6	-
Cookies, crackers, and frozen bakery products, except bread .....	2052,3	40.8	41.5	39.9	39.4	-	3.5	4.2	2.8	3.6	-
Sugar and confectionery products .....	206	40.8	41.6	41.4	41.2	-	3.5	4.2	3.4	3.9	-
Raw cane sugar .....	2061	43.9	44.1	41.4	40.2	-	4.0	4.1	3.2	3.8	-
Cane sugar refining .....	2062	48.0	48.8	48.8	48.6	-	10.2	10.7	9.7	9.9	-
Beet sugar .....	2063	41.3	39.9	38.7	40.8	-	3.6	3.7	3.0	4.1	-
Candy and other confectionery products .....	2064	39.1	40.8	40.8	40.2	-	2.5	3.6	2.6	3.0	-
Fats and oils .....	207	43.3	43.7	44.3	43.6	-	5.6	6.1	6.1	6.3	-
Beverages .....	208	42.4	41.6	42.5	42.3	-	4.8	4.3	5.2	5.3	-
Malt beverages .....	2082	44.8	43.0	44.0	44.0	-	7.2	6.3	7.2	7.2	-
Bottled and canned soft drinks .....	2086	42.2	41.2	41.9	42.6	-	4.6	3.7	4.8	5.4	-
Misc. food and kindred products .....	209	38.8	39.5	40.1	39.9	-	4.5	4.7	4.6	5.3	-
Tobacco products .....	21	37.9	37.3	39.5	38.5	38.0	1.4	.9	2.0	1.8	-
Cigarettes .....	211	38.2	37.7	39.4	38.4	-	1.3	.6	1.9	1.7	-
Textile mill products .....	22	40.5	41.3	40.6	39.6	40.3	3.9	4.2	3.9	3.5	-
Broadwoven fabric mills, cotton .....	221	41.5	42.3	39.9	38.5	-	5.0	5.0	4.1	3.9	-
Broadwoven fabric mills, synthetics .....	222	40.7	41.3	41.2	40.4	-	3.9	4.2	3.9	3.7	-
Broadwoven fabric mills, wool .....	223	41.4	40.5	42.0	41.6	-	3.3	2.9	4.7	4.0	-
Narrow fabric mills .....	224	40.5	41.4	41.0	40.6	-	2.9	3.7	3.1	2.5	-
Knitting mills .....	225	39.6	40.2	39.6	38.3	-	3.7	3.8	3.3	3.1	-
Women's hosiery, except socks .....	2251	36.5	38.3	38.8	36.9	-	2.3	2.4	2.6	2.3	-
Hosiery, nec .....	2252	39.8	40.3	38.9	38.1	-	3.6	3.9	2.7	2.7	-
Knit outerwear mills .....	2253	40.2	39.8	39.6	38.7	-	3.9	4.1	3.6	3.5	-
Knit underwear mills .....	2254	38.7	40.3	38.9	36.2	-	2.0	2.4	1.9	1.8	-
Weft knit fabric mills .....	2257	41.8	42.4	40.8	39.3	-	5.1	5.1	4.1	3.3	-
Textile finishing, except wool .....	226	41.4	41.8	42.5	40.3	-	4.4	4.7	5.4	4.1	-
Finishing plants, cotton .....	2261	42.6	42.7	42.1	40.3	-	4.8	4.8	4.9	3.6	-
Finishing plants, synthetics .....	2262	40.0	40.9	42.9	39.9	-	3.8	4.5	5.9	4.1	-
Carpets and rugs .....	227	40.7	43.3	43.1	42.0	-	4.0	4.7	4.6	4.0	-
Yarn and thread mills .....	228	39.9	40.7	40.0	39.4	-	3.7	4.1	3.7	3.4	-
Yarn spinning mills .....	2281	40.0	41.0	40.3	39.9	-	3.8	4.4	3.9	3.7	-
Throwing and winding mills .....	2282	38.3	37.5	37.9	36.2	-	2.4	2.3	2.5	1.7	-
Miscellaneous textile goods .....	229	41.5	42.1	41.1	40.7	-	3.7	4.1	3.9	3.4	-
Apparel and other textile products .....	23	36.7	37.0	36.9	36.3	36.7	1.5	1.9	1.7	1.4	-
Men's and boys' suits and coats .....	231	36.5	34.9	35.7	36.6	-	.9	1.1	.8	.9	-
Men's and boys' furnishings .....	232	37.0	37.3	36.9	36.6	-	1.5	1.8	1.3	1.1	-
Men's and boys' shirts .....	2321	37.0	37.8	36.9	36.6	-	1.2	1.4	1.1	.8	-
Men's and boys' trousers and slacks .....	2325	37.2	36.3	35.7	36.0	-	1.7	1.7	1.3	1.2	-
Men's and boys' work clothing .....	2326	36.5	36.4	37.6	37.1	-	1.2	1.9	1.5	.9	-
Women's and misses' outerwear .....	233	35.2	35.3	35.4	34.8	-	1.3	1.6	1.5	1.3	-
Women's and misses' blouses and shirts .....	2331	35.2	35.1	36.7	35.1	-	.8	1.1	1.2	.7	-
Women's, juniors', and misses' dresses .....	2335	34.5	34.7	34.0	33.9	-	1.4	1.6	1.3	1.2	-
Women's and misses' suits and coats .....	2337	36.6	36.8	35.3	35.2	-	2.0	2.3	1.9	1.8	-
Women's and misses' outerwear, nec .....	2339	35.1	35.3	35.7	35.0	-	1.3	1.5	1.5	1.4	-
Women's and children's undergarments .....	234	36.9	37.5	37.7	36.6	-	1.2	1.5	1.4	1.3	-
Women's and children's underwear .....	2341	37.6	38.1	38.4	37.1	-	1.3	1.6	1.5	1.4	-
Brassieres, girdles, and allied garments .....	2342	33.3	34.3	34.5	33.8	-	.5	.8	1.0	.8	-
Girl's and children's outerwear .....	236	37.2	37.0	36.7	36.1	-	1.7	1.7	1.5	1.4	-
Girl's and children's dresses and blouses .....	2361	36.6	36.1	36.0	35.0	-	1.6	1.3	1.8	1.5	-
Misc. apparel and accessories .....	238	38.1	38.0	37.2	36.2	-	1.7	2.1	1.3	.9	-
Misc. fabricated textile products .....	239	38.1	39.5	39.1	38.0	-	2.2	3.0	2.9	2.2	-
Curtains and draperies .....	2391	35.0	37.1	37.3	34.6	-	2.1	2.3	2.0	1.7	-
House furnishings, nec .....	2392	39.5	40.2	38.4	38.1	-	2.7	3.3	2.2	2.1	-
Automotive and apparel trimmings .....	2396	37.7	40.5	40.9	39.9	-	1.9	3.6	4.1	2.1	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Nondurable goods—Continued</b>											
<b>Food and kindred products—Continued</b>											
Grain mill products .....	204	\$11.42	\$11.41	\$11.74	\$11.69	-	\$503.62	\$504.32	\$534.17	\$529.56	-
Flour and other grain mill products .....	2041	10.96	11.23	10.71	10.82	-	503.06	532.30	524.79	526.93	-
Prepared feeds, nec .....	2048	8.70	8.75	9.02	9.07	-	374.97	370.13	379.74	382.75	-
Bakery products .....	205	10.50	10.50	10.83	10.97	-	416.85	417.90	428.87	430.02	-
Bread, cake, and related products .....	2051	10.54	10.53	10.87	11.04	-	412.11	410.67	429.37	431.66	-
Cookies, crackers, and frozen bakery products, except bread .....	2052,3	10.42	10.46	10.75	10.85	-	425.14	434.09	428.93	427.49	-
Sugar and confectionery products .....	206	10.16	10.11	10.51	10.47	-	414.53	420.58	435.11	431.36	-
Raw cane sugar .....	2061	9.36	9.68	10.18	9.91	-	410.90	426.89	421.45	398.38	-
Cane sugar refining .....	2062	13.76	14.00	14.15	13.98	-	660.48	683.20	690.52	679.43	-
Beet sugar .....	2063	11.11	11.36	11.43	11.53	-	458.84	453.26	442.34	470.42	-
Candy and other confectionery products .....	2064	8.98	8.95	9.37	9.28	-	351.12	365.16	382.30	373.06	-
Fats and oils .....	207	10.00	10.06	10.10	10.29	-	433.00	439.62	447.43	448.64	-
Beverages .....	208	13.04	12.94	13.41	13.43	-	552.90	538.30	569.93	568.09	-
Malt beverages .....	2082	18.06	17.99	18.45	18.40	-	809.09	773.57	811.80	809.60	-
Bottled and canned soft drinks .....	2086	10.39	10.36	10.80	10.86	-	438.46	426.83	452.52	462.64	-
Misc. food and kindred products .....	209	8.73	8.70	8.95	8.98	-	338.72	343.65	358.90	358.30	-
Tobacco products .....	21	16.34	15.72	17.24	17.48	\$16.10	619.29	586.36	680.98	672.98	\$611.80
Cigarettes .....	211	18.40	18.60	19.24	19.42	-	702.88	701.22	758.06	745.73	-
Textile mill products .....	22	7.65	7.68	8.02	8.01	8.05	309.83	317.18	325.61	317.20	324.42
Broadwoven fabric mills, cotton .....	221	8.06	8.04	8.32	8.31	-	334.49	340.09	331.97	319.94	-
Broadwoven fabric mills, synthetics .....	222	8.27	8.33	8.66	8.58	-	336.59	344.03	356.79	346.63	-
Broadwoven fabric mills, wool .....	223	8.44	8.43	8.86	8.73	-	349.42	341.42	372.12	363.97	-
Narrow fabric mills .....	224	7.11	7.15	7.35	7.34	-	287.96	296.01	301.35	298.00	-
Knitting mills .....	225	6.93	7.00	7.37	7.39	-	274.43	281.40	291.85	283.04	-
Women's hosiery, except socks .....	2251	6.80	6.76	6.85	6.83	-	248.20	258.91	265.78	252.03	-
Hosiery, nec .....	2252	6.73	6.74	7.03	7.03	-	267.85	271.62	273.47	267.84	-
Knit outerwear mills .....	2253	6.55	6.71	7.27	7.33	-	263.31	267.06	287.89	283.67	-
Knit underwear mills .....	2254	6.87	6.94	7.37	7.45	-	265.87	279.68	286.69	269.69	-
Weft knit fabric mills .....	2257	7.73	7.75	8.05	8.02	-	323.11	328.60	328.44	315.19	-
Textile finishing, except wool .....	226	8.05	8.09	8.42	8.40	-	333.27	338.16	357.85	338.52	-
Finishing plants, cotton .....	2261	8.07	8.04	8.39	8.33	-	343.78	343.31	353.22	335.70	-
Finishing plants, synthetics .....	2262	8.35	8.47	8.75	8.75	-	334.00	346.42	375.38	349.13	-
Carpets and rugs .....	227	8.06	7.95	8.22	8.29	-	328.04	344.24	354.28	348.18	-
Yarn and thread mills .....	228	7.36	7.42	7.67	7.69	-	293.66	301.99	306.80	302.99	-
Yarn spinning mills .....	2281	7.36	7.42	7.67	7.69	-	294.40	304.22	309.10	306.83	-
Throwing and winding mills .....	2282	7.51	7.52	7.88	7.83	-	287.63	282.00	298.65	283.45	-
Miscellaneous textile goods .....	229	8.47	8.56	9.12	9.06	-	351.51	360.38	374.83	368.74	-
Apparel and other textile products .....	23	6.28	6.33	6.61	6.57	6.63	230.48	234.21	243.91	238.49	243.32
Men's and boys' suits and coats .....	231	7.15	7.09	7.40	7.50	-	260.98	247.44	264.18	274.50	-
Men's and boys' furnishings .....	232	5.74	5.77	6.05	6.03	-	212.38	215.22	223.25	220.70	-
Men's and boys' shirts .....	2321	5.53	5.64	5.94	5.89	-	204.61	213.19	219.19	215.57	-
Men's and boys' trousers and slacks .....	2325	5.82	5.69	5.97	5.92	-	216.50	206.55	213.13	213.12	-
Men's and boys' work clothing .....	2326	5.47	5.60	5.93	5.87	-	199.66	203.84	222.97	217.78	-
Women's and misses' outerwear .....	233	6.06	6.08	6.27	6.25	-	213.31	214.62	221.96	217.50	-
Women's and misses' blouses and shirts .....	2331	5.25	5.30	5.55	5.53	-	184.80	186.03	203.69	194.10	-
Women's, juniors', and misses' dresses .....	2335	6.54	6.50	6.63	6.70	-	225.63	225.55	225.42	227.13	-
Women's and misses' suits and coats .....	2337	6.56	6.56	7.07	7.01	-	240.10	241.41	249.57	246.75	-
Women's and misses' outerwear, nec .....	2339	5.95	5.99	6.11	6.06	-	208.85	211.45	218.13	212.10	-
Women's and children's undergarments .....	234	5.92	5.90	6.21	6.17	-	218.45	221.25	234.12	225.82	-
Women's and children's underwear .....	2341	5.80	5.80	6.06	6.05	-	218.08	220.98	232.70	224.46	-
Brassieres, girdles, and allied garments .....	2342	6.64	6.47	7.02	6.87	-	221.11	221.92	242.19	232.21	-
Girl's and children's outerwear .....	236	5.66	5.68	5.93	5.98	-	210.55	210.16	217.63	215.88	-
Girl's and children's dresses and blouses .....	2361	5.70	5.66	5.74	5.73	-	208.62	204.33	206.64	200.55	-
Misc. apparel and accessories .....	238	6.05	6.21	6.32	6.40	-	230.51	235.98	235.10	231.68	-
Misc. fabricated textile products .....	239	7.49	7.58	8.04	7.84	-	285.37	299.41	314.36	297.92	-
Curtains and draperies .....	2391	6.34	6.35	6.53	6.53	-	221.90	235.59	243.57	225.94	-
House furnishings, nec .....	2392	6.49	6.50	6.70	6.65	-	256.36	261.30	257.28	253.37	-
Automotive and apparel trimmings .....	2396	11.06	11.30	11.63	10.97	-	416.96	457.65	475.67	437.70	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Nondurable goods—Continued</b>											
Paper and allied products .....	26	43.0	43.2	43.4	43.2	43.4	4.6	4.5	4.6	4.8	-
Paper mills .....	262	45.0	45.0	45.2	44.7	-	4.3	4.2	5.0	5.1	-
Paperboard mills .....	263	44.7	44.8	45.5	46.1	-	7.6	7.2	6.6	7.1	-
Paperboard containers and boxes .....	265	42.5	42.9	42.9	42.3	-	4.8	4.7	4.7	4.6	-
Corrugated and solid fiber boxes .....	2653	43.2	43.7	43.3	42.7	-	5.2	5.2	5.1	5.0	-
Sanitary food containers .....	2656	43.6	41.9	44.5	44.4	-	5.6	4.2	4.8	5.0	-
Folding paperboard boxes .....	2657	41.7	42.4	42.4	41.8	-	4.5	4.4	4.6	4.6	-
Misc. converted paper products .....	267	41.6	42.0	41.9	42.0	-	4.0	4.0	3.7	4.0	-
Paper, coated and laminated, nec .....	2672	43.2	42.9	43.1	43.4	-	3.4	3.2	3.8	3.6	-
Bags: plastics, laminated, and coated .....	2673	41.6	41.4	41.6	41.4	-	4.7	4.6	4.7	5.0	-
Envelopes .....	2677	39.6	41.2	41.8	41.1	-	2.4	3.3	3.1	3.3	-
Printing and publishing .....	27	37.5	37.9	37.6	37.6	38.2	2.7	3.0	2.6	2.7	-
Newspapers .....	271	33.1	33.2	33.0	33.0	-	1.2	1.3	1.2	1.2	-
Periodicals .....	272	37.1	37.9	37.2	37.1	-	2.3	2.9	2.5	2.5	-
Books .....	273	38.8	39.3	37.9	39.1	-	2.8	3.1	2.2	2.7	-
Book publishing .....	2731	38.1	38.5	37.9	38.4	-	2.2	2.2	1.7	1.8	-
Book printing .....	2732	39.7	40.4	37.8	40.0	-	3.7	4.3	2.8	3.8	-
Miscellaneous publishing .....	274	36.4	36.2	36.5	36.5	-	1.9	1.8	1.7	1.7	-
Commercial printing .....	275	38.8	39.5	39.0	38.8	-	3.2	3.7	3.1	3.2	-
Commercial printing, lithographic .....	2752	38.6	39.3	38.5	38.4	-	3.2	3.8	3.1	3.2	-
Commercial printing, nec .....	2759	39.0	39.5	39.9	39.5	-	3.0	3.2	3.1	3.1	-
Manifold business forms .....	276	41.3	40.9	42.0	41.3	-	4.0	3.8	3.7	3.5	-
Blankbooks and bookbinding .....	278	37.8	37.4	37.7	37.5	-	2.8	2.8	2.0	2.4	-
Printing trade services .....	279	38.8	39.3	38.9	39.3	-	4.0	4.3	3.7	4.4	-
Chemicals and allied products .....	28	42.2	42.1	42.6	42.0	42.2	4.3	4.3	4.4	4.3	-
Industrial inorganic chemicals .....	281	42.8	42.8	42.4	42.9	-	4.5	4.5	4.3	4.7	-
Industrial inorganic chemicals, nec .....	2819	42.3	42.1	42.2	42.8	-	4.3	4.3	4.1	4.7	-
Plastics materials and synthetics .....	282	43.4	42.6	42.7	42.1	-	5.2	4.8	5.1	4.7	-
Plastics materials and resins .....	2821	43.6	43.1	44.3	43.9	-	5.2	5.2	5.6	5.6	-
Organic fibers, noncellulosic .....	2824	43.6	42.5	41.1	40.1	-	5.2	4.4	4.5	3.7	-
Drugs .....	283	40.7	41.2	41.8	41.0	-	3.2	3.6	3.6	3.6	-
Pharmaceutical preparations .....	2834	40.3	41.1	41.8	41.1	-	3.1	3.6	3.6	3.5	-
Soap, cleaners, and toilet goods .....	284	39.4	39.8	41.3	40.1	-	2.8	3.0	3.5	2.9	-
Soap and other detergents .....	2841	42.2	41.9	43.4	42.3	-	5.1	4.9	5.5	4.9	-
Polishing, sanitation, and finishing preparations .....	2842,3	40.6	41.0	42.0	41.2	-	3.0	3.0	3.3	3.2	-
Toilet preparations .....	2844	37.2	38.2	39.7	38.1	-	1.5	2.0	2.4	1.6	-
Paints and allied products .....	285	41.4	41.7	42.3	42.2	-	3.9	4.0	4.1	4.0	-
Industrial organic chemicals .....	286	44.8	44.1	45.0	45.3	-	5.9	5.6	5.5	6.0	-
Cyclic crudes and intermediates .....	2865	43.5	44.3	44.2	44.3	-	5.9	6.2	5.6	5.4	-
Industrial organic chemicals, nec .....	2869	45.3	44.1	45.3	45.7	-	6.1	5.6	5.6	6.2	-
Agricultural chemicals .....	287	43.4	42.7	43.9	42.9	-	4.6	4.5	5.0	4.2	-
Miscellaneous chemical products .....	289	42.5	42.5	42.3	40.7	-	4.0	4.1	4.2	4.1	-
Petroleum and coal products .....	29	44.4	43.8	46.8	44.2	43.7	5.7	5.8	6.5	6.0	-
Petroleum refining .....	291	44.2	42.9	46.9	43.9	-	5.0	4.9	5.9	5.3	-
Asphalt paving and roofing materials .....	295	46.3	47.6	48.1	46.4	-	8.9	9.8	9.7	9.1	-
Rubber and misc. plastics products .....	30	40.7	41.0	41.7	40.9	40.9	3.6	3.7	3.9	3.7	-
Tires and inner tubes .....	301	42.7	43.0	43.2	43.1	-	5.2	5.5	5.0	5.1	-
Rubber and plastics footwear .....	302	42.0	40.2	40.8	40.8	-	2.7	2.9	1.9	3.6	-
Hose, belting, gaskets, and packing .....	305	41.0	41.1	43.0	42.0	-	3.1	2.7	3.8	3.7	-
Rubber and plastics hose and belting .....	3052	42.1	41.6	43.0	41.8	-	3.8	3.3	3.7	3.8	-
Fabricated rubber products, nec .....	306	39.9	40.6	41.9	40.5	-	2.8	3.1	3.7	3.0	-
Miscellaneous plastics products, nec .....	308	40.5	40.8	41.4	40.6	-	3.6	3.6	3.8	3.6	-
Leather and leather products .....	31	37.8	38.4	38.2	37.3	37.9	1.9	2.0	1.9	1.7	-
Leather tanning and finishing .....	311	40.1	42.0	41.8	39.8	-	4.2	4.8	4.5	3.5	-
Footwear, except rubber .....	314	37.6	37.7	37.6	36.9	-	1.5	1.5	1.4	1.4	-
Men's footwear, except athletic .....	3143	37.6	37.8	37.4	36.5	-	1.0	1.0	1.2	1.0	-
Women's footwear, except athletic .....	3144	37.8	37.7	37.7	37.7	-	2.2	2.1	1.5	1.8	-
Luggage .....	316	39.5	40.6	39.9	40.1	-	3.2	2.5	2.9	2.7	-
Handbags and personal leather goods .....	317	36.3	37.9	36.9	36.3	-	1.5	2.0	1.6	1.3	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
Paper and allied products .....	26	\$12.09	\$11.95	\$12.23	\$12.35	\$12.30	\$519.87	\$516.24	\$530.78	\$533.52	\$533.82
Paper mills .....	262	14.85	14.63	14.92	15.18	-	668.25	658.35	674.38	678.55	-
Paperboard mills .....	263	14.82	14.76	14.97	15.07	-	662.45	661.25	681.14	694.73	-
Paperboard containers and boxes .....	265	10.21	10.15	10.40	10.44	-	433.93	435.44	446.16	441.61	-
Corrugated and solid fiber boxes .....	2653	10.40	10.33	10.52	10.59	-	449.28	451.42	455.52	452.19	-
Sanitary food containers .....	2656	10.02	10.09	9.96	10.09	-	436.87	422.77	443.22	448.00	-
Folding paperboard boxes .....	2657	10.39	10.34	10.75	10.68	-	433.26	438.42	455.80	446.42	-
Misc. converted paper products .....	267	10.56	10.48	10.71	10.79	-	439.30	440.16	448.75	453.18	-
Paper, coated and laminated, nec .....	2672	11.60	11.55	11.97	12.03	-	501.12	495.50	515.91	522.10	-
Bags: plastics, laminated, and coated .....	2673	9.95	9.89	9.99	10.16	-	413.92	409.45	415.58	420.62	-
Envelopes .....	2677	9.85	9.81	10.07	10.22	-	390.06	404.17	420.93	420.04	-
Printing and publishing .....	27	10.85	10.91	11.16	11.26	11.30	406.88	413.49	419.62	423.38	431.66
Newspapers .....	271	10.88	10.83	11.27	11.28	-	360.13	359.56	371.91	372.24	-
Periodicals .....	272	11.40	11.56	11.78	12.03	-	422.94	438.12	438.22	446.31	-
Books .....	273	9.68	9.76	9.95	10.01	-	375.58	383.57	377.11	391.39	-
Book publishing .....	2731	9.25	9.31	9.62	9.75	-	352.43	358.44	364.60	374.40	-
Book printing .....	2732	10.23	10.32	10.38	10.32	-	406.13	416.93	392.36	412.80	-
Miscellaneous publishing .....	274	10.28	10.07	10.24	10.29	-	374.19	364.53	373.76	375.59	-
Commercial printing .....	275	11.08	11.18	11.44	11.55	-	429.90	441.61	446.16	448.14	-
Commercial printing, lithographic .....	2752	11.24	11.35	11.53	11.65	-	433.86	446.06	443.91	447.36	-
Commercial printing, nec .....	2759	10.70	10.78	11.21	11.32	-	417.30	425.81	447.28	447.14	-
Manifold business forms .....	276	11.43	11.41	11.62	11.77	-	472.06	466.67	488.04	486.10	-
Blankbooks and bookbinding .....	278	8.63	8.68	8.60	8.75	-	326.21	324.63	324.22	328.13	-
Printing trade services .....	279	13.30	13.30	13.62	13.74	-	516.04	522.69	529.82	539.98	-
Chemicals and allied products .....	28	13.15	13.10	13.51	13.59	13.56	554.93	551.51	575.53	570.78	572.23
Industrial inorganic chemicals .....	281	14.22	14.29	14.57	14.72	-	608.62	611.61	617.77	631.49	-
Industrial inorganic chemicals, nec .....	2819	14.28	14.39	14.61	14.81	-	604.04	605.82	616.54	633.87	-
Plastics materials and synthetics .....	282	13.49	13.44	13.99	13.98	-	585.47	572.54	597.37	588.56	-
Plastics materials and resins .....	2821	14.38	14.37	14.77	14.84	-	626.97	619.35	654.31	651.48	-
Organic fibers, noncellulosic .....	2824	12.80	12.71	13.33	13.31	-	558.08	540.18	547.86	533.73	-
Drugs .....	283	12.44	12.50	12.83	12.90	-	506.31	515.00	536.29	528.90	-
Pharmaceutical preparations .....	2834	12.39	12.48	12.84	12.86	-	499.32	512.93	536.71	528.55	-
Soap, cleaners, and toilet goods .....	284	11.33	11.18	11.83	11.83	-	446.40	444.96	488.58	474.38	-
Soap and other detergents .....	2841	15.23	15.22	15.81	15.68	-	642.71	637.72	686.15	663.26	-
Polishing, sanitation, and finishing preparations .....	2842,3	10.32	10.30	10.41	10.42	-	418.99	422.30	437.22	429.30	-
Toilet preparations .....	2844	9.42	9.29	9.98	9.96	-	350.42	354.88	396.21	379.48	-
Paints and allied products .....	285	11.63	11.70	12.00	12.05	-	481.48	487.89	507.60	508.51	-
Industrial organic chemicals .....	286	15.86	15.67	15.98	16.03	-	710.53	691.05	719.10	726.16	-
Cyclic crudes and intermediates .....	2865	15.72	15.68	16.02	15.97	-	683.82	694.62	708.08	707.47	-
Industrial organic chemicals, nec .....	2869	16.11	15.87	16.15	16.21	-	729.78	699.87	731.60	740.80	-
Agricultural chemicals .....	287	12.78	12.98	13.48	13.56	-	554.65	554.25	591.77	581.72	-
Miscellaneous chemical products .....	289	11.95	11.99	12.33	12.41	-	507.88	509.58	521.56	505.09	-
Petroleum and coal products .....	29	15.31	15.20	16.23	16.23	15.77	679.76	665.76	759.56	717.37	689.15
Petroleum refining .....	291	16.56	16.45	17.63	17.59	-	731.95	705.71	826.85	772.20	-
Asphalt paving and roofing materials .....	295	12.25	12.38	12.84	13.08	-	567.18	589.29	617.60	606.91	-
Rubber and misc. plastics products .....	30	9.50	9.47	9.77	9.87	9.84	386.65	388.27	407.41	403.68	402.46
Tires and inner tubes .....	301	14.99	15.06	15.40	15.53	-	640.07	647.58	665.28	669.34	-
Rubber and plastics footwear .....	302	6.51	6.54	6.63	6.83	-	273.42	262.91	270.50	278.66	-
Hose, belting, gaskets, and packing .....	305	9.21	9.19	9.68	9.72	-	377.61	377.71	416.24	408.24	-
Rubber and plastics hose and belting .....	3052	9.61	9.55	9.90	9.96	-	404.58	397.28	425.70	416.33	-
Fabricated rubber products, nec .....	306	9.03	9.03	9.38	9.44	-	360.30	366.62	393.02	382.32	-
Miscellaneous plastics products, nec .....	308	8.89	8.84	9.16	9.23	-	360.05	360.67	379.22	374.74	-
Leather and leather products .....	31	6.55	6.55	6.91	6.79	6.89	247.59	251.52	263.96	253.27	261.13
Leather tanning and finishing .....	311	8.73	8.81	9.06	8.80	-	350.07	370.02	378.71	350.24	-
Footwear, except rubber .....	314	6.21	6.23	6.57	6.53	-	233.50	234.87	247.03	240.96	-
Men's footwear, except athletic .....	3143	6.68	6.66	7.12	7.06	-	251.17	251.75	266.29	257.69	-
Women's footwear, except athletic .....	3144	5.86	5.95	6.06	6.11	-	221.51	224.32	228.46	230.35	-
Luggage .....	316	6.56	6.48	7.01	6.70	-	259.12	263.09	279.70	268.67	-
Handbags and personal leather goods .....	317	6.10	5.98	6.19	6.10	-	221.43	226.64	228.41	221.43	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Transportation and public utilities</b> .....		39.3	38.9	39.4	39.4	39.4	-	-	-	-	-
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	44.1	42.6	47.6	47.1	-	-	-	-	-	-
Local and interurban passenger transit .....	41	36.3	35.8	33.7	35.5	-	-	-	-	-	-
Local and suburban transportation .....	411	39.0	38.9	38.7	38.3	-	-	-	-	-	-
Intercity and rural bus transportation .....	413	40.2	40.4	37.8	39.8	-	-	-	-	-	-
Trucking and warehousing .....	42	38.6	38.7	39.1	39.0	-	-	-	-	-	-
Trucking and courier services, except air .....	421	38.6	38.7	39.1	39.0	-	-	-	-	-	-
Public warehousing and storage .....	422	38.5	38.7	39.3	39.1	-	-	-	-	-	-
Pipelines, except natural gas .....	46	41.2	40.1	42.3	41.5	-	-	-	-	-	-
Transportation services:											
Freight transportation arrangement .....	473	37.8	37.5	37.5	38.0	-	-	-	-	-	-
Communications .....	48	40.1	39.3	39.7	39.5	-	-	-	-	-	-
Telephone communications .....	481	41.8	41.0	41.4	40.9	-	-	-	-	-	-
Radio and television broadcasting .....	483	35.5	35.0	34.6	35.2	-	-	-	-	-	-
Cable and other pay television services .....	484	37.6	37.8	38.5	38.7	-	-	-	-	-	-
Electric, gas, and sanitary services .....	49	41.9	41.7	41.7	41.6	-	-	-	-	-	-
Electric services .....	491	42.4	41.8	41.8	41.7	-	-	-	-	-	-
Gas production and distribution .....	492	41.2	41.5	41.7	41.6	-	-	-	-	-	-
Combination utility services .....	493	41.8	41.6	41.9	41.6	-	-	-	-	-	-
Sanitary services .....	495	42.0	42.2	42.1	42.1	-	-	-	-	-	-
<b>Wholesale trade</b> .....		38.2	38.0	38.2	38.3	38.0	-	-	-	-	-
Durable goods .....	50	38.6	38.5	38.7	38.8	-	-	-	-	-	-
Motor vehicles, parts, and supplies .....	501	37.7	37.5	38.2	38.3	-	-	-	-	-	-
Furniture and home furnishings .....	502	37.3	37.2	37.2	37.1	-	-	-	-	-	-
Lumber and other construction materials .....	503	40.0	39.9	40.0	40.0	-	-	-	-	-	-
Professional and commercial equipment .....	504	38.8	38.5	38.9	38.9	-	-	-	-	-	-
Metals and minerals, except petroleum .....	505	39.9	40.2	40.1	39.8	-	-	-	-	-	-
Electrical goods .....	506	38.4	38.0	38.6	38.6	-	-	-	-	-	-
Hardware, plumbing, and heating equipment .....	507	39.2	38.9	38.8	39.1	-	-	-	-	-	-
Machinery, equipment, and supplies .....	508	39.1	39.0	39.1	39.2	-	-	-	-	-	-
Misc. wholesale trade durable goods .....	509	37.3	37.4	37.2	37.0	-	-	-	-	-	-
Nondurable goods .....	51	37.6	37.4	37.6	37.7	-	-	-	-	-	-
Paper and paper products .....	511	36.9	36.9	37.8	37.7	-	-	-	-	-	-
Drugs, proprietaries, and sundries .....	512	37.5	37.7	37.0	37.6	-	-	-	-	-	-
Apparel, piece goods, and notions .....	513	36.5	37.0	36.5	36.8	-	-	-	-	-	-
Groceries and related products .....	514	38.3	38.0	38.1	38.2	-	-	-	-	-	-
Chemicals and allied products .....	516	40.4	40.2	40.3	40.2	-	-	-	-	-	-
Petroleum and petroleum products .....	517	38.8	38.2	38.5	38.6	-	-	-	-	-	-
Beer, wine, and distilled beverages .....	518	36.5	36.5	36.9	37.2	-	-	-	-	-	-
Misc. wholesale trade nondurable goods .....	519	36.9	36.6	37.0	36.9	-	-	-	-	-	-
<b>Retail trade</b> .....		29.8	29.6	29.3	29.7	29.4	-	-	-	-	-
Building materials and garden supplies .....	52	37.2	37.0	36.8	36.9	-	-	-	-	-	-
Lumber and other building materials .....	521	39.0	38.8	38.5	38.7	-	-	-	-	-	-
Hardware stores .....	525	33.4	33.2	32.8	33.2	-	-	-	-	-	-
General merchandise stores .....	53	28.5	28.4	28.6	29.3	-	-	-	-	-	-
Department stores .....	531	28.4	28.2	28.5	29.3	-	-	-	-	-	-
Variety stores .....	533	28.6	28.7	28.7	29.0	-	-	-	-	-	-
Misc. general merchandise stores .....	539	29.5	29.3	29.1	29.9	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Transportation and public utilities .....</b>		\$12.63	\$12.61	\$12.86	\$12.96	\$12.95	\$496.36	\$490.53	\$506.68	\$510.62	\$510.23
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	15.45	16.07	15.93	15.90	-	681.35	684.58	758.27	748.89	-
Local and interurban passenger transit .....	41	9.06	9.10	9.03	9.12	-	328.88	325.78	304.31	323.76	-
Local and suburban transportation .....	411	9.74	9.67	9.81	9.81	-	379.86	376.16	379.65	375.72	-
Intercity and rural bus transportation .....	413	11.66	11.82	11.06	11.20	-	468.73	477.53	418.07	445.76	-
Trucking and warehousing .....	42	11.32	11.40	11.67	11.65	-	436.95	441.18	456.30	454.35	-
Trucking and courier services, except air .....	421	11.46	11.56	11.81	11.79	-	442.36	447.37	461.77	459.81	-
Public warehousing and storage .....	422	9.22	9.14	9.57	9.62	-	354.97	353.72	376.10	376.14	-
Pipelines, except natural gas .....	46	15.94	15.77	16.97	16.89	-	656.73	632.38	717.83	700.94	-
Transportation services:											
Freight transportation arrangement .....	473	11.63	11.46	12.11	12.22	-	439.61	429.75	454.13	464.36	-
Communications .....	48	13.21	13.09	13.45	13.57	-	529.72	514.44	533.97	536.02	-
Telephone communications .....	481	13.91	13.79	14.11	14.24	-	581.44	565.39	584.15	582.42	-
Radio and television broadcasting .....	483	12.06	12.22	12.54	12.77	-	428.13	427.70	433.88	449.50	-
Cable and other pay television services .....	484	10.14	10.24	10.46	10.49	-	381.26	387.07	402.71	405.96	-
Electric, gas, and sanitary services .....	49	14.75	14.59	15.04	15.23	-	618.03	608.40	627.17	633.57	-
Electric services .....	491	15.12	15.00	15.69	15.92	-	641.09	627.00	655.84	663.86	-
Gas production and distribution .....	492	13.81	13.60	14.03	14.26	-	568.97	564.40	585.05	593.22	-
Combination utility services .....	493	17.37	17.10	17.03	17.30	-	726.07	711.36	713.56	719.68	-
Sanitary services .....	495	11.09	11.09	11.53	11.51	-	465.78	468.00	485.41	484.57	-
<b>Wholesale trade .....</b>		10.41	10.36	10.76	10.83	10.75	397.66	393.68	411.03	414.79	408.50
Durable goods .....	50	10.67	10.63	11.10	11.18	-	411.86	409.26	429.57	433.78	-
Motor vehicles, parts, and supplies .....	501	9.52	9.54	9.98	10.01	-	358.90	357.75	381.24	383.38	-
Furniture and home furnishings .....	502	9.82	9.80	10.16	10.19	-	366.29	364.56	377.95	378.05	-
Lumber and other construction materials .....	503	10.06	10.05	10.41	10.43	-	402.40	401.00	416.40	417.20	-
Professional and commercial equipment .....	504	12.28	12.31	13.01	13.16	-	476.46	473.94	506.09	511.92	-
Metals and minerals, except petroleum .....	505	10.96	10.88	11.27	11.34	-	437.30	437.38	451.93	451.33	-
Electrical goods .....	506	11.18	11.02	11.37	11.39	-	429.31	418.76	438.88	439.65	-
Hardware, plumbing, and heating equipment .....	507	10.13	10.03	10.49	10.60	-	397.10	390.17	407.01	414.46	-
Machinery, equipment, and supplies .....	508	10.74	10.68	11.09	11.17	-	419.93	416.52	433.62	437.86	-
Misc. wholesale trade durable goods .....	509	8.45	8.40	8.81	8.86	-	315.19	314.16	327.73	327.82	-
Nondurable goods .....	51	10.01	9.98	10.25	10.31	-	376.38	373.25	385.40	388.69	-
Paper and paper products .....	511	10.65	10.59	10.95	10.97	-	392.99	390.77	413.91	413.57	-
Drugs, proprietaries, and sundries .....	512	11.45	11.37	11.94	11.82	-	429.38	428.65	441.78	444.43	-
Apparel, piece goods, and notions .....	513	9.84	9.77	9.96	9.99	-	359.16	361.49	363.54	367.63	-
Groceries and related products .....	514	10.22	10.18	10.40	10.52	-	391.43	386.84	396.24	401.86	-
Chemicals and allied products .....	516	12.41	12.50	12.47	12.50	-	501.36	502.50	502.54	502.50	-
Petroleum and petroleum products .....	517	9.94	9.91	10.31	10.20	-	385.67	378.56	396.94	393.72	-
Beer, wine, and distilled beverages .....	518	11.72	11.72	12.03	12.18	-	427.78	427.78	443.91	453.10	-
Misc. wholesale trade nondurable goods .....	519	8.23	8.25	8.53	8.63	-	303.69	301.95	315.61	318.45	-
<b>Retail trade .....</b>		6.48	6.49	6.75	6.74	6.75	193.10	192.10	197.78	200.18	198.45
Building materials and garden supplies .....	52	7.71	7.71	7.92	7.94	-	286.81	285.27	291.46	292.99	-
Lumber and other building materials .....	521	8.05	8.04	8.29	8.29	-	313.95	311.95	319.17	320.82	-
Hardware stores .....	525	6.40	6.43	6.67	6.75	-	213.76	213.48	218.78	224.10	-
General merchandise stores .....	53	6.60	6.62	6.80	6.77	-	188.10	188.01	194.48	198.36	-
Department stores .....	531	6.80	6.83	6.97	6.93	-	193.12	192.61	198.65	203.05	-
Variety stores .....	533	5.28	5.26	5.63	5.63	-	151.01	150.96	161.58	163.27	-
Misc. general merchandise stores .....	539	5.93	5.93	6.27	6.35	-	174.94	173.75	182.46	189.87	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Retail trade—Continued</b>											
Food stores .....	54	31.1	30.7	30.4	30.8	-	-	-	-	-	-
Grocery stores .....	541	31.3	30.9	30.6	31.0	-	-	-	-	-	-
Retail bakeries .....	546	29.9	29.7	29.1	29.5	-	-	-	-	-	-
Automotive dealers and service stations .....	55	36.6	36.5	36.5	36.6	-	-	-	-	-	-
New and used car dealers .....	551	37.3	37.1	37.3	37.3	-	-	-	-	-	-
Auto and home supply stores .....	553	38.6	38.8	38.6	38.9	-	-	-	-	-	-
Gasoline service stations .....	554	34.8	34.5	34.3	34.5	-	-	-	-	-	-
Automotive dealers, nec .....	559	36.5	36.2	35.2	35.8	-	-	-	-	-	-
Apparel and accessory stores .....	56	27.8	27.8	27.5	27.9	-	-	-	-	-	-
Men's and boys' clothing stores .....	561	29.5	29.0	29.2	29.6	-	-	-	-	-	-
Women's clothing stores .....	562	25.7	25.6	24.4	24.7	-	-	-	-	-	-
Family clothing stores .....	565	27.8	27.5	27.6	28.2	-	-	-	-	-	-
Shoe stores .....	566	29.9	30.1	31.0	31.2	-	-	-	-	-	-
Furniture and home furnishings stores .....	57	33.7	33.4	33.1	33.4	-	-	-	-	-	-
Furniture and home furnishings stores .....	571	33.9	33.8	33.7	34.0	-	-	-	-	-	-
Household appliance stores .....	572	33.7	33.4	33.5	33.7	-	-	-	-	-	-
Radio, television, and computer stores .....	573	33.4	32.8	32.1	32.4	-	-	-	-	-	-
Radio, television, and electronic stores .....	5731	33.1	32.5	31.8	32.3	-	-	-	-	-	-
Record and prerecorded tape stores .....	5735	27.6	27.8	27.3	26.8	-	-	-	-	-	-
Eating and drinking places <sup>4</sup> .....	58	26.6	26.3	25.7	26.3	-	-	-	-	-	-
Miscellaneous retail establishments .....	59	30.3	30.2	29.8	30.2	-	-	-	-	-	-
Drug stores and proprietary stores .....	591	28.1	28.0	27.9	28.3	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	29.6	29.4	28.7	29.4	-	-	-	-	-	-
Nonstore retailers .....	596	32.5	32.9	33.1	32.9	-	-	-	-	-	-
Fuel dealers .....	598	38.0	37.9	37.2	37.4	-	-	-	-	-	-
Retail stores, nec .....	599	31.8	31.9	31.2	31.3	-	-	-	-	-	-
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		36.2	35.8	35.8	36.2	35.7	-	-	-	-	-
Depository institutions .....	60	36.2	35.6	35.5	36.2	-	-	-	-	-	-
Commercial banks .....	602	36.3	35.5	35.3	36.0	-	-	-	-	-	-
Credit unions .....	606	36.2	35.9	35.8	36.3	-	-	-	-	-	-
Nondepository institutions .....	61	38.2	37.6	37.4	38.0	-	-	-	-	-	-
Personal credit institutions .....	614	37.8	37.6	37.6	38.2	-	-	-	-	-	-
Security and commodity brokers: Security and commodity services .....	628	37.9	37.5	37.3	37.4	-	-	-	-	-	-
Insurance carriers .....	63	37.4	37.1	37.3	37.7	-	-	-	-	-	-
Life insurance .....	631	37.4	37.1	37.0	37.2	-	-	-	-	-	-
Medical service and health insurance .....	632	37.6	37.6	38.2	38.5	-	-	-	-	-	-
Fire, marine, and casualty insurance .....	633	37.1	36.8	37.1	37.6	-	-	-	-	-	-
<b>Services</b> .....		33.0	32.8	32.7	33.0	32.9	-	-	-	-	-
Hotels and other lodging places: Hotels and motels <sup>4</sup> .....	701	32.2	31.9	31.0	31.8	-	-	-	-	-	-
Personal services: Laundry, cleaning, and garment services .....	721	34.2	34.0	34.4	34.2	-	-	-	-	-	-
Beauty shops <sup>4</sup> .....	723	29.6	29.5	29.4	29.2	-	-	-	-	-	-
Miscellaneous personal services .....	729	24.2	24.2	25.0	24.5	-	-	-	-	-	-
Business services .....	73	33.3	33.5	33.3	33.3	-	-	-	-	-	-
Advertising .....	731	37.1	36.7	36.6	36.9	-	-	-	-	-	-
Services to buildings .....	734	29.4	29.3	29.2	28.7	-	-	-	-	-	-
Personnel supply services: Help supply services .....	7363	30.2	31.1	31.1	30.9	-	-	-	-	-	-
Computer and data processing services .....	737	38.0	37.8	38.0	38.2	-	-	-	-	-	-
Miscellaneous business services .....	738	35.0	34.8	34.2	34.4	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>P</sup>	Aug. 1990 <sup>P</sup>
<b>Retail trade—Continued</b>											
Food stores .....	54	\$7.06	\$7.08	\$7.32	\$7.30	-	\$219.57	\$217.36	\$222.53	\$224.84	-
Grocery stores .....	541	7.15	7.17	7.41	7.39	-	223.80	221.55	226.75	229.09	-
Retail bakeries .....	546	6.02	6.02	6.35	6.28	-	180.00	178.79	184.79	185.26	-
Automotive dealers and service stations .....	55	8.67	8.65	9.02	9.05	-	317.32	315.73	329.23	331.23	-
New and used car dealers .....	551	10.81	10.78	11.25	11.38	-	403.21	399.94	419.63	424.47	-
Auto and home supply stores .....	553	7.60	7.58	7.83	7.77	-	293.36	294.10	302.24	302.25	-
Gasoline service stations .....	554	5.93	5.91	6.24	6.21	-	206.36	203.90	214.03	214.25	-
Automotive dealers, nec .....	559	10.79	10.70	10.71	10.75	-	393.84	387.34	376.99	384.85	-
Apparel and accessory stores .....	56	5.97	5.96	6.28	6.25	-	165.97	165.69	172.70	174.38	-
Men's and boys' clothing stores .....	561	7.38	7.31	7.73	7.75	-	217.71	211.99	225.72	229.40	-
Women's clothing stores .....	562	5.61	5.64	5.97	5.97	-	144.18	144.38	145.67	147.46	-
Family clothing stores .....	565	5.88	5.87	6.24	6.18	-	163.46	161.43	172.22	174.28	-
Shoe stores .....	566	6.00	5.97	6.17	6.11	-	179.40	179.70	191.27	190.63	-
Furniture and home furnishings stores .....	57	8.40	8.33	8.55	8.58	-	283.08	278.22	283.01	286.57	-
Furniture and home furnishings stores .....	571	8.19	8.20	8.43	8.40	-	277.64	277.16	284.09	285.60	-
Household appliance stores .....	572	8.61	8.52	8.77	8.83	-	290.16	284.57	293.80	297.57	-
Radio, television, and computer stores .....	573	8.70	8.51	8.70	8.83	-	290.58	279.13	279.27	286.09	-
Radio, television, and electronic stores .....	5731	8.72	8.59	8.75	8.75	-	288.63	279.18	278.25	282.63	-
Record and prerecorded tape stores .....	5735	5.07	5.02	5.06	5.57	-	139.93	139.56	138.14	149.28	-
Eating and drinking places <sup>4</sup> .....	58	4.72	4.74	4.96	4.96	-	125.55	124.66	127.47	130.45	-
Miscellaneous retail establishments .....	59	6.79	6.77	7.10	7.12	-	205.74	204.45	211.58	215.02	-
Drug stores and proprietary stores .....	591	6.51	6.42	6.72	6.74	-	182.93	179.76	187.49	190.74	-
Miscellaneous shopping goods stores .....	594	6.33	6.35	6.65	6.66	-	187.37	186.69	190.86	195.80	-
Nonstore retailers .....	596	7.83	7.77	8.01	8.01	-	254.48	255.63	265.13	263.53	-
Fuel dealers .....	598	9.20	9.16	9.68	9.68	-	349.60	347.16	360.10	362.03	-
Retail stores, nec .....	599	6.98	6.98	7.43	7.49	-	221.96	222.66	231.82	234.44	-
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		<b>9.56</b>	<b>9.47</b>	<b>9.90</b>	<b>10.00</b>	<b>\$9.93</b>	<b>346.07</b>	<b>339.03</b>	<b>354.42</b>	<b>362.00</b>	<b>\$354.50</b>
Depository institutions .....	60	8.17	8.08	8.47	8.52	-	295.75	287.65	300.69	308.42	-
Commercial banks .....	602	7.89	7.79	8.11	8.11	-	286.41	276.55	286.28	291.96	-
Credit unions .....	606	7.86	7.80	8.04	8.13	-	284.53	280.02	287.83	295.12	-
Nondepository institutions .....	61	9.83	9.76	10.33	10.46	-	375.51	366.98	386.34	397.48	-
Personal credit institutions .....	614	8.92	8.82	9.26	9.31	-	337.18	331.63	348.18	355.64	-
Security and commodity brokers:											
Security and commodity services .....	628	13.17	13.12	12.94	13.18	-	499.14	492.00	482.66	492.93	-
Insurance carriers .....	63	10.71	10.67	11.11	11.19	-	400.55	395.86	414.40	421.86	-
Life insurance .....	631	9.94	9.95	10.34	10.36	-	371.76	369.15	382.58	385.39	-
Medical service and health insurance .....	632	10.42	10.27	10.70	10.85	-	391.79	386.15	408.74	417.73	-
Fire, marine, and casualty insurance .....	633	11.42	11.46	11.94	11.99	-	423.68	421.73	442.97	450.82	-
<b>Services</b> .....		<b>9.34</b>	<b>9.30</b>	<b>9.75</b>	<b>9.78</b>	<b>9.76</b>	<b>308.22</b>	<b>305.04</b>	<b>318.83</b>	<b>322.74</b>	<b>321.10</b>
Hotels and other lodging places:											
Hotels and motels <sup>4</sup> .....	701	6.57	6.53	6.91	6.83	-	211.55	208.31	214.21	217.19	-
Personal services:											
Laundry, cleaning, and garment services .....	721	6.61	6.61	6.81	6.85	-	226.06	224.74	234.26	234.27	-
Beauty shops <sup>4</sup> .....	723	6.94	7.01	7.22	7.20	-	205.42	206.80	212.27	210.24	-
Miscellaneous personal services .....	729	7.12	7.12	7.22	7.32	-	172.30	172.30	180.50	179.34	-
Business services .....	73	9.19	9.09	9.52	9.62	-	306.03	304.52	317.02	320.35	-
Advertising .....	731	13.28	13.00	13.51	13.71	-	492.69	477.10	494.47	505.90	-
Services to buildings .....	734	7.22	7.13	7.31	7.41	-	212.27	208.91	213.45	212.67	-
Personnel supply services:											
Help supply services .....	7363	7.75	7.70	8.05	8.14	-	234.05	239.47	250.36	251.53	-
Computer and data processing services .....	737	14.37	14.25	14.99	15.15	-	546.06	538.65	569.62	578.73	-
Miscellaneous business services .....	738	7.65	7.65	7.91	7.93	-	267.75	266.22	270.52	272.79	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average weekly hours					Average overtime hours				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>a</sup>	Aug. 1990 <sup>a</sup>
<b>Services—Continued</b>											
Auto repair, services, and parking .....	75	37.2	37.3	37.2	37.2	-	-	-	-	-	-
Automotive repair shops .....	753	38.4	38.5	38.8	38.8	-	-	-	-	-	-
Miscellaneous repair services .....	76	38.3	38.1	38.2	38.4	-	-	-	-	-	-
Motion pictures .....	78	29.5	28.3	27.5	28.4	-	-	-	-	-	-
Motion picture production and services .....	781	37.0	34.6	35.9	35.7	-	-	-	-	-	-
Amusement and recreation services .....	79	29.5	29.1	27.9	28.8	-	-	-	-	-	-
Misc. amusement and recreation services .....	799	29.6	29.1	27.8	29.0	-	-	-	-	-	-
Health services .....	80	32.8	32.5	32.6	33.0	-	-	-	-	-	-
Offices and clinics of medical doctors .....	801	32.2	31.9	31.5	31.9	-	-	-	-	-	-
Offices and clinics of dentists .....	802	28.4	28.3	28.3	28.4	-	-	-	-	-	-
Nursing and personal care facilities .....	805	32.8	31.8	31.9	33.0	-	-	-	-	-	-
Hospitals .....	806	34.3	34.1	34.5	34.6	-	-	-	-	-	-
Home health care services .....	808	25.8	25.2	25.2	25.7	-	-	-	-	-	-
Legal services .....	81	35.3	34.9	34.9	35.4	-	-	-	-	-	-
Engineering and management services .....	87	37.2	37.1	37.2	37.4	-	-	-	-	-	-
Engineering and architectural services .....	871	38.9	38.9	39.2	39.1	-	-	-	-	-	-
Accounting, auditing, and bookkeeping .....	872	36.1	36.1	36.9	37.0	-	-	-	-	-	-
Research and testing services .....	873	36.8	37.0	36.0	36.7	-	-	-	-	-	-
Management and public relations .....	874	35.7	35.5	35.4	35.8	-	-	-	-	-	-
Services, nec .....	89	38.6	38.1	36.8	37.3	-	-	-	-	-	-

