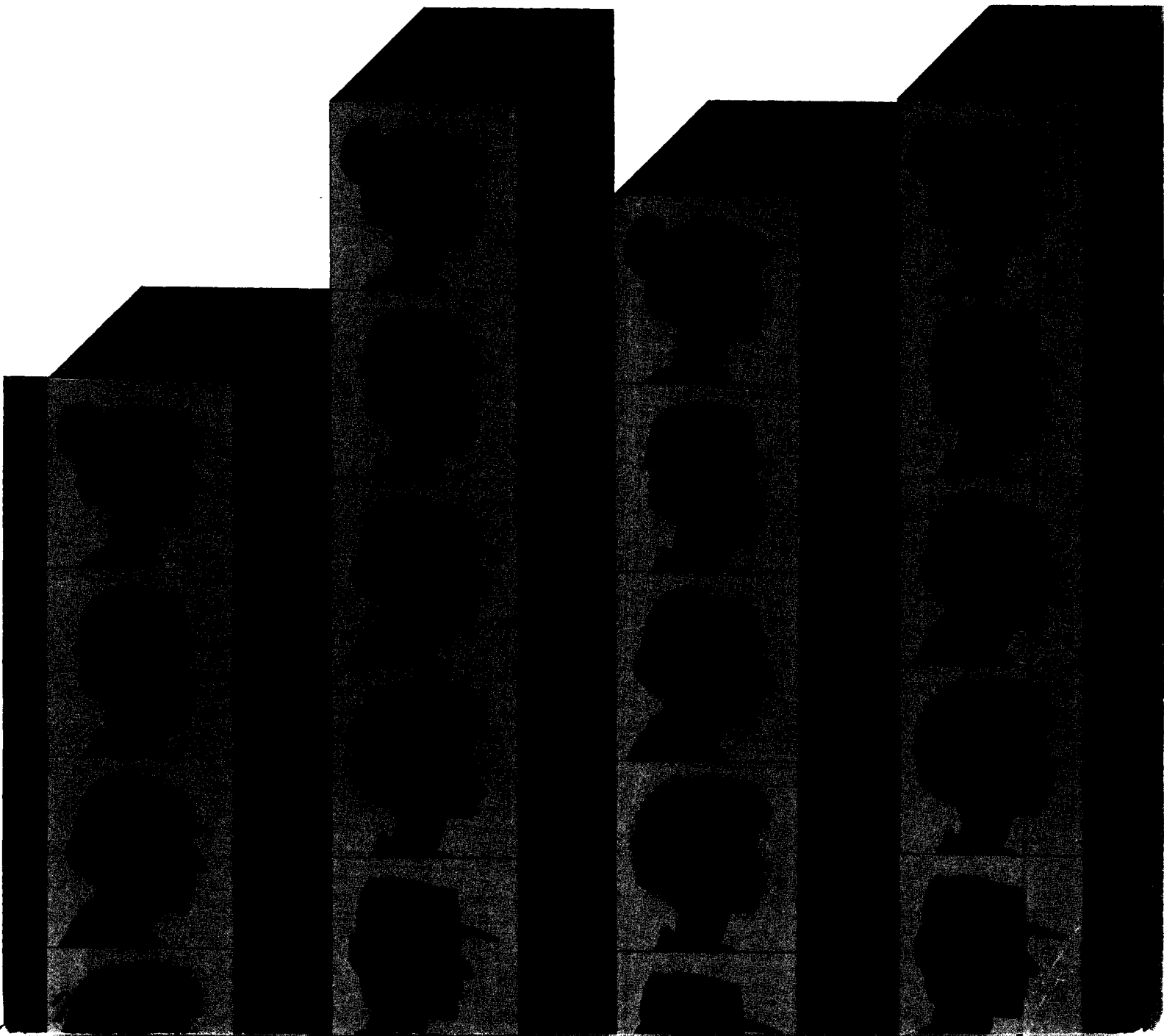




EMPLOYMENT AND EARNINGS

November 1988

U.S. Department of Labor
Bureau of Labor Statistics





U.S. DEPARTMENT OF LABOR

Ann McLaughlin, Secretary

BUREAU OF LABOR STATISTICS

Janet L. Norwood, *Commissioner*

Employment and Earnings is prepared in the Office of Employment and Unemployment Statistics in collaboration with the Office of Publications. The data are collected by the Bureau of the Census (Department of Commerce) and State employment security agencies, in cooperation with the Bureau of Labor Statistics. A brief description of the cooperative statistical programs of the BLS with these agencies is presented in the Explanatory Notes. The State agencies are listed on the inside back cover.

Employment and Earnings may be ordered through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Subscription price per year \$25 domestic and \$31.25 foreign. Single copy \$8.50 domestic and \$10.63 foreign. Annual supplement \$14 domestic and \$17.50 foreign. Prices are subject to change by the U.S. Government Printing Office. For ordering information call (202) 783-3238.

Communications on material in this publication should be addressed to: Editors, *Employment and Earnings*, Bureau of Labor Statistics, Washington, DC 20212, or phone: Gloria P. Green (202) 523-1959. Send correspondence on circulation and subscription matters (including address changes) to the Superintendent of Documents.

Second class postage paid at Washington, DC, and at additional mailing addresses.

Material in this publication is in the public domain and, with appropriate credit, may be reproduced without permission.

ISSN 0013-6840

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.

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
---	------

Revised historical national data	Supplement ¹
----------------------------------	-------------------------

State and area annual averages	May
--------------------------------	-----

Area definitions	May
------------------	-----

State and area labor force data

Annual averages	May
-----------------	-----

¹ The latest supplement was published in August 1988.

Employment and Earnings

Vol. 35 No. 11 November 1988

Editors: Gloria Peterson Green, Rosalie K. Epstein

Contents

	<i>Page</i>
List of statistical tables	2
Employment and unemployment developments, October 1988	4
Statistical tables:	
Historical—	
Household data	6
Establishment data:	
Employment	43
Hours and earnings	79
Not seasonally adjusted—	
Household data	9
Establishment data:	
Employment:	
National	44
State and area	60
Hours and earnings:	
National	82
State and area	104
State and area labor force data	112
Seasonally adjusted—	
Household data	36
Establishment data:	
Employment	56
Hours and earnings	101
Productivity data	109
Explanatory notes	117

MONTHLY HOUSEHOLD DATA

Page

Employment Status

A- 1.	Employment status of the noninstitutional population 16 years and over, 1954 to date	6
A- 2.	Employment status of the noninstitutional population 16 years and over by sex, 1977 to date	7
A- 3.	Employment status of the civilian noninstitutional population 16 years and over, 1954 to date	8
A- 4.	Employment status of the civilian noninstitutional population by age, sex, and race	9
A- 5.	Employment status of the black-and-other civilian noninstitutional population by sex and age	12
A- 6.	Employment status of the civilian noninstitutional population by race, sex, and age	13
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	14
A- 8.	Employment status of male Vietnam-era veterans and nonveterans by age	16
A- 9.	Employed and unemployed full-and part-time workers by sex, age, and race	17
A-10.	Employment status of persons in families by family relationship	18

Characteristics of the Unemployed

A-11.	Unemployed persons by marital status, race, age, and sex	19
A-12.	Unemployed persons by occupation and sex	20
A-13.	Unemployed persons by industry and sex	21
A-14.	Unemployed persons by reason for unemployment, sex, and race	22
A-15.	Unemployed persons by reason for unemployment, sex, age, and duration of unemployment	23
A-16.	Unemployed persons by duration of unemployment	23
A-17.	Unemployed persons by sex, age, race, marital status, and duration of unemployment	24
A-18.	Unemployed persons by occupation, industry, and duration of unemployment	25
A-19.	Unemployed jobseekers by sex, age, race, and jobsearch methods used	26
A-20.	Unemployed jobseekers by sex, reason for unemployment, and jobsearch methods used	26

Characteristics of the Employed

A-21.	Employed civilians in agriculture and nonagricultural industries by age and sex	27
A-22.	Employed civilians by occupation, sex, and age	28
A-23.	Employed civilians by occupation, race, and sex	29
A-24.	Employed civilians by age, sex, and class of worker	30
A-25.	Employed civilians by industry and occupation	31
A-26.	Employed civilians with a job but not at work by reason, sex, and pay status	31
A-27.	Persons at work by hours of work and type of industry	32
A-28.	Persons at work 1 to 34 hours by reason for working less than 35 hours, type of industry, and usual status	32
A-29.	Persons at work in nonagricultural industries by class of worker and full- or part-time status	33
A-30.	Persons at work in nonagricultural industries by sex, age, race, marital status, and full- or part-time status	34
A-31.	Persons at work in nonfarm occupations by sex and full- or part-time status	35

Seasonally Adjusted Employment and Unemployment Data

A-32.	Employment status of the noninstitutional population, including Armed Forces stationed in the United States, by sex, seasonally adjusted	36
A-33.	Employment status of the civilian noninstitutional population by sex and age, seasonally adjusted	37
A-34.	Employment status of the civilian noninstitutional population by race, sex, age, and Hispanic origin, seasonally adjusted	38
A-35.	Employed civilians by selected social and economic categories, seasonally adjusted	39
A-36.	Employed civilians by sex and age, seasonally adjusted	40
A-37.	Unemployed persons by sex and age, seasonally adjusted	40
A-38.	Unemployment rates by sex and age, seasonally adjusted	41
A-39.	Selected unemployment indicators, seasonally adjusted	41
A-40.	Unemployed persons by duration of unemployment, seasonally adjusted	42
A-41.	Unemployed persons by reason for unemployment, seasonally adjusted	42

MONTHLY ESTABLISHMENT DATA

Page

Employment—National

B- 1.	Employees on nonagricultural payrolls by major industry, 1936 to date .	43
B- 2.	Employees on nonagricultural payrolls by detailed industry	44
B- 3.	Women employees on nonagricultural payrolls by major industry and manufacturing group .	55
B- 4.	Employees on nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted	56
B- 5.	Women employees on nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted	57
B- 6.	Production or nonsupervisory workers on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted	58
B- 7.	Indexes of diffusion: Percent of industries in which employment increased, seasonally adjusted .	59

Employment—States and Areas

B- 8.	Employees on nonagricultural payrolls in States and selected areas by major industry .	60
-------	--	----

Hours and Earnings—National

C- 1.	Average hours and earnings of production or nonsupervisory workers on private nonagricultural payrolls by major industry, 1964 to date	79
C- 2.	Average hours and earnings of production or nonsupervisory workers on private nonagricultural payrolls by detailed industry	82
C- 2a.	Average hourly earnings in aircraft (SIC 3721) and guided missiles and space vehicles (SIC 3761) manufacturing	98
C- 3.	Average hourly earnings, excluding overtime, of production workers on manufacturing payrolls .	99
C- 4.	Average hourly and weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls by major industry, in current and constant (1977) dollars	100
C- 5.	Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted	101
C- 6.	Indexes of aggregate weekly hours of production or nonsupervisory workers on private non- agricultural payrolls by major industry and manufacturing group, seasonally adjusted . .	102
C- 7.	The Hourly Earnings Index and average hourly and weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls, seasonally adjusted .	103

Hours and Earnings—States and Areas

C- 8.	Average hours and earnings of production workers on manufacturing payrolls in States and selected areas .	104
-------	--	-----

PRODUCTIVITY DATA

C- 9.	Hours of wage and salary workers in nonagricultural establishments by major industry, seasonally adjusted	109
C-10.	Indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted	110
C-11.	Percent changes from the preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted annual rates .	111

MONTHLY STATE AND AREA LABOR FORCE DATA

D- 1.	Labor force status by State and selected metropolitan areas .	112
-------	---	-----

Employment and Unemployment Developments, October 1988

Employment rose in October and unemployment was little changed. The overall unemployment rate was 5.2 percent, and the civilian worker rate was 5.3 percent. Both have fluctuated within a narrow range since the spring.

Nonagricultural payroll jobs, as measured by the survey of business establishments, grew by 325,000 in October to 107.1 million. All of this increase was in private industries. Total civilian employment, as measured by the household survey, edged up to 115.5 million. The household survey continues to show much slower employment growth than the business survey—2.4 million over the past year, versus 3.7 million.

Unemployment

The civilian worker unemployment rate was essentially unchanged in October at 5.3 percent; the number of unemployed persons was 6.5 million. Since the spring, the jobless rate has moved within a narrow range of 5.3 to 5.6 percent, and the number of unemployed persons has ranged between 6.5 and 6.8 million. (See table A-33.)

The October jobless rates for adult men (4.6 percent), adult women (4.7 percent), and teenagers (14.9 percent) were little different from September, as were the rates for whites (4.6 percent), blacks (11.0 percent), and Hispanics (7.7 percent). (See tables A-33 and A-34.)

The number of persons who cited job loss as their reason for unemployment declined by 180,000 to 2.9 million in October. Declines in the number of unemployed job losers and new entrants to the labor force accounted for most of the nearly 700,000 fall in unemployment over the past year; the number of job leavers and labor force reentrants was little changed. (See table A-41.)

Civilian employment and the labor force

Civilian employment rose slightly to 115.5 million in October, and the employment-population ratio sustained its high of 62.4 percent reached in the previous month. Employment among adult women grew by 320,000, and their employment-population ratio rose 0.3 percentage point to a new high of 54.3 percent.

At 122.0 million, the civilian labor force has been little changed since August, while the labor force participation rate remained at 65.9 percent. The labor force rose by 1.7 million over the past year. (See table A-33.)

Industry payroll employment

Total nonagricultural employment rose by 325,000 in October, seasonally adjusted, to a level of 107.1 million. This gain was in line with average job growth so far this year. All of the October gains were in private industries, which had shown slower growth in the prior 2 months. (See table B-4.)

Manufacturing employment rose by 100,000, seasonally adjusted, more than offsetting declines totaling 45,000 in the previous 2 months. Job gains were widespread throughout the durable and nondurable industries. The largest increase was in food processing, which experienced fewer fall cutbacks than usual following light summer hiring due to the drought. Other industries showing sizable increases included lumber and wood products, primary metals, fabricated metals, machinery, motor vehicles, and rubber and plastics. Despite October's strong growth, only 9 of the 20 manufacturing industries were above July levels.

Elsewhere in the goods-producing sector, construction employment was about unchanged, following fairly substantial growth during most of the year. Mining employment was also about unchanged in October.

In the services industry, an October gain of 145,000 was led by health services. Business services continued to show slow growth. Retail trade employment rose by 50,000 over the month; there were substantial increases in food stores and eating and drinking places, while holiday hiring in general merchandise stores was less than expected. Wholesale trade added 20,000 jobs, mostly in durable goods distribution. Virtually no employment change occurred in government, following a large increase in public school employment in September. Employment in both finance, insurance, and real estate and transportation and public utilities was also little changed in October.

Weekly hours

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls edged up by 0.1 hour to a level of 34.8 hours in October, seasonally adjusted. The factory workweek fell slightly to 41.1 hours, while manufacturing overtime edged up 0.1 hour to 4.0 hours. Both the average workweek and overtime in manufacturing continued to be very high by historical standards. (See table C-5.)

The index of aggregate weekly hours of production or non-supervisory workers on private nonagricultural payrolls, at 126.9 (1977=100), rose by 0.7 percent, seasonally adjusted. The index for manufacturing increased by 0.5 percent to 96.8. (See table C-6.)

Hourly and weekly earnings

Average hourly earnings of private production or non-supervisory workers rose 0.7 percent in October, seasonally adjusted. Average weekly earnings increased 1.0 percent, reflecting the increases in both hourly earnings and the length of the workweek. Prior to seasonal adjustment, average hourly earnings rose 5 cents to \$9.45, and average weekly earn-

ings increased by \$2.69 to \$329.81. (See tables C-1 and C-7.)

The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 181.6 (1977=100) in October, seasonally adjusted, an increase of 0.8 percent from September. For the 12 months ended in October, the increase was 3.8 percent. In dollars of constant purchasing power, the HEI decreased 0.9 percent during the 12-month period ending in September. The HEI is computed so as to exclude the effects of two types of changes unrelated to underlying wage rate movements—fluctuations in manufacturing overtime and interindustry employment shifts. (Beginning in 1989, the HEI will no longer be published in this publication.) (See table C-7.)

Scheduled Release Dates			
Employment and unemployment data are scheduled for initial release on the following dates:			
Reference month	Release date	Reference month	Release date
November	December 2	February	March 10
December	January 6	March	April 7
January	February 3	April	May 5

**HOUSEHOLD DATA
HISTORICAL**

A-1. Employment status of the noninstitutional population 16 years and over, 1954 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				
Annual averages												
1954	110,463	65,785	59.6	62,251	2,142	60,109	6,205	53,904	3,532	5.4	44,678	
1955	111,747	67,087	60.0	64,234	2,064	62,170	6,450	55,722	2,852	4.3	44,660	
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 ¹	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 ¹	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 ²	145,939	88,847	60.9	83,966	1,813	82,153	3,484	78,669	4,882	5.5	57,091	
1973 ¹	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 ¹	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 ¹	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	
Monthly data, seasonally adjusted²												
1987:												
October	185,052	122,128	66.0	114,951	1,741	113,210	3,249	109,961	7,177	5.9	62,924	
November	185,225	122,349	66.1	115,259	1,755	113,504	3,172	110,332	7,090	5.8	62,876	
December	185,370	122,472	66.1	115,494	1,750	113,744	3,215	110,529	6,978	5.7	62,898	
1988:												
January	185,571	122,924	66.2	115,878	1,749	114,129	3,293	110,836	7,046	5.7	62,647	
February	185,705	123,084	66.3	116,145	1,736	114,409	3,228	111,182	6,938	5.6	62,621	
March	185,847	122,639	66.0	115,839	1,736	114,103	3,204	110,899	6,801	5.5	63,208	
April	185,964	123,055	66.2	116,445	1,732	114,713	3,228	111,485	6,610	5.4	62,909	
May	186,088	122,692	65.9	115,909	1,714	114,195	3,035	111,160	6,783	5.5	63,396	
June	186,247	123,157	66.1	116,703	1,685	115,018	3,085	111,933	6,455	5.2	63,090	
July	186,402	123,357	66.2	116,732	1,673	115,059	3,046	112,014	6,625	5.4	63,045	
August	186,522	123,723	66.3	116,872	1,692	115,180	3,151	112,029	6,851	5.5	62,799	
September	186,666	123,628	66.2	117,032	1,704	115,328	3,169	112,158	6,596	5.3	63,038	
October	186,801	123,699	66.2	117,208	1,687	115,521	3,266	112,255	6,491	5.2	63,102	

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

² 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, 1977 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				
Annual averages												
MEN												
1977	76,756	59,959	78.1	56,291	1,563	54,728	2,671	52,057	3,667	6.1	16,797	
1978 ¹	78,107	61,151	78.3	58,010	1,531	56,479	2,718	53,761	3,142	5.1	16,958	
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	77.8	58,865	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	57,800	1,529	56,271	2,736	53,534	6,179	9.7	19,073	
1983	84,064	64,580	76.8	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 ¹	87,349	66,973	76.7	62,443	1,551	60,892	2,511	58,381	4,530	6.8	20,376	
1987	88,476	67,784	76.6	63,684	1,577	62,107	2,543	59,564	4,101	6.1	20,692	
Monthly data, seasonally adjusted²												
1987:												
October	88,756	67,947	78.6	64,048	1,580	62,468	2,569	59,899	3,899	5.7	20,809	
November	88,849	68,019	76.6	64,174	1,593	62,581	2,491	60,090	3,645	5.7	20,830	
December	88,924	68,030	76.5	64,245	1,589	62,656	2,523	60,133	3,785	5.6	20,894	
1988:												
January	89,033	68,243	76.6	64,396	1,588	62,808	2,593	60,216	3,847	5.6	20,790	
February	89,099	68,343	76.7	64,636	1,577	63,059	2,510	60,548	3,707	5.4	20,756	
March	89,168	68,148	76.4	64,332	1,573	62,759	2,474	60,285	3,816	5.6	21,020	
April	89,225	68,445	76.7	64,892	1,569	63,323	2,467	60,856	3,553	5.2	20,780	
May	89,287	68,318	76.5	64,583	1,553	63,030	2,391	60,639	3,736	5.5	20,969	
June	89,367	68,429	76.6	64,934	1,523	63,411	2,422	60,988	3,495	5.1	20,938	
July	89,445	68,521	76.6	65,002	1,512	63,490	2,471	61,019	3,519	5.1	20,924	
August	89,504	68,723	76.8	64,954	1,529	63,425	2,526	60,899	3,768	5.5	20,781	
September	89,577	68,608	76.6	65,052	1,540	63,512	2,489	61,023	3,555	5.2	20,970	
October	89,637	68,544	76.5	64,943	1,526	63,417	2,567	60,850	3,600	5.3	21,093	
Annual averages												
WOMEN												
1977	83,932	40,705	48.5	37,381	92	37,289	612	36,677	3,324	8.2	43,227	
1978 ¹	85,434	42,731	50.0	39,669	100	39,569	669	38,900	3,061	7.2	42,703	
1979	86,951	44,343	51.0	41,325	108	41,217	661	40,556	3,018	6.8	42,608	
1980	88,472	45,611	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	90,867	47,894	52.7	43,995	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	48,061	148	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 ¹	94,944	52,568	55.4	48,861	155	48,708	652	48,054	3,707	7.1	42,376	
1987	96,013	53,818	56.1	50,494	160	50,334	666	49,668	3,324	6.2	42,195	
Monthly data, seasonally adjusted²												
1987:												
October	96,295	54,181	56.3	50,903	161	50,742	680	50,062	3,278	6.1	42,114	
November	96,376	54,330	56.4	51,085	162	50,923	681	50,242	3,245	6.0	42,046	
December	96,446	54,442	56.4	51,249	161	51,088	692	50,396	3,193	5.9	42,004	
1988:												
January	96,538	54,681	56.8	51,482	181	51,321	700	50,621	3,200	5.9	41,857	
February	96,606	54,740	56.7	51,509	159	51,350	717	50,633	3,231	5.9	41,866	
March	96,679	54,491	56.4	51,507	163	51,344	730	50,614	2,985	5.5	42,188	
April	96,739	54,610	56.5	51,553	163	51,390	761	50,829	3,057	5.8	42,129	
May	96,801	54,374	56.2	51,327	161	51,168	845	50,521	3,047	5.6	42,427	
June	96,880	54,728	56.5	51,769	162	51,607	662	50,944	2,980	5.4	42,152	
July	96,957	54,838	56.8	51,730	161	51,589	575	50,994	3,106	5.7	42,121	
August	97,016	55,000	56.7	51,918	183	51,755	625	51,130	3,083	5.6	42,018	
September	97,089	55,020	56.7	51,979	164	51,815	680	51,135	3,041	5.5	42,089	
October	97,184	55,155	56.8	52,265	181	52,104	699	51,405	2,690	5.2	42,009	

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

² The population and Armed Forces figures are not adjusted for seasonal variation.

**HOUSEHOLD DATA
HISTORICAL**

A-3. Employment status of the civilian noninstitutional population 16 years and over, 1954 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
Annual averages								
1954	108,321	63,643	58.8	60,109	3,532	5.5	5.3	6.0
1955	109,683	65,023	59.3	62,170	2,852	4.4	4.2	4.9
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 ¹	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 ¹	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 ¹	144,126	87,034	60.4	82,153	4,882	5.6	5.0	6.6
1973 ¹	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 ¹	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 ¹	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
Monthly data, seasonally adjusted²								
1987:								
October	183,311	120,387	65.7	113,210	7,177	6.0	5.9	6.1
November	183,470	120,594	65.7	113,504	7,090	5.9	5.8	6.0
December	183,620	120,722	65.7	113,744	6,978	5.8	5.7	5.9
1988:								
January	183,822	121,175	65.9	114,129	7,046	5.8	5.8	5.9
February	183,969	121,348	66.0	114,409	6,938	5.7	5.6	5.9
March	184,111	120,903	65.7	114,103	6,801	5.6	5.7	5.5
April	184,232	121,323	65.9	114,713	6,610	5.4	5.3	5.6
May	184,374	120,978	65.6	114,195	6,783	5.6	5.6	5.6
June	184,562	121,472	65.8	115,018	6,455	5.3	5.2	5.4
July	184,729	121,684	65.9	115,059	6,625	5.4	5.3	5.7
August	184,830	122,031	66.0	115,180	6,851	5.6	5.6	5.6
September	184,962	121,924	65.9	115,328	6,596	5.4	5.3	5.5
October	185,114	122,012	65.9	115,521	6,491	5.3	5.4	5.3

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

Explanatory Notes.

² 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	October 1988										
	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					
TOTAL											
18 years and over	185,114	122,432	66.1	116,250	6,182	5.0	62,682	27,449	8,995	3,153	23,085
16 to 19 years	14,456	7,599	52.6	6,465	1,134	14.9	6,856	387	5,937	32	501
16 to 17 years	7,161	3,038	42.4	2,532	506	16.7	4,123	110	3,795	4	215
18 to 19 years	7,294	4,561	62.5	3,934	628	13.8	2,733	276	2,142	28	287
20 to 24 years	18,288	14,340	78.4	13,195	1,145	8.0	3,949	1,468	1,858	87	537
25 to 54 years	102,038	85,184	83.5	81,685	3,498	4.1	16,853	11,572	1,160	1,176	2,944
25 to 34 years	42,687	35,782	83.8	33,960	1,822	5.1	6,905	4,885	782	286	952
25 to 29 years	21,265	17,788	83.6	16,822	965	5.4	3,477	2,387	487	133	490
30 to 34 years	21,423	17,994	84.0	17,137	858	4.8	3,428	2,518	296	153	462
35 to 44 years	35,102	30,040	85.6	28,969	1,072	3.6	5,062	3,573	298	331	859
35 to 39 years	18,998	16,251	85.5	15,614	637	3.9	2,746	1,955	192	178	419
40 to 44 years	16,105	13,789	85.6	13,354	434	3.1	2,316	1,616	106	152	441
45 to 54 years	24,248	19,362	79.8	18,757	605	3.1	4,886	3,114	80	560	1,133
45 to 49 years	13,083	10,877	83.1	10,510	367	3.4	2,205	1,471	43	239	453
50 to 54 years	11,165	8,485	76.0	8,247	238	2.8	2,680	1,643	37	321	680
55 to 64 years	21,613	11,948	55.3	11,621	328	2.7	9,665	4,704	30	686	4,245
55 to 59 years	10,785	7,140	66.2	6,940	201	2.8	3,645	2,030	15	354	1,246
60 to 64 years	10,828	4,808	44.4	4,681	127	2.6	6,020	2,673	15	333	2,999
65 years and over	28,719	3,361	11.7	3,284	76	2.3	25,359	9,919	11	1,171	14,858
65 to 69 years	9,851	2,046	20.8	1,998	49	2.4	7,804	2,988	4	297	4,515
70 to 74 years	7,692	851	11.1	834	20	2.4	6,838	2,514	4	242	4,080
75 years and over	11,177	463	4.1	453	8	1.7	10,716	3,816	3	632	6,263
Men											
16 years and over	88,111	66,925	76.0	63,658	3,267	4.9	21,186	572	4,557	1,802	14,255
16 to 19 years	7,260	3,902	53.7	3,252	649	16.6	3,359	22	3,086	24	226
16 to 17 years	3,642	1,587	43.6	1,288	298	18.8	2,055	10	1,959	2	84
18 to 19 years	3,619	2,315	64.0	1,964	351	15.2	1,303	11	1,127	22	143
20 to 24 years	8,872	7,472	84.2	6,861	611	8.2	1,401	21	1,013	61	306
25 to 54 years	49,882	46,737	93.7	44,982	1,755	3.8	3,144	214	442	798	1,691
25 to 34 years	20,969	19,885	94.8	18,987	898	4.5	1,084	75	310	196	504
25 to 29 years	10,435	9,835	94.2	9,372	463	4.7	600	46	219	94	241
30 to 34 years	10,534	10,050	95.4	9,614	436	4.3	484	29	91	101	263
35 to 44 years	17,174	16,296	94.9	15,764	531	3.3	878	73	96	219	489
35 to 39 years	9,309	8,852	95.1	8,537	315	3.6	457	31	67	122	237
40 to 44 years	7,865	7,444	94.6	7,227	218	2.9	421	42	29	97	253
45 to 54 years	11,739	10,556	89.9	10,230	326	3.1	1,183	66	36	384	698
45 to 49 years	6,343	5,846	92.2	5,653	192	3.3	497	36	19	159	284
50 to 54 years	5,396	4,711	87.3	4,577	134	2.8	685	30	17	225	414
55 to 64 years	10,184	6,815	66.9	6,616	199	2.9	3,369	91	14	469	2,795
55 to 59 years	5,145	4,061	78.9	3,943	118	2.9	1,084	39	9	250	785
60 to 64 years	5,039	2,754	54.6	2,672	81	3.0	2,285	52	5	219	2,009
65 years and over	11,913	2,000	16.8	1,948	52	2.6	9,913	224	2	450	9,238
65 to 69 years	4,468	1,217	27.2	1,188	29	2.4	3,251	73	1	148	3,029
70 to 74 years	3,323	489	14.7	475	15	3.1	2,833	71	1	114	2,649
75 years and over	4,122	294	7.1	285	8	2.8	3,829	79	1	188	3,560
Women											
16 years and over	97,003	55,507	57.2	52,592	2,915	5.3	41,495	26,877	4,438	1,351	8,830
16 to 19 years	7,195	3,698	51.4	3,213	485	13.1	3,498	365	2,851	7	275
16 to 17 years	3,519	1,451	41.2	1,243	208	14.4	2,068	100	1,835	2	131
18 to 19 years	3,676	2,246	61.1	1,970	276	12.3	1,430	265	1,016	6	144
20 to 24 years	9,416	8,868	94.2	8,334	534	7.8	2,548	1,447	844	26	231
25 to 54 years	52,156	38,447	73.7	36,704	1,743	4.5	13,709	11,358	718	378	1,253
25 to 34 years	21,718	15,897	73.2	14,973	924	5.8	5,821	4,810	472	91	448
25 to 29 years	10,830	7,953	73.4	7,450	502	6.3	2,877	2,321	268	39	249
30 to 34 years	10,889	7,944	73.0	7,523	422	5.3	2,944	2,489	205	52	199
35 to 44 years	17,929	13,744	76.7	13,204	540	3.9	4,184	3,500	202	112	370
35 to 39 years	9,689	7,399	76.4	7,077	322	4.4	2,289	1,926	125	56	182
40 to 44 years	8,240	6,345	77.0	6,127	218	3.4	1,895	1,574	77	55	188
45 to 54 years	12,509	8,806	70.4	8,527	278	3.2	3,703	3,048	44	176	435
45 to 49 years	6,740	5,031	74.7	4,857	175	3.5	1,708	1,435	24	80	169
50 to 54 years	5,769	3,774	65.4	3,670	104	2.7	1,995	1,613	20	96	266
55 to 64 years	11,430	5,134	44.9	5,005	129	2.5	6,296	4,613	16	217	1,451
55 to 59 years	5,640	3,079	54.6	2,996	83	2.7	2,561	1,991	6	104	461
60 to 64 years	5,789	2,055	35.5	2,009	46	2.2	3,735	2,622	10	113	990
65 years and over	16,806	1,361	8.1	1,336	24	1.6	15,445	9,095	9	721	5,620
65 to 69 years	5,383	829	15.4	610	20	2.4	4,553	2,915	3	149	1,486
70 to 74 years	4,369	362	8.3	359	5	1.4	4,005	2,443	4	128	1,431
75 years and over	7,055	169	2.4	168	-	.2	6,887	3,737	2	444	2,703

**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	October 1988										
	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					
WHITE											
16 years and over	158,524	105,295	66.4	100,723	4,572	4.3	53,229	23,875	8,933	2,412	20,009
16 to 19 years	11,777	6,557	55.7	5,700	857	13.1	5,220	285	4,555	23	357
18 to 17 years	5,792	2,638	45.6	2,247	391	14.8	3,153	80	2,901	4	169
18 to 19 years	5,986	3,919	65.5	3,453	466	11.9	2,067	205	1,654	19	168
20 to 24 years	15,136	12,113	80.0	11,309	804	6.6	3,023	1,134	1,489	58	342
25 to 54 years	66,824	73,047	84.1	70,455	2,593	3.5	13,776	9,809	657	884	2,246
25 to 34 years	35,912	30,361	84.5	29,083	1,278	4.2	5,551	4,081	560	225	665
25 to 29 years	17,822	15,045	84.4	14,388	658	4.4	2,777	1,970	337	109	361
30 to 34 years	18,090	15,316	84.7	14,696	620	4.0	2,774	2,111	223	115	324
35 to 44 years	30,060	25,867	86.1	25,027	839	3.2	4,193	3,080	239	231	644
35 to 39 years	16,120	13,868	86.1	13,401	463	5.7	2,236	1,679	145	115	305
40 to 44 years	13,939	11,981	86.0	11,625	355	3.0	1,958	1,403	94	116	338
45 to 54 years	20,852	16,820	80.7	16,344	475	2.8	4,033	2,648	59	408	918
45 to 49 years	11,266	9,483	84.2	9,193	290	3.1	1,782	1,233	34	178	353
50 to 54 years	9,587	7,337	76.5	7,151	165	4.0	2,250	1,446	25	230	563
55 to 64 years	18,918	10,553	55.8	10,290	263	2.5	8,365	4,147	23	526	3,669
55 to 59 years	9,375	6,284	67.0	6,122	161	2.6	3,092	1,788	13	271	1,020
60 to 64 years	9,542	4,270	44.7	4,168	102	2.4	5,273	2,359	10	255	2,649
65 years and over	25,869	3,024	11.7	2,969	56	1.8	22,845	8,501	9	940	13,395
85 to 69 years	8,801	1,842	20.9	1,804	38	2.1	6,960	2,680	4	238	4,037
70 to 74 years	6,953	764	11.0	752	12	1.6	6,189	2,308	4	182	3,694
75 years and over	10,115	418	4.1	413	5	1.2	9,696	3,512	1	520	5,664
Men											
16 years and over	76,030	58,266	76.6	55,789	2,477	4.3	17,763	450	3,560	1,365	12,388
16 to 19 years	5,940	3,342	56.3	2,860	483	14.4	2,598	10	2,417	16	154
16 to 17 years	2,963	1,376	46.4	1,150	226	16.4	1,567	4	1,510	2	72
18 to 19 years	2,977	1,967	66.0	1,710	257	13.0	1,011	7	908	14	83
20 to 24 years	7,405	6,320	85.3	5,875	445	7.0	1,085	14	839	39	193
25 to 54 years	42,968	40,684	94.7	39,325	1,359	3.3	2,284	152	294	590	1,247
25 to 34 years	17,886	17,141	95.8	16,467	674	3.9	745	44	210	155	336
25 to 29 years	8,848	8,431	95.3	8,081	351	4.2	417	24	153	76	164
30 to 34 years	9,038	8,710	96.4	8,386	323	3.7	328	20	57	79	172
35 to 44 years	14,867	14,247	95.8	13,828	419	2.9	620	57	66	151	347
35 to 39 years	8,001	7,686	96.1	7,438	247	3.2	316	26	40	81	168
40 to 44 years	6,866	6,561	95.6	6,390	171	2.6	305	31	26	70	178
45 to 54 years	10,215	9,296	91.0	9,030	266	2.9	918	50	19	284	565
45 to 49 years	5,535	5,157	93.2	5,004	154	3.0	377	24	9	124	220
50 to 54 years	4,680	4,139	88.4	4,026	112	2.7	541	26	10	160	344
55 to 64 years	8,969	6,080	67.8	5,927	153	2.5	2,889	76	7	361	2,445
55 to 59 years	4,499	3,623	80.5	3,530	93	2.6	876	31	7	198	642
60 to 64 years	4,470	2,457	55.0	2,397	60	2.4	2,013	45	2	166	1,803
65 years and over	10,747	1,840	17.1	1,802	38	2.0	8,907	199	2	358	8,349
65 to 69 years	4,017	1,129	28.1	1,105	24	2.1	2,889	61	1	121	2,705
70 to 74 years	3,009	447	14.9	440	8	1.8	2,562	66	1	83	2,411
75 years and over	3,721	264	7.1	258	5	2.0	3,457	71	1	154	3,232
Women											
16 years and over	82,495	47,029	57.0	44,934	2,095	4.5	35,465	23,425	3,373	1,047	7,621
16 to 19 years	5,837	3,215	55.1	2,841	374	11.6	2,622	275	2,137	7	202
16 to 17 years	2,829	1,263	44.6	1,098	165	13.1	1,566	77	1,391	2	97
18 to 19 years	3,008	1,952	64.9	1,743	209	10.7	1,056	198	746	6	106
20 to 24 years	7,731	5,793	74.9	5,434	359	6.2	1,938	1,120	650	19	149
25 to 54 years	43,856	32,363	73.8	31,130	1,234	3.8	11,492	9,657	563	274	999
25 to 34 years	18,026	13,220	73.3	12,616	604	4.6	4,806	4,037	350	70	349
25 to 29 years	8,974	6,614	73.7	6,307	307	4.8	2,360	1,946	184	33	197
30 to 34 years	9,052	8,606	95.0	8,310	297	4.5	2,446	2,091	166	36	152
35 to 44 years	15,192	11,619	76.5	11,199	421	3.8	3,573	3,023	173	80	297
35 to 39 years	8,119	6,200	76.4	5,963	236	3.8	1,920	1,644	105	34	137
40 to 44 years	7,073	5,420	76.6	5,235	184	3.4	1,653	1,379	68	48	160
45 to 54 years	10,838	7,524	70.7	7,314	209	2.8	3,114	2,597	40	124	353
45 to 49 years	5,731	4,326	75.5	4,169	136	3.2	1,405	1,192	25	54	133
50 to 54 years	4,907	3,198	65.2	3,125	73	2.3	1,709	1,405	15	70	219
55 to 64 years	9,949	4,473	45.0	4,363	110	2.5	5,475	4,071	16	185	1,224
55 to 59 years	4,876	2,661	54.6	2,592	68	2.6	2,216	1,757	6	75	378
60 to 64 years	5,072	1,813	35.7	1,771	42	2.3	3,260	2,314	10	89	846
65 years and over	15,122	1,184	7.8	1,166	18	1.5	13,938	8,302	6	582	5,047
65 to 69 years	4,784	713	14.9	699	14	2.0	4,071	2,619	3	117	1,332
70 to 74 years	3,944	317	8.0	312	4	1.3	3,627	2,242	4	99	1,283
75 years and over	6,394	154	2.4	155	-	-	6,239	3,441	1	366	2,432

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

(Numbers in thousands)

Age, sex, and race	October 1988										
	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					
BLACK											
16 years and over	20,786	13,307	64.0	11,873	1,434	10.8	7,479	2,728	1,506	681	2,562
16 to 19 years	2,181	851	39.0	600	252	29.5	1,330	96	1,096	8	130
16 to 17 years	1,124	323	28.7	223	99	30.8	801	28	731		43
18 to 19 years	1,057	529	50.0	376	152	28.8	528	68	365	8	87
20 to 24 years	2,512	1,779	70.8	1,468	311	17.5	733	282	256	29	166
25 to 54 years	11,563	9,300	80.4	8,500	799	8.6	2,263	1,240	152	284	585
25 to 34 years	5,257	4,273	81.3	3,778	495	11.6	984	584	120	61	219
25 to 29 years	2,673	2,148	80.4	1,865	282	13.1	525	307	85	24	109
30 to 34 years	2,584	2,126	82.3	1,913	213	10.0	458	276	35	37	110
35 to 44 years	3,763	3,151	83.7	2,947	204	6.5	612	320	26	82	183
35 to 39 years	2,142	1,800	84.0	1,665	136	7.6	343	172	20	53	99
40 to 44 years	1,620	1,351	83.4	1,282	69	5.1	269	148	7	29	85
45 to 54 years	2,543	1,877	73.8	1,777	100	5.3	666	336	6	141	183
45 to 49 years	1,354	1,034	76.4	979	55	5.3	319	174	4	60	83
50 to 54 years	1,190	843	70.8	797	45	5.3	347	162	3	82	100
55 to 64 years	2,113	1,092	51.7	1,040	52	4.8	1,021	418		142	461
55 to 59 years	1,101	675	61.3	646	30	4.4	425	171		65	189
60 to 64 years	1,013	417	41.2	395	22	5.4	595	248		76	271
65 years and over	2,417	285	11.8	265	20	7.1	2,133	692	2	218	1,220
65 to 69 years	886	166	18.7	156	10	6.0	720	259		55	405
70 years and over	1,531	119	7.8	108	11	9.2	1,412	433	3	163	812
Men											
16 years and over	9,333	6,616	70.9	5,906	710	10.7	2,717	102	689	392	1,533
16 to 19 years	1,076	469	43.5	314	155	33.1	608	12	527	8	62
16 to 17 years	566	184	32.4	120	64	34.8	383	7	367		9
18 to 19 years	510	285	55.9	194	91	31.9	225	4	160	8	53
20 to 24 years	1,144	911	79.7	756	155	17.0	232	7	106	21	99
25 to 54 years	5,184	4,531	87.4	4,182	348	7.7	653	52	57	182	360
25 to 34 years	2,378	2,130	89.6	1,922	208	9.8	248	29	43	40	136
25 to 29 years	1,209	1,082	89.5	977	105	9.7	127	21	26	18	62
30 to 34 years	1,169	1,048	89.6	945	103	9.8	121	7	17	22	75
35 to 44 years	1,677	1,492	89.0	1,393	98	6.6	185	8	9	51	115
35 to 39 years	955	861	90.1	799	62	7.2	95	-	10	30	55
40 to 44 years	721	631	87.5	594	37	5.8	90	8	-	21	60
45 to 54 years	1,129	910	80.5	868	42	4.6	220	15	5	91	109
45 to 49 years	602	503	83.6	478	25	4.9	98	11	4	35	49
50 to 54 years	528	407	77.0	389	17	4.3	121	4	1	56	60
55 to 64 years	953	567	59.5	531	36	6.4	386	13		94	279
55 to 59 years	498	329	66.1	312	17	5.1	169	6		40	123
60 to 64 years	455	238	52.3	218	20	8.2	217	7		53	156
65 years and over	976	138	14.1	123	15	10.7	838	18	-1	87	733
65 to 69 years	387	76	19.6	71	5	6.2	311	9		26	277
70 years and over	589	62	10.5	52	10	(¹)	527	9	-	61	456
Women											
16 years and over	11,453	6,691	58.4	5,967	724	10.8	4,762	2,626	817	288	1,030
16 to 19 years	1,105	383	34.7	286	96	25.2	722	84	569	-	68
16 to 17 years	558	139	24.9	104	35	25.4	419	21	364		34
18 to 19 years	547	244	44.6	183	61	25.1	303	64	205		34
20 to 24 years	1,368	868	63.4	712	156	18.0	500	275	150	8	67
25 to 54 years	6,379	4,769	74.8	4,318	451	9.5	1,610	1,188	95	102	225
25 to 34 years	2,879	2,143	74.4	1,856	287	13.4	736	555	77	21	83
25 to 29 years	1,464	1,066	72.8	888	177	16.7	398	286	59	6	47
30 to 34 years	1,415	1,078	76.2	968	110	10.2	337	269	18	15	35
35 to 44 years	2,086	1,659	79.5	1,553	106	6.4	427	312	17	31	68
35 to 39 years	1,187	939	79.1	866	74	7.8	248	172	10	23	44
40 to 44 years	899	720	80.1	688	32	4.5	179	140	7	8	25
45 to 54 years	1,414	967	68.4	909	58	6.0	447	321	1	50	74
45 to 49 years	752	531	70.6	501	30	5.7	221	163		25	34
50 to 54 years	662	436	65.9	408	28	6.4	226	158	2	26	40
55 to 64 years	1,160	525	45.3	510	16	3.0	635	405		48	182
55 to 59 years	602	346	57.5	333	13	3.7	256	164		25	67
60 to 64 years	558	179	32.1	176	3	1.5	379	241		23	115
65 years and over	1,441	147	10.2	141	6	3.8	1,294	674	3	131	487
65 to 69 years	499	90	18.0	85	5	5.3	409	250		29	131
70 years and over	942	57	6.0	56	1	(¹)	885	424	3	102	356

¹ 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	October 1988								
	Civilian noninstitutional population	Civilian labor force							Not in labor force
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
TOTAL									
16 years and over	26,590	17,137	64.5	15,527	183	15,344	1,610	9.4	9,453
16 to 19 years	2,679	1,042	38.9	765	2	763	277	26.6	1,636
16 to 17 years	1,370	400	29.2	284	-	284	116	28.9	970
18 to 19 years	1,309	643	49.1	481	2	478	162	25.2	666
20 to 24 years	3,152	2,226	70.6	1,885	12	1,873	341	15.3	926
25 to 54 years	15,214	12,137	79.8	11,230	119	11,111	907	7.5	3,076
25 to 34 years	6,776	5,421	80.0	4,876	42	4,834	545	10.0	1,355
25 to 29 years	3,443	2,743	79.7	2,436	22	2,413	307	11.2	701
30 to 34 years	3,333	1,413	42.4	2,441	20	2,421	238	16.8	653
35 to 44 years	5,042	4,174	82.8	3,941	31	3,910	232	5.6	869
35 to 39 years	2,877	2,366	82.2	2,213	16	2,196	154	6.5	510
40 to 44 years	2,165	1,807	83.5	1,729	14	1,714	79	4.4	358
45 to 54 years	3,396	2,542	74.9	2,413	47	2,366	129	5.1	853
45 to 49 years	1,817	1,394	76.7	1,316	20	1,297	77	5.5	423
50 to 54 years	1,579	1,148	72.7	1,097	26	1,069	53	4.6	430
55 to 64 years	2,695	1,395	51.8	1,331	32	1,298	64	4.6	1,300
55 to 59 years	1,410	857	60.8	817	18	799	39	4.6	553
60 to 64 years	1,286	538	41.9	513	14	499	25	4.7	747
65 years and over	2,850	336	11.8	316	17	299	21	6.2	2,514
65 to 69 years	1,048	204	19.5	194	3	190	10	4.9	845
70 to 74 years	738	88	11.9	80	13	68	7	8.0	651
75 years and over	1,063	44	4.1	41	1	40	4	(¹)	1,018
Men									
16 years and over	12,082	8,659	71.7	7,869	156	7,713	790	9.1	3,423
16 to 19 years	1,320	560	42.4	393	2	391	167	29.8	761
16 to 17 years	679	211	31.1	139	-	139	72	34.2	468
18 to 19 years	641	349	54.4	254	2	252	95	27.1	292
20 to 24 years	1,467	1,152	78.5	985	11	974	166	14.4	315
25 to 54 years	6,914	6,053	87.5	5,655	104	5,552	398	6.6	861
25 to 34 years	3,083	2,744	89.0	2,520	36	2,484	224	8.2	339
25 to 29 years	1,587	1,404	88.4	1,292	19	1,273	112	8.0	184
30 to 34 years	1,496	1,340	89.6	1,228	17	1,211	113	8.4	155
35 to 44 years	2,306	2,049	88.8	1,936	25	1,911	113	5.5	257
35 to 39 years	1,308	1,166	89.2	1,099	11	1,087	68	5.8	141
40 to 44 years	998	882	88.4	837	13	824	45	5.1	116
45 to 54 years	1,525	1,260	82.7	1,200	43	1,157	60	4.8	264
45 to 49 years	808	688	85.1	649	17	633	39	5.6	120
50 to 54 years	717	572	79.9	551	26	524	22	3.8	144
55 to 64 years	1,214	735	60.5	689	25	664	45	6.2	480
55 to 59 years	645	438	67.9	414	14	399	24	5.6	207
60 to 64 years	569	297	52.1	275	11	264	21	7.1	272
65 years and over	1,166	160	13.7	145	14	132	15	9.1	1,006
65 to 69 years	450	88	19.5	83	3	80	5	5.5	363
70 to 74 years	314	42	13.4	35	10	25	7	(¹)	272
75 years and over	401	30	7.5	27	1	26	3	(¹)	371
Women									
16 years and over	14,508	8,478	58.4	7,659	27	7,632	819	9.7	6,030
16 to 19 years	1,358	483	35.5	372	-	372	111	22.9	876
16 to 17 years	690	189	27.3	145	-	145	44	23.1	502
18 to 19 years	668	294	44.0	227	-	227	67	22.8	374
20 to 24 years	1,685	1,074	63.8	900	1	899	175	16.3	611
25 to 54 years	8,300	6,084	73.3	5,575	15	5,559	509	8.4	2,215
25 to 34 years	3,693	2,677	72.5	2,357	6	2,351	320	12.0	1,016
25 to 29 years	1,856	1,339	72.1	1,144	3	1,140	195	14.6	517
30 to 34 years	1,837	1,338	72.9	1,213	3	1,210	125	9.4	498
35 to 44 years	2,736	2,125	77.7	2,005	6	1,999	120	5.6	611
35 to 39 years	1,569	1,200	76.5	1,114	5	1,109	86	7.2	369
40 to 44 years	1,167	925	79.3	892	1	890	34	3.6	242
45 to 54 years	1,871	1,282	68.5	1,213	3	1,209	69	5.4	589
45 to 49 years	1,009	706	69.9	667	3	664	38	5.4	303
50 to 54 years	862	576	66.9	546	-	545	31	5.4	286
55 to 64 years	1,481	661	44.6	642	7	635	19	2.9	820
55 to 59 years	764	419	54.8	404	4	400	15	3.5	346
60 to 64 years	717	242	33.8	236	3	235	4	1.7	475
65 years and over	1,664	176	10.5	170	3	167	6	3.5	1,508
65 to 69 years	598	116	19.4	111	-	110	5	4.7	482
70 to 74 years	424	46	10.8	45	3	43	-	(¹)	379
75 years and over	662	14	2.1	14	-	14	1	(¹)	647

¹ Data not shown where base is less than 75,000.

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	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
TOTAL								
Civilian noninstitutional population	183,311	185,114	79,807	80,851	88,843	89,807	14,661	14,456
Civilian labor force	120,744	122,432	62,317	63,023	50,721	51,809	7,706	7,599
Percent of population	65.9	66.1	78.1	78.0	57.1	57.7	52.6	52.6
Employed	113,898	116,250	59,442	60,405	48,076	49,379	6,379	6,465
Agriculture	3,297	3,316	2,403	2,400	670	678	225	238
Nonagricultural industries	110,601	112,934	57,040	58,005	47,407	48,701	6,155	6,228
Unemployed	6,845	6,182	2,875	2,618	2,644	2,430	1,327	1,134
Unemployment rate	5.7	5.0	4.6	4.2	5.2	4.7	17.2	14.9
Not in labor force	62,567	62,682	17,490	17,828	38,122	37,998	6,955	6,856
White								
Civilian noninstitutional population	157,342	158,524	69,364	70,090	76,035	76,658	11,943	11,777
Civilian labor force	103,934	105,295	54,399	54,924	42,943	43,814	6,592	6,557
Percent of population	66.1	66.4	78.4	78.4	56.5	57.2	55.2	55.7
Employed	98,882	100,723	52,167	52,930	41,089	42,093	5,626	5,700
Agriculture	3,076	3,133	2,209	2,247	649	651	218	235
Nonagricultural industries	95,806	97,590	49,958	50,683	40,439	41,442	5,408	5,465
Unemployed	5,053	4,572	2,232	1,994	1,854	1,721	967	857
Unemployment rate	4.9	4.3	4.1	3.6	4.3	3.9	14.7	13.1
Not in labor force	53,408	53,229	14,965	15,166	33,092	32,843	5,351	5,220
Black								
Civilian noninstitutional population	20,453	20,786	8,103	8,257	10,177	10,348	2,173	2,181
Civilian labor force	13,160	13,307	6,019	6,147	6,241	6,309	900	851
Percent of population	64.3	64.0	74.3	74.4	61.3	61.0	41.4	39.0
Employed	11,582	11,873	5,451	5,593	5,533	5,681	597	600
Agriculture	167	135	145	116	15	18	6	2
Nonagricultural industries	11,415	11,738	5,305	5,477	5,519	5,663	591	598
Unemployed	1,578	1,434	569	554	707	628	302	252
Unemployment rate	12.0	10.8	9.5	9.0	11.3	10.0	33.6	29.5
Not in labor force	7,292	7,479	2,084	2,109	3,936	4,040	1,273	1,330

**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	October 1988									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time ¹	Part time ¹	Total	Looking for full-time work	Looking for part-time work	
TOTAL ENROLLED										
Total, 16 to 24 years	15,394	7,693	50.0	6,869	1,396	5,472	825	64	761	10.7
16 to 19 years	10,609	4,697	44.3	4,040	375	3,665	657	34	623	14.0
20 to 24 years	4,785	2,996	62.6	2,829	1,021	1,807	167	30	137	5.6
High school	7,456	3,136	42.1	2,618	167	2,451	519	28	491	16.5
College	7,938	4,557	57.4	4,251	1,230	3,021	306	36	270	6.7
Full-time students	6,573	3,307	50.3	3,043	387	2,656	265	18	246	8.0
Part-time students	1,366	1,250	91.5	1,208	843	365	42	18	23	3.3
Men, 16 to 24 years	7,847	3,820	48.7	3,368	710	2,657	452	39	413	11.8
16 to 19 years	5,394	2,336	43.3	1,976	207	1,769	359	20	339	15.4
20 to 24 years	2,453	1,484	60.5	1,391	503	888	93	19	74	6.3
High school	3,993	1,684	42.2	1,381	115	1,267	302	17	285	18.0
College	3,854	2,136	55.4	1,986	596	1,391	150	22	128	7.0
Full-time students	3,213	1,550	48.2	1,427	213	1,215	123	11	111	7.9
Part-time students	640	586	91.5	559	383	176	27	11	16	4.6
Women, 16 to 24 years	7,547	3,873	51.3	3,501	686	2,815	373	25	348	9.6
16 to 19 years	5,215	2,361	45.3	2,065	168	1,896	298	13	285	12.6
20 to 24 years	2,332	1,512	64.8	1,437	518	919	75	11	63	4.9
High school	3,462	1,453	42.0	1,237	52	1,185	216	10	206	14.9
College	4,084	2,421	59.3	2,264	634	1,630	156	14	142	6.5
Full-time students	3,359	1,757	52.3	1,615	174	1,441	142	7	135	8.1
Part-time students	725	664	91.5	649	460	189	15	7	7	2.2
White										
Total, 16 to 24 years	12,667	6,677	52.7	6,055	1,248	4,807	622	50	572	9.3
16 to 19 years	8,627	4,094	47.5	3,590	333	3,258	504	30	474	12.3
20 to 24 years	4,040	2,583	63.9	2,464	916	1,549	118	20	99	4.6
Men	6,512	3,307	50.8	2,970	615	2,355	337	28	309	10.2
Women	6,155	3,370	54.8	3,085	633	2,452	285	22	264	8.5
High school	5,915	2,684	45.4	2,301	138	2,163	383	22	361	14.3
College	6,752	3,993	59.1	3,754	1,110	2,644	239	28	211	6.0
Full-time students	5,551	2,876	51.8	2,673	348	2,325	204	13	191	7.1
Part-time students	1,201	1,117	93.0	1,081	762	319	35	16	20	3.2
Black										
Total, 16 to 24 years	2,037	721	35.4	544	113	431	177	14	164	24.6
16 to 19 years	1,556	462	29.7	328	28	299	134	3	131	29.1
20 to 24 years	481	259	54.0	216	84	132	43	11	33	16.7
Men	973	358	36.8	252	66	186	106	11	94	29.6
Women	1,064	363	34.1	292	47	245	72	3	69	19.7
High school	1,246	362	29.0	241	19	221	121	6	115	33.4
College	791	360	45.4	303	94	209	57	8	49	15.7
Full-time students	678	271	40.0	218	34	185	53	6	47	19.5
Part-time students	113	88	78.1	85	60	25	4	2	2	4.2
Hispanic origin										
Total, 16 to 24 years	1,079	449	41.6	389	107	282	60	10	50	13.4
16 to 19 years	811	276	34.0	225	35	190	51	7	44	18.6
20 to 24 years	268	173	64.6	165	72	93	9	2	6	5.0
Men	585	241	41.2	207	68	139	34	6	28	14.1
Women	494	208	42.1	182	39	143	26	3	23	12.5
High school	628	190	30.3	149	17	131	42	7	35	22.0
College	451	259	57.4	241	89	151	18	3	15	7.1
Full-time students	331	150	45.4	138	24	114	12	-	12	8.0
Part-time students	121	109	90.2	103	65	37	6	3	4	5.8

See footnotes at end of table.

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	October 1988									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time ¹	Part time ¹	Total	Looking for full-time work	Looking for part-time work	
TOTAL NOT ENROLLED										
Total, 16 to 24 years	17,350	14,248	82.1	12,791	11,057	1,734	1,454	1,279	175	10.2
16 to 19 years	3,847	2,902	75.5	2,426	1,823	603	477	414	63	16.4
20 to 24 years	13,503	11,343	84.0	10,368	9,234	1,131	978	865	112	8.6
Less than 4 years of high school	4,217	2,748	65.2	2,233	1,827	406	515	453	62	18.7
4 years of high school	8,919	7,553	84.7	8,842	5,882	980	711	624	87	9.4
1 to 3 years of college	2,662	2,456	92.3	2,283	2,013	270	173	146	27	7.0
4 years of college or more	1,552	1,489	95.9	1,433	1,355	79	56	57	-	3.8
Men, 16 to 24 years	8,285	7,554	91.2	6,745	6,139	606	809	754	55	10.7
16 to 19 years	1,866	1,566	83.9	1,278	1,038	238	290	261	29	16.5
20 to 24 years	6,419	5,988	93.3	5,469	5,100	369	518	492	26	8.7
Less than 4 years of high school	2,192	1,828	83.4	1,500	1,292	208	329	309	20	18.0
4 years of high school	4,271	3,975	93.1	3,603	3,313	290	372	349	23	9.4
1 to 3 years of college	1,124	1,077	95.8	999	914	85	78	65	13	7.2
4 years of college or more	698	673	96.4	643	620	22	30	30	-	4.5
Women, 16 to 24 years	9,065	6,692	73.8	6,046	4,918	1,128	646	525	121	9.7
16 to 19 years	1,980	1,336	67.5	1,150	784	365	187	152	34	14.0
20 to 24 years	7,084	5,356	75.6	4,897	4,134	763	459	373	86	8.6
Less than 4 years of high school	2,025	919	45.4	733	536	197	186	144	43	20.3
4 years of high school	4,648	3,578	77.0	3,239	2,549	690	339	275	64	9.5
1 to 3 years of college	1,538	1,379	89.7	1,284	1,099	185	95	81	14	6.9
4 years of college or more	854	816	95.6	790	734	56	26	26	-	3.2
White										
Total, 16 to 24 years	14,246	11,994	84.2	10,955	9,539	1,416	1,039	900	139	8.7
16 to 19 years	3,150	2,463	78.2	2,110	1,594	516	353	307	46	14.3
20 to 24 years	11,096	9,531	85.9	8,845	7,944	901	686	593	93	7.2
Men	6,833	6,355	93.0	5,765	5,284	481	591	550	40	9.3
Women	7,413	5,638	76.1	5,190	4,254	936	448	349	99	7.9
Less than 4 years of high school	3,411	2,300	67.4	1,919	1,583	336	381	321	60	16.6
4 years of high school	7,257	6,301	86.8	5,813	5,018	796	488	425	63	7.7
1 to 3 years of college	2,189	2,049	93.6	1,929	1,711	218	120	103	17	5.9
4 years of college or more	1,390	1,343	96.6	1,294	1,227	66	49	50	-	3.7
Black										
Total, 16 to 24 years	2,656	1,909	71.9	1,524	1,236	288	385	356	29	20.2
16 to 19 years	625	390	62.3	272	193	79	117	103	14	30.1
20 to 24 years	2,031	1,519	74.8	1,252	1,043	209	268	252	15	17.6
Men	1,247	1,022	82.0	818	704	114	204	197	7	20.0
Women	1,409	887	63.0	706	533	173	181	158	22	20.4
Less than 4 years of high school	701	374	53.3	246	183	63	128	125	3	34.3
4 years of high school	1,471	1,107	75.3	898	728	170	210	190	20	19.0
1 to 3 years of college	403	351	87.1	305	258	47	46	40	6	13.2
4 years of college or more	80	76	95.5	76	68	8	-	-	-	5
Hispanic origin										
Total, 16 to 24 years	2,200	1,634	74.2	1,451	1,276	175	182	166	16	11.2
16 to 19 years	549	364	66.3	291	222	68	73	62	11	20.1
20 to 24 years	1,652	1,270	76.9	1,161	1,054	106	109	105	5	8.6
Men	1,111	1,014	91.3	905	801	104	109	103	7	10.8
Women	1,089	619	56.8	546	476	70	73	64	9	11.8
Less than 4 years of high school	1,173	752	64.1	674	593	81	78	70	8	10.4
4 years of high school	800	667	83.3	590	507	83	77	71	6	11.5
1 to 3 years of college	170	161	94.7	135	125	10	26	24	2	16.4
4 years of college or more	57	53	(²)	52	52	1	1	1	-	(²)

¹ 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.

² 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.

**HOUSEHOLD DATA
NCT SEASONALLY ADJUSTED**

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							
	Oct. 1987	Oct. 1988	Total		Employed		Unemployed			
			Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Number		Percent of labor force	
							Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
VIETNAM-ERA VETERANS										
Total, 30 years and over	7,853	7,899	7,277	7,318	6,983	7,069	294	249	4.0	3.4
30 to 44 years	6,128	5,799	5,843	5,524	5,594	5,334	249	190	4.3	3.4
30 to 34 years	856	622	817	582	749	537	68	45	8.3	7.7
35 to 39 years	2,478	2,034	2,344	1,937	2,259	1,871	85	66	3.6	3.4
40 to 44 years	2,794	3,143	2,682	3,005	2,586	2,926	96	79	3.6	2.6
45 years and over	1,725	2,100	1,434	1,794	1,389	1,735	45	59	3.1	3.3
NONVETERANS										
Total, 30 to 44 years	19,741	20,707	18,785	19,703	17,974	18,974	811	729	4.3	3.7
30 to 34 years	8,920	9,165	8,541	8,768	8,147	8,410	394	358	4.6	4.1
35 to 39 years	6,379	6,997	6,074	6,657	5,838	6,418	236	239	3.9	3.6
40 to 44 years	4,442	4,545	4,170	4,278	3,989	4,146	181	132	4.3	3.1

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

are limited to those 30 to 44 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

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

(In thousands)

Sex, age, and race	October 1988							
	Employed						Unemployed	
	Full time			Part time			Looking for full-time work	Looking for part-time work
	Total	Full-time schedules ¹	Part time for economic reasons, usually work full time	Total	Voluntary ¹	Part time for economic reasons, usually work part time		
TOTAL								
Total, 16 years and over	96,007	94,489	1,518	20,243	17,093	3,150	4,694	1,488
16 to 19 years	2,198	2,094	104	4,268	3,945	323	448	686
16 to 17 years	264	248	16	2,268	2,212	56	64	442
18 to 19 years	1,934	1,846	88	2,000	1,733	267	383	244
20 years and over	93,809	92,395	1,414	15,975	13,148	2,827	4,247	801
20 to 24 years	10,256	10,025	231	2,939	2,414	525	896	250
25 years and over	83,553	82,369	1,184	13,037	10,734	2,303	3,351	552
25 to 54 years	72,294	71,261	1,033	9,392	7,471	1,921	3,065	433
55 years and over	11,261	11,109	152	3,644	3,262	382	286	118
Men, 16 years and over	57,094	56,234	860	6,564	5,296	1,268	2,680	598
16 to 19 years	1,246	1,188	58	2,007	1,854	153	282	368
20 years and over	55,847	55,046	801	4,558	3,442	1,116	2,398	220
20 to 24 years	5,603	5,479	124	1,257	1,032	225	511	100
25 years and over	50,245	49,567	678	3,301	2,410	891	1,887	120
25 to 54 years	43,178	42,589	589	1,803	1,056	747	1,701	54
55 years and over	7,066	6,978	88	1,498	1,354	144	186	65
Women, 16 years and over	38,914	38,255	659	13,679	11,797	1,882	2,014	900
16 to 19 years	952	906	46	2,261	2,091	170	166	319
20 years and over	37,962	37,349	613	11,417	9,706	1,711	1,849	582
20 to 24 years	4,652	4,546	106	1,681	1,382	299	384	150
25 years and over	33,310	32,803	507	9,736	8,324	1,412	1,464	432
25 to 54 years	29,117	28,673	444	7,588	6,415	1,173	1,364	379
55 years and over	4,194	4,131	63	2,149	1,909	240	100	53
White								
Men, 16 years and over	50,143	49,433	710	5,646	4,686	960	2,041	436
16 to 19 years	1,096	1,048	48	1,764	1,640	124	212	271
20 years and over	49,048	48,386	662	3,882	3,046	836	1,829	165
20 to 24 years	4,804	4,697	107	1,072	893	179	366	79
25 years and over	44,245	43,689	556	2,811	2,154	657	1,463	86
25 to 54 years	37,896	37,413	483	1,430	890	540	1,321	38
55 years and over	6,348	6,276	72	1,381	1,264	117	142	48
Women, 16 years and over	32,762	32,221	541	12,172	10,673	1,499	1,377	719
16 to 19 years	831	790	41	2,010	1,857	153	125	249
20 years and over	31,930	31,430	500	10,163	8,816	1,347	1,252	469
20 to 24 years	4,056	3,962	94	1,378	1,181	197	246	113
25 years and over	27,873	27,467	406	8,786	7,636	1,150	1,005	356
25 to 54 years	24,253	23,896	357	6,876	5,921	955	922	312
55 years and over	3,620	3,571	49	1,909	1,715	194	83	45
Black								
Men, 16 years and over	5,250	5,125	125	656	392	264	574	135
16 to 19 years	122	113	9	192	168	24	67	88
20 years and over	5,128	5,012	116	464	224	240	507	47
20 to 24 years	648	637	11	107	67	40	141	14
25 years and over	4,480	4,375	105	356	157	199	366	34
25 to 54 years	3,920	3,830	90	263	87	176	331	17
55 years and over	560	545	15	93	70	23	35	17
Women, 16 years and over	4,817	4,724	93	1,150	815	335	566	158
16 to 19 years	101	97	4	186	169	17	39	57
20 years and over	4,716	4,627	89	965	646	319	527	101
20 to 24 years	479	470	9	233	139	94	122	34
25 years and over	4,237	4,157	80	732	507	225	405	68
25 to 54 years	3,792	3,718	74	525	341	184	391	60
55 years and over	445	439	6	206	166	40	14	8

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

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Family relationship	October 1988									
	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 ¹	98,802	66.5	93,724	5,078	5.1	49,687	22,209	8,267	2,221	16,990
Husbands	39,918	78.3	38,838	1,082	2.7	11,045	214	208	907	9,717
With employed wife	26,093	91.9	25,480	613	2.3	2,314	80	111	329	1,794
With unemployed wife	962	93.2	854	108	11.2	70	1	1	13	54
With wife not in labor force	12,863	59.8	12,501	362	2.8	8,661	133	95	565	7,869
Wives	29,439	57.8	28,407	1,032	3.5	21,524	17,449	364	358	3,353
With employed husband	26,335	67.8	25,480	854	3.2	12,501	11,080	309	127	985
With unemployed husband	720	66.6	613	108	15.0	362	329	5	6	22
With husband not in labor force	2,384	21.6	2,314	70	2.9	8,661	6,040	50	225	2,346
Relatives in married-couple families	13,013	62.6	11,711	1,302	10.0	7,774	685	5,490	322	1,277
16 to 19 years	4,840	51.7	4,223	617	12.7	4,517	81	4,178	20	238
20 to 24 years	4,639	75.8	4,246	394	8.5	1,480	119	1,163	39	158
25 years and over	3,533	66.5	3,242	291	8.2	1,777	485	149	263	881
Women who maintain families	6,889	63.3	6,338	551	8.0	3,994	2,720	216	186	871
Relatives in families maintained by women	5,612	60.2	4,794	818	14.6	3,709	742	1,631	286	1,050
16 to 19 years	1,446	47.6	1,107	339	23.5	1,589	86	1,324	10	170
20 to 24 years	1,509	75.0	1,290	219	14.5	502	114	223	26	140
25 years and over	2,657	62.2	2,397	260	9.8	1,618	542	84	250	740
Men who maintain families	2,185	77.5	2,057	129	5.9	636	36	43	80	477
Relatives in families maintained by men	1,746	63.5	1,582	164	9.4	1,005	363	315	82	246
16 to 19 years	303	52.5	246	57	18.7	274	18	222	-	33
20 to 24 years	462	76.3	422	40	8.7	143	47	66	2	28
25 years and over	981	62.5	914	67	6.8	588	298	27	80	185

¹ 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.

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	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total, 16 years and over	3,549	3,267	5.4	4.9	3,297	2,915	6.0	5.3
Married, spouse present	1,406	1,182	3.3	2.8	1,236	1,114	4.1	3.7
Widowed, divorced, or separated	447	441	6.8	6.6	777	622	7.2	5.7
Single (never married)	1,696	1,644	9.8	9.0	1,283	1,178	9.3	8.4
White, 16 years and over	2,729	2,477	4.7	4.3	2,323	2,095	5.0	4.5
Married, spouse present	1,180	974	3.1	2.6	999	950	3.8	3.5
Widowed, divorced, or separated	348	328	6.3	5.9	546	413	6.3	4.8
Single (never married)	1,201	1,175	8.3	7.8	778	732	7.0	6.5
Black, 16 years and over	712	710	11.0	10.7	866	724	12.9	10.8
Married, spouse present	189	178	5.8	5.5	192	128	7.7	5.4
Widowed, divorced, or separated	91	96	9.8	9.9	209	187	10.9	9.5
Single (never married)	433	435	19.1	17.9	465	410	20.2	17.5
Total, 25 years and over	2,261	2,007	4.1	3.6	2,042	1,896	4.7	4.2
Married, spouse present	1,276	1,073	3.2	2.7	1,008	972	3.7	3.4
Widowed, divorced, or separated	428	416	6.7	6.4	677	538	6.5	5.2
Single (never married)	557	516	6.9	5.9	357	386	6.1	6.2
White, 25 years and over	1,793	1,550	3.7	3.2	1,460	1,362	3.9	3.6
Married, spouse present	1,063	882	3.0	2.4	820	824	3.4	3.3
Widowed, divorced, or separated	333	309	6.3	5.8	477	349	5.8	4.2
Single (never married)	397	359	5.9	5.0	163	189	3.6	4.0
Black, 25 years and over	410	399	8.0	7.6	519	472	9.7	8.7
Married, spouse present	177	164	5.7	5.4	159	113	6.9	5.1
Widowed, divorced, or separated	86	91	9.5	9.7	182	169	9.9	8.8
Single (never married)	147	146	13.2	11.7	178	190	14.8	14.5

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

A-12. Unemployed persons by occupation and sex

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total, 16 years and over	6,845	6,182	5.7	5.0	5.4	4.9	6.0	5.3
Managerial and professional specialty	630	583	2.2	1.9	2.0	1.5	2.4	2.5
Executive, administrative, and managerial	378	291	2.7	2.0	2.5	1.5	2.9	2.8
Professional specialty	252	292	1.7	1.9	1.5	1.4	1.9	2.3
Technical, sales, and administrative support	1,575	1,455	4.2	3.9	3.3	3.7	4.7	4.0
Technicians and related support	104	94	2.9	2.5	2.4	2.8	3.3	2.2
Sales occupations	652	672	4.5	4.6	3.3	3.4	5.8	5.8
Administrative support, including clerical	820	689	4.2	3.6	3.8	4.6	4.4	3.4
Service occupations	1,176	1,130	7.3	6.8	7.1	6.3	7.4	7.1
Private household	42	53	4.2	5.5	(¹)	(¹)	4.2	4.9
Protective service	86	97	4.5	4.7	4.2	4.2	5.7	7.2
Service, except private household and protective	1,048	980	8.0	7.3	8.2	7.1	7.9	7.4
Precision production, craft, and repair	704	712	4.9	5.0	4.8	4.9	5.6	5.1
Mechanics and repairers	163	176	3.5	3.9	3.5	3.8	2.9	7.3
Construction trades	361	345	6.6	6.3	6.3	6.2	18.8	10.5
Other precision production, craft, and repair	180	190	4.2	4.3	4.1	4.4	4.6	4.1
Operators, fabricators, and laborers	1,602	1,368	8.3	7.0	8.0	6.6	9.2	8.1
Machine operators, assemblers, and inspectors	711	616	8.1	6.9	6.8	6.0	9.9	8.2
Transportation and material moving occupations	318	210	6.1	4.1	6.2	4.1	5.0	3.8
Handlers, equipment cleaners, helpers, and laborers	573	542	10.8	9.8	11.3	9.8	8.4	9.8
Construction laborers	165	141	17.3	13.5	17.4	13.2	(¹)	(¹)
Other handlers, equipment cleaners, helpers, and laborers	409	401	9.4	9.0	9.7	8.8	8.1	9.5
Farming, forestry, and fishing	260	238	6.8	6.3	6.7	6.2	7.7	6.7
No previous work experience	864	678	-					
16 to 19 years	573	458						
20 to 24 years	147	120						
25 years and over	143	100						

¹ Data not shown where base is less than 75,000.

A-13. Unemployed persons by industry and sex

Industry	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total, 16 years and over	6,845	6,182	5.7	5.0	5.4	4.9	6.0	5.3
Nonagricultural private wage and salary workers	5,015	4,709	5.6	5.2	5.4	5.0	5.8	5.3
Mining	67	63	7.6	8.1	8.0	8.8	5.1	4.2
Construction	575	519	9.3	8.2	9.5	8.6	7.5	4.4
Manufacturing	1,187	1,085	5.5	5.0	4.9	4.5	6.7	5.9
Durable goods	635	589	4.9	4.6	4.7	4.4	5.7	5.0
Lumber and wood products	70	51	9.0	6.9	9.6	7.4	4.7	3.5
Furniture and fixtures	24	27	3.7	3.9	3.7	3.6	3.6	4.5
Stone, clay, and glass products	44	39	6.5	6.3	6.2	5.2	7.5	11.2
Primary metal industries	41	27	4.9	3.2	5.1	3.5	3.9	6
Fabricated metal products	70	72	5.2	5.4	5.1	5.0	5.5	6.3
Machinery, except electrical	106	108	4.1	4.2	3.3	4.1	6.8	4.4
Electrical machinery, equipment, and supplies	89	71	4.1	3.4	3.0	2.4	5.5	4.9
Transportation equipment	141	139	5.3	5.1	4.9	4.9	6.7	5.9
Automobiles	94	59	7.5	4.6	6.7	3.7	11.2	8.3
Other transportation equipment	48	80	3.4	5.5	3.4	5.9	3.2	3.9
Professional and photographic equipment	24	21	3.4	3.2	3.7	2.9	3.0	3.6
Other durable goods industries	27	34	5.6	6.6	4.3	7.6	6.9	4.6
Nondurable goods	552	496	6.2	5.5	5.2	4.7	7.6	6.6
Food and kindred products	171	135	9.3	7.6	9.1	6.4	9.8	9.7
Textile mill products	50	38	6.6	5.2	4.3	5.0	8.7	5.4
Apparel and other textile products	107	90	8.7	7.2	3.5	6.8	10.2	7.3
Paper and allied products	27	19	3.7	2.6	4.4	2.7	1.5	2.3
Printing and publishing	72	83	4.1	4.5	3.9	4.2	4.3	4.8
Chemicals and allied products	45	44	3.5	3.3	2.5	2.7	6.1	4.7
Rubber and miscellaneous plastics products	48	51	5.8	5.7	5.9	5.0	5.6	7.1
Other nondurable goods industries	31	36	7.8	8.1	5.7	7.3	11.4	9.9
Transportation and public utilities	248	198	4.1	3.2	3.6	3.4	5.3	2.7
Transportation	188	154	5.4	4.2	4.9	4.3	7.2	3.9
Communications and other public utilities	60	45	2.3	1.7	1.6	1.9	3.5	1.5
Wholesale and retail trade	1,460	1,331	6.4	5.8	5.7	4.8	7.1	6.7
Wholesale trade	184	134	4.1	3.0	3.6	2.3	5.3	4.7
Retail trade	1,276	1,197	7.0	6.4	6.5	5.7	7.4	7.0
Finance, insurance, and real estate	250	241	3.3	3.3	3.5	3.6	3.2	3.1
Service industries	1,229	1,272	5.0	4.9	4.9	4.7	5.1	5.1
Professional services	459	432	3.4	3.0	2.5	2.4	3.8	3.3
Other service industries	770	840	7.1	7.4	6.8	6.5	7.3	8.2
Agricultural wage and salary workers	186	173	10.0	9.4	9.5	9.1	11.9	10.4
Government, self-employed, and unpaid family workers	780	623	2.7	2.2	2.6	2.0	2.9	2.4
No previous work experience	864	678	-	-	-	-	-	-

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
NUMBER OF UNEMPLOYED												
Total unemployed	6,845	6,182	2,875	2,618	2,644	2,430	1,327	1,134	5,053	4,572	1,578	1,434
Job losers	3,082	2,641	1,929	1,632	954	830	199	180	2,344	1,962	667	618
On layoff	768	691	495	440	214	217	59	34	621	550	128	127
Other job losers	2,314	1,950	1,434	1,192	740	613	140	146	1,723	1,412	539	491
Job leavers	1,030	1,059	419	421	417	457	194	182	842	851	161	177
Reentrants	1,873	1,805	444	486	1,065	1,004	364	316	1,317	1,295	482	448
New entrants	861	676	83	79	207	140	570	457	550	465	269	191
PERCENT DISTRIBUTION												
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	45.0	42.7	67.1	62.3	36.1	34.1	15.0	15.9	46.4	42.9	42.3	43.1
On layoff	11.2	11.2	17.2	16.8	8.1	8.9	4.4	3.0	12.3	12.0	8.1	8.9
Other job losers	33.8	31.5	49.9	45.5	28.0	25.2	10.6	12.9	34.1	30.9	34.1	34.2
Job leavers	15.0	17.1	14.6	16.1	15.8	18.8	14.6	16.0	16.7	18.6	10.2	12.4
Reentrants	27.4	29.2	15.4	18.6	40.3	41.3	27.4	27.8	26.1	28.3	30.5	31.2
New entrants	12.6	10.9	2.9	3.0	7.8	5.8	43.0	40.3	10.9	10.2	17.1	13.3
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE												
Job losers	2.5	2.2	3.1	2.6	1.9	1.6	2.6	2.3	2.3	1.8	5.1	4.6
Job leavers .....	.9	.9	.7	.7	.8	.9	2.5	2.4	.8	.8	1.2	1.3
Reentrants	1.6	1.5	.7	.8	2.1	1.9	4.7	4.2	1.3	1.2	3.7	3.4
New entrants .....	.7	.6	.1	.1	.4	.3	7.4	6.0	.5	.4	2.0	1.4

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

(Percent distribution)

Reason, sex, and age	October 1988						
	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	6,182	100.0	49.4	28.3	22.3	10.7	11.6
Job losers	2,641	100.0	43.1	28.2	28.7	12.5	16.2
On layoff	691	100.0	63.0	17.4	19.6	11.6	8.1
Other job losers	1,950	100.0	36.0	32.0	31.9	12.9	19.1
Job leavers	1,059	100.0	54.2	31.4	14.4	8.1	6.3
Reentrants	1,805	100.0	55.1	28.4	16.5	7.9	8.6
New entrants	676	100.0	51.5	23.3	25.2	14.8	10.4
Men, 20 years and over	2,618	100.0	42.6	28.6	28.8	12.0	16.8
Job losers	1,632	100.0	41.8	25.8	32.4	13.0	19.4
On layoff	440	100.0	64.2	15.5	20.2	12.6	7.6
Other job losers	1,192	100.0	33.4	29.6	37.0	13.2	23.7
Job leavers	421	100.0	48.9	34.6	16.8	7.1	9.7
Reentrants	486	100.0	41.3	34.7	23.9	12.8	11.1
New entrants	79	100.0	36.3	16.8	46.9	10.9	36.0
Women, 20 years and over	2,430	100.0	51.7	28.3	20.0	9.8	10.2
Job losers	830	100.0	41.2	32.7	26.2	12.9	13.3
On layoff	217	100.0	56.3	22.0	21.7	11.4	10.3
Other job losers	613	100.0	35.8	36.4	27.7	13.4	14.4
Job leavers	457	100.0	55.3	28.5	16.2	10.8	5.4
Reentrants	1,004	100.0	58.3	25.6	16.1	6.8	9.3
New entrants	140	100.0	54.8	20.9	24.3	10.2	14.2
Both sexes, 16 to 19 years	1,134	100.0	60.3	27.4	12.2	9.5	2.7
Job losers	180	100.0	64.2	29.2	6.6	6.2	.4
On layoff	34	100.0	(¹)	(¹)	(¹)	(¹)	(¹)
Other job losers	146	100.0	57.9	33.5	8.5	7.8	.7
Job leavers	182	100.0	64.5	31.2	4.3	3.8	.5
Reentrants	316	100.0	66.1	27.5	6.4	4.0	2.4
New entrants	457	100.0	53.2	25.1	21.7	16.9	4.8

¹ 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	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total, 16 years and over	6,845	6,182	100.0	100.0	5,237	4,694	100.0	100.0
Less than 5 weeks	3,211	3,056	46.9	49.4	2,250	2,102	43.0	44.8
5 to 14 weeks	2,032	1,747	29.7	28.3	1,546	1,380	29.5	29.4
5 to 10 weeks	1,539	1,380	22.5	22.3	1,129	1,058	21.6	22.5
11 to 14 weeks	494	367	7.2	5.9	416	322	7.9	6.9
15 weeks and over	1,602	1,379	23.4	22.3	1,442	1,213	27.5	25.8
15 to 26 weeks	712	660	10.4	10.7	629	570	12.0	12.1
27 weeks and over	891	719	13.0	11.6	812	643	15.5	13.7
27 to 51 weeks	364	275	5.3	4.4	331	242	6.3	5.2
52 weeks and over	527	444	7.7	7.2	482	401	9.2	8.5
Average (mean) duration, in weeks	13.7	13.1	-	-	15.6	14.8	-	-
Median duration, in weeks	5.7	5.1	-	-	6.6	6.2	-	-

**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	
								Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
	October 1988										
Total, 16 years and over	6,182	3,056	1,747	660	719	13.1	5.1	46.9	49.4	23.4	22.3
16 to 19 years	1,134	684	311	108	31	6.8	4.1	59.6	60.3	10.5	12.2
20 to 24 years	1,145	642	290	101	111	10.6	4.5	52.2	56.1	15.5	18.5
25 to 34 years	1,822	871	566	185	201	12.7	5.4	43.7	47.8	24.7	21.1
35 to 44 years	1,072	475	304	108	184	16.7	6.7	42.3	44.3	28.7	27.3
45 to 54 years	605	232	160	102	111	19.9	8.3	38.2	38.3	35.9	35.3
55 to 64 years	328	122	100	49	57	17.6	7.6	38.0	37.3	42.8	32.2
65 years and over	76	30	15	8	24	31.7	12.4	24.3	38.6	38.2	41.1
Men, 16 years and over	3,267	1,492	936	382	458	15.1	5.9	43.9	45.7	27.2	25.7
16 to 19 years	649	376	187	69	18	6.9	4.3	57.9	58.0	10.2	13.3
20 to 24 years	611	332	156	61	62	10.9	4.6	54.2	54.3	17.5	20.2
25 to 34 years	898	397	281	96	125	14.9	6.1	40.8	44.1	27.8	24.6
35 to 44 years	531	194	161	70	106	19.8	8.5	33.0	36.6	36.6	33.1
45 to 54 years	326	105	81	51	90	26.6	10.7	34.5	32.1	43.6	43.1
55 to 64 years	199	69	63	29	38	19.2	7.8	36.6	34.6	45.4	33.8
65 years and over	52	19	8	6	19	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Women, 16 years and over	2,915	1,564	812	278	261	10.8	4.7	50.2	53.7	19.3	18.5
16 to 19 years	485	308	124	39	13	6.6	3.9	61.4	63.5	10.9	10.8
20 to 24 years	534	310	135	40	49	10.3	4.3	50.0	58.1	13.4	16.7
25 to 34 years	924	474	285	88	76	10.5	4.9	47.0	51.3	21.2	17.8
35 to 44 years	540	281	143	38	78	13.7	4.8	51.6	51.9	20.9	21.5
45 to 54 years	278	127	79	51	21	12.0	6.4	42.2	45.5	27.5	26.2
55 to 64 years	129	53	37	19	19	15.1	7.4	40.1	41.5	39.3	29.8
65 years and over	24	11	8	1	4	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
White, 16 years and over	4,572	2,297	1,279	493	504	12.6	5.0	48.9	50.2	22.7	21.8
Men	2,477	1,120	700	301	355	15.3	6.0	46.2	45.2	25.9	26.5
Women	2,095	1,177	578	191	149	9.4	4.5	52.2	56.2	18.9	16.2
Black, 16 years and over	1,434	680	418	145	190	14.6	5.6	39.8	47.4	27.1	23.4
Men	710	335	203	76	96	15.2	5.5	33.4	47.2	33.3	24.2
Women	724	345	215	69	94	14.1	5.8	45.1	47.7	22.0	22.6
Men, 16 years and over:											
Married, spouse present	1,182	456	351	149	225	18.8	7.2	37.9	38.6	35.3	31.7
Widowed, divorced, or separated	441	185	129	50	78	19.4	6.5	36.9	41.9	34.2	29.0
Single (never married)	1,644	851	456	183	154	11.4	4.8	50.7	51.7	18.6	20.5
Women, 16 years and over:											
Married, spouse present	1,114	590	311	95	117	11.2	4.7	52.1	53.0	19.8	19.1
Widowed, divorced, or separated	622	316	175	76	55	11.7	4.9	42.3	50.8	25.6	21.0
Single (never married)	1,178	658	325	107	89	10.0	4.5	53.1	55.8	15.1	16.6

¹ Data not shown where base is less than 75,000.

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	
								Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
OCCUPATION											
Managerial and professional specialty	583	234	203	86	60	13.1	7.6	35.6	40.1	30.9	25.1
Technical, sales, and administrative support	1,455	713	432	145	165	12.3	5.2	46.3	49.0	23.0	21.3
Service occupations	1,130	617	342	80	91	10.2	4.6	50.8	54.6	18.2	15.1
Precision production, craft, and repair	712	336	199	78	99	14.5	5.5	46.2	47.2	26.5	24.9
Operators, fabricators, and laborers	1,368	685	319	154	209	16.1	5.0	45.2	50.1	27.1	26.6
Farming, forestry, and fishing	238	112	87	16	23	11.5	5.6	52.0	46.8	14.6	16.5
INDUSTRY¹											
Agriculture	173	80	69	17	7	8.8	5.9	57.3	46.1	12.0	14.0
Construction	535	273	147	40	74	12.7	4.9	52.7	51.1	21.5	21.3
Manufacturing	1,087	496	286	143	163	15.9	6.1	37.9	45.6	32.9	28.1
Durable goods	591	212	169	96	115	19.0	8.4	32.4	35.8	36.9	35.6
Nondurable goods	496	284	117	47	48	12.2	4.4	44.2	57.2	28.4	19.2
Transportation and public utilities	242	105	63	35	39	17.4	6.5	50.1	43.3	26.0	30.5
Wholesale and retail trade	1,341	717	392	101	131	11.4	4.7	49.3	53.5	20.6	17.3
Finance and service industries	1,708	867	504	177	159	11.2	5.0	45.0	50.8	21.9	19.7
Public administration	200	89	53	30	28	15.6	7.3	43.4	44.5	30.9	28.8
No previous work experience	678	349	158	100	70	12.9	4.8	53.9	51.6	18.1	25.2

¹ Includes wage and salary workers only.

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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

Sex, age, and race	October 1988								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total jobseekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over	6,182	5,357	19.2	7.7	74.4	34.4	17.4	4.7	1.58
16 to 19 years	1,134	1,081	9.8	5.1	79.6	20.3	14.8	4.4	1.34
20 to 24 years	1,145	1,006	17.9	8.2	77.7	36.9	18.6	3.5	1.61
25 to 34 years	1,822	1,558	22.4	7.0	72.5	40.9	16.6	4.4	1.64
35 to 44 years	1,072	902	24.5	10.9	69.0	39.0	20.1	4.7	1.68
45 to 54 years	605	473	24.7	8.9	73.8	28.5	19.7	9.3	1.65
55 to 64 years	328	267	20.2	10.5	71.9	41.6	20.6	4.9	1.70
65 years and over	76	70	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Men, 16 years and over	3,267	2,741	21.6	8.1	74.5	32.5	19.7	5.2	1.62
16 to 19 years	649	622	9.8	5.3	77.8	19.8	17.0	4.7	1.34
20 to 24 years	611	528	18.6	8.7	76.3	33.0	20.6	4.0	1.61
25 to 34 years	898	712	25.7	7.7	73.0	36.9	18.5	3.8	1.66
35 to 44 years	531	428	32.9	13.3	69.2	40.2	21.5	6.1	1.83
45 to 54 years	326	248	28.6	4.4	77.4	29.4	22.6	11.7	1.74
55 to 64 years	199	153	22.9	13.7	75.2	47.1	19.0	4.6	1.82
65 years and over	52	49	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Women, 16 years and over	2,915	2,616	16.8	7.3	74.4	36.5	15.0	4.2	1.54
16 to 19 years	485	459	9.8	4.8	82.1	20.9	11.8	4.1	1.34
20 to 24 years	534	478	17.2	7.3	79.3	41.2	12.1	3.1	1.60
25 to 34 years	924	846	19.7	6.4	72.0	44.2	14.9	4.8	1.62
35 to 44 years	540	474	16.9	8.6	69.0	38.0	18.8	3.4	1.55
45 to 54 years	278	224	20.1	13.8	70.1	27.7	16.5	6.3	1.54
55 to 64 years	129	114	16.7	6.1	67.5	34.2	22.8	5.3	1.53
65 years and over	24	21	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
White, 16 years and over	4,572	3,897	19.0	7.9	74.0	35.8	16.8	4.9	1.58
Men	2,477	2,053	22.2	8.2	74.5	33.5	19.4	5.5	1.63
Women	2,095	1,845	15.5	7.5	73.3	38.2	13.8	4.3	1.53
Black, 16 years and over	1,434	1,302	19.8	6.8	76.4	29.4	19.4	3.8	1.56
Men	710	621	19.0	6.4	74.9	29.6	20.9	3.9	1.55
Women	724	681	20.6	6.9	78.0	29.4	18.1	3.7	1.57

¹ 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	October 1988								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total jobseekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 18 years and over	6,182	5,357	19.2	7.7	74.4	34.4	17.4	4.7	1.58
Job losers ¹	2,641	1,944	25.8	7.5	76.4	35.2	19.2	4.7	1.69
Job leavers	1,059	1,057	20.2	11.0	73.2	39.9	14.9	4.5	1.64
Reentrants	1,805	1,597	14.2	7.0	70.4	35.9	17.9	6.5	1.52
New entrants	676	658	11.2	5.0	81.3	19.3	14.9	.6	1.32
Men, 16 years and over	3,267	2,741	21.6	8.1	74.5	32.5	19.7	5.2	1.62
Job losers ¹	1,750	1,278	27.5	7.9	76.7	32.8	21.2	4.9	1.71
Job leavers	529	537	20.3	10.6	74.9	43.0	16.0	4.7	1.69
Reentrants	653	604	14.7	7.3	66.7	30.5	21.4	8.4	1.49
New entrants	336	322	13.0	6.5	79.2	17.4	16.5	1.6	1.34
Women, 16 years and over	2,915	2,616	16.8	7.3	74.4	36.5	15.0	4.2	1.54
Job losers ¹	892	666	22.4	6.6	75.7	39.9	15.5	4.2	1.64
Job leavers	531	520	20.2	11.2	71.5	36.9	13.7	4.4	1.58
Reentrants	1,152	1,092	13.9	7.0	72.3	38.8	16.0	5.5	1.54
New entrants	340	336	9.5	3.6	83.3	21.1	13.4	-	1.31

¹ 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.

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

(In thousands)

Industry and age	Total		Men		Women	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
All industries	113,898	116,250	62,692	63,658	51,206	52,592
16 to 19 years	6,379	6,465	3,249	3,252	3,130	3,213
16 to 17 years	2,601	2,532	1,286	1,288	1,315	1,243
18 to 19 years	3,779	3,934	1,964	1,964	1,815	1,970
20 to 24 years	13,467	13,195	6,990	6,861	6,477	6,334
25 to 54 years	79,198	81,685	43,790	44,982	35,408	36,704
25 to 34 years	33,692	33,960	18,780	18,987	14,912	14,973
35 to 44 years	27,772	28,969	15,174	15,764	12,598	13,204
45 to 54 years	17,735	18,757	9,836	10,230	7,898	8,527
55 to 64 years	11,675	11,621	6,732	6,616	4,943	5,005
55 to 59 years	7,062	6,940	4,038	3,943	3,024	2,996
60 to 64 years	4,614	4,681	2,694	2,672	1,920	2,009
65 years and over	3,178	3,284	1,931	1,948	1,247	1,336
Agriculture	3,297	3,316	2,593	2,598	704	718
16 to 19 years	225	238	190	198	35	40
16 to 17 years	105	106	90	85	15	22
18 to 19 years	119	132	100	113	20	19
20 to 24 years	352	320	311	268	41	52
25 to 54 years	1,924	1,955	1,443	1,480	481	476
25 to 34 years	851	800	660	643	190	157
35 to 44 years	604	645	444	461	160	184
45 to 54 years	469	510	339	376	130	134
55 to 64 years	488	471	390	369	98	102
55 to 59 years	261	271	201	219	60	52
60 to 64 years	228	200	189	150	38	49
65 years and over	308	332	258	283	49	49
Nonagricultural industries	110,601	112,934	60,099	61,060	50,502	51,874
16 to 19 years	6,155	6,228	3,060	3,055	3,095	3,173
16 to 17 years	2,496	2,426	1,196	1,204	1,300	1,222
18 to 19 years	3,659	3,802	1,864	1,851	1,795	1,951
20 to 24 years	13,114	12,874	6,679	6,592	6,436	6,282
25 to 54 years	77,274	79,731	42,347	43,501	34,928	36,229
25 to 34 years	32,841	33,159	18,119	18,344	14,722	14,816
35 to 44 years	27,168	28,323	14,729	15,303	12,438	13,020
45 to 54 years	17,265	18,248	9,497	9,854	7,768	8,393
55 to 64 years	11,187	11,150	6,342	6,247	4,845	4,903
55 to 59 years	6,801	6,668	3,837	3,725	2,964	2,944
60 to 64 years	4,386	4,481	2,505	2,522	1,881	1,959
65 years and over	2,871	2,952	1,673	1,665	1,198	1,287

**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	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total	113,898	116,250	62,692	63,658	59,442	60,405	51,206	52,592	48,076	49,379
Managerial and professional specialty	28,309	29,616	15,730	16,285	15,622	16,218	12,579	13,331	12,463	13,215
Executive, administrative, and managerial	13,729	14,230	8,449	8,651	8,421	8,624	5,280	5,578	5,221	5,535
Officials and administrators, public administration	564	516	339	293	340	292	225	222	225	222
Other executive, administrative, and managerial	9,591	9,985	6,310	6,547	6,287	6,521	3,281	3,438	3,244	3,409
Management-related occupations	3,574	3,729	1,800	1,811	1,794	1,811	1,774	1,918	1,752	1,904
Professional specialty	14,580	15,387	7,281	7,634	7,201	7,594	7,299	7,753	7,242	7,680
Engineers	1,729	1,786	1,633	1,684	1,634	1,682	96	102	96	102
Mathematical and computer scientists	641	756	435	465	433	465	206	291	206	288
Natural scientists	393	405	304	306	303	306	90	100	90	100
Health diagnosing occupations	800	880	651	714	651	714	149	167	149	167
Health assessment and treating occupations	2,135	2,209	299	311	296	308	1,836	1,899	1,836	1,898
Teachers, college and university	731	743	446	443	441	443	285	300	277	295
Teachers, except college and university	3,676	3,985	979	1,071	965	1,061	2,697	2,914	2,670	2,879
Lawyers and judges	696	766	564	614	564	614	132	152	132	147
Other professional specialty occupations	3,778	3,855	1,969	2,027	1,916	2,000	1,809	1,828	1,785	1,804
Technical, sales, and administrative support	35,667	35,819	12,582	12,602	11,963	12,047	23,085	23,216	21,407	21,452
Technicians and related support	3,507	3,604	1,796	1,831	1,768	1,810	1,711	1,773	1,689	1,752
Health technologists and technicians	1,211	1,369	207	248	205	246	1,004	1,121	993	1,108
Engineering and science technicians	1,132	1,101	895	875	878	862	236	226	229	220
Technicians, except health, engineering, and science	1,164	1,134	693	708	685	702	471	426	467	424
Sales occupations	13,680	13,879	7,045	7,069	6,702	6,723	6,635	6,811	5,635	5,738
Supervisors and proprietors	3,634	3,643	2,479	2,407	2,450	2,401	1,155	1,236	1,142	1,204
Sales representatives, finance and business services	2,344	2,540	1,406	1,469	1,397	1,449	938	1,071	913	1,022
Sales representatives, commodities, except retail	1,563	1,543	1,297	1,271	1,289	1,266	266	272	259	269
Sales workers, retail and personal services	6,059	6,090	1,838	1,908	1,542	1,594	4,221	4,182	3,270	3,197
Sales-related occupations	80	63	25	13	24	13	55	50	50	46
Administrative support, including clerical	18,480	18,336	3,742	3,702	3,494	3,514	14,738	14,633	14,083	13,961
Supervisors	832	716	375	315	375	313	457	401	454	398
Computer equipment operators	926	898	318	294	304	281	608	604	577	574
Secretaries, stenographers, and typists	5,052	4,876	106	84	93	84	4,945	4,792	4,763	4,609
Financial records processing	2,394	2,477	208	219	201	215	2,186	2,258	2,139	2,200
Mail and message distributing	962	980	628	623	601	602	334	357	322	341
Other administrative support, including clerical	8,314	8,389	2,106	2,167	1,919	2,018	6,208	6,222	5,828	5,839
Service occupations	14,908	15,409	5,734	5,954	4,826	5,091	9,174	9,455	8,121	8,419
Private household	953	915	39	30	27	18	914	885	733	756
Protective service	1,851	1,990	1,579	1,718	1,532	1,683	273	273	251	262
Service, except private household and protective	12,104	12,503	4,117	4,206	3,268	3,390	7,987	8,298	7,137	7,402
Food service	5,138	5,137	1,886	1,898	1,262	1,282	3,252	3,239	2,640	2,608
Health service	1,842	1,953	181	196	158	183	1,661	1,757	1,581	1,687
Cleaning and building service	2,801	3,018	1,660	1,694	1,506	1,552	1,141	1,324	1,088	1,256
Personal service	2,322	2,395	389	417	341	374	1,933	1,978	1,828	1,850
Precision production, craft, and repair	13,722	13,663	12,543	12,453	12,250	12,132	1,179	1,210	1,142	1,167
Mechanics and repairers	4,464	4,333	4,303	4,192	4,218	4,077	162	140	159	136
Construction trades	5,132	5,113	5,043	5,005	4,894	4,864	89	108	85	104
Other precision production, craft, and repair	4,126	4,217	3,197	3,255	3,139	3,191	929	962	898	927
Operators, fabricators, and laborers	17,738	18,206	13,096	13,431	12,024	12,241	4,642	4,775	4,436	4,557
Machine operators, assemblers, and inspectors	8,099	8,271	4,757	4,821	4,590	4,614	3,341	3,450	3,264	3,357
Manufacturing industries	6,696	6,862	3,920	3,971	3,797	3,831	2,775	2,891	2,707	2,825
Durable goods	3,727	3,790	2,622	2,607	2,535	2,524	1,105	1,182	1,088	1,160
Nondurable goods	2,968	3,072	1,298	1,364	1,262	1,307	1,670	1,708	1,619	1,665
Nonmanufacturing industries	1,403	1,409	837	850	793	783	566	559	556	533
Transportation and material moving occupations	4,896	4,960	4,503	4,487	4,345	4,362	393	473	379	462
Motor vehicle operators	3,608	3,707	3,255	3,278	3,141	3,167	353	429	338	418
Other transportation and material moving occupations	1,288	1,253	1,248	1,209	1,204	1,195	40	44	40	44
Handlers, equipment cleaners, helpers, and laborers	4,743	4,975	3,836	4,122	3,089	3,265	907	853	793	738
Construction laborers	791	902	755	881	689	786	36	22	37	19
Other handlers, equipment cleaners, helpers, and laborers	3,951	4,072	3,081	3,241	2,400	2,479	871	831	756	719
Farming, forestry, and fishing	3,554	3,537	3,006	2,932	2,757	2,676	548	605	508	569
Farm operators and managers	1,392	1,350	1,154	1,135	1,144	1,131	238	215	236	213
Other farming, forestry, and fishing occupations	2,163	2,187	1,852	1,797	1,613	1,546	311	390	272	356

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

(Percent distribution)

Occupation and race	Total		Men		Women	
	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
TOTAL						
Total, 16 years and over (thousands)	113,898	116,250	62,692	63,658	51,206	52,592
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	24.9	25.5	25.1	25.6	24.6	25.3
Executive, administrative, and managerial	12.1	12.2	13.5	13.6	10.3	10.6
Professional specialty	12.8	13.2	11.6	12.0	14.3	14.7
Technical, sales, and administrative support	31.3	30.8	20.1	19.8	45.1	44.1
Technicians and related support	3.1	3.1	2.9	2.9	3.3	3.4
Sales occupations	12.0	11.9	11.2	11.1	13.0	13.0
Administrative support, including clerical	16.2	15.8	6.0	5.8	28.8	27.8
Service occupations	13.1	13.3	9.1	9.4	17.9	18.0
Private household .....	.8	.8	.1	(¹)	1.8	1.7
Protective service	1.6	1.7	2.5	2.7	.5	.5
Service, except private household and protective	10.6	10.8	6.6	6.6	15.6	15.8
Precision production, craft, and repair	12.0	11.8	20.0	19.6	2.3	2.3
Operators, fabricators, and laborers	15.6	15.7	20.9	21.1	9.1	9.1
Machine operators, assemblers, and inspectors	7.1	7.1	7.6	7.6	6.5	6.6
Transportation and material moving occupations	4.3	4.3	7.2	7.0	.8	.9
Handlers, equipment cleaners, helpers, and laborers	4.2	4.3	6.1	6.5	1.8	1.6
Farming, forestry, and fishing	3.1	3.0	4.8	4.6	1.1	1.2
White						
Total, 16 years and over (thousands)	98,882	100,723	55,038	55,789	43,843	44,934
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	25.8	26.7	26.2	26.8	25.4	26.5
Executive, administrative, and managerial	12.7	13.0	14.2	14.5	10.7	11.2
Professional specialty	13.2	13.6	11.9	12.3	14.7	15.3
Technical, sales, and administrative support	31.8	31.1	20.4	20.0	46.2	44.8
Technicians and related support	3.1	3.1	2.9	2.9	3.3	3.3
Sales occupations	12.6	12.5	11.9	11.8	13.4	13.3
Administrative support, including clerical	16.1	15.6	5.5	5.3	29.4	28.2
Service occupations	11.9	12.0	8.1	8.4	16.6	16.5
Private household .....	.7	.7	.1	(¹)	1.5	1.5
Protective service	1.5	1.6	2.4	2.5	.5	.4
Service, except private household and protective	9.6	9.7	5.7	5.8	14.6	14.6
Precision production, craft, and repair	12.5	12.1	20.7	20.1	2.3	2.3
Operators, fabricators, and laborers	14.7	14.8	19.7	19.9	8.4	8.6
Machine operators, assemblers, and inspectors	6.7	6.7	7.2	7.2	5.9	6.1
Transportation and material moving occupations	4.1	4.1	6.8	6.7	.7	.9
Handlers, equipment cleaners, helpers, and laborers	3.9	4.0	5.7	6.0	1.7	1.6
Farming, forestry, and fishing	3.3	3.2	5.0	4.8	1.2	1.3
Black						
Total, 16 years and over (thousands)	11,582	11,873	5,749	5,906	5,833	5,967
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	15.7	14.4	13.2	11.9	18.3	17.0
Executive, administrative, and managerial	7.1	6.2	6.8	5.5	7.3	7.0
Professional specialty	8.7	8.2	6.4	6.4	10.9	10.0
Technical, sales, and administrative support	27.2	28.3	16.7	17.3	37.5	39.2
Technicians and related support	2.6	2.8	1.8	2.1	3.5	3.5
Sales occupations	7.3	7.7	5.1	5.1	9.3	10.3
Administrative support, including clerical	17.3	17.7	9.8	10.0	24.6	25.3
Service occupations	23.1	23.2	17.8	17.4	28.4	29.0
Private household	2.0	1.7	.1	.2	3.8	3.3
Protective service	2.5	2.9	3.9	4.5	1.1	1.3
Service, except private household and protective	18.7	18.6	13.9	12.6	23.4	24.4
Precision production, craft, and repair	8.8	8.9	15.7	15.9	1.9	2.0
Operators, fabricators, and laborers	23.4	23.4	33.1	34.3	13.8	12.6
Machine operators, assemblers, and inspectors	10.4	10.6	10.6	11.7	10.3	9.6
Transportation and material moving occupations	6.5	5.9	12.0	10.7	1.0	1.2
Handlers, equipment cleaners, helpers, and laborers	6.5	6.8	10.6	11.9	2.5	1.9
Farming, forestry, and fishing	1.8	1.7	3.4	3.2	.2	.3

¹ Less than 0.05 percent.

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Age and sex	October 1988								
	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	104,127	1,185	17,472	85,470	8,583	224	1,670	1,471	175
16 to 19 years	6,159	176	292	5,691	60	8	205	10	22
16 to 17 years	2,389	113	84	2,192	29	8	88	4	14
18 to 19 years	3,770	63	208	3,499	32	1	118	6	8
20 to 24 years	12,529	127	1,067	11,334	343	3	263	47	11
25 to 34 years	31,183	198	4,389	26,596	1,926	50	497	272	31
35 to 44 years	25,726	235	5,539	19,952	2,526	71	307	313	25
45 to 54 years	16,360	146	3,730	12,484	1,827	61	169	301	39
55 to 64 years	9,798	186	2,077	7,535	1,336	15	140	302	29
55 to 59 years	5,885	84	1,328	4,473	779	4	78	177	17
60 to 64 years	3,913	101	750	3,062	557	11	62	126	12
65 years and over	2,373	117	378	1,878	564	15	88	225	19
Men, 16 years and over	55,515	165	8,102	47,248	5,522	23	1,318	1,233	47
16 to 19 years	3,026	41	139	2,845	22	7	171	10	16
16 to 17 years	1,185	27	46	1,112	12	6	69	5	11
18 to 19 years	1,841	14	94	1,733	9	1	103	6	5
20 to 24 years	6,389	13	453	5,923	200	3	221	40	7
25 to 34 years	17,129	38	2,089	15,001	1,211	4	402	236	5
35 to 44 years	13,664	27	2,520	11,117	1,636	3	222	238	2
45 to 54 years	8,655	26	1,736	6,892	1,199	1	117	254	5
55 to 64 years	5,368	9	974	4,385	878	1	115	253	2
55 to 59 years	3,209	3	609	2,597	515	-	70	148	1
60 to 64 years	2,158	5	365	1,788	363	1	45	105	-
65 years and over	1,285	11	191	1,083	377	3	70	202	10
Women, 16 years and over	48,612	1,019	9,371	38,222	3,061	202	352	238	128
16 to 19 years	3,133	135	153	2,846	39	1	34	-	6
16 to 17 years	1,204	86	39	1,080	16	1	19	-	3
18 to 19 years	1,929	49	114	1,766	22	-	15	-	3
20 to 24 years	6,140	115	613	5,412	142	-	42	7	3
25 to 34 years	14,054	159	2,300	11,595	716	46	95	36	26
35 to 44 years	12,062	208	3,020	8,834	891	68	85	76	23
45 to 54 years	7,705	120	1,994	5,592	628	60	53	47	34
55 to 64 years	4,430	177	1,104	3,150	459	14	25	50	27
55 to 59 years	2,676	81	719	1,876	264	4	8	29	16
60 to 64 years	1,755	96	385	1,274	194	10	17	21	11
65 years and over	1,088	107	187	794	187	12	18	22	9

A-25. Employed civilians by industry and occupation

(In thousands)

Industry	October 1988												
	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 ¹		Machine operators, assemblers, and inspectors	Transportation and material moving	Handlers, equipment cleaners, helpers, and laborers	
Agriculture	3,316	79	87	17	16	92	-	18	23	5	67	17	2,896
Mining	750	124	83	32	17	71	-	13	258	16	105	30	-
Construction	7,775	993	158	47	91	492	-	33	4,354	79	523	987	17
Manufacturing	21,298	2,522	1,732	686	788	2,393	-	322	4,037	6,862	723	1,145	87
Durable goods	12,597	1,512	1,160	506	332	1,328	-	178	2,743	3,790	397	569	82
Nondurable goods	8,701	1,010	572	180	456	1,066	-	144	1,293	3,072	326	576	5
Transportation and public utilities	8,032	921	432	261	274	2,182	-	244	1,275	102	1,812	518	11
Wholesale and retail trade	23,744	2,046	465	140	9,823	2,401	-	4,215	1,438	329	1,036	1,810	41
Wholesale trade	4,636	537	114	52	1,711	837	-	53	282	153	521	361	14
Retail trade	19,108	1,509	351	88	8,112	1,564	-	4,162	1,156	177	515	1,448	27
Finance, insurance, and real estate	7,942	1,961	224	139	1,959	3,101	-	272	160	16	13	17	80
Services	37,908	4,440	11,427	2,045	885	6,143	915	7,992	1,872	830	602	407	351
Private households	1,190	1	12	11	-	5	915	119	14	7	4	39	64
Other service industries	36,718	4,440	11,415	2,034	885	6,138	-	7,873	1,858	823	598	368	287
Professional services	24,383	2,462	10,254	1,686	128	4,403	-	4,328	382	209	367	84	79
Public administration	5,484	1,143	780	238	25	1,459	-	1,386	246	32	77	44	55

¹ 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					
	Oct. 1987	Oct. 1988	Total		Wage and salary workers ¹			
			Oct. 1987	Oct. 1988	Paid absences		Unpaid absences	
					Oct. 1987	Oct. 1988	Oct. 1987	Oct. 1988
Total, 16 years and over	4,713	4,619	4,602	4,525	2,375	2,415	1,745	1,712
Vacation	2,284	2,205	2,234	2,177	1,636	1,605	418	407
Illness	1,401	1,320	1,369	1,299	508	537	746	700
Bad weather	18	13	14	11	(²)	(²)	(²)	(²)
Industrial dispute	39	32	39	32	(²)	(²)	(²)	(²)
All other reasons	970	1,049	945	1,006	231	273	582	605
Men, 16 years and over	2,470	2,307	2,374	2,231	1,265	1,284	800	729
Vacation	1,287	1,223	1,242	1,203	960	914	182	192
Illness	773	625	744	608	270	267	401	318
All other reasons ³	410	460	388	420	55	103	217	219
Women, 16 years and over	2,243	2,312	2,228	2,293	1,091	1,131	945	983
Vacation	997	982	993	973	676	692	236	216
Illness	629	695	625	691	238	270	344	383
All other reasons ³	617	635	610	630	177	169	364	385

¹ Excludes private household workers.

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

³ 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.

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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

Hours of work	October 1988					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over	111,631	3,222	108,409	100.0	100.0	100.0
1 to 34 hours	28,253	808	27,445	25.3	25.1	25.3
1 to 4 hours	764	47	717	.7	1.5	.7
5 to 14 hours	4,652	165	4,487	4.2	5.1	4.1
15 to 29 hours	13,346	379	12,967	12.0	11.8	12.0
30 to 34 hours	9,491	217	9,274	8.5	6.7	8.6
35 hours and over	83,378	2,414	80,964	74.7	74.9	74.7
35 to 39 hours	7,103	146	6,957	6.4	4.5	6.4
40 hours	42,045	681	41,364	37.7	21.1	38.2
41 hours and over	34,230	1,587	32,643	30.7	49.3	30.1
41 to 48 hours	11,840	234	11,606	10.6	7.3	10.7
49 to 59 hours	12,903	408	12,494	11.6	12.7	11.5
60 hours and over	9,487	945	8,543	8.5	29.3	7.9
Average hours, total at work	39.4	46.2	39.2			
Average hours, workers on full-time schedules	43.9	53.5	43.6			-

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	October 1988					
	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	28,253	8,939	19,314	27,445	8,718	18,728
Economic reasons	4,668	1,518	3,150	4,452	1,415	3,037
Slack work	2,125	1,221	904	1,990	1,128	862
Material shortages or repairs to plant and equipment	61	61	-	58	58	-
New job started during week	162	162	-	157	157	-
Job terminated during week	74	74	-	71	71	-
Could find only part-time work	2,246	-	2,246	2,174	-	2,174
Other reasons	23,584	7,420	16,164	22,993	7,302	15,691
Does not want, or unavailable for, full-time work	13,668	-	13,668	13,286	-	13,286
Vacation	1,362	1,362	-	1,346	1,346	-
Illness	1,595	1,390	205	1,548	1,362	186
Bad weather	102	102	-	97	97	-
Industrial dispute	5	5	-	5	5	-
Legal or religious holiday	3,033	3,033	-	3,030	3,030	-
Full time for this job	1,664	-	1,664	1,638	-	1,638
All other reasons	2,156	1,529	627	2,045	1,464	581
Average hours:						
Economic reasons	22.5	24.6	21.5	22.6	24.7	21.6
Other reasons	21.9	27.8	19.2	22.0	27.8	19.3
Worked 30 to 34 hours:						
Economic reasons	1,611	728	883	1,541	684	857
Other reasons	7,880	4,774	3,106	7,733	4,725	3,008

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

(Numbers in thousands)

Industry	October 1988								
	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	108,409	4,452	15,691	88,266	55,623	11,606	21,037	39.2	43.6
Wage and salary workers	99,980	3,886	14,202	81,892	52,860	10,873	18,159	39.1	43.3
Mining	689	12	14	663	338	94	231	45.8	46.8
Construction	6,037	345	295	5,397	3,535	674	1,188	41.2	43.5
Manufacturing	19,969	418	705	18,846	11,712	3,136	3,998	42.3	43.5
Durable goods	11,817	146	294	11,377	6,896	1,959	2,522	42.9	43.7
Nondurable goods	8,151	272	411	7,468	4,815	1,177	1,476	41.4	43.1
Transportation and public utilities	7,242	246	452	6,544	4,129	805	1,610	41.8	44.0
Wholesale and retail trade	21,097	1,186	5,291	14,620	8,690	2,247	3,683	36.9	44.1
Finance, insurance, and real estate	7,010	113	673	6,224	4,231	725	1,268	39.6	42.1
Service industries	32,756	1,515	6,488	24,753	16,587	2,800	5,366	37.2	42.9
Private households	1,169	238	506	425	274	57	94	25.4	45.3
All other industries	31,587	1,277	5,982	24,328	16,313	2,743	5,272	37.6	42.9
Public administration	5,180	50	285	4,845	3,636	392	817	39.8	41.2
Self-employed workers	8,205	549	1,385	6,271	2,707	726	2,838	41.3	48.2
Unpaid family workers	224	17	104	103	55	8	40	33.2	46.5

**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	October 1988							
	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		
TOTAL								
Total, 16 years and over	108,409	4,452	15,691	88,266	55,623	32,643	39.2	43.6
16 to 19 years	6,095	417	3,749	1,929	1,490	439	24.7	40.6
16 to 17 years	2,358	71	2,077	210	179	31	17.6	37.7
18 to 19 years	3,737	346	1,672	1,719	1,311	408	29.2	40.9
20 years and over	102,314	4,036	11,942	86,336	54,132	32,204	40.1	43.7
20 to 24 years	12,489	732	2,311	9,446	6,520	2,926	36.9	42.4
25 years and over	89,826	3,303	9,631	76,892	47,615	29,277	40.6	43.8
25 to 44 years	59,222	2,187	5,312	51,723	31,537	20,186	41.1	44.0
45 to 64 years	27,865	986	2,997	23,882	15,191	8,691	40.2	43.5
65 years and over	2,739	130	1,322	1,287	886	401	29.3	42.4
Men, 16 years and over	58,828	1,957	4,714	52,157	29,180	22,977	42.3	45.2
16 to 19 years	2,984	202	1,723	1,059	779	280	26.0	41.0
16 to 17 years	1,168	34	1,006	128	98	30	18.7	37.8
18 to 19 years	1,816	168	718	930	679	251	30.7	41.4
20 years and over	55,844	1,755	2,990	51,099	28,402	22,697	43.2	45.3
20 to 24 years	6,434	333	981	5,120	3,308	1,812	38.8	43.6
25 years and over	49,411	1,421	2,010	45,980	25,097	20,883	43.7	45.5
25 to 44 years	32,591	968	731	30,892	16,494	14,398	44.5	45.7
45 to 64 years	15,282	395	616	14,271	8,078	6,193	43.4	44.9
65 years and over	1,538	60	663	815	525	290	31.5	43.2
Women, 16 years and over	49,581	2,495	10,977	36,109	26,442	9,667	35.6	41.4
16 to 19 years	3,111	215	2,026	870	710	160	23.4	40.1
16 to 17 years	1,190	36	1,071	83	81	2	16.4	37.6
18 to 19 years	1,920	179	955	786	628	158	27.7	40.3
20 years and over	46,470	2,281	8,951	35,238	25,731	9,507	36.4	41.4
20 to 24 years	6,055	400	1,331	4,324	3,211	1,113	34.9	41.0
25 years and over	40,415	1,881	7,621	30,913	22,518	8,395	36.6	41.4
25 to 44 years	26,631	1,220	4,581	20,830	15,043	5,787	37.1	41.5
45 to 64 years	12,582	593	2,380	9,609	7,113	2,496	36.5	41.3
65 years and over	1,201	70	660	471	359	112	26.4	40.9
RACE								
White, 16 years and over	93,655	3,541	14,047	76,067	46,498	29,569	39.4	43.8
Men	51,366	1,542	4,139	45,685	24,656	21,029	42.6	45.4
Women	42,289	1,999	9,909	30,381	21,840	8,541	35.4	41.5
Black, 16 years and over	11,247	781	1,136	9,330	7,091	2,239	38.3	41.8
Men	5,573	355	361	4,857	3,471	1,386	40.2	43.1
Women	5,674	425	775	4,474	3,622	852	36.4	40.5
MARITAL STATUS								
Men, 16 years and over:								
Married, spouse present	37,704	803	1,389	35,512	18,790	16,722	44.3	45.7
Widowed, divorced, or separated	5,736	296	268	5,172	2,936	2,236	42.8	45.1
Single (never married)	15,389	858	3,057	11,474	7,456	4,018	37.3	43.5
Women, 16 years and over:								
Married, spouse present	27,448	1,215	6,372	19,861	14,795	5,066	35.4	41.1
Widowed, divorced, or separated	9,728	566	1,197	7,965	5,603	2,362	38.1	42.0
Single (never married)	12,404	715	3,408	8,281	6,042	2,239	33.8	41.4

**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	October 1988								
	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 ¹	108,207	4,410	15,658	88,139	55,436	11,607	21,096	39.3	43.6
Managerial and professional specialty	28,505	450	2,801	25,254	13,718	3,374	8,162	42.1	45.0
Executive, administrative, and managerial	13,646	151	706	12,789	6,410	1,794	4,584	44.2	45.8
Professional specialty	14,859	300	2,095	12,465	7,307	1,580	3,578	40.2	44.3
Technical, sales, and administrative support	34,370	1,173	6,498	26,699	18,144	3,143	5,412	37.5	42.5
Technicians and related support	3,450	59	435	2,957	2,048	382	526	39.1	42.2
Sales occupations	13,362	615	2,920	9,827	4,944	1,371	3,512	39.0	45.9
Administrative support, including clerical	17,557	499	3,144	13,915	11,152	1,389	1,374	36.1	40.2
Service occupations	14,832	1,219	4,264	9,350	6,547	1,100	1,703	34.2	42.9
Private household	905	154	434	317	206	55	56	24.8	43.4
Protective service	1,872	39	168	1,666	948	235	483	43.3	46.4
Service, except private household and protective	12,055	1,026	3,662	7,367	5,392	811	1,164	33.5	42.1
Precision production, craft, and repair	13,104	554	475	12,074	7,514	1,770	2,790	42.1	43.8
Operators, fabricators, and laborers	17,396	1,014	1,619	14,763	9,514	2,220	3,030	40.1	43.5
Machine operators, assemblers, and inspectors	7,876	320	350	7,205	4,866	1,195	1,145	40.8	42.5
Transportation and material moving occupations	4,729	241	408	4,080	2,097	578	1,404	43.0	46.5
Handlers, equipment cleaners, helpers, and laborers	4,792	453	861	3,478	2,551	447	481	36.1	41.9
Men, 16 years and over ¹	58,525	1,914	4,651	51,960	28,966	7,259	15,734	42.4	45.2
Managerial and professional specialty	15,792	192	792	14,808	6,950	1,860	5,998	45.1	46.9
Executive, administrative, and managerial	8,357	74	267	8,016	3,489	1,067	3,459	46.3	47.4
Professional specialty	7,435	118	524	6,793	3,461	793	2,539	43.8	46.3
Technical, sales, and administrative support	12,191	234	1,311	10,646	5,538	1,520	3,589	42.3	45.6
Technicians and related support	1,776	17	122	1,637	1,033	229	375	41.6	43.5
Sales occupations	6,872	121	733	6,018	2,461	875	2,682	44.4	47.9
Administrative support, including clerical	3,544	96	456	2,992	2,043	416	532	38.7	42.1
Service occupations	5,711	282	1,142	4,287	2,857	547	883	37.8	44.0
Private household	31	9	18	4	1	3	-	(²)	(²)
Protective service	1,613	32	109	1,472	813	213	446	44.5	47.0
Service, except private household and protective	4,067	241	1,015	2,811	2,043	331	437	35.3	42.5
Precision production, craft, and repair	11,938	499	358	11,081	6,815	1,630	2,635	42.4	44.0
Operators, fabricators, and laborers	12,893	707	1,048	11,137	6,807	1,702	2,629	41.0	44.3
Machine operators, assemblers, and inspectors	4,628	140	124	4,364	2,752	778	834	42.2	43.5
Transportation and material moving occupations	4,285	201	249	3,834	1,922	548	1,364	44.1	46.8
Handlers, equipment cleaners, helpers, and laborers	3,980	366	675	2,939	2,132	377	430	36.4	42.1
Women, 16 years and over ¹	49,682	2,495	11,007	36,180	26,470	4,348	5,362	35.6	41.4
Managerial and professional specialty	12,713	258	2,009	10,446	6,768	1,514	2,164	38.4	42.4
Executive, administrative, and managerial	5,288	76	439	4,773	2,921	727	1,125	40.9	43.0
Professional specialty	7,424	181	1,570	5,673	3,846	787	1,039	36.5	41.9
Technical, sales, and administrative support	22,179	939	5,187	16,052	12,607	1,623	1,823	34.9	40.5
Technicians and related support	1,674	42	312	1,320	1,015	153	152	36.5	40.7
Sales occupations	6,491	494	2,187	3,809	2,483	496	830	33.3	42.8
Administrative support, including clerical	14,014	403	2,688	10,923	9,108	973	841	35.4	39.7
Service occupations	9,122	937	3,122	5,062	3,689	554	819	31.9	41.9
Private household	874	145	416	313	205	52	56	25.1	43.4
Protective service	259	7	59	194	135	22	36	35.3	42.4
Service, except private household and protective	7,988	785	2,647	4,556	3,349	480	727	32.6	41.8
Precision production, craft, and repair	1,166	55	118	993	699	140	155	39.1	42.1
Operators, fabricators, and laborers	4,504	306	571	3,626	2,707	517	401	37.4	41.1
Machine operators, assemblers, and inspectors	3,248	180	227	2,841	2,113	417	311	38.7	41.0
Transportation and material moving occupations	444	39	159	246	175	30	40	33.1	42.2
Handlers, equipment cleaners, helpers, and laborers	811	86	186	539	418	70	50	34.5	40.8

¹ Excludes farming, forestry, and fishing occupations.

² 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	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
TOTAL													
Noninstitutional population ¹	185,052	185,225	185,370	185,571	185,705	185,847	185,964	186,088	186,247	186,402	186,522	186,666	186,801
Labor force ¹	122,128	122,349	122,472	122,924	123,084	122,639	123,055	122,692	123,157	123,357	123,723	123,628	123,699
Percent of population ²	66.0	66.1	66.1	66.2	66.3	66.0	66.2	65.9	66.1	66.2	66.3	66.2	66.2
Total employed ¹	114,951	115,259	115,494	115,878	116,145	115,839	116,445	115,909	116,703	116,732	116,872	117,032	117,208
Employment-population ratio ³	62.1	62.2	62.3	62.4	62.5	62.3	62.6	62.3	62.7	62.6	62.7	62.7	62.7
Resident Armed Forces	1,741	1,755	1,750	1,749	1,736	1,736	1,732	1,714	1,685	1,673	1,692	1,704	1,687
Civilian employed	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521
Agriculture	3,249	3,172	3,215	3,293	3,228	3,204	3,228	3,035	3,085	3,046	3,151	3,169	3,266
Nonagricultural industries	109,961	110,332	110,529	110,836	111,182	110,899	111,485	111,160	111,933	112,014	112,029	112,158	112,255
Unemployed	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491
Unemployment rate ⁴	5.9	5.8	5.7	5.7	5.6	5.5	5.4	5.5	5.2	5.4	5.5	5.3	5.2
Not in labor force	62,924	62,876	62,898	62,647	62,621	63,208	62,909	63,396	63,090	63,045	62,799	63,038	63,102
Men													
Noninstitutional population ¹	88,756	88,849	88,924	89,033	89,099	89,168	89,225	89,287	89,367	89,445	89,504	89,577	89,637
Labor force ¹	67,947	68,019	68,030	68,243	68,343	68,148	68,445	68,318	68,429	68,521	68,723	68,608	68,544
Percent of population ²	76.6	76.6	76.5	76.6	76.7	76.4	76.7	76.5	76.6	76.6	76.8	76.6	76.5
Total employed ¹	64,048	64,174	64,245	64,396	64,636	64,332	64,892	64,583	64,934	65,002	64,954	65,052	64,943
Employment-population ratio ³	72.2	72.2	72.2	72.3	72.5	72.1	72.7	72.3	72.7	72.7	72.6	72.6	72.5
Resident Armed Forces	1,580	1,593	1,589	1,588	1,577	1,573	1,569	1,553	1,523	1,512	1,529	1,540	1,526
Civilian employed	62,468	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490	63,425	63,512	63,417
Unemployed	3,899	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519	3,768	3,555	3,600
Unemployment rate ⁴	5.7	5.7	5.6	5.6	5.4	5.6	5.2	5.5	5.1	5.1	5.5	5.2	5.3
Not in labor force	20,809	20,830	20,894	20,790	20,756	21,020	20,780	20,969	20,938	20,924	20,781	20,970	21,093
Women													
Noninstitutional population ¹	96,295	96,376	96,446	96,538	96,606	96,679	96,739	96,801	96,880	96,957	97,018	97,089	97,164
Labor force ¹	54,181	54,330	54,442	54,681	54,740	54,491	54,610	54,374	54,728	54,836	55,000	55,020	55,155
Percent of population ²	56.3	56.4	56.4	56.6	56.7	56.4	56.5	56.2	56.5	56.6	56.7	56.7	56.8
Total employed ¹	50,903	51,085	51,249	51,482	51,509	51,507	51,553	51,327	51,769	51,730	51,918	51,979	52,265
Employment-population ratio ³	52.9	53.0	53.1	53.3	53.3	53.3	53.3	53.0	53.4	53.4	53.5	53.5	53.8
Resident Armed Forces	161	162	161	161	159	163	163	161	162	161	163	164	161
Civilian employed	50,742	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569	51,755	51,815	52,104
Unemployed	3,278	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106	3,083	3,041	2,890
Unemployment rate ⁴	6.1	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7	5.6	5.5	5.2
Not in labor force	42,114	42,046	42,004	41,857	41,866	42,188	42,129	42,427	42,152	42,121	42,018	42,069	42,009

¹ Includes members of the Armed Forces stationed in the United States.

² Labor force as a percent of the noninstitutional population.

³ Total employment as a percent of the noninstitutional population.

⁴ 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.