See footnotes at end of table.



**ESTABLISHMENT DATA  
HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-2. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by detailed industry—Continued**

Industry	1987 SIC Code	Average hourly earnings					Average weekly earnings				
		July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Services—Continued</b>											
Auto repair, services, and parking .....	75	\$8.46	\$8.51	\$8.76	\$8.80	-	\$314.71	\$317.42	\$325.87	\$327.36	-
Automotive repair shops .....	753	9.34	9.39	9.65	9.64	-	358.66	361.52	374.42	374.03	-
Miscellaneous repair services .....	76	9.98	9.93	10.28	10.35	-	382.23	378.33	392.70	397.44	-
Motion pictures .....	78	9.48	9.91	10.21	10.23	-	279.66	280.45	280.78	290.53	-
Motion picture production and services .....	781	15.21	15.84	15.82	16.01	-	562.77	548.06	567.94	571.56	-
Amusement and recreation services .....	79	7.21	7.16	7.88	7.70	-	212.70	208.36	219.85	221.76	-
Misc. amusement and recreation services .....	799	6.51	6.50	7.10	6.95	-	192.70	189.15	197.38	201.55	-
Health services .....	80	9.85	9.87	10.33	10.40	-	323.08	320.78	336.76	343.20	-
Offices and clinics of medical doctors .....	801	9.78	9.79	10.50	10.50	-	314.92	312.30	330.75	334.95	-
Offices and clinics of dentists .....	802	9.38	9.39	10.12	10.15	-	266.39	265.74	286.40	288.26	-
Nursing and personal care facilities .....	805	6.81	6.82	7.20	7.26	-	223.37	216.88	229.68	239.58	-
Hospitals .....	806	11.26	11.28	11.64	11.78	-	386.22	384.65	401.58	407.59	-
Home health care services .....	808	7.89	7.90	8.76	8.86	-	203.56	199.08	220.75	227.70	-
Legal services .....	81	13.66	13.33	14.16	14.36	-	482.20	465.22	494.18	508.34	-
Engineering and management services .....	87	13.14	12.95	13.46	13.65	-	488.81	480.45	500.71	510.51	-
Engineering and architectural services .....	871	14.09	13.89	14.54	14.71	-	548.10	540.32	569.97	575.16	-
Accounting, auditing, and bookkeeping .....	872	11.98	11.74	12.16	12.36	-	432.48	423.81	448.70	457.32	-
Research and testing services .....	873	13.60	13.47	13.87	14.07	-	500.48	498.39	499.32	516.37	-
Management and public relations .....	874	12.15	11.97	12.45	12.62	-	433.76	424.94	440.73	451.80	-
Services, nec .....	89	12.89	12.65	13.61	13.89	-	497.55	481.97	500.85	518.10	-

<sup>1</sup> 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.

<sup>2</sup> See table C-2a for average hourly earnings in aircraft (SIC 3721) and guided missiles and space vehicles (SIC 3761) manufacturing.

<sup>3</sup> Data relate to line-haul railroads with operating revenues of \$50,000,000 or more.

<sup>4</sup> Money payments only; tips, not included.

<sup>5</sup> Data for nonoffice sales agents are excluded from the nonsupervisory count for all series in this division.

- Data not available.

<sup>p</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial Classification (SIC) system. See the article in this issue for additional information.

# A Note on Average Hourly Earnings in Aircraft (SIC 3721) and Guided Missiles and Space Vehicles (SIC 3761) Manufacturing

For many years, the Bureau of Labor Statistics' average hourly earnings series for production workers in aircraft manufacturing (SIC 3721) and guided missiles and space vehicles manufacturing (SIC 3761) have been used to escalate labor costs in contracts between aerospace companies and their customers. Although the Bureau's series by definition take account of traditional wage rate changes, they do not capture "lump-sum payments to workers in lieu of general wage increases" which were negotiated in aerospace manufacturers' collective bargaining agreements beginning in late 1983.

Because of special circumstances in the aerospace industry, BLS has calculated average hourly earnings series for SIC 3721 and SIC 3761 which include lump-sum payments. These series, beginning in October 1983, the effective date of the first aerospace bargain-

ing agreement using lump-sum payments, were published in the June 1988 issue of *Employment and Earnings*. Current and year earlier data are presented in table C-2a along with the average hourly earnings series produced as part of the Current Employment Statistics program. An explanation of the methodology used to derive these series appears in the Explanatory Notes of this publication.

Lump-sum payments are but one of several recent changes in the way that employees are compensated. The changes are widespread and they differ by industry. Because of these developments, the Bureau is conducting a broad-based review of all concepts and definitions used in its earnings and wage programs to determine the proper treatment of lump-sum payments and other new compensation practices.

**C-2a. Average hourly earnings in aircraft (SIC 3721) and guided missiles and space vehicles (SIC 3761) manufacturing**

Series	Aircraft (SIC 3721)				Guided missiles and space vehicles (SIC 3761)			
	June 1989	July 1989	June 1990	July 1990 <sup>p</sup>	June 1989	July 1989	June 1990	July 1990 <sup>p</sup>
Average hourly earnings, excluding lump-sum payments .....	\$14.73	\$14.86	\$15.67	\$15.54	\$14.16	\$14.17	\$14.74	\$14.92
Average hourly earnings, including lump-sum payments .....	15.18	15.31	16.40	16.29	14.62	14.64	15.19	15.37

<sup>p</sup> = preliminary.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-3. Average hourly earnings, excluding overtime,<sup>1</sup> of production workers on manufacturing payrolls**

Industry	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Manufacturing</b> .....	\$10.04	\$9.99	\$10.37	\$10.41	\$10.34
<b>Durable goods</b> .....	10.53	10.50	10.86	10.89	10.86
Lumber and wood products .....	8.52	8.51	8.69	8.77	(?)
Furniture and fixtures .....	8.01	8.01	8.26	8.26	(?)
Stone, clay, and glass products .....	10.19	10.18	10.51	10.57	(?)
Primary metal industries .....	11.78	11.72	12.14	12.26	(?)
Fabricated metal products .....	10.13	10.09	10.37	10.39	(?)
Industrial machinery and equipment .....	10.86	10.85	11.22	11.27	(?)
Electronic and other electrical equipment .....	9.73	9.68	9.89	9.97	(?)
Transportation equipment .....	12.95	13.00	13.46	13.40	(?)
Instruments and related products .....	10.53	10.55	10.90	11.00	(?)
Miscellaneous manufacturing .....	8.05	7.94	8.36	8.38	(?)
<b>Nondurable goods</b> .....	9.36	9.29	9.69	9.75	\$9.65
Food and kindred products .....	8.87	8.79	9.16	9.13	(?)
Tobacco products .....	16.05	15.53	16.81	17.09	(?)
Textile mill products .....	7.29	7.31	7.65	7.67	(?)
Apparel and other textile products .....	6.15	6.17	6.47	6.45	(?)
Paper and allied products .....	11.47	11.36	11.61	11.71	(?)
Printing and publishing .....	10.48	10.49	10.79	10.86	(?)
Chemicals and allied products .....	12.51	12.47	12.85	12.93	(?)
Petroleum and coal products .....	14.39	14.25	15.17	15.20	(?)
Rubber and misc. plastics products .....	9.09	9.07	9.33	9.44	(?)
Leather and leather products .....	6.40	6.39	6.74	6.64	(?)

<sup>1</sup> Derived by assuming that overtime hours are paid at the rate of time and one-half.

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial Classification (SIC) system. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-4. Average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry, in current and constant (1982) dollars**

Industry	Average hourly earnings					Average weekly earnings				
	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>	July 1989	Aug. 1989	June 1990	July 1990 <sup>p</sup>	Aug. 1990 <sup>p</sup>
<b>Total private:</b>										
Current dollars .....	\$9.64	\$9.61	\$9.98	\$10.00	\$9.99	\$337.40	\$335.39	\$347.30	\$349.00	\$347.65
Constant (1982) dollars .....	7.58	7.56	7.54	7.53	( <sup>2</sup> )	265.46	263.88	262.31	262.80	( <sup>2</sup> )
<b>Mining:</b>										
Current dollars .....	13.06	13.22	13.66	13.65	\$13.59	561.58	575.07	606.50	595.14	\$597.96
Constant (1982) dollars .....	10.28	10.40	10.32	10.28	( <sup>2</sup> )	441.84	452.45	458.08	448.15	( <sup>2</sup> )
<b>Construction:</b>										
Current dollars .....	13.49	13.51	13.63	13.70	\$13.74	524.76	525.54	532.93	524.71	\$535.86
Constant (1982) dollars .....	10.61	10.63	10.29	10.32	( <sup>2</sup> )	412.87	413.49	402.52	395.11	( <sup>2</sup> )
<b>Manufacturing:</b>										
Current dollars .....	10.49	10.46	10.85	10.88	\$10.84	425.89	427.81	445.94	440.64	\$443.36
Constant (1982) dollars .....	8.25	8.23	8.19	8.19	( <sup>2</sup> )	335.08	336.59	336.81	331.81	( <sup>2</sup> )
<b>Transportation and public utilities:</b>										
Current dollars .....	12.63	12.61	12.86	12.96	\$12.95	496.36	490.53	506.68	510.62	\$510.23
Constant (1982) dollars .....	9.94	9.92	9.71	9.76	( <sup>2</sup> )	390.53	385.94	382.69	384.50	( <sup>2</sup> )
<b>Wholesale trade:</b>										
Current dollars .....	10.41	10.36	10.76	10.83	\$10.75	397.66	393.68	411.03	414.79	\$408.50
Constant (1982) dollars .....	8.19	8.15	8.13	8.16	( <sup>2</sup> )	312.87	309.74	310.45	312.34	( <sup>2</sup> )
<b>Retail trade:</b>										
Current dollars .....	6.48	6.49	6.75	6.74	\$6.75	193.10	192.10	197.78	200.18	\$198.45
Constant (1982) dollars .....	5.10	5.11	5.10	5.08	( <sup>2</sup> )	151.93	151.14	149.38	150.74	( <sup>2</sup> )
<b>Finance, insurance, and real estate:</b>										
Current dollars .....	9.56	9.47	9.90	10.00	\$9.93	346.07	339.03	354.42	362.00	\$354.50
Constant (1982) dollars .....	7.52	7.45	7.48	7.53	( <sup>2</sup> )	272.28	266.74	267.69	272.59	( <sup>2</sup> )
<b>Services:</b>										
Current dollars .....	9.34	9.30	9.75	9.78	\$9.76	308.22	305.04	318.83	322.74	\$321.10
Constant (1982) dollars .....	7.35	7.32	7.36	7.36	( <sup>2</sup> )	242.50	240.00	240.81	243.03	( <sup>2</sup> )

<sup>1</sup> 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.