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

(Numbers in thousands)

Employment status, sex, and age	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
TOTAL													
Civilian noninstitutional population ¹	183,311	183,470	183,620	183,822	183,969	184,111	184,232	184,374	184,562	184,729	184,830	184,962	185,114
Civilian labor force	120,387	120,594	120,722	121,175	121,348	120,903	121,323	120,978	121,472	121,684	122,031	121,924	122,012
Percent of population	65.7	65.7	65.7	65.9	66.0	65.7	65.9	65.6	65.8	65.9	66.0	65.9	65.9
Employed	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521
Employment-population ratio ²	61.8	61.9	61.9	62.1	62.2	62.0	62.3	61.9	62.3	62.3	62.3	62.3	62.4
Unemployed	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491
Unemployment rate	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3
Men, 20 years and over													
Civilian noninstitutional population ¹	79,807	79,885	80,002	80,120	80,203	80,260	80,326	80,402	80,526	80,608	80,669	80,751	80,851
Civilian labor force	62,211	62,299	62,248	62,440	62,696	62,497	62,791	62,662	62,667	62,769	62,925	62,881	62,892
Percent of population	78.0	78.0	77.8	77.9	78.2	77.9	78.2	77.9	77.8	77.9	78.0	77.9	77.8
Employed	59,037	59,164	59,185	59,287	59,625	59,407	59,883	59,590	59,797	59,954	59,834	60,024	59,989
Employment-population ratio ²	74.0	74.1	74.0	74.0	74.3	74.0	74.5	74.1	74.3	74.4	74.2	74.3	74.2
Agriculture	2,343	2,297	2,298	2,323	2,280	2,253	2,255	2,181	2,208	2,247	2,311	2,236	2,330
Nonagricultural industries	56,694	56,867	56,887	56,964	57,344	57,154	57,627	57,409	57,588	57,706	57,523	57,788	57,659
Unemployed	3,174	3,135	3,063	3,154	3,071	3,089	2,909	3,072	2,870	2,815	3,090	2,857	2,902
Unemployment rate	5.1	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.5	4.9	4.5	4.6
Not in labor force	17,596	17,586	17,754	17,680	17,507	17,763	17,535	17,740	17,859	17,839	17,744	17,870	17,959
Women, 20 years and over													
Civilian noninstitutional population ¹	88,843	88,923	89,010	89,110	89,178	89,261	89,307	89,382	89,502	89,588	89,670	89,735	89,807
Civilian labor force	50,095	50,254	50,361	50,558	50,640	50,542	50,612	50,441	50,642	50,775	50,934	50,912	51,172
Percent of population	56.4	56.5	56.6	56.7	56.8	56.6	56.7	56.4	56.6	56.7	56.8	56.7	57.0
Employed	47,480	47,634	47,750	47,977	48,005	48,132	48,170	47,960	48,169	48,199	48,466	48,452	48,771
Employment-population ratio ²	53.4	53.6	53.6	53.8	53.8	53.9	53.9	53.7	53.8	53.8	54.0	54.0	54.3
Agriculture	636	636	643	646	654	656	692	587	616	542	586	633	647
Nonagricultural industries	46,844	46,998	47,107	47,331	47,351	47,476	47,478	47,373	47,553	47,657	47,881	47,818	48,124
Unemployed	2,615	2,620	2,611	2,581	2,635	2,411	2,442	2,481	2,473	2,576	2,468	2,461	2,401
Unemployment rate	5.2	5.2	5.2	5.1	5.2	4.8	4.8	4.9	4.9	5.1	4.8	4.8	4.7
Not in labor force	38,748	38,669	38,649	38,552	38,538	38,719	38,695	38,941	38,860	38,813	38,736	38,823	38,635
Both sexes, 16 to 19 years													
Civilian noninstitutional population ¹	14,661	14,663	14,609	14,592	14,588	14,591	14,598	14,590	14,534	14,533	14,491	14,477	14,456
Civilian labor force	8,081	8,041	8,113	8,177	8,011	7,865	7,919	7,875	8,163	8,141	8,172	8,131	7,948
Percent of population	55.1	54.8	55.5	56.0	54.9	53.9	54.2	54.0	56.2	56.0	56.4	56.2	55.0
Employed	6,693	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907	6,879	6,853	6,761
Employment-population ratio ²	45.7	45.7	46.6	47.0	46.5	45.0	45.6	45.5	48.5	47.5	47.5	47.3	46.8
Agriculture	270	239	274	323	293	295	280	267	260	257	254	301	289
Nonagricultural industries	6,423	6,467	6,535	6,542	6,486	6,269	6,380	6,378	6,791	6,650	6,625	6,552	6,472
Unemployed	1,388	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234	1,293	1,278	1,187
Unemployment rate	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9
Not in labor force	6,580	6,622	6,496	6,415	6,577	6,726	6,679	6,715	6,371	6,392	6,319	6,346	6,508

¹ The population figures are not adjusted for seasonal variation.

population.

² 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	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
WHITE													
Civilian noninstitutional population ¹	157,342	157,449	157,552	157,676	157,773	157,868	157,943	158,034	158,166	158,279	158,340	158,422	158,524
Civilian labor force	103,669	103,731	103,907	104,252	104,530	104,171	104,574	104,209	104,691	104,603	105,007	105,043	105,002
Percent of population	65.9	65.9	66.0	66.1	66.3	66.0	66.2	65.9	66.2	66.1	66.3	66.3	66.2
Employed	98,317	98,492	98,779	99,044	99,474	99,274	99,751	99,297	99,932	99,725	99,901	100,019	100,144
Employment-population ratio ²	62.5	62.6	62.7	62.8	63.0	62.9	63.2	62.8	63.2	63.0	63.1	63.1	63.2
Unemployed	5,352	5,239	5,128	5,208	5,056	4,897	4,824	4,913	4,759	4,878	5,106	5,024	4,858
Unemployment rate	5.2	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7	4.9	4.8	4.6
Men, 20 years and over													
Civilian labor force	54,375	54,381	54,368	54,455	54,650	54,522	54,699	54,618	54,662	54,732	54,825	54,850	54,878
Percent of population	78.4	78.3	78.2	78.3	78.5	78.2	78.5	78.3	78.2	78.3	78.4	78.3	78.3
Employed	51,864	51,969	52,046	52,053	52,389	52,245	52,538	52,314	52,491	52,603	52,464	52,594	52,614
Employment-population ratio ²	74.8	74.9	74.9	74.8	75.2	75.0	75.4	75.0	75.1	75.2	75.0	75.1	75.1
Unemployed	2,511	2,412	2,322	2,402	2,260	2,277	2,161	2,304	2,171	2,129	2,361	2,255	2,263
Unemployment rate	4.6	4.4	4.3	4.4	4.1	4.2	4.0	4.2	4.0	3.9	4.3	4.1	4.1
Women, 20 years and over													
Civilian labor force	42,379	42,464	42,569	42,710	42,915	42,841	42,986	42,827	42,921	42,887	43,177	43,170	43,258
Percent of population	55.7	55.8	55.9	56.1	56.3	56.2	56.3	56.1	56.2	56.1	56.4	56.4	56.4
Employed	40,538	40,606	40,712	40,896	40,985	41,183	41,297	41,104	41,183	41,040	41,399	41,371	41,553
Employment-population ratio ²	53.3	53.4	53.5	53.7	53.8	54.0	54.1	53.8	53.9	53.7	54.1	54.1	54.2
Unemployed	1,841	1,858	1,857	1,813	1,930	1,658	1,689	1,723	1,738	1,847	1,778	1,799	1,706
Unemployment rate	4.3	4.4	4.4	4.2	4.5	3.9	3.9	4.0	4.0	4.3	4.1	4.2	3.9
Both sexes, 16 to 19 years													
Civilian labor force	6,915	6,886	6,970	7,087	6,965	6,807	6,889	6,764	7,108	6,983	7,005	7,023	6,866
Percent of population	57.9	57.7	58.6	59.6	58.6	57.2	58.0	57.0	59.9	58.9	59.2	59.5	58.3
Employed	5,915	5,917	6,021	6,095	6,100	5,845	5,916	5,879	6,258	6,081	6,038	6,054	5,977
Employment-population ratio ²	49.5	49.6	50.6	51.2	51.3	49.1	49.8	49.5	52.7	51.3	51.0	51.3	50.8
Unemployed	1,000	969	949	992	865	962	973	885	850	902	967	969	889
Unemployment rate	14.5	14.1	13.6	14.0	12.4	14.1	14.1	13.1	12.0	12.9	13.8	13.8	12.9
Men	15.1	14.8	14.9	14.4	12.2	15.7	14.5	13.8	12.8	14.6	13.8	15.0	14.8
Women	13.8	13.3	12.3	13.6	12.7	12.4	13.7	12.4	11.1	11.1	13.8	12.5	11.0
BLACK													
Civilian noninstitutional population ¹	20,453	20,482	20,508	20,539	20,569	20,596	20,622	20,650	20,683	20,715	20,736	20,762	20,786
Civilian labor force	13,152	13,193	13,215	13,222	13,168	13,098	13,078	13,069	12,989	13,293	13,262	13,191	13,290
Percent of population	64.3	64.4	64.4	64.4	64.0	63.6	63.4	63.3	62.8	64.2	64.0	63.5	63.9
Employed	11,556	11,589	11,605	11,608	11,504	11,420	11,482	11,452	11,489	11,774	11,764	11,771	11,829
Employment-population ratio ²	56.5	56.6	56.6	56.5	55.9	55.4	55.7	55.5	55.5	56.8	56.7	56.7	56.9
Unemployed	1,596	1,604	1,610	1,614	1,663	1,678	1,597	1,617	1,500	1,519	1,498	1,419	1,461
Unemployment rate	12.1	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4	11.3	10.8	11.0
Men, 20 years and over													
Civilian labor force	6,023	6,045	6,043	6,115	6,166	6,127	6,163	6,107	6,064	6,070	6,154	6,123	6,158
Percent of population	74.3	74.5	74.3	75.0	75.6	75.0	75.3	74.5	73.8	73.8	74.7	74.2	74.6
Employed	5,431	5,430	5,430	5,497	5,472	5,429	5,511	5,449	5,458	5,492	5,566	5,581	5,576
Employment-population ratio ²	67.0	66.9	66.8	67.5	67.1	66.4	67.3	66.5	66.5	66.8	67.6	67.7	67.5
Unemployed	592	615	613	618	694	699	652	658	606	578	588	542	582
Unemployment rate	9.8	10.2	10.1	10.1	11.3	11.4	10.6	10.8	10.0	9.5	9.6	8.8	9.4
Women, 20 years and over													
Civilian labor force	6,177	6,207	6,224	6,244	6,131	6,136	6,093	6,059	6,074	6,307	6,182	6,147	6,238
Percent of population	60.7	60.9	61.0	61.1	59.9	59.9	59.4	59.0	59.0	61.2	59.9	59.5	60.3
Employed	5,495	5,537	5,544	5,550	5,495	5,465	5,407	5,414	5,421	5,650	5,572	5,564	5,630
Employment-population ratio ²	54.0	54.3	54.3	54.3	53.7	53.3	52.7	52.7	52.7	54.8	54.0	53.8	54.4
Unemployed	682	670	680	694	636	671	686	645	652	657	610	583	607
Unemployment rate	11.0	10.8	10.9	11.1	10.4	10.9	11.3	10.6	10.7	10.4	9.9	9.5	9.7

See footnotes at end of table.

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	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
BLACK—Continued													
Both sexes, 16 to 19 years													
Civilian labor force	952	941	948	863	870	834	822	903	852	917	926	921	894
Percent of population	43.8	43.3	43.7	39.8	40.0	38.3	37.7	41.4	39.0	42.0	42.4	42.2	41.0
Employed	630	622	631	561	537	526	564	589	610	632	626	627	622
Employment-population ratio ²	29.0	28.6	29.1	25.8	24.7	24.2	25.9	27.0	28.0	28.9	28.7	28.7	28.5
Unemployed	322	319	317	302	333	308	258	314	242	285	300	294	272
Unemployment rate	33.8	33.9	33.4	35.0	38.3	36.9	31.4	34.8	28.4	31.1	32.4	31.9	30.4
Men	32.5	32.2	33.5	35.1	42.0	39.0	27.6	33.3	30.4	30.4	32.2	31.7	33.5
Women	35.2	35.8	33.4	34.9	34.7	35.0	35.5	36.6	25.9	31.8	32.7	32.2	26.5
HISPANIC ORIGIN													
Civilian noninstitutional population ¹	13,003	13,043	13,082	13,115	13,153	13,192	13,230	13,268	13,306	13,344	13,381	13,419	13,458
Civilian labor force	8,654	8,763	8,772	8,879	9,017	8,803	8,828	8,859	9,027	8,984	8,935	9,063	9,058
Percent of population	66.6	67.2	67.1	67.7	68.6	66.7	66.7	66.8	67.8	67.3	66.8	67.5	67.3
Employed	7,935	7,978	8,058	8,238	8,268	8,079	8,010	8,058	8,219	8,264	8,185	8,394	8,361
Employment-population ratio ²	61.0	61.2	61.6	62.8	62.9	61.2	60.5	60.7	61.8	61.9	61.2	62.6	62.1
Unemployed	719	765	714	642	749	724	818	801	809	720	750	669	697
Unemployment rate	8.3	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0	8.4	7.4	7.7

¹ The population figures are not adjusted for seasonal variation.

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

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

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

(In thousands)

Category	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
CHARACTERISTIC													
Total	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521
Married men, spouse present	40,556	40,645	40,711	40,404	40,475	40,481	40,459	40,267	40,485	40,535	40,505	40,531	40,483
Married women, spouse present	28,099	28,175	28,249	28,441	28,707	28,805	28,859	28,567	28,713	28,654	28,832	28,801	28,851
Women who maintain families	6,178	6,237	6,227	6,168	6,157	6,160	6,055	5,957	6,085	6,145	6,282	6,251	6,367
MAJOR INDUSTRY AND CLASS OF WORKER													
Agriculture:													
Wage and salary workers	1,705	1,595	1,599	1,666	1,677	1,648	1,678	1,526	1,562	1,539	1,580	1,593	1,709
Self-employed workers	1,430	1,407	1,450	1,454	1,414	1,423	1,385	1,346	1,359	1,346	1,416	1,438	1,414
Unpaid family workers	140	155	156	138	114	142	155	159	167	148	163	134	183
Nonagricultural industries:													
Wage and salary workers	101,522	101,943	101,997	102,507	102,683	102,279	102,538	101,927	103,000	103,133	103,097	103,415	103,781
Government	17,033	17,118	17,064	17,197	16,948	16,908	17,015	16,887	17,064	16,959	17,112	17,103	17,231
Private industries	84,489	84,825	84,933	85,310	85,735	85,371	85,523	85,040	85,935	86,174	85,984	86,312	86,550
Private households	1,222	1,286	1,200	1,147	1,170	1,175	1,092	1,156	1,150	1,123	1,108	1,085	1,142
Other industries	83,267	83,539	83,733	84,163	84,565	84,196	84,431	83,884	84,786	85,051	84,877	85,227	85,408
Self-employed workers	8,274	8,222	8,280	8,150	8,312	8,366	8,637	8,917	8,577	8,528	8,491	8,575	8,366
Unpaid family workers	242	235	248	237	228	248	281	307	301	255	243	228	227
PERSONS AT WORK PART TIME¹													
All industries:													
Part time for economic reasons	5,353	5,534	5,262	5,367	5,566	5,343	5,194	4,844	5,317	5,382	5,181	5,053	4,893
Slack work	2,377	2,408	2,284	2,396	2,478	2,520	2,236	2,227	2,364	2,490	2,318	2,190	2,166
Could only find part-time work	2,655	2,696	2,636	2,640	2,598	2,535	2,502	2,315	2,637	2,581	2,491	2,356	2,382
Voluntary part time	14,488	14,523	14,711	14,571	14,572	14,603	15,016	14,790	14,507	15,070	15,021	15,314	15,078
Nonagricultural industries:													
Part time for economic reasons	5,067	5,241	5,004	5,145	5,254	5,106	4,924	4,623	5,076	5,185	4,959	4,814	4,662
Slack work	2,196	2,209	2,111	2,260	2,327	2,325	2,121	2,120	2,199	2,351	2,178	2,031	2,043
Could only find part-time work	2,557	2,597	2,552	2,566	2,457	2,475	2,397	2,236	2,566	2,545	2,429	2,284	2,298
Voluntary part time	14,011	14,064	14,222	14,096	14,123	14,141	14,592	14,338	14,083	14,669	14,585	14,861	14,596

¹ 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	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and over	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521
16 to 24 years	20,096	20,065	20,112	20,312	20,271	19,916	19,990	19,773	20,404	20,159	20,153	20,060	19,913
16 to 19 years	6,693	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907	6,879	6,853	6,761
16 to 17 years	2,768	2,734	2,826	2,776	2,752	2,657	2,682	2,649	2,820	2,691	2,645	2,650	2,683
18 to 19 years	3,936	3,985	3,994	4,061	4,045	3,906	3,967	3,995	4,227	4,210	4,170	4,213	4,084
20 to 24 years	13,403	13,359	13,303	13,447	13,491	13,353	13,330	13,128	13,353	13,253	13,273	13,208	13,151
25 years and over	93,071	93,424	93,625	93,778	94,118	94,239	94,686	94,359	94,592	95,016	95,119	95,263	95,574
25 to 54 years	78,477	78,731	78,916	79,170	79,351	79,588	79,946	79,920	80,088	80,481	80,657	80,647	80,975
55 years and over	14,641	14,663	14,716	14,581	14,673	14,566	14,712	14,438	14,542	14,469	14,553	14,651	14,693
Men, 16 years and over	62,468	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490	63,425	63,512	63,417
16 to 24 years	10,403	10,370	10,369	10,456	10,444	10,349	10,427	10,351	10,591	10,446	10,508	10,414	10,277
16 to 19 years	3,431	3,417	3,471	3,521	3,434	3,352	3,440	3,439	3,614	3,537	3,591	3,489	3,428
16 to 17 years	1,409	1,390	1,451	1,444	1,406	1,376	1,397	1,369	1,418	1,388	1,392	1,396	1,406
18 to 19 years	2,034	2,040	2,035	2,053	2,046	1,982	2,042	2,068	2,184	2,150	2,149	2,099	2,026
20 to 24 years	6,972	6,953	6,898	6,935	7,010	6,998	6,987	6,912	6,977	6,910	6,917	6,925	6,849
25 years and over	52,047	52,210	52,299	52,338	52,623	52,469	52,862	52,654	52,793	53,064	52,972	53,078	53,116
25 to 54 years	43,488	43,592	43,690	43,848	43,992	43,975	44,336	44,175	44,278	44,541	44,463	44,595	44,697
55 years and over	8,580	8,605	8,629	8,470	8,567	8,467	8,530	8,466	8,542	8,534	8,529	8,495	8,474
Women, 16 years and over	50,742	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569	51,755	51,815	52,104
16 to 24 years	9,693	9,695	9,743	9,857	9,826	9,567	9,563	9,422	9,814	9,713	9,645	9,647	9,636
16 to 19 years	3,262	3,289	3,338	3,344	3,345	3,212	3,220	3,206	3,438	3,370	3,288	3,364	3,333
16 to 17 years	1,359	1,344	1,375	1,332	1,346	1,281	1,285	1,280	1,402	1,303	1,253	1,254	1,277
18 to 19 years	1,902	1,945	1,959	2,008	1,999	1,924	1,925	1,927	2,043	2,060	2,021	2,114	2,058
20 to 24 years	6,431	6,406	6,405	6,513	6,481	6,355	6,343	6,216	6,376	6,343	6,357	6,283	6,303
25 years and over	41,024	41,214	41,326	41,440	41,495	41,770	41,824	41,705	41,798	41,953	42,147	42,185	42,458
25 to 54 years	34,989	35,139	35,226	35,322	35,359	35,613	35,610	35,745	35,809	35,939	36,194	36,052	36,279
55 years and over	6,061	6,058	6,087	6,111	6,106	6,099	6,182	5,972	5,999	5,935	6,024	6,156	6,219

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

(In thousands)

Sex and age	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and over	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491
16 to 24 years	2,689	2,641	2,547	2,659	2,525	2,637	2,532	2,519	2,341	2,468	2,513	2,460	2,433
16 to 19 years	1,388	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234	1,293	1,278	1,187
16 to 17 years	710	649	613	638	580	568	580	509	512	569	607	682	561
18 to 19 years	679	691	688	689	655	732	658	720	627	630	671	612	628
20 to 24 years	1,301	1,306	1,243	1,347	1,293	1,336	1,273	1,289	1,229	1,234	1,220	1,182	1,246
25 years and over	4,482	4,442	4,412	4,393	4,416	4,161	4,082	4,251	4,077	4,150	4,358	4,181	4,060
25 to 54 years	3,993	3,909	3,939	3,896	3,926	3,730	3,625	3,744	3,654	3,691	3,871	3,728	3,629
55 years and over	474	513	488	527	499	441	446	520	442	461	476	437	409
Men, 16 years and over	3,899	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519	3,768	3,555	3,600
16 to 24 years	1,432	1,414	1,378	1,456	1,333	1,423	1,315	1,354	1,247	1,334	1,359	1,338	1,419
16 to 19 years	725	710	722	693	636	727	644	664	625	704	678	698	698
16 to 17 years	372	356	347	348	285	313	291	275	290	302	297	388	331
18 to 19 years	354	355	367	360	354	414	352	388	360	370	371	325	367
20 to 24 years	707	704	656	763	697	696	671	690	622	630	681	640	721
25 years and over	2,462	2,419	2,390	2,391	2,390	2,385	2,243	2,363	2,235	2,174	2,426	2,253	2,189
25 to 54 years	2,182	2,109	2,112	2,070	2,095	2,089	1,951	2,051	1,940	1,906	2,118	1,997	1,923
55 years and over	277	313	282	351	305	299	276	323	279	275	301	248	258
Women, 16 years and over	3,278	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106	3,083	3,041	2,890
16 to 24 years	1,257	1,227	1,169	1,203	1,192	1,214	1,217	1,166	1,094	1,134	1,154	1,122	1,014
16 to 19 years	663	625	582	619	596	574	615	566	487	530	615	580	489
16 to 17 years	338	293	266	290	295	255	289	234	222	267	310	294	230
18 to 19 years	325	336	321	329	301	318	306	332	267	260	300	287	261
20 to 24 years	594	602	587	584	596	640	602	600	607	604	539	542	525
25 years and over	2,020	2,023	2,022	2,002	2,026	1,776	1,838	1,888	1,842	1,976	1,933	1,928	1,872
25 to 54 years	1,811	1,800	1,827	1,826	1,831	1,641	1,674	1,693	1,714	1,785	1,753	1,731	1,706
55 years and over	197	200	206	175	194	142	170	197	163	186	175	189	150

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

(Civilian workers)

Sex and age	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
Total, 16 years and over	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3
16 to 24 years	11.8	11.6	11.2	11.6	11.1	11.7	11.2	11.3	10.3	10.9	11.1	10.9	10.9
16 to 19 years	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9
16 to 17 years	20.4	19.2	17.8	18.7	17.4	17.6	17.8	16.1	15.4	17.5	18.7	20.5	17.3
18 to 19 years	14.7	14.8	14.7	14.5	13.9	15.8	14.2	15.3	12.9	13.0	13.9	12.7	13.3
20 to 24 years	8.8	8.9	8.5	9.1	8.7	9.1	8.7	8.9	8.4	8.5	8.4	8.2	8.7
25 years and over	4.6	4.5	4.5	4.5	4.5	4.2	4.1	4.3	4.1	4.2	4.4	4.2	4.1
25 to 54 years	4.8	4.7	4.8	4.7	4.7	4.5	4.3	4.5	4.4	4.4	4.6	4.4	4.3
55 years and over	3.1	3.4	3.2	3.5	3.3	2.9	2.9	3.5	2.9	3.1	3.2	2.9	2.7
Men, 16 years and over	5.9	5.8	5.7	5.8	5.6	5.7	5.3	5.6	5.2	5.3	5.6	5.3	5.4
16 to 24 years	12.1	12.0	11.7	12.2	11.3	12.1	11.2	11.6	10.5	11.3	11.5	11.4	12.1
16 to 19 years	17.4	17.2	17.2	16.4	15.6	17.8	15.8	16.2	14.7	16.6	15.9	16.7	16.9
16 to 17 years	20.9	20.4	19.3	19.4	16.9	18.5	17.2	16.7	17.0	17.9	17.6	21.7	19.1
18 to 19 years	14.8	14.8	15.3	14.9	14.7	17.3	14.7	15.8	14.2	14.7	14.7	13.4	15.3
20 to 24 years	9.2	9.2	8.7	9.9	9.0	9.1	8.8	9.1	8.2	8.4	9.0	8.5	9.5
25 years and over	4.5	4.4	4.4	4.4	4.3	4.3	4.1	4.3	4.1	3.9	4.4	4.1	4.0
25 to 54 years	4.8	4.6	4.6	4.5	4.5	4.5	4.2	4.4	4.2	4.1	4.5	4.3	4.1
55 years and over	3.1	3.5	3.2	4.0	3.4	3.4	3.1	3.7	3.2	3.1	3.4	2.8	3.0
Women, 16 years and over	6.1	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7	5.6	5.5	5.3
16 to 24 years	11.5	11.2	10.7	10.9	10.8	11.3	11.3	11.0	10.0	10.5	10.7	10.4	9.5
16 to 19 years	16.9	16.0	14.8	15.6	15.1	15.2	16.0	15.0	12.4	13.6	15.8	14.7	12.8
16 to 17 years	19.9	17.9	16.2	17.9	18.0	16.6	18.4	15.5	13.7	17.0	19.8	19.0	15.3
18 to 19 years	14.6	14.7	14.1	14.1	13.1	14.2	13.7	14.7	11.6	11.2	12.9	12.0	11.3
20 to 24 years	8.5	8.6	8.4	8.2	8.4	9.1	8.7	8.8	8.7	8.7	7.8	7.9	7.7
25 years and over	4.7	4.7	4.7	4.6	4.7	4.1	4.2	4.3	4.2	4.5	4.4	4.4	4.2
25 to 54 years	4.9	4.9	4.9	4.9	4.9	4.4	4.5	4.5	4.6	4.7	4.6	4.6	4.5
55 years and over	3.1	3.2	3.3	2.8	3.1	2.3	2.7	3.2	2.6	3.0	2.8	3.0	2.4

A-39. Selected unemployment indicators, seasonally adjusted

(Unemployment rates)

Category	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
CHARACTERISTIC													
Total (all civilian workers)	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3
Men, 20 years and over	5.1	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.5	4.9	4.5	4.6
Women, 20 years and over	5.2	5.2	5.2	5.1	5.2	4.8	4.8	4.9	4.9	5.1	4.8	4.8	4.7
Both sexes, 16 to 19 years	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9
White	5.2	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7	4.9	4.8	4.6
Black and other	10.8	11.0	10.9	10.9	11.3	11.5	10.7	11.3	10.3	10.0	10.0	9.4	9.6
Black	12.1	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4	11.3	10.8	11.0
Hispanic origin	8.3	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0	8.4	7.4	7.7
Married men, spouse present	3.7	3.5	3.4	3.6	3.4	3.4	3.0	3.3	3.1	3.0	3.4	3.1	3.1
Married women, spouse present	4.2	4.2	4.3	4.2	4.1	4.0	3.6	3.9	3.7	4.1	4.1	3.8	3.7
Women who maintain families	8.9	8.5	8.4	8.9	8.3	7.5	8.7	8.4	7.8	8.6	7.4	8.1	7.9
Full-time workers	5.6	5.5	5.4	5.4	5.3	5.3	5.1	5.2	4.9	5.0	5.3	5.1	4.9
Part-time workers	8.3	8.2	8.0	8.3	7.9	7.7	7.4	7.7	7.8	8.1	7.4	7.5	7.4
Unemployed 15 weeks and over ¹	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.3	1.4	1.3	1.3
Labor force time lost ²	6.8	6.8	6.6	6.6	6.6	6.5	6.2	6.4	6.3	6.4	6.5	6.4	6.1
INDUSTRY													
Nonagricultural private wage and salary workers	5.9	5.8	5.7	5.8	5.7	5.6	5.3	5.7	5.4	5.4	5.6	5.4	5.4
Goods-producing industries	7.0	6.5	6.4	7.1	6.9	6.5	6.5	6.6	6.0	6.3	6.8	6.5	6.4
Mining	8.3	7.0	8.0	7.7	7.8	7.9	8.4	10.4	6.7	5.3	6.8	8.6	9.0
Construction	11.2	10.6	10.6	12.2	11.0	10.7	10.6	10.5	10.2	10.2	11.0	9.2	9.9
Manufacturing	5.7	5.3	5.1	5.6	5.6	5.2	5.3	5.4	4.8	5.2	5.6	5.6	5.3
Durable goods	5.2	4.8	4.8	5.5	5.9	5.2	4.8	4.9	4.4	5.0	5.0	5.5	5.0
Nondurable goods	6.5	5.9	5.6	5.8	5.3	5.3	6.0	6.0	5.4	5.6	6.4	5.9	5.7
Service-producing industries	5.4	5.5	5.3	5.3	5.1	5.2	4.7	5.2	5.1	5.0	5.1	4.9	5.0
Transportation and public utilities	4.4	4.5	4.6	3.6	3.6	4.2	3.8	4.4	4.1	3.5	3.8	3.7	3.3
Wholesale and retail trade	6.5	6.8	6.2	6.1	6.4	6.8	5.9	6.3	5.9	6.2	6.5	6.1	5.9
Finance and service industries	4.7	4.8	4.8	4.9	4.5	4.2	4.1	4.6	4.6	4.5	4.4	4.3	4.6
Government workers	3.3	3.4	3.2	3.0	2.8	2.8	3.0	2.9	2.8	3.1	3.1	2.7	2.5
Agricultural wage and salary workers	10.6	11.1	10.9	11.5	10.2	11.0	10.6	13.9	9.7	10.8	11.4	11.3	10.0

¹ Unemployment as a percent of the civilian labor force.

² Aggregate hours lost by the unemployed and persons on part time

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

**HOUSEHOLD DATA
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Weeks of unemployment	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
DURATION													
Less than 5 weeks	3,223	3,218	3,229	3,089	3,084	3,009	3,125	3,075	3,088	2,985	3,197	3,139	3,082
5 to 14 weeks	2,093	2,029	1,968	2,283	2,145	2,101	1,958	2,110	1,890	2,078	1,957	1,823	1,814
15 weeks and over	1,801	1,834	1,791	1,733	1,740	1,722	1,540	1,609	1,512	1,629	1,678	1,596	1,551
15 to 26 weeks	844	899	892	839	841	887	725	784	727	836	859	789	778
27 weeks and over	957	935	899	894	899	835	816	825	785	791	817	807	773
Average (mean) duration, in weeks	14.1	14.0	14.2	14.4	14.4	13.7	13.4	13.8	12.9	13.6	13.7	13.7	13.5
Median duration, in weeks	6.2	6.1	6.0	6.4	6.4	6.8	5.6	5.9	6.0	6.3	5.9	5.5	5.8
PERCENT DISTRIBUTION													
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	45.3	45.4	46.2	43.6	44.3	44.0	47.2	45.3	47.4	44.4	46.8	47.9	47.6
5 to 14 weeks	29.4	28.7	28.2	31.9	30.8	30.8	29.5	31.1	29.2	31.1	28.7	27.8	28.2
15 weeks and over	25.3	25.9	25.6	24.5	25.0	25.2	23.3	23.7	23.4	24.4	24.5	24.3	24.1
15 to 26 weeks	11.9	12.7	12.8	11.8	12.1	13.0	10.9	11.5	11.2	12.6	12.6	12.0	12.1
27 weeks and over	13.4	13.2	12.9	12.6	12.9	12.2	12.3	12.1	12.1	11.9	12.0	12.3	12.0

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

(Numbers in thousands)

Reasons for unemployment	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
NUMBER OF UNEMPLOYED													
Job losers	3,388	3,307	3,200	3,209	3,207	3,139	2,916	3,236	3,059	3,087	3,138	3,087	2,909
On layoff	944	878	856	888	884	899	821	793	863	852	891	816	853
Other job losers	2,444	2,429	2,344	2,320	2,323	2,240	2,095	2,443	2,196	2,235	2,247	2,271	2,056
Job leavers	960	926	946	1,082	961	1,075	993	926	944	904	997	994	986
Reentrants	1,845	1,974	1,945	1,917	1,951	1,756	1,784	1,789	1,723	1,901	1,869	1,761	1,764
New entrants	914	855	909	885	864	887	915	807	777	776	793	745	728
PERCENT DISTRIBUTION													
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	47.7	46.8	45.7	45.2	45.9	45.8	44.1	47.9	47.0	46.3	46.2	46.9	45.5
On layoff	13.3	12.4	12.2	12.5	12.7	13.1	12.4	11.7	13.3	12.8	13.1	12.4	13.4
Other job losers	34.4	34.4	33.5	32.7	33.3	32.7	31.7	36.2	33.8	33.5	33.1	34.5	32.2
Job leavers	13.5	13.1	13.5	15.3	13.8	15.7	15.0	13.7	14.5	13.6	14.7	15.1	15.4
Reentrants	26.0	28.0	27.8	27.0	27.9	25.6	27.0	26.5	26.5	28.5	27.5	26.7	27.6
New entrants	12.9	12.1	13.0	12.5	12.4	12.9	13.8	11.9	11.9	11.6	11.7	11.3	11.4
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE													
Job losers	2.8	2.7	2.7	2.6	2.6	2.6	2.4	2.7	2.5	2.5	2.6	2.5	2.4
Job leavers .....	.8	.8	.8	.9	.8	.9	.8	.8	.8	.7	.8	.8	.8
Reentrants	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.6	1.5	1.4	1.4
New entrants .....	.8	.7	.8	.7	.7	.7	.8	.7	.6	.6	.6	.6	.6

**ESTABLISHMENT DATA
HISTORICAL EMPLOYMENT**

B-1. Employees on nonagricultural payrolls by major industry, 1936 to date

(In thousands)

Year and month	Total	Total private	Goods-producing				Service-producing								
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government		
												Federal	State	Local	
Annual averages															
1936	29,068	25,400	11,933	946	1,160	9,827	17,135	2,973	(¹)	(¹)	1,373	3,312	(¹)	(¹)	(¹)
1937	31,011	27,255	12,936	1,015	1,127	10,794	18,075	3,134	(¹)	(¹)	1,417	3,503	(¹)	(¹)	(¹)
1938	29,194	25,311	11,401	891	1,070	9,440	17,793	2,863	(¹)	(¹)	1,410	3,458	(¹)	(¹)	(¹)
1939	30,603	26,608	12,297	854	1,165	10,278	18,306	2,936	1,762	4,664	1,447	3,502	905	(¹)	(¹)
1940	32,361	28,159	13,221	925	1,311	10,985	19,140	3,038	1,835	4,914	1,485	3,665	996	(¹)	(¹)
1941	36,539	31,877	15,963	957	1,814	13,192	20,574	3,274	1,960	5,251	1,525	3,905	1,340	(¹)	(¹)
1942	40,106	34,624	18,470	992	2,198	15,280	21,636	3,460	1,906	5,212	1,509	4,066	2,213	(¹)	(¹)
1943	42,434	36,356	20,114	925	1,587	17,602	22,320	3,647	1,822	5,160	1,481	4,130	2,905	(¹)	(¹)
1944	41,864	35,822	19,328	892	1,108	17,328	22,536	3,829	1,845	5,214	1,461	4,145	2,928	(¹)	(¹)
1945	40,374	34,431	17,507	836	1,147	15,524	22,867	3,906	1,949	5,365	1,481	4,222	2,808	(¹)	(¹)
1946	41,652	36,056	17,248	862	1,683	14,703	24,404	4,061	2,291	6,084	1,675	4,697	2,254	(¹)	(¹)
1947	43,857	38,382	18,509	955	2,009	15,545	25,348	4,166	2,471	6,485	1,728	5,025	1,892	(¹)	(¹)
1948	44,866	39,216	18,774	994	2,198	15,582	26,092	4,189	2,605	6,667	1,800	5,181	1,863	(¹)	(¹)
1949	43,754	37,897	17,565	930	2,194	14,441	26,189	4,001	2,602	6,662	1,828	5,240	1,908	(¹)	(¹)
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	2,635	6,751	1,888	5,357	1,928	(¹)	(¹)
1951	47,819	41,430	19,959	929	2,637	16,393	27,860	4,226	2,727	7,015	1,956	5,547	2,302	(¹)	(¹)
1952	48,793	42,185	20,198	898	2,668	16,632	28,595	4,248	2,812	7,192	2,035	5,699	2,420	(¹)	(¹)
1953	50,202	43,556	21,074	866	2,659	17,549	29,128	4,290	2,854	7,393	2,111	5,835	2,305	(¹)	(¹)
1954	48,990	42,238	19,751	791	2,646	16,314	29,239	4,084	2,867	7,368	2,200	5,969	2,188	(¹)	(¹)
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	2,926	7,610	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	3,018	7,840	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	3,028	7,858	2,438	6,708	2,217	1,328	4,071
1958	51,324	43,483	19,513	751	2,817	15,945	31,811	3,976	2,980	7,770	2,481	6,765	2,191	1,415	4,232
1959 ²	53,268	45,186	20,411	732	3,004	16,675	32,857	4,011	3,082	8,045	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	3,143	8,248	2,629	7,378	2,270	1,536	4,547
1961	53,999	45,404	19,857	672	2,859	16,326	34,142	3,903	3,133	8,204	2,688	7,620	2,279	1,607	4,708
1962	55,549	46,660	20,451	650	2,948	16,853	35,098	3,906	3,198	8,368	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	3,248	8,530	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	3,337	8,823	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	3,466	9,250	2,977	9,036	2,378	1,996	5,700
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	3,597	9,648	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	3,689	9,917	3,185	10,045	2,719	2,302	6,371
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	3,779	10,320	3,337	10,567	2,737	2,442	6,660
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	3,907	10,798	3,512	11,169	2,758	2,533	6,904
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	3,993	11,047	3,345	11,548	2,731	2,664	7,158
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	4,001	11,351	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	4,113	11,836	3,908	12,276	2,684	2,859	7,790
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	4,277	12,329	4,046	12,857	2,663	2,923	8,146
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	4,433	12,554	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	4,415	12,645	4,165	13,892	2,748	3,179	8,758
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	4,546	13,209	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	4,708	13,808	4,467	15,303	2,727	3,377	9,023
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	4,969	14,573	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	5,204	14,989	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	5,275	15,035	5,160	17,890	2,866	3,610	9,765
1981	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	5,358	15,189	5,298	18,619	2,772	3,640	9,619
1982	89,566	73,729	23,813	1,128	3,905	18,781	65,753	5,082	5,278	15,179	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	5,268	15,613	5,468	19,694	2,774	3,662	9,434
1984	94,496	78,472	24,727	966	4,383	19,378	69,769	5,159	5,555	16,545	5,689	20,797	2,807	3,734	9,482
1985	97,519	81,125	24,859	927	4,673	19,260	72,660	5,238	5,717	17,356	5,955	22,000	2,875	3,832	9,687
1986	99,525	82,832	24,558	777	4,816	18,965	74,967	5,255	5,753	17,930	6,283	23,053	2,899	3,893	9,901
1987	102,310	85,295	24,784	721	4,998	19,065	77,525	5,385	5,872	18,509	6,549	24,196	2,943	3,963	10,109
Monthly data, seasonally adjusted															
1987:															
October	103,371	86,241	25,025	740	5,060	19,225	78,346	5,448	5,935	18,705	6,604	24,524	2,966	3,985	10,179
November	103,678	86,520	25,123	736	5,090	19,297	78,555	5,466	5,958	18,761	6,608	24,604	2,974	3,988	10,196
December	104,001	86,794	25,201	735	5,118	19,348	78,800	5,481	5,984	18,784	6,619	24,725	2,980	4,001	10,226
1988:															
January	104,262	87,044	25,180	728	5,083	19,369	79,082	5,499	6,010	18,927	6,633	24,795	2,973	4,006	10,239
February	104,729	87,475	25,271	731	5,150	19,390	79,458	5,513	6,035	19,045	6,636	24,975	2,972	4,014	10,268
March	105,020	87,700	25,330	733	5,192	19,405	79,690	5,530	6,061	19,050	6,651	25,078	2,970	4,031	10,319
April	105,281	87,973	25,435	737	5,238	19,460	79,846	5,543	6,089	19,093	6,650	25,163	2,963	4,041	10,304
May	105,489	88,139	25,466	739	5,237	19,490	80,023	5,556	6,115	19,130	6,656	25,216	2,957	4,050	10,343
June	106,057	88,678	25,592	740	5,308	19,544	80,465	5,582	6,148	19,205	6,679	25,472	2,951	4,049	10,379
July	106,271	88,941	25,663	740	5,330	19,593	80,608	5,598	6,174	19,261	6,684	25,561	2,951	4,059	10,320
August															

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

B-2. Employees on nonagricultural payrolls by detailed industry

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Total		103,288	104,210	106,241	107,129	107,929					
Total private		86,556	86,855	89,933	89,914	90,156	70,135	70,369	72,831	72,785	72,972
Mining		740	746	746	739	738	534	540	541	536	534
Metal mining	10	44.5	44.7	51.6	50.9		34.0	34.0	40.2	39.7	
Iron ores	101	6.6	6.6	7.4	7.4		5.1	5.1	6.0	6.0	
Copper ores	102	14.2	14.1	14.6	14.2		11.3	11.2	11.4	11.0	
Coal mining	11,12	164.1	163.1	153.5	153.0		134.5	133.9	124.8	124.7	
Bituminous coal and lignite mining	12	162.1	161.2	151.5	151.0		132.8	132.2	123.1	123.0	
Oil and gas extraction	13	416.6	423.8	423.6	418.7	417.2	276.2	283.9	285.5	281.6	
Crude petroleum, natural gas, and natural gas liquids ...	131,2	204.1	204.3	200.5	197.6	-	101.6	102.2	100.9	99.0	
Oil and gas field services	138	212.5	219.5	223.1	221.1		174.6	181.7	184.6	182.6	
Nonmetallic minerals, except fuels	14	115.2	114.1	117.3	116.6		89.3	88.3	90.3	89.9	
Crushed and broken stone	142	41.8	41.8	43.2	42.9		33.4	33.3	34.2	34.0	
Sand and gravel	144	36.5	35.6	37.0	36.5		-	-	-	-	
Chemical and fertilizer minerals	147	17.3	17.2	17.4	17.4						
Construction		5,290	5,323	5,703	5,656	5,635	4,176	4,208	4,516	4,474	4,450
General building contractors	15	1,382.8	1,400.8	1,482.7	1,459.5	1,455.6	1,020.9	1,035.0	1,102.6	1,080.8	
Residential building construction	152	730.7	742.7	802.1	790.9	-	525.2	533.5	586.1	575.8	
Operative builders	153	55.2	55.1	54.4	53.1		27.0	26.7	25.0	24.1	
Nonresidential building construction	154	596.9	603.0	626.2	615.5		468.7	474.8	491.5	480.9	
Heavy construction contractors	16	836.2	844.6	860.8	855.0		708.8	718.0	730.7	725.2	
Highway and street construction	161	319.7	315.7	331.1	325.4		272.5	268.9	279.9	275.1	
Heavy construction, except highway	162	516.5	528.9	529.7	529.6		436.3	449.1	450.8	450.1	
Special trade contractors	17	3,071.2	3,077.7	3,359.2	3,341.7		2,446.5	2,454.6	2,683.0	2,667.9	
Plumbing, heating, and air conditioning	171	653.6	655.4	697.3	698.3		486.6	489.3	520.0	522.4	
Painting, paper hanging, and decorating	172	184.4	183.2	200.1	194.5		156.0	154.8	171.0	165.8	
Electrical work	173	553.9	557.3	601.3	601.8		433.8	436.1	471.7	472.8	
Masonry, stonework, and plastering	174	513.8	508.3	573.9	572.2		440.9	438.2	498.6	494.5	
Carpentering and flooring	175	191.6	191.9	201.7	197.0		149.7	149.0	157.7	153.2	
Roofing and sheet metal work	176	222.6	227.2	233.7	231.5		180.6	185.1	188.3	185.8	
Manufacturing		19,327	19,335	19,646	19,724	19,759	13,240	13,226	13,407	13,499	13,529
Durable goods		11,335	11,360	11,534	11,605	11,643	7,563	7,578	7,673	7,754	7,788
Lumber and wood products	24	764.3	755.5	777.9	772.5	773.1	640.5	632.3	651.0	644.8	645.6
Logging camps and logging contractors	241	91.5	88.1	95.0	92.5	-	76.8	73.7	79.6	76.9	-
Sawmills and planing mills	242	206.0	204.8	205.6	206.1		182.2	181.0	181.1	181.1	
Sawmills and planing mills, general	2421	168.0	166.8	168.3	168.5		148.6	147.4	148.2	148.0	
Hardwood dimension and flooring	2426	34.5	34.6	33.7	34.2		30.4	30.5	29.8	30.2	
Millwork, plywood, and structural members	243	268.2	263.9	273.2	269.2		221.7	218.2	225.6	222.0	
Millwork	2431	104.2	101.9	107.6	104.8		84.4	82.6	87.5	84.9	
Wood kitchen cabinets	2434	72.0	71.0	71.7	71.1		57.9	57.4	57.6	57.2	
Hardwood veneer and plywood	2435	24.5	24.3	24.7	24.6		21.5	21.3	21.6	21.5	
Softwood veneer and plywood	2436	38.3	37.9	38.3	38.6		35.0	34.5	34.5	34.8	
Wood containers	244	42.4	42.1	44.4	44.0		36.0	35.6	37.9	37.2	
Wood buildings and mobile homes	245	73.0	72.7	75.7	75.3		55.6	55.2	58.2	57.7	
Mobile homes	2451	48.4	48.3	51.4	51.4		39.4	39.3	42.4	42.2	
Miscellaneous wood products	249	83.2	83.9	84.0	85.4	-	68.2	68.6	68.6	69.9	

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Furniture and fixtures	25	527.5	532.9	535.1	539.5	544.1	422.2	427.7	426.4	432.0	436.5
Household furniture	251	311.2	316.2	313.7	317.0	-	262.7	267.9	264.4	268.5	-
Wood household furniture	2511	140.3	142.1	143.6	144.3	-	122.8	124.5	125.3	126.3	-
Upholstered household furniture	2512	101.3	101.9	102.5	103.3	-	85.0	85.6	85.9	86.8	-
Metal household furniture	2514	23.9	26.6	23.0	24.2	-	19.0	21.7	18.0	19.3	-
Mattresses and bedspings	2515	29.5	29.3	30.8	30.8	-	22.6	22.3	24.0	24.1	-
Office furniture	252	69.0	68.8	68.3	68.2	-	52.2	52.0	51.4	51.5	-
Public building and related furniture	253	29.1	29.5	30.9	31.0	-	22.3	22.5	24.1	24.2	-
Partitions and fixtures	254	77.5	77.4	78.4	79.3	-	56.5	56.5	57.1	58.0	-
Miscellaneous furniture and fixtures	259	40.7	41.0	43.8	44.0	-	28.5	28.8	29.4	29.8	-
Stone, clay, and glass products	32	592.8	591.8	599.0	597.3	598.0	461.1	460.0	468.6	466.6	466.9
Flat glass	321	14.8	14.6	15.1	15.1	-	11.5	11.3	11.9	11.8	-
Glass and glassware, pressed or blown	322	87.5	87.5	86.0	86.2	-	75.3	75.4	74.4	74.2	-
Glass containers	3221	44.9	44.5	43.7	43.0	-	40.5	40.2	39.7	39.1	-
Pressed and blown glass, nec	3229	42.6	43.0	42.3	43.2	-	34.8	35.2	34.7	35.1	-
Products of purchased glass	323	51.0	51.4	52.9	52.5	-	36.5	37.0	40.1	39.8	-
Cement, hydraulic	324	20.9	20.6	20.8	20.3	-	16.2	15.8	16.0	15.5	-
Structural clay products	325	38.7	38.7	39.3	38.9	-	30.6	30.4	30.8	30.6	-
Pottery and related products	326	37.0	36.7	38.0	38.3	-	29.7	29.3	30.1	30.5	-
Concrete, gypsum, and plaster products	327	218.4	218.0	218.8	217.9	-	170.6	169.9	170.1	168.9	-
Concrete block and brick	3271	20.3	20.3	20.9	21.1	-	13.6	13.5	13.6	13.8	-
Concrete products, nec	3272	72.3	72.8	73.8	73.6	-	55.7	55.9	56.7	56.2	-
Ready-mixed concrete	3273	106.3	105.6	105.1	104.2	-	86.3	85.6	85.1	84.2	-
Misc. nonmetallic mineral products	329	111.6	111.4	114.3	114.2	-	80.6	80.7	84.4	84.4	-
Abrasive products	3291	21.5	21.6	22.0	22.0	-	14.6	14.9	15.4	15.3	-
Asbestos products	3292	8.7	8.7	8.9	8.7	-	6.8	6.7	6.7	6.5	-
Mineral wool	3296	25.2	24.6	24.4	24.5	-	-	-	-	-	-
Primary metal industries	33	762.9	762.6	781.8	789.7	790.8	579.0	578.0	598.4	606.6	605.6
Blast furnaces and basic steel products	331	276.3	276.0	281.0	280.5	279.9	210.9	210.6	218.2	217.8	216.1
Blast furnaces and steel mills	3312	209.4	209.1	211.5	211.6	-	161.2	161.0	165.7	165.7	-
Steel pipe and tubes	3317	24.1	24.2	25.4	25.1	-	17.8	17.8	19.3	19.1	-
Iron and steel foundries	332	132.9	132.4	139.6	144.0	-	105.2	104.6	112.0	116.1	-
Gray iron foundries	3321	83.0	82.4	85.1	87.3	-	67.5	66.9	69.5	71.8	-
Malleable iron foundries	3322	9.1	9.0	8.8	9.7	-	6.7	6.6	6.5	7.3	-
Steel foundries, nec	3325	26.8	27.1	31.4	32.6	-	20.2	20.4	24.8	25.7	-
Primary nonferrous metals	333	40.5	40.0	42.3	42.5	-	29.2	28.7	31.3	31.5	-
Primary aluminum	3334	21.7	21.2	22.7	23.0	-	15.7	15.3	17.2	17.5	-
Nonferrous rolling and drawing	335	183.6	183.5	185.3	186.5	-	132.1	131.7	132.8	134.2	-
Copper rolling and drawing	3351	23.8	23.7	24.5	24.4	-	18.7	18.4	18.8	18.7	-
Aluminum sheet, plate, and foil	3353	28.3	28.0	27.8	28.0	-	20.5	20.0	19.1	19.5	-
Nonferrous wire drawing and insulating	3357	78.9	79.1	80.0	81.7	-	56.1	56.4	57.8	59.2	-
Nonferrous foundries	336	87.0	87.8	89.0	91.1	-	70.2	70.8	71.4	73.7	-
Aluminum foundries	3361	53.9	54.3	54.8	55.9	-	44.3	44.5	44.9	46.1	-
Fabricated metal products	34	1,422.1	1,430.0	1,456.6	1,470.0	1,476.8	1,059.2	1,063.9	1,084.7	1,098.5	1,106.9
Metal cans and shipping containers	341	57.4	55.5	55.1	54.5	-	49.1	47.2	47.6	47.0	-
Metal cans	3411	46.3	44.6	44.1	43.6	-	40.1	38.5	38.5	38.0	-
Cutlery, hand tools, and hardware	342	133.5	134.6	132.6	132.4	-	98.6	99.5	97.4	98.1	-
Hand and edge tools, and hand saws and blades	3423.5	46.0	46.5	45.9	45.6	-	33.8	34.2	33.2	33.1	-
Hardware, nec	3429	76.6	77.2	75.6	75.5	-	57.2	57.9	56.6	57.2	-
Plumbing and heating, except electric	343	61.8	62.4	63.9	64.7	-	44.3	44.9	46.3	47.0	-
Plumbing fittings and brass goods	3432	24.8	25.1	25.9	25.8	-	18.1	18.3	18.9	18.9	-
Heating equipment, except electric	3433	25.9	26.0	26.3	26.7	-	17.7	17.9	18.5	18.7	-
Fabricated structural metal products	344	434.7	436.0	445.5	449.1	-	311.8	312.6	320.7	324.5	-
Fabricated structural metal	3441	78.4	78.4	80.3	80.6	-	56.4	56.0	58.3	58.7	-
Metal doors, sash, and trim	3442	95.4	94.7	96.2	94.2	-	71.3	70.6	71.0	69.2	-
Fabricated plate work (boiler shops)	3443	87.0	87.4	90.6	94.4	-	56.7	57.1	60.0	63.9	-
Sheet metal work	3444	111.0	112.1	114.1	114.4	-	83.6	84.7	85.8	86.1	-
Architectural metal work	3446	30.6	31.1	31.2	32.3	-	22.3	22.9	23.1	24.0	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Fabricated metal products—Continued											
Screw machine products, bolts, etc	345	92.8	93.6	97.3	98.5		71.2	71.8	74.7	75.8	
Screw machine products	3451	46.6	47.2	50.0	51.0		38.2	38.7	41.0	42.0	
Bolts, nuts, rivets, and washers	3452	46.2	46.4	47.3	47.5		33.0	33.1	33.7	33.8	
Metal forgings and stampings	346	234.7	234.5	232.9	238.5		186.8	187.3	184.4	189.5	
Iron and steel forgings	3462	29.6	29.6	29.8	30.0		22.8	22.7	22.9	23.0	
Automotive stampings	3465	96.3	96.1	91.5	95.6		81.7	81.9	76.8	80.7	
Metal stampings, nec	3469	97.7	97.6	100.3	101.6		74.4	74.7	76.3	77.4	
Metal services, nec	347	114.1	114.7	118.1	119.5		91.5	92.2	94.6	95.7	
Plating and polishing	3471	74.1	74.2	76.9	78.0		60.0	60.0	62.1	62.8	
Metal coating and allied services	3479	40.0	40.5	41.2	41.5		31.5	32.2	32.5	32.9	
Ordnance and accessories, nec	348	76.5	78.1	78.1	78.2		48.1	47.4	49.6	49.8	
Ammunition, except for small arms, nec	3483	42.1	43.7	42.8	42.8		24.5	23.8	24.5	24.7	
Misc. fabricated metal products	349	216.6	220.6	233.1	234.6		157.8	161.0	169.4	171.1	
Valves and pipe fittings	3494	80.8	81.5	88.6	89.0		54.4	55.0	59.8	60.4	
Misc. fabricated wire products	3496	51.4	53.5	55.1	55.6		39.4	40.9	42.1	42.6	
Machinery, except electrical	35	2,036.6	2,045.2	2,144.8	2,156.8	2,168.6	1,212.8	1,218.2	1,275.8	1,288.7	1,300.2
Engines and turbines	351	88.2	89.4	88.2	88.9	-	55.9	57.9	58.6	59.0	-
Turbines and turbine generator sets	3511	24.9	24.4	22.6	22.8		12.8	13.1	13.2	13.4	
Internal combustion engines, nec	3519	63.3	65.0	65.6	66.1		43.1	44.8	45.4	45.6	
Farm and garden machinery	352	95.5	96.0	100.8	103.7		65.4	65.7	71.0	74.4	
Farm machinery and equipment	3523	69.9	69.8	75.9	76.7		45.9	45.7	52.3	53.4	
Construction and related machinery	353	217.8	219.3	235.6	235.1		131.0	132.1	144.5	144.9	
Construction machinery	3531	79.8	79.8	84.3	84.3		48.6	48.6	52.7	52.8	
Mining machinery	3532	17.2	17.3	18.4	18.3		10.5	10.6	11.3	11.2	
Oil field machinery	3533	39.3	40.3	44.9	44.8		23.3	24.1	27.3	27.4	
Conveyors and conveying equipment	3535	32.8	32.5	34.6	34.1		17.4	17.2	18.5	18.3	
Industrial trucks and tractors	3537	24.7	25.1	26.7	26.7		17.3	17.6	18.3	18.5	
Metalworking machinery	354	288.4	287.8	299.5	303.0		206.5	205.7	214.6	218.3	
Machine tools, metal cutting types	3541	45.1	45.0	46.2	46.9		28.3	28.3	29.3	30.0	
Machine tools, metal forming types	3542	16.9	16.8	17.5	17.5		10.7	10.6	11.2	11.3	
Special dies, tools, jigs, and fixtures	3544	136.8	136.8	141.5	143.5		104.7	104.5	108.4	110.4	
Machine tool accessories	3545	52.3	52.4	56.0	56.5		37.1	37.2	39.9	40.3	
Power driven hand tools	3546	20.1	20.0	20.5	20.4		14.9	14.7	14.9	14.9	
Special industry machinery	355	163.6	163.9	174.0	175.3		98.2	98.0	104.5	105.6	
Food products machinery	3551	38.3	38.5	40.6	40.9		23.3	23.2	24.3	24.6	
Textile machinery	3552	20.2	20.5	21.1	21.3		13.5	13.7	14.1	14.1	
Printing trades machinery	3555	26.9	27.0	29.0	29.1		16.0	16.1	17.7	17.6	
General industrial machinery	356	247.6	248.2	258.2	259.8		159.3	159.1	165.9	167.7	
Pumps and pumping equipment	3561	44.0	43.7	46.1	46.0		25.5	25.0	26.7	26.8	
Ball and roller bearings	3562	41.3	41.2	41.9	42.8		32.1	32.0	32.3	33.1	
Air and gas compressors	3563	20.0	20.2	21.0	20.9		11.7	11.7	12.1	12.1	
Blowers and fans	3564	29.9	30.2	30.2	30.5		19.3	19.6	19.4	19.7	
Speed changers, drives, and gears	3566	19.3	19.3	20.6	20.7		13.2	13.1	14.2	14.3	
Power transmission equipment, nec	3568	16.7	16.7	17.6	17.8		11.1	11.1	11.9	12.0	
Office and computing machines	357	486.2	488.5	518.7	518.0		164.6	165.1	167.8	167.3	
Electronic computing equipment	3573	432.9	435.5	464.3	463.4		139.1	139.7	142.8	142.4	
Refrigeration and service machinery	358	177.1	178.0	180.1	180.4		127.2	128.2	129.3	129.6	
Refrigeration and heating equipment	3585	126.3	126.5	128.6	129.0		93.1	93.5	94.7	94.9	
Misc. machinery, except electrical	359	272.2	274.1	289.7	292.6		204.7	206.4	219.6	221.9	
Carburetors, pistons, rings, and valves	3592	31.2	31.1	31.3	32.3		24.8	24.7	24.7	25.7	
Machinery, except electrical, nec	3599	241.0	243.0	258.4	260.3		179.9	181.7	194.9	196.2	
Electrical and electronic equipment	36	2,091.1	2,101.3	2,125.7	2,130.4	2,133.9	1,231.4	1,240.1	1,250.7	1,262.0	1,264.1
Electric distributing equipment	361	108.3	108.2	108.8	111.0	-	78.4	78.2	77.8	79.0	-
Transformers	3612	49.3	49.1	49.7	50.2		36.0	35.9	36.0	36.3	
Switchgear and switchboard apparatus	3613	59.0	59.1	59.1	60.8		42.4	42.3	41.8	42.7	
Electrical industrial apparatus	362	181.6	181.8	187.2	188.2		124.8	124.8	130.0	131.2	
Motors and generators	3621	86.8	87.0	88.8	90.1		66.7	66.8	69.5	70.8	
Industrial controls	3622	60.0	60.2	62.5	62.4		34.3	34.5	36.5	36.5	
Household appliances	363	137.5	138.9	137.9	140.0		109.7	111.1	111.0	113.5	
Household refrigerators and freezers	3632	28.6	29.2	29.9	30.1		23.1	23.6	24.2	24.4	
Household laundry equipment	3633	22.8	22.5	22.7	22.7		18.2	18.0	18.6	18.6	
Electric housewares and fans	3634	36.0	36.5	37.4	37.6		27.9	28.5	29.7	30.2	

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Electrical and electronic equipment—Continued											
Electric lighting and wiring equipment	364	192.1	193.7	191.7	193.4	-	139.8	141.2	138.7	140.0	-
Electric lamps	3641	25.3	25.4	25.2	25.1	-	21.6	21.7	21.5	21.5	-
Current-carrying wiring devices	3643	75.6	75.9	74.7	75.1	-	50.3	50.2	48.7	48.7	-
Noncurrent-carrying wiring devices	3644	15.4	15.6	15.8	16.0	-	11.2	11.4	11.7	11.9	-
Residential lighting fixtures	3645	26.9	27.9	27.7	28.1	-	20.4	21.3	21.1	21.5	-
Radio and TV receiving equipment	365	85.3	85.2	83.9	85.5	-	59.1	59.1	58.0	59.8	-
Radio and TV receiving sets	3651	64.2	64.0	63.4	64.5	-	43.3	43.4	42.1	43.5	-
Communication equipment	366	604.9	605.4	596.6	592.9	-	252.9	253.3	249.4	250.1	-
Telephone and telegraph apparatus	3661	116.9	116.8	117.9	116.9	-	66.2	66.0	69.5	69.7	-
Radio and TV communication equipment	3662	488.0	488.6	478.7	476.0	-	186.7	187.3	179.9	180.4	-
Electronic components and accessories	367	631.5	637.8	666.2	665.9	-	360.9	365.9	377.7	379.1	-
Electronic tubes	3671-3	38.1	38.0	38.4	38.6	-	24.5	24.3	24.7	25.3	-
Semiconductors and related devices	3674	248.6	250.0	268.7	268.5	-	96.9	97.5	105.6	106.3	-
Electronic components, nec	3679	271.9	276.1	280.8	280.7	-	184.6	188.5	189.2	189.0	-
Misc. electrical equipment and supplies	369	149.9	150.3	153.4	153.5	-	105.8	106.5	108.1	109.3	-
Storage batteries	3691	28.7	28.9	30.6	30.4	-	22.6	22.7	23.4	23.4	-
Engine electrical equipment	3694	66.0	66.0	66.4	66.6	-	50.3	50.6	50.6	51.2	-
Transportation equipment	37	2,061.9	2,055.7	2,007.3	2,042.9	2,047.7	1,299.2	1,292.7	1,238.7	1,272.7	1,276.8
Motor vehicles and equipment	371	868.1	863.0	825.9	859.3	864.2	675.9	672.2	640.2	670.9	674.0
Motor vehicles and car bodies	3711	379.0	376.3	336.7	362.2	-	285.0	283.3	250.4	273.4	-
Truck and bus bodies	3713	43.8	43.4	43.3	43.3	-	34.4	33.9	33.7	33.8	-
Motor vehicle parts and accessories	3714	395.0	393.0	391.7	399.6	-	317.0	315.4	312.9	320.8	-
Truck trailers	3715	32.1	31.6	33.6	33.4	-	25.2	24.8	26.8	26.4	-
Aircraft and parts	372	706.6	705.8	695.1	697.5	-	352.6	351.6	335.2	338.2	-
Aircraft	3721	362.8	364.9	368.0	368.3	-	162.0	163.1	159.6	160.7	-
Aircraft engines and engine parts	3724	157.3	156.3	147.1	148.9	-	79.5	78.9	71.0	73.8	-
Aircraft equipment, nec	3728	186.5	184.6	180.0	180.3	-	111.1	109.6	104.6	103.7	-
Ship and boat building and repairing	373	189.5	188.8	186.6	185.0	-	143.6	142.8	138.3	136.5	-
Ship building and repairing	3731	127.4	125.4	121.6	119.6	-	93.4	91.3	85.0	82.8	-
Boat building and repairing	3732	62.1	63.4	65.0	65.4	-	50.2	51.5	53.3	53.7	-
Railroad equipment	374	28.1	27.5	32.1	33.4	-	19.6	19.4	23.6	24.8	-
Guided missiles, space vehicles, and parts	376	205.2	206.4	205.9	205.6	-	63.9	63.3	60.9	60.8	-
Guided missiles and space vehicles	3761	155.3	155.4	153.9	153.6	-	47.8	46.8	43.1	43.0	-
Miscellaneous transportation equipment	379	52.8	52.5	50.9	50.8	-	35.4	35.3	33.1	33.7	-
Travel trailers and campers	3792	20.8	20.6	20.5	20.5	-	16.0	16.0	15.8	16.0	-
Instruments and related products	38	696.1	699.1	718.7	716.3	717.0	379.6	381.4	395.8	396.4	397.4
Engineering and scientific instruments	381	82.8	83.2	86.5	87.0	-	37.5	37.9	40.0	40.4	-
Measuring and controlling devices	382	236.9	237.1	236.0	236.0	-	132.6	132.4	134.4	135.2	-
Environmental controls	3822	41.7	41.6	41.5	41.8	-	27.1	27.1	27.5	27.8	-
Process control instruments	3823	52.8	53.4	53.8	53.6	-	27.4	27.8	28.8	28.8	-
Instruments to measure electricity	3825	101.6	101.3	100.9	100.4	-	50.2	49.7	51.1	51.1	-
Optical instruments and lenses	383	33.6	33.7	35.1	35.4	-	16.3	16.4	18.0	18.2	-
Medical instruments and supplies	384	188.9	190.8	202.0	201.3	-	113.6	114.8	121.9	121.4	-
Surgical and medical instruments	3841	93.6	94.5	99.7	98.8	-	53.8	54.4	57.8	57.0	-
Surgical appliances and supplies	3842	81.5	82.3	87.2	87.6	-	52.0	52.5	55.6	56.0	-
Ophthalmic goods	385	37.3	37.6	38.4	38.3	-	25.6	25.8	26.2	26.6	-
Photographic equipment and supplies	386	105.2	105.3	109.9	107.5	-	45.6	45.6	47.3	46.5	-
Watches, clocks, and watchcases	387	11.4	11.4	10.8	10.8	-	8.4	8.5	8.0	8.1	-
Miscellaneous manufacturing	39	379.8	385.9	387.1	389.1	392.9	277.9	283.5	282.7	285.2	287.7
Jewelry, silverware, and plated ware	391	55.2	56.7	56.3	58.1	-	38.4	39.8	39.5	41.0	-
Jewelry, precious metal	3911	39.3	40.6	39.8	41.5	-	27.2	28.3	27.8	29.1	-
Musical instruments	393	13.0	13.0	12.5	12.5	-	10.9	10.9	10.5	10.4	-
Toys and sporting goods	394	100.9	103.4	106.1	106.2	-	76.4	78.7	79.1	79.8	-
Dolls, games, toys, and children's vehicles	3942,4	47.6	49.1	48.4	48.5	-	35.7	36.9	35.5	35.4	-
Sporting and athletic goods, nec	3949	53.3	54.3	57.7	57.7	-	40.7	41.8	43.6	44.4	-
Pens, pencils, office, and art supplies	395	32.9	32.8	33.3	33.0	-	23.0	22.8	23.6	23.3	-
Costume jewelry and notions	396	42.2	43.7	41.1	41.2	-	32.6	34.0	32.2	32.4	-
Costume jewelry	3961	21.9	23.2	21.7	21.4	-	16.9	18.2	16.8	16.5	-
Miscellaneous manufactures	399	135.6	136.3	137.8	138.1	-	96.6	97.3	97.8	98.3	-
Signs and advertising displays	3993	59.0	59.6	60.1	60.5	-	40.7	41.3	41.8	42.1	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Nondurable goods		7,992	7,975	8,112	8,119	8,116	5,677	5,648	5,734	5,745	5,741
Food and kindred products	20	1,708.9	1,671.2	1,718.0	1,714.7	1,698.0	1,229.3	1,192.4	1,233.0	1,232.3	1,216.8
Meat products	201	392.9	394.3	400.5	401.0	-	332.9	334.8	339.3	339.6	-
Meat packing plants	2011	138.0	138.4	142.8	143.6	-	115.9	116.6	119.5	120.2	-
Sausages and other prepared meats	2013	80.6	80.7	80.7	80.8	-	59.3	59.6	59.4	59.6	-
Poultry dressing plants	2016	153.1	154.1	156.2	156.2	-	138.7	139.7	141.9	141.7	-
Dairy products	202	164.3	162.6	168.0	165.7	-	99.8	98.1	101.7	99.6	-
Cheese, natural and processed	2022	42.3	42.2	44.0	43.1	-	32.5	32.2	33.6	32.9	-
Fluid milk	2026	81.2	80.5	81.5	81.3	-	40.5	39.9	40.4	40.2	-
Preserved fruits and vegetables	203	300.3	256.8	294.5	293.8	-	256.4	213.7	248.4	248.4	-
Canned specialties	2032	27.1	25.3	26.1	26.4	-	19.8	17.7	19.0	19.3	-
Canned fruits and vegetables	2033	121.2	83.1	119.5	116.6	-	106.7	69.6	104.8	101.7	-
Frozen fruits and vegetables	2037	56.2	52.8	53.4	53.4	-	50.6	47.0	47.5	47.8	-
Grain mill products	204	128.8	128.9	133.3	134.0	-	89.4	89.5	93.3	94.0	-
Flour and other grain mill products	2041	23.2	23.2	24.1	24.4	-	15.9	15.9	16.7	16.9	-
Prepared feeds, nec	2048	42.7	42.7	44.0	44.3	-	27.1	27.1	27.9	28.2	-
Bakery products	205	211.0	211.5	208.7	209.5	-	129.2	130.1	127.9	128.6	-
Bread, cake, and related products	2051	163.9	163.9	161.7	161.0	-	91.5	92.0	91.4	91.0	-
Cookies and crackers	2052	47.1	47.6	47.0	48.5	-	37.7	38.1	36.5	37.6	-
Sugar and confectionery products	206	97.3	106.8	97.1	101.5	-	77.0	85.6	76.6	80.9	-
Cane and beet sugar	2061-3	21.9	27.7	19.0	20.5	-	17.3	22.3	14.6	16.1	-
Confectionery products	2065	55.1	59.2	58.1	61.1	-	45.9	49.7	48.4	51.3	-
Fats and oils	207	34.9	36.3	33.9	34.1	-	25.0	26.0	24.8	24.9	-
Beverages	208	206.0	201.8	204.9	202.4	-	88.7	85.4	87.6	87.4	-
Malt beverages	2082	40.7	39.7	40.1	39.6	-	25.7	24.7	24.2	23.9	-
Bottled and canned soft drinks	2086	119.8	118.3	121.2	117.7	-	39.3	38.1	41.1	39.8	-
Misc. food and kindred products	209	173.4	172.2	177.1	172.7	-	130.9	129.2	133.4	128.9	-
Tobacco manufactures	21	57.2	56.3	52.0	54.5	54.6	43.3	42.8	38.8	40.8	40.7
Cigarettes	211	39.4	38.2	38.2	38.0	-	28.9	28.1	28.5	28.0	-
Textile mill products	22	735.5	734.7	722.5	726.8	725.2	639.0	637.8	625.5	630.3	630.0
Weaving mills, cotton	221	102.2	101.9	97.3	97.5	-	92.5	92.2	88.0	88.3	-
Weaving mills, synthetics	222	89.5	89.6	89.6	93.8	-	79.7	79.9	78.7	83.1	-
Weaving and finishing mills, wool	223	18.5	18.5	19.2	19.2	-	15.1	15.1	15.6	15.6	-
Narrow fabric mills	224	23.5	23.6	25.0	25.1	-	20.4	20.6	21.4	21.5	-
Knitting mills	225	214.4	213.4	208.8	207.2	-	188.2	187.1	184.4	182.9	-
Women's hosiery, except socks	2251	35.2	35.0	32.7	32.6	-	31.4	31.2	29.9	29.8	-
Hosiery, nec	2252	35.3	35.3	35.2	35.0	-	31.7	31.6	31.7	31.6	-
Knit outerwear mills	2253	72.7	72.1	70.4	69.4	-	64.8	64.0	62.9	61.9	-
Knit underwear mills	2254	26.0	25.9	25.8	25.6	-	22.0	22.0	21.6	21.5	-
Circular knit fabric mills	2257	26.0	26.0	25.6	25.4	-	22.5	22.6	22.3	22.2	-
Textile finishing, except wool	226	61.2	61.2	58.4	58.8	-	51.6	51.5	48.0	48.6	-
Finishing plants, cotton	2261	24.3	24.4	23.8	24.0	-	20.6	20.7	19.5	19.8	-
Finishing plants, synthetics	2262	22.5	22.4	21.0	21.2	-	18.4	18.3	16.8	17.0	-
Floor covering mills	227	59.3	59.9	58.9	59.5	-	48.0	48.3	47.6	48.4	-
Yarn and thread mills	228	112.3	112.2	110.7	110.6	-	100.9	100.6	99.1	98.9	-
Yarn mills, except wool	2281	83.0	82.9	81.9	81.8	-	75.3	75.2	74.2	74.1	-
Throwing and winding mills	2282	15.3	15.4	15.1	15.1	-	13.5	13.6	13.2	13.3	-
Miscellaneous textile goods	229	54.6	54.4	54.6	55.1	-	42.6	42.5	42.7	43.0	-
Apparel and other textile products	23	1,111.8	1,118.4	1,089.6	1,095.4	1,097.1	934.9	940.5	916.8	921.8	923.2
Men's and boys' suits and coats	231	58.1	57.9	58.3	58.8	-	50.2	49.9	50.6	51.1	-
Men's and boys' furnishings	232	311.3	313.3	309.1	309.7	-	268.6	270.2	266.7	266.7	-
Men's and boys' shirts and nightwear	2321	86.9	86.4	83.2	83.3	-	74.5	74.1	71.1	71.1	-
Men's and boys' separate trousers	2327	49.5	50.0	48.5	49.8	-	43.3	43.8	42.1	43.3	-
Men's and boys' work clothing	2328	96.6	97.6	95.8	94.7	-	84.5	85.1	83.8	82.7	-
Women's and misses' outerwear	233	353.6	357.6	340.4	342.1	-	295.0	298.8	283.1	285.0	-
Women's and misses' blouses and waists	2331	46.9	46.2	44.9	44.5	-	39.1	38.6	36.9	36.5	-
Women's and misses' dresses	2335	83.6	84.4	80.4	80.8	-	70.0	71.0	66.6	67.0	-
Women's and misses' suits and coats	2337	43.5	43.5	42.7	43.7	-	36.2	36.0	35.3	36.4	-
Women's and misses' outerwear, nec	2339	179.6	183.5	172.4	173.1	-	149.7	153.2	144.3	145.1	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Nondurable goods—Continued											
Apparel and other textile products—Continued											
Women's and children's undergarments	234	73.2	73.2	70.3	70.3	-	60.1	60.0	58.3	58.4	-
Women's and children's underwear	2341	60.0	60.0	57.6	57.6	-	51.1	51.1	49.4	49.5	-
Brassieres and allied garments	2342	13.2	13.2	12.7	12.7	-	9.0	8.9	8.9	8.9	-
Children's outerwear	236	59.9	59.7	55.8	55.4	-	50.1	50.0	47.1	46.7	-
Children's dresses and blouses	2361	25.0	25.1	23.5	22.9	-	21.9	22.1	20.5	20.0	-
Misc. apparel and accessories	238	42.6	42.8	43.2	43.0	-	35.7	35.7	35.9	35.5	-
Misc. fabricated textile products	239	195.4	196.5	194.6	198.0	-	161.4	162.2	160.9	164.0	-
Curtains and draperies	2391	25.8	26.0	25.0	25.1	-	20.9	21.1	20.6	20.7	-
House furnishings, nec	2392	54.9	55.7	54.9	55.9	-	46.8	47.7	46.8	47.6	-
Automotive and apparel trimmings	2396	40.2	40.3	38.4	40.0	-	33.9	33.8	31.7	33.2	-
Paper and allied products	26	684.6	682.7	693.6	691.0	691.7	521.4	518.3	525.1	522.4	523.5
Paper and pulp mills	261,2,6	190.7	190.0	194.0	190.5	-	145.3	144.3	147.7	144.3	-
Paper mills, except building paper	262	167.7	166.3	170.8	167.9	-	127.2	125.6	129.4	126.7	-
Paperboard mills	263	53.9	53.2	54.1	53.2	-	40.9	40.1	41.3	40.6	-
Misc. converted paper products	264	234.3	233.8	236.4	237.5	-	174.3	173.2	173.7	174.4	-
Paper coating and glazing	2641	58.7	58.6	59.4	58.8	-	37.6	36.9	36.2	35.2	-
Envelopes	2642	27.0	27.1	26.9	27.1	-	21.0	21.0	20.6	21.0	-
Bags, except textile bags	2643	52.9	52.7	53.5	54.0	-	41.9	41.6	42.0	42.4	-
Paperboard containers and boxes	265	205.7	205.7	209.1	209.8	-	160.9	160.7	162.4	163.1	-
Folding paperboard boxes	2651	45.1	45.2	45.6	46.0	-	35.8	35.9	36.1	36.6	-
Corrugated and solid fiber boxes	2653	111.3	111.3	112.8	113.3	-	84.8	84.8	85.0	85.4	-
Sanitary food containers	2654	22.9	22.4	24.1	23.7	-	19.8	19.2	20.5	20.0	-
Printing and publishing	27	1,513.1	1,521.3	1,567.4	1,570.6	1,577.9	845.6	850.4	874.5	876.4	881.8
Newspapers	271	472.5	475.3	476.8	477.1	-	173.4	174.6	170.7	171.2	-
Periodicals	272	122.4	122.9	128.1	128.3	-	45.8	46.5	45.5	45.5	-
Books	273	108.1	106.6	113.4	111.9	-	56.2	54.7	59.7	57.8	-
Book publishing	2731	80.3	79.3	84.3	82.9	-	34.4	33.3	36.3	34.7	-
Book printing	2732	27.8	27.3	29.1	29.0	-	21.8	21.4	23.4	23.1	-
Miscellaneous publishing	274	78.5	79.0	82.5	82.3	-	41.6	41.4	41.8	41.5	-
Commercial printing	275	531.6	535.5	553.9	558.1	-	386.1	389.2	403.9	406.9	-
Commercial printing, letterpress	2751	165.3	166.5	172.6	173.7	-	118.6	119.0	123.7	124.6	-
Commercial printing, lithographic	2752	338.2	340.7	352.3	355.1	-	245.0	247.5	257.0	258.9	-
Manifold business forms	276	49.8	50.2	51.5	51.6	-	34.2	34.5	35.3	35.4	-
Blankbooks and bookbinding	278	72.6	73.4	80.7	79.9	-	58.1	58.6	63.6	63.2	-
Printing trade services	279	53.2	53.8	56.2	56.6	-	39.8	40.2	41.6	41.8	-
Chemicals and allied products	28	1,034.3	1,035.4	1,076.3	1,071.8	1,070.0	584.4	580.9	606.5	604.2	602.2
Industrial inorganic chemicals	281	129.9	133.2	133.6	133.3	-	67.7	67.0	67.2	67.4	-
Industrial inorganic chemicals, nec	2819	86.4	89.9	89.3	89.4	-	48.7	48.3	48.4	48.7	-
Plastics materials and synthetics	282	167.1	166.8	172.1	170.2	-	109.4	109.2	113.6	112.3	-
Plastics materials and resins	2821	76.1	76.0	80.1	79.2	-	45.0	44.8	47.6	47.0	-
Organic fibers, noncellulosic	2824	63.7	63.6	64.4	63.6	-	44.2	44.3	45.9	45.5	-
Drugs	283	215.9	216.2	232.6	231.7	-	98.7	98.6	104.1	103.9	-
Pharmaceutical preparations	2834	170.8	171.3	183.8	183.9	-	76.5	76.7	80.3	80.6	-
Soap, cleaners, and toilet goods	284	158.5	157.0	167.2	167.0	-	103.0	101.0	108.6	108.2	-
Soap and other detergents	2841	44.4	44.5	45.8	44.4	-	27.9	27.8	28.5	27.5	-
Polishing, sanitation, and finishing preparations	2842,3	41.4	41.7	43.8	43.7	-	23.4	23.6	25.1	24.9	-
Toilet preparations	2844	72.7	70.8	77.6	78.9	-	51.7	49.6	55.0	55.8	-
Paints and allied products	285	62.5	62.1	62.9	61.8	-	30.7	30.5	31.6	30.7	-
Industrial organic chemicals	286	151.4	151.3	157.6	157.6	-	86.7	86.4	91.3	91.3	-
Cyclic crudes and intermediates	2865	29.0	28.9	30.1	30.0	-	18.7	18.4	18.6	18.5	-
Gum, wood, and industrial organic chemicals, nec	2861,9	122.4	122.4	127.5	127.6	-	68.0	68.0	72.7	72.8	-
Agricultural chemicals	287	51.4	51.0	51.4	51.5	-	32.4	32.0	32.7	32.7	-
Miscellaneous chemical products	289	97.6	97.8	98.9	98.7	-	55.8	56.2	57.4	57.7	-
Petroleum and coal products	29	167.6	167.1	170.6	169.8	169.5	110.3	109.6	111.6	111.1	110.8
Petroleum refining	291	127.0	127.0	129.7	128.8	-	81.4	81.3	82.8	82.2	-
Paving and roofing materials	295	28.2	27.8	27.8	27.8	-	21.9	21.4	21.6	21.6	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ²	Oct. 1988 ²	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ²	Oct. 1988 ²
Nondurable goods—Continued											
Rubber and misc. plastics products	30	832.5	840.8	874.3	877.5	884.6	645.4	652.7	679.8	683.7	890.2
Tires and inner tubes	301	86.0	85.8	85.9	84.9	-	60.7	60.4	63.2	62.0	-
Rubber and plastics footwear	302	12.0	12.2	12.2	11.9	-	9.9	10.1	10.1	9.9	-
Reclaimed rubber, and rubber and plastics hose and belting	303,4	22.7	23.0	24.8	24.9	-	16.6	16.8	18.3	18.3	-
Fabricated rubber products, nec	306	105.1	105.0	108.3	109.6	-	80.7	80.5	82.8	84.1	-
Miscellaneous plastics products	307	608.7	615.0	643.1	846.2	-	477.5	484.9	505.4	509.4	-
Leather and leather products	31	146.8	147.1	148.0	147.3	147.1	122.9	122.8	122.4	122.4	121.6
Leather tanning and finishing	311	14.8	14.3	14.3	14.3	-	12.1	11.9	12.0	12.0	-
Footwear, except rubber	314	87.0	86.3	86.9	86.0	-	75.1	74.3	74.1	73.5	-
Men's footwear, except athletic	3143	37.8	38.0	38.6	38.5	-	30.9	31.0	31.1	31.2	-
Women's footwear, except athletic	3144	31.2	30.3	30.2	29.3	-	27.5	26.7	26.7	25.9	-
Luggage	316	11.0	11.4	12.1	12.3	-	7.8	8.2	8.6	9.1	-
Handbags and personal leather goods	317	16.7	17.2	16.2	16.3	-	13.6	13.8	12.6	12.8	-
Transportation and public utilities		5,474	5,499	5,610	5,668	5,688	4,549	4,565	4,656	4,708	4,723
Transportation		3,247	3,267	3,338	3,415	3,438	-	-	-	-	-
Railroad transportation	40	313.7	311.9	304.4	303.7	-	-	-	-	-	-
Class I railroads ²	4011	274.3	272.5	262.3	261.6	-	-	-	-	-	-
Local and interurban passenger transit	41	305.5	312.6	256.5	319.0	-	282.1	288.8	232.3	292.7	-
Local and suburban transportation	411	110.4	110.7	115.7	117.8	-	100.7	100.8	105.4	107.2	-
Taxicabs	412	32.8	33.4	32.3	32.3	-	-	-	-	-	-
Intercity highway transportation	413	32.2	31.2	32.6	32.6	-	29.0	28.2	29.2	29.3	-
School buses	415	107.3	114.1	52.0	111.2	-	-	-	-	-	-
Trucking and warehousing	42	1,508.6	1,521.3	1,575.0	1,588.1	-	1,316.1	1,326.8	1,373.9	1,385.3	-
Trucking and trucking terminals	421,3	1,387.5	1,397.6	1,460.5	1,466.4	-	1,213.1	1,221.2	1,277.9	1,282.4	-
Public warehousing	422	121.1	123.7	114.5	121.7	-	103.0	105.6	96.0	102.9	-
Water transportation	44	181.7	175.2	188.7	189.1	-	-	-	-	-	-
Local water transportation	445	28.3	26.6	29.8	29.2	-	-	-	-	-	-
Water transportation services	446	100.3	95.1	105.9	107.1	-	-	-	-	-	-
Transportation by air	45	615.5	619.8	659.9	660.6	-	-	-	-	-	-
Air transportation	451,2	541.6	544.3	580.1	580.3	-	-	-	-	-	-
Air transportation services	458	73.9	75.5	79.8	80.3	-	-	-	-	-	-
Pipe lines, except natural gas	46	18.4	18.3	16.9	16.4	-	13.5	13.3	11.9	11.6	-
Transportation services	47	303.9	308.2	336.9	338.3	-	-	-	-	-	-
Freight forwarding	471	64.6	65.4	69.9	70.2	-	-	-	-	-	-
Communication and public utilities		2,227	2,232	2,272	2,253	2,250	-	-	-	-	-
Communication	48	1,297.2	1,304.3	1,323.5	1,315.0	-	983.9	986.0	999.2	991.8	-
Telephone communication	481	910.3	914.3	915.9	906.8	-	673.4	673.2	670.7	663.4	-
Radio and television broadcasting	483	233.7	235.6	246.4	246.7	-	191.7	193.2	202.9	203.0	-
Radio broadcasting	4832	114.8	114.9	118.5	118.4	-	-	-	-	-	-
Television broadcasting	4833	118.9	120.7	127.9	128.3	-	-	-	-	-	-
Electric, gas, and sanitary services	49	930.1	927.2	948.5	938.3	-	736.3	733.8	753.5	740.0	-
Electric services	491	446.8	445.5	449.6	445.0	-	340.3	339.4	344.3	337.9	-
Gas production and distribution	492	166.1	165.5	170.5	167.1	-	131.8	131.0	135.3	132.0	-
Combination utility services	493	204.6	203.6	204.8	203.4	-	168.3	167.6	168.4	166.0	-
Sanitary services	495	85.5	85.6	95.3	94.7	-	74.2	74.4	83.0	82.2	-
Wholesale trade		5,934	5,964	6,227	6,241	6,270	4,757	4,780	5,025	5,031	5,051
Durable goods	50	3,480	3,505	3,714	3,717	3,737	2,757	2,778	2,973	2,973	-
Motor vehicles and automotive equipment	501	437.8	437.9	457.7	455.8	-	350.4	350.9	368.1	366.4	-
Automobiles and other motor vehicles	5012	112.5	113.7	120.1	120.1	-	-	-	-	-	-
Automotive parts and supplies	5013	294.5	293.5	305.8	304.3	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Wholesale trade—Continued											
Durable goods—Continued											
Furniture and home furnishings	502	144.3	145.7	146.0	145.7		117.6	118.4	117.4	117.3	
Furniture	5021	62.8	63.2	65.5	65.2		-	-	-	-	
Home furnishings	5023	81.5	82.5	80.5	80.5		-	-	-	-	
Lumber and construction materials	503	243.5	246.4	283.0	285.8		200.5	202.9	232.0	234.0	
Lumber, plywood, and millwork	5031	110.7	112.3	128.7	128.9		-	-	-	-	
Construction materials, nec	5039	132.8	134.1	154.3	156.9		-	-	-	-	
Sporting goods, toys, and hobby goods	504	85.3	87.3	89.3	89.0		70.1	71.9	73.0	72.2	
Metals and minerals, except petroleum	505	136.6	138.2	147.7	148.0		107.2	108.3	117.5	117.5	
Electrical goods	506	499.2	505.1	531.0	532.5		379.5	384.1	409.7	410.6	
Electrical apparatus and equipment	5063	274.1	277.4	296.8	297.3		-	-	-	-	
Electrical appliances, TV and radios	5064	68.9	69.5	69.0	69.1		-	-	-	-	
Electronic parts and equipment	5065	156.2	158.2	165.2	166.1		-	-	-	-	
Hardware, plumbing, and heating equipment	507	265.3	266.9	274.4	273.3		214.8	215.4	222.1	220.8	
Hardware	5072	91.3	92.3	93.6	92.9		-	-	-	-	
Plumbing and hydronic heating supplies	5074	108.7	109.8	113.3	113.1		-	-	-	-	
Machinery, equipment, and supplies	508	1,465.5	1,473.3	1,568.2	1,569.6		1,154.0	1,161.7	1,259.0	1,259.5	
Commercial machines and equipment	5081	546.6	551.5	580.8	581.9		-	-	-	-	
Construction and mining machinery	5082	78.7	78.7	83.3	83.4		-	-	-	-	
Farm machinery and equipment	5083	116.5	116.4	123.9	122.8		-	-	-	-	
Industrial machinery and equipment	5084	305.1	305.6	329.0	328.1		-	-	-	-	
Industrial supplies	5085	129.9	130.9	138.8	139.7		-	-	-	-	
Professional equipment and supplies	5086	176.8	177.8	191.7	192.8		-	-	-	-	
Miscellaneous durable goods	509	202.7	204.1	216.3	217.0		163.2	164.5	174.3	174.7	
Scrap and waste materials	5093	91.6	92.5	100.7	101.3		-	-	-	-	
Nondurable goods	51	2,454	2,459	2,513	2,524	2,533	2,000	2,002	2,052	2,058	
Paper and paper products	511	204.5	206.8	213.0	213.6	-	166.4	168.2	173.3	172.5	
Drugs, proprietaries, and sundries	512	169.2	171.2	176.0	177.6		140.6	142.3	147.7	149.2	
Apparel, piece goods, and notions	513	201.5	201.8	204.8	204.2		152.9	153.7	158.4	157.6	
Groceries and related products	514	795.8	792.5	811.1	815.0		673.3	668.9	685.0	687.5	
Groceries, general line	5141	250.8	248.5	259.5	260.1		-	-	-	-	
Meats and meat products	5147	65.5	65.4	65.1	64.6		-	-	-	-	
Fresh fruits and vegetables	5148	103.7	99.0	103.8	110.5		-	-	-	-	
Chemicals and allied products	516	130.8	130.7	134.8	133.7		96.3	96.4	99.6	98.3	
Petroleum and petroleum products	517	199.6	199.6	206.3	205.8		155.6	155.5	162.0	161.3	
Petroleum bulk stations and terminals	5171	84.5	84.6	88.9	88.5		-	-	-	-	
Petroleum products, nec	5172	115.1	115.0	117.4	117.3		-	-	-	-	
Beer, wine, and distilled beverages	518	152.2	151.3	158.4	156.8		125.4	123.9	130.4	128.7	
Beer and ale	5181	96.0	94.5	100.8	98.9		-	-	-	-	
Wines and distilled beverages	5182	56.2	56.8	57.6	57.9		-	-	-	-	
Miscellaneous nondurable goods	519	468.5	468.7	480.4	486.5		380.6	380.2	389.8	395.0	
Farm supplies	5191	153.2	151.6	158.8	162.3		-	-	-	-	
Retail trade		18,701	18,777	19,414	19,381	19,411	16,602	16,679	17,207	17,158	17,167
Building materials and garden supplies	52	753.6	756.0	781.3	769.0		625.1	627.8	647.4	635.2	
Lumber and other building materials	521	418.6	418.5	429.7	421.3		353.8	353.5	362.1	353.9	
Hardware stores	525	157.9	158.7	167.1	165.7		130.6	131.9	138.9	137.5	
General merchandise stores	53	2,415.7	2,516.9	2,485.2	2,487.1	2,554.4	2,254.3	2,349.7	2,291.7	2,291.8	
Department stores	531	2,015.1	2,106.3	2,064.7	2,068.9	-	1,895.4	1,981.3	1,915.5	1,917.8	
Variety stores	533	239.2	244.6	243.5	241.4		218.8	224.2	222.4	220.7	
Misc. general merchandise stores	539	161.4	166.0	177.0	176.8		140.1	144.2	153.8	153.3	
Food stores	54	2,964.1	2,978.5	3,115.8	3,115.5	3,146.6	2,727.1	2,741.0	2,867.6	2,867.6	
Grocery stores	541	2,615.2	2,624.9	2,750.5	2,756.1	-	2,416.7	2,426.5	2,545.4	2,551.5	
Meat markets and freezer provisioners	542	57.7	57.4	58.8	58.4		-	-	-	-	
Dairy products stores	545	28.5	29.2	26.8	25.6		-	-	-	-	
Retail bakeries	546	172.4	174.1	177.7	176.2		157.1	158.3	160.4	159.0	
Automotive dealers and service stations	55	2,029.2	2,029.8	2,119.7	2,107.0	2,108.8	1,699.7	1,700.3	1,775.4	1,762.3	
New and used car dealers	551,2	991.9	992.3	1,024.2	1,023.2	-	822.7	823.5	849.1	848.2	
Auto and home supply stores	553	325.3	329.7	337.6	335.6		263.5	267.4	274.1	271.4	
Gasoline service stations	554	612.9	610.4	643.4	638.0		534.0	531.9	559.4	554.6	

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Retail trade—Continued											
Apparel and accessory stores	56	1,093.7	1,109.5	1,098.8	1,093.7	-	924.4	940.6	928.6	920.9	-
Men's and boys' clothing and furnishings	561	103.3	105.6	102.4	101.9	-	84.6	86.8	82.9	82.1	-
Women's ready-to-wear stores	562	380.9	387.2	377.3	378.5	-	322.5	329.1	316.8	318.1	-
Family clothing stores	565	253.8	257.6	261.4	255.7	-	220.8	224.4	228.2	221.6	-
Shoe stores	566	224.2	224.0	220.2	220.1	-	184.0	184.4	184.2	183.1	-
Furniture and home furnishings stores	57	802.3	818.0	820.1	820.1	-	664.0	677.5	670.6	670.0	-
Furniture and home furnishings stores	571	447.2	453.4	458.0	458.5	-	367.5	373.0	372.6	373.1	-
Furniture stores	5712	278.0	281.4	284.6	285.1	-	-	-	-	-	-
Household appliance stores	572	89.3	90.7	88.7	87.8	-	76.0	78.1	74.8	73.6	-
Radio, television, and music stores	573	265.8	273.9	273.4	273.8	-	220.5	226.4	223.2	223.3	-
Radio and television stores	5732	192.8	199.7	196.1	195.8	-	-	-	-	-	-
Music stores	5733	73.0	74.2	77.3	78.0	-	-	-	-	-	-
Eating and drinking places	58	6,318.0	6,196.1	6,574.4	6,556.2	6,421.9	5,749.7	5,638.1	5,996.3	5,969.8	-
Miscellaneous retail	59	2,324.5	2,372.4	2,419.0	2,432.4	-	1,957.6	2,003.8	2,029.3	2,040.0	-
Drug stores and proprietary stores	591	576.5	584.0	588.0	585.9	-	491.8	499.2	500.9	498.3	-
Liquor stores	592	123.0	123.8	124.3	123.9	-	-	-	-	-	-
Miscellaneous shopping goods stores	594	774.3	794.5	805.5	816.2	-	647.3	666.7	672.7	682.5	-
Sporting goods and bicycle shops	5941	138.1	141.1	144.8	146.2	-	-	-	-	-	-
Book stores	5942	81.8	78.0	76.5	84.0	-	-	-	-	-	-
Stationery stores	5943	75.4	75.9	76.5	76.9	-	-	-	-	-	-
Jewelry stores	5944	147.0	150.3	153.8	154.4	-	-	-	-	-	-
Gift, novelty, and souvenir shops	5947	154.1	159.4	171.2	168.7	-	-	-	-	-	-
Sewing, needlework, and piece goods	5949	59.6	61.4	59.5	61.0	-	-	-	-	-	-
Nonstore retailers	596	280.9	290.0	273.5	274.8	-	253.1	263.3	243.6	245.2	-
Mail order houses	5961	133.6	140.7	126.8	130.0	-	-	-	-	-	-
Merchandising machine operators	5962	88.1	88.8	89.2	89.5	-	-	-	-	-	-
Fuel and ice dealers	598	106.5	109.3	111.7	113.4	-	88.1	90.7	92.2	93.7	-
Retail stores, nec	599	377.9	384.5	424.7	427.2	-	307.0	312.2	343.4	345.1	-
Finance, insurance, and real estate³		6,600	6,589	6,771	6,704	6,683	4,830	4,806	4,929	4,856	4,838
Finance		3,287	3,283	3,324	3,296	3,287	-	-	-	-	-
Banking	60	1,729.2	1,725.9	1,749.0	1,732.0	-	1,245.3	1,238.8	1,251.6	1,235.0	-
Commercial and stock savings banks	602	1,560.5	1,556.9	1,570.9	1,555.0	-	1,120.3	1,113.6	1,121.2	1,105.7	-
State banks, Federal Reserve	6022	343.8	342.2	347.3	344.3	-	-	-	-	-	-
State banks, not Federal Reserve	6023,4	371.3	371.1	378.7	374.2	-	-	-	-	-	-
Mutual savings banks	603	83.8	84.0	86.6	85.4	-	-	-	-	-	-
Credit agencies other than banks	61	894.2	889.8	897.4	893.3	-	667.4	664.4	670.1	664.5	-
Savings and loan associations	612	398.4	398.6	393.0	390.0	-	303.3	302.8	298.8	295.2	-
Federal savings and loan associations	6122	221.0	221.0	222.1	219.8	-	-	-	-	-	-
State associations, insured	6123	172.6	172.8	166.3	165.6	-	-	-	-	-	-
Personal credit institutions	614	237.6	238.3	249.7	249.4	-	182.9	183.9	193.7	193.0	-
Business credit institutions	615	57.1	57.6	67.7	68.6	-	-	-	-	-	-
Mortgage bankers and brokers	616	176.3	170.9	164.8	163.2	-	-	-	-	-	-
Security, commodity brokers, and services	62	456.2	461.1	458.2	452.1	-	-	-	-	-	-
Security brokers and dealers	621	357.3	361.1	351.6	346.9	-	-	-	-	-	-
Holding and other investment offices	67	207.1	206.5	219.5	218.8	-	-	-	-	-	-
Insurance		2,028	2,039	2,087	2,078	2,082	-	-	-	-	-
Insurance carriers	63	1,422.8	1,429.1	1,458.2	1,453.0	-	956.7	955.0	976.1	970.7	-
Life insurance	631	583.6	587.9	595.7	592.3	-	357.6	355.8	356.9	353.2	-
Medical service and health insurance	632	198.3	198.6	205.0	204.7	-	159.4	159.8	165.9	165.5	-
Fire, marine, and casualty insurance	633	534.4	537.5	552.5	551.4	-	358.4	359.4	373.6	372.9	-
Title insurance	636	59.4	58.1	57.5	57.3	-	-	-	-	-	-
Insurance agents, brokers, and service	64	605.1	609.5	628.3	625.4	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Finance, insurance, and real estate—Continued											
Real estate, and combined real estate, insurance, etc		1,285	1,267	1,360	1,330	1,314					
Real estate	65	1,274.4	1,257.1	1,350.5	1,320.4						
Real estate operators and lessors	651	541.7	532.6	568.4	557.9						
Real estate agents and managers	653	536.5	532.1	577.7	563.2						
Subdividers and developers	655	161.8	158.7	170.9	166.0						
Combined real estate, insurance, etc	66	10.2	10.2	9.8	9.6						
Services		24,490	24,622	25,816	25,801	25,972	21,447	21,565	22,550	22,523	22,680
Hotels and other lodging places	70	1,550.5	1,491.8	1,731.7	1,653.8		-	-	-	-	
Hotels, motels, and tourist courts	701	1,505.0	1,450.9	1,643.6	1,603.0		1,344.8	1,293.2	1,472.1	1,432.0	
Personal services	72	1,138.5	1,158.3	1,178.9	1,187.4		-	-	-	-	
Laundry, cleaning, and garment services	721	406.6	411.2	415.9	417.8		362.2	366.6	369.6	371.4	
Photographic studios, portrait	722	56.4	62.1	53.5	55.9		-	-	-	-	
Beauty shops	723	354.2	356.7	355.2	359.0		319.1	320.0	317.1	320.5	
Funeral service and crematories	726	77.5	76.6	79.0	78.5		-	-	-	-	
Business services	73	5,278.4	5,334.4	5,572.2	5,585.1	5,607.6	4,522.6	4,576.2	4,767.0	4,775.5	
Advertising	731	212.3	214.7	216.5	215.2	-	157.9	159.9	160.8	159.5	
Advertising agencies	7311	156.2	158.3	159.6	158.1		-	-	-	-	
Credit reporting and collection	732	97.6	98.6	96.3	95.2		-	-	-	-	
Mailing, reproduction, and stenographic	733	216.9	221.9	236.9	247.4		-	-	-	-	
Services to buildings	734	719.4	715.7	734.0	734.9		650.1	645.3	664.4	664.0	
Personnel supply services	736	1,251.5	1,282.4	1,328.4	1,337.7		-	-	-	-	
Employment agencies	7361	186.4	190.1	193.8	196.6		-	-	-	-	
Temporary help supply services	7362	983.9	1,010.8	1,049.0	1,055.6		-	-	-	-	
Computer and data processing services	737	662.4	670.8	739.2	741.5		519.0	526.9	579.5	578.8	
Computer programming and software	7372	250.8	253.4	284.5	284.6		-	-	-	-	
Data processing services	7374	302.2	307.2	332.0	332.1		-	-	-	-	
Miscellaneous business services	739	2,109.2	2,121.0	2,210.5	2,202.9		-	-	-	-	
Research development laboratories, nec	7391	195.1	192.1	202.9	202.5		-	-	-	-	
Management and public relations	7392	587.9	593.4	622.8	614.0		-	-	-	-	
Detective and protective services	7393	461.7	464.2	475.7	477.2		-	-	-	-	
Equipment rental and leasing	7394	245.3	246.8	263.5	262.7		-	-	-	-	
Photofinishing laboratories	7395	85.1	85.4	80.2	83.3		-	-	-	-	
Auto repair, services, and garages	75	806.2	801.2	840.0	836.3		670.6	667.2	695.1	690.1	
Automotive rentals, without drivers	751	165.1	161.6	171.1	170.2		-	-	-	-	
Automotive repair shops	753	482.6	479.0	509.2	507.2		398.4	396.4	421.1	418.3	
Miscellaneous repair services	76	321.5	323.3	345.8	346.6		266.4	267.3	282.6	283.1	
Electrical repair shops	762	103.0	104.2	116.0	116.4		-	-	-	-	
Motion pictures	78	237.9	230.5	244.3	243.2		199.5	193.1	205.5	203.8	
Motion picture production and services	781	115.9	116.4	114.0	120.5		92.6	93.9	89.8	95.6	
Motion picture theaters	783	107.9	99.9	114.6	107.0		-	-	-	-	
Amusement and recreation services	79	972.0	859.0	1,100.4	992.6		862.4	745.8	946.0	847.7	
Health services	80	6,896.5	6,927.9	7,300.4	7,322.8	7,370.1	6,130.6	6,158.0	6,490.7	6,508.0	
Offices of physicians	801	1,064.6	1,072.2	1,152.8	1,157.5	-	874.3	881.3	945.2	949.1	
Offices of dentists	802	473.3	473.4	495.0	495.9		416.9	417.2	435.0	434.1	
Nursing and personal care facilities	805	1,294.9	1,295.8	1,340.8	1,339.0		1,170.4	1,169.8	1,212.0	1,210.0	
Skilled nursing care facilities	8051	868.2	869.2	897.6	896.8		-	-	-	-	
Nursing and personal care, nec	8059	426.7	426.6	443.2	442.2		-	-	-	-	
Hospitals	806	3,186.8	3,202.3	3,365.2	3,375.6	-	2,907.5	2,921.0	3,078.0	3,087.2	
General medical and surgical hospitals	8062	2,971.2	2,985.5	3,134.9	3,145.1	-	-	-	-	-	
Psychiatric hospitals	8063	75.8	76.6	82.7	82.4	-	-	-	-	-	
Specialty hospitals, excluding psychiatric	8069	139.8	140.2	147.6	148.1	-	-	-	-	-	
Medical and dental laboratories	807	136.9	138.3	150.2	151.2	-	-	-	-	-	
Outpatient care facilities	808	266.8	268.6	295.0	299.1	-	-	-	-	-	

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers ¹				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Services—Continued											
Legal services	81	794.5	803.6	842.6	828.9	-	665.0	672.9	706.4	690.6	-
Educational services	82	1,389.3	1,537.9	1,281.6	1,469.0	-	-	-	-	-	-
Elementary and secondary schools	821	362.5	376.4	329.2	371.6	-	-	-	-	-	-
Colleges and universities	822	866.6	996.5	772.8	922.8	-	-	-	-	-	-
Correspondence and vocational schools	824	76.7	78.5	78.2	79.9	-	-	-	-	-	-
Social services	83	1,491.4	1,520.3	1,562.4	1,594.8	-	-	-	-	-	-
Individual and family services	832	295.1	299.0	311.5	307.4	-	-	-	-	-	-
Job training and related services	833	218.0	220.1	239.0	216.2	-	-	-	-	-	-
Residential care	836	352.8	354.5	380.0	378.2	-	-	-	-	-	-
Museums, botanical and zoological gardens	84	49.2	50.4	52.3	50.1	-	-	-	-	-	-
Membership organizations	86	1,566.9	1,581.3	1,646.1	1,599.1	-	-	-	-	-	-
Business associations	861	93.0	91.2	96.8	94.1	-	-	-	-	-	-
Labor organizations	863	128.8	135.5	132.2	134.4	-	-	-	-	-	-
Civic and social associations	864	352.6	363.5	416.7	372.1	-	-	-	-	-	-
Miscellaneous services	89	1,323.5	1,332.1	1,414.2	1,403.9	-	1,070.4	1,078.8	1,141.6	1,126.2	-
Engineering and architectural services	891	724.6	727.7	779.1	772.7	-	609.2	612.5	651.6	643.2	-
Noncommercial research organizations	892	120.6	122.2	129.8	124.9	-	-	-	-	-	-
Accounting, auditing, and bookkeeping	893	452.2	456.3	475.3	476.5	-	346.1	349.7	363.7	361.4	-
Government		16,731	17,356	16,308	17,215	17,773					
Federal Government ⁴		2,941	2,944	2,980	2,970	2,972	-	-	-	-	-
Executive, by agency ⁴		2,882.8	2,886.1	2,920.5							
Department of Defense		989.1	990.8	959.0							
Postal Service ⁵		794.6	803.2	827.3		-	-	-	-	-	-
Other executive agencies		1,099.1	1,092.1	1,134.2							
Legislative		37.9	37.9	38.3		-	-	-	-	-	-
Judicial		20.0	20.0	21.2							
Federal government, by industry:											
Manufacturing activities		125.5	125.0	121.2	121.3		-	-	-	-	-
Shipbuilding and repairing	3731	76.6	76.4	73.8	73.9						
Transportation and public utilities, except Postal Service		43.5	44.1	40.5	40.9						
Services		431.8	429.6	426.2	459.5						
Hospitals	806	251.0	250.0	248.3	248.0						
State government		3,894	4,081	3,842	4,012	4,189					
Hospitals	806	438.5	439.5	446.7	444.4	-	-	-	-	-	-
Education	82	1,503.6	1,704.1	1,347.2	1,564.3						
General administration, including executive, legislative, and judicial functions		1,409.4	1,400.7	1,474.7	1,453.7						
Local government		9,896	10,331	9,486	10,233	10,612					
Transportation and public utilities		494.9	492.7	498.9	494.7	-	-	-	-	-	-
Hospitals	806	614.7	616.8	640.8	639.3						
Education	82	5,372.8	5,867.0	4,636.3	5,588.7	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions		3,063.2	3,027.6	3,323.8	3,141.5						

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

² Data relate to line haul railroads with operating revenues of \$50,000,000 or more.

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

⁴ Prepared by the Office of Personnel Management. Data relate to

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

⁵ Includes rural mail carriers.

- Data not available.

^p = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA
WOMEN EMPLOYEES
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	July 1987	Aug. 1987	June 1988	July 1988	Aug. 1988
Total	48,679	48,803	49,453	48,574	48,673
Total private	38,743	38,951	40,502	40,434	40,599
Goods-producing	6,855	6,957	7,140	7,072	7,166
Mining	97	96	99	99	100
Construction	541	543	576	585	589
Manufacturing	6,217	6,318	6,465	6,388	6,477
Durable goods	2,967	3,005	3,111	3,080	3,102
Lumber and wood products	120	121	126	125	126
Furniture and fixtures	160	163	165	163	165
Stone, clay, and glass products	114	115	119	119	119
Primary metal industries	100	103	108	105	107
Fabricated metal products	313	318	333	327	331
Machinery, except electrical	449	451	480	479	479
Electrical and electronic equipment	859	868	891	883	890
Transportation equipment	389	392	398	395	392
Instruments and related products	299	301	313	311	314
Miscellaneous manufacturing	164	173	179	174	180
Nondurable goods	3,250	3,313	3,354	3,308	3,375
Food and kindred products	534	559	522	535	560
Tobacco manufactures	15	16	16	16	17
Textile mill products	348	355	353	345	349
Apparel and other textile products	859	875	882	842	867
Paper and allied products	164	166	170	170	170
Printing and publishing	646	648	678	678	681
Chemicals and allied products	297	298	314	314	315
Petroleum and coal products	24	24	26	26	26
Rubber and misc. plastics products	279	284	306	300	302
Leather and leather products	84	88	87	83	87
Service-producing	39,824	39,846	42,313	41,502	41,507
Transportation and public utilities	1,526	1,531	1,630	1,607	1,611
Wholesale trade	1,737	1,749	1,840	1,846	1,854
Retail trade	9,835	9,888	10,233	10,208	10,249
Finance, insurance, and real estate	4,139	4,138	4,193	4,205	4,206
Services	14,651	14,688	15,466	15,496	15,513
Government	7,936	7,853	8,951	8,140	8,074
Federal	1,064	1,058	1,066	1,069	1,065
State	1,801	1,805	1,911	1,860	1,863
Local	5,071	4,990	5,974	5,211	5,146

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are

introduced, all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA
EMPLOYMENT
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ^P	Oct. ^P
Total	103,371	103,678	104,001	104,262	104,729	105,020	105,281	105,489	106,057	106,271	106,425	106,729	107,052
Total private	86,241	86,520	86,794	87,044	87,475	87,700	87,973	88,139	88,678	88,941	89,066	89,181	89,513
Goods-producing	25,025	25,123	25,201	25,180	25,271	25,330	25,435	25,466	25,592	25,663	25,639	25,642	25,734
Mining	740	736	735	728	731	733	737	739	740	740	739	733	731
Oil and gas extraction	421	418	417	414	415	419	421	425	425	424	423	419	414
Construction	5,060	5,090	5,118	5,083	5,150	5,192	5,238	5,237	5,308	5,330	5,340	5,361	5,356
General building contractors	1,340	1,348	1,352	1,365	1,377	1,383	1,400	1,394	1,412	1,400	1,401	1,403	1,393
Manufacturing	19,225	19,297	19,348	19,369	19,390	19,405	19,460	19,490	19,544	19,593	19,560	19,548	19,647
Durable goods	11,315	11,355	11,390	11,393	11,404	11,411	11,459	11,477	11,515	11,566	11,547	11,534	11,597
Lumber and wood products	744	750	754	754	756	755	758	757	757	756	753	751	762
Furniture and fixtures	529	531	533	536	535	534	535	537	537	541	537	537	540
Stone, clay, and glass products	583	585	588	583	584	585	587	585	587	589	586	584	589
Primary metal industries	766	768	769	768	770	772	773	776	781	789	785	787	794
Blast furnaces and basic steel products	278	279	279	279	280	281	281	281	281	282	281	280	282
Fabricated metal products	1,421	1,429	1,433	1,435	1,438	1,439	1,444	1,448	1,457	1,464	1,458	1,460	1,468
Machinery, except electrical	2,049	2,062	2,074	2,085	2,091	2,099	2,111	2,121	2,134	2,151	2,156	2,159	2,173
Electrical and electronic equipment	2,094	2,100	2,110	2,112	2,112	2,115	2,117	2,115	2,120	2,122	2,126	2,124	2,125
Transportation equipment	2,052	2,047	2,046	2,036	2,031	2,025	2,045	2,048	2,047	2,052	2,044	2,033	2,044
Motor vehicles and equipment	859	854	851	839	837	835	848	851	850	857	855	851	861
Instruments and related products	700	704	704	704	705	705	706	709	713	715	718	716	718
Miscellaneous manufacturing	377	379	379	380	382	382	383	381	382	387	384	383	384
Nondurable goods	7,910	7,942	7,958	7,976	7,986	7,994	8,001	8,013	8,029	8,027	8,013	8,014	8,050
Food and kindred products	1,630	1,636	1,638	1,647	1,649	1,647	1,648	1,643	1,645	1,631	1,630	1,633	1,657
Tobacco manufactures	52	54	54	55	54	54	54	52	53	52	52	51	51
Textile mill products	731	733	733	732	732	729	727	728	727	726	719	722	722
Apparel and other textile products	1,106	1,110	1,106	1,105	1,104	1,106	1,100	1,100	1,097	1,096	1,089	1,087	1,085
Paper and allied products	682	683	684	685	686	687	687	689	691	692	691	688	690
Printing and publishing	1,522	1,528	1,532	1,538	1,544	1,548	1,554	1,559	1,565	1,567	1,572	1,575	1,579
Chemicals and allied products	1,036	1,041	1,047	1,047	1,049	1,052	1,056	1,060	1,065	1,067	1,070	1,069	1,070
Petroleum and coal products	167	167	167	166	165	164	165	166	167	167	167	168	169
Rubber and misc. plastics products	839	845	851	854	856	860	864	870	873	882	878	875	882
Leather and leather products	145	145	146	147	147	147	146	146	146	147	145	146	145
Service-producing	78,346	78,555	78,800	79,082	79,458	79,690	79,846	80,023	80,465	80,608	80,786	81,087	81,318
Transportation and public utilities	5,448	5,466	5,481	5,499	5,513	5,530	5,543	5,556	5,582	5,598	5,605	5,621	5,636
Transportation	3,214	3,231	3,244	3,261	3,272	3,285	3,298	3,308	3,332	3,345	3,351	3,368	3,384
Communication and public utilities	2,234	2,235	2,237	2,238	2,241	2,245	2,245	2,248	2,250	2,253	2,254	2,253	2,252
Wholesale trade	5,935	5,958	5,984	6,010	6,035	6,061	6,089	6,115	6,148	6,174	6,192	6,219	6,240
Durable goods	3,498	3,514	3,536	3,555	3,573	3,591	3,610	3,635	3,660	3,681	3,696	3,713	3,730
Nondurable goods	2,437	2,444	2,448	2,455	2,462	2,470	2,479	2,480	2,488	2,493	2,496	2,506	2,510
Retail trade	18,705	18,761	18,784	18,927	19,045	19,050	19,093	19,130	19,205	19,261	19,279	19,285	19,334
General merchandise stores	2,489	2,495	2,494	2,526	2,561	2,543	2,546	2,541	2,549	2,545	2,539	2,530	2,524
Food stores	2,971	2,979	2,988	3,014	3,029	3,044	3,049	3,053	3,080	3,097	3,106	3,109	3,140
Automotive dealers and service stations	2,026	2,026	2,033	2,038	2,047	2,055	2,064	2,070	2,076	2,088	2,095	2,092	2,105
Eating and drinking places	6,191	6,216	6,232	6,260	6,291	6,319	6,326	6,336	6,352	6,369	6,377	6,384	6,415
Finance, insurance, and real estate	6,604	6,608	6,619	6,633	6,636	6,651	6,650	6,656	6,679	6,684	6,689	6,690	6,700
Finance	3,295	3,299	3,301	3,308	3,305	3,306	3,302	3,299	3,304	3,300	3,298	3,299	3,300
Insurance	2,043	2,042	2,049	2,052	2,053	2,060	2,065	2,067	2,074	2,077	2,081	2,082	2,086
Real estate	1,266	1,267	1,269	1,273	1,278	1,285	1,283	1,290	1,301	1,307	1,310	1,309	1,314
Services	24,524	24,604	24,725	24,795	24,975	25,078	25,163	25,216	25,472	25,561	25,662	25,724	25,869
Business services	5,282	5,287	5,306	5,321	5,385	5,405	5,420	5,443	5,480	5,500	5,512	5,535	5,552
Health services	6,928	6,962	6,995	7,019	7,058	7,088	7,126	7,153	7,203	7,238	7,271	7,323	7,370
Government	17,130	17,158	17,207	17,218	17,254	17,320	17,308	17,350	17,379	17,330	17,359	17,548	17,539
Federal	2,966	2,974	2,980	2,973	2,972	2,970	2,963	2,957	2,951	2,951	2,956	2,991	2,993
State	3,985	3,988	4,001	4,006	4,014	4,031	4,041	4,050	4,049	4,059	4,070	4,094	4,091
Local	10,179	10,196	10,226	10,239	10,268	10,319	10,304	10,343	10,379	10,320	10,333	10,463	10,455

^P = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987

benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA
WOMEN EMPLOYEES
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1987					1988							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total	47,582	47,700	47,941	48,072	48,240	48,396	48,615	48,772	48,865	48,999	49,306	49,371	49,491
Total private	38,893	38,985	39,170	39,295	39,425	39,573	39,767	39,881	39,969	40,075	40,357	40,459	40,549
Goods-producing	6,905	6,931	6,963	6,990	7,007	7,022	7,028	7,040	7,058	7,082	7,103	7,125	7,112
Mining	96	96	96	96	96	96	96	96	97	97	99	97	100
Construction	533	536	538	542	543	546	549	552	558	566	569	574	578
Manufacturing	6,276	6,299	6,329	6,352	6,368	6,380	6,383	6,392	6,403	6,419	6,435	6,454	6,434
Durable goods	3,011	3,024	3,038	3,045	3,056	3,059	3,062	3,067	3,077	3,085	3,096	3,112	3,107
Lumber and wood products	118	119	120	120	121	122	122	122	123	123	123	123	123
Furniture and fixtures	164	165	166	166	166	167	166	166	166	167	166	168	166
Stone, clay, and glass products	114	114	115	115	116	116	116	116	117	118	117	119	118
Primary metal industries	103	103	104	104	105	104	105	104	105	106	108	107	107
Fabricated metal products	320	321	322	323	324	325	325	326	327	329	331	333	332
Machinery, except electrical	454	456	458	460	463	466	467	469	471	473	476	480	482
Electrical and electronic equipment	870	873	877	878	881	882	882	885	886	885	890	891	891
Transportation equipment	396	398	398	398	399	396	393	393	396	397	397	398	396
Instruments and related products	301	303	304	306	306	306	308	308	308	309	311	313	314
Miscellaneous manufacturing	171	172	174	175	175	175	178	178	178	178	177	180	178
Nondurable goods	3,265	3,275	3,291	3,307	3,312	3,321	3,321	3,325	3,326	3,334	3,339	3,342	3,327
Food and kindred products	514	515	518	521	521	528	528	526	528	526	526	521	514
Tobacco manufactures	16	17	17	17	18	18	18	17	17	17	17	18	18
Textile mill products	353	353	353	354	354	353	353	352	350	351	351	351	347
Apparel and other textile products	876	880	883	886	883	881	879	880	875	877	874	874	868
Paper and allied products	164	165	165	166	167	167	167	167	167	167	168	169	169
Printing and publishing	650	651	654	658	660	664	666	669	672	673	677	679	683
Chemicals and allied products	296	297	299	301	303	303	304	305	307	309	311	311	313
Petroleum and coal products	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rubber and misc. plastics products	286	287	291	293	296	296	296	298	300	303	304	307	304
Leather and leather products	86	86	87	87	86	87	86	87	86	86	86	87	85
Service-producing	40,677	40,769	40,978	41,082	41,233	41,374	41,587	41,732	41,807	41,917	42,203	42,246	42,379
Transportation and public utilities	1,551	1,559	1,568	1,572	1,576	1,580	1,588	1,599	1,602	1,610	1,625	1,625	1,632
Wholesale trade	1,749	1,756	1,762	1,774	1,785	1,795	1,802	1,813	1,813	1,826	1,838	1,848	1,854
Retail trade	9,856	9,876	9,925	9,955	9,972	10,056	10,127	10,123	10,130	10,161	10,192	10,198	10,218
Finance, insurance, and real estate	4,105	4,108	4,120	4,126	4,131	4,139	4,139	4,147	4,141	4,147	4,164	4,167	4,173
Services	14,727	14,755	14,832	14,878	14,954	14,981	15,083	15,159	15,225	15,249	15,435	15,496	15,560
Government	8,689	8,715	8,771	8,777	8,815	8,823	8,848	8,891	8,896	8,924	8,949	8,912	8,942
Federal	1,049	1,056	1,057	1,060	1,062	1,060	1,061	1,061	1,057	1,054	1,050	1,050	1,057
State	1,929	1,927	1,935	1,937	1,945	1,947	1,952	1,960	1,968	1,971	1,978	1,987	1,990
Local	5,711	5,732	5,779	5,780	5,808	5,816	5,835	5,870	5,871	5,899	5,921	5,875	5,895

* 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: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA
EMPLOYMENT
SEASONALLY ADJUSTED**

B-6. Production or nonsupervisory workers¹ on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted

(In thousands)

Industry	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ^P	Oct. ^P
Total private	69,766	69,988	70,234	70,405	70,787	70,961	71,170	71,260	71,736	71,948	72,063	72,095	72,337
Goods-producing	17,601	17,678	17,743	17,698	17,798	17,839	17,909	17,925	18,025	18,085	18,058	18,048	18,125
Mining	534	531	530	524	527	529	533	535	535	535	536	530	528
Construction	3,949	3,972	3,998	3,949	4,022	4,059	4,096	4,088	4,149	4,168	4,170	4,185	4,178
Manufacturing	13,118	13,175	13,215	13,225	13,249	13,251	13,280	13,302	13,341	13,382	13,352	13,333	13,419
Durable goods	7,532	7,564	7,590	7,582	7,599	7,598	7,632	7,649	7,676	7,720	7,705	7,690	7,741
Lumber and wood products	621	627	630	629	631	631	633	632	634	630	628	625	634
Furniture and fixtures	424	425	427	428	427	426	427	429	429	432	428	430	432
Stone, clay, and glass products	451	453	457	453	454	455	457	455	457	460	457	455	458
Primary metal industries	580	584	584	583	586	588	591	594	599	605	601	604	608
Blast furnaces and basic steel products	212	213	213	214	216	217	219	218	219	220	218	216	218
Fabricated metal products	1,055	1,063	1,068	1,068	1,071	1,071	1,073	1,079	1,085	1,091	1,087	1,089	1,098
Machinery, except electrical	1,221	1,230	1,238	1,244	1,250	1,256	1,262	1,269	1,273	1,287	1,289	1,289	1,303
Electrical and electronic equipment	1,233	1,235	1,241	1,240	1,241	1,242	1,244	1,244	1,250	1,254	1,256	1,256	1,257
Transportation equipment	1,290	1,285	1,283	1,273	1,271	1,261	1,276	1,278	1,276	1,284	1,284	1,266	1,273
Motor vehicles and equipment	669	665	661	651	649	648	658	660	660	671	674	664	671
Instruments and related products	383	385	385	387	388	388	389	391	394	395	396	397	399
Miscellaneous manufacturing	274	277	277	277	280	280	280	278	279	282	279	279	279
Nondurable goods	5,586	5,611	5,625	5,643	5,650	5,653	5,648	5,653	5,665	5,662	5,647	5,643	5,678
Food and kindred products	1,153	1,159	1,161	1,169	1,172	1,168	1,169	1,164	1,168	1,153	1,151	1,154	1,177
Tobacco manufactures	39	40	41	42	41	41	40	39	40	39	38	37	37
Textile mill products	634	636	636	636	636	634	632	632	630	632	622	625	627
Apparel and other textile products	929	932	930	929	928	930	926	925	923	922	916	914	912
Paper and allied products	518	518	519	520	521	521	520	521	523	524	524	520	522
Printing and publishing	851	856	858	863	867	870	871	872	875	876	879	880	883
Chemicals and allied products	582	585	589	589	589	592	593	596	599	600	603	601	603
Petroleum and coal products	109	109	109	109	108	107	107	108	108	108	109	109	110
Rubber and misc. plastics products	650	655	661	664	666	669	670	676	679	687	685	682	687
Leather and leather products	121	121	121	122	122	121	120	120	120	121	120	121	120
Service-producing	52,165	52,310	52,491	52,707	52,989	53,122	53,261	53,335	53,711	53,863	54,005	54,047	54,212
Transportation and public utilities	4,517	4,533	4,545	4,560	4,574	4,587	4,600	4,611	4,632	4,648	4,661	4,661	4,672
Wholesale trade	4,752	4,777	4,802	4,825	4,848	4,881	4,902	4,924	4,956	4,975	4,990	5,011	5,021
Retail trade	16,610	16,651	16,671	16,795	16,902	16,897	16,949	16,949	17,028	17,070	17,087	17,073	17,099
Finance, insurance, and real estate	4,822	4,818	4,824	4,831	4,827	4,825	4,823	4,828	4,842	4,844	4,851	4,846	4,853
Services	21,464	21,531	21,649	21,696	21,838	21,932	21,987	22,023	22,253	22,326	22,416	22,456	22,567

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

^P = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA
INDEXES OF DIFFUSION
SEASONALLY ADJUSTED**

B-7. Indexes of diffusion: Percent of industries in which employment¹ increased, seasonally adjusted

Time span	Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span	1986.....	57.0	47.3	49.5	50.8	51.9	46.8	51.9	54.1	51.4	53.0	58.9	58.9
	1987.....	50.8	59.2	61.1	62.4	62.4	61.6	70.8	62.2	68.1	67.3	67.8	68.4
	1988.....	61.6	61.6	62.2	63.8	58.1	68.9	61.4	51.9	^p 47.3	^p 61.9		
Over 3-month span	1986.....	50.0	47.6	45.7	46.2	46.2	46.2	48.1	51.9	50.5	55.9	59.7	59.2
	1987.....	57.6	57.0	65.1	69.2	68.1	71.9	73.8	76.8	74.1	76.5	78.1	73.0
	1988.....	71.6	66.8	67.0	66.8	71.4	69.7	68.4	^p 57.6	^p 57.6			
Over 6-month span	1986.....	48.1	47.3	43.8	42.7	43.2	47.0	46.5	50.0	55.9	53.2	55.9	58.4
	1987.....	64.6	64.3	63.0	70.3	72.4	77.3	78.4	79.7	82.7	77.8	77.0	76.5
	1988.....	73.5	70.3	70.3	73.8	70.5	^p 66.8	^p 63.5					
Over 12-month span	1986.....	42.2	41.6	43.8	44.9	45.7	48.6	46.8	48.6	51.6	53.8	56.5	57.8
	1987.....	63.8	67.3	69.5	73.5	76.8	76.8	78.9	78.9	79.7	78.4	77.8	81.9
	1988.....	77.6	77.6	^p 73.8	^p 73.2								

Based on the number of employees, seasonally adjusted for 1, 3, and 6 month spans, on the payrolls of 185 private nonagricultural industries. Data for the 12-month span are unadjusted.

^p = preliminary.