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: The Consumer Price Index for Urban Wage Earners and

Clerical Workers (CPI-W) is used to deflate the earnings series. Data in this table have been revised to reflect March 1989 benchmarks and conversion to the 1987 Standard Industrial Classification (SIC) system. In addition, the base year for the constant-dollar series has been converted to 1982=100. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

**C-5. Average weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry and manufacturing group, seasonally adjusted**

Industry	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>	Aug. <sup>p</sup>
<b>Total private</b> .....	34.5	34.6	34.6	34.5	34.4	34.4	34.6	34.6	34.5	34.5	34.7	34.5	34.5
<b>Mining</b> .....	43.4	43.7	43.6	43.7	43.0	43.6	43.7	43.5	43.4	43.6	44.4	43.7	43.9
<b>Construction</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Manufacturing</b> .....	41.0	40.9	40.8	40.7	40.6	40.7	40.8	40.8	40.7	40.9	41.0	40.9	41.0
<i>Overtime hours</i> .....	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.7	3.5	3.8	3.8	3.8	3.9
<b>Durable goods</b> .....	41.6	41.5	41.3	41.2	41.2	41.3	41.3	41.4	41.2	41.5	41.6	41.6	41.6
<i>Overtime hours</i> .....	3.9	3.8	3.7	3.7	3.7	3.6	3.6	3.8	3.5	3.9	3.9	3.9	4.0
Lumber and wood products .....	40.1	40.1	40.3	40.2	40.0	40.4	40.1	40.4	40.2	40.4	40.3	40.2	40.4
Furniture and fixtures .....	39.5	39.5	39.2	39.4	39.1	39.6	39.3	39.2	39.0	39.2	39.3	39.5	39.2
Stone, clay, and glass products .....	42.5	42.2	42.4	42.4	41.6	42.3	42.2	42.0	42.0	42.1	42.3	41.8	42.3
Primary metal industries .....	42.8	42.6	42.5	42.5	42.5	42.6	42.5	42.7	41.8	43.0	43.0	43.1	42.9
Blast furnaces and basic steel products ..	43.3	43.1	42.8	43.0	42.9	43.1	42.9	43.0	42.9	43.5	43.3	44.1	43.6
Fabricated metal products .....	41.5	41.5	41.4	41.3	41.2	41.1	41.4	41.5	41.2	41.7	41.6	41.8	41.6
Industrial machinery and equipment .....	42.3	42.2	42.1	42.2	42.1	42.1	42.1	42.0	41.8	42.1	42.0	42.1	42.0
Electronic and other electrical equipment ..	41.0	41.0	41.0	40.8	40.5	40.9	41.1	41.0	40.9	40.9	41.0	40.8	40.8
Transportation equipment .....	42.5	42.7	41.3	41.0	41.7	41.5	41.6	42.0	41.9	42.5	42.6	42.8	43.1
Motor vehicles and equipment .....	42.8	43.0	42.7	42.3	42.2	41.0	41.5	42.3	41.8	43.4	43.7	43.6	44.1
Instruments and related products .....	41.0	40.9	41.0	41.0	41.0	40.9	41.0	41.1	41.2	41.1	41.2	41.3	41.2
Miscellaneous manufacturing .....	39.4	39.2	39.3	39.7	39.3	39.5	39.5	39.4	39.2	39.4	39.4	39.4	39.4
<b>Nondurable goods</b> .....	40.2	40.2	40.1	40.1	40.0	40.0	40.0	40.0	40.0	40.1	40.3	40.1	40.2
<i>Overtime hours</i> .....	3.6	3.7	3.6	3.6	3.6	3.5	3.5	3.6	3.4	3.6	3.6	3.6	3.7
Food and kindred products .....	40.7	40.9	40.8	40.8	40.7	40.6	40.6	40.7	40.6	40.8	40.9	40.6	41.1
Tobacco products .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Textile mill products .....	41.0	40.6	40.6	40.4	40.2	40.3	40.2	40.0	40.0	40.2	40.4	40.1	40.0
Apparel and other textile products .....	36.9	36.8	36.9	36.8	36.4	36.6	36.6	36.3	36.4	36.6	36.7	36.6	36.6
Paper and allied products .....	43.5	43.2	43.3	43.4	43.2	43.2	43.1	43.2	43.3	43.3	43.5	43.5	43.7
Printing and publishing .....	37.8	38.0	37.8	37.9	37.7	37.9	37.9	38.0	37.8	37.9	38.0	37.9	38.1
Chemicals and allied products .....	42.4	42.5	42.5	42.4	42.6	42.7	42.4	42.5	42.6	42.6	42.6	42.3	42.5
Petroleum and coal products .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Rubber and misc. plastics products .....	41.2	41.1	41.1	41.1	40.9	40.8	41.2	41.4	40.9	41.4	41.6	41.5	41.1
Leather and leather products .....	38.1	38.2	37.7	37.6	37.4	37.4	37.7	37.7	37.5	37.4	37.5	37.3	37.6
<b>Transportation and public utilities</b> .....	38.6	38.8	38.8	38.6	38.6	38.3	38.7	39.0	39.0	39.1	39.2	39.0	39.1
<b>Wholesale trade</b> .....	38.0	38.1	38.1	38.1	38.1	38.0	38.0	38.1	38.1	38.0	38.1	38.1	38.0
<b>Retail trade</b> .....	28.9	28.9	28.9	28.8	28.8	28.8	28.9	29.0	29.0	29.0	29.0	28.9	28.7
<b>Finance, insurance, and real estate</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Services</b> .....	32.5	32.6	32.7	32.6	32.6	32.5	32.6	32.5	32.6	32.5	32.6	32.6	32.6

<sup>1</sup> 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.

<sup>2</sup> These series are not published seasonally adjusted because the seasonal components are small relative to the trend-cycle and/or irregular

components and consequently cannot be separated with sufficient precision.  
<sup>p</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

**C-6. Indexes of aggregate weekly hours of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls by major industry and manufacturing group, seasonally adjusted**

(1982=100)

Industry	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>P</sup>	Aug. <sup>P</sup>
<b>Total private</b> .....	122.8	123.2	123.4	123.5	123.3	123.6	124.4	124.4	124.2	124.6	125.3	124.8	124.6
<b>Goods-producing</b> .....	112.4	111.9	111.6	111.6	110.4	111.1	112.1	111.5	110.1	111.2	111.7	110.5	110.5
<b>Mining</b> .....	62.4	62.9	63.1	63.8	63.0	64.4	64.9	64.9	65.2	65.9	68.0	66.7	65.9
<b>Construction</b> .....	141.0	140.6	141.7	143.0	138.1	144.9	147.7	144.6	138.6	142.1	144.3	138.5	139.6
<b>Manufacturing</b> .....	109.6	109.0	108.3	108.0	107.6	106.8	107.6	107.5	107.0	107.5	107.6	107.4	107.2
<b>Durable goods</b> .....	109.7	108.9	107.9	107.4	107.1	105.9	107.2	107.3	106.5	107.3	107.1	107.2	106.5
Lumber and wood products .....	132.2	131.5	132.6	132.1	131.4	133.0	131.5	132.5	131.7	131.9	130.5	129.7	129.7
Furniture and fixtures .....	130.1	129.5	127.9	128.2	126.6	128.2	127.0	126.6	125.4	125.7	126.0	125.8	124.8
Stone, clay, and glass products .....	113.9	112.3	113.3	113.6	111.2	113.3	113.3	111.7	110.7	110.5	110.5	108.2	109.2
Primary metal industries .....	95.5	94.3	93.6	93.1	92.8	92.4	92.6	92.7	90.9	93.5	93.5	94.3	93.2
Blast furnaces and basic steel products .....	83.2	82.8	81.4	81.0	81.1	81.4	80.3	79.3	79.1	81.2	80.4	81.9	81.0
Fabricated metal products .....	110.1	109.6	108.9	108.3	107.7	106.1	107.4	107.7	107.2	108.3	107.8	108.6	108.0
Industrial machinery and equipment .....	100.6	100.0	99.2	99.8	99.5	99.7	99.4	98.8	98.2	98.9	98.4	98.5	97.7
Electronic and other electrical equipment .....	112.6	112.2	111.9	110.8	109.4	110.1	110.3	110.2	109.7	109.5	109.6	108.2	107.3
Transportation equipment .....	126.2	125.1	120.2	118.4	120.7	110.9	119.8	121.1	120.2	121.8	123.3	124.3	123.8
Motor vehicles and equipment .....	138.4	136.0	132.3	128.6	128.7	105.2	125.5	128.3	123.4	131.2	133.7	133.2	134.3
Instruments and related products .....	89.2	88.5	88.5	88.0	87.5	87.9	88.2	88.4	88.4	87.7	87.2	87.0	86.5
Miscellaneous manufacturing .....	105.3	104.0	104.3	104.6	104.3	105.9	105.6	104.6	102.9	104.2	102.7	103.8	102.7
<b>Nondurable goods</b> .....	109.4	109.2	109.0	108.8	108.3	108.2	108.0	107.8	107.6	107.9	108.2	107.7	108.1
Food and kindred products .....	108.2	109.1	108.9	108.8	108.4	108.4	108.3	108.5	108.7	109.2	108.7	108.3	110.0
Tobacco products .....	67.2	69.3	68.8	68.3	65.8	66.9	67.6	68.1	64.7	65.8	64.3	66.5	66.4
Textile mill products .....	106.6	104.9	104.9	103.9	103.1	103.0	102.2	101.2	101.2	100.9	101.2	100.3	99.9
Apparel and other textile products .....	98.2	97.5	97.3	96.8	95.5	95.2	94.4	92.7	92.9	92.9	93.0	92.5	92.5
Paper and allied products .....	110.9	109.9	110.2	110.5	110.2	110.4	110.3	110.4	110.8	110.4	111.4	111.6	112.5
Printing and publishing .....	126.6	127.1	126.4	127.2	127.0	128.0	128.1	128.4	127.6	128.1	128.6	128.4	129.4
Chemicals and allied products .....	104.8	104.9	105.0	104.8	105.3	105.4	104.4	104.3	104.6	104.6	104.4	103.9	103.7
Petroleum and coal products .....	86.1	86.5	87.5	88.4	87.9	86.9	88.4	89.2	88.0	88.0	93.0	87.6	87.9
Rubber and misc. plastics products .....	128.3	127.5	126.9	126.4	125.4	124.3	125.0	125.6	124.6	126.0	127.3	127.4	126.2
Leather and leather products .....	65.5	65.7	64.3	64.1	62.6	62.6	63.1	63.1	62.2	61.5	61.1	59.6	59.5
<b>Service-producing</b> .....	127.5	128.2	128.8	128.8	129.1	129.3	129.9	130.2	130.5	130.6	131.4	131.2	131.0
<b>Transportation and public utilities</b> .....	109.2	111.5	112.0	111.8	113.4	112.9	114.2	115.3	115.2	116.0	116.7	115.8	116.1
<b>Wholesale trade</b> .....	118.0	118.4	118.7	119.0	119.1	119.2	119.1	119.4	119.3	118.9	119.8	119.6	119.3
<b>Retail trade</b> .....	123.7	123.8	123.9	123.8	123.8	124.4	124.4	124.9	125.0	125.1	125.3	125.0	123.9
<b>Finance, insurance, and real estate</b> .....	120.7	120.7	121.8	121.1	121.0	121.4	122.2	122.3	122.6	122.5	122.9	123.1	123.0
<b>Services</b> .....	140.4	141.4	142.1	142.4	142.8	142.8	143.8	143.9	144.4	144.6	145.8	145.9	146.2

<sup>1</sup> 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.

<sup>P</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. In addition, the base year for the indexes has been converted to 1982=100.

**ESTABLISHMENT DATA  
EARNINGS  
SEASONALLY ADJUSTED**

**C-7. Average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonfarm payrolls, seasonally adjusted**

Industry	1989					1990							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July <sup>p</sup>	Aug. <sup>p</sup>
<b>Average hourly earnings</b>													
<b>Total private</b> (in current dollars) .....	\$9.70	\$9.73	\$9.78	\$9.78	\$9.83	\$9.82	\$9.88	\$9.93	\$9.96	\$9.98	\$10.03	\$10.07	\$10.09
<b>Mining</b> .....	13.30	13.31	13.32	13.32	13.40	13.33	13.33	13.51	13.59	13.58	13.73	13.75	13.69
<b>Construction</b> .....	13.55	13.56	13.61	13.66	13.76	13.55	13.63	13.66	13.62	13.71	13.73	13.76	13.78
<b>Manufacturing</b> .....	10.53	10.55	10.57	10.58	10.62	10.57	10.67	10.73	10.75	10.81	10.86	10.89	10.92
<b>Excluding overtime</b> <sup>2</sup> .....	10.07	10.09	10.10	10.12	10.17	10.13	10.22	10.28	10.34	10.35	10.38	10.40	10.41
<b>Transportation and public utilities</b> .....	12.65	12.68	12.71	12.65	12.73	12.78	12.83	12.87	12.96	12.88	12.92	12.99	12.99
<b>Wholesale trade</b> .....	10.42	10.48	10.54	10.55	10.60	10.57	10.62	10.67	10.74	10.74	10.80	10.85	10.81
<b>Retail trade</b> .....	6.56	6.57	6.60	6.61	6.64	6.68	6.69	6.73	6.74	6.76	6.78	6.79	6.82
<b>Finance, insurance, and real estate</b> .....	9.56	9.65	9.72	9.66	9.75	9.73	9.77	9.82	9.88	9.87	9.98	10.08	10.03
<b>Services</b> .....	9.44	9.49	9.55	9.55	9.61	9.63	9.67	9.72	9.79	9.80	9.85	9.91	9.91
<b>Total private</b> (in constant dollars) <sup>3</sup> .....	7.64	7.64	7.65	7.62	7.63	7.54	7.55	7.56	7.57	7.58	7.58	7.58	( <sup>4</sup> )
<b>Average weekly earnings</b>													
<b>Total private:</b>													
In current dollars .....	334.65	336.66	338.39	337.41	338.15	337.81	341.85	343.58	343.62	344.31	348.04	347.42	348.11
In constant (1982) dollars <sup>3</sup> .....	263.71	264.25	264.57	262.99	262.54	259.45	261.35	261.48	261.31	261.63	262.87	261.61	( <sup>4</sup> )

<sup>1</sup> 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.

<sup>2</sup> Derived by assuming that overtime hours are paid at the rate of time and one-half.

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

<sup>4</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: Data in this table have been revised to reflect March 1989 benchmarks, conversion to the 1987 Standard Industrial Classification (SIC) system, and updated seasonal adjustment factors. In addition, the base year for the constant-dollar series has been converted to 1982=100. See the article in this issue for additional information.

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Alabama</b> .....	40.6	41.4	40.8	\$9.00	\$9.38	\$9.36	\$365.40	\$388.33	\$381.89
Birmingham .....	40.2	41.1	37.3	9.48	9.63	9.59	381.10	395.79	357.71
Mobile .....	41.7	42.9	41.3	11.11	11.21	11.36	463.29	480.91	469.17
<b>Alaska</b> .....	46.9	44.4	52.9	10.93	12.97	10.87	512.62	575.87	575.02
<b>Arizona</b> .....	40.7	40.7	40.7	10.06	10.16	10.30	409.44	413.51	419.21
<b>Arkansas</b> .....	40.8	41.0	40.9	8.31	8.57	8.60	339.05	351.37	351.74
Fayetteville-Springdale .....	41.3	40.6	41.0	7.33	7.79	7.67	302.73	316.27	314.47
Fort Smith .....	39.5	40.1	40.3	8.78	8.72	8.74	346.81	349.67	352.22
Little Rock-North Little Rock .....	41.8	41.6	42.2	8.99	9.06	9.13	375.78	376.90	385.29
Pine Bluff .....	43.9	44.6	44.8	10.26	11.13	10.76	450.41	496.40	482.05
<b>California</b> .....	40.3	40.7	40.4	11.25	11.49	11.55	453.38	467.64	466.62
Anaheim-Santa Ana .....	40.6	41.2	40.8	11.43	11.75	11.79	464.06	484.10	481.03
Bakersfield .....	40.4	40.7	40.3	12.14	12.18	12.27	490.46	495.73	494.48
Fresno .....	38.1	40.2	40.8	9.34	9.36	9.26	355.85	376.27	377.81
Los Angeles-Long Beach .....	40.5	40.8	40.1	10.67	10.90	10.87	432.14	444.72	435.89
Modesto .....	40.8	40.3	38.8	10.35	10.74	10.80	422.28	432.82	419.04
Oakland .....	41.2	41.2	40.9	13.32	13.51	13.63	548.78	556.61	557.47
Oxnard-Ventura .....	40.4	41.5	40.1	10.77	10.82	10.89	435.11	449.03	436.69
Riverside-San Bernardino .....	39.6	40.0	40.5	10.06	10.43	10.42	398.38	417.20	422.01
Sacramento .....	39.5	40.4	40.9	11.50	11.77	11.93	454.25	475.51	487.94
San Diego .....	40.5	40.9	41.0	11.28	11.55	11.62	456.84	472.40	476.42
San Francisco .....	37.6	40.2	39.9	13.14	13.05	12.98	494.06	524.61	517.90
San Jose .....	40.2	41.0	41.0	13.28	13.54	13.52	533.86	555.14	554.32
Santa Barbara-Santa Maria-Lompoc .....	39.4	40.5	40.2	11.33	11.81	11.90	446.40	478.31	478.38
Santa Rosa-Petaluma .....	38.8	37.7	38.9	10.79	11.43	11.34	418.65	430.91	441.13
Stockton .....	41.3	41.7	41.8	11.08	11.23	11.16	457.60	468.29	466.49
Vallejo-Fairfield-Napa .....	43.6	38.8	41.7	13.18	13.20	13.17	574.65	512.16	549.19
<b>Colorado</b> .....	40.3	41.7	41.0	10.49	10.92	11.05	422.75	455.36	453.05
Denver .....	39.9	41.2	39.6	11.53	12.40	12.62	460.05	510.88	499.75
<b>Connecticut</b> .....	41.7	42.3	42.2	11.31	11.47	11.54	471.63	485.18	486.99
Bridgeport-Milford .....	40.6	41.7	41.9	11.73	12.16	12.40	476.24	507.07	519.56
Hartford .....	42.5	42.4	42.2	11.95	12.39	12.47	507.88	525.34	526.23
New Britain .....	41.4	42.4	42.0	11.92	12.21	12.40	493.49	517.70	520.80
New Haven-Meriden .....	40.0	41.4	41.5	11.01	11.04	11.10	440.40	457.06	460.65
Stamford .....	42.0	40.7	40.9	11.65	12.36	12.30	489.30	503.05	503.07
Waterbury .....	38.9	41.8	43.0	10.51	10.59	10.00	408.84	442.66	430.00
<b>Delaware</b> .....	42.0	42.1	41.2	12.05	12.69	12.69	506.10	534.25	522.83
Wilmington .....	43.7	42.9	43.8	15.25	15.68	15.92	666.43	672.67	697.30
<b>District of Columbia:</b>									
Washington MSA .....	39.0	39.2	39.5	11.69	12.51	12.60	455.91	490.39	497.70
<b>Florida</b> .....	40.1	41.1	40.3	8.70	8.99	9.01	348.87	369.49	363.10
Fort Lauderdale-Hollywood-Pompano Beach .....	40.9	41.5	40.6	8.66	8.91	9.05	354.19	369.77	367.43
Jacksonville .....	41.7	40.3	41.4	9.28	9.45	9.64	386.98	380.84	399.10
Miami-Hialeah .....	39.2	40.3	38.8	7.25	7.49	7.57	284.20	301.85	293.72
Orlando .....	41.1	41.6	40.8	9.91	10.42	10.39	407.30	433.47	423.91
Pensacola .....	43.2	44.4	43.8	10.90	11.68	11.59	470.88	518.59	507.64
Tampa-St. Petersburg-Clearwater .....	39.4	41.0	40.9	8.90	9.49	9.46	350.66	389.09	386.91
West Palm Beach-Boca Raton-DeLray Beach .....	41.0	39.5	39.0	9.40	9.62	9.46	385.40	379.99	368.94
<b>Georgia</b> .....	41.0	41.4	41.3	8.81	9.13	9.16	361.21	377.98	378.31
Atlanta .....	40.9	42.1	42.0	10.04	10.43	10.52	410.64	439.10	441.84
Savannah .....	44.2	47.3	49.4	11.58	11.56	11.52	511.84	546.79	569.09
<b>Hawaii</b> .....	39.4	39.9	40.1	10.48	10.97	11.17	412.91	437.70	447.92
Honolulu .....	38.9	39.7	40.5	10.59	11.32	11.41	411.95	449.40	462.11
<b>Idaho</b> .....	39.3	38.0	40.4	10.25	10.69	10.68	402.83	406.22	431.47

See footnotes at end of table.



**ESTABLISHMENT DATA**  
**STATE AND AREA HOURS AND EARNINGS**  
**NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Illinois</b> .....	41.0	42.0	41.2	\$11.23	\$11.42	\$11.42	\$460.43	\$479.64	\$470.50
Aurora-Elgin .....	41.1	41.9	40.7	10.68	10.92	10.91	438.95	457.55	444.04
Bloomington-Normal .....	40.3	41.3	40.8	11.79	12.74	12.74	475.14	528.16	519.79
Champaign-Urbana-Rantoul .....	39.4	39.5	39.9	9.76	9.59	9.63	384.54	378.81	384.24
Chicago .....	41.5	41.8	41.1	10.92	11.17	11.25	453.18	466.91	462.38
Davenport-Rock Island-Moline .....	39.8	41.2	41.1	13.05	13.44	13.26	519.39	553.73	544.99
Decatur .....	44.6	43.0	42.1	14.31	14.83	14.96	638.23	637.69	629.82
Joliet .....	41.8	42.7	41.6	12.50	12.97	12.82	522.50	553.82	533.31
Kankakee .....	38.0	43.4	42.0	11.89	12.00	12.03	451.82	520.80	505.26
Lake County .....	38.9	40.8	39.4	11.54	11.62	11.57	448.91	474.10	455.88
Peoria .....	43.6	43.2	42.5	13.53	13.98	13.98	589.91	603.94	594.15
Rockford .....	41.2	42.7	41.7	11.67	12.75	12.17	480.80	544.43	507.49
Springfield .....	38.7	37.1	36.2	10.30	10.46	10.48	398.81	388.07	379.38
<b>Indiana</b> .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
<b>Iowa</b> .....	39.7	40.4	40.2	10.88	11.23	11.35	431.94	453.69	456.27
Cedar Rapids .....	38.8	38.8	39.5	12.71	13.83	13.96	493.15	538.60	551.42
Des Moines .....	40.0	38.6	39.7	11.92	12.35	12.68	476.80	476.71	503.40
Dubuque .....	40.1	40.9	41.1	11.91	12.06	12.26	477.59	493.25	503.89
Sioux City .....	40.5	39.7	39.3	8.97	8.95	8.86	363.29	355.32	348.20
<b>Kansas</b> .....	39.9	40.7	40.1	10.61	10.82	10.90	423.34	440.37	437.09
Topeka .....	38.6	39.2	39.0	11.95	12.23	12.38	461.27	479.42	482.82
Wichita .....	40.9	40.2	39.8	11.41	11.99	12.00	466.67	482.00	477.60
<b>Kentucky</b> .....	39.3	40.1	39.9	10.41	10.72	10.75	409.11	429.87	428.93
Lexington-Fayette .....	39.9	41.3	40.5	10.50	11.15	11.16	418.95	460.50	451.98
Louisville .....	39.7	40.4	41.8	11.97	12.46	12.34	475.21	503.38	515.81
<b>Louisiana</b> .....	42.1	43.6	42.8	11.11	11.69	11.90	467.73	509.68	509.32
Baton Rouge .....	44.0	43.5	44.2	12.91	13.39	13.78	568.04	582.47	609.08
New Orleans .....	40.9	42.5	41.0	10.78	11.24	11.45	440.90	477.70	469.45
Shreveport .....	40.2	43.1	44.2	11.06	11.59	11.94	444.61	499.53	527.75
<b>Maine</b> .....	39.2	40.2	39.1	10.24	10.43	10.66	401.41	419.29	416.81
Lewiston-Auburn .....	38.5	40.1	39.1	8.54	9.00	9.34	328.79	360.90	365.19
Portland .....	37.2	38.5	36.0	10.45	10.68	10.85	388.74	411.18	390.60
<b>Maryland</b> .....	41.0	40.9	40.8	11.16	11.69	11.68	457.56	478.12	476.54
Baltimore MSA .....	41.1	41.3	41.2	11.54	12.23	12.23	474.29	505.10	503.88
<b>Massachusetts</b> .....	40.6	40.7	40.5	10.99	11.30	11.35	446.19	459.91	459.68
Boston .....	40.2	40.5	40.3	11.74	12.03	11.95	471.95	487.22	481.59
Springfield .....	40.9	41.6	41.3	10.56	10.82	10.83	431.90	450.11	447.28
Worcester .....	40.9	41.3	41.3	10.81	10.98	11.09	442.13	453.47	458.02
<b>Michigan</b> .....	41.0	43.1	41.4	13.31	13.93	13.77	545.71	600.38	570.08
Ann Arbor .....	44.0	44.1	42.1	14.21	15.52	14.61	625.24	684.43	615.08
Battle Creek .....	43.4	42.7	42.4	14.84	15.15	14.98	644.06	646.90	635.15
Detroit .....	41.0	43.8	41.5	14.33	14.95	14.79	587.53	654.81	613.78
Flint .....	41.4	43.7	42.6	17.09	17.83	17.61	707.53	770.43	750.19
Grand Rapids .....	40.2	41.8	40.9	11.64	11.75	11.74	467.93	491.15	480.17
Jackson .....	40.0	41.3	39.3	10.88	11.12	11.18	435.20	459.26	439.37
Kalamazoo .....	41.3	41.2	40.7	12.98	13.92	13.91	536.07	573.50	566.14
Lansing-East Lansing .....	39.0	43.0	40.1	14.37	16.10	15.79	560.43	892.30	633.18
Muskegon .....	39.4	40.7	39.9	12.27	12.36	12.59	483.44	503.05	502.34
Saginaw-Bay City-Midland .....	42.6	44.3	43.2	15.18	16.29	15.88	646.67	721.65	686.02
<b>Minnesota</b> .....	40.2	40.1	40.1	10.91	11.24	11.19	438.58	450.72	448.72
Duluth .....	37.9	42.8	39.1	11.63	11.48	11.77	440.78	491.34	460.21
Minneapolis-St. Paul .....	40.0	40.2	39.8	11.56	11.89	11.86	462.40	477.98	472.03
St. Cloud .....	41.4	40.9	40.6	10.24	9.88	10.00	423.94	404.09	406.00
<b>Mississippi</b> .....	39.1	39.9	39.0	7.96	8.38	8.36	311.24	334.36	326.04
Jackson .....	39.2	41.4	39.7	9.03	9.40	9.37	353.98	389.16	371.99

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>
<b>Missouri</b> .....	40.1	41.0	40.7	\$10.36	\$10.78	\$10.82	\$415.44	\$441.98	\$440.37
Kansas City .....	40.5	41.2	40.1	11.67	11.59	11.63	472.64	477.51	466.36
St. Louis .....	40.5	42.4	42.0	12.29	13.01	12.90	497.75	551.62	541.80
Springfield .....	41.3	41.0	41.5	9.15	9.25	9.33	377.90	379.25	387.20
<b>Montana</b> .....	38.7	38.8	38.7	11.35	11.47	11.63	439.25	442.74	450.08
<b>Nebraska</b> .....	40.8	41.2	40.7	9.51	9.70	9.73	386.11	399.64	396.01
Lincoln .....	39.1	40.1	39.1	10.59	11.10	11.19	414.07	445.11	437.53
Omaha .....	41.0	41.4	40.4	10.28	10.39	10.41	421.48	430.15	420.56
<b>Nevada</b> .....	40.3	40.5	40.7	10.35	11.08	11.20	417.11	448.74	455.84
Las Vegas .....	42.5	42.2	43.1	13.23	12.91	13.14	562.28	544.80	566.33
<b>New Hampshire</b> .....	40.8	41.1	40.5	10.36	10.87	11.02	422.69	446.76	446.31
Manchester .....	39.6	41.8	42.9	10.61	10.67	11.58	420.16	443.87	496.78
Nashua .....	40.1	40.8	40.9	12.33	14.22	14.02	494.43	577.33	573.42
Portsmouth-Dover-Rochester .....	41.4	42.8	41.5	9.66	9.94	10.13	399.92	423.44	420.40
<b>New Jersey</b> .....	40.4	41.2	40.6	11.18	11.59	11.70	451.67	477.51	475.02
<b>New Mexico</b> .....	39.8	39.3	39.8	8.81	8.99	8.90	350.64	353.31	354.22
Albuquerque .....	39.2	40.4	40.1	8.78	9.33	9.34	344.18	376.93	374.53
<b>New York</b> .....	39.4	40.0	39.5	10.70	11.15	11.15	421.58	446.00	440.43
Albany-Schenectady-Troy .....	38.7	40.8	40.3	11.34	11.76	11.87	438.86	479.81	478.36
Binghamton .....	41.0	40.5	39.7	9.63	9.64	9.73	394.83	390.42	386.28
Buffalo .....	40.7	42.5	41.3	12.81	13.45	13.39	521.37	571.63	553.01
Elmira .....	39.2	39.8	39.6	9.27	9.87	9.80	363.38	390.85	388.08
Glens Falls .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Nassau-Suffolk .....	39.3	40.1	39.3	11.58	11.77	11.77	455.09	471.98	462.56
New York PMSA .....	36.9	37.4	37.0	9.89	10.41	10.44	364.94	389.33	386.28
New York City .....	36.4	37.1	36.7	9.80	10.18	10.22	356.72	377.68	375.07
Niagara Falls .....	40.3	41.2	40.6	13.91	14.50	14.47	560.57	597.40	587.48
Orange County .....	39.2	41.0	40.7	9.21	9.28	9.50	361.03	380.48	386.65
Poughkeepsie .....	40.3	41.0	40.4	10.82	10.74	10.65	436.05	440.34	430.26
Rochester .....	42.8	42.2	42.1	12.32	13.01	12.88	527.30	549.02	542.25
Rockland County .....	40.6	39.8	40.1	7.92	9.37	9.66	323.14	372.93	387.37
Syracuse .....	40.2	40.9	40.5	12.29	12.36	12.12	494.06	505.52	490.86
Utica-Rome .....	40.1	40.7	39.4	9.88	10.38	10.45	396.19	422.47	411.73
Westchester County .....	40.1	38.9	38.0	11.46	12.54	12.50	459.55	487.81	475.00
<b>North Carolina</b> .....	39.9	40.3	39.5	8.42	8.75	8.78	335.96	352.63	346.81
Asheville .....	40.9	41.6	41.0	8.48	8.77	8.85	346.83	364.83	362.85
Charlotte-Gastonia-Rock Hill .....	40.1	40.0	39.4	9.00	9.32	9.34	360.90	372.80	368.00
Greensboro-Winston-Salem-High Point .....	38.9	38.7	38.3	9.17	9.30	9.38	356.71	359.91	359.25
Raleigh-Durham .....	41.2	41.9	42.4	9.50	10.01	10.00	391.40	419.42	424.00
<b>North Dakota</b> .....	39.6	40.2	37.9	8.84	8.91	8.91	350.06	358.18	337.69
Fargo-Moorhead .....	39.5	38.6	42.3	9.38	8.80	9.07	370.51	339.68	383.66
<b>Ohio</b> .....	41.9	43.0	42.4	12.18	12.74	12.62	509.50	547.92	535.09
Akron .....	42.1	43.3	42.7	11.45	12.11	12.01	482.05	524.36	512.83
Canton .....	40.8	42.4	42.3	11.15	11.50	11.47	454.92	487.60	485.18
Cincinnati .....	42.1	43.6	43.0	11.50	12.11	12.01	484.15	528.00	516.43
Cleveland .....	41.9	43.4	42.8	11.57	12.31	12.16	484.78	534.25	520.45
Columbus .....	41.3	42.0	42.1	12.03	12.40	12.43	496.84	520.80	523.30
Dayton-Springfield .....	42.3	43.7	42.3	12.75	13.86	13.53	539.33	605.68	572.32
Toledo .....	42.8	43.4	43.0	13.23	13.50	13.46	566.24	585.90	578.78
Youngstown-Warren .....	42.0	43.3	42.2	13.84	14.69	14.37	581.28	636.08	606.41
<b>Oklahoma</b> .....	41.1	40.3	39.7	10.49	10.86	10.63	431.14	437.66	422.01
Oklahoma City .....	43.1	40.8	40.0	11.42	12.21	11.35	492.20	498.17	454.00
Tulsa .....	40.5	41.4	40.5	10.17	11.20	11.44	411.89	463.68	463.32
<b>Oregon</b> .....	38.5	39.2	38.8	10.91	11.03	11.14	420.04	432.38	432.23
Eugene-Springfield .....	38.1	38.1	37.3	10.82	10.83	10.92	412.24	412.62	407.32
Portland .....	39.4	39.1	39.7	10.99	11.23	11.36	433.01	439.09	450.99
Salem .....	36.0	37.6	38.9	8.93	9.67	9.27	339.34	363.59	342.06

See footnotes at end of table.

**ESTABLISHMENT DATA**  
**STATE AND AREA HOURS AND EARNINGS**  
**NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Pennsylvania</b> .....	40.8	40.8	40.6	\$10.64	\$11.02	\$11.07	\$434.11	\$449.62	\$449.44
Allentown-Bethlehem .....	40.5	39.7	39.3	10.72	10.93	11.07	434.16	433.92	435.05
Altoona .....	40.0	39.4	40.2	9.37	9.66	9.65	374.80	380.60	387.93
Beaver County .....	45.0	43.4	43.6	10.70	11.12	10.85	481.50	482.61	473.06
Erie .....	44.4	43.1	44.3	11.31	11.55	11.82	502.16	497.81	523.63
Harrisburg-Lebanon-Carlisle .....	40.0	41.5	41.0	10.65	11.22	11.30	426.00	465.63	463.30
Johnstown .....	38.4	37.8	37.5	8.08	8.48	8.39	310.27	320.54	314.63
Lancaster .....	40.2	40.4	39.9	10.66	11.00	11.02	428.53	444.40	439.70
Philadelphia PMSA .....	40.8	40.5	40.2	11.79	12.01	12.10	481.03	486.41	486.42
Pittsburgh .....	41.8	42.0	42.1	11.12	11.40	11.40	464.82	478.80	479.94
Reading .....	40.8	41.6	40.9	11.02	11.51	11.54	449.62	478.82	471.99
Scranton-Wilkes-Barre .....	39.6	39.4	39.9	9.34	9.63	9.73	369.86	379.42	388.23
Sharon .....	41.0	42.8	42.3	11.82	11.82	11.90	484.62	505.90	503.37
State College .....	39.4	40.3	40.4	9.44	9.91	9.74	371.94	399.37	393.50
Williamsport .....	40.4	40.0	39.5	9.44	9.57	9.55	381.38	382.80	377.23
York .....	41.9	41.2	41.3	10.15	10.67	10.55	425.29	439.60	435.72
<b>Rhode Island</b> .....	38.1	40.2	39.8	9.11	9.38	9.60	347.09	377.08	382.08
Pawtucket-Woonsocket-Attleboro .....	40.0	39.3	38.1	8.49	9.01	9.10	339.60	354.09	346.71
Providence .....	38.8	39.9	39.6	8.67	8.91	9.26	336.40	355.51	366.70
<b>South Carolina</b> .....	41.2	40.6	40.4	8.55	8.85	8.88	352.26	359.31	358.75
Charleston .....	39.4	39.9	39.8	9.27	9.47	9.47	365.24	377.85	376.91
Columbia .....	41.2	42.1	41.9	8.69	9.10	9.10	358.03	383.11	381.29
Greenville-Spartanburg .....	41.1	41.3	41.2	8.37	8.77	8.79	344.01	362.20	362.15
<b>South Dakota</b> .....	41.6	41.8	40.8	8.28	8.38	8.31	344.45	350.28	339.05
Sioux Falls .....	47.3	43.2	42.4	8.53	8.73	8.68	403.47	377.14	368.03
<b>Tennessee</b> .....	40.7	39.3	39.3	9.18	9.54	9.59	373.63	374.92	376.89
Chattanooga .....	40.1	40.9	41.0	8.37	8.74	8.75	335.64	357.47	358.75
Johnson City-Kingsport-Bristol .....	43.8	40.6	44.9	9.84	9.51	9.81	430.99	386.11	440.47
Knoxville .....	39.6	37.2	36.3	9.33	8.98	8.94	369.47	334.06	324.52
Memphis .....	43.4	39.7	39.2	9.36	9.86	9.90	406.22	391.44	388.08
Nashville .....	41.3	42.2	41.6	10.06	11.47	11.49	415.48	484.03	477.98
<b>Texas</b> .....	41.6	41.7	41.3	10.29	10.54	10.59	428.06	439.52	437.37
Dallas .....	42.0	41.9	41.5	10.42	10.49	10.49	437.64	439.53	435.34
Ft. Worth-Arlington .....	40.9	41.0	40.5	10.99	11.16	11.21	449.49	457.56	454.01
Houston .....	44.0	44.2	44.0	11.72	12.14	12.17	515.68	536.59	535.48
San Antonio .....	39.7	40.4	39.6	7.52	7.83	7.89	298.54	316.33	312.44
<b>Utah</b> .....	39.5	39.5	39.6	10.23	10.26	10.32	404.09	405.27	406.67
Salt Lake City-Ogden .....	39.9	39.6	39.9	10.01	10.25	10.39	399.40	405.90	414.56
<b>Vermont</b> .....	40.3	41.0	39.2	10.02	10.54	10.59	403.81	432.14	415.13
Burlington .....	40.8	40.5	39.9	10.35	11.14	11.04	422.28	451.17	440.50
<b>Virginia</b> .....	40.8	40.7	40.0	9.69	10.07	10.18	395.35	409.85	407.20
Bristol .....	42.8	39.4	39.6	7.81	8.44	8.62	334.27	332.54	341.35
Charlottesville .....	41.7	41.9	39.9	8.43	8.82	8.80	351.53	369.56	351.12
Danville .....	42.5	39.9	41.1	9.62	9.66	9.89	408.85	385.43	406.48
Lynchburg .....	42.0	41.8	42.0	9.45	9.88	10.39	396.90	412.98	436.38
Northern Virginia .....	39.6	40.5	40.6	10.64	11.07	11.22	421.34	448.34	455.53
Richmond-Petersburg .....	41.8	43.6	42.8	12.60	13.39	13.40	526.68	583.80	573.52
Roanoke .....	41.8	40.7	40.5	11.41	11.68	11.88	476.94	475.38	481.14
<b>Washington</b> .....	40.4	40.5	39.9	12.37	12.76	12.90	499.75	516.78	514.71
<b>West Virginia</b> .....	39.7	41.1	40.4	11.26	11.42	11.69	447.82	469.36	472.28
Charleston .....	42.2	43.9	44.5	13.58	13.32	13.64	573.08	584.75	606.98
Huntington-Ashland .....	39.6	40.9	40.7	12.92	13.54	13.51	511.63	553.79	549.86
Parkersburg-Marietta .....	41.6	43.0	41.0	13.08	13.08	13.23	544.13	562.44	542.43
Wheeling .....	41.1	42.3	41.0	13.55	13.56	13.47	556.91	573.59	552.27

See footnotes at end of table.

**ESTABLISHMENT DATA  
STATE AND AREA HOURS AND EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-8. Average hours and earnings of production workers on manufacturing payrolls in States and selected areas—Continued**

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Wisconsin</b> .....	41.2	41.6	41.3	\$10.61	\$11.06	\$11.04	\$437.13	\$460.10	\$455.95
Appleton-Oshkosh .....	43.2	43.7	43.0	11.64	11.99	11.96	502.85	523.96	514.28
Eau Claire .....	43.4	45.2	45.4	10.89	11.32	11.52	472.63	511.66	523.01
Green Bay .....	42.6	41.5	40.4	11.08	12.22	12.76	472.01	507.13	515.50
Janesville-Beloit .....	37.8	36.7	35.9	12.72	11.95	11.80	480.82	438.57	423.62
Kenosha .....	41.5	42.0	41.4	11.41	11.82	11.11	473.52	496.44	459.95
La Crosse .....	40.9	41.0	41.2	9.65	9.72	9.72	394.69	398.52	400.46
Madison .....	39.1	40.1	41.2	10.19	10.31	10.36	398.43	413.43	426.83
Milwaukee .....	41.1	41.7	41.8	11.60	11.81	11.86	476.76	492.48	495.75
Racine .....	38.6	40.2	39.2	10.51	11.50	11.12	405.69	462.30	435.90
Sheboygan .....	43.2	41.6	41.9	10.40	10.87	10.73	449.28	452.19	449.59
Wausau .....	42.3	44.4	42.9	10.42	10.99	10.88	440.77	487.96	466.75
<b>Wyoming</b> .....	40.3	40.5	38.8	11.01	10.97	11.25	443.70	444.29	436.50
<b>Puerto Rico</b> .....	38.9	39.3	39.5	5.76	5.97	6.03	224.06	234.62	238.19
<b>Virgin Islands</b> .....	41.7	42.9	42.5	10.80	12.13	11.91	450.36	520.38	506.18

<sup>1</sup> Not available.

<sup>P</sup> = preliminary.

NOTE: Area definitions are published annually in the May issue of this

publication. All State and area data have been adjusted to March 1989 benchmarks, and industry detail are classified in accordance with the 1987 *Standard Industrial Classification (SIC) Manual*.

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-9. Hours of wage and salary workers in nonagricultural establishments by major industry, seasonally adjusted**

Industry	Millions of hours (annual rate) <sup>1</sup>			Percent change		
	June 1990 <sup>r</sup>	July 1990 <sup>r</sup>	Aug. 1990 <sup>p</sup>	Aug. 1989 to Aug. 1990 <sup>p</sup>	June 1990 to July 1990 <sup>r</sup>	July 1990 to Aug. 1990 <sup>p</sup>
Total .....	206,115	205,615	205,034	2.0	-0.2	-0.3
Private sector .....	168,611	168,268	168,004	1.5	-2	-2
Mining .....	1,718	1,688	1,680	5.5	-1.7	-5
Construction .....	10,551	10,255	10,311	-3	-2.8	.6
Manufacturing .....	40,831	40,726	40,657	-1.8	-3	-2
Durable goods .....	24,134	24,078	23,972	-2.5	-2	-4
Nondurable goods .....	16,697	16,648	16,685	-7	-3	.2
Transportation and public utilities .....	11,916	11,844	11,892	6.5	-6	.4
Wholesale trade .....	12,646	12,634	12,613	1.4	-1	-2
Retail trade .....	29,892	29,826	29,596	.4	-2	-8
Finance, insurance, and real estate .....	12,741	12,881	12,720	1.4	1.1	-1.3
Services .....	48,316	48,414	48,534	4.4	.2	.2
Government .....	37,505	37,347	37,031	4.1	-4	-8

<sup>1</sup> Total hours paid for 1 week in the month, seasonally adjusted, multiplied by 52. These data reflect September 1990 revisions to the BLS Establishment data.

<sup>p</sup> = preliminary.

<sup>r</sup> = revised.

NOTE: Data refer to hours of all employees—production workers, nonsupervisory workers, and salaried workers—and are based largely on establishment data. See *BLS Handbook of Methods*, BLS Bulletin 2285, chapter 10, Productivity Measures: Business Sector and Major Subsectors. SOURCE: Office of Productivity and Technology (202 523 9261).

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-10. Indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted**

(1982=100)

Item	Annual average		Quarterly index										
	1988	1989	1987	1988				1989				1990	
			IV	I	II	III	IV	I	II	III	IV	I	II'
<b>Business sector</b>													
Output per hour of all persons .....	113.0	112.8	112.0	113.1	112.8	113.5	113.1	113.3	113.3	112.8	112.3	111.9	112.3
Output .....	133.0	135.8	129.4	131.2	132.6	133.8	134.5	135.6	135.9	136.1	135.5	136.0	136.4
Hours .....	117.7	120.4	115.5	115.9	117.6	117.9	118.8	119.7	120.0	120.6	120.7	121.5	121.4
Compensation per hour .....	129.1	133.1	125.6	126.9	128.6	130.3	131.5	132.2	133.0	133.4	134.3	135.5	137.5
Real compensation per hour .....	105.3	103.5	105.0	105.3	105.5	105.6	105.5	104.6	103.7	103.3	103.0	101.9	102.5
Unit labor costs .....	114.3	118.0	112.1	112.2	114.0	114.8	116.3	116.7	117.4	118.2	119.6	121.1	122.4
Unit nonlabor payments .....	126.5	133.1	123.2	124.5	125.0	127.4	128.8	130.8	133.2	133.8	134.4	135.5	137.0
Implicit price deflator .....	118.2	122.8	115.7	116.2	117.5	118.9	120.3	121.2	122.5	123.3	124.3	125.8	127.1
<b>Nonfarm business sector</b>													
Output per hour of all persons .....	112.3	111.9	110.9	112.1	111.9	112.7	112.8	112.4	112.2	112.0	111.4	110.8	111.2
Output .....	134.0	136.7	129.7	131.6	133.4	134.8	136.0	136.4	136.8	137.1	136.3	136.8	137.3
Hours .....	119.3	122.2	116.9	117.4	119.2	119.6	120.5	121.4	121.9	122.4	122.4	123.5	123.5
Compensation per hour .....	128.3	132.1	124.9	126.2	127.7	129.4	130.8	131.4	131.9	132.5	133.4	134.4	136.3
Real compensation per hour .....	104.7	102.8	104.4	104.7	104.8	104.9	104.9	104.0	102.9	102.6	102.3	101.1	101.6
Unit labor costs .....	114.3	118.1	112.6	112.6	114.1	114.8	115.9	116.9	117.5	118.3	119.8	121.3	122.6
Unit nonlabor payments .....	127.4	133.7	124.1	125.4	125.8	127.4	130.6	130.9	133.9	134.7	135.3	135.7	137.5
Implicit price deflator .....	118.4	123.0	116.2	116.6	117.8	118.8	120.5	121.4	122.7	123.5	124.7	125.8	127.3
<b>Manufacturing</b>													
Output per hour of all persons .....	127.6	130.1	126.1	126.7	127.5	128.8	129.2	130.1	130.9	130.5	131.3	133.0	134.3
Output .....	139.9	144.0	135.5	136.9	138.9	141.1	142.6	143.7	144.5	144.0	143.5	144.2	145.6
Hours .....	109.6	110.6	107.4	108.0	108.9	109.5	110.3	110.5	110.4	110.4	109.3	108.4	108.4
Compensation per hour .....	123.4	126.7	120.4	122.4	123.1	124.3	125.7	126.5	126.6	127.6	128.4	129.2	131.2
Real compensation per hour .....	100.6	98.6	100.7	101.5	100.9	100.7	100.8	100.2	98.7	98.8	98.5	97.2	97.8
Unit labor costs .....	96.7	97.4	95.5	96.6	96.5	96.5	97.3	97.3	96.7	97.8	97.8	97.1	97.7
<b>Durable goods</b>													
Output per hour of all persons .....	139.9	143.3	138.3	139.3	140.3	141.4	142.2	142.9	144.8	144.7	144.8	146.6	149.2
Output .....	155.1	159.8	149.0	150.8	154.0	156.6	158.9	159.7	160.8	160.2	158.5	159.1	161.7
Hours .....	110.9	111.5	107.7	108.3	109.8	110.7	111.7	111.8	111.0	110.7	109.4	108.5	108.4
Compensation per hour .....	121.9	125.4	119.8	121.9	121.7	122.8	124.4	125.6	125.5	126.8	127.5	128.0	130.2
Real compensation per hour .....	99.4	97.6	100.2	101.1	99.8	99.5	99.8	99.4	97.9	98.2	97.8	96.3	97.0
Unit labor costs .....	87.1	87.5	86.6	87.5	86.8	86.8	87.5	87.9	86.7	87.6	88.0	87.3	87.3
<b>Nondurable goods</b>													
Output per hour of all persons .....	110.9	112.3	109.7	110.0	110.4	111.7	111.6	112.6	112.2	111.4	113.3	114.9	114.4
Output .....	119.6	122.8	117.5	118.3	118.8	120.4	120.9	122.3	122.8	122.5	123.7	124.3	124.2
Hours .....	107.8	109.3	107.1	107.6	107.7	107.8	108.4	108.6	109.5	110.0	109.1	108.3	108.5
Compensation per hour .....	125.6	128.6	121.4	123.1	125.1	126.6	127.6	127.9	128.2	128.8	129.9	131.1	132.8
Real compensation per hour .....	102.5	100.1	101.5	102.1	102.7	102.6	102.3	101.2	100.0	99.7	99.6	98.6	99.0
Unit labor costs .....	113.2	114.5	110.6	111.9	113.4	113.3	114.4	113.6	114.3	115.6	114.6	114.2	116.1
<b>Nonfinancial corporations</b>													
Output per all-employee hour .....	113.4	111.9	112.9	113.8	113.7	113.5	113.2	112.5	112.1	112.3	111.1	110.5	111.0
Output .....	134.9	136.4	131.3	133.2	134.6	135.4	136.3	136.2	136.4	137.1	135.9	136.0	136.5
Hours .....	119.0	121.9	116.3	117.1	118.4	119.3	120.4	121.1	121.7	122.1	122.3	123.0	123.0
Compensation per hour .....	125.8	129.6	122.6	123.8	125.3	126.8	127.9	128.9	129.4	130.0	130.7	131.4	133.3
Real compensation per hour .....	102.6	100.9	102.5	102.7	102.8	102.8	102.6	102.0	100.9	100.7	100.2	98.8	99.3
Total unit costs .....	109.0	114.7	106.8	107.1	108.2	109.7	110.9	112.7	114.1	115.0	117.0	118.1	119.2
Unit labor costs .....	111.0	115.8	108.6	108.8	110.2	111.8	113.0	114.6	115.4	115.7	117.6	118.9	120.1
Unit nonlabor costs .....	103.8	111.8	102.2	102.6	102.9	104.2	105.6	108.0	110.6	113.3	115.2	116.2	116.8
Unit profits .....	176.3	157.9	174.0	176.6	178.1	171.4	179.1	162.3	162.9	159.3	147.2	147.6	152.9
Implicit price deflator .....	113.2	117.4	111.0	111.4	112.6	113.5	115.2	115.9	117.1	117.8	118.9	120.0	121.3

' = revised.

SOURCE: Office of Productivity and Technology (202 523 9261).

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-11. Percent changes from the preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted annual rates**

Item	Percent change from											
	Previous quarter						Same quarter, previous year					
	I 1989	II 1989	III 1989	IV 1989	I 1990	II 1990'	I 1989	II 1989	III 1989	IV 1989	I 1990	II 1990'
<b>Business sector</b>												
Output per hour of all persons .....	0.5	0.0	-1.5	-2.0	-1.5	1.7	0.1	0.4	-0.6	-0.7	-1.2	-0.8
Output .....	3.5	.9	.6	-1.8	1.4	1.4	3.4	2.5	1.7	.8	.3	.4
Hours .....	3.0	.9	2.1	.1	2.9	-3	3.3	2.0	2.3	1.5	1.5	1.2
Compensation per hour .....	2.0	2.4	1.3	2.6	3.8	6.1	4.1	3.4	2.4	2.1	2.5	3.4
Real compensation per hour .....	-3.3	-3.4	-1.5	-1.4	-4.0	2.4	-6	-1.7	-2.2	-2.4	-2.6	-1.2
Unit labor costs .....	1.5	2.5	2.8	4.6	5.3	4.4	4.0	3.0	2.9	2.8	3.8	4.3
Unit nonlabor payments .....	6.3	7.7	1.8	1.6	3.3	4.7	5.1	6.6	5.1	4.3	3.6	2.8
Implicit price deflator .....	3.1	4.3	2.5	3.5	4.6	4.5	4.4	4.2	3.7	3.4	3.7	3.8
<b>Nonfarm business sector</b>												
Output per hour of all persons .....	-1.7	-.5	-.8	-2.2	-1.9	1.5	.2	.3	-.6	-1.3	-1.4	-.9
Output .....	1.2	1.3	.6	-2.1	1.4	1.5	3.6	2.6	1.7	.3	.3	.4
Hours .....	3.0	1.7	1.5	.1	3.4	.0	3.4	2.3	2.3	1.6	1.7	1.2
Compensation per hour .....	2.0	1.5	1.8	2.7	3.2	5.8	4.1	3.2	2.4	2.0	2.3	3.4
Real compensation per hour .....	-3.3	-4.2	-1.0	-1.3	-4.5	2.0	-.6	-1.8	-2.2	-2.4	-2.8	-1.2
Unit labor costs .....	3.8	2.0	2.7	5.1	5.2	4.3	3.9	3.0	3.0	3.4	3.7	4.3
Unit nonlabor payments .....	1.0	9.3	2.6	1.6	1.2	5.4	4.4	6.4	5.8	3.6	3.6	2.7
Implicit price deflator .....	2.8	4.4	2.6	3.9	3.8	4.6	4.1	4.1	3.9	3.4	3.7	3.7
<b>Manufacturing</b>												
Output per hour of all persons .....	2.6	2.6	-1.4	2.8	5.1	4.0	2.6	2.6	1.3	1.6	2.3	2.6
Output .....	3.1	2.4	-1.4	-1.3	1.8	4.0	4.9	4.1	2.1	.7	.4	.7
Hours .....	.5	-.2	-.1	-4.0	-3.1	.1	2.3	1.4	.8	-1.0	-1.9	-1.8
Compensation per hour .....	2.6	.1	3.2	2.7	2.5	6.3	3.4	2.9	2.6	2.1	2.1	3.6
Real compensation per hour .....	-2.7	-5.6	.3	-1.3	-5.2	2.5	-1.3	-2.2	-1.9	-2.4	-3.0	-1.0
Unit labor costs .....	.0	-2.5	4.6	-.1	-2.5	2.2	.8	.2	1.3	.5	-.2	1.0
<b>Durable goods</b>												
Output per hour of all persons .....	2.0	5.5	-.4	.5	4.9	7.3	2.6	3.3	2.3	1.9	2.6	3.0
Output .....	2.2	2.8	-1.7	-4.1	1.6	6.8	5.9	4.5	2.3	-.2	-.4	.6
Hours .....	.2	-2.6	-1.2	-4.6	-3.2	-.5	3.2	1.2	.0	-2.1	-2.9	-2.4
Compensation per hour .....	3.6	-.1	4.1	2.3	1.7	6.9	3.0	3.1	3.3	2.5	2.0	3.7
Real compensation per hour .....	-1.7	-5.8	1.2	-1.7	-5.9	3.1	-1.7	-1.9	-1.3	-2.0	-3.1	-.9
Unit labor costs .....	1.6	-5.3	4.5	1.8	-3.1	-.4	.4	-.1	1.0	.6	-.6	.7
<b>Nondurable goods</b>												
Output per hour of all persons .....	3.7	-1.5	-2.7	7.1	5.4	-1.4	2.4	1.6	-.3	1.6	2.0	2.0
Output .....	4.7	1.8	-1.0	3.7	2.3	-.6	3.4	3.4	1.8	2.3	1.7	1.1
Hours .....	.9	3.3	1.7	-3.2	-3.0	.8	1.0	1.7	2.0	.7	-.3	-.9
Compensation per hour .....	.9	.8	2.0	3.4	3.9	5.4	3.9	2.4	1.7	1.8	2.5	3.7
Real compensation per hour .....	-4.3	-4.9	-.9	-.6	-3.9	1.6	-.8	-2.6	-2.8	-2.7	-2.6	-.9
Unit labor costs .....	-2.7	2.4	4.7	-3.4	-1.5	6.9	1.5	.8	2.0	.2	.5	1.6
<b>Nonfinancial corporations</b>												
Output per all-employee hour .....	-2.5	-1.4	.8	-4.2	-2.2	1.7	-1.1	-1.4	-1.0	-1.8	-1.8	-1.0
Output .....	-.1	.6	2.1	-3.6	.2	1.6	2.3	1.4	1.3	-.3	-.2	.1
Hours .....	2.4	2.0	1.3	.7	2.5	-.1	3.4	2.8	2.3	1.6	1.6	1.1
Compensation per hour .....	3.3	1.4	1.8	2.4	2.1	5.9	4.1	3.3	2.5	2.2	1.9	3.0
Real compensation per hour .....	-2.0	-4.3	-1.0	-1.6	-5.5	2.1	-.6	-1.8	-2.1	-2.2	-3.1	-1.5
Total unit costs .....	6.8	4.7	3.5	6.9	4.1	3.6	5.3	5.4	4.9	5.5	4.8	4.5
Unit labor costs .....	5.9	2.8	1.0	6.9	4.4	4.2	5.3	4.7	3.5	4.1	3.8	4.1
Unit nonlabor costs .....	9.5	9.9	10.2	6.9	3.3	2.2	5.3	7.4	8.7	9.2	7.6	5.6
Unit profits .....	-32.5	1.5	-8.5	-27.1	1.2	15.1	-8.1	-8.5	-7.0	-17.8	-9.0	-6.1
Implicit price deflator .....	2.4	4.4	2.4	3.6	3.9	4.5	4.0	4.0	3.8	3.2	3.6	3.6

' = revised.

SOURCE: Office of Productivity and Technology (202 523 9261).

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Alabama</b> .....	1,931.8	1,899.2	1,898.4	145.9	139.5	138.2	7.6	7.3	7.3
Birmingham .....	447.1	440.1	440.0	26.7	25.8	25.1	6.0	5.9	5.7
Huntsville .....	134.9	133.1	132.9	7.2	6.7	6.2	5.3	5.1	4.7
Mobile .....	214.9	210.7	210.4	18.7	16.6	15.2	8.7	7.9	7.2
Montgomery .....	141.2	139.0	138.9	9.7	9.8	8.9	6.9	7.0	6.4
Tuscaloosa .....	71.1	71.1	70.6	4.0	3.6	3.5	5.6	5.1	4.9
<b>Alaska</b> .....	264.3	262.6	270.2	13.0	17.2	14.2	4.9	6.5	5.3
<b>Arizona</b> .....	1,702.3	1,752.3	1,730.4	99.7	101.7	104.3	5.9	5.8	6.0
Phoenix .....	1,064.4	1,093.3	1,079.5	48.9	50.6	50.4	4.6	4.6	4.7
Tucson .....	312.1	316.5	312.2	14.8	14.2	13.6	4.8	4.5	4.4
<b>Arkansas</b> .....	1,156.8	1,125.2	1,121.4	85.6	81.7	80.4	7.4	7.3	7.2
Fayetteville-Springdale .....	64.5	63.0	63.5	2.6	2.5	2.6	4.0	3.9	4.1
Fort Smith .....	96.4	92.5	93.4	6.8	6.1	5.6	7.1	6.6	6.1
Little Rock-North Little Rock .....	274.1	265.9	265.3	19.0	17.5	17.6	6.9	6.6	6.6
Pine Bluff .....	38.1	36.8	36.4	3.2	3.4	3.4	8.3	9.1	9.5
<b>California<sup>1</sup></b> .....	14,820.2	14,852.9	14,965.0	861.9	742.6	849.6	5.8	5.0	5.7
Anaheim-Santa Ana .....	1,450.6	1,407.0	1,416.5	51.1	46.0	51.1	3.5	3.3	3.6
Bakersfield .....	241.0	238.4	237.9	24.3	23.1	23.8	10.1	9.7	10.0
Fresno .....	327.0	319.0	326.5	31.1	27.5	30.4	9.5	8.6	9.3
Los Angeles-Long Beach <sup>1</sup> .....	4,253.7	4,503.0	4,501.0	237.3	208.0	242.0	5.6	4.6	5.4
Modesto .....	172.1	165.0	170.3	19.0	19.2	18.6	11.0	11.6	10.9
Oakland .....	1,145.9	1,129.0	1,145.0	57.3	46.0	52.8	5.0	4.1	4.6
Oxnard-Ventura .....	383.5	374.9	382.2	25.6	18.2	25.4	6.7	4.9	6.6
Riverside-San Bernardino .....	1,046.4	1,056.7	1,065.2	75.7	66.3	82.5	7.2	6.3	7.7
Sacramento .....	750.3	740.7	750.9	40.6	33.9	36.6	5.4	4.6	4.9
San Diego .....	1,201.7	1,196.0	1,206.7	57.0	51.7	59.8	4.7	4.3	5.0
San Francisco .....	911.1	884.9	899.9	36.2	30.7	34.8	4.0	3.5	3.9
San Jose .....	866.6	820.5	832.8	38.4	31.5	36.3	4.4	3.8	4.4
Santa Barbara-Santa Maria-Lompoc .....	185.8	182.2	183.0	8.3	7.0	8.3	4.5	3.8	4.5
Santa Rosa-Petaluma .....	206.2	210.2	210.3	10.2	9.0	9.9	4.9	4.3	4.7
Stockton .....	205.9	199.5	201.4	19.3	19.0	18.9	9.4	9.5	9.4
Vallejo-Fairfield-Napa .....	205.9	202.0	208.0	12.7	10.0	12.0	6.1	4.9	5.8
<b>Colorado</b> .....	1,724.3	1,770.8	1,756.9	85.7	93.2	84.7	5.0	5.3	4.8
Boulder-Longmont .....	135.4	137.5	136.8	5.3	5.5	5.3	3.9	4.0	3.9
Denver .....	882.9	896.4	891.3	42.4	44.6	40.6	4.8	5.0	4.6
<b>Connecticut</b> .....	1,801.4	1,834.5	1,828.2	67.3	92.7	94.1	3.7	5.1	5.1
Bridgeport-Milford .....	233.9	236.7	234.9	12.1	14.3	15.0	5.2	6.0	6.4
Hartford .....	437.9	447.2	446.5	14.0	20.5	20.1	3.2	4.6	4.5
New Britain .....	75.0	79.0	77.2	3.1	4.5	4.7	4.1	5.7	6.1
New Haven-Meriden .....	283.6	286.1	285.4	10.4	14.2	14.7	3.7	5.0	5.1
Stamford .....	119.2	118.8	119.2	2.9	4.1	4.1	2.5	3.4	3.4
Waterbury .....	103.1	107.1	104.7	5.6	7.6	8.4	5.4	7.1	8.0
<b>Delaware</b> .....	366.5	367.6	365.1	16.4	12.8	16.8	4.5	3.5	4.6
Wilmington .....	314.2	317.1	313.7	17.2	12.1	16.4	5.5	3.8	5.2
<b>District of Columbia</b> .....	318.1	299.1	304.7	16.6	21.4	21.1	5.2	7.2	6.9
Washington .....	2,282.4	2,226.4	2,260.1	59.3	72.8	73.3	2.6	3.3	3.2
<b>Florida<sup>1</sup></b> .....	6,344.3	6,362.2	6,424.9	382.8	419.9	394.6	6.0	6.6	6.1
Daytona Beach .....	160.4	156.7	159.3	9.3	9.0	8.4	5.8	5.7	5.3
Fort Lauderdale-Hollywood-Pompano Beach .....	660.6	663.0	668.2	33.9	40.7	37.4	5.1	6.1	5.6
Fort Myers-Cape Coral .....	148.3	155.1	158.1	6.1	6.8	7.2	4.1	4.4	4.6
Gainesville .....	108.5	106.7	108.2	3.5	3.9	3.7	3.2	3.6	3.4
Jacksonville .....	466.7	460.3	467.3	27.8	27.7	26.1	6.0	6.0	5.6
Lakeland-Winter Haven .....	183.5	184.6	184.5	19.5	21.6	21.3	10.6	11.7	11.6
Melbourne-Titusville-Palm Bay .....	194.9	193.6	197.7	10.2	11.2	10.8	5.2	5.8	5.5
Miami-Hialeah .....	965.4	960.3	971.2	63.9	71.3	63.9	6.6	7.4	6.6
Orlando .....	634.4	631.8	640.1	35.0	36.2	34.7	5.5	5.7	5.4
Pensacola .....	151.5	149.2	149.7	9.3	10.5	8.6	6.1	7.0	5.8
Sarasota .....	125.4	124.5	125.8	4.8	5.7	5.4	3.8	4.6	4.3
Tallahassee .....	135.7	136.5	136.6	6.6	7.1	5.5	4.8	5.2	4.1
Tampa-St. Petersburg-Clearwater .....	1,019.1	1,008.9	1,023.8	53.4	57.5	54.5	5.2	5.7	5.3
West Palm Beach-Boca Raton-Delray Beach .....	424.1	429.4	433.6	30.1	32.6	31.7	7.1	7.6	7.3

See footnotes at end of table.