NOTE: Figures are the percent of industries with employment

rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Alabama	1,515.4	1,523.2	1,527.2	11.6	11.4	11.2	75.4	76.2	74.4
Birmingham	397.0	406.5	406.3	5.7	5.9	5.7	24.4	27.7	27.6
Huntsville	125.2	127.7	129.1	.1	.1	.1	5.7	6.0	5.9
Mobile	161.7	163.3	161.2	.5	.5	.5	9.3	9.2	9.0
Montgomery	125.5	125.4	125.2	.2	.2	.1	7.9	7.6	7.5
Tuscaloosa	58.3	59.1	60.2	2.4	2.1	2.1	3.0	3.3	3.2
Alaska	217.9	222.3	218.5	8.8	9.3	9.1	12.6	11.4	11.1
Arizona	1,390.2	1,379.9	1,405.4	11.6	12.3	12.3	102.4	96.7	96.0
Phoenix	915.7	912.0	924.8	.6	.6	.6	68.8	64.7	64.2
Tucson	243.2	241.1	247.2	1.6	1.8	1.8	19.4	18.6	18.5
Arkansas	852.1	858.6	870.4	4.1	4.3	4.3	36.0	36.1	35.7
Fayetteville-Springdale	49.1	49.6	51.0	(¹)	(¹)	(¹)	2.1	2.0	1.9
Fort Smith	77.7	78.1	77.3	.9	1.0	1.0	2.9	2.9	2.9
Little Rock-North Little Rock	232.3	237.0	239.6	.4	.4	.4	11.7	12.4	12.3
Pine Bluff	32.6	32.3	32.8	(¹)	(¹)	(¹)	1.5	1.5	1.4
California	11,778.7	12,046.8	12,175.4	40.8	41.3	40.7	610.8	660.8	663.5
Anaheim-Santa Ana	1,094.0	1,113.7	1,120.4	1.8	1.3	1.3	64.7	66.5	67.3
Bakersfield	156.6	157.4	161.1	12.8	13.5	13.3	9.5	9.0	8.9
Fresno	208.8	206.5	212.1	.6	.6	.6	12.7	13.1	13.1
Los Angeles-Long Beach	4,030.2	4,068.3	4,109.6	9.4	9.5	9.4	152.4	158.0	159.4
Modesto	109.8	113.6	114.2	(¹)	(¹)	(¹)	7.5	7.0	6.7
Oakland	816.6	830.5	841.5	3.2	3.3	3.3	50.0	52.6	53.2
Oxnard-Ventura	206.0	213.9	215.1	2.6	2.8	2.7	13.4	14.1	14.0
Riverside-San Bernardino	608.7	627.9	637.9	1.2	1.3	1.3	53.6	58.0	57.9
Sacramento	558.8	578.1	585.8	.8	.7	.7	35.7	38.1	38.5
San Diego	875.5	901.8	914.8	.8	.8	.8	58.3	62.4	62.4
San Francisco	933.4	945.3	952.1	.9	.9	.9	35.6	36.9	37.4
San Jose	786.4	804.4	805.1	.2	.2	.2	33.2	33.2	33.4
Santa Barbara-Santa Maria-Lompoc	144.5	146.0	146.1	1.3	1.3	1.3	6.6	6.8	6.9
Santa Rosa-Petaluma	127.5	128.8	130.9	.7	.8	.8	9.1	9.7	9.6
Stockton	148.5	147.8	149.5	.1	.1	.1	8.6	8.7	8.6
Vallejo-Fairfield-Napa	127.4	131.3	132.1	.3	.3	.3	9.4	10.7	10.6
Colorado	1,400.6	1,388.7	1,400.3	21.0	21.0	20.8	70.0	62.4	61.2
Boulder-Longmont	105.4	104.2	106.3	.3	.3	.3	3.7	3.2	3.2
Denver	794.8	787.5	791.1	14.0	13.6	13.5	38.6	35.0	34.1
Connecticut	1,647.4	1,656.4	1,669.1	1.7	1.7	1.7	79.7	83.0	82.1
Bridgeport-Milford	199.0	199.5	202.4	(¹)	(¹)	(¹)	9.3	10.0	9.9
Hartford	479.8	484.0	489.8	.3	.4	.4	21.1	22.3	22.1
New Haven-Meriden	252.1	256.5	258.2	.3	.4	.4	13.6	14.7	14.6
Stamford	127.1	129.3	129.3	.6	.5	.5	5.8	6.1	5.9
Waterbury	86.8	89.1	90.0	(¹)	(¹)	(¹)	4.6	5.2	5.1
Delaware	323.4	335.3	333.7	.1	.1	.1	20.5	22.9	22.3
Wilmington	274.2	281.7	283.6	.2	.1	.1	17.2	18.3	18.1
District of Columbia	660.2	683.8	670.2	.1	.1	.1	15.8	15.5	15.1
Washington MSA	2,087.5	2,163.8	2,154.2	1.3	1.2	1.3	133.9	140.6	139.1
Florida	4,870.0	5,016.5	5,081.4	8.8	8.8	8.9	345.7	353.8	356.2
Daytona Beach	110.8	114.7	115.4	(¹)	(¹)	(¹)	8.6	8.7	8.6
Fort Lauderdale-Hollywood-Pompano Beach	461.2	479.4	483.3	.4	.4	.4	35.4	35.7	35.8
Fort Myers-Cape Coral	106.3	113.3	114.9	(¹)	(¹)	(¹)	12.1	13.1	13.1
Jacksonville	398.1	415.1	419.7	.4	.4	.5	27.8	28.5	28.4
Melbourne-Titusville-Palm Bay	144.0	150.6	152.1	(¹)	(¹)	(¹)	8.3	8.5	8.4
Miami-Hialeah	828.7	824.6	837.2	.9	.9	.9	42.2	40.6	40.6
Orlando	478.4	497.8	502.1	(¹)	(¹)	(¹)	33.9	36.4	36.4
Pensacola	126.1	125.3	127.2	.3	.3	.3	9.4	8.9	9.0
Sarasota	104.1	107.1	107.9	(¹)	(¹)	(¹)	10.6	10.7	10.6
Tallahassee	109.3	110.3	113.2	(¹)	(¹)	(¹)	5.9	6.0	6.0
Tampa-St. Petersburg-Clearwater	798.3	809.5	818.4	.7	.6	.6	59.4	59.3	59.2
West Palm Beach-Boca Raton-DeLray Beach	324.6	335.4	342.1	(¹)	(¹)	(¹)	28.4	29.2	29.6

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Alabama	374.2	375.2	375.5	72.9	73.9	72.9	335.0	340.8	341.1
Birmingham	55.1	55.9	56.5	28.0	28.5	28.2	99.3	101.4	101.4
Huntsville	31.7	31.8	31.9	2.9	3.0	3.0	23.6	24.3	24.4
Mobile	26.4	26.7	25.7	9.1	9.4	9.3	43.7	44.2	44.2
Montgomery	19.2	19.4	19.2	5.0	5.1	5.1	28.5	28.9	29.0
Tuscaloosa	9.4	9.8	9.8	1.9	1.9	1.9	12.1	12.4	12.6
Alaska	15.4	20.9	16.1	18.9	18.9	18.8	43.7	43.9	43.4
Arizona	188.4	189.3	189.7	73.0	72.8	72.7	337.8	341.3	342.9
Phoenix	136.5	138.2	138.6	50.1	50.3	50.2	229.4	230.4	231.5
Tucson	31.1	30.2	30.1	9.5	9.4	9.5	55.0	56.8	57.0
Arkansas	225.0	229.8	229.4	52.8	51.9	53.3	192.6	197.7	197.1
Fayetteville-Springdale	12.4	12.4	12.5	4.4	5.2	5.2	11.1	11.6	11.7
Fort Smith	27.2	27.7	26.6	4.0	4.2	4.2	15.7	15.8	15.6
Little Rock-North Little Rock	32.6	34.2	34.5	16.9	17.0	17.1	55.7	56.9	56.9
Pine Bluff	6.5	6.5	6.4	2.5	2.4	2.4	6.8	7.0	7.0
California	2,140.1	2,166.8	2,172.2	590.3	592.0	593.1	2,781.0	2,899.3	2,905.5
Anaheim-Santa Ana	250.4	257.7	257.2	34.7	34.5	34.6	273.8	282.4	282.4
Bakersfield	11.1	11.1	11.2	7.9	8.2	8.2	37.4	38.3	38.4
Fresno	24.0	24.1	24.6	11.3	11.3	11.5	53.9	53.2	53.7
Los Angeles-Long Beach	908.9	902.1	907.4	209.3	210.1	211.5	922.0	932.0	935.4
Modesto	27.6	29.0	29.3	4.6	4.6	4.4	27.0	29.1	29.1
Oakland	105.0	107.4	107.2	56.4	57.5	57.4	202.0	205.5	205.5
Oxnard-Ventura	30.4	31.1	31.0	10.4	10.1	10.1	50.5	53.1	52.7
Riverside-San Bernardino	82.3	84.6	84.7	31.2	32.0	31.9	153.1	159.8	159.5
Sacramento	42.2	45.3	45.1	25.2	26.7	26.9	138.3	141.0	143.1
San Diego	123.2	124.3	124.7	34.0	34.5	34.2	208.9	220.6	222.5
San Francisco	80.1	79.8	79.5	77.2	76.6	77.0	212.0	213.6	215.3
San Jose	264.8	272.0	270.4	21.8	21.8	21.7	151.4	154.3	153.9
Santa Barbara-Santa Maria-Lompoc	22.1	22.2	22.1	5.1	5.1	5.1	35.5	36.0	35.9
Santa Rosa-Petaluma	19.1	19.5	19.3	6.6	6.3	6.3	32.6	34.4	34.6
Stockton	26.6	26.2	26.2	9.3	9.5	9.3	34.1	34.2	34.3
Vallejo-Fairfield-Napa	13.1	13.6	13.5	4.6	4.7	4.7	30.1	32.2	31.9
Colorado	184.7	189.1	188.9	84.0	82.8	82.9	350.9	353.3	350.9
Boulder-Longmont	28.5	28.9	28.9	2.3	2.3	2.3	23.0	23.2	23.1
Denver	94.9	96.4	96.2	60.9	59.9	59.9	198.6	199.7	199.0
Connecticut	382.8	365.6	372.6	73.5	71.7	74.1	372.1	383.6	386.0
Bridgeport-Milford	58.7	56.5	57.1	9.0	9.2	9.6	45.6	46.4	46.7
Hartford	93.5	90.6	94.0	18.0	17.7	18.4	101.2	102.6	103.4
New Haven-Meriden	47.0	45.6	46.0	18.2	18.4	18.5	58.0	59.5	60.0
Stamford	23.5	23.1	23.3	5.2	5.5	5.4	30.7	31.0	30.9
Waterbury	23.6	23.4	23.8	3.1	3.0	3.1	17.6	17.6	17.9
Delaware	70.1	68.4	68.4	13.8	13.8	14.3	71.8	74.2	72.6
Wilmington	59.5	56.7	56.6	14.9	14.9	15.5	57.5	59.7	59.7
District of Columbia	16.3	16.5	16.2	24.5	25.0	25.0	63.3	63.9	64.1
Washington MSA	87.0	88.0	86.8	101.9	108.4	108.4	414.4	429.2	426.2
Florida	530.4	536.6	537.9	257.2	260.8	261.4	1,311.1	1,375.6	1,377.8
Daytona Beach	11.8	11.6	11.7	3.4	3.5	3.5	32.4	34.6	34.4
Fort Lauderdale-Hollywood-Pompano Beach	45.9	46.5	46.7	22.4	23.3	23.4	137.0	144.0	144.0
Fort Myers-Cape Coral	5.4	5.6	5.6	4.8	5.1	5.1	30.5	33.2	33.5
Jacksonville	38.6	40.0	40.2	28.0	28.0	28.5	106.9	112.9	112.8
Melbourne-Titusville-Palm Bay	28.0	30.0	30.1	5.8	6.0	5.9	33.4	34.6	35.0
Miami-Hialeah	95.1	96.0	96.0	69.2	68.0	67.8	222.1	223.2	223.3
Orlando	54.1	54.8	54.8	24.8	26.0	25.9	125.2	131.6	132.0
Pensacola	11.7	11.4	11.5	6.2	6.2	6.2	32.8	33.9	33.8
Sarasota	8.8	9.0	8.9	3.6	3.5	3.5	30.5	31.3	31.1
Tallahassee	4.6	4.8	4.9	3.1	3.1	3.2	23.1	23.5	23.6
Tampa-St. Petersburg-Clearwater	92.2	94.6	94.6	38.1	39.4	39.3	219.9	226.4	226.0
West Palm Beach-Boca Raton-Delray Beach	36.0	36.0	35.9	11.9	12.2	12.4	85.6	90.4	92.0

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Alabama	70.9	70.9	70.5	279.7	284.1	284.1	295.7	290.7	297.5
Birmingham	29.3	29.8	29.7	94.2	96.3	95.8	61.0	61.0	61.4
Huntsville	3.6	3.8	3.8	28.2	30.2	30.3	29.4	28.5	29.7
Mobile	8.2	7.9	7.9	36.8	37.6	37.2	27.7	27.8	27.4
Montgomery	7.5	7.7	7.7	26.2	25.8	26.0	31.0	30.7	30.6
Tuscaloosa	2.1	2.2	2.2	8.4	8.5	8.6	19.0	18.9	19.8
Alaska	11.0	10.9	10.7	41.9	43.9	42.7	65.6	63.1	66.6
Arizona	95.2	92.1	91.6	345.5	355.6	355.8	236.3	219.8	244.4
Phoenix	75.4	73.3	72.9	232.6	239.8	240.3	122.3	114.7	126.5
Tucson	12.7	12.2	12.1	64.3	66.0	66.0	49.6	46.1	52.2
Arkansas	37.9	38.4	38.1	155.5	161.9	161.8	148.2	138.5	150.7
Fayetteville-Springdale	1.5	1.5	1.5	7.2	7.4	7.6	10.4	9.5	10.6
Fort Smith	2.7	2.6	2.6	16.9	17.1	16.7	7.4	6.8	7.7
Little Rock-North Little Rock	15.9	16.4	16.3	53.0	55.6	55.7	46.1	44.1	46.4
Pine Bluff	1.5	1.5	1.5	6.2	6.4	6.4	7.6	7.0	7.7
California	810.5	825.8	826.0	2,930.5	3,018.5	3,040.8	1,874.7	1,842.3	1,933.6
Anaheim-Santa Ana	91.6	90.7	90.7	266.6	273.2	272.2	110.4	107.4	114.7
Bakersfield	6.3	6.2	6.2	32.6	32.4	32.3	39.0	38.7	42.6
Fresno	13.4	12.7	12.6	49.5	50.0	50.7	43.4	41.5	45.3
Los Angeles-Long Beach	286.3	295.9	295.2	1,056.4	1,075.2	1,083.8	485.5	485.5	507.5
Modesto	4.6	4.6	4.6	21.7	22.5	22.6	16.8	16.8	17.5
Oakland	55.0	56.3	56.4	188.6	193.4	196.3	156.4	154.5	162.2
Oxnard-Ventura	10.3	10.7	10.9	48.8	51.2	51.6	39.6	40.8	42.1
Riverside-San Bernardino	26.8	28.0	28.0	142.0	146.5	148.2	118.5	117.7	126.4
Sacramento	34.0	35.3	35.3	119.3	126.8	127.3	163.3	164.2	168.9
San Diego	61.3	63.0	62.9	232.8	243.4	244.2	156.2	152.8	163.1
San Francisco	112.6	114.0	113.6	282.4	293.8	293.7	132.6	129.7	134.7
San Jose	34.8	34.9	35.1	196.4	205.6	204.3	83.8	82.4	86.1
Santa Barbara-Santa Maria-Lompoc	8.7	8.7	8.7	39.5	40.7	40.5	25.7	25.2	25.6
Santa Rosa-Petaluma	8.5	8.8	8.6	28.8	29.3	29.3	22.1	20.0	22.4
Stockton	8.8	8.4	8.5	30.5	30.6	30.9	30.5	30.1	31.6
Vallejo-Fairfield-Napa	4.5	4.5	4.5	28.6	29.8	29.5	36.8	35.5	37.1
Colorado	98.7	97.0	96.7	330.0	335.4	334.1	261.3	247.7	264.8
Boulder-Longmont	4.2	4.1	4.1	21.6	22.2	22.0	21.8	20.0	22.4
Denver	67.0	66.2	66.0	196.6	198.3	197.2	124.2	118.4	125.2
Connecticut	151.2	153.7	152.2	388.1	401.2	400.2	198.3	195.9	200.2
Bridgeport-Milford	11.7	12.7	12.6	45.5	46.6	46.7	19.2	18.1	19.8
Hartford	77.6	80.5	79.8	107.5	110.7	110.5	60.6	59.2	61.2
New Haven-Meriden	15.2	15.9	15.8	68.5	71.2	71.5	31.3	30.9	31.4
Stamford	13.2	13.8	13.8	37.3	39.4	38.6	10.8	9.9	10.8
Waterbury	4.5	4.6	4.5	20.9	22.3	22.5	12.5	13.0	13.1
Delaware	26.9	29.1	29.0	75.0	80.7	80.3	45.2	46.1	46.7
Wilmington	23.8	25.7	25.6	65.6	70.5	70.2	35.5	35.8	37.8
District of Columbia	37.4	37.9	37.6	232.2	241.7	244.4	270.5	283.2	267.7
Washington MSA	126.0	131.2	130.2	668.5	700.1	701.3	554.5	565.0	560.9
Florida	363.8	371.3	370.0	1,311.6	1,394.4	1,394.4	741.4	715.2	774.8
Daytona Beach	6.5	6.6	6.6	30.6	31.8	31.6	17.5	17.9	19.0
Fort Lauderdale-Hollywood-Pompano Beach	39.8	41.8	41.6	122.3	130.7	130.8	58.0	57.0	60.6
Fort Myers-Cape Coral	8.1	8.3	8.3	29.8	32.5	32.9	15.5	15.4	16.3
Jacksonville	37.8	39.8	39.8	101.2	109.8	110.1	57.4	55.7	59.4
Melbourne-Titusville-Palm Bay	5.5	5.8	5.8	41.9	44.5	44.7	21.0	21.1	22.1
Miami-Hialeah	68.1	68.3	68.3	224.2	226.0	228.1	106.9	101.6	112.2
Orlando	33.8	36.2	36.2	151.8	161.7	158.5	54.7	51.0	58.2
Pensacola	5.6	5.7	5.7	31.3	31.6	31.7	28.8	27.3	29.0
Sarasota	8.5	8.7	8.7	29.9	32.3	32.3	12.2	11.6	12.7
Tallahassee	5.1	5.0	5.0	22.2	22.9	23.0	45.0	44.7	47.2
Tampa-St. Petersburg-Clearwater	66.2	67.2	67.3	219.6	225.9	226.2	102.2	96.1	105.2
West Palm Beach-Boca Raton-Delray Beach	28.7	28.4	28.6	94.2	100.8	102.1	39.7	38.3	41.4

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
Georgia	2,785.3	2,792.9	2,800.7	8.4	8.6	8.5	154.5	151.6	146.9
Athens	61.0	61.7	62.9	.2	.2	.2	2.5	2.4	2.3
Atlanta	1,378.6	1,387.1	1,389.8	1.4	1.4	1.4	74.3	72.9	70.6
Augusta	156.9	157.5	157.4	.5	.5	.5	9.5	9.9	9.7
Columbus	92.8	92.1	91.8	.1	.1	.1	5.2	5.2	5.1
Macon-Warner Robins	118.9	118.3	118.7	.1	.1	.1	4.9	5.0	4.9
Savannah	102.9	102.3	102.4	(¹)	(¹)	(¹)	6.8	6.7	6.8
Hawaii	455.1	468.0	463.0	(¹)	(¹)	(¹)	21.2	21.1	21.0
Honolulu	361.6	372.6	367.2	(¹)	(¹)	(¹)	16.6	16.8	16.7
Idaho	345.0	344.4	354.2	3.0	3.4	3.4	15.5	16.6	16.8
Boise City	88.2	91.4	91.9	(²)	(²)	(²)	4.6	4.8	4.9
Illinois	4,897.4	5,036.8	5,065.3	24.4	24.0	24.0	207.0	226.2	223.3
Aurora-Elgin	136.1	140.2	141.0	(¹)	(¹)	(¹)	6.7	7.5	7.4
Bloomington-Normal	56.5	55.4	57.8	(¹)	(¹)	(¹)	1.8	1.8	1.8
Champaign-Urbana-Rantoul	84.1	80.2	85.0	(¹)	(¹)	(¹)	2.5	2.5	2.7
Chicago	3,005.0	3,116.1	3,120.5	2.5	2.5	2.5	127.1	135.6	135.3
Davenport-Rock Island-Moline	155.2	155.5	155.1	(¹)	(¹)	(¹)	4.9	4.9	4.8
Decatur	50.0	50.4	50.5	(¹)	(¹)	(¹)	2.0	1.9	1.9
Joliet	97.4	96.5	97.8	(¹)	(¹)	(¹)	5.6	5.7	5.7
Lake County	189.6	196.0	199.1	(¹)	(¹)	(¹)	9.5	10.3	10.4
Peoria	134.3	137.3	137.4	(¹)	(¹)	(¹)	5.5	5.6	5.7
Rockford	125.1	127.9	127.3	(¹)	(¹)	(¹)	4.9	4.7	4.7
Springfield	97.6	104.5	99.0	(¹)	(¹)	(¹)	3.5	3.4	3.4
Indiana	2,349.0	2,409.9	2,440.4	9.0	8.4	8.4	109.4	122.9	120.1
Anderson	49.3	47.7	49.1	(²)	(²)	(²)	1.4	1.5	1.5
Bloomington	52.7	51.7	55.9	(²)	(²)	(²)	2.3	2.8	2.7
Elkhart-Goshen	99.3	104.0	104.6	(²)	(²)	(²)	2.9	3.1	3.1
Evansville	126.9	130.4	131.3	2.3	2.1	2.1	7.7	7.9	7.6
Fort Wayne	188.8	196.7	198.5	(²)	(²)	(²)	10.1	11.9	11.8
Gary-Hammond	225.3	228.8	232.2	(²)	(²)	(²)	12.5	14.3	14.4
Indianapolis	612.7	633.9	636.1	.8	.8	.8	32.4	35.3	34.7
Lafayette	66.0	62.8	67.8	(²)	(²)	(²)	3.0	4.0	3.7
Muncie	50.7	49.8	52.8	(²)	(²)	(²)	2.2	2.3	2.3
South Bend-Mishawaka	113.7	113.2	114.8	(²)	(²)	(²)	5.4	6.4	6.2
Terre Haute	54.2	52.5	54.9	.3	.3	.3	2.1	2.5	2.3
Iowa	1,122.9	1,126.6	1,147.0	2.5	2.4	2.4	39.3	40.1	39.8
Cedar Rapids	88.1	90.2	90.4	.2	.1	.1	3.7	3.4	3.5
Des Moines	210.1	215.9	217.8	(¹)	(¹)	(¹)	8.9	8.3	8.2
Dubuque	43.7	42.3	44.1	(¹)	(¹)	(¹)	1.5	1.4	1.4
Sioux City	51.8	52.7	53.2	(¹)	(¹)	(¹)	2.0	1.8	1.9
Waterloo-Cedar Falls	62.1	61.1	64.3	(¹)	(¹)	(¹)	2.1	2.4	2.4
Kansas	1,010.4	1,014.8	1,024.3	11.8	11.5	11.4	47.1	46.1	44.3
Topeka	86.2	89.1	88.1	(¹)	(¹)	(¹)	3.8	3.5	3.4
Wichita	229.4	231.7	233.1	2.5	2.4	2.3	10.4	10.4	10.3
Kentucky	1,329.3	1,354.5	1,363.5	39.0	36.1	35.7	62.1	66.7	65.9
Lexington-Fayette	175.0	177.1	178.1	.7	.5	.5	10.7	9.4	9.6
Louisville	442.3	457.4	457.8	.5	.4	.4	24.0	25.8	25.6
Owensboro	33.7	33.9	34.0	.9	.7	.7	2.2	2.4	2.2
Louisiana	1,492.9	1,496.4	1,504.0	55.0	54.9	54.7	81.1	84.6	83.3
Alexandria	46.0	45.6	45.7	.2	.2	.2	2.5	2.5	2.5
Baton Rouge	213.1	211.3	214.3	.8	.8	.8	19.8	21.9	21.6
Houma-Thibodaux	52.3	53.4	53.2	5.8	6.2	6.0	1.5	1.8	1.8
Lafayette	80.8	83.7	83.2	10.5	10.7	10.6	3.0	2.9	3.1
Monroe	54.0	52.8	53.9	.4	.4	.3	2.7	2.7	2.6
New Orleans	509.7	517.0	512.3	14.7	15.1	15.2	21.9	22.4	22.1
Shreveport	133.4	131.5	131.9	3.3	2.9	2.9	7.4	7.9	7.8
Maine	515.6	538.4	535.7	.1	.1	.1	33.0	38.3	37.0
Lewiston-Auburn	39.5	40.4	40.9	(¹)	(¹)	(¹)	2.4	2.6	2.5
Portland	127.6	129.9	130.1	(¹)	(¹)	(¹)	10.0	10.1	9.7

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Georgia	572.6	562.7	563.4	177.5	178.6	179.2	696.7	698.9	701.6
Athens	15.6	15.4	15.3	1.8	1.8	1.7	13.0	12.7	12.9
Atlanta	187.1	180.9	179.3	117.1	120.5	121.1	379.8	381.6	382.9
Augusta	35.9	36.7	36.8	5.3	5.2	5.2	34.2	33.4	33.3
Columbus	20.3	20.1	20.3	3.7	3.6	3.5	20.6	20.1	20.0
Macon-Warner Robins	18.5	18.3	18.6	4.9	4.9	5.0	26.9	26.9	27.0
Savannah	17.5	16.6	16.8	9.6	8.9	9.2	25.1	25.4	25.4
Hawaii	22.2	22.2	21.9	36.8	36.7	36.7	123.7	126.2	125.5
Honolulu	16.5	16.3	16.2	30.3	30.4	30.4	97.1	99.0	98.5
Idaho	56.6	57.8	59.1	18.7	18.4	18.8	86.7	86.6	87.6
Boise City	11.3	12.9	13.0	5.2	5.3	5.3	22.9	23.4	23.6
Illinois	936.4	950.1	950.2	298.3	302.0	305.2	1,231.9	1,270.6	1,273.2
Aurora-Elgin	36.6	37.5	37.2	3.1	3.1	3.1	38.1	39.4	39.7
Bloomington-Normal	5.2	6.1	6.1	2.6	2.6	2.6	12.8	12.8	12.8
Champaign-Urbana-Rantoul	7.8	8.2	8.2	2.3	2.3	2.3	19.3	19.1	19.3
Chicago	551.8	553.3	553.9	195.1	196.3	198.1	760.6	787.3	789.0
Davenport-Rock Island-Moline	33.0	32.7	32.8	8.2	8.2	8.2	42.3	42.5	42.5
Decatur	13.0	13.5	13.4	4.9	4.8	4.8	11.5	11.4	11.6
Joliet	19.7	19.9	19.9	8.4	8.2	8.3	22.8	22.9	22.9
Lake County	42.3	44.4	44.5	6.7	7.0	7.3	50.3	53.3	53.2
Peoria	31.8	34.6	34.6	6.8	6.6	6.6	33.3	33.1	33.1
Rockford	42.7	45.0	44.9	4.3	4.4	4.4	28.9	29.1	29.0
Springfield	3.8	3.9	3.9	4.8	4.9	5.0	22.0	24.1	22.1
Indiana	626.5	636.1	638.0	122.4	131.2	131.8	556.1	579.6	577.6
Anderson	17.6	16.3	17.0	1.5	1.5	1.6	11.4	11.5	11.6
Bloomington	9.0	9.7	9.8	1.7	1.8	1.8	12.0	12.1	12.7
Elkhart-Goshen	53.6	57.1	56.9	2.8	2.9	2.9	18.4	19.3	19.1
Evansville	30.7	31.2	31.2	6.6	6.7	6.7	33.3	34.8	34.9
Fort Wayne	51.2	52.4	52.3	12.2	12.8	12.7	46.4	49.4	49.3
Gary-Hammond	56.2	56.9	57.2	15.1	15.2	15.3	53.5	55.6	55.6
Indianapolis	107.5	105.7	106.4	37.5	38.9	38.9	158.2	166.0	165.5
Lafayette	12.0	12.5	12.6	2.0	2.0	2.0	13.3	13.0	13.2
Muncie	10.6	10.7	10.8	2.3	2.5	2.5	12.8	12.9	13.0
South Bend-Mishawaka	24.2	23.3	21.9	5.0	5.2	5.2	30.0	30.9	31.1
Terre Haute	10.5	10.1	10.0	2.8	2.9	2.9	14.8	15.3	15.3
Iowa	219.2	225.9	227.0	53.9	55.1	54.9	285.1	292.7	293.5
Cedar Rapids	22.5	24.1	24.1	5.8	6.6	6.6	21.3	22.1	21.9
Des Moines	24.8	25.4	25.6	12.2	12.7	12.6	55.5	58.4	58.6
Dubuque	12.8	13.3	13.1	1.7	1.9	1.9	9.8	9.9	10.0
Sioux City	10.2	10.4	10.6	3.1	3.2	3.3	13.6	14.2	14.2
Waterloo-Cedar Falls	13.9	14.7	15.4	1.7	1.8	1.8	14.9	15.3	15.4
Kansas	177.0	181.3	181.1	61.9	61.1	61.1	254.5	257.5	257.9
Topeka	8.6	8.8	8.5	6.7	6.4	6.3	19.6	20.7	20.6
Wichita	60.1	60.5	60.6	10.8	10.7	10.7	53.1	54.0	53.7
Kentucky	263.4	274.2	274.0	67.5	68.5	67.8	317.7	331.7	331.4
Lexington-Fayette	27.8	30.2	30.0	7.8	8.0	8.0	41.9	44.2	44.5
Louisville	86.8	88.2	88.3	28.0	30.2	30.4	109.4	115.2	115.9
Owensboro	5.9	6.0	6.2	2.2	2.2	2.2	8.5	8.5	8.6
Louisiana	165.8	169.4	170.6	104.8	105.6	105.7	365.4	364.9	365.3
Alexandria	3.5	3.4	3.4	2.2	2.2	2.2	11.0	11.2	11.1
Baton Rouge	18.5	18.7	18.7	10.4	10.5	10.5	51.1	51.9	52.1
Houma-Thibodaux	4.5	4.3	4.3	5.5	6.3	6.4	13.8	13.7	13.6
Lafayette	5.8	5.9	5.9	5.7	6.1	6.0	21.8	23.2	23.1
Monroe	7.1	7.1	7.4	2.9	2.6	2.6	14.4	13.9	13.8
New Orleans	41.9	43.4	42.9	43.4	44.3	44.7	135.4	132.3	132.5
Shreveport	17.5	17.3	17.4	8.2	8.1	8.1	32.6	31.7	31.6
Maine	104.8	110.7	108.5	21.0	21.7	21.9	129.7	137.4	133.5
Lewiston-Auburn	10.4	10.5	10.3	1.4	1.5	1.5	9.7	10.1	10.0
Portland	16.3	16.9	16.7	6.1	5.9	5.8	37.7	38.8	38.7

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Georgia	157.2	157.8	157.5	544.7	557.7	560.2	473.7	477.0	483.3
Athens	2.0	1.9	2.0	9.5	9.7	9.8	16.4	17.6	18.8
Atlanta	99.6	100.4	100.0	325.7	332.7	334.9	193.6	196.8	199.6
Augusta	6.3	6.1	6.0	32.0	32.6	32.5	33.2	33.3	33.4
Columbus	6.2	6.1	6.1	16.0	16.6	16.5	20.6	20.2	20.1
Macon-Warner Robins	7.5	7.8	7.8	22.7	22.5	22.4	33.3	32.8	32.9
Savannah	4.5	4.4	4.3	23.6	24.0	23.9	15.7	16.2	16.0
Hawaii	34.2	34.7	34.6	127.7	130.3	131.6	89.3	96.8	91.7
Honolulu	28.7	29.1	28.9	98.0	100.4	100.4	74.4	80.6	76.1
Idaho	19.2	19.3	19.4	70.2	72.1	72.4	75.1	70.2	76.7
Boise City	7.6	7.7	7.7	19.8	20.6	20.2	16.8	16.7	17.2
Illinois	359.7	366.5	364.6	1,154.5	1,212.2	1,197.9	685.2	685.2	726.9
Aurora-Elgin	6.4	6.6	6.6	30.2	32.6	32.1	14.9	13.4	14.8
Bloomington-Normal	9.4	9.6	9.6	11.7	12.1	11.8	13.0	10.4	13.1
Champaign-Urbana-Rantoul	3.3	3.4	3.4	16.1	16.8	16.4	32.8	27.9	32.7
Chicago	259.8	266.3	264.7	787.7	824.9	815.7	320.4	349.9	361.3
Davenport-Rock Island-Moline	8.0	8.2	8.2	31.1	31.7	30.9	27.7	27.3	27.7
Decatur	2.7	2.7	2.7	10.4	10.8	10.5	5.5	5.3	5.6
Joliet	3.8	3.9	3.8	20.0	20.2	19.9	16.8	15.4	17.0
Lake County	6.8	6.8	6.6	43.5	45.1	45.2	29.9	28.5	31.3
Peoria	7.0	7.0	7.0	33.8	34.9	34.2	16.1	15.5	16.2
Rockford	5.3	5.4	5.3	26.6	27.6	26.7	12.4	11.7	12.3
Springfield	7.8	8.1	8.0	23.8	26.5	23.8	31.8	33.5	32.7
Indiana	116.6	122.1	119.9	459.2	478.4	477.3	349.9	331.3	367.2
Anderson	1.6	1.7	1.7	9.8	9.7	10.0	5.9	5.5	5.9
Bloomington	1.8	2.1	2.0	8.0	8.4	8.6	17.9	14.9	18.4
Elkhart-Goshen	2.5	2.8	2.7	13.3	13.8	14.2	5.7	5.1	5.8
Evansville	5.2	5.4	5.4	29.8	30.8	31.1	11.3	11.6	12.4
Fort Wayne	12.2	12.2	12.0	38.9	41.3	41.9	17.7	16.6	18.5
Gary-Hammond	8.3	8.6	8.5	48.4	49.8	50.4	31.2	28.4	31.7
Indianapolis	46.4	49.7	48.9	138.6	147.1	147.6	91.4	90.4	93.2
Lafayette	3.0	3.2	3.2	11.5	11.5	11.7	21.2	16.6	21.3
Muncie	1.7	1.7	1.7	10.6	11.0	11.1	10.6	8.6	11.4
South Bend-Mishawaka	6.3	6.5	6.4	31.3	30.9	32.7	11.5	10.1	11.3
Terre Haute	2.0	2.0	2.1	11.2	10.5	10.8	10.5	8.9	11.1
Iowa	65.3	67.6	67.0	249.5	248.4	254.0	208.1	194.4	208.4
Cedar Rapids	5.0	5.0	4.9	19.4	19.9	20.2	10.2	9.0	9.1
Des Moines	27.4	29.9	29.9	52.9	53.4	54.4	28.2	27.6	28.3
Dubuque	1.4	1.5	1.5	12.8	11.3	12.7	3.6	2.9	3.4
Sioux City	2.7	2.6	2.6	13.9	14.0	14.2	6.3	6.5	6.4
Waterloo-Cedar Falls	3.0	2.8	2.8	14.3	13.6	14.3	12.1	10.4	12.1
Kansas	56.6	57.6	57.3	202.8	209.7	210.7	198.7	190.0	200.5
Topeka	6.3	6.7	6.7	20.7	21.3	21.2	20.4	21.6	21.3
Wichita	11.4	11.4	11.4	54.1	56.1	56.8	27.0	26.2	27.3
Kentucky	61.3	62.3	61.6	278.3	286.2	286.5	240.0	228.8	240.6
Lexington-Fayette	9.3	9.4	9.4	42.0	40.9	41.2	34.8	34.5	34.9
Louisville	29.0	29.9	29.6	103.9	108.2	107.1	60.7	59.5	60.5
Owensboro	1.4	1.5	1.5	7.6	8.1	8.1	5.0	4.5	4.5
Louisiana	84.8	84.3	84.2	326.3	329.7	332.6	309.7	303.0	307.6
Alexandria	2.6	2.6	2.6	11.3	11.4	11.5	12.7	12.1	12.2
Baton Rouge	13.5	13.5	13.5	43.7	43.9	44.1	55.3	50.1	53.0
Houma-Thibodaux	2.3	2.2	2.1	8.6	9.1	9.0	10.3	9.8	10.0
Lafayette	3.9	3.7	3.6	18.3	19.1	18.7	11.8	12.1	12.2
Monroe	4.6	4.5	4.6	11.6	11.7	12.0	10.3	9.9	10.6
New Orleans	34.3	33.7	33.6	133.5	137.3	137.0	84.6	88.5	84.3
Shreveport	7.4	7.1	6.9	32.6	33.1	32.7	24.4	23.4	24.5
Maine	25.2	25.6	25.4	112.0	124.4	117.7	89.8	80.2	91.6
Lewiston-Auburn	2.2	2.4	2.5	9.7	10.0	10.2	3.7	3.3	3.9
Portland	12.6	13.0	12.8	30.2	31.2	30.7	14.7	14.0	15.7

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Maryland	2,035.3	2,040.8	2,054.1	2.0	1.8	1.9	156.3	156.1	157.1
Baltimore MSA	1,090.5	1,090.0	1,092.9	.3	.3	.3	75.1	76.0	76.0
Baltimore City	459.3	461.0	459.9	(^b)	(^b)	(^b)	20.2	20.4	20.3
Suburban Maryland-D.C.	715.1	722.3	730.8	.7	.6	.7	64.0	63.7	64.3
Massachusetts	3,060.0	3,124.7	3,133.2	1.9	2.0	2.0	147.1	164.4	161.9
Boston	1,715.7	1,725.7	1,741.2	.9	1.1	1.1	73.1	79.1	78.4
Brockton	72.6	74.2	75.4	(^b)	(^b)	(^b)	4.1	4.6	4.6
Fall River	56.0	56.8	57.3	(^b)	(^b)	(^b)	2.6	3.0	3.0
Fitchburg-Leominster	40.0	39.1	40.0	(^b)	(^b)	(^b)	2.7	3.1	3.0
Lawrence-Haverhill	162.7	162.7	164.8	(^b)	(^b)	(^b)	8.6	9.1	8.9
Lowell	104.9	105.3	106.9	.2	.1	.1	5.8	6.7	6.6
New Bedford	67.4	68.6	68.7	(^b)	(^b)	(^b)	3.4	3.8	3.8
Springfield	238.2	237.5	240.6	.2	.1	.1	10.7	11.2	11.2
Worcester	200.0	205.0	207.4	.1	.2	.2	9.9	11.3	11.1
Michigan	3,727.0	3,706.1	3,757.5	10.1	10.5	10.3	133.0	146.7	145.8
Ann Arbor	164.1	165.2	170.3	(^b)	(^b)	(^b)	5.8	6.9	7.0
Battle Creek	57.8	58.5	58.8	(^b)	(^b)	(^b)	2.1	2.4	2.4
Benton Harbor	63.1	64.9	65.0	(^b)	(^b)	(^b)	1.6	1.7	1.6
Detroit	1,857.9	1,856.1	1,871.5	.9	.9	.9	64.2	68.9	68.8
Flint	174.6	162.0	167.8	(^b)	(^b)	(^b)	4.7	4.8	4.7
Grand Rapids	316.3	323.4	328.0	(^b)	(^b)	(^b)	14.9	16.4	16.2
Kalamazoo	105.1	103.9	107.7	(^b)	(^b)	(^b)	3.3	3.5	3.5
Lansing-East Lansing	196.4	197.4	204.2	(^b)	(^b)	(^b)	5.8	6.4	6.5
Muskegon	57.2	57.9	57.4	(^b)	(^b)	(^b)	2.3	2.5	2.4
Saginaw-Bay City-Midland	155.0	157.6	160.9	(^b)	(^b)	(^b)	6.7	7.6	7.6
Minnesota	1,990.9	2,036.0	2,051.3	7.0	7.6	7.5	94.3	90.9	89.9
Duluth	90.7	89.8	90.7	4.3	4.8	4.8	5.6	4.0	4.1
Minneapolis-St. Paul	1,299.5	1,318.0	1,325.6	(^b)	(^b)	(^b)	59.5	60.2	59.9
Rochester	57.8	59.4	60.0	(^b)	(^b)	(^b)	2.2	2.2	2.1
St. Cloud	69.1	69.9	72.4	(^b)	(^b)	(^b)	4.7	4.1	4.2
Mississippi	879.3	875.2	892.0	6.2	6.4	6.3	35.9	34.7	34.7
Jackson	178.7	179.9	182.7	.9	1.1	1.1	9.0	8.7	8.8
Missouri	2,214.6	2,204.9	2,233.4	5.7	5.6	5.7	104.6	107.0	105.4
Kansas City	736.7	737.2	739.3	.5	.5	.5	38.2	38.9	38.4
St. Louis	1,134.2	1,136.9	1,147.0	3.6	3.5	3.6	58.5	60.0	59.3
Springfield	108.7	111.2	114.4	.1	.1	.1	5.4	6.1	6.1
Montana	278.7	276.4	279.7	6.3	6.6	6.2	10.4	10.4	10.3
Nebraska	667.0	666.5	673.1	1.8	1.9	1.8	25.8	25.9	25.2
Lincoln	112.1	111.9	113.7	(^b)	(^b)	(^b)	4.4	4.6	4.4
Omaha	301.2	306.1	306.5	.2	.2	.2	12.7	12.7	12.6
Nevada	511.6	535.8	541.6	8.5	10.9	10.9	31.2	35.3	35.3
Las Vegas	289.0	302.4	307.1	.3	.3	.3	18.9	20.9	20.7
Reno	136.2	140.7	141.6	.9	1.2	1.2	7.5	8.8	9.0
New Hampshire	523.6	543.2	543.9	.7	.8	.7	40.6	43.4	42.6
Nashua	94.4	95.7	97.0	.1	.1	.1	5.5	5.9	5.9
Portsmouth-Dover-Rochester	113.2	117.0	117.2	.2	.1	.1	6.5	7.0	6.6
New Jersey	3,604.4	3,707.0	3,685.5	2.4	2.5	2.5	177.9	194.0	191.2
Atlantic City	169.0	183.9	177.3	(^b)	(^b)	(^b)	10.4	10.9	10.6
Bergen-Passaic	672.3	684.3	685.7	.1	.2	.2	32.4	34.1	34.0
Camden	424.0	440.4	440.8	.1	.1	.1	26.2	29.7	29.3
Jersey City	243.6	250.1	249.4	(^b)	(^b)	(^b)	7.2	8.4	8.1
Middlesex-Somerset-Hunterdon	517.2	536.5	534.5	.6	.7	.7	24.1	25.9	25.7
Monmouth-Ocean	324.9	347.3	337.9	(^b)	(^b)	(^b)	21.9	25.9	25.6
Newark	953.2	973.8	971.3	.7	.7	.7	40.2	45.0	44.8
Trenton	194.3	198.3	199.4	(^b)	(^b)	(^b)	5.6	6.1	5.9

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Maryland	208.7	207.5	207.3	93.8	93.3	94.3	522.5	527.4	525.0
Baltimore MSA	132.5	130.7	131.2	53.9	52.9	53.3	268.3	270.4	270.3
Baltimore City	44.7	43.8	44.2	28.4	27.6	27.9	98.3	98.2	98.5
Suburban Maryland-D.C.	35.1	36.0	35.8	27.3	28.1	27.7	190.9	194.7	193.8
Massachusetts	593.5	578.8	579.9	131.9	129.0	132.4	721.9	738.6	737.4
Boston	280.0	273.5	273.2	75.4	75.0	76.2	381.3	384.5	386.4
Brockton	11.3	11.5	11.4	5.2	4.9	5.4	21.9	23.3	23.5
Fall River	17.1	16.2	16.0	1.8	1.8	1.9	15.1	16.0	16.0
Fitchburg-Leominster	11.7	11.2	11.5	1.6	1.5	1.7	10.1	9.9	10.2
Lawrence-Haverhill	51.0	49.3	49.5	7.0	6.2	6.7	36.4	38.2	38.2
Lowell	35.7	35.5	35.3	3.6	3.2	3.4	22.1	22.4	22.6
New Bedford	19.4	18.6	18.5	2.9	3.0	3.0	16.5	17.2	17.1
Springfield	50.8	50.5	50.2	9.7	9.6	10.1	56.9	57.5	56.7
Worcester	46.1	45.8	45.9	8.9	8.4	8.6	47.5	47.8	48.4
Michigan	966.8	914.5	938.8	150.2	153.9	151.9	866.3	887.3	885.9
Ann Arbor	39.0	38.3	38.6	4.2	4.4	4.4	28.9	30.4	30.9
Battle Creek	15.6	15.6	15.6	1.8	1.9	1.9	11.6	12.1	12.2
Benton Harbor	21.4	21.1	21.0	2.3	2.5	2.5	13.3	14.3	14.0
Detroit	468.4	435.7	449.2	84.6	87.7	86.4	440.2	452.3	451.7
Flint	56.4	44.4	48.6	4.6	4.6	4.5	45.5	47.3	47.3
Grand Rapids	96.6	99.1	99.6	11.1	11.3	11.2	81.7	84.7	85.7
Kalamazoo	29.4	29.9	30.1	3.2	3.4	3.4	23.5	23.8	24.2
Lansing-East Lansing	31.5	30.9	33.3	5.8	5.6	5.6	41.4	43.4	43.7
Muskegon	17.7	17.4	17.5	2.3	2.4	1.9	12.7	13.1	12.9
Saginaw-Bay City-Midland	43.8	43.2	43.9	6.8	7.1	7.0	36.4	38.0	37.6
Minnesota	384.0	399.4	397.0	102.0	100.8	104.1	496.8	515.1	515.0
Duluth	7.7	7.9	7.8	5.9	6.2	6.2	22.2	22.1	22.0
Minneapolis-St. Paul	257.6	264.9	263.1	71.1	70.2	74.2	324.6	326.7	326.4
Rochester	10.9	11.7	11.6	1.7	1.7	1.7	11.5	11.7	11.8
St. Cloud	11.8	12.7	12.7	3.4	3.6	3.7	20.9	22.5	22.7
Mississippi	232.2	234.1	234.2	42.7	43.4	43.6	187.5	191.5	191.4
Jackson	21.0	21.1	21.2	12.6	13.2	13.1	42.4	43.3	43.3
Missouri	424.4	422.1	424.2	144.8	143.7	143.3	544.9	557.4	556.1
Kansas City	109.8	109.4	109.2	56.7	55.3	55.5	193.7	193.7	193.1
St. Louis	220.3	222.6	224.3	73.7	74.2	75.2	275.3	279.7	276.7
Springfield	20.9	21.7	21.7	7.1	7.3	7.4	30.5	31.7	31.9
Montana	21.8	20.2	21.3	19.6	19.2	19.2	74.2	75.1	73.9
Nebraska	90.0	93.4	93.2	43.7	44.3	44.3	171.8	171.6	171.6
Lincoln	13.5	14.2	14.2	5.9	5.9	5.9	25.9	25.2	25.4
Omaha	34.4	36.2	36.1	23.2	24.2	24.2	76.8	77.5	77.4
Nevada	23.5	24.5	24.3	28.0	28.6	28.7	103.8	109.3	109.3
Las Vegas	8.8	9.0	9.0	15.8	16.2	16.2	61.1	64.3	64.3
Reno	8.2	8.1	7.9	9.2	9.3	9.4	30.2	31.5	31.7
New Hampshire	118.9	120.7	121.1	17.4	17.1	17.8	130.9	138.5	136.2
Nashua	37.2	37.3	37.5	2.1	2.2	2.1	21.1	21.3	21.0
Portsmouth-Dover-Rochester	20.9	20.7	20.8	3.0	3.4	3.4	29.9	33.2	31.5
New Jersey	677.6	669.9	670.9	241.4	245.3	247.2	864.5	886.5	877.8
Atlantic City	8.6	8.3	8.4	6.1	6.3	6.3	38.2	47.3	41.4
Bergen-Passaic	161.9	160.4	160.9	29.0	27.8	28.1	192.5	195.3	195.1
Camden	71.2	72.2	72.3	18.4	19.1	19.1	114.7	118.7	118.3
Jersey City	49.9	49.2	48.8	31.7	31.2	31.5	59.5	61.3	61.6
Middlesex-Somerset-Hunterdon	115.0	116.8	117.2	43.7	44.2	44.7	124.8	128.8	129.1
Monmouth-Ocean	30.2	29.8	30.0	16.4	16.9	17.1	87.7	95.4	91.6
Newark	181.4	176.7	178.3	81.6	80.3	79.4	195.7	198.2	198.2
Trenton	31.0	31.1	30.5	6.7	6.6	6.7	31.5	32.2	32.4

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Maryland	125.8	128.5	128.0	546.0	552.7	552.0	380.3	373.5	388.5
Baltimore MSA	75.5	76.2	75.6	288.7	290.6	291.2	196.1	192.9	195.0
Baltimore City	44.0	45.1	44.7	140.2	139.8	141.0	83.5	86.0	83.2
Suburban Maryland-D.C.	41.8	43.3	43.0	210.4	213.7	212.5	144.9	142.2	153.0
Massachusetts	220.4	233.2	231.0	851.2	890.0	892.9	392.1	388.7	395.7
Boston	152.1	157.3	156.5	547.5	560.7	564.3	205.4	194.5	205.1
Brockton	3.2	3.3	3.2	15.3	15.7	15.8	11.6	10.9	11.5
Fall River	2.9	3.2	3.2	10.1	10.8	10.8	6.4	5.8	6.4
Fitchburg-Leominster	1.8	2.0	2.0	8.0	8.1	8.1	4.1	3.3	3.5
Lawrence-Haverhill	6.4	6.6	6.5	33.2	35.1	34.9	20.1	18.2	20.1
Lowell	4.3	4.3	4.3	20.3	20.5	20.7	12.9	12.6	13.9
New Bedford	2.5	2.7	2.7	13.0	13.8	13.7	9.7	9.5	9.9
Springfield	16.4	16.8	16.7	56.6	57.3	58.6	36.9	34.5	37.0
Worcester	14.3	15.5	15.1	48.8	52.3	52.8	24.4	23.7	25.3
Michigan	178.7	186.3	184.6	823.9	840.0	841.6	597.9	568.9	598.7
Ann Arbor	4.6	4.7	4.7	33.1	35.1	35.2	48.2	45.4	49.4
Battle Creek	3.3	3.3	3.3	12.0	11.9	12.0	11.3	11.3	11.4
Benton Harbor	2.6	2.7	2.7	13.6	14.3	14.6	8.0	8.2	8.5
Detroit	103.0	108.6	107.6	464.8	474.5	475.6	231.8	227.6	231.3
Flint	5.8	5.9	5.9	31.0	31.4	31.3	26.4	23.6	25.4
Grand Rapids	13.9	14.2	14.1	66.1	67.7	69.0	31.7	29.8	31.9
Kalamazoo	4.8	5.0	5.1	23.2	23.5	23.4	17.5	14.8	17.9
Lansing-East Lansing	11.7	12.4	12.4	37.2	39.1	39.6	62.7	59.4	62.9
Muskegon	1.3	1.4	1.3	11.8	12.3	12.2	9.0	8.8	9.1
Saginaw-Bay City-Midland	6.1	6.4	6.3	33.7	35.3	35.0	21.3	20.0	23.4
Minnesota	120.9	125.1	123.7	485.2	503.4	506.4	300.7	293.7	307.8
Duluth	3.1	3.3	3.3	20.8	21.8	21.5	21.0	19.7	21.2
Minneapolis-St. Paul	93.9	97.0	96.3	330.2	337.5	338.9	162.0	160.8	166.1
Rochester	1.6	1.7	1.7	24.1	25.2	25.0	5.9	5.2	6.0
St. Cloud	2.4	2.4	2.5	14.7	14.3	15.0	11.4	10.2	11.6
Mississippi	38.8	39.4	39.2	139.6	141.1	143.1	196.3	184.7	199.5
Jackson	14.4	14.5	14.4	39.0	40.1	40.7	39.4	37.9	40.1
Missouri	135.2	137.2	135.7	512.2	518.5	517.7	342.8	313.4	345.3
Kansas City	58.0	58.7	58.3	170.4	172.7	174.0	109.4	108.0	110.3
St. Louis	74.0	74.3	73.3	288.9	294.3	294.6	139.9	128.3	140.0
Springfield	4.7	4.7	4.6	27.4	27.9	28.9	12.6	11.7	13.7
Montana	13.2	12.7	12.5	65.6	67.6	66.6	67.6	64.6	69.7
Nebraska	48.0	48.3	48.2	150.5	150.4	150.6	135.4	130.7	138.2
Lincoln	8.2	8.8	8.9	23.8	23.2	23.6	30.4	30.0	31.3
Omaha	28.9	28.8	28.7	80.1	83.4	82.5	44.9	43.1	44.8
Nevada	24.1	25.3	25.2	227.5	239.4	240.5	65.0	62.5	67.4
Las Vegas	14.6	15.5	15.5	136.7	145.0	146.9	32.8	31.2	34.2
Reno	7.1	7.2	7.1	56.7	58.9	58.4	16.4	15.7	16.9
New Hampshire	32.6	34.6	33.8	117.4	125.8	123.0	65.1	62.3	68.7
Nashua	4.0	4.3	4.0	17.7	18.5	18.6	6.7	6.1	7.8
Portsmouth-Dover-Rochester	6.7	7.0	6.9	21.2	23.8	23.0	24.8	21.8	24.9
New Jersey	228.7	241.1	237.0	886.5	929.4	918.0	525.4	531.3	540.9
Atlantic City	7.5	7.7	7.4	73.7	79.3	78.7	24.4	24.0	24.4
Bergen-Passaic	37.9	41.0	40.3	152.6	159.9	159.8	65.9	65.6	67.3
Camden	25.0	26.6	26.4	99.6	103.9	102.8	68.8	70.1	72.5
Jersey City	13.0	13.9	13.8	42.9	43.0	44.0	39.4	43.1	41.6
Middlesex-Somerset-Hunterdon	35.7	36.7	36.5	105.7	114.6	112.1	67.6	68.8	68.5
Monmouth-Ocean	18.1	18.7	18.2	90.7	99.5	94.0	59.7	60.9	61.2
Newark	77.1	80.8	79.7	248.8	260.0	258.5	127.7	132.1	131.7
Trenton	9.5	9.7	9.6	54.8	57.0	58.0	55.2	55.6	56.3

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
New Mexico	536.0	540.4	547.6	15.4	15.5	15.5	32.4	31.5	30.8
Albuquerque	235.2	236.2	239.1	.2	.1	.1	16.1	15.9	15.8
Las Cruces	40.4	40.2	41.3	.1	.1	.1	2.2	2.3	2.2
Santa Fe	54.1	57.2	56.2	.1	.1	.1	2.6	2.7	2.6
New York	8,095.3	8,224.6	8,236.7	6.2	6.4	6.3	356.2	373.2	372.1
Albany-Schenectady-Troy	408.3	416.0	414.9	.3	.4	.4	22.0	22.3	22.0
Binghamton	121.5	122.0	123.0	(¹)	(¹)	(¹)	5.7	5.6	5.7
Buffalo	441.5	446.5	450.5	.4	.4	.4	19.6	20.1	19.6
Elmira	38.9	40.6	40.6	(¹)	(¹)	(¹)	1.8	1.9	1.9
Nassau-Suffolk	1,132.3	1,143.3	1,145.0	.2	.2	.2	63.5	65.7	65.1
New York PMSA	4,113.1	4,157.5	4,148.0	1.2	1.2	1.2	160.0	164.2	165.4
New York City	3,585.1	3,617.5	3,615.3	.6	.7	.6	123.4	127.9	129.7
Niagara Falls	81.8	82.8	83.7	(¹)	(¹)	(¹)	3.7	3.9	3.9
Orange County	102.2	105.2	104.7	(¹)	(¹)	(¹)	6.2	6.8	6.7
Poughkeepsie	117.7	121.1	121.6	(²)	(²)	(²)	6.6	7.5	7.3
Rochester	460.9	470.2	474.0	.8	.7	.7	21.0	21.4	21.1
Rockland County	97.3	99.1	98.4	(²)	(²)	(²)	5.8	5.7	5.7
Syracuse	301.7	304.3	307.7	.3	.3	.3	17.1	18.6	18.0
Utica-Rome	123.7	125.8	126.2	.2	.2	.2	4.6	4.9	4.7
Westchester County	412.2	421.2	415.5	.3	.3	.3	29.1	28.5	28.1
North Carolina	2,890.0	2,922.0	2,962.8	5.0	5.1	5.1	161.8	172.6	170.9
Asheville	78.0	80.3	80.0	.1	.1	.1	4.3	4.4	4.3
Charlotte-Gastonia-Rock Hill	584.0	599.3	602.6	.4	.4	.4	35.3	39.3	39.2
Greensboro-Winston-Salem-High Point	466.8	465.1	470.6	.3	.3	.3	24.9	25.7	25.6
Raleigh-Durham	383.2	390.1	391.7	.4	.4	.4	21.8	22.8	22.6
North Dakota	256.2	255.5	258.5	4.5	4.3	4.3	13.3	12.2	11.8
Bismarck	37.5	37.7	38.0	.2	.2	.2	2.0	1.9	1.8
Fargo-Moorhead	71.0	71.2	73.1	(¹)	(¹)	(¹)	4.0	4.4	4.3
Grand Forks	29.8	28.8	29.9	(¹)	(¹)	(¹)	2.0	1.7	1.5
Ohio	4,641.3	4,693.3	4,740.4	21.4	20.5	20.5	196.4	212.2	211.3
Akron	269.3	268.0	273.2	.5	.6	.6	9.8	10.6	10.5
Canton	157.7	160.5	161.7	1.0	1.1	1.1	7.0	8.2	8.1
Cincinnati	689.7	703.6	710.9	.5	.6	.6	32.1	35.1	35.3
Cleveland	900.3	914.8	919.1	1.1	1.0	1.0	31.1	32.1	32.0
Columbus	662.8	680.0	687.6	1.0	1.0	1.0	29.5	32.3	32.3
Dayton-Springfield	433.1	434.0	442.8	.4	.4	.4	17.9	20.0	19.9
Toledo	283.4	288.2	294.4	.3	.3	.3	11.8	13.5	13.6
Youngstown-Warren	191.8	194.5	198.3	.7	.7	.7	8.3	9.4	9.3
Oklahoma	1,107.2	1,097.1	1,109.2	46.6	43.7	42.9	34.7	34.8	32.3
Enid	21.9	21.4	21.7	1.0	1.0	.9	.6	.6	.6
Lawton	33.4	32.5	33.2	.2	.2	.2	1.2	1.1	1.1
Oklahoma City	403.1	395.8	401.6	11.4	10.8	10.8	13.0	12.7	12.2
Tulsa	288.5	289.9	291.5	15.3	14.9	14.9	9.9	10.3	9.8
Oregon	1,113.8	1,148.3	1,158.3	1.5	1.5	1.5	38.6	41.5	41.1
Eugene-Springfield	105.0	106.2	108.8	.2	.2	.2	3.7	3.7	3.7
Portland	564.2	575.4	580.8	.5	.5	.5	21.7	21.8	21.8
Salem	101.0	102.6	103.0	.1	.1	.1	3.4	3.7	3.7
Pennsylvania	4,962.4	5,062.2	5,075.4	31.3	29.8	29.9	243.6	259.4	257.5
Allentown-Bethlehem	274.1	277.2	278.5	.6	.6	.6	14.0	15.4	15.2
Altoona	52.5	53.4	52.7	(²)	(²)	(²)	2.9	2.8	2.8
Beaver County	50.9	51.9	52.2	(²)	(²)	(²)	4.0	4.6	4.7
Erie	111.4	113.1	114.2	.2	.2	.2	3.9	4.3	4.0
Harrisburg-Lebanon-Carlisle	297.8	302.5	302.3	.3	.3	.3	13.0	13.6	13.6
Johnstown	79.4	80.2	79.8	3.7	3.7	3.6	3.3	3.4	3.3
Lancaster	180.5	185.7	186.2	.4	.4	.4	11.0	12.0	11.8
Philadelphia PMSA	2,148.6	2,188.4	2,182.8	1.1	1.1	1.1	108.2	119.4	118.1
Philadelphia City	773.3	779.1	777.0	(²)	(²)	(²)	18.4	18.3	18.1
Pittsburgh	853.4	867.3	869.5	5.8	5.5	5.5	44.5	44.3	43.9

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
New Mexico	39.8	41.4	41.6	29.1	28.0	28.8	130.4	134.5	134.4
Albuquerque	20.2	20.6	20.5	12.5	12.2	12.5	60.8	62.6	62.6
Las Cruces	4.5	4.3	4.3	1.3	1.2	1.2	8.4	9.1	9.2
Santa Fe	1.7	1.8	1.8	1.2	1.3	1.3	10.7	11.6	11.3
New York	1,231.7	1,223.3	1,226.6	409.2	403.2	412.2	1,710.7	1,718.3	1,723.1
Albany-Schenectady-Troy	49.3	47.6	47.5	16.6	16.6	16.9	87.0	88.9	89.4
Binghamton	38.1	38.8	38.2	4.5	4.6	4.6	26.6	27.1	27.5
Buffalo	77.3	77.1	77.9	22.0	21.5	21.9	109.8	111.8	112.4
Elmira	8.2	8.9	9.0	1.4	1.5	1.5	10.6	10.8	10.7
Nassau-Suffolk	175.0	169.7	170.2	49.2	47.3	49.3	308.2	312.7	312.7
New York PMSA	465.7	459.5	461.2	241.8	239.1	242.3	763.9	756.9	762.1
New York City	382.2	375.6	377.8	215.7	213.1	216.2	638.0	631.4	637.0
Niagara Falls	24.3	23.6	24.1	3.9	3.8	3.9	19.0	20.0	20.0
Orange County	14.7	15.1	15.0	6.0	5.9	6.2	27.4	28.7	28.7
Poughkeepsie	29.7	30.8	30.2	3.3	3.3	3.3	23.8	24.7	24.6
Rochester	132.0	137.2	136.1	14.6	14.3	14.7	101.6	101.2	101.0
Rockland County	14.6	15.0	15.0	4.1	4.1	4.1	23.3	23.8	23.6
Syracuse	52.4	52.7	52.7	18.1	18.1	18.1	71.7	73.7	74.6
Utica-Rome	24.5	24.7	24.8	4.4	4.6	4.7	27.6	27.7	27.7
Westchester County	66.9	67.1	66.6	21.3	21.2	21.3	98.3	97.4	97.2
North Carolina	865.4	863.4	864.3	144.5	150.1	151.0	650.3	670.7	672.6
Asheville	19.4	19.3	19.4	3.7	3.7	3.7	18.6	18.9	19.1
Charlotte-Gastonia-Rock Hill	154.4	155.0	153.9	49.2	49.8	49.8	140.1	145.6	145.9
Greensboro-Winston-Salem-High Point	154.0	151.2	150.4	27.5	27.7	27.5	105.1	105.6	106.0
Raleigh-Durham	58.0	58.7	58.4	17.1	16.7	16.5	81.8	82.9	83.2
North Dakota	16.5	16.0	16.4	16.5	16.5	16.9	68.5	69.3	68.9
Bismarck	2.0	2.1	2.1	2.7	2.7	2.7	9.9	9.9	9.8
Fargo-Moorhead	5.1	4.8	4.8	4.6	5.0	5.1	21.2	21.4	21.7
Grand Forks	1.6	1.3	1.8	1.6	1.4	1.5	8.4	8.4	8.5
Ohio	1,108.3	1,101.2	1,110.8	209.3	211.7	212.4	1,112.3	1,141.9	1,143.5
Akron	67.1	65.8	65.9	13.1	13.1	13.1	66.1	67.5	67.8
Canton	43.7	43.4	44.0	5.7	6.1	6.1	39.9	40.5	40.4
Cincinnati	146.3	144.8	145.1	36.2	37.0	37.8	172.5	177.6	178.4
Cleveland	201.4	202.4	204.5	41.5	41.4	41.5	216.3	222.5	222.3
Columbus	102.8	103.2	104.3	28.5	28.9	29.1	169.7	175.7	176.9
Dayton-Springfield	104.7	102.9	103.8	15.7	15.8	15.9	97.7	101.4	101.6
Toledo	62.9	63.3	63.6	14.1	14.2	14.2	69.7	72.8	73.1
Youngstown-Warren	50.5	49.9	51.4	7.7	7.7	7.8	48.7	51.5	51.6
Oklahoma	154.7	158.7	159.0	62.9	61.3	61.2	270.0	267.3	266.4
Enid	1.6	1.7	1.7	2.2	2.2	2.2	6.2	6.3	6.3
Lawton	3.4	3.5	3.6	1.2	1.2	1.2	8.6	8.6	8.7
Oklahoma City	47.2	47.8	47.9	19.8	19.2	19.2	101.0	99.4	100.0
Tulsa	47.2	48.4	48.7	23.4	24.0	24.0	70.1	69.5	69.3
Oregon	215.7	221.9	218.6	59.4	60.2	60.3	283.5	299.7	301.9
Eugene-Springfield	20.5	20.8	20.7	4.2	4.4	4.4	26.9	27.2	27.6
Portland	97.8	100.3	99.5	35.1	35.6	35.7	147.9	152.9	153.5
Salem	18.0	19.2	18.1	3.0	3.0	3.1	22.3	22.3	22.7
Pennsylvania	1,050.3	1,055.5	1,055.3	246.9	241.9	246.2	1,135.9	1,148.9	1,151.3
Allentown-Bethlehem	77.6	76.8	76.6	14.2	13.8	13.9	59.8	61.2	60.9
Altoona	11.6	11.4	11.3	4.6	4.6	4.6	13.1	13.5	13.6
Beaver County	9.7	9.5	9.5	5.3	5.1	5.3	11.2	11.2	11.0
Erie	34.8	34.6	35.2	3.9	3.7	3.7	23.7	24.0	23.9
Harrisburg-Lebanon-Carlisle	53.2	53.2	53.1	18.0	17.5	17.8	67.2	68.1	68.0
Johnstown	13.2	13.2	13.1	5.3	4.7	5.3	16.5	17.0	16.9
Lancaster	60.4	59.9	59.4	7.3	7.1	7.4	43.1	46.2	45.8
Philadelphia PMSA	374.7	372.1	369.9	99.4	96.7	97.7	497.6	506.8	509.6
Philadelphia City	95.9	94.7	94.8	45.2	45.3	44.6	148.4	151.3	153.6
Pittsburgh	122.4	125.1	124.9	44.8	42.5	42.1	214.3	219.9	218.9