**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Georgia</b> .....	3,211.9	3,231.7	3,277.6	177.7	190.5	188.9	5.5	5.9	5.8
Albany .....	52.9	53.4	53.1	4.1	4.0	3.8	7.7	7.5	7.2
Athens .....	76.9	79.2	78.5	3.3	3.9	4.1	4.3	4.9	5.3
Atlanta .....	1,514.7	1,531.2	1,552.4	72.0	83.7	79.4	4.8	5.5	5.1
Augusta .....	190.0	190.3	193.6	9.6	9.7	9.7	5.1	5.1	5.0
Columbus .....	99.6	97.5	99.7	5.5	6.5	6.6	5.6	6.7	6.6
Macon-Warner Robins .....	133.4	132.7	134.4	6.3	7.2	6.9	4.7	5.4	5.1
Savannah .....	113.5	114.4	115.9	5.7	6.6	5.8	5.0	5.8	5.0
<b>Hawaii</b> .....	527.0	541.3	539.5	11.5	15.6	15.3	2.2	2.9	2.8
Honolulu .....	386.0	397.4	393.5	7.4	10.3	10.0	1.9	2.6	2.6
<b>Idaho</b> .....	494.2	512.2	505.7	22.5	27.4	28.0	4.5	5.3	5.5
Boise City .....	111.7	117.2	115.3	3.3	4.0	4.0	2.9	3.5	3.5
<b>Illinois</b> <sup>1</sup> .....	6,060.7	6,058.6	6,173.6	324.2	369.6	387.2	5.4	6.1	6.3
Aurora-Elgin .....	183.6	185.9	188.0	8.6	10.6	11.0	4.7	5.7	5.8
Bloomington-Normal .....	75.0	73.6	74.9	3.3	3.0	2.9	4.4	4.1	3.9
Champaign-Urbana-Rantoul .....	90.0	90.8	91.6	3.2	3.4	3.7	3.6	3.8	4.1
Chicago .....	3,328.0	3,326.7	3,389.2	166.9	197.9	207.4	5.0	5.9	6.1
Davenport-Rock Island-Moline .....	188.4	184.4	188.2	11.2	10.0	10.7	5.9	5.4	5.7
Decatur .....	60.7	61.0	62.0	4.1	4.4	4.4	6.7	7.3	7.2
Joliet .....	207.4	208.7	209.8	12.1	14.1	14.0	5.9	6.8	6.7
Kankakee .....	46.4	47.6	47.9	3.2	3.2	3.4	7.0	6.7	7.1
Lake County .....	301.8	308.6	315.6	9.5	11.7	12.7	3.1	3.8	4.0
Peoria .....	164.7	163.5	166.8	8.8	9.6	10.2	5.3	5.9	6.1
Rockford .....	157.1	157.4	159.2	11.2	9.9	13.4	7.1	6.3	8.4
Springfield .....	115.2	114.8	116.4	4.5	5.1	4.9	3.9	4.5	4.2
<b>Indiana</b> .....	2,923.0	2,904.2	2,854.3	116.4	145.8	146.1	4.0	5.0	5.1
Anderson .....	61.2	59.3	58.7	3.9	3.2	3.8	6.3	5.5	6.5
Bloomington .....	59.6	59.8	58.6	1.3	2.0	1.8	2.2	3.4	3.1
Elkhart-Goshen .....	99.7	100.7	98.5	4.2	5.3	4.6	4.2	5.3	4.7
Evansville .....	148.9	149.1	146.9	5.6	7.7	6.6	3.8	5.1	4.5
Fort Wayne .....	208.6	211.4	205.2	7.0	11.5	9.5	3.3	5.4	4.6
Gary-Hammond .....	266.3	265.9	258.7	10.0	15.9	13.7	3.8	6.0	5.3
Indianapolis .....	711.6	693.9	694.2	23.9	26.5	32.4	3.4	3.8	4.7
Kokomo .....	50.7	48.8	48.0	4.5	2.6	2.8	8.8	5.4	5.7
Lafayette-West Lafayette .....	67.8	69.0	67.5	1.6	1.8	1.9	2.3	2.6	2.8
Muncie .....	58.2	60.4	58.4	2.3	3.3	2.9	4.0	5.5	4.9
South Bend-Mishawaka .....	134.5	134.9	133.4	6.9	7.5	7.6	5.1	5.5	5.7
Terre Haute .....	60.0	59.6	58.9	2.2	2.7	2.6	3.6	4.6	4.5
<b>Iowa</b> .....	1,533.3	1,512.6	1,525.1	61.7	58.3	60.1	4.0	3.9	3.9
Cedar Rapids .....	98.4	96.4	98.4	3.2	5.0	4.9	3.3	5.1	5.0
Des Moines .....	241.3	234.2	237.8	8.4	7.5	7.2	3.5	3.2	3.0
Dubuque .....	45.1	42.9	43.8	2.2	2.1	2.1	4.9	5.0	4.8
Iowa City .....	59.6	62.3	63.6	1.0	1.0	1.2	1.6	1.6	1.9
Sioux City .....	61.4	60.1	60.9	2.5	2.6	2.4	4.1	4.3	4.0
Waterloo-Cedar Falls .....	71.7	70.8	72.4	3.4	3.2	3.2	4.7	4.5	4.4
<b>Kansas</b> .....	1,316.1	1,342.0	1,340.8	47.2	50.6	50.3	3.6	3.8	3.8
Lawrence .....	41.5	43.2	43.5	1.3	1.6	1.6	3.2	3.8	3.7
Topeka .....	94.3	95.7	95.8	3.7	3.9	4.1	3.9	4.0	4.3
Wichita .....	261.1	261.1	262.7	10.2	10.2	10.4	3.9	3.9	4.0
<b>Kentucky</b> .....	1,798.3	1,811.5	1,799.4	106.9	107.2	90.4	5.9	5.9	5.0
Lexington-Fayette .....	206.1	208.5	207.6	7.5	7.6	6.3	3.6	3.7	3.1
Louisville .....	534.2	539.7	531.7	24.1	29.5	21.4	4.5	5.5	4.0
Owensboro .....	47.1	46.7	46.3	2.9	2.7	2.1	6.2	5.9	4.6
<b>Louisiana</b> .....	1,939.3	1,921.6	1,945.6	166.1	134.4	121.0	8.6	7.0	6.2
Alexandria .....	60.6	59.2	59.6	5.3	4.3	4.0	8.8	7.2	6.7
Baton Rouge .....	276.1	276.6	280.7	21.0	17.5	15.7	7.6	6.3	5.6
Houma-Thibodaux .....	70.8	72.1	73.1	5.3	4.0	3.5	7.4	5.6	4.8
Lafayette .....	101.6	102.2	105.1	7.4	5.4	4.9	7.3	5.3	4.6
Lake Charles .....	79.4	78.4	78.6	6.5	5.6	5.3	8.1	7.2	6.8
Monroe .....	70.9	68.7	70.3	5.6	4.5	4.2	7.9	6.5	6.0
New Orleans .....	603.3	596.9	605.8	47.1	39.7	35.1	7.8	6.6	5.8
Shreveport .....	159.8	158.4	158.7	13.8	10.9	9.6	8.7	6.9	6.1
<b>Maine</b> .....	637.0	640.2	644.9	23.7	26.0	27.1	3.7	4.1	4.2
Lewiston-Auburn .....	42.6	43.2	42.5	2.8	2.4	2.9	6.6	5.7	6.9
Portland .....	132.9	134.7	134.5	2.3	4.0	3.8	1.7	3.0	2.8

See footnotes at end of table.

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>	July 1989	June 1990	July 1990 <sup>a</sup>
<b>Maryland</b> .....	2,608.0	2,551.7	2,599.5	93.4	100.7	117.5	3.6	3.9	4.5
Baltimore .....	1,240.0	1,219.2	1,243.6	48.4	52.6	61.6	3.9	4.3	5.0
<b>Massachusetts<sup>1</sup></b> .....	3,257.1	3,232.9	3,223.7	150.9	189.0	209.5	4.6	5.8	6.5
Boston .....	1,594.6	1,578.9	1,570.9	63.5	80.2	87.3	4.0	5.1	5.6
Brockton .....	102.6	102.9	102.9	5.8	7.6	8.3	5.7	7.4	8.1
Fall River .....	79.6	80.8	81.2	6.6	7.0	9.7	8.3	8.7	11.9
Fitchburg-Leominster .....	49.0	50.1	47.7	3.3	4.3	4.6	6.7	8.5	9.7
Lawrence-Haverhill .....	192.8	197.2	197.9	11.8	15.3	15.8	6.1	7.8	8.0
Lowell .....	155.0	157.4	154.1	8.4	11.1	11.8	5.4	7.0	7.7
New Bedford .....	89.2	88.5	88.8	6.3	7.3	9.0	7.1	8.3	10.2
Pittsfield .....	42.2	42.5	42.8	2.0	2.5	2.7	4.7	5.9	6.3
Springfield .....	261.3	257.4	256.9	12.7	15.0	16.6	4.9	5.8	6.4
Worcester .....	223.6	226.0	226.7	10.0	14.4	15.4	4.5	6.4	6.8
<b>Michigan<sup>1</sup></b> .....	4,646.1	4,664.5	4,689.2	340.1	349.4	363.3	7.3	7.5	7.7
Ann Arbor .....	157.1	163.5	161.3	7.0	7.4	8.5	4.4	4.5	5.3
Battle Creek .....	65.2	66.5	66.7	4.9	5.3	5.1	7.5	8.0	7.6
Benton Harbor .....	80.1	80.2	79.9	5.6	6.4	5.7	7.0	8.0	7.1
Detroit .....	2,216.5	2,200.0	2,218.7	167.6	164.6	182.2	7.6	7.5	8.2
Flint .....	188.4	184.9	185.2	24.2	16.1	16.0	12.8	8.7	8.6
Grand Rapids .....	369.8	380.7	381.8	20.7	25.9	26.6	5.6	6.8	7.0
Jackson .....	65.4	67.0	66.9	4.2	5.4	5.3	6.4	8.0	7.9
Kalamazoo .....	118.8	119.2	119.5	6.2	7.0	6.8	5.2	5.8	5.7
Lansing-East Lansing .....	241.2	243.7	239.5	14.3	14.6	14.3	6.0	6.0	6.0
Muskegon .....	68.8	69.5	70.4	5.7	7.1	6.9	8.2	10.2	9.8
Saginaw-Bay City-Midland .....	184.9	190.0	190.4	13.5	14.0	13.1	7.3	7.4	6.9
<b>Minnesota</b> .....	2,362.4	2,403.2	2,423.2	96.2	101.0	111.6	4.1	4.2	4.6
Duluth .....	108.1	110.8	112.2	5.5	5.8	5.8	5.1	5.2	5.2
Minneapolis-St. Paul .....	1,415.5	1,425.9	1,448.0	52.4	55.5	61.8	3.7	3.9	4.3
Rochester .....	63.4	64.0	65.3	1.9	1.8	2.1	3.0	2.9	3.3
St. Cloud .....	96.6	103.4	102.1	4.0	5.0	5.1	4.2	4.8	5.0
<b>Mississippi</b> .....	1,195.4	1,201.1	1,201.0	96.3	98.4	96.5	8.1	8.2	8.0
Jackson .....	207.1	211.9	209.9	11.5	12.4	11.7	5.6	5.9	5.6
<b>Missouri</b> .....	2,670.2	2,678.1	2,637.5	139.0	136.6	152.8	5.2	5.1	5.8
Kansas City .....	869.4	880.3	877.3	37.4	38.9	39.7	4.3	4.4	4.5
St. Louis LMA .....	1,299.3	1,285.1	1,286.1	68.0	72.3	78.0	5.2	5.6	6.1
Springfield .....	129.1	127.6	126.9	5.4	5.3	5.6	4.2	4.1	4.4
<b>Montana</b> .....	415.4	410.7	408.9	21.5	22.8	20.7	5.2	5.5	5.1
<b>Nebraska</b> .....	819.0	858.5	863.2	25.4	17.3	19.3	3.1	2.0	2.2
Lincoln .....	124.9	129.5	129.7	3.7	2.1	2.6	3.0	1.6	2.0
Omaha .....	331.3	337.0	342.0	11.5	8.6	9.2	3.5	2.6	2.7
<b>Nevada</b> .....	602.6	624.8	636.0	30.5	30.6	28.6	5.1	4.9	4.5
Las Vegas .....	357.6	377.7	385.3	18.9	19.4	18.0	5.3	5.1	4.7
Reno .....	136.6	136.7	138.1	6.2	6.0	5.6	4.6	4.4	4.1
<b>New Hampshire</b> .....	622.0	635.5	634.3	22.6	38.9	36.3	3.6	6.1	5.7
Manchester .....	86.3	89.4	88.8	3.0	5.9	5.0	3.5	6.6	5.6
Nashua .....	98.2	101.8	99.0	3.4	7.2	6.7	3.5	7.1	6.8
Portsmouth-Dover-Rochester .....	139.1	134.5	133.3	4.2	5.7	5.9	3.0	4.2	4.5
<b>New Jersey<sup>1</sup></b> .....	4,025.6	4,082.9	4,134.3	183.0	191.4	211.8	4.5	4.7	5.1
Atlantic City .....	193.8	195.7	204.4	9.3	9.3	9.6	4.8	4.8	4.7
Bergen-Passaic .....	708.0	719.2	724.5	30.5	30.6	33.1	4.3	4.3	4.6
Jersey City .....	273.4	276.1	278.2	19.4	20.0	21.2	7.1	7.2	7.6
Middlesex-Somerset-Hunterdon .....	568.3	575.0	581.0	19.2	20.3	25.0	3.4	3.5	4.3
Monmouth-Ocean .....	504.0	505.5	518.8	20.2	21.8	24.2	4.0	4.3	4.7
Newark .....	964.0	981.5	995.8	46.5	49.9	57.0	4.8	5.1	5.7
Trenton .....	169.9	173.9	173.6	6.6	6.6	7.7	3.9	3.8	4.5
Vineland-Millville-Bridgeton .....	58.8	60.5	61.7	4.4	4.4	4.8	7.5	7.2	7.8
<b>New Mexico</b> .....	705.4	712.9	711.2	47.6	53.0	46.4	6.7	7.4	6.5
Albuquerque .....	269.1	266.6	265.7	14.3	16.0	14.7	5.3	6.0	5.5
Las Cruces .....	58.2	61.1	58.8	4.3	5.1	4.3	7.4	8.4	7.4
Santa Fe .....	70.2	71.4	72.3	3.0	2.9	2.6	4.2	4.1	3.6

See footnotes at end of table.

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>New York<sup>1</sup></b>	8,856.5	8,808.2	8,874.3	411.2	413.4	458.9	4.6	4.7	5.2
Albany-Schenectady-Troy	447.7	443.7	453.7	16.6	14.6	15.2	3.7	3.3	3.3
Binghamton	128.1	124.5	126.3	5.6	4.9	4.7	4.4	3.9	3.8
Buffalo	476.7	468.1	479.2	27.1	20.8	22.5	5.7	4.4	4.7
Elmira	45.1	45.0	45.9	1.7	1.8	1.7	3.7	4.1	3.8
Glens Falls	59.7	57.0	60.3	2.6	2.7	2.5	4.4	4.8	4.2
Nassau-Suffolk	1,475.9	1,448.0	1,473.5	61.8	54.6	60.1	4.2	3.8	4.1
New York	4,029.8	4,049.3	4,017.1	200.7	223.3	261.8	5.0	5.5	6.5
New York City <sup>1</sup>	3,322.2	3,357.0	3,301.0	175.8	201.0	238.0	5.3	6.0	7.2
Orange County	141.5	139.9	142.0	6.5	6.1	6.1	4.6	4.4	4.3
Poughkeepsie	132.6	130.2	133.0	3.9	3.9	4.0	3.0	3.0	3.0
Rochester	523.9	517.8	526.0	19.4	18.5	19.3	3.7	3.6	3.7
Syracuse	327.8	325.4	332.4	12.9	12.4	11.9	3.9	3.8	3.6
Utica-Rome	143.1	140.1	143.4	5.9	5.5	5.7	4.1	4.0	4.0
<b>North Carolina<sup>1</sup></b>	3,471.0	3,471.0	3,493.5	114.0	131.7	157.3	3.3	3.8	4.5
Asheville	92.9	95.9	96.5	2.1	2.8	3.2	2.3	3.0	3.3
Charlotte-Gastonia-Rock Hill	661.7	667.3	670.3	20.2	23.2	26.1	3.1	3.5	3.9
Greensboro-Winston-Salem-High Point	526.7	520.1	517.0	17.3	19.1	22.6	3.3	3.7	4.4
Raleigh-Durham	431.9	423.5	429.6	10.9	9.9	11.8	2.5	2.3	2.7
<b>North Dakota</b>	345.0	335.3	334.6	12.6	13.8	13.1	3.7	4.1	3.9
Bismarck	49.0	48.4	48.3	1.6	1.9	1.8	3.3	3.9	3.7
Fargo-Moorhead	88.3	87.8	88.1	2.1	2.2	2.2	2.4	2.5	2.5
Grand Forks	37.1	36.1	36.0	1.5	1.5	1.6	4.0	4.2	4.5
<b>Ohio<sup>1</sup></b>	5,483.1	5,480.7	5,472.1	273.3	301.5	278.2	5.0	5.5	5.1
Akron	335.3	335.3	337.6	15.1	16.6	16.2	4.5	5.0	4.8
Canton	197.4	196.1	195.2	11.5	12.8	10.6	5.8	6.5	5.4
Cincinnati	792.9	799.2	799.8	33.6	35.1	31.6	4.2	4.4	4.0
Cleveland	967.2	962.5	967.8	40.8	45.3	42.1	4.2	4.7	4.3
Columbus	735.9	744.2	743.3	31.5	32.2	30.9	4.3	4.3	4.2
Dayton-Springfield	479.7	481.9	479.6	22.2	25.1	22.0	4.6	5.2	4.6
Toledo	317.3	319.9	316.3	17.1	21.2	18.6	5.4	6.6	5.9
Youngstown-Warren	220.9	225.7	222.4	13.4	14.1	16.9	6.0	6.2	7.6
<b>Oklahoma</b>	1,568.4	1,577.1	1,586.7	83.7	76.2	75.5	5.3	4.8	4.8
Enid	29.1	28.7	29.0	1.2	1.0	1.1	4.0	3.6	3.7
Lawton	50.6	50.6	50.8	2.3	2.5	2.3	4.5	5.0	4.5
Oklahoma City	516.9	521.2	529.6	22.5	23.0	23.1	4.4	4.4	4.4
Tulsa	354.4	360.5	367.6	19.2	17.5	16.8	5.4	4.9	4.6
<b>Oregon</b>	1,511.2	1,510.9	1,511.1	84.6	79.0	86.4	5.6	5.2	5.7
Eugene-Springfield	147.9	150.0	149.1	8.4	8.5	8.6	5.7	5.6	5.8
Portland	685.4	685.5	689.1	31.1	28.5	32.2	4.5	4.2	4.7
Salem	142.1	144.7	143.6	7.7	7.5	7.7	5.4	5.2	5.4
<b>Pennsylvania<sup>1</sup></b>	5,920.8	5,974.3	5,974.1	277.2	295.9	309.9	4.7	5.0	5.2
Allentown-Bethlehem	328.2	335.8	333.7	15.5	17.4	18.9	4.7	5.2	5.7
Allentown	61.0	62.9	63.5	3.7	3.9	4.9	6.0	6.2	7.7
Beaver County	59.9	60.5	60.2	4.6	4.3	4.5	7.6	7.2	7.5
Erie	134.1	135.8	136.8	6.5	6.7	6.9	4.8	4.9	5.0
Harrisburg-Lebanon-Carlisle	337.8	345.7	346.6	13.0	14.8	14.4	3.9	4.3	4.2
Johnstown	97.8	96.6	97.7	7.9	6.9	7.4	8.1	7.1	7.6
Lancaster	228.2	228.7	228.6	8.0	9.1	9.4	3.5	4.0	4.1
Philadelphia	2,440.6	2,461.3	2,460.3	100.2	110.6	116.6	4.1	4.5	4.7
Pittsburgh	991.7	1,004.3	998.1	45.6	44.2	40.8	4.6	4.4	4.1
Reading	177.9	181.3	179.3	7.0	8.7	9.3	3.9	4.8	5.2
Scranton-Wilkes-Barre	369.8	370.9	374.9	22.0	23.2	26.4	6.0	6.3	7.0
Sharon	50.7	52.5	53.1	2.3	2.6	2.8	4.6	4.9	5.3
State College	65.5	65.6	67.0	2.8	3.3	3.7	4.3	5.0	5.5
Williamsport	60.8	61.7	61.6	3.4	3.8	3.4	5.6	6.1	5.5
York	224.1	226.2	225.2	9.2	10.3	10.8	4.1	4.6	4.8
<b>Rhode Island</b>	532.7	524.9	526.0	21.4	34.1	37.4	4.0	6.5	7.1
Pawtucket-Woonsocket-Attleboro	167.9	167.0	165.8	8.2	12.2	13.8	4.9	7.3	8.4
Providence	348.1	343.1	342.6	13.6	21.8	23.6	3.9	6.3	6.9
<b>South Carolina</b>	1,700.1	1,784.3	1,770.9	81.0	87.1	93.3	4.8	4.9	5.3
Charleston	225.7	246.6	247.4	9.3	9.3	8.8	4.1	3.8	3.5
Columbia	234.9	245.6	244.9	8.1	9.2	9.4	3.5	3.7	3.8
Greenville-Spartanburg	337.5	356.2	356.7	13.5	15.1	15.7	4.0	4.2	4.4
<b>South Dakota</b>	367.9	365.5	369.1	14.7	14.4	14.5	4.0	3.9	3.9
Rapid City	41.2	39.9	40.5	1.4	1.3	1.3	3.5	3.3	3.2
Sioux Falls	74.5	73.6	74.7	2.6	2.4	2.0	3.5	3.2	2.7

See footnotes at end of table.

**STATE AND AREA LABOR FORCE DATA  
NOT SEASONALLY ADJUSTED**

**D-1. Labor force status by State and selected metropolitan areas—Continued**

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>	July 1989	June 1990	July 1990 <sup>P</sup>
<b>Tennessee</b> .....	2,405.4	2,415.9	2,447.7	123.1	130.2	122.6	5.1	5.4	5.0
Chattanooga .....	211.4	211.3	214.6	10.2	10.4	10.0	4.8	4.9	4.6
Johnson City-Kingsport-Bristol .....	218.6	221.9	226.5	10.6	10.3	9.8	4.9	4.7	4.3
Knoxville .....	297.3	289.9	293.4	14.7	14.5	12.6	4.9	5.0	4.3
Memphis .....	471.8	471.8	479.3	21.0	24.0	20.6	4.4	5.1	4.3
Nashville .....	534.3	535.9	541.6	19.0	24.1	20.0	3.6	4.5	3.7
<b>Texas<sup>1</sup></b> .....	8,583.0	8,548.8	8,527.9	616.3	539.1	537.6	7.2	6.3	6.3
Abilene .....	52.8	51.7	52.4	3.8	3.2	4.2	7.1	6.2	8.0
Amarillo .....	100.0	98.4	97.9	5.9	5.3	5.3	5.9	5.4	5.4
Austin .....	435.7	435.1	429.4	26.7	21.4	21.1	6.1	4.9	4.9
Beaumont-Port Arthur .....	166.7	166.4	166.0	16.3	13.3	13.0	9.8	8.0	7.8
Brazoria .....	87.0	88.2	87.9	6.6	4.8	5.2	7.6	5.5	5.9
Brownsville-Harlingen .....	106.3	110.0	109.3	13.3	12.7	12.7	12.5	11.5	11.6
Bryan-College Station .....	60.5	59.3	60.8	3.0	2.3	2.3	5.0	3.9	3.8
Corpus Christi .....	161.2	159.7	159.5	14.3	11.2	11.3	8.9	7.0	7.1
Dallas .....	1,471.4	1,457.2	1,458.6	87.3	77.6	77.6	5.9	5.3	5.3
El Paso .....	255.0	257.1	256.6	27.5	27.6	27.4	10.8	10.7	10.7
Fort Worth-Arlington .....	740.1	742.3	739.2	43.5	42.5	39.7	5.9	5.7	5.4
Galveston-Texas City .....	114.6	113.8	113.9	8.9	8.3	8.3	7.7	7.3	7.3
Houston .....	1,721.4	1,723.3	1,728.3	110.5	93.7	94.9	6.4	5.4	5.5
Killeen-Temple .....	100.0	101.3	100.5	7.8	7.2	6.8	7.8	7.1	6.8
Laredo .....	52.5	53.6	53.6	6.0	5.4	5.1	11.5	10.0	9.5
Longview-Marshall .....	82.7	81.0	81.2	7.5	5.9	5.8	9.1	7.2	7.2
Lubbock .....	117.1	114.7	115.6	7.2	6.3	6.3	6.2	5.5	5.4
McAllen-Edinburg-Mission .....	152.4	162.3	156.0	25.3	25.6	25.2	16.6	15.7	16.2
Midland .....	50.7	49.5	49.6	3.5	2.8	2.9	6.8	5.6	5.9
Odessa .....	53.2	51.1	51.3	4.9	3.5	3.4	9.3	6.8	6.5
San Angelo .....	46.2	44.8	44.3	2.7	2.8	2.6	5.9	6.2	6.0
San Antonio .....	624.6	618.2	615.6	49.9	44.7	45.3	8.0	7.2	7.4
Sherman-Denison .....	47.9	47.0	47.1	3.0	2.5	2.5	6.2	5.2	5.3
Texarkana .....	58.8	58.0	57.5	4.4	3.7	3.9	7.5	6.4	6.7
Tyler .....	77.1	75.6	75.4	5.9	4.8	4.8	7.7	6.4	6.4
Victoria .....	36.3	36.6	37.1	2.4	1.8	2.0	6.6	4.9	5.4
Waco .....	94.3	95.8	93.9	5.9	6.9	6.0	6.2	7.2	6.4
Wichita Falls .....	57.9	56.8	56.2	3.8	3.8	3.6	6.6	6.6	6.3
<b>Utah</b> .....	797.9	796.6	799.0	35.6	38.6	35.4	4.5	4.8	4.4
Provo-Orem .....	110.2	113.4	114.1	4.8	4.9	4.3	4.4	4.3	3.8
Salt Lake City-Ogden .....	519.0	512.0	516.0	21.8	24.2	22.2	4.2	4.7	4.3
<b>Vermont</b> .....	313.5	313.5	310.6	11.4	13.8	14.0	3.6	4.4	4.5
Burlington .....	79.5	80.2	80.0	2.3	2.4	2.6	2.9	3.0	3.2
<b>Virginia</b> .....	3,221.1	3,194.8	3,231.2	106.8	133.8	122.2	3.3	4.2	3.8
Charlottesville .....	71.4	73.6	73.8	1.4	1.9	1.6	2.0	2.6	2.1
Danville .....	52.1	51.9	51.9	3.0	4.0	3.6	5.7	7.7	6.9
Lynchburg .....	73.8	74.1	73.7	2.7	3.4	3.0	3.7	4.5	4.1
Norfolk-Virginia Beach-Newport News .....	638.2	633.4	641.2	24.0	31.4	27.7	3.8	5.0	4.3
Richmond-Petersburg .....	464.7	456.8	464.7	14.6	18.7	15.6	3.2	4.1	3.4
Roanoke .....	124.5	121.6	124.4	4.3	3.7	3.9	3.5	3.1	3.1
<b>Washington</b> .....	2,475.3	2,564.1	2,548.2	152.4	122.5	128.1	6.2	4.8	5.0
Seattle .....	1,111.6	1,147.7	1,139.0	52.8	41.0	42.0	4.8	3.6	3.7
<b>West Virginia</b> .....	778.9	777.8	780.8	58.6	52.0	55.9	7.5	6.7	7.2
Charleston .....	118.2	121.5	121.5	6.2	6.4	6.2	5.2	5.2	5.1
Huntington-Ashland .....	132.4	132.3	132.7	7.9	8.0	8.1	6.0	6.1	6.1
Parkersburg-Marietta .....	73.5	73.6	74.5	3.8	4.2	4.4	5.2	5.8	5.9
Wheeling .....	73.7	74.1	72.2	4.0	4.0	3.6	5.4	5.4	5.0
<b>Wisconsin</b> .....	2,650.8	2,604.9	2,617.6	103.2	106.7	92.5	3.9	4.1	3.5
Appleton-Oshkosh-Neenah .....	176.4	174.5	174.7	6.4	8.0	6.1	3.6	4.6	3.5
Eau Claire .....	75.8	75.2	75.2	2.6	3.1	2.5	3.4	4.1	3.3
Green Bay .....	111.5	113.4	111.0	4.0	4.1	3.4	3.6	3.6	3.0
Janesville-Beloit .....	75.5	72.6	74.6	4.5	3.2	4.5	6.0	4.5	6.0
Kenosha .....	54.5	52.5	52.8	4.6	2.9	3.3	8.4	5.6	6.2
La Crosse .....	54.6	53.0	53.3	2.0	1.7	1.7	3.7	3.2	3.2
Madison .....	227.9	224.4	228.0	5.3	5.1	4.5	2.3	2.3	2.0
Milwaukee .....	777.5	776.7	773.6	27.6	33.4	25.9	3.5	4.3	3.4
Racine .....	93.5	92.3	91.8	4.5	4.1	3.4	4.8	4.4	3.8
Sheboygan .....	61.5	59.8	61.6	2.4	2.2	2.8	3.9	3.6	4.5
Wausau .....	66.2	64.9	65.7	2.4	2.4	2.1	3.7	3.7	3.2
<b>Wyoming</b> .....	244.7	249.0	247.8	15.4	9.6	8.9	6.3	3.9	3.6
Casper .....	30.5	31.0	30.3	2.3	1.3	1.3	7.4	4.3	4.2

<sup>1</sup> Data are obtained directly from the Current Population Survey. See the Explanatory Notes for State and Area Labor Force Data.  
<sup>P</sup> = preliminary.  
 NOTE: Data refer to place of residence. Estimates for 1989 have been benchmarked to 1989 Current Population Survey annual averages. Except in the

11 States and 2 areas designated by footnote 1, estimates for 1990 are provisional and will be revised when new benchmark information becomes available. Area definitions are published annually in the May issue of this publication.

# Explanatory Notes

## Introduction

The statistics in this periodical are compiled from two major sources: (1) Household interviews, and (2) reports from employers.

*Data based on household interviews* are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the Bureau of Labor Statistics and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of about 60,000 households, representing 729 areas in 1,973 counties and independent cities, with coverage in 50 States and the District of Columbia. The data collected are based on the activity or status reported for the calendar week including the 12th of the month.

*Data based on establishment records* are compiled each month from mail questionnaires by the Bureau of Labor Statistics, in cooperation with State agencies. The establishment survey is designed to provide industry information on nonfarm wage and salary employment, average weekly hours, average hourly earnings, and average weekly earnings for the Nation, States, and metropolitan areas. The employment, hours, and earnings series are currently based on payroll reports from a sample of over 340,000 establishments employing over 40 million nonfarm wage and salary workers. The data relate to all workers, full or part time, who receive pay during the payroll period which includes the 12th day of the month.

## RELATION BETWEEN THE HOUSEHOLD AND ESTABLISHMENT SERIES

The household and establishment data supplement one another, each providing significant types of information that the other cannot suitably supply. Population characteristics, for example, are readily obtained only from the household survey whereas detailed industrial classifications can be reliably derived only from establishment reports.

Data from these two sources differ from each other because of differences in definitions and coverage, sources of information, methods of collection, and estimating procedures. Sampling variability and response errors are additional reasons for discrepancies. The major factors which

have a differential effect on the levels and trends of the two series are as follows.

### Employment

*Coverage.* The household survey definition of employment comprises wage and salary workers (including domestics and other private household workers), self-employed persons, unpaid workers who worked 15 hours or more during the survey week in family-operated enterprises, and members of the Armed Forces stationed in the United States. Civilian employment in both agricultural and nonagricultural industries is included. The payroll survey covers only wage and salary employees on the payrolls of nonfarm establishments.

*Multiple jobholding.* The household survey provides information on the work status of the population without duplication, since each person is classified as employed, unemployed, or not in the labor force. Employed persons holding more than one job are counted only once and are classified according to the job at which they worked the greatest number of hours during the survey week. In the figures based on establishment reports, persons who worked in more than one establishment during the reporting period are counted each time their names appear on payrolls.

*Unpaid absences from jobs.* The household survey includes among the employed all civilians who had jobs but were not at work during the survey week—that is, were not working but had jobs from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or because they were taking time off for various other reasons, even if they were not paid by their employers for the time off. In the figures based on payroll reports, persons on leave paid for by the company are included, but not those on leave without pay for the entire payroll period.

For a comprehensive discussion of the differences between household and establishment survey employment data, see Gloria P. Green's article, "Comparing Employment Estimates From Household and Payroll Surveys," *Monthly Labor Review*, December 1969.

### Hours of work

The household survey measures hours actually worked whereas the payroll survey measures hours paid for by

employers. In the household survey data, all persons with a job but not at work are excluded from the hours distributions and the computations of average hours. In the payroll survey, production or nonsupervisory employees on paid vacation, paid holiday, or paid sick leave are included and assigned the number of hours for which they were paid during the reporting period.

## Earnings

The household survey measures median earnings of wage and salary workers in all occupations and industries in both the private and public sectors. Data refer to the usual earnings received from the worker's sole or primary job. Data from the establishment survey generally refer to average earnings of production and related workers in mining and manufacturing, construction workers in construction, and nonsupervisory employees in private service-producing industries. For a comprehensive discussion of the household survey earnings series, see *Technical Description of the Quarterly Data on Weekly Earnings from the Current Population Survey*, BLS Bulletin 2113.

## COMPARABILITY OF THE HOUSEHOLD DATA WITH OTHER SERIES

*Unemployment insurance data.* The unemployed total from the household survey includes all persons who did not have a job at all during the survey week and were looking for work or were waiting to be called back to a job from which they had been laid off, whether or not they were eligible for unemployment insurance. Figures on unemployment insurance claims, prepared by the Employment and Training Administration of the Department of Labor, exclude persons who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). Beginning in January 1978, coverage was extended to include domestic workers whose employers paid \$1,000 or more in wages in any calendar quarter, agricultural employees whose employers engaged 10 or more workers in 20 weeks or paid a total of \$20,000 or more in wages in any calendar quarter, and almost all State and local government employees.