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
New Mexico	27.3	27.8	27.7	123.2	128.7	127.9	138.4	133.0	140.9
Albuquerque	15.0	15.2	15.1	64.4	65.3	65.4	46.0	44.3	47.1
Las Cruces	1.7	1.8	1.7	6.3	6.8	6.8	15.9	14.6	15.8
Santa Fe	2.0	2.0	1.9	14.7	15.7	15.0	21.1	22.0	22.2
New York	799.2	807.4	800.9	2,218.9	2,304.1	2,306.1	1,363.1	1,388.8	1,389.4
Albany-Schenectady-Troy	22.9	23.7	23.4	101.8	108.1	105.7	108.2	108.3	109.7
Binghamton	4.0	4.1	4.1	21.9	23.2	22.6	20.6	18.5	20.3
Buffalo	26.8	27.9	27.7	113.7	115.5	117.4	72.0	72.3	73.2
Elmira	1.4	1.4	1.4	9.5	10.2	10.1	6.0	6.0	6.0
Nassau-Suffolk	76.2	79.0	78.4	288.8	302.0	297.1	171.2	166.7	172.0
New York PMSA	587.8	582.2	577.9	1,249.1	1,284.7	1,289.7	643.5	669.5	648.1
New York City	554.4	546.9	543.1	1,104.7	1,134.0	1,142.3	565.8	588.0	568.6
Niagara Falls	1.9	2.0	2.0	16.2	16.8	17.2	12.6	12.6	12.5
Orange County	4.0	4.2	4.0	22.1	23.2	22.6	21.7	21.1	21.4
Poughkeepsie	4.5	5.0	4.9	25.9	26.9	27.0	23.9	23.0	24.2
Rochester	22.0	22.8	22.5	112.6	113.6	115.4	56.3	59.1	62.5
Rockland County	5.2	5.5	5.3	24.1	25.7	24.4	20.2	19.4	20.3
Syracuse	19.2	19.8	19.7	73.9	72.1	75.2	49.1	49.0	49.2
Utica-Rome	6.8	7.1	7.1	26.9	27.1	27.5	28.6	29.5	29.5
Westchester County	27.5	29.0	28.6	115.1	119.2	117.7	53.8	58.4	55.6
North Carolina	129.0	134.5	133.7	492.1	520.5	520.3	441.9	405.1	444.9
Asheville	2.8	2.8	2.7	17.6	19.7	18.4	11.5	11.4	12.3
Charlotte-Gastonia-Rock Hill	36.7	37.2	36.9	106.3	113.1	113.6	61.5	58.9	62.9
Greensboro-Winston-Salem-High Point	22.9	23.8	23.8	81.1	85.4	84.4	51.1	45.4	52.6
Raleigh-Durham	23.0	23.7	23.5	95.1	99.7	100.6	86.1	85.2	86.5
North Dakota	12.5	12.6	12.5	61.8	64.4	64.7	62.6	60.2	63.0
Bismarck	1.7	1.6	1.6	10.6	11.0	11.2	8.4	8.3	8.6
Fargo-Moorhead	4.5	4.6	4.6	18.1	19.2	19.0	13.5	11.8	13.6
Grand Forks	1.1	1.2	1.2	6.8	6.8	6.9	8.3	8.0	8.5
Ohio	246.1	254.4	253.2	1,074.7	1,110.1	1,114.8	672.7	641.3	673.9
Akron	10.6	10.9	10.9	59.5	62.4	61.7	42.7	37.1	42.7
Canton	6.5	6.5	6.4	35.7	37.0	37.1	18.2	17.7	18.4
Cincinnati	40.8	42.8	42.9	174.6	182.9	183.2	86.7	82.9	87.8
Cleveland	55.2	57.6	57.4	238.6	244.2	246.5	115.0	113.3	113.9
Columbus	58.0	60.2	59.9	157.9	164.7	166.5	115.4	114.1	117.7
Dayton-Springfield	18.1	18.5	18.4	106.5	108.9	110.6	72.1	65.9	72.2
Toledo	11.4	11.4	11.4	72.4	76.5	76.7	40.8	36.3	41.5
Youngstown-Warren	8.2	8.5	8.4	45.2	46.0	46.5	22.5	20.8	22.5
Oklahoma	58.2	57.1	56.5	234.5	240.0	243.7	245.6	234.2	247.2
Enid	1.0	1.0	1.0	5.8	5.4	5.6	3.5	3.2	3.4
Lawton	1.7	1.5	1.5	5.9	5.8	5.9	11.2	10.6	11.0
Oklahoma City	24.5	23.8	23.6	91.0	89.7	91.5	95.2	92.4	96.4
Tulsa	17.6	17.7	17.4	70.6	71.1	71.4	34.4	34.0	36.0
Oregon	72.3	75.0	74.6	245.4	256.6	258.7	197.4	191.9	201.6
Eugene-Springfield	4.9	4.9	4.9	24.1	25.5	25.7	20.5	19.5	21.6
Portland	47.5	49.4	49.3	137.9	141.7	143.5	75.8	73.2	77.0
Salem	5.5	5.8	5.8	19.5	19.8	20.2	29.2	28.7	29.3
Pennsylvania	293.5	301.6	299.1	1,290.1	1,355.6	1,356.5	670.8	669.5	679.6
Allentown-Bethlehem	11.6	11.9	11.7	67.4	70.3	70.5	28.9	27.2	29.1
Altoona	1.7	1.9	1.8	10.9	11.6	11.2	7.7	7.6	7.4
Beaver County	1.9	1.8	1.9	11.3	11.9	12.0	7.5	7.8	7.8
Erie	5.5	5.4	5.4	26.5	27.9	28.0	12.9	13.0	13.8
Harrisburg-Lebanon-Carlisle	17.2	18.4	18.5	63.2	66.0	64.7	65.7	65.4	66.3
Johnstown	4.7	4.8	4.8	19.4	20.3	20.1	13.3	13.1	12.7
Lancaster	6.9	7.3	7.2	37.2	38.7	39.3	14.2	14.1	14.9
Philadelphia PMSA	163.8	165.5	164.1	611.2	628.3	627.4	292.6	298.5	294.9
Philadelphia City	73.8	73.1	72.4	249.9	246.9	250.4	141.7	149.5	143.1
Pittsburgh	54.0	54.7	54.5	267.6	274.0	277.1	100.0	101.3	102.6

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Pennsylvania-Continued									
Reading	148.2	153.2	155.4	(²)	(²)	(²)	7.2	8.0	7.8
Scranton-Wilkes-Barre	290.8	298.5	299.1	0.7	0.6	0.6	13.1	14.6	14.2
Williamsport	51.5	53.0	54.1	(²)	(²)	(²)	2.1	2.2	2.1
York	172.1	175.7	177.9	.4	.5	.5	10.3	11.6	11.6
Rhode Island	457.2	458.1	460.6	.2	.1	.2	20.6	21.2	21.5
Pawtucket-Woonsocket-Attleboro	133.2	134.4	135.0	.1	.1	.1	5.2	5.3	5.4
Providence	321.2	323.6	325.3	.1	.1	.1	15.3	15.7	15.8
South Carolina	1,410.6	1,432.9	1,453.3	1.7	1.6	1.6	87.1	92.6	91.2
Charleston	187.0	194.1	196.3	(¹)	(¹)	(¹)	13.7	14.0	14.1
Columbia	226.0	230.3	236.3	(¹)	(¹)	(¹)	13.5	14.7	14.9
Greenville-Spartanburg	309.4	313.4	320.2	(¹)	(¹)	(¹)	21.9	22.6	22.2
South Dakota	258.6	261.2	262.2	2.6	2.6	2.6	11.9	12.4	12.1
Rapid City	35.3	36.7	35.6	.3	.3	.3	2.5	2.5	2.4
Sioux Falls	65.8	66.6	67.6	(¹)	(¹)	(¹)	3.2	3.6	3.6
Tennessee	2,043.7	2,052.3	2,071.7	6.6	6.5	6.5	102.0	103.3	102.5
Chattanooga	190.6	192.2	192.9	.8	.9	.8	9.7	9.1	9.5
Johnson City-Kingsport-Bristol	160.7	163.7	164.6	.3	.3	.3	7.0	6.9	6.7
Knoxville	250.6	252.2	252.8	1.9	1.8	1.8	12.3	11.5	11.4
Memphis	429.2	432.5	434.8	.1	.1	.1	20.5	20.5	20.3
Nashville	473.8	455.3	460.2	.7	.6	.6	27.4	26.5	25.5
Texas	6,517.5	6,580.4	6,608.5	181.9	181.5	179.6	346.6	327.9	320.9
Abilene	48.7	49.3	50.3	2.1	2.0	2.0	2.0	2.4	2.2
Amarillo	78.1	76.9	77.8	1.3	1.2	1.2	3.9	4.0	3.9
Austin	353.8	339.9	350.4	.8	.7	.7	16.7	15.7	15.4
Beaumont-Port Arthur	129.0	128.5	129.0	1.5	1.5	1.5	7.3	8.3	8.3
Brazoria	56.7	57.9	58.2	1.8	1.6	1.6	5.6	6.7	6.9
Brownsville-Harlingen	66.5	66.8	66.7	.1	.1	.1	2.1	2.2	2.1
Bryan-College Station	46.2	46.2	48.0	.7	.6	.7	2.1	2.2	2.2
Corpus Christi	124.0	123.8	126.2	4.0	4.1	4.2	6.2	6.5	6.2
Dallas	1,334.2	1,330.8	1,335.4	18.5	18.3	18.1	61.6	50.0	48.4
El Paso	187.5	187.6	191.1	.1	.1	.1	9.9	9.3	9.2
Ft. Worth-Arlington	519.6	514.0	517.5	3.6	3.6	3.6	24.5	19.5	19.3
Galveston-Texas City	71.6	71.7	71.5	.6	.6	.5	3.6	2.8	2.9
Houston	1,386.9	1,417.0	1,421.0	62.9	64.4	64.2	84.7	87.5	85.5
Killeen-Temple	69.6	70.9	71.2	.1	.1	.1	3.6	3.6	3.6
Laredo	35.3	36.9	37.5	2.0	1.9	1.9	1.2	1.3	1.2
Longview-Marshall	64.3	65.4	65.9	3.6	3.6	3.6	2.8	3.4	3.3
Lubbock	92.0	92.8	94.1	.4	.4	.4	3.4	3.6	3.6
McAllen-Edinburg-Mission	87.4	86.2	87.8	.9	.9	.9	3.8	4.1	4.1
Midland	43.5	44.3	44.7	9.7	9.7	9.6	1.3	1.2	1.2
Odessa	42.4	42.7	43.2	6.1	5.8	5.8	2.1	2.1	2.1
San Angelo	36.0	35.9	36.3	.4	.4	.4	1.5	1.5	1.5
San Antonio	501.7	504.3	512.0	2.5	2.5	2.5	30.2	26.3	25.3
Sherman-Denison	37.9	38.0	37.8	.1	.1	.1	1.7	1.8	1.8
Texarkana	45.5	44.4	45.1	.1	.1	.1	2.1	1.7	1.7
Tyler	61.0	61.2	61.3	1.8	1.8	1.8	2.2	2.4	2.3
Victoria	27.3	27.1	27.6	1.6	1.4	1.4	1.7	1.8	1.7
Waco	78.1	76.8	78.7	.1	.1	.1	3.5	3.9	3.9
Wichita Falls	50.3	50.5	51.4	1.9	1.9	1.9	1.7	2.2	2.2
Utah	647.7	655.3	668.2	8.2	8.5	8.6	28.3	26.3	26.3
Provo-Orem	76.5	78.9	83.0	(¹)	(¹)	(¹)	2.6	3.0	2.9
Salt Lake City-Ogden	448.7	454.9	461.4	2.7	2.8	2.9	20.0	18.4	18.1
Vermont	247.3	250.5	254.5	.6	.7	.8	18.1	19.1	19.3
Barre-Montpelier	34.2	36.1	35.9	.2	.2	.2	2.3	2.7	2.7
Burlington	74.8	78.5	79.1	(¹)	(¹)	(¹)	4.9	5.6	5.4

See footnotes at end of table.

ESTABLISHMENT DATA
STATE AND AREA EMPLOYMENT
NOT SEASONALLY ADJUSTED

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Pennsylvania-Continued									
Reading	48.7	49.2	49.8	6.8	6.9	7.3	32.9	33.8	34.0
Scranton-Wilkes-Barre	72.1	71.0	71.5	15.7	15.8	16.1	66.6	67.9	68.4
Williamsport	16.7	16.7	16.6	1.9	1.9	1.9	11.9	12.8	12.7
York	58.9	60.4	60.8	7.6	8.0	8.2	41.4	42.3	41.9
Rhode Island									
Pawtucket-Woonsocket-Attleboro	117.0	115.4	116.1	15.8	15.7	15.9	105.3	106.8	106.8
Providence	54.2	53.1	53.4	3.4	3.5	3.5	32.3	33.5	33.4
Providence	73.4	71.7	72.3	12.1	12.3	12.4	70.6	72.8	72.8
South Carolina									
Charleston	378.2	375.6	378.9	59.6	61.5	61.1	319.1	336.3	334.4
Columbia	19.5	20.5	20.7	9.9	10.3	10.4	46.6	46.9	47.2
Greenville-Spartanburg	28.8	30.1	29.9	10.4	10.6	10.6	49.6	50.2	50.6
Greenville-Spartanburg	101.3	100.9	101.7	11.3	11.9	11.9	71.6	73.8	74.0
South Dakota									
Rapid City	29.9	30.6	30.4	12.5	12.5	12.8	68.0	70.0	69.2
Rapid City	3.2	3.2	3.2	1.9	1.9	1.8	10.1	11.2	10.2
Sioux Falls	9.2	8.8	8.9	4.6	4.6	4.7	17.3	17.9	17.9
Tennessee									
Chattanooga	499.6	500.0	499.3	105.5	107.9	108.2	480.8	487.1	485.7
Johnson City-Kingsport-Bristol	45.5	46.6	46.5	8.5	8.5	8.6	44.5	44.7	44.4
Knoxville	53.4	55.1	55.2	6.0	6.2	6.2	35.9	36.2	36.0
Memphis	49.1	51.5	51.5	10.3	10.2	10.2	65.0	65.1	65.2
Memphis	53.4	54.3	54.0	39.4	40.3	40.4	118.5	120.7	120.4
Nashville	90.0	87.3	87.3	22.8	24.0	23.9	115.9	110.9	110.1
Texas									
Abilene	938.9	950.9	951.2	388.0	393.7	394.4	1,643.3	1,667.0	1,664.7
Amarillo	4.6	4.8	4.8	2.4	2.4	2.4	13.4	13.9	13.8
Austin	9.9	9.5	9.4	5.8	5.7	5.8	22.7	23.3	23.4
Beaumont-Port Arthur	39.7	40.0	40.0	10.8	10.6	10.7	79.6	76.8	77.3
Brazoria	24.8	25.4	25.1	9.9	9.8	9.8	32.2	31.4	31.2
Brownsville-Harlingen	15.4	15.7	15.6	2.3	2.3	2.3	11.1	11.1	10.8
Bryan-College Station	10.3	10.5	10.3	3.2	3.3	3.2	17.7	17.8	17.6
Corpus Christi	3.0	3.1	3.1	1.6	1.6	1.6	9.6	9.6	9.7
Dallas	11.4	11.4	11.4	7.0	6.9	6.8	31.8	32.5	32.4
Dallas	221.6	222.3	222.5	89.8	93.0	93.4	345.6	352.5	351.5
El Paso	38.3	38.9	39.2	10.4	10.9	10.9	46.4	47.0	47.6
Ft. Worth-Arlington	116.6	119.1	118.8	30.3	31.3	31.2	137.9	132.7	133.0
Galveston-Texas City	8.8	8.4	8.4	5.2	4.4	4.6	14.3	15.1	14.7
Houston	147.2	152.0	152.4	98.2	100.0	99.5	349.1	359.6	357.6
Killeen-Temple	7.9	8.4	8.3	2.7	2.8	2.8	16.2	16.6	16.5
Laredo	1.8	1.7	1.7	4.5	5.0	5.0	10.2	10.8	10.8
Longview-Marshall	15.8	15.9	15.8	3.1	3.1	3.1	16.4	17.1	17.1
Lubbock	7.2	7.6	7.6	4.7	5.1	5.1	27.2	27.6	28.0
McAllen-Edinburg-Mission	11.4	11.2	11.0	2.8	2.7	2.7	25.3	26.1	26.4
Midland	2.9	2.8	2.8	2.0	2.2	2.2	10.3	10.5	10.4
Odessa	3.7	3.8	3.7	2.1	2.1	2.1	12.3	12.9	12.8
San Angelo	5.7	5.5	5.5	3.1	3.0	3.0	9.3	9.4	9.5
San Antonio	46.7	46.3	47.0	18.3	18.1	17.8	130.6	135.2	135.6
Sherman-Denison	11.0	11.3	11.1	2.0	2.0	1.9	8.4	8.4	8.4
Texarkana	7.5	7.2	7.3	1.8	1.9	1.9	10.5	10.8	10.8
Tyler	10.7	10.4	10.3	2.8	2.7	2.7	16.5	16.8	16.8
Victoria	3.0	3.0	2.9	1.4	1.6	1.6	7.9	7.7	8.0
Waco	15.1	15.0	14.9	3.3	3.3	3.3	19.0	19.1	19.1
Wichita Falls	8.5	8.3	8.3	2.6	2.6	2.6	12.3	12.1	12.2
Utah									
Provo-Orem	93.8	98.6	98.9	38.6	39.4	39.8	154.0	155.5	157.8
Salt Lake City-Ogden	10.6	13.5	13.7	2.9	3.1	3.1	16.3	16.7	17.0
Salt Lake City-Ogden	62.4	63.8	64.1	29.3	29.8	29.9	112.1	113.1	114.7
Vermont									
Barre-Montpelier	50.1	49.9	49.8	10.1	10.7	11.0	57.1	59.3	59.2
Burlington	4.7	4.8	4.8	.9	.8	.9	7.2	7.5	7.4
Burlington	16.6	17.1	16.9	3.0	3.0	3.0	17.2	18.4	18.1

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
Pennsylvania—Continued									
Reading	7.4	8.3	8.2	29.6	31.9	31.7	15.6	15.1	16.6
Scranton-Wilkes-Barre	12.8	13.2	12.9	70.4	75.8	75.0	39.4	39.6	40.4
Williamsport	2.3	2.4	2.4	9.8	10.8	11.1	6.8	6.2	7.3
York	5.1	5.3	5.3	30.7	30.9	31.7	17.7	16.7	17.9
Rhode Island									
Pawtucket-Woonsocket-Attleboro	25.7	26.4	26.7	115.5	115.8	116.4	57.1	56.7	57.0
Providence	3.6	3.8	3.8	24.6	25.1	25.4	9.8	10.0	10.0
	21.5	22.1	22.3	84.9	65.9	86.3	43.3	43.0	43.3
South Carolina									
Charleston	64.9	67.8	66.9	247.8	259.3	261.4	252.2	238.2	257.8
Columbia	8.4	9.0	8.8	40.1	41.5	41.8	48.7	51.8	53.2
Greenville-Spartanburg	18.2	19.2	18.9	43.7	45.1	45.2	61.4	60.5	65.8
	11.9	12.1	12.2	53.0	56.4	56.9	38.1	35.4	41.0
South Dakota									
Rapid City	14.4	14.9	14.7	62.3	64.0	63.5	57.0	54.1	56.9
Sioux Falls	1.7	1.7	1.7	9.0	9.9	9.4	6.6	6.1	6.6
	6.2	6.6	6.6	18.1	18.7	18.7	7.2	6.3	7.2
Tennessee									
Chattanooga	103.7	103.8	103.2	417.5	429.0	428.1	327.9	314.7	338.2
Johnson City-Kingsport-Bristol	12.0	11.8	11.8	37.7	37.4	37.7	32.9	33.2	33.6
Knoxville	5.3	5.6	5.6	29.2	30.9	31.3	23.6	22.5	23.3
Memphis	9.7	9.5	9.6	52.6	53.4	52.9	49.7	49.2	50.2
Nashville	24.7	25.1	25.1	100.1	101.1	101.7	72.5	70.4	72.8
	33.6	33.2	32.9	117.2	110.7	111.9	66.3	62.2	68.0
Texas									
Abilene	441.3	442.9	441.1	1,441.3	1,500.9	1,504.1	1,136.2	1,115.6	1,152.5
Amarillo	2.7	2.6	2.6	13.2	12.7	13.4	8.3	8.5	9.1
Austin	4.3	4.3	4.3	16.3	16.7	16.8	13.9	12.2	13.0
Beaumont-Port Arthur	25.0	24.7	24.6	84.8	83.1	83.6	96.4	88.3	98.1
Brazoria	5.3	5.3	5.3	28.0	28.0	27.7	20.0	18.8	20.1
Brownsville-Harlingen	2.1	2.0	1.9	7.7	8.1	8.2	10.7	10.4	10.9
Bryan-College Station	3.5	3.5	3.5	13.8	15.1	14.1	15.9	14.4	15.9
Corpus Christi	1.8	1.6	1.6	8.3	8.5	8.7	19.1	19.0	20.4
Dallas	6.9	7.0	7.0	28.8	29.1	29.7	27.9	26.3	28.5
El Paso	132.7	128.4	127.4	316.2	321.9	323.2	148.2	144.4	150.9
Ft. Worth-Arlington	9.5	9.3	9.1	35.0	36.4	36.8	38.0	35.7	38.2
Galveston-Texas City	28.1	26.8	26.7	112.3	116.9	116.6	66.3	64.1	68.3
Houston	4.1	4.1	4.1	14.0	15.2	14.8	21.0	21.1	21.5
Killeen-Temple	100.3	98.1	98.1	360.3	375.2	375.3	184.2	180.2	188.4
Laredo	3.0	2.9	2.9	15.1	15.6	15.8	21.0	20.9	21.2
Longview-Marshall	1.6	1.7	1.6	5.8	6.1	6.1	8.2	8.4	9.2
Lubbock	2.7	2.7	2.7	11.6	11.5	11.9	8.3	8.1	8.4
McAllen-Edinburg-Mission	5.4	5.5	5.4	21.8	22.8	22.8	21.9	20.2	21.2
Midland	3.8	3.8	3.8	14.4	14.0	14.1	25.0	23.4	24.8
Odessa	2.5	2.5	2.5	8.6	8.8	8.8	6.2	6.6	7.2
San Angelo	1.6	1.7	1.7	7.0	7.4	7.3	7.5	6.9	7.7
San Antonio	1.8	1.8	1.8	7.8	8.0	7.9	6.4	6.3	6.7
Sherman-Denison	39.8	41.0	40.5	119.9	126.1	126.7	113.7	108.8	116.6
Texas City	1.7	1.8	1.7	8.7	8.5	8.7	4.3	4.1	4.1
Tyler	1.9	1.9	1.9	9.3	9.6	9.5	12.3	11.2	11.9
Victoria	3.7	3.6	3.7	14.5	14.8	14.8	8.8	8.7	8.9
Waco	1.5	1.6	1.5	5.7	5.6	5.9	4.5	4.4	4.6
Wichita Falls	4.6	4.7	4.7	20.2	19.7	20.5	12.3	11.0	12.2
	2.3	2.4	2.4	11.5	11.5	11.6	9.5	9.5	10.2
Utah									
Provo-Orem	34.2	34.0	33.8	151.1	158.8	161.6	139.6	134.2	141.4
Salt Lake City-Ogden	2.4	2.3	2.3	28.2	27.0	30.2	13.4	13.3	13.8
	28.1	28.1	28.3	102.8	110.5	110.7	91.3	88.4	92.7
Vermont									
Barre-Montpelier	12.1	12.7	12.5	59.3	62.5	62.7	39.9	35.6	39.2
Burlington	3.0	3.0	2.9	7.5	8.7	8.2	8.4	8.4	8.8
	3.6	3.8	3.8	18.4	20.7	20.3	11.1	9.9	11.6

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Virginia	2,704.8	2,806.5	2,820.7	15.6	15.2	14.9	187.0	207.0	203.6
Bristol	31.2	32.4	33.6	.1	.1	.1	1.0	1.0	1.0
Charlottesville	65.4	65.5	68.0	.1	.1	.1	3.8	4.0	3.9
Danville	40.9	40.7	42.2	.1	.1	.1	1.8	2.1	2.1
Lynchburg	72.8	71.7	72.7	.1	.1	.1	3.6	3.7	3.6
Norfolk-Virginia Beach-Newport News	557.5	576.7	575.4	.1	.1	.1	40.6	41.6	41.0
Northern Virginia	712.2	757.5	753.0	.5	.5	.5	54.1	61.4	59.8
Richmond-Petersburg	439.6	455.5	458.5	.5	.6	.6	29.7	32.1	32.0
Roanoke	120.3	118.8	119.4	.2	.2	.2	7.9	8.1	8.0
Washington	1,878.0	1,938.0	1,959.8	3.1	3.4	3.5	95.1	108.6	108.8
Seattle	943.1	989.1	993.2	.6	.7	.7	49.5	55.9	56.3
West Virginia	601.7	611.5	607.6	36.3	34.5	34.3	25.0	26.9	27.2
Charleston	106.7	108.1	107.1	2.2	2.0	2.0	4.5	4.6	4.7
Huntington-Ashland	103.1	104.0	104.8	1.4	1.4	1.4	4.5	4.8	4.8
Parkersburg-Marietta	59.5	60.5	60.1	.6	.6	.6	2.9	3.2	3.1
Wheeling	58.5	59.4	58.8	2.2	2.4	2.4	2.2	2.4	2.4
Wisconsin	2,116.2	2,164.8	2,185.4	2.4	2.5	2.5	72.8	77.4	77.4
Appleton-Oshkosh-Neenah	147.0	152.3	153.9	(^b)	(^b)	(^b)	7.0	7.0	7.0
Eau Claire	54.6	56.8	59.1	(^b)	(^b)	(^b)	1.6	1.7	1.6
Green Bay	95.3	99.3	99.8	(^b)	(^b)	(^b)	3.1	3.5	3.5
Janesville-Beloit	54.3	56.1	57.7	(^b)	(^b)	(^b)	1.2	1.4	1.4
Kenosha	43.4	38.5	41.7	(^b)	(^b)	(^b)	1.2	.9	1.0
La Crosse	51.9	53.4	54.6	(^b)	(^b)	(^b)	1.5	1.9	1.9
Madison	200.6	203.7	208.2	(^b)	(^b)	(^b)	7.7	7.5	7.2
Milwaukee	702.3	718.3	722.1	(^b)	(^b)	(^b)	22.5	23.0	23.1
Racine	70.1	72.0	72.4	(^b)	(^b)	(^b)	2.1	2.0	2.0
Wausau	46.2	48.2	48.5	(^b)	(^b)	(^b)	1.7	1.6	1.7
Wyoming	183.6	181.0	181.7	18.1	18.0	18.2	11.1	9.7	9.6
Puerto Rico	766.2	787.1	796.0	.7	.8	.8	34.8	39.3	39.2
Caguas	49.8	49.6	50.4	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)
Mayaguez	55.0	55.3	55.1	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)
Ponce	49.7	50.0	50.7	.2	.2	.2	3.0	3.8	3.7
San Juan	465.3	483.8	489.2	.4	.4	.4	25.8	28.9	28.8
Virgin Islands	38.3	40.0	38.9	(^b)	(^b)	(^b)	1.7	1.8	1.8

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Virginia	432.6	428.0	429.0	144.0	149.0	150.0	616.2	649.1	647.8
Bristol	10.2	10.9	11.5	1.1	1.1	1.1	8.0	8.4	8.4
Charlottesville	8.8	8.5	8.5	2.3	2.3	2.4	13.2	14.2	14.4
Danville	17.4	17.0	17.7	1.0	1.0	1.1	8.6	9.3	9.4
Lynchburg	23.8	22.9	23.0	2.8	2.8	2.7	14.7	15.3	15.1
Norfolk-Virginia Beach-Newport News	68.2	70.0	69.4	26.1	26.3	26.3	136.9	141.2	141.0
Northern Virginia	35.6	35.4	34.8	50.1	55.3	55.8	160.2	170.7	168.4
Richmond-Petersburg	62.8	62.6	62.7	23.2	23.8	24.0	103.8	111.4	112.3
Roanoke	19.7	18.6	19.5	8.8	8.7	8.6	32.6	32.3	31.8
Washington	327.8	336.3	340.7	101.3	106.1	106.8	465.2	484.0	485.6
Seattle	186.4	197.6	198.3	60.4	60.7	60.8	231.7	242.1	241.3
West Virginia	86.4	87.7	87.6	36.7	37.4	37.2	141.4	145.6	144.9
Charleston	11.0	11.0	11.0	8.5	8.5	8.5	28.0	28.7	28.7
Huntington-Ashland	19.4	19.6	19.8	7.8	7.7	7.8	26.5	27.1	27.1
Parkersburg-Marietta	14.0	14.5	14.3	2.1	2.2	2.2	14.4	14.7	14.7
Wheeling	7.0	7.1	7.1	3.3	3.3	3.3	16.1	16.0	15.9
Wisconsin	542.3	562.5	558.5	96.3	95.7	100.6	507.8	526.9	524.5
Appleton-Oshkosh-Neenah	51.6	54.9	54.0	5.4	5.3	5.5	31.8	33.3	34.1
Eau Claire	10.1	11.0	10.9	3.6	3.6	3.8	16.1	16.5	16.9
Green Bay	25.5	26.8	26.2	6.3	6.2	6.4	25.3	26.2	26.0
Janesville-Beloit	17.5	18.1	18.2	2.2	2.0	2.2	13.7	14.0	14.0
Kenosha	15.5	12.1	14.5	1.4	1.2	1.3	9.2	9.5	9.6
La Crosse	11.1	11.4	11.3	2.6	2.6	2.6	14.4	14.7	14.8
Madison	23.0	24.3	23.8	7.2	7.3	7.5	45.6	46.0	47.5
Milwaukee	170.3	175.9	175.6	35.3	34.3	35.9	162.7	170.0	168.9
Racine	24.2	24.9	25.0	2.3	2.2	2.3	16.8	17.6	17.6
Wausau	13.1	14.4	13.9	2.7	2.7	2.9	11.4	11.7	11.8
Wyoming	8.4	8.3	8.5	12.8	12.6	12.6	41.2	41.0	40.2
Puerto Rico	153.4	152.2	152.7	16.5	15.3	15.2	133.9	138.6	139.3
Caguas	15.9	14.9	15.2	(^b)	(^b)	(^b)	9.2	9.8	9.8
Mayaguez	20.2	19.6	18.4	(^b)	(^b)	(^b)	7.5	7.6	7.8
Ponce	9.5	8.6	8.8	(^b)	(^b)	(^b)	7.6	8.1	8.0
San Juan	65.5	65.8	66.6	14.4	12.5	12.3	93.4	98.1	98.5
Virgin Islands	2.1	2.3	2.3	2.6	2.5	2.5	8.8	8.9	8.9

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Sept. 1987	Aug. 1988	Sept. 1988 ^o	Sept. 1987	Aug. 1988	Sept. 1988 ^o	Sept. 1987	Aug. 1988	Sept. 1988 ^o
Virginia	146.2	152.2	150.6	639.5	690.4	692.2	523.8	515.6	532.6
Bristol	1.2	1.4	1.4	4.8	4.9	5.1	4.8	4.6	5.0
Charlottesville	3.6	3.6	3.6	11.8	12.3	11.7	21.7	20.5	23.4
Danville	1.2	1.2	1.2	5.8	5.6	5.6	5.0	4.4	5.0
Lynchburg	3.8	4.1	4.1	14.3	13.7	14.4	9.8	9.1	9.7
Norfolk-Virginia Beach-Newport News	27.2	28.7	28.3	133.4	144.6	142.5	125.0	124.2	126.8
Northern Virginia	46.9	49.8	49.4	225.8	244.7	244.2	139.1	139.7	140.1
Richmond-Petersburg	36.2	37.2	37.0	94.6	98.3	99.1	88.7	89.5	90.8
Roanoke	8.2	8.6	8.5	27.7	27.7	27.8	15.3	14.6	15.0
Washington	107.8	110.1	109.5	429.0	449.3	454.1	348.7	340.2	350.8
Seattle	68.0	69.6	69.4	222.5	237.2	237.7	124.0	125.3	128.7
West Virginia	24.3	24.5	24.2	126.7	126.5	126.3	124.9	128.4	125.9
Charleston	6.0	6.0	5.9	25.8	25.6	25.5	20.7	21.7	20.8
Huntington-Ashland	3.9	3.9	3.9	20.5	22.0	22.0	19.1	17.5	18.0
Parkersburg-Marietta	2.3	2.3	2.3	13.7	13.4	13.3	9.5	9.6	9.6
Wheeling	2.7	2.7	2.7	15.7	15.8	15.7	9.3	9.7	9.3
Wisconsin	113.1	115.8	115.2	462.8	477.0	473.7	318.8	307.0	333.0
Appleton-Oshkosh-Neenah	7.1	7.6	7.6	28.1	28.5	28.7	15.6	15.4	16.6
Eau Claire	1.9	2.0	2.0	12.0	12.4	12.5	9.4	9.6	11.4
Green Bay	3.5	3.7	3.6	21.1	22.7	23.1	10.6	10.1	10.9
Janesville-Beloit	1.6	1.7	1.7	11.6	12.4	12.4	6.3	6.4	7.7
Kenosha	1.3	1.4	1.4	8.3	8.4	8.2	6.5	5.0	5.7
La Crosse	1.5	1.5	1.5	14.0	14.5	14.5	6.9	6.8	8.0
Madison	17.7	18.8	18.4	43.0	44.7	44.8	56.3	54.9	58.8
Milwaukee	49.1	49.5	49.6	182.4	187.4	186.3	79.6	77.9	82.4
Racine	2.3	2.3	2.3	14.3	15.0	14.7	8.1	7.9	8.4
Wausau	3.4	3.6	3.5	8.1	8.7	8.5	5.9	5.5	6.2
Wyoming	7.4	7.2	7.1	34.1	36.0	33.8	50.5	48.2	51.7
Puerto Rico	35.0	36.2	35.9	110.7	113.0	113.4	281.2	291.6	299.5
Caguas	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	15.3	15.2	15.6
Mayaguez	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	18.2	18.6	19.2
Ponce	(¹)	(¹)	(¹)	9.7	9.1	9.4	16.6	17.0	17.4
San Juan	28.5	29.3	28.9	78.2	81.4	81.6	159.4	167.4	172.0
Virgin Islands	1.6	1.8	1.8	8.9	8.6	8.7	12.6	14.1	12.9

¹ Not available.
² Combined with construction.
^o = preliminary.

NOTE: Area definitions are published annually in the May issue of this publication. All State and area data have been adjusted to March 1987 benchmarks except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

**ESTABLISHMENT DATA
HISTORICAL HOURS AND EARNINGS**

C-1. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by major industry, 1964 to date

Year and month	Total private ¹			Mining			Construction		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
Annual averages									
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	12.52	530.85	37.8	12.69	479.68
Monthly data, not seasonally adjusted									
1987:									
October	34.9	\$9.08	\$316.89	42.9	\$12.42	\$532.82	38.8	\$12.82	\$497.42
November	34.8	9.13	317.72	42.6	12.54	534.20	37.1	12.83	475.99
December	34.8	9.13	317.72	43.1	12.60	543.06	37.6	12.81	481.66
1988:									
January	34.4	9.18	315.79	42.1	12.77	537.62	35.9	12.99	466.34
February	34.5	9.17	316.37	41.8	12.71	531.28	36.1	12.82	462.80
March	34.4	9.18	315.79	41.9	12.59	527.52	37.4	12.87	481.34
April	34.7	9.23	320.28	42.8	12.60	539.28	37.9	12.88	488.15
May	34.6	9.26	320.40	42.2	12.54	529.19	38.2	12.87	491.63
June	34.9	9.23	322.13	42.5	12.55	533.38	38.7	12.85	497.30
July	35.1	9.25	324.68	42.3	12.66	535.52	38.5	12.91	497.04
August	35.0	9.24	323.40	42.0	12.62	530.04	38.6	12.95	499.87
September ^a	34.8	9.40	327.12	42.1	12.76	537.20	38.4	13.12	503.81
October ^b	34.9	9.45	329.81	42.6	12.66	539.32	38.9	13.12	510.37

See footnotes at end of table.

**ESTABLISHMENT DATA
HISTORICAL HOURS AND EARNINGS**

C-1. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural 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
Annual averages										
1964	40.7	\$2.53	\$2.43	\$102.97	41.1	\$2.89	\$118.78	40.7	\$2.52	\$102.56
1965	41.2	2.61	2.50	107.53	41.3	3.03	125.14	40.8	2.61	106.49
1966	41.4	2.71	2.59	112.19	41.2	3.11	128.13	40.7	2.73	111.11
1967	40.6	2.82	2.71	114.49	40.5	3.23	130.82	40.3	2.88	116.06
1968	40.7	3.01	2.88	122.51	40.6	3.42	138.85	40.1	3.05	122.31
1969	40.6	3.19	3.05	129.51	40.7	3.63	147.74	40.2	3.23	129.85
1970	39.8	3.35	3.23	133.33	40.5	3.85	155.93	39.9	3.44	137.26
1971	39.9	3.57	3.45	142.44	40.1	4.21	168.82	39.5	3.65	144.18
1972	40.5	3.82	3.66	154.71	40.4	4.65	187.86	39.4	3.85	151.69
1973	40.7	4.09	3.91	166.46	40.5	5.02	203.31	39.3	4.08	160.34
1974	40.0	4.42	4.25	176.80	40.2	5.41	217.48	38.8	4.39	170.33
1975	39.5	4.83	4.67	190.79	39.7	5.88	233.44	38.7	4.73	183.05
1976	40.1	5.22	5.02	209.32	39.8	6.45	256.71	38.7	5.03	194.66
1977	40.3	5.68	5.44	228.90	39.9	6.99	278.90	38.8	5.39	209.13
1978	40.4	6.17	5.91	249.27	40.0	7.57	302.80	38.8	5.88	228.14
1979	40.2	6.70	6.43	269.34	39.9	8.16	325.58	38.8	6.39	247.93
1980	39.7	7.27	7.02	288.62	39.6	8.87	351.25	38.5	6.96	267.96
1981	39.8	7.99	7.72	318.00	39.4	9.70	382.18	38.5	7.56	291.06
1982	38.9	8.49	8.25	330.26	39.0	10.32	402.48	38.3	8.09	309.85
1983	40.1	8.83	8.52	354.08	39.0	10.79	420.81	38.5	8.55	329.18
1984	40.7	9.19	8.82	374.03	39.4	11.12	438.13	38.5	8.89	342.27
1985	40.5	9.54	9.16	386.37	39.5	11.40	450.30	38.4	9.16	351.74
1986	40.7	9.73	9.34	396.01	39.2	11.70	458.64	38.3	9.35	358.11
1987	41.0	9.91	9.48	406.31	39.2	12.03	471.58	38.1	9.59	365.38
Monthly data, not seasonally adjusted										
1987:										
October	41.3	\$9.95	\$9.48	\$410.94	39.4	\$12.12	\$477.53	38.3	\$9.65	\$369.60
November	41.4	10.01	9.54	414.41	39.3	12.21	479.85	38.2	9.72	371.30
December	41.8	10.07	9.59	420.93	39.2	12.24	479.81	38.2	9.73	371.69
1988:										
January	41.0	10.07	9.62	412.87	39.0	12.16	474.24	37.9	9.78	370.66
February	40.7	10.05	9.63	409.04	38.9	12.23	475.75	37.9	9.78	370.66
March	40.9	10.07	9.64	411.86	38.6	12.19	470.53	37.9	9.78	370.66
April	41.0	10.12	9.68	414.92	39.2	12.27	480.98	38.2	9.88	377.42
May	40.9	10.14	9.70	414.73	39.2	12.28	481.38	38.0	9.87	375.06
June	41.2	10.16	9.70	418.59	39.5	12.27	484.67	38.1	9.85	375.29
July	40.7	10.16	9.72	413.51	39.8	12.33	490.73	38.3	9.93	380.32
August	40.8	10.12	9.66	412.90	39.7	12.35	490.30	38.0	9.88	375.44
September ^a	41.3	10.25	9.75	423.33	39.4	12.36	486.98	38.1	10.00	381.00
October ^b	41.2	10.25	9.76	422.30	39.6	12.42	491.83	38.2	10.10	385.82

See footnotes at end of table.

**ESTABLISHMENT DATA
HISTORICAL HOURS AND EARNINGS**

C-1. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural 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
Annual averages									
1964	37.0	\$1.75	\$64.75	37.3	\$2.30	\$85.79	36.1	\$1.94	\$70.03
1965	36.6	1.82	66.61	37.2	2.39	88.91	35.9	2.05	73.60
1966	35.9	1.91	68.57	37.3	2.47	92.13	35.5	2.17	77.04
1967	35.3	2.01	70.95	37.1	2.58	95.72	35.1	2.29	80.38
1968	34.7	2.16	74.95	37.0	2.75	101.75	34.7	2.42	83.97
1969	34.2	2.30	78.66	37.1	2.93	108.70	34.7	2.61	90.57
1970	33.8	2.44	82.47	36.7	3.07	112.67	34.4	2.81	96.66
1971	33.7	2.60	87.62	36.6	3.22	117.85	33.9	3.04	103.06
1972	33.4	2.75	91.85	36.6	3.36	122.98	33.9	3.27	110.85
1973	33.1	2.91	96.32	36.6	3.53	129.20	33.8	3.47	117.29
1974	32.7	3.14	102.68	36.5	3.77	137.61	33.6	3.75	126.00
1975	32.4	3.36	108.86	36.5	4.06	148.19	33.5	4.02	134.67
1976	32.1	3.57	114.60	36.4	4.27	155.43	33.3	4.31	143.52
1977	31.6	3.85	121.66	36.4	4.54	165.26	33.0	4.65	153.45
1978	31.0	4.20	130.20	36.4	4.89	178.00	32.8	4.99	163.67
1979	30.6	4.53	138.62	36.2	5.27	190.77	32.7	5.36	175.27
1980	30.2	4.88	147.38	36.2	5.79	209.60	32.6	5.85	190.71
1981	30.1	5.25	158.03	36.3	6.31	229.05	32.6	6.41	208.97
1982	29.9	5.48	163.85	36.2	6.78	245.44	32.6	6.92	225.59
1983	29.8	5.74	171.05	36.2	7.29	263.90	32.7	7.31	239.04
1984	29.8	5.85	174.33	36.5	7.63	278.50	32.6	7.59	247.43
1985	29.4	5.94	174.64	36.4	7.94	289.02	32.5	7.90	256.75
1986	29.2	6.03	176.08	36.4	8.36	304.30	32.5	8.18	265.85
1987	29.2	6.11	178.41	36.3	8.73	316.90	32.5	8.48	275.60
Monthly data, not seasonally adjusted									
1987:									
October	29.1	\$6.16	\$179.26	36.2	\$8.76	\$317.11	32.5	\$8.61	\$279.83
November	29.0	6.18	179.22	36.3	8.89	322.71	32.5	8.71	283.08
December	29.3	6.19	181.37	36.0	8.81	317.16	32.4	8.73	282.85
1988:									
January	28.3	6.24	176.59	36.2	8.96	324.35	32.4	8.81	285.44
February	28.5	6.23	177.56	36.4	9.02	328.33	32.6	8.81	287.21
March	28.6	6.24	178.46	35.8	8.97	321.13	32.3	8.80	284.24
April	28.9	6.26	180.91	36.2	9.03	326.89	32.6	8.82	287.53
May	28.9	6.28	181.49	35.8	9.09	325.42	32.4	8.84	286.42
June	29.4	6.26	184.04	35.8	8.98	321.48	32.7	8.78	287.11
July	30.0	6.28	188.40	36.2	9.03	326.89	33.0	8.79	290.07
August	29.8	6.26	186.55	35.7	9.04	322.73	32.8	8.79	288.31
September ^p	29.0	6.37	184.73	35.8	9.13	326.85	32.5	8.98	291.85
October ^p	29.0	6.39	185.31	36.0	9.27	333.72	32.6	9.09	296.33