In addition, the qualifications for drawing unemployment compensation differ from the definition of unemployment used in the household survey. For example, persons with a job but not at work and persons working only a few hours during the week are sometimes eligible for unemployment

compensation but are classified as employed rather than unemployed in the household survey.

For an examination of the similarities and differences between State insured unemployment and total unemployment, see "Measuring Total and State Insured Unemployment" by Gloria P. Green in the June 1971 issue of the *Monthly Labor Review*.

*Agricultural employment estimates of the Department of Agriculture.* The principal differences in coverage are the inclusion of persons under 16 in the Economics and Statistics Service series and the treatment of dual jobholders, who are counted more than once if they work on more than one farm during the reporting period. There are also wide differences in sampling techniques and collecting and estimating methods, which cannot be readily measured in terms of their impact on differences in the levels and trends of the two series.

## COMPARABILITY OF THE PAYROLL EMPLOYMENT DATA WITH OTHER SERIES

*Statistics on manufactures and business, Bureau of the Census.* BLS establishment statistics on employment differ from employment counts derived by the Bureau of the Census from its censuses or sample surveys of manufacturing and business establishments. The major reasons for noncomparability are different treatment of business units considered parts of an establishment, such as central administrative offices and auxiliary units, the industrial classification of establishments, and different reporting patterns by multiunit companies. There are also differences in the scope of the industries covered, e.g., the Census of Business excludes professional services, public utilities, and financial establishments, whereas these are included in the BLS statistics.

*County Business Patterns.* Data in *County Business Patterns* (CBP), published by the Bureau of the Census, U.S. Department of Commerce, differ from BLS establishment statistics in the treatment of central administrative offices and auxiliary units. Differences may also arise because of industrial classification and reporting practices. In addition, CBP excludes interstate railroads and government, and coverage is incomplete for some of the nonprofit activities.

*Employment covered by State unemployment insurance programs.* Most nonfarm wage and salary workers are covered by the unemployment insurance programs. However, certain activities, such as interstate railroads, parochial schools, and churches are not covered by unemployment insurance whereas these are included in the BLS establishment statistics.

# Household Data (A tables)

## COLLECTION AND COVERAGE

Statistics on the employment status of the population, the personal, occupational, and other characteristics of the employed, the unemployed, and persons not in the labor force, and related data are compiled for the BLS by the Bureau of the Census in its Current Population Survey (CPS). A detailed description of this survey appears in *Concepts and Methods Used in Labor Force Statistics Derived from the Current Population Survey*, BLS Report 463. Historical national data are published in *Labor Force Statistics Derived From the Current Population Survey*, BLS Bulletin 2307.

These monthly surveys of the population are conducted through a scientifically selected sample designed to represent the civilian noninstitutional population. Respondents are interviewed to obtain information about the employment status of each member of the household 16 years of age and over. The inquiry relates to activity or status during the calendar week, Sunday through Saturday, which includes the 12th of the month. This is known as the survey week. Actual field interviewing is conducted in the following week.

Inmates of institutions and persons under 16 years of age are not covered in the regular monthly enumerations, and are excluded from the population and labor force statistics shown in this publication. Data on the members of the Armed Forces stationed in the United States, who are included as part of the categories "noninstitutional population," "labor force," and "total employment," are obtained from the Department of Defense.

Each month about 60,000 occupied units are eligible for interview. About 2,600 of these households are visited but interviews are not obtained because the occupants are not at home after repeated calls or are unavailable for other reasons. This represents a noninterview rate for the survey of between 4 and 5 percent. In addition to the 60,000 occupied units, there are 11,500 sample units in an average month which are visited but found to be vacant or otherwise not enumerated. Part of the sample is changed each month. The rotation plan provides for three-fourths of the sample to be common from one month to the next, and one-half to be common with the same month a year earlier.

## CONCEPTS AND DEFINITIONS

The concepts and definitions underlying labor force data have been modified, but not substantially altered, since the inception of the survey in 1940; those used since 1967 are as follows:

*Employed persons* are (a) all civilians who, during the survey week, did any work at all as paid employees, in their own business, profession, or on their own farm, or who worked 15 hours or more as unpaid workers in an enterprise

operated by a member of the family; and (b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or personal reasons, whether they were paid for the time off or were seeking other jobs. Members of the Armed Forces stationed in the United States are also included in the employed total.

Each employed person is counted only once. Those who held more than one job are counted in the job at which they worked the greatest number of hours during the survey week.

Included in the total are employed citizens of foreign countries who are temporarily in the United States but not living on the premises of an embassy. Excluded are persons whose only activity consisted of work around the house (painting, repairing, or own home housework) or volunteer work for religious, charitable, and similar organizations.

*Unemployed persons* are all civilians who had no employment during the survey week, were available for work, except for temporary illness, and had made specific efforts to find employment some time during the prior 4 weeks. Persons who were waiting to be recalled to a job from which they had been laid off or were waiting to report to a new job within 30 days need not be looking for work to be classified as unemployed.

*Duration of unemployment* represents the length of time (through the current survey week) during which persons classified as unemployed had been continuously looking for work. For persons on layoff, duration of unemployment represents the number of full weeks since the termination of their most recent employment. A period of 2 weeks or more during which a person was employed or ceased looking for work is considered to break the continuity of the present period of seeking work. Measurements of mean and median duration are computed from a distribution of single weeks of unemployment.

Unemployment is also categorized according to the status of individuals at the time they began to look for work. The reasons for unemployment are divided into four major groups. (1) *Job losers* are persons whose employment ended involuntarily who immediately began looking for work, and persons on layoff. (2) *Job leavers* are persons who quit or otherwise terminated their employment voluntarily and immediately began looking for work. (3) *Reentrants* are persons who previously worked at a full-time job lasting 2 weeks or longer but were out of the labor force prior to beginning to look for work. (4) *New entrants* are persons who never worked at a full-time job lasting 2 weeks or longer. Each of these four categories of the unemployed may be expressed as an unemployment rate or proportion of the entire civilian labor force; the sum of the four rates thus equals the unemployment rate for all civilian workers.

*Jobseekers* are all unemployed persons who made specific

efforts to find a job sometime during the 4-week period preceding the survey week. Jobseekers do not include those persons unemployed because they (a) were waiting to be called back to a job from which they had been laid off or (b) were waiting to report to a new job within 30 days. Jobseekers are grouped by the methods used to seek work, including going to a public or private employment agency or to an employer directly, seeking assistance from friends or relatives, placing or answering ads, or utilizing some other method. Examples of the "other" category include being on a union or professional register, obtaining assistance from a community organization, or waiting at a designated labor pickup point.

The *civilian labor force* comprises all civilians classified as employed or unemployed in accordance with the criteria described above. The *labor force* also includes members of the Armed Forces stationed in the United States.

The *overall unemployment rate* represents the number unemployed as a percent of the labor force, including members of the Armed Forces stationed in the United States.

The *unemployment rate for all civilian workers* represents the number unemployed as a percent of the civilian labor force. This measure can also be computed for groups within the labor force classified by sex, age, race, Hispanic origin, marital status, etc.

*Participation rates* represent the proportion of the population that is in the labor force. The *labor force participation rate* is the ratio of the labor force, including the resident Armed Forces, to the noninstitutional population. The *civilian labor force participation rate* is the ratio of the civilian labor force to the civilian noninstitutional population. Civilian labor force participation rates are usually published for sex-age groups, often cross-classified by other demographic characteristics such as race and educational attainment.

*Employment-population ratios* represent the proportion of the noninstitutional population that is employed. The *total employment-population ratio* is total employment, including the resident Armed Forces, as a percent of the noninstitutional population. The *civilian employment-population ratio* is the percentage of all employed civilians in the civilian noninstitutional population.

*Not in the labor force* includes all persons who are not classified as employed or unemployed. These persons are further classified as engaged in own home housework, in school, unable to work because of long-term physical or mental illness, retired, and other. The "other" group includes individuals reported as too old or temporarily unable to work, the voluntarily idle, seasonal workers for whom the survey week fell in an off season and who were not reported as looking for work, and persons who did not look for work because they believed that no jobs were available in the area or that no jobs were available for which they could qualify—discouraged workers. Persons doing only incidental, unpaid family work (less than 15 hours in the specified week) are also classified as not in labor force.

For persons not in the labor force, data on previous work experience, intentions to seek work, desire for a job at the

time of interview, and reasons for not looking for work are published on a quarterly basis. As of January 1970, the detailed questions for persons not in the labor force are asked only in those households that are in the fourth and eighth months of the sample, i.e., the "outgoing" groups, those which had been in the sample for 3 previous months and would not be in for the subsequent month. Between 1967 and 1969, these questions were asked in those households entering the sample for the first time and those returning for the second 4 months of interviewing, i.e., the "incoming" groups.

*Occupation, industry, and class of worker* for the employed apply to the job held in the survey week. Persons with two or more jobs are classified in the job at which they worked the greatest number of hours during the survey week. The unemployed are classified according to their last full-time job lasting 2 weeks or more. The classifications of occupations and industries used in data derived from the CPS are defined as in the 1980 census. Information on the detailed categories included in these groups is available upon request.

The class-of-worker breakdown specifies wage and salary workers subdivided into private and government workers; self-employed workers; and unpaid family workers. Wage and salary workers receive wages, salary, commission, tips, or pay in kind from a private employer or from a government unit. Self-employed persons are those who work for profit or fees in their own business, profession, or trade, or operate a farm. Unpaid family workers are persons working without pay for 15 hours a week or more on a farm or in a business operated by a member of the household to whom they are related by birth or marriage.

*Hours of work* statistics relate to the actual number of hours worked during the survey week. For example, persons who normally work 40 hours a week but were off on the Columbus Day holiday would be reported as working 32 hours even though they were paid for the holiday. For persons working in more than one job, the figures relate to the number of hours worked in all jobs during the week; all the hours are credited to the major job.

Persons who worked 35 hours or more during the survey week are designated as working *full time*. Persons who worked between 1 and 34 hours are designated as working *part time*. Part-time workers are classified by their usual status at their present job (either full or part time) and by their reason for working part time during the survey week (economic or noneconomic reasons). Economic reasons include: Slack work, material shortages, repairs to plant or equipment, start or termination of a job during the week, and inability to find full-time work. Noneconomic reasons include: Labor dispute, bad weather, own illness, vacation, demands of home or school, no desire for full-time work, and full-time worker only during peak season. Persons on full-time schedules include, in addition to those working 35 hours or more, those who worked from 1 to 34 hours for noneconomic reasons and usually work full time.

Data on employment "at work" differ from data on total employment because they exclude persons in the zero-hours-



worked category, "with a job but not at work." These are persons who were absent from their jobs for the entire week for such reasons as bad weather, vacation, illness, or involvement in a labor dispute.

Employed persons are also categorized into full- and part-time groupings based primarily on their *usual status*. In this context, *full-time workers* are those who (a) worked 35 hours or more during the survey week, (b) worked 1 to 34 hours for economic or noneconomic reasons, but usually work full time, and (c) were with a job but not at work and usually work full time. Similarly, *part-time workers* are those who (a) voluntarily worked 1 to 34 hours during the survey week, (b) worked 1 to 34 hours for economic reasons, but usually work part time, i.e., persons who could only find part-time work, and (c) were with a job but not at work and usually work part time.

Unemployment rates for full- and part-time workers are calculated using the concepts of the *full- and part-time labor force* which are based on the type of job—full or part time—that persons—whether working or unemployed—report that they want. The "full-time labor force" includes all persons working part time but who desire full-time work, that is, working part time for economic reasons. Thus, this category consists of persons on full-time schedules; all persons involuntarily working part time regardless of their usual status; and unemployed persons seeking full-time jobs. The "part-time labor force" consists of persons working part time voluntarily and unemployed persons seeking part-time work. Employed persons with a job but not at work are distributed according to whether they usually work on full-time or voluntary part-time schedules.

*Labor force time lost* is a measure of aggregate hours lost to the economy through unemployment and involuntary part-time employment and is expressed as a percent of potentially available aggregate hours. It is computed by assuming that: (1) unemployed persons looking for full-time work lost an average of 37.5 hours, (2) those looking for part-time work lost the average number of hours actually worked by voluntary part-time workers during the survey week, and (3) persons on part time for economic reasons lost the difference between 37.5 hours and the actual number of hours they worked.

*White, black, and other* are terms used to describe the race of workers. Included in the "other" group are American Indians, Alaskan Natives, and Asians and Pacific Islanders. All tables in this publication which contain racial data, with the exception of A-5 and its annual counterpart, present data for the black population group. Because of their relatively small sample size, data for "other" races are not published. In the enumeration process, race is determined by the household respondent.

*Hispanic origin* refers to persons who identified themselves in the enumeration process as Mexican, Puerto Rican living on the mainland, Cuban, Central or South American, or of other Hispanic origin or descent. Persons of Hispanic origin

may be of any race; thus they are included in both the white and black population groups.

*Vietnam-era veterans* are those who served in the Armed Forces of the United States between August 5, 1964, and May 7, 1975. Data are limited to men in the civilian non-institutional population; i.e., veterans in institutions and women are excluded. Nonveterans are men who never served in the Armed Forces.

*Usual weekly earnings* data are provided from responses to the question "How much does...USUALLY earn per week at this job before deductions?" Included are any overtime pay, commissions, or tips usually received. The term "usual" is as perceived by the respondent. If the respondent asks for a definition of usual, interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months. Data refer to wage and salary workers (excluding the incorporated self-employed) who usually work full time on their sole or primary job.

*Median earnings* indicate the value which divides the earnings distribution into two equal parts, one part having values above the median and the other having values below the median. The medians as shown in this publication are calculated by linear interpolation of the \$50 centered interval within which each median falls.

Data expressed in constant dollars are deflated by the Consumer Price Index for All Urban Consumers (CPI-U).

*Single, never married; married, spouse present; and other marital status* are terms used to define the marital status of individuals at the time of interview. Married, spouse present, applies to husband and wife if both were reported as members of the same household even though one may be temporarily absent on business, vacation, on a visit, in a hospital, etc. Other marital status applies to persons who are married, spouse absent; widowed; or divorced. Married, spouse absent, includes persons who are separated because of marital discord, as well as persons who are living apart because either the husband or the wife was employed and living away from home, serving in the Armed Forces, or had a different place of residence for any reason.

A *household* consists of all persons—related family members and all unrelated persons—who occupy a housing unit. A house, an apartment, a group of rooms, or a single room is regarded as a housing unit when occupied or intended for occupancy as separate living quarters.

A *householder* is the person (or one of the persons) in whose name the housing unit is owned or rented. The term is never applied to either husbands or wives in married-couple families but relates only to persons in families maintained by either men or women without a spouse.

*Family* refers to a group of two or more persons residing together who are related by birth, marriage, or adoption; all such persons are considered as members of one family even though they may include a related subfamily, that is, a married couple or a parent-child group related by birth or marriage to the householder and sharing the living quarters. The

count of families used in this publication excludes unrelated subfamilies such as lodgers, guests, or resident employees living in a household but not related to the householder. Families are classified either as married-couple families or as families maintained by women or men without spouses. A family maintained by a woman or a man is one in which the householder is either single, widowed, divorced, or married, spouse absent. Data on the earnings of families exclude all those in which there is no wage or salary earner or in which the husband, wife, or other persons maintaining the family is either self-employed or in the Armed Forces.

*Poverty areas* are defined as those census tracts in tracted areas, and Minor Civil Division's (MCD's) in untraced areas, in which 20 percent or more of the noninstitutional residents were poor according to the 1980 decennial census. Persons were classified as poor or nonpoor by comparing money income to a series of poverty income thresholds which vary by family size and number of children. While poverty areas have a substantial concentration of low-income residents, many poor persons live outside these areas, and conversely, the areas include many people who are not poor.

The *metropolitan areas* classification consists of the total of all Metropolitan Statistical Areas (MSA's) as defined by the Office of Management and Budget (OMB) as of June 30, 1983. These definitions differ from those used in the 1980 decennial census. A detailed discussion of the MSA definitions as well as changes in terminology can be found in "The New Metropolitan Area Definitions" section of the *1980 Census of Population Supplementary Report on Metropolitan Statistical Areas*, PC-S1-18. Nonmetropolitan areas consist of the total territory outside MSA's.

The *urban population*, as defined for the 1980 census, comprises all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas. More specifically, the urban population consists of all persons living in (1) places of 2,500 or more inhabitants incorporated as cities, villages, boroughs (except in Alaska and New York), and towns (except in the New England States, New York, and Wisconsin), but excluding those persons living in the rural portions of extended cities; (2) other territories, incorporated and unincorporated, included in urbanized areas. The population not classified as urban constitutes the rural population.

## HISTORICAL COMPARABILITY

### Change in lower age limit

The lower age limit for official statistics on the labor force, employment, and unemployment was raised from 14 to 16 years of age in January 1967. Insofar as possible, historical series have been revised to provide consistent information based on the population 16 years and over. For a detailed discussion of this and other definitional changes introduced at that time, including estimates of their effect on the various series, see "New Definitions for Employment and

Unemployment," *Employment and Earnings and Monthly Report on the Labor Force*, February 1967.

### Noncomparability of labor force levels

In addition to the changes introduced in 1967, there are several other periods of noncomparability in the labor force data: (1) Beginning in 1953, as a result of introducing data from the 1950 census into the estimating procedures, population levels were raised by about 600,000; labor force, total employment, and agricultural employment were increased by about 350,000, primarily affecting the figures for totals and men; other categories were relatively unaffected. (2) Beginning in 1960, the inclusion of Alaska and Hawaii resulted in an increase of about 500,000 in the population and about 300,000 in the labor force. Four-fifths of this increase was in nonagricultural employment; other labor force categories were not appreciably affected. (3) Beginning in 1962, the introduction of data from the 1960 census reduced the population by about 50,000 and labor force and employment by about 200,000; unemployment totals were virtually unchanged. (4) Beginning in 1972, information from the 1970 census was introduced into the estimation procedures, increasing the population by about 800,000; labor force and employment totals were raised by a little more than 300,000; and unemployment levels and rates were essentially unchanged. (5) A subsequent population adjustment based on the 1970 census was introduced in March 1973. This adjustment, which affected the white and black-and-other groups but had little effect on totals, resulted in the reduction of nearly 300,000 in the white population and an increase of the same magnitude in the black-and-other population. Civilian labor force and total employment figures were affected to a lesser degree; the white labor force was reduced by 150,000, and the black-and-other labor force rose by about 210,000. Unemployment levels and rates were not significantly affected.

In addition, beginning in January 1974, the methodology used to prepare independent estimates of the civilian noninstitutional population was modified to an inflation-deflation approach. This change in the derivation of the estimates had its greatest impact on estimates of 20- to 24-year old men—particularly those of the black-and-other population—but had little effect on estimates of the total population 16 years and over. Additional information on the adjustment procedure appears in "CPS Population Controls Derived from Inflation-Deflation Method of Estimation", in the February 1974 issue of *Employment and Earnings*.

Effective in July 1975, as a result of the immigration of Vietnamese refugees into the United States, the total and black-and-other independent population controls for persons 16 years and over were adjusted upward by 76,000—30,000 men and 46,000 women. The addition of the refugees increased the black-and-other population by less than 1 percent in any age-sex group, and all of the changes were in the other population.

Beginning in January 1978, the introduction of an expansion in the sample and revisions in the estimation procedures resulted in an increase of about 250,000 in the civilian labor force and employment totals; unemployment levels and rates were essentially unchanged. An explanation of the procedural changes and an indication of the differences appear in "Revisions in the Current Population Survey in January 1978" in the February 1978 issue of *Employment and Earnings*.

Beginning in October 1978, the race of the individual was determined by the household respondent for the incoming rotation group households, rather than by the interviewer as before. The purpose of this change was to provide more accurate estimates of characteristics by race. Thus, in October 1978, one-eighth of the sample households had race determined by the household respondent and seven-eighths of the sample households had race determined by interviewer observation. It was not until January 1980 that the entire sample had race determined by the household respondent. The new procedure had no significant effect on the estimates.

Beginning in January 1979, the first-stage ratio estimation method was changed in the CPS estimation procedure. Differences between the old and new procedures existed only for metropolitan and nonmetropolitan area estimates, not for the total United States. The reasoning behind the change and an indication of the differences appear in "Revisions in the Current Population Survey in January 1979" in the February 1979 issue of *Employment and Earnings*.

Beginning in January 1982, the second-stage ratio adjustment methodology was changed in the CPS estimation procedure. The purpose of the change and an indication of its effect on national estimates of labor force characteristics appear in "Revisions in the Current Population Survey Beginning in January 1982" in the February 1982 issue of *Employment and Earnings*. In addition, current population estimates used in the second-stage estimation procedure are derived from information obtained from the 1980 census, rather than the 1970 census. This change caused substantial increases in total population and estimates of persons in all labor force categories. Rates for labor force characteristics, however, remained virtually unchanged. Some 30,000 labor force series were adjusted back to 1970 to avoid major breaks in series. The adjustment procedure used is also described in the February 1982 article cited above. The revisions did not, however, smooth out the breaks in series occurring between 1972 and 1979 that are described above, and data users should make allowances for them in making certain data comparisons.

Beginning in January 1983, the first-stage ratio adjustment methodology was updated to account for results obtained from the 1980 census. The purpose of the change and an indication of its effect on national estimates of labor force characteristics appear in "Revisions in the Current Population Survey Beginning in January 1983" in the February 1983 issue of *Employment and Earnings*. There were only slight differences between the old and new procedures in estimates of levels for the various labor force characteristics and virtually no differences in estimates of participation rates.

Beginning in January 1985, most of the steps of the CPS estimation procedure—the noninterview adjustment, the first and second-stage ratio adjustments, and the composite estimator—were revised. These procedures are described in the Estimating Methods section. A description of the changes and an indication of their effect on national estimates of labor force characteristics appear in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1985" in the February 1985 issue of this publication. Overall, the revisions had only a slight effect on most estimates. The greatest impact was on estimates of persons of Hispanic origin. Major estimates were revised back to January 1980.

Beginning in January 1986, the population controls used in the second-stage ratio adjustment methodology were revised to reflect an explicit estimate of the number of undocumented immigrants (largely Hispanic) since 1980 and an improved estimate of the number of emigrants among legal foreign-born residents for the same time period. As a result, the total civilian population and labor force estimates were raised by nearly 400,000; civilian employment was increased by about 350,000. The Hispanic-origin civilian population and labor force estimates were raised by about 425,000 and 305,000, respectively, and civilian employment by 270,000. Overall and subgroup unemployment levels and rates were not significantly affected. Because of the magnitude of the adjustments for Hispanics, data have been revised back to January 1980 to the extent possible. An explanation of the changes and their effect on estimates of labor force characteristics appears in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986" in the February 1986 issue of this publication.

Beginning in August 1989, the second-stage ratio estimate cells were changed slightly to decrease the chance of very small cells occurring and to be more consistent with published age, sex, race cells. This change had virtually no effect on national estimates.

### **Changes in the occupational and industrial classification system**

Beginning in 1971, the comparability of occupational employment data was affected as a result of changes in the occupational classification system for the 1970 census that were introduced into the CPS. Comparability was further affected in December 1971, when a question relating to major activity or duties was added to the monthly CPS questionnaire in order to determine more precisely the occupational classification of individuals. As a result of these changes, meaningful comparisons of occupational employment levels could not be made between 1971–72 and prior years nor between those 2 years. Unemployment rates were not significantly affected. For a further explanation of the changes in the occupational classification system, see "Revisions in Occupational Classifications for 1971" and "Revisions in the Current Population Survey" in the February 1971 and February 1972 issues, respectively, of *Employment and Earnings*.

Beginning in January 1983, the occupational and industrial classification systems used in the 1980 census were introduced into the CPS. These systems differ from those developed for the 1970 census, which were used in the CPS from January 1971 through December 1982.

The 1980 census occupational classification system evolved from the Standard Occupational Classification system (SOC). While the CPS occupational data are now comparable with other data sources, the new system is so radically different in concepts and nomenclature from the 1970 system that comparisons of historical data are not possible without major adjustments. For example, the 1980 major group "sales occupations" is substantially larger than the 1970 category "sales workers." Major additions include "cashiers" from "clerical workers" and some self-employed proprietors in retail trade establishments from "managers and administrators, except farm."

The industrial classification system used in the 1980 census is based on the 1972 Standard Industrial Classification system (SIC), as modified in 1977. The adoption of the new system had much less of an adverse effect on historical comparability than did the new occupational system. The most notable changes from the 1970 system were the transfer of farm equipment stores from "retail" to "wholesale" trade, postal service from "public administration" to "transportation," and some interchange between "professional and related services" and "public administration."

Additional information on the 1980 census occupational and industrial classification systems appears in "Revisions in the Current Population Survey Beginning in January 1983" in the February 1983 issue of *Employment and Earnings*.

### Changes in the sample design

Since the inception of the survey, there have been various changes in the design of the CPS sample. Most of these changes were made in order to improve the efficiency of the sample design and/or to increase the reliability of the sample estimates.

One major change made after every decennial census is to change the sample design to make use of the recently collected census materials. Also, the number of sample areas and the number of sample persons are increased occasionally. In 1953, the current rotation plan was introduced, in which a sample unit is interviewed for 4 months, leaves the sample for 8 months, and then returns to the sample for another 4 months. When Alaska and Hawaii achieved statehood, three more sample areas were added to account for the population in these States. After the 1960 census, selection of a major portion of the sample from census address lists was begun, though a portion of the sample is still collected using area sampling. Following the 1970 census, the ultimate sampling unit was changed from a noncontiguous cluster of six housing units to a usually contiguous cluster of four housing units. In January 1978, a supplemental sample of 9,000 housing units, selected in 24 States and the District of Columbia

and designed to provide more reliable annual average estimates for States, was incorporated into the design. In October 1978, a coverage improvement sample, composed of approximately 450 sample household units which represented 237,000 occupied mobile homes and 600,000 new construction housing units, was included in computing the estimates in order to provide coverage of mobile homes and new construction units that previously had no chance for selection in the CPS sample selected from the 1970 census frame. In January 1980, another supplemental sample of 9,000 households selected in 32 States and the District of Columbia was added to the existing sample. A sample reduction of about 6,000 units was implemented in May 1981. Beginning in January 1982, the sample was expanded by 100 households to provide additional coverage in counties added to SMSA's, which were redefined in 1973.

Beginning in 1985, a new State-based CPS sample was selected based on 1980 census information, providing an opportunity to improve the efficiency of the sample design and increase the reliability for State estimates. Sample households are chosen from 729 sample areas, which represent 1,973 geographic areas in the United States. This current number of sample areas is not completely comparable to the old number of sample areas since many of the sample areas have been redefined. (See pp. 7-10 of the May 1984 issue of *Employment and Earnings*, for an overview of these new definitions and the introduction of the new sample.) A sample reduction of about 4,000 households was implemented in April 1988; they were reinstated during the 8-month period, April-November 1989.

Table A provides a description of some aspects of the CPS sample design in use during the different data collection periods. A more detailed account of the history of the CPS sample design appears in the *Current Population Survey: Design and Methodology*, Technical Paper No. 40, Bureau of the Census, or *Concepts and Methods Used in Labor Force Statistics Derived from the Current Population Survey*, Report 463, Bureau of Labor Statistics.

### ESTIMATING METHODS

Under the estimating methods used in the CPS, all of the results for a given month become available simultaneously and are based on returns from the entire panel of respondents. The estimation procedure involves weighting the data from each sample person by the inverse of the probability of the person being in the sample. This gives a rough measure of the number of actual persons that the sample person represents. Beginning in 1985, almost all sample persons within the same State have the same probability of selection. These estimates are then adjusted for noninterviews, and the ratio estimation procedure is applied.

1. *Noninterview adjustment.* The weights for all interviewed households are adjusted to the extent needed to account for occupied sample households for which no information was

**Table A. Characteristics of the CPS sample, 1947 to date**

Time period	Number of sample areas	Households eligible		Households visited but not eligible
		Interviewed	Not interviewed	
Aug. 1947 to Jan. 1954	68	21,000	500-1,000	3,000-3,500
Feb. 1954 to Apr. 1956	230	21,000	500-1,000	3,000-3,500
May 1956 to Dec. 1959	1330	33,500	1,500	6,000
Jan. 1960 to Feb. 1963	2333	33,500	1,500	6,000
Mar. 1963 to Dec. 1966	357	33,500	1,500	6,000
Jan. 1967 to July 1971	449	48,000	2,000	8,500
Aug. 1971 to July 1972	449	45,000	2,000	8,000
Aug. 1972 to Dec. 1977	461	45,000	2,000	8,000
Jan. 1978 to Dec. 1979	614	53,500	2,500	10,000
Jan. 1980 to Apr. 1981	629	62,200	2,800	12,000
May 1981 to Dec. 1984	629	57,800	2,500	11,000
Jan. 1985 to Mar. 1988	729	57,000	2,500	11,000
Apr. 1988 to Mar. 1989	729	53,200	2,600	11,500
Nov. 1989 to present <sup>3</sup>	729	57,400	2,600	11,800

<sup>1</sup> Beginning in May 1956, these areas were chosen to provide coverage in each State and the District of Columbia.

<sup>2</sup> Three sample areas were added in 1960 to represent Alaska and Hawaii after statehood.

<sup>3</sup> The sample was increased incrementally during the 8-month period, April-November 1989.

obtained because of absence, impassable roads, refusals, or unavailability of the respondents for other reasons. This noninterview adjustment is made separately by combinations of similar sample areas that are not necessarily contained within a State. Similarity of sample areas is based on Metropolitan Statistical Area (MSA) status and size. Within each combination of sample areas there is a further breakdown by residence. MSA sample areas are categorized by "central city" and "balance of the MSA." Residence categories of non-MSA areas are "urban" and "rural." The proportion of sample households not interviewed varies from 4 to 5 percent, depending on weather, vacation, etc.

2. *Ratio estimates.* The distribution of the population selected for the sample may differ somewhat, by chance, from that of the population as a whole in such characteristics as age, race, sex, and residence. Since these characteristics are closely correlated with labor force participation and other principal measurements made from the sample, the survey estimates can be substantially improved when weighted appropriately by the known distribution of these population characteristics. This is accomplished through two stages of ratio estimates as follows:

a. *First-stage ratio estimate.* In the CPS, a portion of the 729 sample areas is chosen to represent other areas not in the sample; the remainder of the sample areas represent only themselves. The first-stage ratio estimation procedure was designed to reduce the portion of the variance resulting from requiring sample areas to represent nonsample areas. Therefore, this procedure is not applied to sample areas which represent only themselves. The adjustment is made at the State level for each of the 43 States which contains nonsample areas by race cells of black and non-black. The procedure corrects for differences that existed in each cell at the time of the 1980 census between the race distribution of the population in sample areas and the known race distribution of the State.

b. *Second-stage ratio estimate.* In this stage, the sample proportions of persons in specific categories are adjusted to the distribution of independent current estimates of the civilian noninstitutional population in the same categories. The second-stage ratio adjustment, which is performed to further reduce variability of the estimates and to correct to some extent for CPS undercoverage relative to the decennial census, is carried out in three steps. In the first step, the sample estimates are adjusted within each State and the District of Columbia to an independent control for the population 16 years and over. The second step involves an adjustment by Hispanic origin to a national estimate for eight age-sex categories by Hispanic and non-Hispanic. In the third step, a national adjustment is made by the race categories of white, black, and other races to independent estimates by age and sex. The white and black categories contain 38 and 24 age-sex groups respectively; the other races category has 4 age-sex cells. The entire second-stage adjustment procedure is iterated six times, each time beginning at the weights developed the previous time. This ensures that the sample estimates of the population for both State and national age-sex-race-origin categories will be virtually equal to the independent population control totals. This second-stage adjustment procedure incorporates changes instituted in January 1985 and August 1989. The nature and effect of the 1985 changes are discussed in detail in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1985" in the February 1985 issue of *Employment and Earnings*.

The controls by State for the civilian noninstitutional population 16 years and over are an arithmetic extrapolation of the trend in the growth of this segment of the population using the two most recent July 1 estimates, adjusted as a last step to a current estimate of the U.S. population of this group. State estimates by age for July 1 are published annually in *Current Population Reports*, Series P-25. For a description of the methodology used in developing the State total, see Report 957 of that series. A description of the age

estimates methodology is available in Report 1010 of that series.

Prior to January 1985, there was no separate control for Hispanics in the second-stage ratio procedure. These Hispanic controls are prepared by carrying forward the 1980 census count for Hispanics by adding estimated Hispanic births and immigrants and subtracting estimated Hispanic deaths and emigrants to yield an estimate of the Hispanic population by age and sex.