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

^p = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Total private		34.7	34.9	35.0	34.8	34.9	-	-	-	-	-
Mining		42.3	42.9	42.0	42.1	42.6	-	-	-	-	-
Metal mining	10	41.8	42.1	40.9	42.2	-	-	-	-	-	-
Iron ores	101	41.4	41.6	41.5	42.0	-	-	-	-	-	-
Copper ores	102	43.4	43.0	41.4	43.5	-	-	-	-	-	-
Coal mining	11,12	41.9	42.8	42.5	43.1	-	-	-	-	-	-
Bituminous coal and lignite mining	12	42.0	42.8	42.6	43.1	-	-	-	-	-	-
Oil and gas extraction	13	41.5	41.8	40.5	40.4	-	-	-	-	-	-
Crude petroleum, natural gas, and natural gas liquids	131,2	41.1	40.6	40.1	41.4	-	-	-	-	-	-
Oil and gas field services	138	41.8	42.5	40.7	39.8	-	-	-	-	-	-
Nonmetallic minerals, except fuels	14	45.4	46.9	46.6	46.0	-	-	-	-	-	-
Crushed and broken stone	142	46.5	48.9	48.4	47.6	-	-	-	-	-	-
Construction		36.5	38.8	38.6	38.4	38.9	-	-	-	-	-
General building contractors	15	36.1	38.0	37.9	37.7	-	-	-	-	-	-
Residential building construction	152	35.8	37.1	37.0	36.8	-	-	-	-	-	-
Operative builders	153	37.5	38.1	38.7	38.7	-	-	-	-	-	-
Nonresidential building construction	154	36.4	39.0	38.9	38.9	-	-	-	-	-	-
Heavy construction contractors	16	39.2	43.5	43.1	42.6	-	-	-	-	-	-
Highway and street construction	161	39.9	44.6	45.1	44.3	-	-	-	-	-	-
Heavy construction, except highway	162	38.8	42.8	41.9	41.5	-	-	-	-	-	-
Special trade contractors	17	35.8	37.8	37.7	37.5	-	-	-	-	-	-
Plumbing, heating, and air conditioning	171	37.0	38.4	39.1	38.7	-	-	-	-	-	-
Painting, paper hanging, and decorating	172	35.4	37.0	36.5	36.9	-	-	-	-	-	-
Electrical work	173	37.3	39.1	38.6	38.7	-	-	-	-	-	-
Masonry, stonework, and plastering	174	33.8	35.8	35.7	35.2	-	-	-	-	-	-
Carpentering and flooring	175	34.6	36.2	35.4	35.0	-	-	-	-	-	-
Roofing and sheet metal work	176	33.2	35.8	35.4	34.9	-	-	-	-	-	-
Manufacturing		40.8	41.3	40.8	41.3	41.2	3.9	4.0	3.9	4.2	4.1
Durable goods		41.1	41.8	41.3	42.0	42.0	3.9	4.1	4.0	4.3	4.3
Lumber and wood products	24	39.9	40.6	40.3	40.2	40.6	3.7	3.9	3.9	3.7	-
Logging camps and logging contractors	241	36.9	38.4	39.0	37.1	-	3.8	4.2	4.3	4.0	-
Sawmills and planing mills	242	41.4	41.8	41.2	41.4	-	4.4	4.6	4.4	4.2	-
Sawmills and planing mills, general	2421	41.6	42.0	41.4	41.7	-	4.6	4.8	4.6	4.4	-
Hardwood dimension and flooring	2426	41.2	41.2	40.4	40.2	-	3.6	3.6	3.5	3.3	-
Millwork, plywood, and structural members	243	40.4	40.8	40.5	40.4	-	3.6	3.5	3.8	3.6	-
Millwork	2431	40.6	40.7	41.0	40.2	-	3.1	2.9	3.4	3.0	-
Wood kitchen cabinets	2434	39.5	40.5	40.1	39.3	-	3.1	3.3	3.5	3.3	-
Hardwood veneer and plywood	2435	40.5	41.5	40.5	40.5	-	3.4	4.0	3.6	3.3	-
Softwood veneer and plywood	2436	41.5	41.3	40.4	42.9	-	4.9	4.5	4.8	4.9	-
Wood containers	244	38.0	39.0	38.7	38.9	-	2.5	3.1	3.4	3.3	-
Wood buildings and mobile homes	245	38.2	39.4	40.2	40.2	-	2.5	3.1	3.5	3.6	-
Mobile homes	2451	38.0	39.0	40.2	39.7	-	2.4	2.7	3.6	3.4	-
Miscellaneous wood products	249	40.1	40.8	39.7	40.4	-	3.4	3.6	3.0	3.2	-
Furniture and fixtures	25	40.0	40.8	39.3	40.0	40.2	3.2	3.3	2.7	3.2	-
Household furniture	251	39.7	40.5	38.9	39.4	-	3.0	3.1	2.3	2.8	-
Wood household furniture	2511	39.8	41.3	39.1	39.5	-	2.8	3.3	2.6	2.8	-
Upholstered household furniture	2512	39.2	39.5	37.7	38.5	-	2.6	2.6	1.6	2.2	-
Metal household furniture	2514	39.7	41.2	39.2	40.3	-	4.0	3.4	2.4	3.0	-
Mattresses and bedsprings	2515	39.8	38.8	40.7	41.0	-	4.5	2.9	3.8	4.5	-
Office furniture	252	40.8	41.5	39.8	41.5	-	3.0	3.2	2.5	3.3	-
Public building and related furniture	253	39.6	41.1	41.1	40.9	-	3.2	4.3	4.1	4.6	-
Partitions and fixtures	254	40.4	41.4	40.0	41.2	-	4.1	4.2	3.7	4.5	-
Miscellaneous furniture and fixtures	259	40.4	40.4	40.0	39.8	-	3.4	3.0	3.2	3.1	-
Stone, clay, and glass products	32	42.5	43.0	42.5	42.9	42.9	5.1	5.7	5.3	5.5	-
Flat glass	321	48.3	45.4	45.7	46.9	-	8.5	6.6	7.5	9.2	-
Glass and glassware, pressed or blown	322	41.2	41.1	41.3	42.0	-	5.3	4.8	4.5	4.7	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Total private		\$9.05	\$9.08	\$9.24	\$9.40	\$9.45	\$314.04	\$316.89	\$323.40	\$327.12	\$329.81
Mining		12.50	12.42	12.62	12.76	12.66	528.75	532.82	530.04	537.20	539.32
Metal mining	10	13.12	12.90	13.27	13.24		548.42	543.09	542.74	558.73	
Iron ores	101	14.39	13.71	14.53	13.64		595.75	570.34	603.00	572.88	
Copper ores	102	11.82	11.38	11.53	11.75		512.99	489.34	477.34	511.13	
Coal mining	11,12	15.77	15.79	15.94	16.06		660.76	675.81	677.45	692.19	
Bituminous coal and lignite mining	12	15.82	15.84	15.99	16.11		664.44	677.95	681.17	694.34	
Oil and gas extraction	13	11.44	11.32	11.60	11.73		474.76	473.18	469.80	473.89	
Crude petroleum, natural gas, and natural gas liquids	131,2	14.01	14.00	14.28	14.50		575.81	568.40	572.63	600.30	
Oil and gas field services	138	9.96	9.88	10.15	10.17		416.33	419.90	413.11	404.77	
Nonmetallic minerals, except fuels	14	10.73	10.73	11.02	11.09		487.14	503.24	513.53	510.14	
Crushed and broken stone	142	10.09	10.22	10.47	10.51		469.19	499.76	506.75	500.28	
Construction		12.79	12.82	12.95	13.12	13.12	466.84	497.42	499.87	503.81	510.37
General building contractors	15	11.85	11.89	12.11	12.28		427.79	451.82	458.97	462.96	
Residential building construction	152	11.11	11.12	11.41	11.62		397.74	412.55	422.17	427.62	
Operative builders	153	10.58	10.77	11.22	11.33		396.75	410.34	434.21	438.47	
Nonresidential building construction	154	12.74	12.79	12.95	13.07		463.74	498.81	503.76	508.42	
Heavy construction contractors	16	12.16	12.26	12.55	12.70		476.67	533.31	540.91	541.02	
Highway and street construction	161	12.19	12.22	12.65	12.84		486.38	545.01	570.52	568.81	
Heavy construction, except highway	162	12.14	12.29	12.49	12.62		471.03	526.01	523.33	523.73	
Special trade contractors	17	13.39	13.40	13.42	13.59		479.36	506.52	505.93	509.63	
Plumbing, heating, and air conditioning	171	13.56	13.63	13.71	13.84		501.72	523.39	536.06	535.61	
Painting, paper hanging, and decorating	172	12.87	12.68	12.70	12.85		455.60	469.16	463.55	474.17	
Electrical work	173	14.81	14.72	14.68	14.75		552.41	575.55	566.65	570.83	
Masonry, stonework, and plastering	174	13.57	13.51	13.62	13.84		458.67	483.66	486.23	487.17	
Carpentering and flooring	175	12.70	12.84	12.74	13.04		439.42	464.81	451.00	456.40	
Roofing and sheet metal work	176	11.76	11.86	12.02	12.09		390.43	424.59	425.51	421.94	
Manufacturing		9.99	9.95	10.12	10.25	10.25	407.59	410.94	412.90	423.33	422.30
Durable goods		10.49	10.48	10.64	10.78	10.79	431.14	438.06	439.43	452.76	453.18
Lumber and wood products	24	8.46	8.42	8.58	8.67	8.73	337.55	341.85	345.77	348.53	354.44
Logging camps and logging contractors	241	10.75	10.67	10.80	10.96	-	396.68	409.73	421.20	406.62	-
Sawmills and planing mills	242	8.63	8.58	8.66	8.80		357.28	358.64	356.79	364.32	
Sawmills and planing mills, general	2421	8.99	8.93	8.97	9.13		373.98	375.06	371.36	380.72	
Hardwood dimension and flooring	2426	6.87	6.84	7.04	7.14		283.04	281.81	284.42	287.03	
Millwork, plywood, and structural members	243	8.40	8.36	8.57	8.69		339.36	341.09	347.09	351.08	
Millwork	2431	8.70	8.69	8.80	8.94		353.22	353.68	360.80	359.39	
Wood kitchen cabinets	2434	7.66	7.69	7.96	8.06		302.57	311.45	319.20	316.76	
Hardwood veneer and plywood	2435	6.88	6.89	7.02	7.00		278.64	285.94	284.31	283.50	
Softwood veneer and plywood	2436	9.92	9.78	10.12	10.19		411.68	403.91	408.85	437.15	
Wood containers	244	6.25	6.23	6.37	6.47		237.50	242.97	246.52	251.68	
Wood buildings and mobile homes	245	7.89	8.04	8.09	8.18		301.40	316.78	325.22	328.84	
Mobile homes	2451	7.97	8.10	8.17	8.27		302.86	315.90	328.43	328.32	
Miscellaneous wood products	249	7.37	7.27	7.44	7.49		295.54	296.62	295.37	302.60	
Furniture and fixtures	25	7.74	7.71	8.00	8.07	8.05	309.60	314.57	314.40	322.80	323.61
Household furniture	251	7.15	7.13	7.36	7.43	-	283.86	288.77	286.30	292.74	-
Wood household furniture	2511	6.57	6.62	6.90	6.93		261.49	273.41	269.79	273.74	
Upholstered household furniture	2512	7.85	7.82	7.94	8.08		307.72	308.89	299.34	311.08	
Metal household furniture	2514	7.45	7.16	7.62	7.51		295.77	294.99	298.70	302.65	
Mattresses and bedsprings	2515	7.75	7.67	7.79	7.92		308.45	297.60	317.05	324.72	
Office furniture	252	8.67	8.72	9.15	9.12		353.74	361.88	364.17	378.48	
Public building and related furniture	253	8.07	8.03	8.37	8.55		319.57	330.03	344.01	349.70	
Partitions and fixtures	254	9.21	9.17	9.48	9.58		372.08	379.64	379.20	394.70	
Miscellaneous furniture and fixtures	259	8.21	8.09	8.36	8.37		331.68	326.84	334.40	333.13	
Stone, clay, and glass products	32	10.37	10.27	10.46	10.54	10.57	440.73	441.61	444.55	452.17	453.45
Flat glass	321	14.87	14.65	14.60	15.31	-	718.22	665.11	667.22	718.04	-
Glass and glassware, pressed or blown	322	11.66	11.34	11.72	11.64		480.39	466.07	484.04	488.88	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Stone, clay, and glass products—Continued											
Glass containers	3221	40.7	40.9	41.2	41.6		6.4	5.6	5.3	5.2	
Pressed and blown glass, nec	3229	41.9	41.4	41.3	42.5		4.0	3.8	3.6	4.2	
Products of purchased glass	323	41.5	42.3	41.2	42.6		3.6	4.1	3.1	3.9	
Cement, hydraulic	324	43.2	42.4	42.5	42.0		3.8	3.6	3.8	3.3	
Structural clay products	325	42.2	42.4	42.2	42.0		4.3	4.7	4.6	4.5	
Pottery and related products	326	39.7	40.3	40.3	40.7		3.6	3.6	3.0	3.7	
Concrete, gypsum, and plaster products	327	43.7	44.9	44.1	44.0		6.0	7.6	7.1	6.9	
Concrete block and brick	3271	44.4	46.7	45.8	46.5		6.7	8.4	7.4	7.5	
Concrete products, nec	3272	42.9	44.1	43.2	43.0		5.7	7.0	6.4	6.2	
Ready-mixed concrete	3273	43.0	44.5	43.8	43.6		5.5	7.5	7.4	7.1	
Misc. nonmetallic mineral products	329	42.3	42.3	41.9	42.6		4.9	5.1	4.5	5.0	
Abrasive products	3291	41.6	42.1	42.7	43.5		3.2	3.9	3.5	4.2	
Asbestos products	3292	42.4	42.5	41.2	42.7		5.4	5.4	4.1	3.5	
Primary metal industries											
Blast furnaces and basic steel products	331	44.7	43.5	43.6	44.7	43.9	5.5	5.3	5.6	6.0	
Blast furnaces and steel mills	3312	45.3	43.6	44.0	45.3	44.4	5.8	5.6	6.0	6.4	
Steel pipe and tubes	3317	41.7	42.6	41.9	42.5	-	5.9	5.6	6.3	6.7	
Iron and steel foundries	332	41.7	43.5	43.2	44.0		5.1	5.7	5.3	5.3	
Gray iron foundries	3321	42.1	43.4	43.5	44.2		5.0	5.3	5.7	6.0	
Malleable iron foundries	3322	42.1	43.4	43.5	44.2		5.6	5.8	6.2	6.5	
Steel foundries, nec	3325	38.8	42.3	41.3	42.2		3.4	4.0	4.3	4.1	
Primary nonferrous metals	333	41.9	43.2	42.3	43.6		3.9	4.3	4.8	5.9	
Primary aluminum	3334	44.8	44.0	43.6	43.7		5.4	4.6	4.9	4.9	
Nonferrous rolling and drawing	335	45.7	45.1	44.3	43.8		6.0	4.8	5.1	4.9	
Copper rolling and drawing	3351	43.2	43.5	43.3	44.2		6.4	5.9	6.2	6.6	
Aluminum sheet, plate, and foil	3353	42.7	43.7	43.2	44.1		6.9	6.1	7.0	6.6	
Nonferrous wire drawing and insulating	3357	43.9	45.6	45.3	45.8		8.5	7.9	7.9	8.5	
Nonferrous foundries	336	43.4	42.8	42.6	43.6		6.0	5.4	5.4	6.0	
Aluminum foundries	3361	40.9	42.3	41.0	42.0		3.7	4.1	3.7	4.2	
Fabricated metal products	34	41.3	43.0	41.4	42.3	41.9	4.0	4.5	3.9	4.4	
Metal cans and shipping containers	341	41.0	42.0	41.5	42.0	-	3.9	4.3	4.0	4.4	
Metal cans	3411	43.8	43.9	45.6	44.9		5.8	5.9	6.5	6.5	
Cutlery, hand tools, and hardware	342	44.2	43.9	46.1	45.6		5.8	5.9	6.7	6.7	
Hand and edge tools, and hand saws and blades	3423,5	40.2	41.7	40.7	41.3		3.2	4.1	3.1	3.6	
Hardware, nec	3429	40.1	42.1	40.3	41.1		3.0	4.1	2.7	3.2	
Plumbing and heating, except electric	343	40.2	41.2	40.7	40.9		3.4	4.1	3.2	3.7	
Plumbing fittings and brass goods	3432	40.8	42.3	41.2	41.3		3.7	4.4	4.2	4.0	
Heating equipment, except electric	3433	41.5	42.2	40.5	40.7		3.3	4.0	3.4	2.7	
Fabricated structural metal products	344	39.9	42.1	41.6	41.5		3.7	4.2	4.8	4.8	
Fabricated structural metal	3441	40.6	41.3	41.2	41.3		3.7	3.9	4.0	4.1	
Metal doors, sash, and trim	3442	42.0	42.3	42.5	42.1		4.5	4.3	5.4	5.1	
Fabricated plate work (boiler shops)	3443	39.7	40.0	40.5	39.9		3.2	3.0	3.2	3.1	
Sheet metal work	3444	41.7	42.5	42.3	43.0		4.2	4.2	4.6	4.8	
Architectural metal work	3446	39.5	40.6	39.9	40.1		3.2	3.7	3.2	3.3	
Screw machine products, bolts, etc	345	40.3	40.9	40.7	41.5		3.2	3.6	3.8	5.1	
Screw machine products	3451	41.4	43.1	42.6	43.3		4.2	5.2	5.1	5.8	
Bolts, nuts, rivets, and washers	3452	41.0	41.9	41.2	42.0		3.6	4.3	4.2	4.9	
Metal forgings and stampings	346	41.9	44.4	44.2	44.9		5.0	6.3	6.2	6.8	
Iron and steel forgings	3462	41.3	42.8	41.8	43.2		4.3	4.9	4.3	5.4	
Automotive stampings	3465	41.5	42.4	42.4	43.2		4.3	4.5	4.8	4.9	
Metal stampings, nec	3469	42.6	44.4	42.9	45.0		5.0	5.7	4.7	6.6	
Metal services, nec	347	39.8	41.2	40.7	41.3		3.5	4.2	3.8	4.3	
Plating and polishing	3471	40.3	41.4	40.3	41.0		3.2	3.9	3.3	3.8	
Metal coating and allied services	3479	39.9	41.2	40.2	40.6		3.1	4.0	3.3	3.6	
Ordnance and accessories, nec	348	41.1	41.7	40.4	41.6		3.4	3.7	3.3	4.2	
Ammunition, except for small arms, nec	3483	41.3	41.3	41.5	41.9		3.5	3.3	3.4	3.6	
Misc. fabricated metal products	349	40.1	40.1	40.7	41.4		2.6	2.5	2.8	3.1	
Valves and pipe fittings	3494	41.2	42.1	41.2	41.9	-	3.8	4.3	3.7	4.0	
Misc. fabricated wire products	3496	41.4	43.1	41.9	42.5	-	4.1	4.7	4.0	4.1	
Machinery, except electrical	35	40.5	40.3	40.2	40.6	-	2.9	3.8	3.4	4.0	
Engines and turbines	351	41.7	42.5	42.0	42.7	42.6	3.9	4.3	4.1	4.6	
Turbines and turbine generator sets	3511	42.8	43.7	42.7	44.2	-	5.1	5.8	4.7	5.0	
Internal combustion engines, nec	3519	39.3	41.1	42.8	43.2	-	4.2	5.3	5.3	6.4	
Farm and garden machinery	352	43.8	44.5	42.7	44.5		5.4	6.0	4.5	4.6	
Farm machinery and equipment	3523	41.5	42.0	41.3	41.6		3.2	3.7	3.8	3.9	
		42.0	42.8	42.4	42.1		3.9	4.6	4.6	4.7	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Durable goods—Continued											
Stone, clay, and glass products—Continued											
Glass containers	3221	\$12.15	\$11.73	\$12.21	\$12.11		\$494.51	\$479.76	\$503.05	\$503.78	
Pressed and blown glass, nec	3229	11.10	10.89	11.17	11.13		465.09	450.85	461.32	473.03	
Products of purchased glass	323	8.81	8.74	8.95	9.09		365.62	369.70	368.74	387.23	
Cement, hydraulic	324	13.74	13.40	13.17	13.36		593.57	568.16	559.73	561.12	
Structural clay products	325	8.61	8.59	8.90	8.95		363.34	364.22	375.58	375.90	
Pottery and related products	326	9.08	8.94	9.31	9.36		360.48	360.28	375.19	380.95	
Concrete, gypsum, and plaster products	327	10.06	10.12	10.24	10.34		439.62	454.39	451.58	454.96	
Concrete block and brick	3271	8.90	9.06	9.40	9.33		395.16	423.10	430.52	433.85	
Concrete products, nec	3272	9.02	9.03	9.21	9.31		386.96	398.22	397.87	400.33	
Ready-mixed concrete	3273	10.82	10.95	11.02	11.15		465.26	487.28	482.68	486.14	
Misc. nonmetallic mineral products	329	10.47	10.40	10.56	10.63		442.88	439.92	442.46	452.84	
Abrasive products	3291	9.81	9.77	9.92	10.17		408.10	411.32	423.58	442.40	
Asbestos products	3292	10.27	10.40	10.84	10.76		435.45	442.00	446.61	459.45	
Primary metal industries	33	12.19	12.00	12.11	12.26	\$12.18	526.61	520.80	521.94	539.44	\$534.70
Blast furnaces and basic steel products	331	14.12	13.88	13.96	14.09	13.99	631.16	603.78	608.66	629.82	621.16
Blast furnaces and steel mills	3312	14.88	14.60	14.71	14.85	-	674.06	636.56	647.24	672.71	-
Steel pipe and tubes	3317	10.91	10.97	10.77	10.86		454.95	467.32	451.26	461.55	
Iron and steel foundries	332	10.75	10.81	10.84	11.05		448.28	470.24	468.29	486.20	
Gray iron foundries	3321	11.19	11.26	11.40	11.61		471.10	488.68	495.90	513.16	
Malleable iron foundries	3322	11.61	11.83	11.56	11.68		450.47	500.41	477.43	492.90	
Steel foundries, nec	3325	10.05	10.06	10.04	10.29		421.10	434.59	424.69	448.64	
Primary nonferrous metals	333	13.29	12.99	13.26	13.39		595.39	571.56	578.14	585.14	
Primary aluminum	3334	13.75	13.25	13.51	13.72		628.38	597.58	598.49	600.94	
Nonferrous rolling and drawing	335	11.66	11.46	11.64	11.83		503.71	498.51	504.01	522.89	
Copper rolling and drawing	3351	10.78	10.65	10.90	10.97		460.31	465.41	470.88	483.78	
Aluminum sheet, plate, and foil	3353	14.44	14.06	14.07	14.17		633.92	641.14	637.37	648.99	
Nonferrous wire drawing and insulating	3357	11.76	11.54	11.80	12.07		510.38	493.91	502.68	526.25	
Nonferrous foundries	336	9.47	9.47	9.47	9.70		387.32	400.58	388.27	407.40	
Aluminum foundries	3361	9.72	9.68	9.62	9.94		401.44	416.24	398.27	420.46	
Fabricated metal products	34	10.00	10.06	10.20	10.30	10.33	410.00	422.52	423.30	432.60	432.83
Metal cans and shipping containers	341	13.33	13.22	13.37	13.58	-	583.85	580.36	609.67	609.74	-
Metal cans	3411	14.09	14.02	14.17	14.39		622.78	615.48	653.24	656.18	
Cutlery, hand tools, and hardware	342	9.85	10.01	10.03	10.23		395.97	417.42	408.22	422.50	
Hand and edge tools, and hand saws and blades ..	3423,5	9.23	9.29	9.18	9.35		370.12	391.11	369.95	384.29	
Hardware, nec	3429	10.13	10.36	10.44	10.65		407.23	426.83	424.91	435.59	
Plumbing and heating, except electric	343	9.23	9.34	9.28	9.36		376.58	395.08	382.34	386.57	
Plumbing fittings and brass goods	3432	8.73	8.90	9.01	9.00		362.30	375.58	364.91	366.30	
Heating equipment, except electric	3433	9.26	9.28	9.14	9.22		369.47	390.69	380.22	382.63	
Fabricated structural metal products	344	9.32	9.33	9.55	9.65		378.39	385.33	393.46	398.55	
Fabricated structural metal	3441	9.90	9.92	10.29	10.37		415.80	419.62	437.33	436.58	
Metal doors, sash, and trim	3442	7.68	7.70	8.04	8.12		304.90	308.00	325.62	323.99	
Fabricated plate work (boiler shops)	3443	10.36	10.36	10.21	10.30		432.01	440.30	431.88	442.90	
Sheet metal work	3444	9.69	9.69	9.93	9.91		382.76	393.41	396.21	397.39	
Architectural metal work	3446	8.98	8.73	8.84	9.16		361.89	357.06	359.79	380.14	
Screw machine products, bolts, etc	345	9.77	9.89	9.96	9.98		404.48	426.26	424.30	432.13	
Screw machine products	3451	9.11	9.22	9.27	9.42		373.51	386.32	381.92	395.64	
Bolts, nuts, rivets, and washers	3452	10.51	10.63	10.75	10.63		440.37	471.97	475.15	477.29	
Metal forgings and stampings	346	11.75	11.94	12.06	12.23		485.28	511.03	504.11	528.34	
Iron and steel forgings	3462	12.80	12.55	12.94	12.91		531.20	532.12	548.66	557.71	
Automotive stampings	3465	13.55	13.96	14.21	14.32		577.23	619.82	609.61	644.40	
Metal stampings, nec	3469	9.28	9.35	9.46	9.55		369.34	385.22	385.02	394.42	
Metal services, nec	347	8.00	8.04	8.25	8.27		322.40	332.86	332.48	339.07	
Plating and polishing	3471	7.98	7.98	8.21	8.24		318.40	328.78	330.04	334.54	
Metal coating and allied services	3479	8.04	8.14	8.33	8.34		330.44	339.44	336.53	346.94	
Ordnance and accessories, nec	348	10.97	11.15	11.36	11.40		453.06	460.50	471.44	477.66	
Ammunition, except for small arms, nec	3483	10.42	10.83	11.01	10.93		417.84	434.28	448.11	452.50	
Misc. fabricated metal products	349	9.38	9.40	9.56	9.60		386.46	395.74	393.87	402.24	
Valves and pipe fittings	3494	10.11	10.14	10.40	10.37		418.55	437.03	435.76	440.73	
Misc. fabricated wire products	3496	8.41	8.52	8.49	8.65		340.61	343.36	341.30	351.19	
Machinery, except electrical	35	10.74	10.79	10.93	11.04	11.05	447.86	458.58	459.06	471.41	470.73
Engines and turbines	351	13.39	13.47	13.65	13.73	-	573.09	588.64	582.86	606.87	-
Turbines and turbine generator sets	3511	13.28	13.65	13.88	14.06		521.90	561.02	594.06	607.39	
Internal combustion engines, nec	3519	13.42	13.42	13.58	13.63		587.80	597.19	579.87	606.54	
Farm and garden machinery	352	9.98	10.13	10.21	10.27		414.17	425.46	421.67	427.23	
Farm machinery and equipment	3523	10.64	10.80	10.70	10.91		446.88	462.24	453.68	459.31	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Machinery, except electrical—Continued											
Construction and related machinery	353	42.7	43.1	42.7	43.3		4.1	4.3	3.9	4.2	-
Construction machinery	3531	43.7	44.1	43.4	44.6		3.8	3.9	3.5	4.0	
Mining machinery	3532	42.7	42.6	41.6	42.6	-	4.4	4.6	3.9	4.6	
Oil field machinery	3533	43.4	43.6	42.5	41.3		6.2	6.1	5.2	4.2	
Conveyors and conveying equipment	3535	42.0	42.3	43.2	43.4		3.8	4.0	4.7	5.1	
Industrial trucks and tractors	3537	40.5	41.3	41.3	41.9	-	3.1	3.5	3.2	3.5	
Metalworking machinery	354	41.7	42.8	42.8	43.8		4.2	4.9	5.0	5.6	
Machine tools, metal cutting types	3541	40.9	42.0	42.6	43.4		3.6	4.1	4.4	5.1	-
Machine tools, metal forming types	3542	43.1	43.9	43.7	45.3		5.6	6.0	5.3	7.0	
Special dies, tools, jigs, and fixtures	3544	42.2	43.5	43.7	44.6	-	4.7	5.7	5.8	6.3	
Machine tool accessories	3545	41.0	41.9	41.1	42.0		3.7	4.3	3.8	4.5	
Power driven hand tools	3546	40.5	41.0	42.1	43.1		2.8	2.6	3.9	4.4	-
Special industry machinery	355	41.3	42.1	41.5	42.4		4.1	4.4	4.3	5.3	
Food products machinery	3551	41.0	42.1	41.9	42.4		3.5	3.9	3.9	4.4	
Textile machinery	3552	42.8	42.4	41.6	42.8		3.5	3.6	3.4	4.1	
Printing trades machinery	3555	39.4	39.7	38.5	39.3		4.9	4.9	4.4	5.5	
General industrial machinery	356	41.6	42.4	42.2	43.3		3.9	4.3	4.4	5.1	
Pumps and pumping equipment	3561	42.4	43.8	42.5	43.6		4.0	4.6	4.2	4.5	
Ball and roller bearings	3562	42.3	43.4	43.1	44.4		4.5	5.1	5.7	6.3	
Air and gas compressors	3563	41.8	41.7	42.7	42.7		4.4	4.6	4.4	4.6	
Blowers and fans	3564	41.2	41.1	41.4	41.9		3.4	3.4	3.3	4.3	
Speed changers, drives, and gears	3566	41.1	42.3	42.9	43.1		4.0	4.6	5.4	5.8	
Power transmission equipment, nec	3568	41.0	41.5	40.1	42.2		4.6	4.2	4.5	5.5	
Office and computing machines	357	42.6	42.7	41.4	41.9		3.8	3.6	3.2	3.7	
Electronic computing equipment	3573	42.5	42.6	41.4	42.0		3.7	3.5	3.2	3.6	-
Refrigeration and service machinery	358	40.9	41.9	41.3	41.6		3.5	3.7	3.3	3.5	
Refrigeration and heating equipment	3585	41.2	42.2	41.6	41.9		3.7	4.0	3.5	3.6	
Misc. machinery, except electrical	359	41.1	42.0	41.5	42.1		3.7	4.3	4.4	4.7	-
Carburetors, pistons, rings, and valves	3592	41.2	41.9	42.6	42.1	-	3.3	4.0	4.9	4.9	
Machinery, except electrical, nec	3599	41.1	42.0	41.4	42.1		3.7	4.3	4.3	4.7	
Electrical and electronic equipment	36	40.4	41.0	40.6	41.1	40.9	3.1	3.2	3.2	3.5	
Electric distributing equipment	361	40.8	41.5	42.0	42.3	-	3.2	3.5	3.7	3.9	
Transformers	3612	41.8	42.1	42.1	42.5		3.5	3.7	3.5	3.9	
Switchgear and switchboard apparatus	3613	39.9	41.1	42.0	42.1		2.9	3.4	3.8	4.0	
Electrical industrial apparatus	362	40.6	41.7	41.6	42.1		3.4	3.6	3.5	4.0	
Motors and generators	3621	40.0	41.3	41.5	41.9		3.2	3.5	3.7	4.2	
Industrial controls	3622	40.8	41.1	40.5	41.3		2.8	2.8	2.4	3.0	
Household appliances	363	39.6	40.1	39.3	40.5	-	2.9	2.8	3.0	3.5	-
Household refrigerators and freezers	3632	39.8	39.9	40.2	40.9		3.4	2.7	4.6	4.4	
Household laundry equipment	3633	39.7	40.0	38.3	40.7		3.2	2.2	1.9	2.7	
Electric housewares and fans	3634	40.3	41.8	40.7	41.6		3.2	3.7	3.6	4.1	
Electric lighting and wiring equipment	364	39.5	40.3	39.6	40.2		2.7	3.1	2.9	3.3	
Electric lamps	3641	39.2	40.1	39.7	40.6		2.4	3.6	2.5	2.9	
Current-carrying wiring devices	3643	39.3	39.8	38.2	39.4		2.8	2.8	2.5	2.8	
Noncurrent-carrying wiring devices	3644	40.1	41.1	41.0	40.9		2.9	2.9	2.9	3.5	
Residential lighting fixtures	3645	38.2	39.7	38.1	39.2		1.7	2.4	2.1	2.7	
Radio and TV receiving equipment	365	39.7	40.9	40.5	41.5		3.1	3.1	3.3	4.1	
Radio and TV receiving sets	3651	39.2	40.3	40.2	41.4		2.5	2.5	2.7	3.8	-
Communication equipment	366	41.2	41.0	40.7	40.8		2.7	2.8	2.5	2.7	
Telephone and telegraph apparatus	3661	42.4	42.2	42.2	41.4		3.0	2.9	2.9	2.9	
Radio and TV communication equipment	3662	40.8	40.6	40.2	40.6	-	2.6	2.8	2.4	2.6	-
Electronic components and accessories	367	40.4	40.7	40.2	40.4		3.2	3.3	3.2	3.5	
Electronic tubes	3671-3	41.1	41.1	42.0	42.1		2.3	1.9	3.6	4.5	
Semiconductors and related devices	3674	40.2	40.4	40.1	40.2		3.7	3.6	3.6	3.7	
Electronic components, nec	3679	40.8	41.0	40.4	40.7		3.4	3.5	3.2	3.4	
Misc. electrical equipment and supplies	369	40.9	43.0	41.7	43.1		3.5	4.1	3.9	4.6	
Storage batteries	3691	40.5	44.4	42.3	43.7		4.0	5.7	3.6	4.1	
Engine electrical equipment	3694	41.8	43.7	41.6	43.7	-	4.2	4.2	4.4	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 workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Durable goods—Continued											
Machinery, except electrical—Continued											
Construction and related machinery	353	\$11.06	\$11.05	\$11.00	\$11.09	-	\$472.26	\$476.26	\$469.70	\$480.20	-
Construction machinery	3531	12.36	12.31	12.16	12.37	-	540.13	542.87	527.74	551.70	-
Mining machinery	3532	11.34	11.51	11.47	11.48	-	484.22	490.33	477.15	489.05	-
Oil field machinery	3533	10.78	10.71	10.66	10.47	-	467.85	466.96	453.05	432.41	-
Conveyors and conveying equipment	3535	9.78	9.74	10.05	10.15	-	410.76	412.00	434.16	440.51	-
Industrial trucks and tractors	3537	9.68	9.82	9.88	10.00	-	392.04	405.57	408.04	419.00	-
Metalworking machinery	354	11.08	11.16	11.39	11.51	-	462.04	477.65	487.49	504.14	-
Machine tools, metal cutting types	3541	11.12	11.13	11.27	11.39	-	454.81	467.46	480.10	494.33	-
Machine tools, metal forming types	3542	11.52	11.60	11.72	12.01	-	496.51	509.24	512.16	544.05	-
Special dies, tools, jigs, and fixtures	3544	11.81	11.93	12.21	12.33	-	498.38	518.96	533.58	549.92	-
Machine tool accessories	3545	9.92	9.97	10.19	10.29	-	406.72	417.74	418.81	432.18	-
Power driven hand tools	3546	8.62	8.69	9.06	9.08	-	349.11	356.29	381.43	391.35	-
Special industry machinery	355	10.74	10.80	11.05	11.27	-	443.56	454.68	458.58	477.85	-
Food products machinery	3551	10.78	10.85	10.97	11.11	-	441.98	456.79	459.64	471.06	-
Textile machinery	3552	8.80	8.86	9.13	9.28	-	376.64	375.66	379.81	397.18	-
Printing trades machinery	3555	11.71	11.60	12.01	12.49	-	461.37	460.52	462.39	490.86	-
General industrial machinery	356	10.39	10.41	10.50	10.62	-	432.22	441.38	443.10	459.85	-
Pumps and pumping equipment	3561	10.99	11.02	11.12	11.19	-	465.98	482.68	472.60	487.88	-
Ball and roller bearings	3562	10.98	10.91	10.79	11.02	-	464.45	473.49	465.05	489.29	-
Air and gas compressors	3563	10.30	10.38	10.42	10.48	-	430.54	432.85	444.93	447.50	-
Blowers and fans	3564	9.22	9.22	9.40	9.61	-	379.86	378.94	389.16	402.66	-
Speed changers, drives, and gears	3566	10.28	10.29	10.59	10.80	-	422.51	435.27	454.31	465.48	-
Power transmission equipment, nec	3568	10.48	10.54	10.55	10.65	-	429.68	437.41	423.06	449.43	-
Office and computing machines	357	10.39	10.41	10.74	10.79	-	442.61	444.51	444.64	452.10	-
Electronic computing equipment	3573	10.37	10.39	10.69	10.73	-	440.73	442.61	442.57	450.66	-
Refrigeration and service machinery	358	10.43	10.49	10.53	10.57	-	426.59	439.53	434.89	439.71	-
Refrigeration and heating equipment	3585	10.62	10.67	10.68	10.71	-	437.54	450.27	444.29	448.75	-
Misc. machinery, except electrical	359	10.41	10.42	10.59	10.72	-	427.85	437.64	439.49	451.31	-
Carburetors, pistons, rings, and valves	3592	12.58	12.66	12.86	12.90	-	518.30	530.45	547.84	543.09	-
Machinery, except electrical, nec	3599	10.11	10.12	10.29	10.43	-	415.52	425.04	426.01	439.10	-
Electrical and electronic equipment	36	9.94	9.92	10.15	10.20	\$10.19	401.58	406.72	412.09	419.22	\$416.77
Electric distributing equipment	361	9.33	9.37	9.49	9.54	-	380.66	388.86	398.58	403.54	-
Transformers	3612	9.29	9.29	9.31	9.34	-	388.32	391.11	391.95	396.95	-
Switchgear and switchboard apparatus	3613	9.37	9.45	9.64	9.71	-	373.86	388.40	404.88	408.79	-
Electrical industrial apparatus	362	9.87	9.87	10.02	10.10	-	400.72	411.58	416.83	425.21	-
Motors and generators	3621	9.66	9.75	9.93	10.05	-	386.40	402.68	412.10	421.10	-
Industrial controls	3622	9.91	9.76	9.97	10.07	-	404.33	401.14	403.79	415.89	-
Household appliances	363	9.92	9.86	10.05	10.04	-	392.83	395.39	394.97	406.62	-
Household refrigerators and freezers	3632	11.56	11.40	11.77	11.82	-	460.09	454.86	473.15	483.44	-
Household laundry equipment	3633	11.89	11.66	11.83	11.98	-	472.03	466.40	453.09	487.59	-
Electric housewares and fans	3634	7.26	7.37	7.40	7.40	-	292.58	308.07	301.18	307.84	-
Electric lighting and wiring equipment	364	9.18	9.21	9.58	9.64	-	362.61	371.16	379.37	387.53	-
Electric lamps	3641	10.46	10.56	10.84	10.87	-	410.03	423.46	430.35	441.32	-
Current-carrying wiring devices	3643	8.71	8.86	9.44	9.50	-	342.30	352.63	360.61	374.30	-
Noncurrent-carrying wiring devices	3644	9.30	9.25	9.20	9.34	-	372.93	380.18	377.20	382.01	-
Residential lighting fixtures	3645	6.82	6.71	7.02	7.02	-	260.52	266.39	267.46	275.18	-
Radio and TV receiving equipment	365	9.09	9.25	9.58	9.72	-	360.87	378.33	387.99	403.38	-
Radio and TV receiving sets	3651	9.29	9.51	9.95	10.17	-	364.17	383.25	399.99	421.04	-
Communication equipment	366	11.89	11.83	12.15	12.19	-	489.87	485.03	494.51	497.35	-
Telephone and telegraph apparatus	3661	11.34	11.27	11.74	11.66	-	480.82	475.59	495.43	482.72	-
Radio and TV communication equipment	3662	12.09	12.03	12.32	12.40	-	493.27	488.42	495.26	503.44	-
Electronic components and accessories	367	8.96	8.93	9.15	9.18	-	361.98	363.45	367.83	370.87	-
Electronic tubes	3671-3	11.36	11.33	11.40	11.34	-	466.90	465.66	478.80	477.41	-
Semiconductors and related devices	3674	10.79	10.84	11.19	11.15	-	433.76	437.94	448.72	448.23	-
Electronic components, nec	3679	8.08	8.07	8.16	8.22	-	329.66	330.87	329.66	334.55	-
Misc. electrical equipment and supplies	369	10.58	10.61	10.73	10.88	-	432.72	456.23	447.44	468.93	-
Storage batteries	3691	11.37	11.58	11.05	11.35	-	460.49	514.15	467.42	496.00	-
Engine electrical equipment	3694	11.10	11.06	11.48	11.59	-	463.98	483.32	477.57	506.48	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Durable goods—Continued											
Transportation equipment	37	41.1	42.2	41.8	43.1	43.2	4.2	4.5	4.4	5.1	
Motor vehicles and equipment	371	41.1	42.6	42.3	44.3	44.1	4.3	4.7	4.8	5.7	
Motor vehicles and car bodies	3711	40.3	42.2	41.3	45.0	-	4.0	4.3	4.6	6.0	
Truck and bus bodies	3713	41.2	41.5	42.0	42.8	-	4.3	3.5	3.7	4.8	
Motor vehicle parts and accessories	3714	41.8	43.3	43.0	44.1	-	4.7	5.3	5.2	5.8	
Truck trailers	3715	40.0	40.5	39.9	40.5	-	3.2	3.0	2.7	2.8	
Aircraft and parts	372	41.9	42.4	41.6	42.6	-	4.7	5.0	4.5	5.1	
Aircraft	3721	42.1	42.3	41.2	42.4	-	4.4	4.5	4.1	4.7	
Aircraft engines and engine parts	3724	41.8	42.0	41.7	42.3	-	4.7	5.1	4.7	4.5	
Aircraft equipment, nec	3728	41.7	42.7	42.2	43.1	-	5.2	5.7	4.9	6.0	
Ship and boat building and repairing	373	39.7	40.5	40.5	39.6	-	2.8	2.9	2.9	3.2	
Ship building and repairing	3731	40.2	40.7	40.9	39.9	-	3.1	2.9	3.2	3.5	
Boat building and repairing	3732	38.8	40.3	39.8	39.1	-	2.3	2.9	2.3	2.7	
Railroad equipment	374	40.8	40.8	42.4	42.5	-	1.8	2.6	4.4	4.4	
Guided missiles, space vehicles, and parts	376	42.4	42.4	43.0	43.7	-	4.5	4.3	4.6	4.7	
Guided missiles and space vehicles	3761	42.3	42.5	42.8	43.8	-	4.5	4.2	4.7	4.7	
Miscellaneous transportation equipment	379	39.2	40.3	39.5	40.5	-	3.2	3.7	2.7	2.9	
Travel trailers and campers	3792	36.5	39.3	38.8	38.4	-	1.2	2.8	2.7	2.0	
Instruments and related products	38	41.0	41.7	41.2	41.5	41.5	3.0	3.3	2.9	3.2	
Engineering and scientific instruments	381	41.3	41.8	41.1	41.9	-	3.1	3.6	2.8	3.2	
Measuring and controlling devices	382	40.5	41.1	41.0	41.7	-	2.6	2.7	2.6	3.0	
Environmental controls	3822	39.3	39.6	39.4	40.3	-	2.7	2.9	2.3	2.5	
Process control instruments	3823	42.1	42.6	43.4	43.6	-	3.4	3.4	3.8	4.1	
Instruments to measure electricity	3825	40.0	40.6	40.3	41.1	-	2.0	2.2	2.0	2.5	
Optical instruments and lenses	383	43.0	43.0	42.8	43.3	-	3.2	3.5	2.4	3.4	
Medical instruments and supplies	384	40.4	41.2	40.5	40.6	-	3.0	3.5	2.8	2.9	
Surgical and medical instruments	3841	40.4	41.1	39.8	40.4	-	3.0	3.1	2.6	2.7	
Surgical appliances and supplies	3842	40.4	41.2	40.9	40.6	-	3.1	3.8	3.0	3.1	
Ophthalmic goods	385	40.8	40.4	39.8	39.8	-	2.8	2.6	3.1	3.2	
Photographic equipment and supplies	386	43.7	44.9	43.9	43.1	-	4.2	4.5	3.8	4.2	
Watches, clocks, and watchcases	387	38.2	40.9	40.6	41.1	-	2.7	2.8	2.8	3.2	
Miscellaneous manufacturing	39	39.1	40.0	39.0	39.3	39.5	2.7	3.3	2.4	2.7	
Jewelry, silverware, and plated ware	391	38.1	40.0	37.4	38.2	-	2.4	3.8	1.6	2.3	
Jewelry, precious metal	3911	37.4	39.6	36.0	36.9	-	2.2	3.7	1.0	1.8	
Musical instruments	393	40.3	41.6	40.0	40.5	-	2.4	3.1	2.2	2.4	
Toys and sporting goods	394	39.1	39.8	39.3	38.9	-	2.3	3.1	2.3	2.4	
Dolls, games, toys, and children's vehicles	3942,4	38.5	39.8	38.1	38.6	-	2.7	3.6	1.7	2.1	
Sporting and athletic goods, nec	3949	39.6	39.8	40.3	39.2	-	2.0	2.6	2.7	2.6	
Pens, pencils, office, and art supplies	395	40.1	40.9	39.7	39.4	-	2.2	2.4	2.7	2.7	
Costume jewelry and notions	396	37.5	38.1	36.9	38.5	-	3.4	3.6	1.8	2.7	
Costume jewelry	3961	35.2	35.4	34.9	36.0	-	3.0	3.0	.9	2.1	
Miscellaneous manufactures	399	39.6	40.5	39.7	40.1	-	3.0	3.5	2.9	3.1	
Signs and advertising displays	3993	39.3	40.3	39.5	40.4	-	2.9	3.3	2.9	3.4	
Nondurable goods		40.3	40.5	40.2	40.5	40.2	4.0	3.9	3.8	4.1	3.8
Food and kindred products	20	40.8	40.6	40.8	40.8	40.5	4.9	4.4	4.8	5.0	-
Meat products	201	40.5	40.7	40.6	41.5	-	4.3	4.5	4.3	5.1	
Meat packing plants	2011	41.4	43.2	41.9	43.0	-	5.2	5.9	5.4	6.3	
Sausages and other prepared meats	2013	40.8	40.4	41.4	41.8	-	4.3	4.1	4.9	5.4	
Poultry dressing plants	2016	39.9	39.0	39.2	39.9	-	3.7	3.5	3.1	3.7	
Dairy products	202	42.4	40.7	40.8	41.4	-	5.4	4.1	4.2	4.7	
Cheese, natural and processed	2022	40.4	38.9	39.2	40.0	-	4.5	3.7	3.5	4.3	
Fluid milk	2026	44.1	41.9	41.8	42.7	-	6.5	4.7	4.9	5.4	
Preserved fruits and vegetables	203	40.1	39.6	41.1	39.6	-	5.7	4.0	6.4	5.3	
Canned specialties	2032	41.4	39.7	43.5	43.5	-	7.8	4.3	7.5	7.9	
Canned fruits and vegetables	2033	40.3	38.9	41.8	38.5	-	6.4	4.0	7.9	5.8	
Frozen fruits and vegetables	2037	39.2	38.6	39.9	39.3	-	6.2	3.9	5.4	5.1	
Grain mill products	204	45.1	44.3	44.7	45.8	-	7.2	6.3	6.4	7.8	
Flour and other grain mill products	2041	48.6	48.1	47.1	49.0	-	8.9	8.1	7.4	8.7	
Prepared feeds, nec	2048	44.4	43.7	43.1	43.7	-	7.0	6.1	6.2	6.9	
Bakery products	205	40.1	40.1	40.2	40.5	-	4.3	4.1	4.1	4.5	
Bread, cake, and related products	2051	39.4	38.9	39.1	39.4	-	4.7	4.2	4.0	4.5	
Cookies and crackers	2052	41.9	42.7	43.0	43.1	-	3.4	3.8	4.3	4.5	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Durable goods—Continued											
Transportation equipment	37	\$13.04	\$13.07	\$13.26	\$13.49	\$13.51	\$535.94	\$551.55	\$554.27	\$581.42	\$583.63
Motor vehicles and equipment	371	13.64	13.69	13.90	14.18	14.20	560.60	583.19	587.97	628.17	626.22
Motor vehicles and car bodies	3711	15.53	15.52	16.07	16.12	-	625.86	654.94	663.69	725.40	-
Truck and bus bodies	3713	11.45	11.35	11.65	12.15	-	471.74	471.03	489.30	520.02	-
Motor vehicle parts and accessories	3714	12.81	12.89	13.16	13.36	-	535.46	558.14	565.88	589.18	-
Truck trailers	3715	9.21	9.27	9.20	9.15	-	368.40	375.44	367.08	370.58	-
Aircraft and parts	372	13.26	13.30	13.61	13.73	-	555.59	563.92	566.18	584.90	-
Aircraft	3721	(^b)	(^b)	(^b)	(^b)	-	-	-	-	-	-
Aircraft engines and engine parts	3724	\$13.42	\$13.51	\$13.87	\$14.02	-	\$560.96	\$567.42	\$578.38	\$593.05	-
Aircraft equipment, nec	3728	12.38	12.39	12.57	12.58	-	516.25	529.05	530.45	542.20	-
Ship and boat building and repairing	373	10.46	10.33	10.30	10.40	-	415.26	418.37	417.15	411.84	-
Ship building and repairing	3731	11.71	11.58	11.54	11.58	-	470.74	471.31	471.99	462.04	-
Boat building and repairing	3732	8.05	8.10	8.28	8.54	-	312.34	326.43	329.54	333.91	-
Railroad equipment	374	11.93	12.01	12.06	12.24	-	486.74	490.01	511.34	520.20	-
Guided missiles, space vehicles, and parts	376	12.89	12.82	13.23	13.20	-	546.54	543.57	568.89	576.84	-
Guided missiles and space vehicles	3761	(^b)	(^b)	(^b)	(^b)	-	-	-	-	-	-
Miscellaneous transportation equipment	379	\$10.38	\$10.41	\$10.20	\$10.30	-	\$406.90	\$419.52	\$402.90	\$417.15	-
Travel trailers and campers	3792	8.52	8.60	8.58	8.69	-	310.98	337.98	332.90	333.70	-
Instruments and related products	38	9.76	9.78	9.91	9.96	10.02	400.16	407.83	408.29	413.34	415.83
Engineering and scientific instruments	381	10.68	10.78	11.01	11.13	-	441.08	450.60	452.51	466.35	-
Measuring and controlling devices	382	9.60	9.59	9.66	9.69	-	388.80	394.15	396.06	404.07	-
Environmental controls	3822	9.03	9.00	9.20	9.04	-	354.88	356.40	362.48	364.31	-
Process control instruments	3823	9.44	9.45	9.33	9.40	-	397.42	402.57	404.92	409.84	-
Instruments to measure electricity	3825	9.82	9.82	9.80	9.88	-	392.80	398.69	394.94	406.07	-
Optical instruments and lenses	383	10.39	10.45	10.84	10.98	-	446.77	449.35	463.95	475.43	-
Medical instruments and supplies	384	8.62	8.69	8.95	8.96	-	348.25	358.03	362.48	363.78	-
Surgical and medical instruments	3841	8.73	8.82	9.23	9.23	-	352.69	362.50	367.35	372.89	-
Surgical appliances and supplies	3842	8.49	8.53	8.65	8.65	-	343.00	351.44	353.79	351.19	-
Ophthalmic goods	385	7.50	7.45	7.59	7.57	-	306.00	300.98	302.08	301.29	-
Photographic equipment and supplies	386	13.47	13.41	13.25	13.49	-	588.64	602.11	581.68	581.42	-
Watches, clocks, and watchcases	387	7.17	7.16	7.24	7.33	-	273.89	292.84	293.94	301.26	-
Miscellaneous manufacturing	39	7.78	7.79	7.93	8.00	8.09	304.20	311.60	309.27	314.40	319.56
Jewelry, silverware, and plated ware	391	8.40	8.47	8.52	8.53	-	320.04	338.80	318.65	325.85	-
Jewelry, precious metal	3911	8.49	8.56	8.62	8.60	-	317.53	338.98	310.32	317.34	-
Musical instruments	393	7.58	7.64	7.97	8.01	-	305.47	317.82	318.80	324.41	-
Toys and sporting goods	394	7.16	7.14	7.14	7.21	-	279.96	284.17	280.60	280.47	-
Dolls, games, toys, and children's vehicles	3942,4	6.98	6.89	6.92	6.97	-	268.73	274.22	263.65	269.04	-
Sporting and athletic goods, nec	3949	7.31	7.35	7.31	7.40	-	289.48	292.53	294.59	290.08	-
Pens, pencils, office, and art supplies	395	7.65	7.67	7.90	7.96	-	306.77	313.70	313.63	313.62	-
Costume jewelry and notions	396	6.40	6.28	6.79	6.87	-	240.00	239.27	250.55	264.50	-
Costume jewelry	3961	5.82	5.72	6.31	6.47	-	204.86	202.49	220.22	232.92	-
Miscellaneous manufactures	399	8.54	8.57	8.68	8.76	-	338.18	347.09	344.60	351.28	-
Signs and advertising displays	3993	8.98	9.02	9.03	9.17	-	352.91	363.51	356.69	370.47	-
Nondurable goods		9.30	9.20	9.40	9.50	9.48	374.79	372.60	377.88	384.75	381.10
Food and kindred products	20	8.95	8.88	9.04	9.12	9.05	365.16	360.53	368.83	372.10	366.53
Meat products	201	7.50	7.50	7.58	7.67	-	303.75	305.25	307.75	318.31	-
Meat packing plants	2011	8.45	8.52	8.47	8.58	-	349.83	368.06	354.89	368.94	-
Sausages and other prepared meats	2013	8.95	8.85	8.98	9.03	-	365.16	357.54	371.77	377.45	-
Poultry dressing plants	2016	6.21	6.13	6.31	6.37	-	247.78	239.07	247.35	254.16	-
Dairy products	202	9.80	9.67	9.84	10.03	-	415.52	393.57	401.47	415.24	-
Cheese, natural and processed	2022	9.18	8.97	9.15	9.32	-	370.87	348.93	358.68	372.80	-
Fluid milk	2026	10.31	10.17	10.32	10.51	-	454.67	426.12	431.38	448.78	-
Preserved fruits and vegetables	203	8.15	8.04	8.25	8.26	-	326.82	318.38	339.08	327.10	-
Canned specialties	2032	9.92	10.02	10.28	10.28	-	410.69	397.79	447.18	447.18	-
Canned fruits and vegetables	2033	7.97	7.84	8.37	8.29	-	321.19	304.98	349.87	319.17	-
Frozen fruits and vegetables	2037	7.56	7.41	7.31	7.34	-	296.35	286.03	291.67	288.46	-
Grain mill products	204	11.02	10.80	11.12	11.14	-	497.00	478.44	497.06	510.21	-
Flour and other grain mill products	2041	10.79	10.63	11.06	11.01	-	524.39	511.30	520.93	539.49	-
Prepared feeds, nec	2048	8.54	8.43	8.63	8.67	-	379.18	368.39	371.95	378.88	-
Bakery products	205	10.15	10.04	10.29	10.36	-	407.02	402.60	413.66	419.58	-
Bread, cake, and related products	2051	10.19	10.03	10.21	10.27	-	401.49	390.17	399.21	404.64	-
Cookies and crackers	2052	10.05	10.05	10.47	10.56	-	421.10	429.14	450.21	455.14	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Nondurable goods—Continued											
Food and kindred products—Continued											
Sugar and confectionery products	206	39.9	41.0	40.7	40.9	-	3.3	4.1	3.6	4.5	-
Cane and beet sugar	2061-3	42.3	43.0	41.4	41.2	-	5.5	6.4	5.2	6.1	-
Confectionery products	2065	38.6	39.7	40.0	40.4	-	2.6	3.3	3.1	4.1	-
Fats and oils	207	43.4	43.6	42.0	43.1	-	6.0	5.8	5.2	6.0	-
Beverages	208	40.7	40.3	41.0	40.1	-	4.2	3.5	4.2	4.0	-
Malt beverages	2082	41.6	43.0	43.0	42.4	-	5.6	5.6	5.7	5.7	-
Bottled and canned soft drinks	2086	40.0	39.0	41.3	38.8	-	3.4	2.7	4.3	2.8	-
Misc. food and kindred products	209	39.2	39.5	38.6	37.9	-	4.2	4.2	4.3	4.0	-
Tobacco manufactures	21	40.1	41.4	40.1	40.9	40.9	2.6	3.5	2.6	2.6	-
Cigarettes	211	39.5	40.6	41.3	41.1	-	2.6	3.4	2.9	2.7	-
Textile mill products	22	41.7	42.0	41.3	41.4	41.1	4.5	4.5	4.1	4.3	-
Weaving mills, cotton	221	43.4	43.0	41.1	41.4	-	6.4	5.7	4.2	4.6	-
Weaving mills, synthetics	222	42.5	42.5	42.4	42.3	-	4.9	4.8	4.8	4.7	-
Weaving and finishing mills, wool	223	40.1	41.9	42.4	42.2	-	1.1	1.9	4.0	3.2	-
Narrow fabric mills	224	40.2	41.3	41.1	42.6	-	3.4	3.7	3.9	4.2	-
Knitting mills	225	39.8	40.2	40.1	40.0	-	3.3	3.6	3.3	3.7	-
Women's hosiery, except socks	2251	37.6	39.0	38.6	38.5	-	2.8	2.9	2.7	3.0	-
Hosiery, nec	2252	38.5	40.0	39.6	38.8	-	2.2	3.1	2.8	2.5	-
Knit outerwear mills	2253	39.9	39.4	40.0	40.1	-	3.6	3.7	3.2	4.4	-
Knit underwear mills	2254	39.9	40.0	39.6	39.8	-	2.4	2.4	2.6	2.3	-
Circular knit fabric mills	2257	41.6	42.4	41.0	41.0	-	4.3	4.9	4.4	4.7	-
Textile finishing, except wool	226	42.3	42.5	42.1	42.6	-	4.7	5.4	5.0	5.1	-
Finishing plants, cotton	2261	42.6	43.4	43.1	43.4	-	4.2	5.8	5.0	5.2	-
Finishing plants, synthetics	2262	42.4	42.6	41.8	42.8	-	4.4	5.2	5.5	5.5	-
Floor covering mills	227	42.4	44.7	43.4	43.9	-	3.8	4.4	4.8	5.0	-
Yarn and thread mills	228	42.6	42.3	40.5	40.6	-	5.5	5.1	4.1	4.2	-
Yarn mills, except wool	2281	43.3	43.2	41.1	41.0	-	6.1	5.5	4.4	4.4	-
Throwing and winding mills	2282	39.4	37.6	37.8	38.1	-	3.1	2.7	2.4	2.9	-
Miscellaneous textile goods	229	42.2	43.1	42.2	42.5	-	4.3	4.8	4.3	4.8	-
Apparel and other textile products	23	36.3	37.5	36.9	37.1	37.1	1.8	2.1	1.7	1.9	-
Men's and boys' suits and coats	231	36.1	36.1	36.4	36.9	-	1.3	1.2	1.3	1.4	-
Men's and boys' furnishings	232	36.4	37.8	36.5	36.7	-	1.6	1.9	1.4	1.5	-
Men's and boys' shirts and nightwear	2321	36.4	37.6	37.0	37.4	-	1.4	1.5	1.2	1.4	-
Men's and boys' separate trousers	2327	35.7	37.8	36.6	36.6	-	1.1	1.9	1.4	1.2	-
Men's and boys' work clothing	2328	36.0	37.6	35.2	34.9	-	1.9	2.0	1.3	1.4	-
Women's and misses' outerwear	233	34.3	35.3	35.8	35.6	-	1.3	1.5	1.6	1.5	-
Women's and misses' blouses and waists	2331	34.9	35.9	36.1	36.0	-	1.2	1.5	1.2	1.2	-
Women's and misses' dresses	2335	34.0	34.8	35.2	35.1	-	1.2	1.5	1.5	1.5	-
Women's and misses' suits and coats	2337	33.8	34.9	36.9	36.2	-	1.7	1.8	2.4	2.3	-
Women's and misses' outerwear, nec	2339	34.4	35.5	35.7	35.5	-	1.3	1.5	1.5	1.5	-
Women's and children's undergarments	234	37.9	38.9	38.6	38.0	-	1.8	2.1	1.8	1.7	-
Women's and children's underwear	2341	38.3	39.2	39.4	38.5	-	1.8	2.0	1.9	1.7	-
Brassieres and allied garments	2342	35.3	37.2	33.9	35.1	-	1.7	2.6	1.1	1.9	-
Children's outerwear	236	36.4	38.1	36.7	37.2	-	1.5	2.1	1.7	1.8	-
Children's dresses and blouses	2361	35.5	37.1	35.7	37.0	-	1.3	2.2	1.4	1.7	-
Misc. apparel and accessories	238	38.1	39.5	38.2	38.9	-	2.2	2.7	2.3	2.6	-
Misc. fabricated textile products	239	38.7	40.4	39.0	39.6	-	3.3	3.7	2.7	3.3	-
Curtains and draperies	2391	36.7	38.7	37.0	37.3	-	1.8	2.4	1.2	1.4	-
House furnishings, nec	2392	39.8	41.0	39.2	40.4	-	4.2	4.4	2.8	3.7	-
Automotive and apparel trimmings	2396	40.6	42.2	41.2	42.7	-	5.1	5.8	5.4	6.1	-
Paper and allied products	26	44.1	43.7	42.9	43.7	43.4	6.3	5.5	4.9	5.6	-
Paper and pulp mills	261,2,6	47.7	45.9	44.6	45.8	-	9.0	7.0	5.8	6.7	-
Paper mills, except building paper	262	48.3	46.0	44.6	46.0	-	9.4	7.0	5.8	6.8	-
Paperboard mills	263	45.4	44.5	43.6	44.3	-	8.6	7.5	7.2	7.3	-
Misc. converted paper products	264	42.0	42.2	41.5	42.2	-	4.4	4.2	3.9	4.7	-
Paper coating and glazing	2641	43.9	43.9	43.0	43.7	-	4.7	4.4	3.8	4.7	-
Envelopes	2642	40.8	41.3	41.0	41.4	-	3.2	3.3	3.3	3.9	-
Bags, except textile bags	2643	42.2	41.6	41.8	42.4	-	4.9	4.1	4.5	5.0	-
Paperboard containers and boxes	265	42.8	43.2	42.6	43.4	-	5.2	5.0	4.6	5.2	-
Folding paperboard boxes	2651	42.5	42.9	42.6	42.9	-	4.6	4.7	4.2	5.0	-
Corrugated and solid fiber boxes	2653	43.2	43.9	43.2	44.2	-	5.8	5.4	5.1	5.8	-
Sanitary food containers	2654	42.6	41.7	42.1	43.0	-	4.7	4.1	4.3	4.6	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Nondurable goods—Continued											
Food and kindred products—Continued											
Sugar and confectionery products	206	\$9.28	\$8.98	\$9.43	\$9.45		\$370.27	\$368.18	\$383.80	\$386.51	
Cane and beet sugar	2061-3	10.82	9.76	11.44	11.33		457.69	419.68	473.62	466.80	
Confectionery products	2065	8.11	8.00	8.24	8.32		313.05	317.60	329.60	336.13	
Fats and oils	207	9.40	9.24	9.44	9.43		407.96	402.86	396.48	406.43	
Beverages	208	12.03	12.08	12.14	12.21		489.62	486.82	497.74	489.62	
Malt beverages	2082	16.68	16.63	16.93	17.05		693.89	715.09	727.99	722.92	
Bottled and canned soft drinks	2086	9.51	9.49	9.78	9.70		380.40	370.11	403.91	376.36	
Misc. food and kindred products	209	8.37	8.41	8.41	8.67		328.10	332.20	324.63	328.59	
Tobacco manufactures	21	13.34	13.18	14.84	14.07	\$14.09	534.93	545.65	595.08	575.46	\$576.28
Cigarettes	211	16.82	16.92	17.39	17.37	-	664.39	686.95	718.21	713.91	-
Textile mill products	22	7.23	7.24	7.37	7.42	7.42	301.49	304.08	304.38	307.19	304.96
Weaving mills, cotton	221	7.59	7.60	7.66	7.73	-	329.41	326.80	314.83	320.02	-
Weaving mills, synthetics	222	7.74	7.79	7.92	8.04		328.95	331.08	335.81	340.09	
Weaving and finishing mills, wool	223	7.78	7.69	8.02	8.03		311.98	322.21	340.05	338.87	
Narrow fabric mills	224	6.84	6.69	6.84	6.85		274.97	276.30	281.12	291.81	
Knitting mills	225	6.60	6.62	6.68	6.69		262.68	266.12	267.87	267.60	
Women's hosiery, except socks	2251	6.50	6.46	6.57	6.64		244.40	251.94	253.60	255.64	
Hosiery, nec	2252	6.28	6.32	6.44	6.48		241.78	252.80	255.02	251.42	
Knit outerwear mills	2253	6.57	6.64	6.42	6.36		262.14	261.62	256.80	255.04	
Knit underwear mills	2254	6.21	6.16	6.49	6.51		247.78	246.40	257.00	259.10	
Circular knit fabric mills	2257	7.17	7.20	7.45	7.46		298.27	305.28	305.45	305.86	
Textile finishing, except wool	226	7.48	7.58	7.83	7.86		316.40	322.15	329.64	334.84	
Finishing plants, cotton	2261	7.45	7.56	7.88	7.84		317.37	328.10	339.63	340.26	
Finishing plants, synthetics	2262	7.71	7.82	8.12	8.15		326.90	333.13	339.42	348.82	
Floor covering mills	227	7.49	7.52	7.75	7.76		317.58	336.14	336.35	340.66	
Yarn and thread mills	228	6.91	6.91	7.05	7.13		294.37	292.29	285.53	289.48	
Yarn mills, except wool	2281	6.92	6.89	7.01	7.11		299.64	297.65	288.11	291.51	
Throwing and winding mills	2282	7.00	6.96	7.32	7.33		275.80	261.70	276.70	279.27	
Miscellaneous textile goods	229	8.19	8.11	8.33	8.37		345.62	349.54	351.53	355.73	
Apparel and other textile products	23	5.99	5.97	6.07	6.19	6.20	217.44	223.88	223.98	229.65	230.02
Men's and boys' suits and coats	231	6.65	6.79	6.77	6.85	-	240.07	245.12	246.43	252.77	-
Men's and boys' furnishings	232	5.51	5.48	5.58	5.67		200.56	207.14	203.67	208.09	
Men's and boys' shirts and nightwear	2321	5.36	5.28	5.40	5.54		195.10	198.53	199.80	207.20	
Men's and boys' separate trousers	2327	5.31	5.37	5.46	5.48		189.57	202.99	199.84	200.57	
Men's and boys' work clothing	2328	5.60	5.49	5.61	5.69		201.60	206.42	197.47	198.58	
Women's and misses' outerwear	233	5.80	5.76	5.90	5.99		198.94	203.33	211.22	213.24	
Women's and misses' blouses and waists	2331	5.11	5.07	5.11	5.19		178.34	182.01	184.47	186.84	
Women's and misses' dresses	2335	6.17	6.17	6.28	6.40		209.78	214.72	221.06	224.64	
Women's and misses' suits and coats	2337	6.63	6.61	6.53	6.67		224.09	230.69	240.96	241.45	
Women's and misses' outerwear, nec	2339	5.63	5.55	5.78	5.83		193.67	197.03	206.35	206.97	
Women's and children's undergarments	234	5.56	5.55	5.65	5.69		210.72	215.90	218.09	216.22	
Women's and children's underwear	2341	5.39	5.38	5.55	5.58		206.44	210.90	218.67	214.83	
Brassieres and allied garments	2342	6.60	6.60	6.27	6.39		232.98	245.52	212.55	224.29	
Children's outerwear	236	5.38	5.33	5.47	5.60		195.83	203.07	200.75	208.32	
Children's dresses and blouses	2361	5.21	5.20	5.49	5.56		184.96	192.92	195.99	205.72	
Misc. apparel and accessories	238	5.78	5.85	6.00	6.01		220.22	231.08	229.20	233.79	
Misc. fabricated textile products	239	7.18	7.18	7.18	7.41		277.87	290.07	280.02	293.44	
Curtains and draperies	2391	5.87	5.87	5.99	6.04		215.43	227.17	221.63	225.29	
House furnishings, nec	2392	6.18	6.10	6.24	6.36		245.96	250.10	244.61	256.94	
Automotive and apparel trimmings	2396	10.76	11.04	10.87	11.38		436.86	465.89	447.84	485.93	
Paper and allied products	26	11.66	11.46	11.63	11.71	11.65	514.21	500.80	498.93	511.73	505.61
Paper and pulp mills	261,2,6	14.46	14.15	14.29	14.49	-	689.74	649.49	637.33	663.64	-
Paper mills, except building paper	262	14.51	14.17	14.34	14.52		700.83	651.82	639.56	667.92	
Paperboard mills	263	14.41	14.43	14.48	14.54		654.21	642.14	631.33	644.12	
Misc. converted paper products	264	10.02	9.90	10.08	10.10		420.84	417.78	418.32	426.22	
Paper coating and glazing	2641	11.14	11.13	11.21	11.34		489.05	488.61	482.03	495.56	
Envelopes	2642	9.31	9.37	9.57	9.67		379.85	386.98	392.37	400.34	
Bags, except textile bags	2643	9.37	9.20	9.39	9.43		395.41	382.72	392.50	399.83	
Paperboard containers and boxes	265	9.86	9.77	9.97	10.07		422.01	422.06	424.72	437.04	
Folding paperboard boxes	2651	10.12	10.10	10.28	10.40		430.10	433.29	437.93	446.16	
Corrugated and solid fiber boxes	2653	10.11	9.97	10.20	10.30		436.75	437.68	440.64	455.26	
Sanitary food containers	2654	9.44	9.43	9.65	9.82		402.14	393.23	406.27	422.26	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Nondurable goods—Continued											
Printing and publishing	27	38.5	38.2	38.2	38.5	38.0	3.5	3.4	3.2	3.6	
Newspapers	271	34.5	33.8	33.5	33.6	-	2.0	1.7	1.4	1.6	
Periodicals	272	39.2	38.5	38.3	39.2		4.2	3.7	3.2	4.2	
Books	273	38.8	38.5	39.6	39.7		3.6	3.4	3.7	3.9	
Book publishing	2731	37.4	37.5	38.1	37.9		2.8	2.9	2.3	2.4	
Book printing	2732	40.9	40.1	41.9	42.4		4.8	4.3	5.7	6.1	
Miscellaneous publishing	274	36.5	36.4	36.4	36.2		2.6	2.8	2.0	2.6	
Commercial printing	275	40.1	39.9	39.6	40.2		4.2	4.0	3.8	4.3	
Commercial printing, letterpress	2751	39.9	39.7	39.6	39.8		3.4	3.3	3.4	3.7	
Commercial printing, lithographic	2752	39.9	39.7	39.5	40.3		4.3	4.1	3.9	4.5	
Manifold business forms	276	41.4	41.7	41.7	40.7		4.5	4.4	4.4	3.8	
Blankbooks and bookbinding	278	38.6	39.0	38.9	39.8		3.2	3.4	3.3	4.0	
Printing trade services	279	38.5	38.5	39.0	38.9		4.1	4.5	4.7	5.1	
Chemicals and allied products	28	42.7	42.3	41.8	42.4	41.9	4.3	4.1	4.0	4.4	
Industrial inorganic chemicals	281	42.5	42.4	42.5	42.8	-	4.6	4.2	4.2	4.3	
Industrial inorganic chemicals, nec	2819	43.1	42.7	42.7	42.9		4.7	4.1	4.3	4.4	
Plastics materials and synthetics	282	44.3	42.8	43.0	43.6		4.9	4.3	4.7	5.2	
Plastics materials and resins	2821	44.6	43.2	43.6	43.9		5.5	4.6	5.2	5.4	
Organic fibers, noncellulosic	2824	44.1	42.6	42.9	43.5		4.4	3.8	4.3	5.1	
Drugs	283	41.2	41.3	40.4	41.0		3.0	3.2	2.9	3.2	
Pharmaceutical preparations	2834	40.9	41.0	40.2	40.6		3.0	3.2	2.9	3.3	
Soap, cleaners, and toilet goods	284	40.7	41.0	40.3	40.6		3.8	3.4	3.4	3.7	
Soap and other detergents	2841	43.4	43.8	43.3	44.3		5.5	5.5	4.9	5.6	
Polishing, sanitation, and finishing preparations	2842,3	41.4	41.4	40.8	40.8		3.5	3.3	3.0	3.1	
Toilet preparations	2844	38.8	39.2	38.5	38.7		3.1	2.3	2.8	3.1	
Paints and allied products	285	41.4	41.7	41.5	41.8		3.8	3.6	3.7	3.9	
Industrial organic chemicals	286	45.1	44.8	43.3	44.4		5.6	5.6	4.9	5.6	
Cyclic crudes and intermediates	2865	44.2	43.5	41.4	41.9		5.9	6.1	4.7	5.0	
Gum, wood, and industrial organic chemicals, nec	2861,9	45.4	45.2	43.8	45.1		5.5	5.5	5.0	5.8	
Agricultural chemicals	287	43.0	43.0	42.5	43.3		4.5	4.7	4.6	5.1	
Miscellaneous chemical products	289	42.4	41.4	41.9	41.9		3.7	3.7	3.7	4.0	
Petroleum and coal products	29	44.0	44.0	44.6	44.5	44.3	5.3	5.4	5.7	5.7	
Petroleum refining	291	43.8	43.4	44.3	44.3	-	4.8	4.7	5.1	5.1	
Paving and roofing materials	295	45.8	47.4	47.0	46.4		8.1	9.2	8.7	8.6	
Rubber and misc. plastics products	30	41.3	41.9	41.3	41.6	41.5	4.3	4.4	4.2	4.4	
Tires and inner tubes	301	44.7	45.6	45.1	44.4	-	6.5	6.3	7.0	6.4	
Rubber and plastics footwear	302	39.5	42.0	40.0	39.9		1.8	2.3	2.6	1.9	
Reclaimed rubber, and rubber and plastics hose and belting	303,4	42.2	45.3	44.3	44.2		4.3	5.7	4.8	4.4	
Fabricated rubber products, nec	306	41.2	42.2	41.0	41.7		3.9	4.0	3.4	3.9	
Miscellaneous plastics products	307	40.9	41.3	40.7	41.1		4.1	4.2	3.9	4.3	
Leather and leather products	31	37.8	38.8	37.7	37.5	37.3	2.2	2.5	2.1	2.2	
Leather tanning and finishing	311	41.6	41.8	41.2	40.7	-	4.5	4.4	3.8	3.5	
Footwear, except rubber	314	37.1	38.4	37.3	37.1		1.9	2.0	1.9	1.9	
Men's footwear, except athletic	3143	37.0	38.1	37.3	38.1		1.7	1.7	1.1	1.5	
Women's footwear, except athletic	3144	37.4	39.1	37.1	35.8		2.0	2.5	2.8	2.2	
Luggage	316	40.0	41.0	39.7	38.7		3.2	4.8	3.6	3.8	
Handbags and personal leather goods	317	36.3	37.8	36.4	36.7		2.6	3.4	1.7	2.1	
Transportation and public utilities		39.2	39.4	39.7	39.4	39.6					
Railroad transportation:											
Class I railroads ³	4011	43.8	44.5	45.1	45.1						
Local and interurban passenger transit	41	33.3	33.7	36.6	34.1						
Local and suburban transportation	411	38.5	38.6	39.2	38.1						
Intercity highway transportation	413	39.7	40.8	40.9	40.1						
Trucking and warehousing	42	38.2	38.6	38.7	38.6						
Trucking and trucking terminals	421,3	38.1	38.4	38.6	38.5						
Public warehousing	422	40.2	40.5	39.3	38.7						
Pipe lines, except natural gas	46	41.6	41.9	40.0	42.6						

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^a	Oct. 1988 ^a
Nondurable goods—Continued											
Printing and publishing	27	\$10.48	\$10.41	\$10.55	\$10.70	\$10.68	\$403.48	\$397.66	\$403.01	\$411.95	\$405.84
Newspapers	271	10.46	10.24	10.47	10.63	-	360.87	346.11	350.75	357.17	-
Periodicals	272	10.93	10.80	11.11	11.14	-	428.46	415.80	425.51	436.69	-
Books	273	9.55	9.58	9.53	9.76	-	370.54	368.83	377.39	337.47	-
Book publishing	2731	9.18	9.16	9.12	9.42	-	343.33	343.50	347.47	357.02	-
Book printing	2732	10.08	10.20	10.10	10.20	-	412.27	409.02	423.19	432.48	-
Miscellaneous publishing	274	9.68	9.87	9.96	10.09	-	353.32	359.27	362.54	365.26	-
Commercial printing	275	10.77	10.69	10.82	11.01	-	431.88	426.53	428.47	442.60	-
Commercial printing, letterpress	2751	10.39	10.31	10.27	10.45	-	414.56	409.31	406.69	415.91	-
Commercial printing, lithographic	2752	10.89	10.79	11.01	11.20	-	434.51	428.36	434.90	451.36	-
Manifold business forms	276	10.83	10.79	11.09	11.03	-	448.36	449.94	462.45	448.92	-
Blankbooks and bookbinding	278	8.29	8.29	8.44	8.49	-	319.99	323.31	328.32	337.90	-
Printing trade services	279	12.74	12.73	12.95	13.12	-	490.49	490.11	505.05	510.37	-
Chemicals and allied products	28	12.56	12.50	12.63	12.75	12.80	536.31	528.75	527.93	540.60	536.32
Industrial inorganic chemicals	281	13.93	13.69	13.99	14.02	-	592.03	580.46	594.58	600.06	-
Industrial inorganic chemicals, nec	2819	14.03	13.74	14.05	14.09	-	604.69	586.70	599.94	604.46	-
Plastics materials and synthetics	282	12.86	12.66	12.98	13.15	-	569.70	541.85	558.14	573.34	-
Plastics materials and resins	2821	13.80	13.62	13.89	14.14	-	615.48	588.38	605.60	620.75	-
Organic fibers, noncellulosic	2824	12.44	12.15	12.30	12.46	-	548.60	517.59	527.67	542.01	-
Drugs	283	11.75	11.82	12.00	12.11	-	484.10	488.17	484.80	496.51	-
Pharmaceutical preparations	2834	11.41	11.47	11.72	11.93	-	466.67	470.27	471.14	484.36	-
Soap, cleaners, and toilet goods	284	10.80	10.87	10.90	10.91	-	439.56	445.67	439.27	442.95	-
Soap and other detergents	2841	14.14	14.19	14.50	14.69	-	613.68	621.52	627.85	650.77	-
Polishing, sanitation, and finishing preparations	2842,3	10.05	9.99	10.33	10.22	-	416.07	413.59	421.46	416.98	-
Toilet preparations	2844	9.14	9.23	9.07	9.09	-	354.63	361.82	349.20	351.78	-
Paints and allied products	285	10.98	10.91	11.14	11.34	-	454.57	454.95	462.31	474.01	-
Industrial organic chemicals	286	15.14	15.13	15.05	15.25	-	682.81	677.82	651.67	677.10	-
Cyclic crudes and intermediates	2865	14.71	15.07	14.68	14.90	-	650.18	655.55	607.75	624.31	-
Gum, wood, and industrial organic chemicals, nec	2861,9	15.26	15.15	15.14	15.33	-	692.80	684.78	663.13	691.38	-
Agricultural chemicals	287	12.25	12.18	12.34	12.52	-	526.75	523.74	524.45	542.12	-
Miscellaneous chemical products	289	11.49	11.44	11.53	11.62	-	487.18	473.62	483.11	486.88	-
Petroleum and coal products	29	14.74	14.66	14.91	15.09	15.09	648.56	645.04	664.99	671.51	668.49
Petroleum refining	291	15.94	15.85	16.11	16.29	-	698.17	687.89	713.67	721.65	-
Paving and roofing materials	295	11.63	11.64	11.64	11.84	-	532.65	551.74	547.08	549.38	-
Rubber and misc. plastics products	30	9.01	8.93	9.14	9.18	9.17	372.11	374.17	377.48	381.89	380.56
Tires and inner tubes	301	14.40	14.16	14.42	14.38	-	643.68	645.70	650.34	638.47	-
Rubber and plastics footwear	302	6.05	6.09	6.37	6.28	-	238.98	255.78	254.80	250.57	-
Reclaimed rubber, and rubber and plastics hose and belting	303,4	8.91	8.98	9.19	9.15	-	376.00	406.79	407.12	404.43	-
Fabricated rubber products, nec	306	8.75	8.74	8.75	8.80	-	360.50	368.83	358.75	366.96	-
Miscellaneous plastics products	307	8.37	8.31	8.52	8.61	-	342.33	343.20	346.76	353.87	-
Leather and leather products	31	6.13	6.12	6.23	6.30	6.35	231.71	237.46	234.87	236.25	236.86
Leather tanning and finishing	311	8.30	8.27	8.36	8.42	-	345.28	345.69	344.43	342.69	-
Footwear, except rubber	314	5.79	5.80	5.94	6.02	-	214.81	222.72	221.56	223.34	-
Men's footwear, except athletic	3143	6.19	6.18	6.26	6.38	-	229.03	235.46	233.50	243.08	-
Women's footwear, except athletic	3144	5.45	5.51	5.69	5.75	-	203.83	215.44	211.10	205.85	-
Luggage	316	6.57	6.44	6.27	6.33	-	262.80	264.04	248.92	244.97	-
Handbags and personal leather goods	317	5.89	5.86	5.83	5.87	-	213.81	221.51	212.21	215.43	-
Transportation and public utilities		12.11	12.12	12.35	12.36	12.42	474.71	477.53	490.30	486.98	491.83
Railroad transportation:											
Class I railroads ³	4011	14.26	14.23	14.87	14.87	-	624.59	633.24	670.64	670.64	-
Local and interurban passenger transit	41	8.37	8.33	8.66	8.57	-	278.72	280.72	316.96	292.24	-
Local and suburban transportation	411	9.07	8.97	9.09	8.99	-	349.20	346.24	356.33	342.52	-
Intercity highway transportation	413	11.67	11.69	11.22	11.36	-	463.30	476.95	458.90	455.54	-
Trucking and warehousing	42	10.78	10.83	10.91	11.01	-	411.80	418.04	422.22	424.99	-
Trucking and trucking terminals	421,3	11.02	11.09	11.07	11.19	-	419.86	425.86	427.30	430.82	-
Public warehousing	422	8.12	8.03	8.82	8.77	-	326.42	325.22	346.63	339.40	-
Pipe lines, except natural gas	46	15.41	15.48	15.42	15.77	-	641.06	648.61	616.80	671.80	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Transportation and public utilities—Continued											
Communication	48	40.9	40.2	40.2	40.2	—					
Telephone communication	481	42.5	41.7	41.9	41.9						
Radio and television broadcasting	483	36.2	35.7	35.6	35.9	—					
Electric, gas, and sanitary services	49	41.4	42.1	41.4	41.6						
Electric services	491	41.2	41.5	41.7	41.6						
Gas production and distribution	492	40.7	42.0	40.6	41.5						
Combination utility services	493	41.9	43.4	41.4	41.8						
Sanitary services	495	43.4	42.9	42.2	42.3						
Wholesale trade		38.0	38.3	38.0	38.1	38.2					
Durable goods	50	38.4	38.7	38.5	38.6						
Motor vehicles and automotive equipment	501	38.1	38.3	37.9	38.0						
Furniture and home furnishings	502	37.0	37.2	37.3	37.5						
Lumber and construction materials	503	39.2	39.5	39.6	39.7						
Sporting goods, toys, and hobby goods	504	36.1	36.4	36.1	36.0						
Metals and minerals, except petroleum	505	40.0	40.8	39.9	40.1						
Electrical goods	506	37.9	38.2	37.8	38.0						
Hardware, plumbing, and heating equipment	507	38.3	38.7	38.6	38.8						
Machinery, equipment, and supplies	508	38.9	39.0	38.8	38.8						
Miscellaneous durable goods	509	37.5	37.7	38.1	38.3						
Nondurable goods	51	37.5	37.7	37.3	37.4						
Paper and paper products	511	36.8	37.2	36.9	37.0						
Drugs, proprietaries, and sundries	512	37.1	37.6	37.2	37.1						
Apparel, piece goods, and notions	513	37.1	37.2	36.4	36.8						
Groceries and related products	514	38.3	37.9	38.0	38.0						
Chemicals and allied products	516	38.7	39.0	40.0	40.0						
Petroleum and petroleum products	517	38.7	38.8	38.1	38.2						
Beer, wine, and distilled beverages	518	35.8	35.7	36.5	36.5						
Miscellaneous nondurable goods	519	36.5	37.1	36.5	36.4						
Retail trade		29.5	29.1	29.8	29.0	29.0					
Building materials and garden supplies	52	36.5	36.7	37.0	36.8						
Lumber and other building materials	521	38.5	38.7	38.8	38.8						
Hardware stores	525	32.7	33.0	33.6	32.7						
General merchandise stores	53	29.6	27.7	28.3	27.7	—					
Department stores	531	29.5	27.5	27.9	27.5						
Variety stores	533	29.6	28.9	29.8	28.8						
Misc. general merchandise stores	539	30.5	29.7	30.5	29.7						
Food stores	54	30.8	29.9	31.1	30.2						
Grocery stores	541	31.2	30.2	31.2	30.3						
Retail bakeries	546	27.6	27.8	29.6	29.3						
Automotive dealers and service stations	55	36.3	36.5	36.6	36.3						
New and used car dealers	551,2	36.9	37.2	37.2	37.0						
Auto and home supply stores	553	39.1	39.1	38.7	38.7						
Gasoline service stations	554	34.0	34.3	34.6	34.1						
Apparel and accessory stores	56	27.1	26.7	27.9	27.0						
Men's and boys' clothing and furnishings	561	29.6	29.3	29.5	28.6						
Women's ready-to-wear stores	562	25.7	25.2	26.2	25.2	—					
Family clothing stores	565	27.6	27.2	27.8	26.9	—					
Shoe stores	566	27.6	27.3	29.7	28.9						
Furniture and home furnishings stores	57	33.1	32.9	33.2	32.9						
Furniture and home furnishings stores	571	33.2	33.2	33.8	33.6						
Household appliance stores	572	33.8	33.8	34.0	33.2						
Radio, television, and music stores	573	32.5	32.0	32.0	31.7						
Eating and drinking places ⁴	58	25.8	25.8	26.7	25.5						

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Transportation and public utilities—Continued											
Communication	48	\$12.65	\$12.52	\$12.88	\$12.88	-	\$517.39	\$503.30	\$517.78	\$517.78	-
Telephone communication	481	13.38	13.28	13.66	13.63	-	568.65	553.78	572.35	571.10	-
Radio and television broadcasting	483	11.13	10.84	11.44	11.53	-	402.91	386.99	407.26	413.93	-
Electric, gas, and sanitary services	49	13.86	13.96	14.21	14.31	-	573.80	587.72	588.29	595.30	-
Electric services	491	13.90	13.94	14.42	14.47	-	572.68	578.51	601.31	601.95	-
Gas production and distribution	492	13.16	13.20	13.15	13.34	-	535.61	554.40	533.89	553.61	-
Combination utility services	493	16.24	16.55	16.65	16.75	-	680.46	718.27	689.31	700.15	-
Sanitary services	495	10.44	10.29	10.98	11.11	-	453.10	441.44	463.36	469.95	-
Wholesale trade		9.64	9.65	9.88	10.00	\$10.10	366.32	369.60	375.44	381.00	\$385.82
Durable goods	50	9.80	9.86	10.11	10.23	-	376.32	381.58	389.24	394.88	-
Motor vehicles and automotive equipment	501	8.87	8.89	9.12	9.25	-	337.95	340.49	345.65	351.50	-
Furniture and home furnishings	502	8.90	8.95	9.35	9.40	-	329.30	332.94	348.76	352.50	-
Lumber and construction materials	503	9.38	9.41	9.71	9.80	-	367.70	371.70	384.52	389.06	-
Sporting goods, toys, and hobby goods	504	9.73	9.74	9.57	9.65	-	351.25	354.54	345.48	347.40	-
Metals and minerals, except petroleum	505	10.43	10.43	10.53	10.61	-	417.20	425.54	420.15	425.46	-
Electrical goods	506	10.16	10.27	10.50	10.62	-	385.06	392.31	396.90	403.56	-
Hardware, plumbing, and heating equipment	507	9.25	9.26	9.42	9.55	-	354.28	358.36	363.61	370.54	-
Machinery, equipment, and supplies	508	10.44	10.53	10.80	10.95	-	406.12	410.67	419.04	424.86	-
Miscellaneous durable goods	509	7.79	7.83	8.00	8.06	-	292.13	295.19	304.80	308.70	-
Nondurable goods	51	9.41	9.35	9.55	9.66	-	352.88	352.50	356.22	361.28	-
Paper and paper products	511	10.22	10.15	10.34	10.67	-	376.10	377.58	381.55	394.79	-
Drugs, proprietaries, and sundries	512	10.97	10.75	10.90	11.04	-	406.99	404.20	405.48	409.58	-
Apparel, piece goods, and notions	513	9.11	9.12	9.34	9.44	-	337.98	339.26	339.98	347.39	-
Groceries and related products	514	9.58	9.52	9.70	9.84	-	366.91	360.81	368.60	373.92	-
Chemicals and allied products	516	12.12	12.08	12.08	12.19	-	469.04	471.12	483.20	487.60	-
Petroleum and petroleum products	517	9.50	9.49	9.58	9.68	-	367.65	368.21	365.00	369.78	-
Beer, wine, and distilled beverages	518	11.03	11.00	11.16	11.16	-	394.87	392.70	407.34	407.34	-
Miscellaneous nondurable goods	519	7.70	7.68	7.88	7.96	-	281.05	284.93	287.62	289.74	-
Retail trade		6.20	6.16	6.26	6.37	6.39	182.90	179.26	186.55	184.73	185.31
Building materials and garden supplies	52	7.11	7.14	7.37	7.50	-	259.52	262.04	272.69	276.00	-
Lumber and other building materials	521	7.43	7.47	7.75	7.88	-	286.06	289.09	300.70	305.74	-
Hardware stores	525	6.03	6.02	6.16	6.26	-	197.18	198.66	206.98	204.70	-
General merchandise stores	53	6.59	6.56	6.54	6.65	-	195.06	181.71	185.08	184.21	-
Department stores	531	6.90	6.88	6.85	6.96	-	203.55	189.20	191.12	191.40	-
Variety stores	533	4.93	4.84	4.95	5.04	-	145.93	139.88	147.51	145.15	-
Misc. general merchandise stores	539	5.04	5.06	5.25	5.39	-	153.72	150.28	160.13	160.08	-
Food stores	54	7.14	6.92	6.91	7.04	-	219.91	206.91	214.90	212.61	-
Grocery stores	541	7.29	7.05	7.01	7.14	-	227.45	212.91	218.71	216.34	-
Retail bakeries	546	5.73	5.69	5.97	6.02	-	158.15	158.18	176.71	176.39	-
Automotive dealers and service stations	55	7.91	7.83	8.26	8.35	-	287.13	285.80	302.32	303.11	-
New and used car dealers	551,2	9.70	9.47	10.19	10.23	-	357.93	352.28	379.07	378.51	-
Auto and home supply stores	553	6.70	6.72	7.03	7.14	-	261.97	262.75	272.06	276.32	-
Gasoline service stations	554	5.58	5.62	5.76	5.83	-	189.72	192.77	199.30	198.80	-
Apparel and accessory stores	56	5.67	5.63	5.70	5.84	-	153.66	150.32	159.03	157.68	-
Men's and boys' clothing and furnishings	561	6.63	6.69	6.82	6.97	-	196.25	196.02	201.19	199.34	-
Women's ready-to-wear stores	562	5.28	5.27	5.40	5.54	-	135.70	132.80	141.48	139.61	-
Family clothing stores	565	5.59	5.49	5.52	5.67	-	154.28	149.33	153.46	152.52	-
Shoe stores	566	5.88	5.74	5.86	6.00	-	162.29	156.70	174.04	173.40	-
Furniture and home furnishings stores	57	7.57	7.55	7.84	7.90	-	250.57	248.40	260.29	259.91	-
Furniture and home furnishings stores	571	7.68	7.66	7.99	8.08	-	254.98	254.31	270.06	271.49	-
Household appliance stores	572	7.43	7.43	7.81	7.85	-	251.13	251.13	265.54	260.62	-
Radio, television, and music stores	573	7.45	7.40	7.60	7.62	-	242.13	236.80	243.20	241.55	-
Eating and drinking places ⁴	58	4.44	4.46	4.56	4.62	-	114.55	115.07	121.75	117.81	-

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Retail trade—Continued											
Miscellaneous retail	59	30.2	30.2	30.4	29.8						
Drug stores and proprietary stores	591	28.4	28.1	28.1	27.2		-	-	-	-	
Miscellaneous shopping goods stores	594	28.6	28.5	29.8	28.6		-	-	-	-	
Nonstore retailers	596	33.2	33.3	32.5	32.6		-	-	-	-	
Fuel and ice dealers	598	38.0	39.3	38.3	38.3		-	-	-	-	
Retail stores, nec	599	31.4	32.0	31.4	31.1		-	-	-	-	
Finance, insurance, and real estate⁵		36.0	36.2	35.7	35.8	36.0					
Banking	60	35.9	36.1	35.5	35.6		-	-	-	-	
Commercial and stock savings banks	602	35.9	36.1	35.5	35.6		-	-	-	-	
Credit agencies other than banks	61	36.2	36.4	36.2	36.3		-	-	-	-	
Savings and loan associations	612	35.7	35.7	35.8	35.8		-	-	-	-	
Personal credit institutions	614	36.4	36.7	36.0	36.2		-	-	-	-	
Insurance carriers	63	37.1	37.1	36.8	37.0		-	-	-	-	
Life insurance	631	36.7	36.8	36.5	36.7		-	-	-	-	
Medical service and health insurance	632	37.9	37.9	37.6	37.7		-	-	-	-	
Fire, marine, and casualty insurance	633	37.0	37.0	36.6	36.8		-	-	-	-	
Services		32.4	32.5	32.8	32.5	32.6					
Hotels and other lodging places:											
Hotels, motels, and tourist courts ⁴	701	31.1	31.1	32.1	31.3		-	-	-	-	
Personal services:											
Laundry, cleaning, and garment services	721	33.9	34.5	34.2	34.0		-	-	-	-	
Beauty shops ⁴	723	28.9	29.5	29.9	30.1		-	-	-	-	
Business services	73	33.0	33.5	33.9	33.5		-	-	-	-	
Advertising	731	36.7	36.6	36.5	36.7		-	-	-	-	
Services to buildings	734	28.2	28.7	29.5	29.4		-	-	-	-	
Computer and data processing services	737	37.5	37.3	37.7	37.7		-	-	-	-	
Auto repair, services, and garages	75	36.4	36.7	37.0	36.9		-	-	-	-	
Automotive repair shops	753	37.9	38.4	38.0	38.3		-	-	-	-	
Miscellaneous repair services	76	37.7	37.9	38.5	38.1		-	-	-	-	
Motion pictures	78	29.5	29.8	28.9	27.8		-	-	-	-	
Motion picture production and services	781	38.0	37.5	36.2	35.6		-	-	-	-	
Amusement and recreation services	79	28.3	28.0	30.2	27.9		-	-	-	-	
Health services	80	32.5	32.3	32.4	32.4		-	-	-	-	
Offices of physicians	801	30.8	30.9	31.2	31.1		-	-	-	-	
Offices of dentists	802	28.3	28.5	28.2	28.3		-	-	-	-	
Nursing and personal care facilities	805	32.0	31.4	31.4	31.7		-	-	-	-	
Hospitals	806	34.3	34.0	34.1	34.0		-	-	-	-	
Legal services	81	34.4	34.5	34.4	34.5		-	-	-	-	
Miscellaneous services	89	38.2	38.3	37.9	38.0		-	-	-	-	
Engineering and architectural services	891	39.2	39.6	39.1	39.3		-	-	-	-	
Accounting, auditing, and bookkeeping	893	36.8	36.8	36.1	36.2		-	-	-	-	

See footnotes at end of table.