During the period from January 1982 to December 1984, the "inflation-deflation" method was temporarily discontinued in the preparation of the independent national controls used for the age-sex-race groups in the third step of the second-stage ratio estimation procedure. These controls were prepared by carrying forward the 1980 census data after taking account of subsequent aging of the population, births, deaths, and net migration and then subtracting the estimate for the institutional population and Armed Forces. Beginning in January 1985, the "inflation-deflation" method of deriving independent population controls was reintroduced into the CPS estimation procedure. With the "inflation-deflation" method, the independent controls are prepared by inflating the 1980 census counts to include estimated undercounts by age, sex, and race, aging this population forward to each subsequent month and later age by adding births and net migration, and subtracting deaths. These post-censal population estimates are then deflated to census level to reflect the pattern of net undercount in the most recent census by age, sex, and race. Because an estimate of undercount is first added and then subtracted, the size of each race-sex group is unaffected by the "inflation-deflation" method. Similarly, the final estimate is affected only by the age structure of the undercount, but not the level. This feature of the method is important since the exact amount of undercount in the 1980 census remains unknown.

Data on births and deaths between April 1, 1980, and the estimate date are based on tabulations of vital statistics for the resident population made by the National Center for Health Statistics and data on deaths of military personnel overseas from the Department of Defense. Estimates of net civilian immigration are based on data provided by the Immigration and Naturalization Service, the Department of Defense, the Office of Personnel Management, and the Puerto Rico Planning Board. The civilian noninstitutional population is derived by subtracting the Armed Forces and the institutional population for the estimate date from the total including Armed Forces overseas. The institutional population is computed by applying institutional proportions derived from the 1980 census to the total population, including Armed Forces overseas for the estimate date. All computations described above are performed in cells defined by single year of age, race, and sex. The independent national control totals are then obtained by collapsing these cells into broader age groups for the population 16 years and older.

Beginning in January 1986, two changes were introduced into the estimation of the independent population controls.

For the first time, an explicit allowance for net undocumented immigration since April 1, 1980 (the census date) was added to the estimated level of legal immigration. In addition, an increase in the estimate of emigration of legal foreign-born residents has been incorporated into the post-censal population estimates since 1980. The nature and effect of these changes are discussed in detail in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986" in the February 1986 issue of *Employment and Earnings*.

3. *Composite estimate procedure.* In deriving statistics for a given month, a composite estimating procedure is used which takes account of net changes from the previous month for continuing parts of the sample (75 percent), as well as the sample results for the current month. Also included is an additional term which is an estimate of the net difference between incoming and continuing parts of the current month's sample. Almost all estimates of month-to-month change are improved by this procedure, and most estimates of level are also improved, but to a lesser extent.

### **Rounding of estimates**

The sums of individual items may not always equal the totals shown in the same tables because of independent rounding of totals and components to the nearest thousand. Similarly, sums of percent distributions may not always equal 100 percent because of rounding. Differences, however, are insignificant.

### **Reliability of the estimates**

There are two types of errors possible in an estimate based on a sample survey—sampling and nonsampling. The standard errors provided primarily indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration but do not measure any systematic biases in the data.

*Nonsampling error.* The full extent of nonsampling error is unknown, but special studies have been conducted to quantify some sources of nonsampling error in the CPS, as discussed below. The effect of nonsampling error should be small on estimates of relative change, such as month-to-month change. Estimates of monthly levels would be more severely affected by the nonsampling error.

Nonsampling errors in surveys can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness of respondents to provide correct information, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, errors made in estimating values for missing data, and failure to represent all sample households and all persons within

sample households (undercoverage).

Nonsampling errors occurring in the interview phase of the survey have been studied by means of a reinterview program. This program is used to estimate various sources of error as well as to evaluate and control the work of the interviewers. A random sample of each interviewer's work is inspected through reinterview at regular intervals. The results indicate, among other things, that the data published from the CPS are subject to moderate systematic biases. A description of the CPS reinterview program and some of the other results may be found in the *Current Population Survey Reinterview Program, January 1961 through December 1966*, Technical Paper No. 19, Bureau of the Census, U.S. Department of Commerce.

The effects of some components of nonsampling error in the CPS data can be examined as a result of the rotation plan used for the sample, since the level of the estimates varies by rotation group. A description of these effects appears in "The Effects of Rotation Group Bias on Estimates From Panel Surveys," by Barbara A. Bailar, *Journal of the American Statistical Association*, Volume 70, No. 349, March 1975.

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Compared to the level of the decennial census, undercoverage is about 6 percent. It is known that the CPS undercoverage varies with age, sex, race, and Hispanic origin. Generally, undercoverage is larger for men than for women, and larger for blacks, Hispanics, and other races combined than for whites. Ratio estimation to independent age-sex-race-origin population controls, as described previously, partially corrects for the biases due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race-origin group. Further, the independent population controls used have not been adjusted for undercoverage in the 1980 census.

Additional information on nonsampling error in the CPS appears in "An Error Profile: Employment as Measured by the Current Population Survey," by Camilla Brooks and Barbara Bailar, Statistical Policy Working Paper 3, U.S. Department of Commerce, Office of Federal Statistical Policy and Standards; in "The Current Population Survey: An Overview," by Marvin Thompson and Gary Shapiro, *Annals of Economic and Social Measurement*, Vol. 2, April 1973; and in *The Current Population Survey, Design and Methodology*, Technical Paper No. 40, Bureau of the Census, U.S. Department of Commerce. This last document includes a comprehensive discussion of various sources of errors, and describes attempts to measure them in the CPS.

**Sampling error.** The standard error is primarily a measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The sample estimate and its estimated

standard error enable one to construct confidence intervals, ranges that would include the average of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions and using the same sample design, and an estimate and its estimated error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average of all possible samples.
3. Approximately 95 percent of the intervals from 2 standard errors below the estimate to 2 standard errors above the estimate would include the average result of all possible samples.

In order to derive standard errors that would be applicable to a large number of estimates and could be prepared at a moderate cost, a number of approximations are required. First, the standard errors in this volume reflect the sample design and estimation procedures in effect prior to the expansions for State estimates. Thus, these standard errors may slightly overstate the standard errors applicable to the present design. Second, instead of computing an individual standard error for each estimate, generalized sets of standard errors are computed for various types of characteristics. This generalization yields more stable estimates of the standard errors. Consequently, the sets of standard errors provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

Tables B and C show approximate standard errors for major employment status characteristics for monthly estimates and for changes for consecutive months. These standard errors are applicable to the level of the estimates in recent months.

Tables D through H provide generalized standard errors for monthly level and month-to-month change for estimated totals, unemployment rates, and percentages. Table I contains factors for use with table H for computing standard errors, as described below, for monthly level and month-to-month change for percentages. Standard errors for intermediate values not shown in the table may be approximated by linear interpolation. The standard error for estimated changes from one month to the next is more closely related to the monthly level for the characteristic than to the size of the specific month-to-month change itself. Thus, in order to use the generalized standard errors for month-to-month change as given in the tables of standard errors, it is necessary to obtain the monthly estimate for the characteristic. It should be noted that the tables of standard errors for month-to-month change apply only to estimates of

**Table B. Standard errors for major employment status categories**

(in thousands)

Employment status, sex, age, and race	Standard error of—	
	Monthly level	Month-to-month change (consecutive months only)
Total, 16 years and over:		
Civilian labor force .....	275	212
Employed .....	293	224
Unemployed .....	136	140
Men, 20 years and over:		
Civilian labor force .....	173	151
Employed .....	186	163
Unemployed .....	93	95
Women, 20 years and over:		
Civilian labor force .....	211	155
Employed .....	212	160
Unemployed .....	83	87
Both sexes, 16 to 19 years:		
Civilian labor force .....	88	94
Employed .....	92	102
Unemployed .....	59	66
Black, 16 years and over:		
Civilian labor force .....	94	73
Employed .....	104	79
Unemployed .....	68	71
Men, 20 years and over:		
Civilian labor force .....	59	51
Employed .....	64	57
Unemployed .....	44	47
Women, 20 years and over:		
Civilian labor force .....	76	50
Employed .....	76	54
Unemployed .....	45	48
Both sexes, 16 to 19 years:		
Civilian labor force .....	36	40
Employed .....	33	38
Unemployed .....	30	33

change between 2 consecutive months. Estimates of change for nonconsecutive months are subject to higher standard errors. Table J contains factors for use with tables D, F, H, and I to compute approximate standard errors for levels, labor force participation rates, and percentages as pertaining to the year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages. Note that standard errors for changes in quarterly and yearly estimates apply only to consecutive quarters and years. For years prior to 1967, the standard errors must be adjusted due to the differences in the sample size. For years prior to 1956, the standard errors should be multiplied by 1.50, and for the 1956-66 period, they should be multiplied by 1.22. Table K provides generalized standard errors for quarterly estimates of persons and families for use with the CPS earnings data.

*Standard errors for estimated totals.* Tables D and E provide generalized standard errors for monthly totals and for month-to-month change. The figures given in these tables are to be used for the characteristics as indicated.

*Illustration.* Assume that in a given month the number of persons working a specific number of hours was 12,000,000, an increase of 400,000 over the previous month. Linear interpolation in the second column of table D shows that the standard error on an estimate of 12,000,000 is about 174,000. The 68-percent confidence interval as shown by these data is from 11,826,000 to 12,174,000. Therefore, a conclusion that the average estimate derived from all possible samples

**Table C. Standard errors for unemployment rates by major characteristics**

Characteristic	Standard error of—		Characteristic	Standard error of—	
	Monthly level	Consecutive-month change		Monthly level	Consecutive-month change
Total (all civilian workers) .....	0.11	0.12			
Men, 20 years and over .....	.15	.15			
Women, 20 years and over .....	.16	.17			
Both sexes, 16 to 19 years .....	.67	.81			
White workers .....	.11	.12			
Black workers .....	.51	.54			
Married men, spouse present .....	.15	.17			
Married women, spouse present .....	.19	.21			
Full-time workers .....	.12	.12			
Part-time workers .....	.34	.42			
Unemployed 15 weeks and over .....	.06	.07			
			<b>Occupation—Continued</b>		
<b>Occupation</b>			Precision production, craft, and repair .....	0.32	0.36
Executive, administrative, and managerial .....	.22	.24	Machine operators, assemblers, and inspectors .....	.49	.55
Professional specialty .....	.19	.21	Transportation and material moving .....	.59	.66
Technicians and related support .....	.47	.52	Handlers, equipment cleaners, helpers, and laborers .....	.72	.82
Sales .....	.29	.33	Farming, forestry, and fishing .....	.68	.76
Administrative support, including clerical .....	.23	.26			
Private household .....	1.18	1.33	<b>Industry</b>		
Protective service .....	.76	.85	Nonagricultural private wage and salary workers .....	.12	.13
Service, except private household and protective .....	.39	.43	Mining .....	1.63	1.86
			Construction .....	.65	.75
			Manufacturing .....	.26	.29
			Durable goods .....	.33	.37
			Nondurable goods .....	.42	.47
			Transportation, communications, and public utilities .....	.42	.48
			Wholesale and retail trade .....	.27	.30
			Finance and services .....	.20	.22
			Government workers .....	.23	.25
			Agricultural wage and salary workers .....	1.16	1.32



lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Recall that the standard error of a month-to-month change is primarily dependent on the size of the monthly estimate. Thus, using linear interpolation in the first column of table E, the standard error on a month-to-month change of 400,000, when the monthly level is approximately 12,000,000, is about 129,000.

*Standard errors for rates and percentages.* The reliability of an estimated unemployment rate or an estimated percentage, computed using sample data for both numerator and denominator, depends upon both the size of the rate or percentage and the total upon which the rate or percentage is based. Estimated rates and percentages are relatively more reliable than the corresponding estimates of the numerator of the rates or percentages; this is particularly true for percentages of 50 percent or more. As a general rule, percentages are not published when the monthly base is less than 75,000, the quarterly average base is less than 60,000, or the annual average base is less than 35,000.

Tables F and G show generalized standard errors for monthly level and month-to-month change for unemployment rates. Generalized standard errors for estimated monthly percentages and estimated month-to-month change in percentage can be obtained through the use of the standard errors in table H and the factors in table I. First obtain the standard error from table H for the specific percentage and base.

The generalized standard error is then calculated by multiplying the standard error from table H by the appropriate factor from table I. When the numerator and denominator of the percentage are in different categories, use the factor indicated by the numerator of the percentage.

*Illustration.* Assume that in a given month 2.9 percent of a total of 112,440,000 employed persons are employed in agriculture. The standard error on an estimate of 2.9 percent with a base of 112,440,000 is obtained from table H (0.08 percent). The appropriate factor from table I for the numerator of the percentage, agricultural employment, is 1.26. The generalized standard error on the estimated 2.9 percent is then approximately  $0.08 \times 1.26 = 0.10$  percentage point.

*Standard errors for year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages.* The approximate standard errors of levels, rates, and percentages involving year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages may be obtained by using table J in conjunction with the other tables. Standard errors for estimates of change are more closely related to the level of the estimate than to the size of the specific change. Thus, to obtain the standard error of an estimate of an average level, rate, or

**Table D. Standard errors for estimates of monthly level**

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>								
	Agricultural employment	Unemployment		Labor force data other than agricultural employment and unemployment					
		Total or white	Black	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years	Total or white men only, or women only	Black men only, or women only
50	15	11	12	12	12	12	12	11	10
100	21	16	17	17	17	17	16	15	14
500	47	36	38	37	37	36	32	34	31
1,000	66	51	53	52	51	50	35	49	43
2,000	93	72	73	74	70	68	-	68	58
4,000	131	101	97	104	92	86	-	95	73
6,000	159	123	110	126	104	92	-	115	76
8,000	182	141	116	145	109	88	-	132	69
10,000	202	156	-	161	108	72	-	145	47
15,000	-	188	-	193	74	-	-	172	-
20,000	-	213	-	219	-	-	-	191	-
30,000	-	-	-	259	-	-	-	215	-
40,000	-	-	-	286	-	-	-	225	-
50,000	-	-	-	306	-	-	-	222	-
60,000	-	-	-	319	-	-	-	206	-
70,000	-	-	-	326	-	-	-	172	-
80,000	-	-	-	327	-	-	-	107	-
100,000	-	-	-	314	-	-	-	-	-
120,000	-	-	-	274	-	-	-	-	-
140,000	-	-	-	195	-	-	-	-	-

<sup>1</sup> When determining the standard error of an estimate for a group which is a subset of the age, sex, or race groups listed, use the standard error for the next larger group, e.g., when determining the standard error

of the estimated number of employed persons age 20 to 54 years, use the column for total employed.

**Table E. Standard errors for estimates of month-to-month change**

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>							
	Unemployment				Labor force data other than unemployment and agricultural employment			
	Total or white	Both sexes 16 to 19 years, or part-time labor force <sup>2</sup>	Black	Black, 16 to 19 years	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years
50	13	14	13	14	9	9	14	14
100	18	20	19	20	12	12	20	19
500	40	45	41	38	27	27	43	37
1,000	56	63	57	41	39	38	59	39
2,000	78	89	76	-	55	52	80	-
4,000	108	124	95	-	77	68	100	-
6,000	129	150	99	-	93	78	104	-
8,000	144	-	89	-	107	82	94	-
10,000	157	-	58	-	119	81	65	-
15,000	177	-	-	-	143	59	-	-
20,000	184	-	-	-	163	-	-	-
30,000	-	-	-	-	192	-	-	-
40,000	-	-	-	-	213	-	-	-
50,000	-	-	-	-	228	-	-	-
60,000	-	-	-	-	238	-	-	-
70,000	-	-	-	-	244	-	-	-
80,000	-	-	-	-	245	-	-	-
100,000	-	-	-	-	237	-	-	-
120,000	-	-	-	-	212	-	-	-
140,000	-	-	-	-	160	-	-	-

<sup>1</sup> See footnote 1, table D.

<sup>2</sup> Part-time labor force for unemployment also includes persons reentering

the labor force, persons who left their last job, and persons by duration of unemployment.

percentage, or an estimate of a change in level, rate, or percentage, it is first necessary to find the appropriate estimate of level. For an estimate of an average level, rate, or percentage, find the standard error of this estimate. For an estimate of change in level, rate, or percentage, find the standard error of the average of the two estimates affecting the change. Then, after computing the standard error by treating these estimates as monthly estimates and using the procedures above, multiply this result by a suitable factor from table J to obtain the approximate standard error for the average or change.

*Illustration.* Suppose that one is interested in the year-to-year change of a monthly unemployment rate. Assume that for a certain month the unemployment rate is 6.2 percent, based on a total of 119,865,000 in the civilian labor force, and that a year prior to this the unemployment rate was 7.0 percent, based on a total of 117,834,000 in the civilian labor force for the month. First, the standard error on the average of the two estimates, 6.6 percent with a base of 118,850,000, is obtained from table F (0.11 percentage point). The appropriate factor, then, from table J is 1.40. The approximate standard error on the change of 0.8 percent is then given by 0.11 x 1.40 = 0.15 percentage point.

The approximate standard error of levels involving year-to-year change of quarterly estimates pertaining to CPS earnings data for persons and families may be obtained by using table K in conjunction with the following formula:

$$\text{Standard error of year-to-year change} = \sqrt{\left(\frac{\text{Standard error}}{X}\right)^2 + \left(\frac{\text{Standard error}}{Y}\right)^2 - 2(P)\left(\frac{\text{Standard error}}{X}\right)\left(\frac{\text{Standard error}}{Y}\right)}$$

X is the estimate for one quarter and Y is the estimate for another quarter. The coefficient, P, is a measure of the correlation between the estimates X and Y resulting from the presence of some of the same respondents in the sample for each estimate. For consecutive year-to-year changes of quarterly estimates, the values of P are 0.30 for persons (total, white, and black) and 0.35 for families (total, white, and black). The respective values for estimates of Hispanics are 0.45 and 0.55.

*Illustration.* Assume that in a given quarter the number of women employed as full-time wage and salary workers was 27,000,000 and in the same quarter a year later, their number had increased to 29,000,000. Using linear interpolation in the eighth column of table K, the standard error of an estimate of 27,000,000 is 216,000; for 29,000,000 it is 221,000. Using the above formula, the standard error of the 2,000,000 year-to-year change is:

$$\sqrt{(216,000)^2 + (221,000)^2 - 2(0.30)(216,000)(221,000)}$$

or about 259,000.

**Table F. Standard errors for unemployment rates**

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.28	3.20	4.98	6.85	8.13	9.09	9.82	10.36	10.75	11.12
100	1.61	2.26	3.52	4.84	5.75	6.43	6.94	7.33	7.60	7.87
500	.72	1.01	1.58	2.16	2.57	2.88	3.11	3.28	3.40	3.52
1,000	.51	.72	1.11	1.53	1.82	2.03	2.20	2.32	2.40	2.49
2,000	.36	.51	.79	1.08	1.29	1.44	1.55	1.64	1.70	1.76
4,000	.25	.36	.56	.77	.91	1.02	1.10	1.16	1.20	1.24
6,000	.21	.29	.45	.62	.74	.83	.90	.95	.98	1.02
10,000	.16	.23	.35	.48	.58	.64	.69	.73	.76	.79
20,000	.11	.16	.25	.34	.41	.45	.49	.52	.54	.56
60,000	.07	.09	.14	.20	.24	.26	.28	.30	.31	.32
100,000	.05	.07	.11	.15	.18	.20	.22	.23	.24	.25
120,000	.05	.07	.10	.14	.17	.19	.20	.21	.22	.23
140,000	.04	.06	.09	.13	.15	.17	.19	.20	.21	.21

**Table G. Standard errors for month-to-month change in unemployment rates**

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.53	3.57	5.60	7.83	9.47	10.79	11.91	12.87	13.71	15.67
100	1.79	2.52	3.96	5.53	6.69	7.63	8.42	9.10	9.69	11.08
500	.80	1.13	1.77	2.47	2.99	3.41	3.76	4.06	4.33	4.94
1,000	.57	.80	1.25	1.75	2.11	2.41	2.65	2.87	3.05	3.48
2,000	.40	.56	.88	1.23	1.49	1.70	1.87	2.02	2.15	2.44
4,000	.28	.40	.63	.87	1.05	1.20	1.32	1.42	1.51	1.70
6,000	.23	.33	.51	.71	.86	.97	1.07	1.15	1.22	1.37
10,000	.18	.25	.39	.55	.66	.75	.82	.88	.93	1.03
20,000	.13	.18	.28	.38	.46	.51	.56	.60	.62	-
60,000	.07	.10	.16	.21	.24	.27	.28	-	-	-
100,000	.06	.08	.12	.15	.17	.18	-	-	-	-
120,000	.05	.07	.11	.14	.15	-	-	-	-	-
140,000	.05	.07	.10	-	-	-	-	-	-	-

**Table H. Standard errors for estimated percentages and month-to-month change in percentages for labor force data**

Monthly base of percentages (in thousands)	Percentage of monthly level									
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	35 or 65	50
50	2.34	3.29	5.12	7.05	8.39	9.40	10.18	10.77	11.21	11.75
100	1.65	2.33	3.62	4.99	5.94	6.65	7.20	7.62	7.93	8.31
500	.74	1.04	1.62	2.23	2.65	2.97	3.22	3.41	3.55	3.72
1,000	.52	.74	1.15	1.58	1.88	2.10	2.28	2.41	2.51	2.63
2,000	.37	.52	.81	1.12	1.33	1.49	1.61	1.70	1.77	1.86
4,000	.26	.37	.57	.79	.94	1.05	1.14	1.20	1.25	1.31
6,000	.21	.30	.47	.64	.77	.86	.93	.98	1.02	1.07
10,000	.17	.23	.36	.50	.59	.66	.72	.76	.79	.83
20,000	.12	.16	.26	.35	.42	.47	.51	.54	.56	.59
40,000	.08	.12	.18	.25	.30	.33	.36	.38	.40	.42
60,000	.07	.10	.15	.20	.24	.27	.29	.31	.32	.34
80,000	.06	.08	.13	.18	.21	.24	.25	.27	.28	.29
100,000	.05	.07	.11	.16	.19	.21	.23	.24	.25	.26
120,000	.05	.07	.10	.14	.17	.19	.21	.22	.23	.24
140,000	.04	.06	.10	.13	.16	.18	.19	.20	.21	.22
160,000	.04	.06	.09	.12	.15	.17	.18	.19	.20	.21

NOTE: The standard errors in this table must be multiplied by the factors in table I to obtain the approximate standard error for a specific characteristic.

**Table I. Factors to be used with table H to compute approximate standard errors for percentages and month-to-month change in percentages**

Characteristic	Factor		Characteristic	Factor	
	Monthly level	Month-to-month change		Monthly level	Month-to-month change
Agricultural employment:			Unemployment:		
Total or full-time labor force .....	1.26	1.05	Part-time labor force, duration of unemployment, left last job, reentering labor force .....	1.01	1.21
Part-time labor force .....	1.26	1.50	All other unemployment characteristics:		
Labor force data other than agricultural employment and unemployment:			Total or white:		
Total .....	1.00	.74	Total .....	.97	1.08
Men only .....	.93	.84	Both sexes, 16 to 19 years .....	.97	1.21
Women only .....	.86	.75	Black:		
Both sexes, 16 to 19 years .....	1.00	1.18	Total .....	1.04	1.13
Part-time labor force .....	1.00	1.18	Both sexes, 16 to 19 years .....	1.04	1.24

**Table J. Factors to be used with tables D, F, H, and I to compute the approximate standard errors for levels, rates, and percentages for year-to-year change of monthly estimates, quarterly averages, change in quarterly averages, yearly averages, and change in yearly averages**

Characteristic	Factor				
	Year-to-year change of monthly estimate	Quarterly averages	Change in quarterly averages	Yearly averages	Change in yearly averages
Agricultural employment:					
Total or men .....	1.30	0.89	0.80	0.72	0.70
Women or teenagers (16 to 19 years) .....	1.30	.83	.80	.58	.70
Part time .....	1.40	.74	.80	.46	.70
Labor force data other than agricultural employment and unemployment: ...					
Total or white .....	1.30	.88	.88	.67	.70
Black or teenagers (16 to 19 years) .....	1.30	.82	.88	.57	.70
Part time .....	1.40	.74	.88	.46	.60
Unemployment:					
Total .....	1.40	.76	.88	.50	.65
Part time .....	1.40	.69	.88	.39	.54

**Table K. Standard errors for estimates of quarterly levels, to be used with CPS earnings data**

(In thousands)

Estimated quarterly level	Characteristic								
	Total			Men				Women	
	Part-time workers	Total or full-time workers		Part-time workers	Total or full-time workers			Total, full-time, or part-time workers	
		Total or white	Black		Total	White	Black	Total or white	Black
10	5	5	5	5	5	5	5	5	5
50	11	12	12	11	12	12	12	11	11
75	13	15	15	13	15	15	15	13	13
100	15	17	17	15	17	17	17	15	15
150	19	21	21	19	21	21	21	19	19
200	22	24	24	22	24	24	24	22	21
250	24	27	27	24	27	27	27	24	24
300	26	30	30	26	30	30	29	26	26
500	34	38	38	34	38	38	37	34	33
750	42	47	46	42	47	47	45	42	41
1,000	48	54	53	48	54	54	50	48	46
1,500	59	66	63	59	66	66	59	59	56
2,000	68	76	72	68	76	76	65	68	63
2,500	76	85	79	75	84	84	69	75	69
3,000	83	93	85	82	92	92	71	82	74
5,000	107	119	100	105	117	116	64	105	85
7,500	130	145	107	127	140	138	64	127	88
10,000	149	165	102	144	157	155	-	145	-
15,000	180	198	102	187	183	179	-	173	-
20,000	205	224	-	192	199	193	-	195	-
25,000	226	244	-	207	209	199	-	211	-
30,000	224	261	-	219	212	198	-	224	-
40,000	273	286	-	233	201	174	-	242	-
50,000	296	301	-	-	160	100	-	249	-
75,000	331	304	-	-	160	-	-	-	-
100,000	343	255	-	-	-	-	-	-	-

# Establishment Data (Tables B-1 through C-8)

## COLLECTION

Payroll reports provide current information on wage and salary employment, hours, and earnings in nonfarm establishments, by industry and geographic location. Historical statistics are published in *Employment, Hours, and Earnings, United States, and Employment, Hours, and Earnings, States and Areas*, and their supplements.

### Federal-State cooperation

Under cooperative arrangements, responding establishments report employment, hours, and earnings data to State agencies. State agencies mail the forms to the establishments and examine the returns for consistency, accuracy, and completeness. The States use the reported data to prepare State and area series and also send the reported data to the BLS (Washington Office) for use in preparing the national series. This avoids a duplicate reporting burden on establishments, and, together with the use of similar estimating techniques at the national and State levels, promotes increased comparability between estimates.

### Shuttle schedules

Form BLS 790—Report on Employment, Payroll, and Hours is the name of the data collection schedule. The collection agency returns the schedule to the respondent each month so that the next month's data can be entered on the space allotted for that month. This "shuttle" procedure assures maximum comparability and accuracy of reporting, since the respondent can see the figures that have been reported for previous months.

Form BLS 790 provides for entry of data on the total number of full- and part-time workers on the payrolls of nonfarm establishments and, for most industries, employment, payroll, and hours of production and related workers or non-supervisory workers for the pay period which includes the 12th of the month.

## CONCEPTS

### Industrial classification

Establishments reporting on Form BLS 790 are classified into industries on the basis of their principal product or activity determined from information on annual sales volume. Since January 1980, this information is collected on a supplement to the quarterly unemployment insurance tax reports filed by employers. For an establishment making more than one product or engaging in more than one activity, the entire employment of the establishment is included under the

industry indicated by the principal product or activity.

All data on employment, hours, and earnings for the Nation (beginning with August 1990 data) and for States and areas (beginning with January 1990 data) are classified in accordance with the *1987 Standard Industrial Classification (SIC) Manual*, Office of Management and Budget. The BLS tabulates and estimates statistics which distinguish between private and public establishments, thus maintaining continuity with previously published statistics for the private and government sector.

### Industry employment

Employment data, except those for the Federal Government, refer to persons on establishment payrolls who received pay for any part of the pay period which includes the 12th of the month. For Federal Government establishments, employment figures represent the number of persons who occupied positions on the last day of the calendar month. Intermittent workers are counted if they performed any service during the month.

The data exclude proprietors, the self-employed, unpaid volunteer or family workers, farm workers, and domestic workers. Salaried officers of corporations are included. Government employment covers only civilian employees; military personnel are excluded. Employees of the Central Intelligence Agency and the National Security Agency are also excluded.

Persons on establishment payrolls who are on paid sick leave (when pay is received directly from the firm), on paid holiday, on paid vacation, or who work during a part of the pay period even though they are unemployed or on strike during the rest of the period are counted as employed. Not counted as employed are persons who are on layoff, on leave without pay, on strike for the entire period, or who were hired but have not yet reported during the period.

*Indexes of diffusion of employment change (table B-7).* These indexes measure the dispersion among industries of the change in employment over the specified time span. Beginning with August 1990 data, the overall indexes are calculated from 356 seasonally adjusted employment series (three-digit industries) covering all nonfarm payroll employment in the private sector. The manufacturing diffusion indexes are based on 139 three-digit industries.

To derive the indexes, each component industry is assigned a value of 0, 50, or 100 percent, depending on whether its employment showed a decrease, no change, or an increase, respectively, over the time span. The average value (mean) is then calculated, and this percent is the diffusion index number.

The reference point for diffusion analysis is 50 percent, the value which indicates that the same number of component

industries had increased as had decreased. Index numbers above 50 show that more industries had increasing employment, and values below 50 indicate that more had decreasing employment. The margin between the percent that increased and the percent that decreased is equal to the difference between the index and its complement, i.e., 100 minus the index. For example, an index of 65 percent means that 30 percent more industries had increasing employment than had decreasing employment ( $65 - (100 - 65) = 30$ ). However, for dispersion analysis, the distance of the index number from the 50-percent reference point is the most significant observation.

Although diffusion indexes are commonly interpreted as showing the percent of components that increased over the time span, it should be remembered that the index reflects half of the unchanged components as well. (This is the effect of assigning a value of 50 percent to the unchanged components when computing the index.)

### Industry hours and earnings

Average hours and earnings data are derived from reports of payrolls and hours for production and related workers in manufacturing and mining, construction workers in construction, and nonsupervisory employees in private service-producing industries.

*Production and related workers* include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping, trucking, hauling, maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with the above production operations.

*Construction workers* include the following employees in the construction division: Working supervisors, qualified craft workers, mechanics, apprentices, helpers, laborers, etc., engaged in new work, alterations, demolition, repair, maintenance, etc., whether working at the site of construction or working in shops or yards at jobs (such as precutting and preassembling) ordinarily performed by members of the construction trades.

*Nonsupervisory employees* include employees (not above the working supervisory level) such as office and clerical workers, repairers, salespersons, operators, drivers, physicians, lawyers, accountants, nurses, social workers, research aides, teachers, drafters, photographers, beauticians, musicians, restaurant workers, custodial workers, attendants, line installers and repairers, laborers, janitors, guards, and other employees at similar occupational levels whose services are closely associated with those of the employees listed.

*Payroll* covers the payroll for full- and part-time production, construction, or nonsupervisory workers who received pay for any part of the pay period which includes the 12th of the month. The payroll is reported before deductions of

any kind, e.g., for old-age and unemployment insurance, Group insurance, withholding tax, bonds, or union dues; also included is pay for overtime, holidays, vacation, and sick leave paid directly by the firm. Bonuses (unless earned and paid regularly each pay period); other pay not earned in the pay period reported (e.g., retroactive pay); tips; and the value of free rent, fuel, meals, or other payment in kind are excluded. "Fringe benefits" (such as health and other types of insurance, contributions to retirement, etc., paid by the employer) are also excluded.

*Hours* cover the hours paid for during the pay period which includes the 12th of the month for production, construction, or nonsupervisory workers. Included are hours paid for holidays, vacations, and for sick leave when pay is received directly from the firm.

*Overtime hours* cover hours worked by production or related workers for which overtime premiums were paid because the hours were in excess of the number of hours of either the straight-time workday or the workweek during the pay period which included the 12th of the month. Weekend and holiday hours are included only if overtime premiums were paid. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded.

*Average weekly hours.* The workweek information relates to the average hours for which pay was received and is different from standard or scheduled hours. Such factors as unpaid absenteeism, labor turnover, part-time work, and stoppages cause average weekly hours to be lower than scheduled hours of work for an establishment. Group averages further reflect changes in the workweek of component industries.

*Indexes of aggregate weekly hours.* The indexes of aggregate weekly hours are prepared by dividing the current month's aggregate by the average of the 12 monthly figures for 1982. For basic industries, the hours aggregates are the product of average weekly hours and production worker or nonsupervisory worker employment. At all higher levels of industry aggregation, hours aggregates are the sum of the component aggregates.

*Average overtime hours.* The overtime hours represent that portion of the average weekly hours which exceeded regular hours and for which overtime premiums were paid. If an employee were to work on a paid holiday at regular rates, receiving as total compensation his or her holiday pay plus straight-time pay for hours worked that day, no overtime hours would be reported.

Since overtime hours are premium hours by definition, weekly hours and overtime hours do not necessarily move in the same direction from month to month. Such factors as work stoppages, absenteeism, and labor turnover may not have the same influence on overtime hours as on average hours. Diverse trends at the industry group level also may be caused by a marked change in hours for a component

industry where little or no overtime was worked in both the previous and current months.

*Average hourly earnings.* Average hourly earnings are on a "gross" basis. They reflect not only changes in basic hourly and incentive wage rates but also such variable factors as premium pay for overtime and late-shift work and changes in output of workers paid on an incentive plan. They also reflect shifts in the number of employees between relatively high-paid and low-paid work and changes in workers' earnings in individual establishments. Averages for groups and divisions further reflect changes in average hourly earnings for individual industries.

Averages of hourly earnings differ from wage rates. Earnings are the actual return to the worker for a stated period of time; rates are the amount stipulated for a given unit of work or time. The earnings series do not measure the level of total labor costs on the part of the employer since the following are excluded: Irregular bonuses, retroactive items, payments of various welfare benefits, payroll taxes paid by employers, and earnings for those employees not covered under production worker, construction worker, or nonsupervisory employee definitions.

*Average hourly earnings, including lump-sum wage payments.* These series are compiled only for aircraft (SIC 3721) and guided missiles and space vehicles (SIC 3761) manufacturing. The same concepts and estimation methods apply to these series as apply to the average hourly earnings series described above; the one difference between the series is definitional. The payroll data used to calculate this series include lump-sum payments made to production workers in lieu of general wage rate increases; such payments are excluded from the definition of gross payrolls used to calculate the other average hourly earnings series.

For each sample establishment in SIC 3721 and SIC 3761 covered by a lump-sum agreement, the reported payroll data are adjusted to include a prorated portion of the lump-sum payment. Such payments are generally made once a year and cover the following 12-month period. In order to spread the payment across this time period, a prorated portion of the payment is added to the payroll each month. This prorated portion is adjusted by an exit rate to reduce the lump-sum amount to account for persons who received the payment but left before the payment allocation period expired.

*Average hourly earnings, excluding overtime.* Average hourly earnings, excluding overtime premium pay are computed by dividing the total production worker payroll for the industry group by the sum of total production worker hours and one-half of total overtime hours. No adjustments are made for other premium payment provisions, such as holiday work, late-shift work, and overtime rates other than time and one-half.

*Railroad hours and earnings.* The figures for Class I railroads (excluding switching and terminal companies) are based on

monthly data summarized in the M-300 report of the Interstate Commerce Commission and relate to all employees except executives, officials, and staff assistants (ICC group I) who received pay during the month. Average hourly earnings are computed by dividing total compensation by total hours paid for. Average weekly hours are obtained by dividing the total number of hours paid for, reduced to a weekly basis, by the number of employees, as defined above. Average weekly earnings are derived by multiplying average weekly hours by average hourly earnings.

*Average weekly earnings.* These estimates are derived by multiplying average weekly hours estimates by average hourly earnings estimates. Therefore, weekly earnings are affected not only by changes in average hourly earnings but also by changes in the length of the workweek. Monthly variations in such factors as the proportion of part-time workers, stoppages for varying reasons, labor turnover during the survey period, and absenteeism for which employees are not paid may cause the average workweek to fluctuate.

Long-term trends of average weekly earnings can be affected by structural changes in the makeup of the work force. For example, persistent long-term increases in the proportion of part-time workers in retail trade and many of the services industries have reduced average workweeks in these industries and have affected the average weekly earnings series.

*Real earnings,* or earnings in constant dollars, are calculated from the earnings averages for the current month using a deflator derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

## ESTIMATING METHODS

The principal features of the procedure used to estimate employment for the establishment statistics are (1) the use of the "link relative" technique, which is a form of ratio estimation; (2) periodic adjustment of employment levels to new benchmarks; and (3) the use of size and regional stratification.

### The "link relative" technique

From a sample composed of establishments reporting for both the previous and current months, the ratio of current-month employment to that of the previous month is computed. This is called a "link relative." The estimates of employment (all employees, including production and non-production workers together) for the current month are obtained by multiplying the estimates for the previous month by these "link relatives." In addition, bias correction factors are applied to most employment estimates each month. The size of the bias correction factors is determined from past benchmark comparisons. Beginning with data for April 1983, these factors are modified by changes in the



sample link relatives for the most recent quarter. Other features of the general procedures are described in table L.

a size stratum, a region stratum, or a size stratum of a region within an industry.

### Size and regional stratification

A number of industries are stratified by size of establishment and/or by region, and the stratified production or non-supervisory worker data are used to weight the hours and earnings for aggregation into broader industry groupings. Accordingly, the basic estimating cell for an employment, hours, or earnings series, as the term is used in the summary of computational methods in table L, may be a whole industry or

### Benchmark adjustments

Employment estimates are compared periodically with benchmarks (comprehensive counts of employment) for the various nonfarm industries, and appropriate adjustments are made as indicated. The industry estimates are currently projected from March 1989 levels. Benchmark adjustments are made annually.

The primary sources of benchmark information are

**Table L. Summary of methods for computing industry statistics on employment, hours, and earnings**

Employment, hours, and earnings	Basic estimating cell (industry, region, size, or region/size cell)	Aggregate industry level (division and, where stratified, industry)
Monthly data		
All employees .....	All-employee estimate for previous month multiplied by ratio of all employees in current month to all employees in previous month, for sample establishments which reported for both months. <sup>1</sup>	Sum of all-employee estimates for component cells.
Production or nonsupervisory workers, women employees .....	All-employee estimate for current month multiplied by (1) ratio of production or nonsupervisory workers to all employees in sample establishments for current month, (2) estimated ratio of women to all employees. <sup>2</sup>	Sum of production or nonsupervisory worker estimates, or estimates of women employees, for component cells.
Average weekly hours .....	Production or nonsupervisory worker hours divided by number of production or nonsupervisory workers. <sup>2</sup>	Average, weighted by production or nonsupervisory worker employment, of the average weekly hours for component cells.
Average weekly overtime hours .....	Production worker overtime hours divided by number of production workers. <sup>2</sup>	Average, weighted by production worker employment, of the average weekly overtime hours for component cells.
Average hourly earnings .....	Total production or nonsupervisory worker payroll divided by total production or nonsupervisory worker hours. <sup>2</sup>	Average, weighted by aggregate hours, of the average hourly earnings for component cells.
Average weekly earnings .....	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.
Annual average data		
All employees, women employees, and production or nonsupervisory workers .....	Sum of monthly estimates divided by 12.	Sum of monthly estimates divided by 12.
Average weekly hours .....	Annual total of aggregate hours (production or nonsupervisory worker employment multiplied by average weekly hours) divided by annual sum of employment	Annual total of aggregate hours for production or nonsupervisory workers divided by annual sum of employment for these workers.
Average weekly overtime hours .....	Annual total of aggregate overtime hours (production worker employment multiplied by average weekly overtime hours) divided by annual sum of employment.	Annual total of aggregate overtime hours for production workers divided by annual sum of employment for these workers.
Average hourly earnings .....	Annual total of aggregate payrolls (product of production or nonsupervisory worker employment by weekly hours and hourly earnings) divided by annual aggregate hours.	Annual total of aggregate payrolls divided by annual aggregate hours.
Average weekly earnings .....	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.

<sup>1</sup> The estimates are computed by multiplying the above product by bias adjustment factors, which compensate for the underrepresentation of newly formed enterprises and other sources of bias in the sample.

<sup>2</sup> The sample production-worker ratio, women-worker ratio, average weekly hours, average overtime hours, and average hourly earnings are modified by

a wedging technique designed to compensate for changes in the sample arising mainly from the voluntary character of the reporting. The wedging procedure accepts the advantage of continuity from the use of the matched sample and, at the same time, tapers or wedges the estimate toward the level of the latest sample average.

agencies from reports of establishments covered under State unemployment insurance laws. These tabulations cover about 98 percent of employees on nonfarm payrolls in the United States. Benchmark data for the residual are obtained from the records of the Social Security Administration, the Interstate Commerce Commission, and a number of other agencies in private industry or government.

The estimates for the benchmark month are compared with new benchmark levels, industry by industry. If revisions are necessary, the monthly series of estimates between benchmark periods are adjusted between the new benchmark and the preceding one, and the new benchmark for each industry is then carried forward progressively to the current month by use of the sample trends. Thus, under this procedure, the benchmark is used to establish the level of employment; the sample is used to measure the month-to-month changes in the level. A comparison of the actual amounts of revisions made at the time of the March 1988 benchmark adjustment is shown in table M.

Normally, data for all months since the last benchmark to which the series has been adjusted are subject to revision. Revised data are published as soon as possible after each benchmark revision.

## THE SAMPLE

### Design

The sampling plan used in the establishment survey is known as "sampling proportionate to average size of establishment." This design is an optimum allocation design among strata since the sampling variance is proportional to the average size of establishments. Under this type of design, large establishments fall into the sample with certainty. The size of the sample for the various industries is determined empirically on the basis of experience and of cost considerations. In a manufacturing industry in which a high proportion of total employment is concentrated in relatively few establishments, a larger percent of total employment is

**Table M. Comparison of nonfarm employment benchmarks and estimates for March 1989**

(In thousands)

Industry	Benchmark	1987 SIC-based estimate	Difference	
			Level	Percent
Total	107,026	107,073	-47	( <sup>1</sup> )
Mining	678	703	-25	-3.7
Construction	4,741	4,813	-72	-1.5
Manufacturing	19,396	19,585	-189	-1.0
Transportation and public utilities	5,549	5,646	-97	-1.7
Wholesale trade	6,195	6,145	50	.8
Retail trade	19,115	19,023	92	.5
Finance, insurance, and real estate	6,639	6,714	-75	-1.1
Services	26,702	26,479	223	.8
Government	18,016	17,965	46	.3

<sup>1</sup> Less than 0.05 percent.

included in the sample. Consequently, the sample design for such industries provides for a complete census of the large establishments with only a few chosen from among the smaller establishments or none at all if the concentration of employment is great enough. On the other hand, in an industry in which a large proportion of total employment is in small establishments, the sample design calls for inclusion of all large establishments and also for a substantial number of the small ones. Many industries in the trade and services divisions fall into this category. To keep the sample to a size which can be handled by available resources, it is necessary to design samples for these industries with a smaller proportion of universe employment than is the case for most manufacturing industries. Since individual establishments in these nonmanufacturing divisions generally show less fluctuation from regular cyclical or seasonal patterns than do establishments in manufacturing industries, these smaller samples (in terms of employment) generally produce reliable estimates.

In the context of the BLS establishment survey program, with its emphasis on producing timely data at minimum cost, a sample must be obtained which will provide coverage of a sufficiently large segment of the universe to provide reasonably reliable estimates that can be published promptly and regularly. The present sample meets these specifications for most industries. With its use, the BLS is able to produce preliminary estimates each month for many industries and for many geographic levels within a few weeks after the reference period, and, at a somewhat late date, statistics in considerably greater industrial detail.

### Coverage

The BLS sample of establishment employment and payrolls is the largest monthly sampling operation in the field of social statistics. Table N shows the latest benchmarks and the approximate proportion of total employment in each industry division covered by the group of establishments furnishing monthly employment data. The coverage for individual industries within the division may vary from the proportions shown.

### Reliability

Although the relatively large size of the BLS establishment sample assures a high degree of accuracy, the estimates derived from it may differ from the figures that would be obtained if it were possible to take a complete census using the same schedules and procedures. As discussed under the previous section, a link relative technique is used to estimate employment. This requires the use of the previous month's estimate as the base in computing the current month's estimate. Thus, small sampling and response errors may accumulate over several months. To remove this accumulated error, the estimates are adjusted annually to new benchmarks. In addition to taking account of sampling and

**Table N. Employment benchmarks and approximate coverage of BLS employment and payrolls sample, March 1989**

Industry	Benchmarks (thousands)	Sample coverage <sup>1</sup>		
		Number of establishments	Employees	
			Number (thousands)	Percent of benchmarks
Total .....	107,026	282,003	39,158	37
Mining .....	678	3,352	261	38
Construction .....	4,741	27,194	948	20
Manufacturing .....	19,396	51,253	9,377	48
Transportation and public utilities .....	5,549	214,673	22,149	39
Wholesale trade .....	6,195	25,311	1,120	18
Retail trade .....	19,115	55,477	4,136	22
Finance, insurance, and real estate .....	6,639	21,001	2,139	32
Services .....	26,702	63,877	6,184	23
Government:				
Federal .....	2,976	( <sup>3</sup> )	2,976	100
State .....	4,257	4,437	3,207	75
Local .....	10,778	15,428	6,661	62

<sup>1</sup> Counts reflect reports used in final estimates. Since not all establishments report payroll and hours information, hours and earnings estimates are based on a smaller sample than employment estimates.

<sup>2</sup> The Interstate Commerce Commission provides a complete count of employment for Class I railroads. A small sample is used to estimate hours and earnings data.

<sup>3</sup> Total Federal employment counts by agency for use in national estimates are provided to BLS by the Office of Personnel Management. Detailed industry estimates for the Executive Branch, as well as State and area estimates of Federal employment, are based on a sample of 5,000 reports covering about 56 percent of employment in Federal establishments.

**Table O. Average benchmark revision in employment estimates and relative errors for average weekly hours and average hourly earnings by industry**

(In percent)

Industry	Average benchmark revision in employment estimates <sup>1</sup>	Relative error <sup>2</sup>	
		Average weekly hours	Average hourly earnings
Total .....	0.2	-	-
Total private .....	.2	0.1	0.2
Mining .....	2.6	1.0	1.3
Construction .....	1.4	.2	.5
Manufacturing .....	.8	.1	.2
Durable goods .....	.6	.1	.3
Nondurable goods .....	.9	.1	.2
Transportation and public utilities .....	.7	.7	.6
Wholesale trade .....	1.1	.2	.4
Retail trade .....	.5	.2	.4
Finance, insurance, and real estate .....	.5	.2	.4
Services .....	.4	.4	.6
Government <sup>3</sup> .....	.4	-	-

<sup>1</sup> The average percent revision in employment for the 1985-89 benchmarks.

<sup>2</sup> Relative errors relate to 1982 data.

<sup>3</sup> Data for government are based on a total count for Federal Government provided by the Office of Personnel Management and a sample of State and local government reports.

response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments (resulting from changes in their product which are not reflected in the levels of estimates until the data are adjusted to new benchmarks). In fact, at the more detailed industry levels, particularly within manufacturing, changes

in classification are the major cause of benchmark adjustments. Another cause of differences arises from improvements in the quality of the benchmark data. Table O presents the average percent revisions of the five most recent benchmarks for major industry divisions. Detailed descriptions of individual benchmark revisions are available from the Bureau upon request.

The hours and earnings estimates for basic estimating cells are not subject to benchmark revisions, although the broader groupings may be affected slightly by changes in employment weights. The hours and earnings estimates, however, are subject to sampling errors, which may be expressed as relative errors of the estimates. (A relative error is a standard error expressed as a percent of the estimate.) Relative errors for major industries are presented in table O and for individual industries with the specified number of employees in table P. The chances are about 2 out of 3 that the hours and earnings estimates from the sample would differ by a smaller percentage than the relative error from the averages that would have been obtained from a complete census.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The measure is the standard deviation adjusted for the bias in estimates:

$$RMSE = \sqrt{(standard\ deviation)^2 + (bias)^2}$$

If the bias is small, the chances are about 2 out of 3 that an estimate from the sample would differ from its benchmark by less than the root-mean-square error. The chances are about 19 out of 20 that the difference would be less than twice the root-mean-square error.

Approximations of the root-mean-square errors (based on the most recent benchmark revisions) of differences between final estimates and benchmarks are presented in table P.

For the two most recent months, estimates of employment, hours, and earnings are preliminary and are so footnoted in the tables. These figures are based on less than the total sample and are revised when all the reports in the sample have been received. Table Q presents root-mean-square errors of

**Table P. Root-mean-square errors of differences between benchmarks and estimates of employment and average relative errors for average weekly hours and average hourly earnings**

Size of employment estimate	Root-mean-square error of employment estimates <sup>1</sup>	Relative error <sup>2</sup> (in percent)	
		Average weekly hours	Average hourly earnings
50,000 .....	2,100	2.2	4.0
100,000 .....	3,900	1.3	2.3
200,000 .....	5,600	1.1	2.0
500,000 .....	14,000	.9	1.6
1,000,000 .....	15,000	.8	1.2
2,000,000 .....	26,000	.5	.9

<sup>1</sup> Assuming 12-month intervals between benchmark revisions.

<sup>2</sup> Relative errors relate to 1982 data.

the amounts of revisions that may be expected between the preliminary and final levels of employment and preliminary and final month-to-month changes. Revisions of preliminary hours and earnings estimates are normally not greater than 0.1 of an hour for weekly hours and 1 cent for hourly earnings.

## STATISTICS FOR STATES AND AREAS

State and area employment, hours, and earnings data are collected and prepared by State agencies in cooperation with BLS. The area statistics relate to metropolitan areas. Defini-

tions for all areas are published each year in the issue of *Employment and Earnings* that contains State and area annual averages (usually the May issue). Changes in definitions are noted as they occur. Additional industry detail may be obtained from the State agencies listed on the inside back cover of each issue. These statistics are based on the same establishment reports used by BLS for preparing national estimates. For employment, the sum of the State figures may differ slightly from the equivalent official U.S. totals on a national basis, because some States have more recent benchmarks than others and because of the effects of differing industrial and geographic stratification.

**Table Q. Errors of preliminary employment estimates**

Industry	Root-mean-square error of—		Industry	Root-mean-square error of—	
	Monthly level	Month-to-month change		Monthly level	Month-to-month change
Total .....	76,100	75,200	Nondurable goods—Continued		
Total private .....	59,700	57,100	Printing and publishing .....	2,100	2,000
Goods-producing industries .....	21,700	21,100	Chemicals and allied products ..	2,600	2,800
Mining .....	3,700	3,400	Petroleum and coal products ..	1,200	1,200
Oil and gas extraction .....	3,100	2,800	Rubber and misc. plastics		
Construction .....	13,800	14,600	products .....	1,600	1,600
General building contractors ..	5,200	5,400	Leather and leather products ..	1,400	1,300
Manufacturing .....	16,700	17,700	Service-producing industries .....	71,200	69,300
Durable goods .....	12,600	11,600	Transportation and public utilities ..	14,500	12,900
Lumber and wood products .....	2,100	1,900	Transportation .....	12,600	10,500
Furniture and fixtures .....	1,600	1,600	Communications and public utilities ..	5,500	4,900
Stone, clay, and glass products ..	1,500	1,500	Wholesale trade .....	7,800	7,100
Primary metal industries .....	4,000	3,800	Durable goods .....	5,600	4,900
Blast furnaces and basic			Nondurable goods .....	4,900	4,300
steel products .....	3,000	2,700	Retail trade .....	35,200	30,800
Fabricated metal products .....	2,200	2,100	General merchandise stores .....	22,300	19,800
Industrial machinery			Food stores .....	7,000	6,100
and equipment .....	5,600	6,600	Automotive dealers and		
Electronic and other			service stations .....	4,000	4,900
electrical equipment .....	4,200	4,100	Eating and drinking places .....	8,800	7,700
Transportation equipment .....	7,200	6,700	Finance, insurance, and real estate ..	8,000	6,700
Motor vehicles and equipment ..	6,000	6,100	Finance .....	4,000	3,500
Instruments and related products	2,000	2,100	Insurance .....	3,600	3,000
Miscellaneous manufacturing .....	1,800	1,600	Real estate .....	4,300	3,800
Nondurable goods .....	8,300	8,200	Services .....	31,000	32,100
Food and kindred products .....	5,200	4,900	Business services .....	11,000	10,400
Tobacco products .....	1,400	1,300	Health services .....	8,500	7,800
Textile mill products .....	1,800	1,600	Government .....	51,900	45,800
Apparel and other textile			Federal .....	16,100	11,600
products .....	4,300	4,000	State .....	20,800	16,900
Paper and allied products .....	1,500	1,400	Local .....	35,600	36,200

NOTE: Data are based on differences from December 1984 through December 1989.

## Productivity Data (Tables C-9 through C-11)

### COLLECTION

Productivity data are compiled by the Bureau of Labor Statistics from establishment and household survey labor input data and from measures of compensation and output supplied by the U.S. Department of Commerce and the Federal Reserve Board.

### CONCEPTS

*Hours* of wage and salary workers in nonagricultural establishments (table C-9) refer to hours paid for all employees—production workers, nonsupervisory workers, and salaried workers. For productivity and cost measures (tables C-10, 11), hours of all persons include hours of employees, proprietors, and unpaid family workers. Labor input is measured by hours at the work site.

*Output* is the constant-dollar market value of final goods and services produced in a given period. Indexes of *output per hour* of all persons (productivity) measure changes in the volume of goods and services produced per hour at work.

*Compensation per hour* includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed.

*Real compensation per hour* is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers (CPI-U).

*Unit labor costs* measure the labor compensation cost required to produce one unit of output and are derived by dividing compensation per hour by output per hour.

*Unit nonlabor payments* include profits, capital consump-

tion allowances, interest, rental income of persons, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from the current-dollar gross product originating in the sector and dividing by output. In these tables, *unit nonlabor costs* contain all the components of unit nonlabor payments except unit profits.

*Unit profits* include corporate profits and inventory valuation and capital consumption adjustments per unit of output.

The *implicit price deflator* is derived by dividing the current-dollar estimate of gross product by the constant-dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

### NOTES ON THE DATA

For the business sector and the nonfarm business sector, these indexes relate to the gross domestic product less general government, households and institutions, owner-occupied housing, and the statistical discrepancy. For the nonfinancial corporate sector, the indexes refer to the gross domestic product of nonfinancial corporate business. All measures are seasonally adjusted.

Manufacturing output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly measures have been adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis.

Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics. Historical statistics for most productivity measures appear in *Trends in Multifactor Productivity, 1948-81*, BLS Bulletin 2178. Additional information may be obtained from the Office of Productivity and Technology (202-523-9261).

## State and Area Labor Force Data (D table)

### FEDERAL-STATE COOPERATIVE PROGRAM

Labor force and unemployment estimates for States, labor market areas (LMA's), and other areas covered under Federal assistance programs are developed by State employment security agencies under a Federal-State cooperative program. The local unemployment estimates which are derived from standardized procedures developed by BLS are the basis for determining eligibility of an area for benefits under Federal programs such as the Job Training and Partnership Act, the Economic Dislocation and Worker Adjustment Assistance Act, and the Urban Development Action Grant program.

Annual average data for the States and areas shown in table

D are published in *Employment and Earnings* (usually the May issue). For regions, States, selected metropolitan areas, and central cities, annual average data classified by selected demographic, social, and economic characteristics are published in the BLS bulletin, *Geographic Profile of Employment and Unemployment*.

Labor force estimates for counties, cities, and other small areas have been prepared for administration of various Federal economic assistance programs and may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The report "Unemployment in States and Local Areas" is published monthly through GPO and is available in microfiche form only, on a subscription basis.

## ESTIMATING METHODS

Monthly labor force, employment, and unemployment estimates are prepared for the 50 States, the District of Columbia, and over 2,600 labor market areas. The estimation methods are described below for States (and the District of Columbia) and for sub-State areas. A more detailed description of the estimation procedure is contained in the BLS document, "Manual for Developing Local Area Unemployment Statistics."

### Estimates for States

*Current monthly estimates.* The civilian labor force and unemployment estimates for the 11 largest States—California, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas—are sufficiently reliable to be taken directly from the Current Population Survey (CPS) on a monthly basis. These are termed "direct-use States." For a description of the CPS concepts, see "Household Data," above.

For the 39 smaller States and the District of Columbia, which do not use the CPS directly each month, regression models (sets of equations) are used to develop employment and unemployment estimates. These, then, are the "non-direct-use" States. The regression techniques are based on historical and current relationships found within each State's economy as reflected in the different sources of data that are available for each State—the CPS, the Current Employment Statistics (CES) survey, and the unemployment insurance (UI) system. When the estimation procedures were introduced in 1989, over 10 years of data were used to develop the equations for each State. While all the State models have important variables in common, they differ somewhat from one another so as to better reflect individual State characteristics.

Two models—one for employment and one for the unemployment rate—are used for each State. The unemployment rate, rather than the unemployment level, is modeled, primarily because the rate is usually more meaningful for economic analysis.

The employment models use the CES estimates of nonfarm wage and salary jobs and also include data for employed persons not covered or only partially covered by the CES survey. Typically, these are agricultural workers, the self-employed, unpaid family workers, and private household workers.

The unemployment rate models also include different types of data. Data for UI claimants (without earnings due to employment) are used to represent most of the experienced unemployed. The models also include an employment-to-population ratio which reflects both the business cycle and the experienced unemployed not covered by the UI claims data. New entrants and reentrants into the labor force are also reflected in the models. For some States, the models include variables which reflect seasonal factors not reflected in the other data used, such as the large increase in the labor force at the end of the school year.

In both the employment and unemployment rate models,

an important feature is the use of a technique that allows the equations to adjust automatically to structural changes that occur. The models are termed "variable coefficient models" because they include a built-in tuning mechanism, known as the Kalman Filter, which revises a model's coefficients when the new data that become available each month indicate that changes in the data relationships have taken place. Once the estimates are developed from the models, the unemployment level and labor force estimates are calculated.

*Benchmark correction procedures.* Once each year, monthly estimates for the 39 non-direct-use States and the District of Columbia are adjusted, or benchmarked, by BLS to the annual average CPS estimates. The benchmarking technique employs a procedure (called the Denton method) which adjusts the annual average of the models to equal the CPS annual average, while preserving, as much as possible, the original monthly seasonal pattern of the model estimates.

In the 11 direct-use States, no benchmark correction is required, as the average of the 12 monthly State CPS estimates will equal the CPS annual averages.

### Estimates for sub-State areas

Monthly labor force and employment estimates for two large sub-State areas—New York City and the Los Angeles-Long Beach metropolitan area—are obtained directly from the CPS. Estimates for all other sub-State areas, more than 2,600 labor market areas (LMA's), are prepared through indirect estimation techniques, described below.

*Preliminary estimate—employment.* The total civilian employment estimates are based on CES data. These "place-of-work" estimates must be adjusted to refer to place-of-residence as used in the CPS. Factors for adjusting from place-of-work to place-of-residence have been developed for several categories of employment on the basis of employment relationships at the time of the 1980 decennial census. These factors are applied to the CES estimates for the current period to obtain adjusted employment estimates, to which are added estimates for employment not represented in the CES—agriculture, nonagricultural self-employed and unpaid family workers, and private household workers.

*Preliminary estimate—unemployment.* In the current month, the estimate of unemployment is an aggregate of the estimates for each of three categories: (1) persons who were previously employed in industries covered by State UI laws; (2) those previously employed in industries not covered by these laws; and (3) those who were entering the civilian labor force for the first time or reentering after a period of separation.

*Sub-State adjustment for additivity.* Estimates of employment and unemployment are prepared for the State and LMA's within the State. The LMA estimates geographically exhaust the entire State. Thus, a proportional adjustment must be applied to all sub-State LMA estimates to ensure that they add to the independently estimated State totals for employment and unemployment.

**Benchmark correction.** At the end of each year, sub-State estimates are revised. The revisions incorporate any changes in the inputs, such as revisions in the CES-based employment figures, corrections in claims counts, and updated historical

relationships. The corrected estimates are then readjusted to add to the revised (benchmarked) State estimates of employment and unemployment.

## Seasonal Adjustment

Over the course of a year, the size of the Nation's labor force, the levels of employment and unemployment, and other measures of labor market activity 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. 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 it easier to observe the cyclical and other nonseasonal movements in the series. In evaluating changes in a seasonally adjusted series, it is important to note that seasonal adjustment is merely an approximation based on past experience. Seasonally adjusted estimates have a broader margin of possible error than the original data on which they are based, since they are subject not only to sampling and other errors but are also affected by the uncertainties of the seasonal adjustment process itself. Seasonally adjusted series for selected labor force and establishment-based data are published monthly in *Employment and Earnings*.

Since January 1980, national labor force data have been seasonally adjusted with a procedure called *X-11 ARIMA* (Auto-Regressive Integrated Moving Average), which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, January 1983.

At the beginning of each calendar year, projected seasonal adjustment factors are calculated for use during the January–June period. In July of each year, BLS calculates and publishes in *Employment and Earnings* projected seasonal adjustment factors for use in the second half, based on the experience through June. Revisions of historical data for the most recent 5 years are made only at the beginning of each calendar year. However, as a result of the revisions to the estimates for 1970–81 based on 1980 census population counts, revisions to seasonally adjusted series in early 1982 were carried back to 1970.

All labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. For example, for each of the three major labor force components—agricultural employment, nonagricultural employment, and unemployment—data for four sex-age groups (men and women under and over 20 years of age)

are separately adjusted for seasonal variation and are then added to derive seasonally adjusted total figures. The seasonally adjusted figure for the labor force is a 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. Because of the independent seasonal adjustment of various series, components will not necessarily add to totals.

Revised seasonally adjusted data for selected labor force series based on the experience through December, new seasonal adjustment factors to be used to calculate the civilian unemployment rate for the first 6 months of the following year, and a description of the current seasonal adjustment procedure are published in each January issue of *Employment and Earnings*. Revised seasonally adjusted data covering the revision period for a broader range of labor force series are published in the February issue of this publication.

Since the early 1980's, the BLS has also used the X-11 ARIMA procedure to seasonally adjust establishment-based employment, hours, and earnings data. 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 (April–March). Beginning in June 1989, with the introduction of the March 1988 benchmarks, the Bureau introduced a modification to this procedure to parallel that used in seasonally adjusting household survey data. Projected seasonal adjustment factors are calculated and published twice a year. Revisions of historical data will continue to be made once a year, coincident with benchmark revisions.

All series are seasonally adjusted using the multiplicative models under X-11 ARIMA. Seasonal adjustment factors are directly applied to the component levels. Seasonally adjusted totals for most of these series are then obtained by taking a weighted average of the seasonally adjusted data for the component series.

Seasonally adjusted average weekly earnings are the product of seasonally adjusted average hourly earnings and seasonally adjusted average weekly hours. Average weekly earnings in constant dollars, seasonally adjusted, are obtained by dividing average weekly earnings, seasonally adjusted, by the seasonally adjusted Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), and

multiplying by 100. Indexes of aggregate weekly hours, seasonally adjusted, are obtained by multiplying average weekly hours, seasonally adjusted, by production or nonsupervisory workers, seasonally adjusted, and dividing by the 1982 annual average base. For total private, total goods-producing, total private service-producing, and major industry divisions, the indexes of aggregate weekly hours, seasonally adjusted, are obtained by summing the aggregate weekly hours, seasonally adjusted, for the appropriate component industries and dividing by the 1982 annual average base.

Seasonally adjusted data are not published for a number of series characterized by small seasonal components relative to their trend-cycle and/or irregular components. These failed or unsatisfactory seasonally adjusted series, however, are used in the aggregation to broader level seasonally adjusted series.

Seasonal adjustment factors for Federal Government employment are derived from unadjusted data which include Christmas temporary workers employed by the Postal Service. The number of temporary census workers for the

decennial census, however, are removed prior to the calculation of seasonal adjustment factors.

BLS has developed an extension of 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 and of Labor Day in the September reference period. This extension was applied for the first time at the end of 1989 to three persons-at-work labor force series which tested as having significant and well-defined effects in their April data associated with the timing of Easter. This extension was also used for the seasonal adjustment of many of the establishment-based series on average weekly hours and manufacturing overtime hours, starting with the computation of the projected factors for the period beginning in April 1990.

Revised seasonally adjusted establishment-based series based on the experience through May 1990, new seasonal adjustment factors for August 1990–April 1991, and a description of the current seasonal adjustment procedure appear in the September 1990 issue of *Employment and Earnings*.



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Bureau of Labor Statistics**

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