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

C-2. Average hours and earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by detailed industry—Continued

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Retail trade—Continued											
Miscellaneous retail	59	\$6.40	\$6.38	\$6.54	\$6.64	-	\$193.28	\$192.68	\$198.82	\$197.87	-
Drug stores and proprietary stores	591	5.97	5.93	6.19	6.30	-	169.55	166.63	173.94	171.36	-
Miscellaneous shopping goods stores	594	5.97	5.93	6.09	6.22	-	170.74	169.01	181.48	177.89	-
Nonstore retailers	596	7.29	7.16	7.46	7.44	-	242.03	238.43	242.45	242.54	-
Fuel and ice dealers	598	8.91	9.13	9.10	9.13	-	338.58	358.81	348.53	349.68	-
Retail stores, nec	599	6.56	6.58	6.73	6.81	-	205.98	210.56	211.32	211.79	-
Finance, insurance, and real estate⁵		8.73	8.76	9.04	9.13	\$9.27	314.28	317.11	322.73	326.85	\$333.72
Banking	60	7.52	7.56	7.81	7.84	-	269.97	272.92	277.26	279.10	-
Commercial and stock savings banks	602	7.27	7.32	7.52	7.55	-	260.99	264.25	266.96	268.78	-
Credit agencies other than banks	61	7.94	7.98	8.29	8.34	-	287.43	290.47	300.10	302.74	-
Savings and loan associations	612	7.49	7.54	7.72	7.81	-	267.39	269.18	276.38	279.60	-
Personal credit institutions	614	7.45	7.45	7.79	7.79	-	271.18	273.42	280.44	282.00	-
Insurance carriers	63	9.57	9.63	10.23	10.28	-	355.05	357.27	376.46	380.36	-
Life insurance	631	8.99	9.01	9.70	9.74	-	329.93	331.57	354.05	357.46	-
Medical service and health insurance	632	9.43	9.47	9.82	9.91	-	357.40	358.91	369.23	373.61	-
Fire, marine, and casualty insurance	633	10.03	10.11	10.77	10.83	-	371.11	374.07	394.18	398.54	-
Services		8.54	8.61	8.79	8.98	9.09	276.70	279.83	288.31	291.85	296.33
Hotels and other lodging places:											
Hotels, motels, and tourist courts ⁴	701	6.20	6.26	6.22	6.44	-	192.82	194.69	199.66	201.57	-
Personal services:											
Laundry, cleaning, and garment services	721	6.25	6.21	6.35	6.35	-	211.88	214.25	217.17	215.90	-
Beauty shops ⁴	723	6.46	6.38	6.78	6.79	-	186.69	188.21	202.72	204.38	-
Business services	73	8.82	8.81	9.10	9.21	-	291.06	295.14	308.49	308.54	-
Advertising	731	12.06	12.09	12.40	12.57	-	442.60	442.49	452.60	461.32	-
Services to buildings	734	6.78	6.73	6.87	6.88	-	191.20	193.15	202.67	202.27	-
Computer and data processing services	737	12.32	12.42	12.75	12.87	-	462.00	463.27	480.68	485.20	-
Auto repair, services, and garages	75	7.86	7.89	8.24	8.32	-	286.10	289.56	304.88	307.01	-
Automotive repair shops	753	8.44	8.52	8.89	8.94	-	319.88	327.17	337.82	342.40	-
Miscellaneous repair services	76	9.29	9.33	9.55	9.61	-	351.16	354.54	367.68	366.14	-
Motion pictures	78	11.99	12.43	11.01	11.86	-	353.71	370.41	318.19	329.71	-
Motion picture production and services	781	16.33	16.74	15.40	15.71	-	620.54	627.75	557.48	559.28	-
Amusement and recreation services	79	6.81	7.22	6.59	7.36	-	192.72	202.16	199.02	205.34	-
Health services	80	8.81	8.84	9.26	9.37	-	286.33	285.53	300.02	303.59	-
Offices of physicians	801	8.49	8.50	8.79	8.91	-	261.49	262.65	274.25	277.10	-
Offices of dentists	802	8.52	8.53	8.94	8.97	-	241.12	243.11	252.11	253.85	-
Nursing and personal care facilities	805	6.09	6.08	6.38	6.45	-	194.88	190.91	200.33	204.47	-
Hospitals	806	10.00	10.04	10.54	10.69	-	343.00	341.36	359.41	363.46	-
Legal services	81	11.95	12.07	12.68	12.77	-	411.08	416.42	436.19	440.57	-
Miscellaneous services	89	12.17	12.23	12.55	12.74	-	464.89	468.41	475.65	484.12	-
Engineering and architectural services	891	13.01	13.05	13.16	13.41	-	509.99	516.78	514.56	527.01	-
Accounting, auditing, and bookkeeping	893	10.45	10.49	11.04	11.09	-	384.56	386.03	398.54	401.46	-

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

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

³ Data relate to line haul railroads with operating revenues of \$50,000,000 or more.

⁴ Money payments only; tips, not included.

⁵ Data for nonoffice sales agents are excluded from all series in this division.

- Data not available.

^p = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

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)			
	Aug. 1987	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Aug. 1987	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Average hourly earnings, excluding lump-sum payments	\$13.76	\$13.77	\$14.20	\$14.36	\$13.06	\$13.15	\$13.63	\$13.53
Average hourly earnings, including lump-sum payments	14.44	14.43	14.69	14.82	13.37	13.46	14.01	13.88

^p = preliminary.

**ESTABLISHMENT DATA
EARNINGS
NOT SEASONALLY ADJUSTED**

C-3. Average hourly earnings, excluding overtime,¹ of production workers on manufacturing payrolls

Industry	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Manufacturing	\$9.53	\$9.48	\$9.66	\$9.75	\$9.76
Durable goods	10.02	9.99	10.16	10.25	10.26
Lumber and wood products	8.09	8.04	8.16	8.29	(2)
Furniture and fixtures	7.45	7.41	7.73	7.76	(2)
Stone, clay, and glass products	9.78	9.63	9.65	9.91	(2)
Primary metal industries	11.46	11.30	11.37	11.49	(2)
Fabricated metal products	9.55	9.57	9.73	9.79	(2)
Machinery, except electrical	10.26	10.27	10.42	10.48	(2)
Electrical and electronic equipment	9.58	9.55	9.77	9.78	(2)
Transportation equipment	12.41	12.41	12.59	12.74	(2)
Instruments and related products	9.41	9.41	9.58	9.59	(2)
Miscellaneous manufacturing	7.53	7.48	7.69	7.73	(2)
Nondurable goods	8.86	8.78	8.98	9.04	\$9.04
Food and kindred products	8.45	8.43	8.53	8.59	(2)
Tobacco manufactures	12.92	12.65	14.38	13.64	(2)
Textile mill products	6.86	6.87	7.02	7.05	(2)
Apparel and other textile products	5.84	5.81	5.93	6.03	(2)
Paper and allied products	10.89	10.78	11.00	11.01	(2)
Printing and publishing	10.02	9.96	10.13	10.22	(2)
Chemicals and allied products	11.96	11.92	12.05	12.13	(2)
Petroleum and coal products	13.90	13.81	14.02	14.18	(2)
Rubber and misc. plastics products	8.57	8.49	8.70	8.71	(2)
Leather and leather products	5.96	5.92	6.06	6.13	(2)

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

² Not available.

^p = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA
EARNINGS
NOT SEASONALLY ADJUSTED**

C-4. Average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by major industry, in current and constant (1977) dollars.

Industry	Average hourly earnings					Average weekly earnings				
	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Aug. 1988	Sept. 1988 ^p	Oct. 1988 ^p
Total private:										
Current dollars	\$9.05	\$9.08	\$9.24	\$9.40	\$9.45	\$314.04	\$316.89	\$323.40	\$327.12	\$329.81
Constant (1977) dollars	4.84	4.85	4.78	4.83	(²)	168.12	169.19	167.30	168.10	(²)
Mining:										
Current dollars	12.50	12.42	12.62	12.76	\$12.66	528.75	532.82	530.04	537.20	\$539.32
Constant (1977) dollars	6.69	6.63	6.53	6.56	(²)	283.06	284.47	274.21	276.05	(²)
Construction:										
Current dollars	12.79	12.82	12.95	13.12	\$13.12	466.84	497.42	499.87	503.81	\$510.37
Constant (1977) dollars	6.85	6.84	6.70	6.74	(²)	249.91	265.57	258.60	258.90	(²)
Manufacturing:										
Current dollars	9.99	9.95	10.12	10.25	\$10.25	407.59	410.94	412.90	423.33	\$422.30
Constant (1977) dollars	5.35	5.31	5.24	5.27	(²)	218.20	219.40	213.61	217.54	(²)
Transportation and public utilities:										
Current dollars	12.11	12.12	12.35	12.36	\$12.42	474.71	477.53	490.30	486.98	\$491.83
Constant (1977) dollars	6.48	6.47	6.39	6.35	(²)	254.13	254.95	253.65	250.25	(²)
Wholesale trade:										
Current dollars	9.64	9.65	9.88	10.00	\$10.10	366.32	369.60	375.44	381.00	\$385.82
Constant (1977) dollars	5.16	5.15	5.11	5.14	(²)	196.10	197.33	194.23	195.79	(²)
Retail trade:										
Current dollars	6.20	6.16	6.26	6.37	\$6.39	182.90	179.26	186.55	184.73	\$185.31
Constant (1977) dollars	3.32	3.29	3.24	3.27	(²)	97.91	95.71	96.51	94.93	(²)
Finance, insurance, and real estate:										
Current dollars	8.73	8.76	9.04	9.13	\$9.27	314.28	317.11	322.73	326.85	\$333.72
Constant (1977) dollars	4.67	4.68	4.68	4.69	(²)	168.24	169.31	166.96	167.96	(²)
Services:										
Current dollars	8.54	8.61	8.79	8.98	\$9.09	276.70	279.83	288.31	291.85	\$296.33
Constant (1977) dollars	4.57	4.60	4.55	4.61	(²)	148.13	149.40	149.15	149.97	(²)

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

² Not available.
^p = preliminary.

NOTE: The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate the earnings series. Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA
HOURS
SEASONALLY ADJUSTED**

C-5. Average weekly hours of production or nonsupervisory workers¹ on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted

Industry	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ^p	Oct. ^p
Total private	34.9	34.8	34.6	34.7	34.8	34.6	34.9	34.7	34.7	34.9	34.6	34.7	34.8
Mining	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Construction	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Manufacturing	41.2	41.2	41.0	41.1	41.0	40.9	41.2	41.0	41.1	41.1	41.0	41.2	41.1
<i>Overtime hours</i>	3.9	3.9	3.8	3.9	3.7	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.0
Durable goods	41.8	41.8	41.5	41.6	41.5	41.5	42.0	41.8	41.8	41.8	41.6	41.9	41.9
<i>Overtime hours</i>	4.0	4.0	3.9	4.0	3.8	3.8	4.2	4.2	4.1	4.0	4.1	4.0	4.2
Lumber and wood products	40.4	40.7	40.4	40.2	40.3	40.1	40.6	40.1	40.2	40.5	40.0	39.9	40.4
Furniture and fixtures	40.1	40.2	39.8	39.6	39.5	39.3	39.5	39.5	39.4	39.7	39.0	39.5	39.5
Stone, clay, and glass products	42.5	42.4	42.5	42.0	42.3	42.3	42.5	42.3	42.4	42.1	42.1	42.4	42.4
Primary metal industries	43.6	43.5	43.4	43.4	43.1	43.3	43.5	43.6	43.6	43.4	43.5	44.0	44.1
Blast furnaces and basic steel products ..	43.9	43.8	44.0	44.0	43.8	43.7	43.8	43.9	44.3	44.0	44.0	44.6	44.8
Fabricated metal products	41.9	42.1	41.7	41.8	41.6	41.6	42.0	41.9	42.0	41.7	41.8	42.0	41.8
Machinery, except electrical	42.6	42.7	42.6	42.7	42.6	42.5	42.8	42.6	42.5	43.0	42.4	42.7	42.7
Electrical and electronic equipment	41.0	41.0	40.9	41.1	40.9	40.9	41.2	41.0	41.1	41.0	40.8	41.1	40.9
Transportation equipment	42.4	42.3	41.5	42.0	42.0	42.1	43.0	43.0	43.0	42.6	42.7	43.4	43.4
Motor vehicles and equipment	42.8	42.9	41.4	42.1	42.3	42.3	44.1	44.0	44.2	42.5	43.6	44.7	44.3
Instruments and related products	41.9	41.4	41.2	41.8	41.3	41.4	41.8	41.4	41.3	41.8	41.5	41.5	41.7
Miscellaneous manufacturing	39.5	39.2	39.2	39.1	39.3	39.2	39.4	39.2	39.3	39.2	39.2	39.2	39.0
Nondurable goods	40.4	40.3	40.3	40.3	40.2	40.1	40.3	40.0	40.1	40.2	40.1	40.2	40.1
<i>Overtime hours</i>	3.8	3.7	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.7
Food and kindred products	40.4	40.4	40.5	40.6	40.3	40.1	40.1	40.1	40.3	40.5	40.4	40.2	40.3
Tobacco manufactures	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Textile mill products	41.8	41.6	41.5	41.5	41.6	41.2	41.6	40.8	40.7	41.1	41.1	41.1	40.9
Apparel and other textile products	37.3	37.1	37.1	36.8	37.0	37.0	37.4	36.8	36.9	36.9	36.8	37.2	36.9
Paper and allied products	43.6	43.5	43.3	43.4	43.3	43.2	43.3	43.3	43.2	43.2	43.2	43.3	43.3
Printing and publishing	38.1	38.0	38.0	38.1	38.1	38.1	38.2	37.7	38.0	38.0	38.0	38.1	37.9
Chemicals and allied products	42.5	42.5	42.5	42.5	42.4	42.5	42.1	42.0	42.4	42.3	42.1	42.2	42.1
Petroleum and coal products	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Rubber and misc. plastics products	41.8	41.8	41.6	41.7	41.6	41.7	42.0	41.7	41.6	41.6	41.5	41.6	41.4
Leather and leather products	38.8	38.3	38.0	38.0	37.8	37.9	37.3	37.3	36.9	37.0	37.6	37.5	37.3
Transportation and public utilities	39.3	39.2	39.1	39.5	39.1	38.8	39.5	39.4	39.3	39.5	39.3	39.3	39.5
Wholesale trade	38.2	38.2	38.0	38.1	38.2	38.1	38.3	38.0	37.9	38.2	37.8	38.1	38.1
Retail trade	29.2	29.2	28.8	29.0	29.1	29.0	29.2	29.0	29.1	29.3	29.0	28.9	29.1
Finance, insurance, and real estate	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Services	32.6	32.6	32.5	32.6	32.7	32.4	32.7	32.5	32.5	32.7	32.4	32.6	32.7

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

² 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.
^p = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA
HOURS
SEASONALLY ADJUSTED**

C-6. Indexes of aggregate weekly hours of production or nonsupervisory workers ¹ on private nonagricultural payrolls by major industry and manufacturing group, seasonally adjusted

(1977 = 100)

Industry	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ^P	Oct. ^P
Total private	122.5	122.8	122.5	123.0	123.9	123.6	125.1	124.4	125.4	126.4	125.5	126.0	126.9
Goods-producing	101.0	101.2	101.3	100.5	101.1	101.6	102.7	102.1	103.2	103.3	102.8	103.1	103.8
Mining	85.0	84.1	84.0	81.7	82.5	83.2	85.9	84.4	85.0	85.6	83.5	82.6	83.5
Construction	136.7	136.4	137.7	132.1	136.0	139.1	141.1	139.3	144.0	142.4	142.5	143.4	144.6
Manufacturing	94.8	95.1	95.0	95.2	95.2	95.2	96.1	95.7	96.1	96.5	96.0	96.3	96.8
Durable goods	92.5	92.9	92.5	92.7	92.7	92.7	94.0	93.9	94.3	94.8	94.2	94.7	95.3
Lumber and wood products	102.2	103.9	103.7	103.0	103.6	103.1	104.7	103.2	103.8	103.9	102.3	101.6	104.3
Furniture and fixtures	114.1	114.6	114.0	113.7	113.2	112.3	113.2	113.7	113.4	115.1	112.0	114.0	114.5
Stone, clay, and glass products	87.1	87.3	88.3	86.5	87.3	87.5	88.3	87.5	88.1	88.0	87.5	87.7	88.3
Primary metal industries	66.5	66.8	66.6	66.5	66.4	66.9	67.6	68.1	68.6	69.0	68.7	69.8	70.5
Blast furnaces and basic steel products	53.9	54.1	54.1	53.9	53.9	54.1	54.8	54.6	55.4	55.3	54.8	55.0	55.8
Fabricated metal products	90.1	91.2	90.7	90.9	90.8	90.8	91.8	92.1	92.8	92.7	92.6	93.2	93.5
Machinery, except electrical	88.1	89.0	89.3	90.0	90.2	90.4	91.5	91.6	91.6	93.7	92.6	93.2	94.2
Electrical and electronic equipment	101.4	101.5	101.8	102.2	101.8	101.9	102.8	102.3	103.0	103.1	102.8	103.5	103.1
Transportation equipment	99.7	99.1	97.1	97.5	97.3	96.8	100.0	100.2	100.0	99.7	99.9	100.2	100.7
Motor vehicles and equipment	88.9	88.7	84.6	84.7	85.7	84.8	89.8	89.9	90.3	88.2	90.9	91.8	92.0
Instruments and related products	105.2	104.4	103.9	106.0	105.0	105.2	106.5	106.1	106.6	108.2	107.7	108.0	109.0
Miscellaneous manufacturing	83.4	83.6	83.6	83.4	84.8	84.5	85.0	83.9	84.5	85.1	84.2	84.2	83.8
Nondurable goods	98.3	98.5	98.7	99.0	99.0	98.8	99.1	98.4	98.9	99.1	98.7	98.7	99.0
Food and kindred products	100.3	100.9	101.3	102.2	101.7	100.9	101.0	100.5	101.4	100.6	100.2	99.9	102.2
Tobacco manufactures	71.7	73.8	76.4	77.2	75.8	74.8	73.8	71.0	71.4	73.7	72.0	68.6	67.2
Textile mill products	82.9	82.7	82.5	82.5	82.7	81.7	82.2	80.6	80.2	81.2	79.9	80.3	80.2
Apparel and other textile products	86.3	86.1	85.9	85.1	85.5	85.7	86.2	84.7	84.8	84.7	83.9	84.6	83.8
Paper and allied products	101.7	101.4	101.2	101.6	101.5	101.3	101.4	101.5	101.7	101.9	101.9	101.4	101.7
Printing and publishing	133.0	133.4	133.7	134.9	135.5	136.0	136.5	134.9	136.4	136.6	137.0	137.5	137.3
Chemicals and allied products	96.2	96.7	97.4	97.4	97.1	97.9	97.1	97.4	98.8	98.7	98.7	98.6	98.7
Petroleum and coal products	85.1	85.3	86.3	86.3	84.5	83.5	84.9	85.3	86.8	86.6	86.6	85.7	86.5
Rubber and misc. plastics products	118.7	119.6	120.1	120.9	121.0	121.8	122.9	123.1	123.4	124.8	124.2	123.9	124.2
Leather and leather products	58.2	57.5	57.0	57.5	57.2	56.9	55.5	55.5	54.9	55.5	56.0	56.3	55.5
Service-producing	134.3	134.7	134.2	135.5	136.4	135.8	137.4	136.8	137.8	139.1	138.1	138.7	139.6
Transportation and public utilities	110.9	111.0	111.0	112.6	111.8	111.2	113.5	113.5	113.8	114.7	114.5	114.5	115.3
Wholesale trade	120.7	121.3	121.3	122.2	123.1	123.6	124.8	124.4	124.9	126.3	125.4	126.9	127.2
Retail trade	123.5	123.8	122.2	124.0	125.2	124.8	126.0	125.1	126.2	127.3	126.2	125.6	126.7
Finance, insurance, and real estate	141.1	141.3	139.6	141.3	141.6	139.6	141.1	140.1	140.1	142.1	140.0	140.6	141.2
Services	154.8	155.3	155.6	156.5	158.0	157.2	159.0	158.3	160.0	161.5	160.7	161.9	163.2

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

^P = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA
EARNINGS
SEASONALLY ADJUSTED**

C-7. The Hourly Earnings Index and average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, seasonally adjusted

Industry	1987			1988									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept. ^P	Oct. ^P
Hourly Earnings Index²(1977 = 100)													
Total private (in current dollars)	174.9	175.6	175.7	176.6	176.7	177.0	178.0	178.7	178.8	179.3	179.5	180.2	181.6
Mining	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Construction	155.2	156.5	155.4	157.6	156.8	157.5	157.8	157.5	157.8	158.8	158.6	159.2	159.0
Manufacturing	176.1	176.4	176.6	176.8	177.0	177.3	177.9	178.4	178.8	178.8	179.3	180.0	180.5
Transportation and public utilities	177.5	177.6	178.2	178.3	179.1	179.4	180.6	181.6	181.0	181.5	181.9	181.3	182.9
Wholesale trade	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Retail trade	162.1	162.4	162.7	163.4	163.4	163.8	164.8	165.4	165.7	166.8	166.7	167.0	168.6
Finance, insurance, and real estate	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Services	183.9	184.9	185.2	186.5	186.3	186.9	188.3	189.9	189.4	190.8	190.9	191.9	194.6
Total private (in constant dollars) ⁴	93.5	93.8	93.7	93.8	93.7	93.5	93.6	93.6	93.2	93.2	92.9	92.9	(³)
Average hourly earnings													
Total private	\$9.07	\$9.10	\$9.11	\$9.14	\$9.13	\$9.16	\$9.23	\$9.27	\$9.27	\$9.32	\$9.32	\$9.37	\$9.44
Mining	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Construction	\$12.72	\$12.81	\$12.74	\$12.91	\$12.82	\$12.90	\$12.93	\$12.91	\$12.93	\$13.03	\$12.99	\$13.03	\$13.02
Manufacturing	9.99	10.00	10.01	10.02	10.03	10.05	10.11	10.15	10.18	10.17	10.20	10.26	10.29
Transportation and public utilities	12.12	12.13	12.16	12.14	12.19	12.21	12.29	12.35	12.33	12.37	12.39	12.32	12.42
Wholesale trade	9.70	9.71	9.69	9.75	9.72	9.76	9.88	9.88	9.86	9.97	9.93	10.00	10.15
Retail trade	6.16	6.17	6.19	6.20	6.20	6.22	6.25	6.28	6.29	6.33	6.32	6.34	6.38
Finance, insurance, and real estate	8.82	8.89	8.84	8.92	8.91	8.90	8.99	9.08	9.00	9.10	9.09	9.17	9.34
Services	8.60	8.65	8.67	8.72	8.72	8.75	8.81	8.88	8.86	8.92	8.93	8.99	9.08
Average weekly earnings													
Total private:													
In current dollars	316.54	316.68	315.21	317.16	317.72	316.94	322.13	321.67	321.67	325.27	322.47	325.14	328.51
In constant (1977) dollars ⁵	169.27	169.08	168.02	168.43	168.46	167.43	169.36	168.41	167.89	169.06	166.82	167.68	(³)

¹ Data relate to production workers in mining and manufacturing; construction workers in construction; and nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

² Excludes the effects of two types of changes that are unrelated to underlying wage rate movements: Fluctuations in overtime in manufacturing and interindustry employment shifts.

³ 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.

⁴ The Consumer Price Index for Urban Wage Earners and Clerical

Workers (CPI-W) is used to deflate these series.

⁵ Not available.

^P = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision. Beginning in 1989, the Hourly Earnings Index series will no longer be published in *Employment and Earnings*. For further information, see "Employment Cost Index Series to Replace Hourly Earnings Index," *Monthly Labor Review*, July 1988, pp. 32-35.

**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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Alabama	41.9	41.5	41.6	\$8.85	\$8.96	\$9.07	\$370.82	\$371.84	\$377.31
Birmingham	41.0	41.8	41.8	9.06	9.01	9.17	371.46	376.62	383.31
Mobile	42.9	40.7	40.4	10.34	10.64	10.69	443.59	433.05	431.88
Alaska	40.2	46.4	38.3	12.36	10.93	12.66	496.87	507.15	484.88
Arizona	40.2	40.9	41.0	9.99	9.93	10.01	401.60	406.14	410.41
Arkansas	41.4	41.0	41.6	7.92	8.06	8.07	327.89	330.46	335.72
Fayetteville-Springdale	41.0	41.2	43.5	7.06	7.21	7.23	289.46	297.05	314.51
Fort Smith	40.5	40.8	40.8	8.47	8.68	8.68	343.04	354.14	354.14
Little Rock-North Little Rock	40.8	41.4	41.2	8.56	8.52	8.57	349.25	352.73	353.08
Pine Bluff	43.2	42.3	42.7	10.91	10.41	10.54	471.31	440.34	450.06
California	39.9	(¹)	(¹)	10.88	(¹)	(¹)	434.11	(¹)	(¹)
Colorado	39.9	39.8	39.9	10.23	10.42	10.49	408.18	414.72	418.55
Denver	40.4	40.0	39.9	10.43	11.04	11.05	421.37	441.60	440.90
Connecticut	41.7	41.2	42.0	10.59	10.65	10.73	441.60	438.78	450.66
Bridgeport-Milford	41.4	39.8	41.8	10.90	11.16	11.20	451.26	444.17	468.16
Hartford	41.9	41.2	42.6	10.69	11.25	11.45	447.91	463.50	487.77
New Haven-Meriden	40.1	40.3	41.6	10.10	10.17	10.30	405.01	409.85	428.48
Stamford	42.2	40.4	39.2	11.19	12.50	12.19	472.22	505.00	477.85
Waterbury	41.6	43.3	44.2	9.08	9.83	10.00	377.73	425.64	442.00
Delaware	39.8	39.7	39.9	10.68	10.69	10.31	425.06	424.39	411.37
Wilmington	40.0	40.7	40.8	12.92	13.77	13.23	516.80	560.44	539.78
District of Columbia:									
Washington MSA	39.0	39.9	42.6	10.93	11.15	10.53	426.27	444.89	448.58
Florida	40.0	40.6	40.8	8.25	8.46	8.53	330.00	343.48	348.02
Fort Lauderdale-Hollywood-Pompano Beach	41.6	41.5	41.6	8.13	8.36	8.54	338.21	346.94	355.26
Jacksonville	41.3	40.8	41.2	8.83	8.99	9.18	364.68	366.79	378.22
Miami-Hialeah	36.7	39.2	39.5	7.17	7.34	7.32	263.14	287.73	289.14
Orlando	40.2	39.3	39.7	8.58	9.07	9.20	344.92	356.45	365.24
Pensacola	43.3	42.7	42.0	10.58	10.63	10.61	458.11	453.90	445.62
Tampa-St. Petersburg-Clearwater	39.7	41.0	40.3	7.68	8.19	8.35	304.90	335.79	336.51
West Palm Beach-Boca Raton-Delray Beach	40.3	39.9	40.3	8.99	9.04	9.06	362.30	360.70	365.12
Georgia	41.3	41.2	41.5	8.67	8.60	8.62	358.07	354.32	357.73
Atlanta	41.4	40.4	41.5	10.21	10.13	10.09	422.69	409.25	418.74
Savannah	46.7	48.1	48.2	11.15	11.31	11.29	520.71	544.01	544.18
Hawaii	39.7	40.5	39.8	9.46	9.71	9.67	375.56	393.26	384.87
Honolulu	39.4	40.7	39.4	9.68	9.85	9.80	381.39	400.90	386.12
Idaho	38.8	36.8	36.7	9.57	9.87	10.09	371.32	363.22	370.30
Illinois	41.6	41.5	41.6	10.86	11.10	11.09	451.78	460.65	461.34
Aurora-Elgin	42.4	41.6	41.5	10.83	10.64	10.71	459.19	442.62	444.47
Bloomington-Normal	40.6	38.4	38.7	11.08	11.55	11.38	449.85	443.52	440.41
Champaign-Urbana-Rantoul	40.7	39.1	40.4	9.31	9.16	9.33	378.92	358.16	376.93
Chicago	41.9	42.0	42.3	10.66	10.79	10.81	446.65	453.18	457.26
Davenport-Rock Island-Moline	40.2	39.1	38.8	12.52	12.87	12.71	503.30	503.22	493.15
Decatur	42.2	42.1	41.3	14.09	14.34	14.20	594.60	603.71	586.46
Joliet	40.8	41.3	41.2	11.81	12.00	12.07	481.85	495.60	497.28
Lake County	40.4	40.5	41.1	11.06	11.46	11.63	446.82	464.13	477.99
Peoria	45.4	44.4	47.8	13.23	13.24	12.76	600.64	587.86	609.93
Rockford	40.7	42.4	43.0	11.35	11.28	11.39	461.95	478.27	489.77
Springfield	41.9	43.9	44.4	12.04	12.06	12.05	504.48	529.43	535.02
Indiana	41.5	41.6	42.0	11.07	11.32	11.50	459.41	470.91	483.00

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Iowa	41.1	41.3	41.8	\$10.84	\$10.54	\$10.67	\$445.52	\$435.30	\$446.01
Cedar Rapids	41.5	39.3	41.4	12.24	12.16	12.38	507.96	477.89	512.53
Des Moines	41.9	41.7	41.0	12.26	11.77	11.55	513.69	490.81	473.55
Dubuque	40.8	41.4	41.6	12.50	11.48	11.65	510.00	475.27	484.64
Sioux City	38.2	34.7	32.1	8.41	8.25	8.80	321.26	286.28	282.48
Kansas	40.3	40.8	41.1	10.01	10.20	10.31	403.40	416.16	423.74
Topeka	44.1	42.8	40.1	11.65	11.66	11.87	513.77	499.05	475.99
Wichita	40.7	41.2	41.0	10.97	10.82	10.79	446.48	445.78	442.39
Kentucky	40.9	40.3	40.5	10.17	10.18	10.22	415.95	410.25	413.91
Lexington-Fayette	39.0	39.8	39.5	10.34	10.25	10.15	403.26	407.95	400.93
Louisville	43.2	41.5	41.7	11.73	11.81	11.79	506.74	490.12	491.64
Louisiana	41.8	42.4	42.4	11.17	10.97	11.01	466.91	465.13	466.82
Baton Rouge	43.8	42.5	43.0	12.89	12.92	13.19	564.58	549.10	567.17
New Orleans	39.9	40.7	40.5	10.72	10.54	10.78	427.73	428.98	436.59
Shreveport	40.8	42.1	41.7	11.53	11.75	11.43	470.42	494.68	476.63
Maine	41.5	39.9	40.8	8.86	8.97	9.16	367.69	357.90	373.73
Lewiston-Auburn	38.9	37.3	39.1	7.63	8.28	8.23	296.81	308.84	321.79
Portland	41.6	40.6	42.1	9.10	9.50	9.48	378.56	385.70	399.11
Maryland	41.0	41.3	41.5	10.27	10.39	10.57	421.07	429.11	438.66
Baltimore MSA	41.9	42.3	42.3	11.08	11.10	11.15	464.25	469.53	471.65
Massachusetts	40.8	41.1	41.6	9.97	10.21	10.38	406.78	419.63	431.81
Boston	40.4	41.4	41.6	10.84	10.94	11.09	437.94	452.92	461.34
Springfield	42.1	42.7	42.9	9.31	9.80	9.94	391.95	418.46	426.43
Worcester	40.5	40.1	40.6	10.05	10.39	10.49	407.03	416.64	425.89
Michigan	40.9	42.4	43.8	13.02	13.20	13.43	532.52	559.68	588.23
Ann Arbor	44.8	46.1	47.2	13.91	14.68	14.63	623.17	676.75	690.54
Battle Creek	43.2	41.2	43.2	13.68	14.30	14.88	590.98	589.16	642.82
Detroit	42.3	43.3	44.8	13.99	14.28	14.53	591.78	618.32	650.94
Flint	37.0	42.8	44.0	15.55	16.78	16.83	575.35	718.18	740.52
Grand Rapids	39.5	40.5	41.7	11.18	11.23	11.44	441.61	454.81	477.05
Kalamazoo	41.5	42.3	43.0	11.92	12.38	12.80	494.68	523.67	550.40
Lansing-East Lansing	41.6	38.1	43.9	13.13	13.82	14.70	546.21	526.54	645.33
Muskegon	40.4	40.7	41.1	12.17	12.08	12.06	491.67	491.66	495.67
Saginaw-Bay City-Midland	40.9	42.6	44.2	14.50	14.84	15.34	593.05	632.18	678.03
Minnesota	40.9	41.4	41.4	10.41	10.43	10.58	425.77	431.80	438.01
Duluth	38.0	38.1	38.8	10.93	11.01	10.86	415.34	419.48	421.37
Minneapolis-St. Paul	41.0	41.3	41.5	11.21	11.23	11.33	459.61	463.80	470.20
St. Cloud	38.7	37.8	39.6	9.90	9.88	10.06	383.13	373.46	398.38
Mississippi	40.7	40.4	40.1	7.67	7.86	7.88	312.17	317.54	315.99
Jackson	40.5	40.2	41.6	8.54	8.69	8.78	345.87	349.34	365.25
Missouri	40.8	40.4	41.2	10.05	10.13	10.24	410.04	409.25	421.89
Kansas City	40.3	40.6	41.2	11.03	11.34	11.47	444.51	460.40	472.56
St. Louis	41.4	40.4	41.6	11.83	11.80	11.90	489.76	476.72	495.04
Springfield	39.7	39.9	40.9	8.52	8.50	8.52	338.24	339.15	348.47
Montana	38.5	38.1	37.8	10.63	10.48	10.76	409.26	399.29	406.73
Nebraska	40.8	40.8	40.6	9.34	9.49	9.63	381.07	387.19	390.98
Lincoln	41.1	39.9	40.3	10.22	10.02	10.01	420.04	399.80	403.40
Omaha	40.4	41.3	41.1	10.03	10.29	10.35	405.21	424.98	425.39
Nevada	39.7	39.8	39.4	10.09	10.21	10.20	400.57	406.36	401.88
Las Vegas	39.8	40.2	40.6	12.90	12.70	12.64	513.42	510.54	513.18
New Hampshire	40.1	39.8	40.1	9.54	9.72	9.78	382.55	386.86	392.18
Nashua	40.6	39.7	40.5	11.52	11.90	12.15	467.71	472.43	492.08
Portsmouth-Dover-Rochester	40.1	39.6	41.3	9.12	9.27	9.16	365.71	367.09	378.31

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
New Jersey	41.0	40.7	41.0	\$10.49	\$10.84	\$10.87	\$430.09	\$441.19	\$445.67
New Mexico	38.7	38.2	39.8	9.04	8.85	8.70	349.85	339.08	346.26
Albuquerque	39.5	39.8	38.9	9.12	9.41	9.64	380.24	372.64	375.00
New York	39.4	39.6	39.9	10.18	10.43	10.50	401.09	413.03	418.95
Albany-Schenectady-Troy	39.2	39.7	40.4	10.75	11.14	10.97	421.40	442.26	443.19
Binghamton	41.0	38.7	40.9	9.25	9.71	9.72	379.25	385.49	397.55
Buffalo	41.1	43.6	43.7	12.03	12.24	12.29	494.43	533.66	537.07
Elmira	40.8	40.8	42.2	9.51	9.50	9.72	388.01	387.60	410.18
Nassau-Suffolk	39.5	39.2	40.2	10.90	10.96	11.36	430.55	429.63	456.67
New York PMSA	36.8	37.0	38.7	9.65	9.82	9.84	355.12	363.34	361.13
New York City	36.5	36.9	36.4	9.45	9.55	9.62	344.93	352.40	350.17
Niagara Falls	41.2	41.1	41.7	12.98	13.31	13.58	533.95	547.04	566.29
Orange County	37.8	38.5	38.7	8.09	8.27	8.32	304.18	318.40	321.98
Poughkeepsie	40.6	41.1	41.5	9.89	9.97	10.02	393.41	409.77	415.83
Rochester	41.1	43.6	43.7	12.07	12.29	12.22	496.08	535.84	534.01
Rockland County	38.7	35.4	35.0	10.60	10.68	10.91	410.22	385.15	381.85
Syracuse	40.9	40.8	41.4	11.52	12.15	12.33	471.17	495.72	510.46
Utica-Rome	41.0	41.1	41.8	9.55	9.63	9.67	391.55	395.79	404.21
Westchester County	38.7	39.1	39.9	10.89	11.65	11.31	421.44	455.52	451.27
North Carolina	41.1	40.5	40.8	7.88	8.13	8.18	323.87	329.27	333.74
Asheville	42.1	41.1	41.4	7.95	8.20	8.27	334.70	337.02	342.38
Charlotte-Gastonia-Rock Hill	41.7	40.6	40.7	8.12	8.43	8.54	338.60	342.26	347.58
Greensboro-Winston-Salem-High Point	40.7	40.1	40.2	8.68	8.90	8.92	353.28	356.89	358.58
Raleigh-Durham	41.4	42.0	42.5	8.97	9.22	9.34	371.36	387.24	396.95
North Dakota	38.6	39.4	38.3	8.53	8.37	8.41	329.26	329.78	322.10
Fargo-Moorhead	38.3	40.2	40.1	8.70	8.41	8.51	333.21	338.08	341.25
Ohio	42.6	42.4	43.4	11.74	11.91	12.06	500.12	504.98	523.40
Akron	43.3	42.6	43.6	11.28	11.28	11.41	488.42	480.53	497.48
Canton	41.5	42.1	43.1	11.30	11.27	11.45	468.95	474.47	493.50
Cincinnati	43.0	42.4	43.1	10.97	11.23	11.29	471.71	476.15	486.60
Cleveland	42.5	42.7	43.3	11.46	11.79	11.89	487.05	503.43	514.84
Columbus	41.7	40.8	41.5	11.46	11.56	11.62	477.88	471.65	482.23
Dayton-Springfield	41.4	42.2	43.7	11.78	12.38	12.68	487.69	522.44	554.12
Toledo	42.4	42.5	43.4	12.72	12.94	12.93	539.33	549.95	561.16
Youngstown-Warren	43.3	41.6	43.6	13.43	13.40	13.62	581.52	557.44	593.83
Oklahoma	41.0	40.7	41.2	10.37	10.39	10.40	425.17	422.87	428.48
Oklahoma City	40.7	40.8	42.1	11.34	11.63	11.65	461.54	474.50	490.47
Tulsa	42.2	40.5	41.7	11.02	10.79	10.70	465.04	437.00	446.19
Oregon	38.1	38.5	39.6	10.65	10.48	10.56	405.77	403.48	418.18
Eugene-Springfield	37.1	37.2	37.5	10.86	10.65	10.54	402.91	396.18	395.25
Portland	38.8	39.5	39.8	10.93	10.80	10.92	424.08	426.60	434.62
Salem	36.9	37.1	39.8	8.59	8.08	8.31	316.97	299.77	330.74

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a	Sept. 1987	Aug. 1988	Sept. 1988 ^a
Pennsylvania	40.8	40.9	41.4	\$10.10	\$10.25	\$10.37	\$412.08	\$419.23	\$429.32
Allentown-Bethlehem	40.1	39.9	40.3	10.53	10.39	10.45	422.25	414.56	421.14
Altoona	39.9	40.4	40.3	8.61	8.68	8.83	343.54	350.67	355.85
Beaver County	40.4	40.9	41.8	11.12	10.70	10.77	449.25	437.63	450.19
Erie	41.9	42.7	43.4	10.34	10.37	10.53	433.25	442.80	457.00
Harrisburg-Lebanon-Carlisle	39.9	39.7	40.5	9.44	9.71	9.81	376.66	385.49	397.31
Johnstown	39.0	39.4	39.5	8.31	8.42	8.44	324.09	331.75	333.38
Lancaster	39.8	40.8	41.4	9.70	10.16	10.10	386.06	414.53	418.14
Philadelphia PMSA	40.5	40.0	40.7	11.06	11.32	11.43	447.93	452.80	465.20
Pittsburgh	41.8	41.8	42.9	11.34	11.32	11.43	474.01	473.18	490.35
Reading	41.1	40.4	41.6	10.33	10.67	10.89	424.56	431.07	453.02
Scranton-Wilkes-Barre	39.3	39.2	39.7	8.94	8.99	9.01	351.34	352.41	357.70
Williamsport	41.3	41.6	41.3	8.42	8.93	8.98	347.75	371.49	370.87
York	42.1	42.5	42.9	9.59	9.82	9.93	403.74	417.35	426.00
Rhode Island	40.0	39.3	39.7	8.29	8.50	8.55	331.60	334.05	339.44
Pawtucket-Woonsocket-Attleboro	40.0	39.6	39.7	7.77	8.13	8.16	310.80	321.95	323.95
Providence	39.9	39.3	39.6	8.25	8.44	8.47	329.18	331.69	335.41
South Carolina	41.5	41.2	41.7	8.12	8.33	8.38	336.98	343.20	349.45
Charleston	41.1	41.0	41.3	9.04	9.26	9.23	371.54	379.66	381.20
Columbia	40.6	41.6	41.5	7.92	8.43	8.51	321.55	350.69	353.16
Greenville-Spartanburg	41.4	41.3	41.7	8.03	8.26	8.29	332.44	341.14	345.69
South Dakota	40.9	41.7	43.1	7.82	8.06	8.06	319.84	336.10	347.39
Sioux Falls	40.6	44.4	43.8	7.68	8.15	8.08	311.81	361.86	353.90
Tennessee	40.8	41.3	41.5	8.90	8.95	9.00	363.12	369.64	373.50
Chattanooga	40.3	42.1	42.4	8.27	8.23	8.32	333.28	346.48	352.77
Johnson City-Kingsport-Bristol	43.9	43.0	43.5	9.37	9.34	9.48	411.34	401.62	412.38
Knoxville	40.7	40.7	40.7	9.15	9.09	8.93	372.41	369.96	363.45
Memphis	41.9	43.0	43.1	8.75	8.82	8.94	366.63	379.26	385.31
Nashville	41.7	40.7	41.5	10.51	10.27	10.34	438.27	417.99	429.11
Texas	41.5	41.8	41.7	9.94	9.97	10.01	412.51	416.75	417.42
Dallas	41.2	41.6	42.0	9.96	9.89	9.98	410.35	411.42	419.16
Ft. Worth-Arlington	41.2	41.8	42.1	10.00	10.65	10.77	412.00	445.17	453.42
Houston	44.1	43.5	42.8	11.26	11.37	11.33	496.57	494.60	484.92
San Antonio	39.7	39.8	39.6	7.52	7.62	7.55	298.54	303.28	298.98
Utah	40.0	40.8	41.2	9.98	9.98	10.03	399.20	407.18	413.24
Salt Lake City-Ogden	41.1	41.3	41.1	10.01	9.89	9.94	411.41	408.46	408.53
Vermont	39.8	41.8	42.2	9.35	9.45	9.70	372.13	395.01	409.34
Burlington	40.6	40.8	41.3	10.02	10.13	10.40	406.81	413.30	429.52
Virginia	41.8	40.8	41.3	9.30	9.42	9.42	388.74	384.34	389.05
Bristol	41.7	42.4	44.4	7.79	7.72	7.59	324.84	327.33	337.00
Charlottesville	41.5	42.1	41.1	7.46	7.72	7.84	309.59	325.01	322.22
Danville	44.2	40.7	41.8	8.52	8.60	8.49	376.58	350.02	354.88
Lynchburg	43.2	40.9	41.5	8.71	8.93	8.90	376.27	365.24	369.35
Northern Virginia	39.5	39.8	40.2	10.00	10.66	10.82	395.00	424.27	434.96
Richmond-Petersburg	42.5	43.2	42.6	11.98	11.96	11.94	509.15	516.67	508.64
Roanoke	43.0	40.7	42.4	9.06	8.86	9.46	389.58	360.60	401.10
Washington	39.1	39.7	40.0	11.75	11.61	11.72	459.43	460.92	468.80

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
West Virginia	40.2	41.1	41.3	\$10.80	\$10.85	\$10.99	\$434.16	\$445.94	\$453.89
Charleston	42.4	42.7	41.7	13.53	13.51	13.70	573.67	576.88	571.29
Huntington-Ashland	38.1	39.5	39.9	12.92	12.07	12.05	492.25	476.77	480.80
Parkersburg-Marietta	41.9	41.1	41.2	12.50	12.29	12.61	523.75	505.12	519.53
Wheeling	41.1	40.0	40.6	12.41	11.64	11.85	510.05	465.60	481.11
Wisconsin	41.3	41.3	41.9	10.56	10.40	10.57	436.13	429.52	442.88
Appleton-Oshkosh	42.7	42.1	43.0	10.88	11.08	11.23	464.58	466.47	482.89
Eau Claire	41.9	40.5	41.4	10.75	10.56	10.46	450.43	427.68	433.04
Green Bay	40.8	42.6	42.8	11.43	11.11	11.60	466.34	473.29	496.48
Janesville-Beloit	36.1	39.3	40.2	12.06	12.35	12.27	435.37	485.36	493.25
Kenosha	41.6	39.7	40.0	12.96	12.15	12.58	539.14	482.36	503.20
La Crosse	39.8	39.2	40.9	9.13	8.96	8.92	363.37	351.23	364.83
Madison	41.6	43.3	44.3	9.76	9.83	9.85	406.02	425.64	436.36
Milwaukee	41.0	40.9	42.0	11.73	11.49	11.50	480.93	469.94	483.00
Racine	39.6	38.8	39.8	11.01	10.78	10.85	436.00	418.26	431.83
Wausau	43.1	42.3	43.0	10.12	9.94	10.02	436.17	420.46	430.86
Wyoming	39.0	38.6	37.7	9.92	9.91	10.16	386.88	382.53	383.03
Puerto Rico	39.0	39.0	39.2	5.41	5.55	5.58	210.99	216.45	218.74
Virgin Islands	42.4	39.2	40.7	9.76	9.68	9.79	413.82	379.46	398.45

¹ Not available.

^P = preliminary.

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

publication. All State and area data have been adjusted to March 1987 benchmarks, except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

**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) ¹			Percent change		
	Aug. 1988 ^r	Sept. 1988 ^r	Oct. 1988 ^p	Oct. 1987 to Oct. 1988 ^p	Aug. 1988 to Sept. 1988 ^r	Sept. 1988 to Oct. 1988 ^p
Total	197,603	198,217	199,852	3.7	0.3	0.8
Private sector	162,658	163,025	164,529	3.7	.2	.9
Mining	1,625	1,611	1,628	-1.6	-.9	1.1
Construction	10,502	10,438	10,702	6.1	-.6	2.5
Manufacturing	41,615	41,752	41,955	2.1	.3	.5
Durable goods	24,846	24,954	25,120	2.7	.4	.7
Nondurable goods	16,769	16,798	16,835	1.2	.2	.2
Transportation and public utilities	11,491	11,483	11,591	3.8	-.1	.9
Wholesale trade	12,192	12,307	12,382	4.9	.9	.6
Retail trade	29,101	28,998	29,300	3.0	-.4	1.0
Finance, insurance, and real estate	12,428	12,473	12,559	1.1	.4	.7
Services	43,704	43,964	44,413	5.9	.6	1.0
Government	34,945	35,192	35,323	3.5	.7	.4

¹ Total hours paid for 1 week in the month, seasonally adjusted, multiplied by 52.

^p = preliminary.

^r = 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

(1977=100)

Item	Annual average		Quarterly index										
	1986	1987	1986				1987				1988		
			I	II	III	IV	I	II	III	IV	I	II ^P	III ^P
Business sector													
Output per hour of all persons	110.1	111.0	110.5	110.4	110.0	109.8	109.9	110.6	111.7	111.8	112.8	111.8	112.1
Output	128.6	133.3	128.4	128.2	128.5	129.3	130.5	132.2	134.3	136.2	138.0	138.8	139.5
Hours	116.8	120.1	116.2	116.1	116.8	117.8	118.8	119.5	120.3	121.8	122.3	124.1	124.5
Compensation per hour	183.1	190.4	180.4	182.0	184.0	186.2	187.3	189.0	191.1	194.0	195.8	198.1	200.9
Real compensation per hour	101.2	101.5	100.0	101.2	101.7	102.2	101.5	101.2	101.4	102.0	102.1	102.1	102.3
Unit labor costs	166.3	171.5	163.3	164.9	167.3	169.6	170.5	170.8	171.1	173.5	173.5	177.1	179.2
Unit nonlabor payments	165.0	168.7	164.5	165.2	166.6	163.7	165.6	168.7	171.5	168.9	170.0	170.4	171.4
Implicit price deflator	165.8	170.5	163.7	165.0	167.0	167.5	168.7	170.1	171.2	171.9	172.3	174.7	176.5
Nonfarm business sector													
Output per hour of all persons	108.2	109.0	108.6	108.4	108.0	107.8	107.8	108.6	109.6	109.9	110.8	110.1	110.5
Output	128.2	133.0	128.1	127.8	128.1	128.8	130.1	131.9	134.1	136.0	137.9	139.2	140.2
Hours	118.5	122.1	117.9	117.9	118.6	119.5	120.7	121.5	122.3	123.8	124.4	126.4	126.9
Compensation per hour	182.3	189.4	179.8	181.2	183.1	185.4	186.4	187.9	190.0	192.9	194.6	196.6	199.3
Real compensation per hour	100.8	101.0	99.6	100.7	101.2	101.8	101.0	100.6	100.8	101.4	101.5	101.3	101.5
Unit labor costs	168.6	173.8	165.5	167.1	169.5	172.1	172.9	173.0	173.3	175.6	175.7	178.6	180.4
Unit nonlabor payments	166.4	170.2	166.1	166.6	168.1	164.9	167.2	169.8	173.0	170.9	171.6	171.8	172.7
Implicit price deflator	167.8	172.5	165.7	167.0	169.0	169.5	170.9	171.9	173.2	174.0	174.2	176.2	177.7
Manufacturing													
Output per hour of all persons	127.7	132.0	126.6	127.2	128.0	128.8	130.0	131.7	132.8	133.2	134.3	135.5	136.9
Output	124.7	130.1	124.2	124.1	124.8	125.9	127.2	128.7	131.1	133.5	135.0	136.9	139.1
Hours	97.7	98.6	98.1	97.6	97.4	97.7	97.8	97.7	98.8	100.2	100.6	101.1	101.6
Compensation per hour	183.0	186.9	181.1	182.0	183.6	185.3	185.9	186.3	187.2	188.2	190.7	192.1	194.3
Real compensation per hour	101.2	99.7	100.3	101.2	101.5	101.7	100.8	99.7	99.3	99.0	99.4	99.0	99.0
Unit labor costs	143.3	141.7	143.0	143.2	143.4	143.8	143.1	141.4	141.0	141.3	142.1	141.8	141.9
Durable goods													
Output per hour of all persons	133.5	138.5	132.2	132.6	133.9	135.1	136.6	138.1	139.1	140.0	141.3	142.7	143.9
Output	130.8	136.0	130.5	130.0	130.7	131.8	133.3	134.2	136.5	139.9	141.3	144.0	146.3
Hours	98.0	98.2	98.7	98.0	97.6	97.6	97.6	97.2	98.2	99.9	100.0	100.9	101.6
Compensation per hour	181.9	185.2	180.3	180.8	182.2	184.2	184.9	184.4	185.3	186.2	189.5	190.1	192.2
Real compensation per hour	100.6	98.8	99.9	100.5	100.7	101.2	100.2	98.8	98.3	97.9	98.8	98.0	97.9
Unit labor costs	136.3	133.7	136.4	136.3	136.0	136.4	135.3	133.5	133.2	133.0	134.1	133.3	133.5
Nondurable goods													
Output per hour of all persons	118.9	122.3	118.1	118.9	119.2	119.6	120.1	122.4	123.5	123.2	123.9	124.8	126.4
Output	115.8	121.4	114.7	115.4	115.9	117.0	118.0	120.5	123.1	124.0	125.6	126.4	128.3
Hours	97.3	99.3	97.1	97.0	97.2	97.9	98.2	98.4	99.7	100.7	101.4	101.3	101.5
Compensation per hour	184.8	190.1	182.1	184.0	186.0	187.2	188.0	189.7	190.8	191.9	193.2	195.7	198.1
Real compensation per hour	102.2	101.4	100.9	102.3	102.8	102.8	101.9	101.6	101.2	100.9	100.8	100.9	100.9
Unit labor costs	155.4	155.4	154.3	154.7	156.0	156.5	156.4	155.0	154.5	155.8	156.0	156.8	156.7
Nonfinancial corporations													
Output per all-employee hour	109.7	111.3	109.5	109.3	109.6	110.3	110.1	110.9	112.2	112.2	113.3	112.9	(¹)
Output	129.1	134.6	128.8	128.3	128.9	130.4	131.3	133.3	136.1	137.7	140.1	141.2	(¹)
Hours	117.7	120.9	117.6	117.3	117.6	118.1	119.3	120.2	121.3	122.8	123.6	125.0	(¹)
Compensation per hour	179.5	185.5	177.1	178.5	180.2	182.2	182.9	184.3	186.1	188.5	189.9	191.9	(¹)
Real compensation per hour	99.2	98.9	98.1	99.2	99.6	100.1	99.1	98.7	98.7	99.1	99.0	98.9	(¹)
Total unit costs	167.3	170.6	165.5	166.7	168.4	168.8	169.9	170.3	170.2	172.0	171.5	173.8	(¹)
Unit labor costs	163.6	166.6	161.7	163.3	164.3	165.1	166.2	166.1	165.9	168.1	167.5	170.0	(¹)
Unit nonlabor costs	178.4	182.5	176.7	176.9	180.3	179.6	180.8	182.6	183.0	183.6	183.4	185.1	(¹)
Unit profits	132.4	130.8	133.7	132.7	133.6	129.7	128.5	129.8	136.4	128.3	132.5	132.6	(¹)
Implicit price deflator	163.2	165.8	161.7	162.6	164.2	164.1	164.9	165.4	166.1	166.7	166.9	168.8	(¹)

¹ Not available.
^P = preliminary.

= 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					
	II 1987	III 1987	IV 1987	I 1988	II 1988 ¹	III 1988 ^p	II 1987	III 1987	IV 1987	I 1988	II 1988 ¹	III 1988 ^p
Business sector												
Output per hour of all persons	2.7	3.9	0.6	3.5	-3.4	1.0	0.2	1.5	1.9	2.7	1.1	0.4
Output	5.3	6.6	5.7	5.5	2.4	2.0	3.1	4.5	5.3	5.8	5.0	3.9
Hours	2.5	2.6	5.1	1.9	6.0	1.0	2.9	3.0	3.4	3.0	3.9	3.5
Compensation per hour	3.6	4.6	6.2	3.7	4.8	5.9	3.8	3.9	4.2	4.5	4.8	5.1
Real compensation per hour	-1.2	.8	2.4	.3	.0	1.1	.0	-.3	-.2	.5	.9	.9
Unit labor costs .....	.8	.7	5.6	.2	8.5	4.9	3.6	2.3	2.3	1.8	3.7	4.7
Unit nonlabor payments	7.9	6.7	-5.8	2.5	1.0	2.3	2.1	2.9	3.2	2.7	1.0	.0
Implicit price deflator	3.2	2.8	1.4	1.0	5.8	4.0	3.1	2.5	2.6	2.1	2.7	3.0
Nonfarm business sector												
Output per hour of all persons	3.2	3.7	.9	3.4	-2.4	1.3	.2	1.5	1.9	2.8	1.4	.8
Output	5.7	6.8	5.9	5.6	4.0	2.8	3.2	4.7	5.6	6.0	5.6	4.6
Hours	2.5	2.9	4.9	2.1	6.6	1.5	3.0	3.2	3.6	3.1	4.1	3.7
Compensation per hour	3.4	4.5	6.4	3.5	4.2	5.4	3.7	3.7	4.1	4.4	4.6	4.9
Real compensation per hour	-1.4	.6	2.6	.1	-.5	.6	-.1	-.4	-.4	.5	.7	.7
Unit labor costs .....	.2	.7	5.4	.1	6.8	4.0	3.5	2.2	2.1	1.6	3.2	4.1
Unit nonlabor payments	6.5	7.7	-4.8	1.6	.7	2.1	1.9	2.9	3.6	2.6	1.2	-.2
Implicit price deflator	2.3	3.1	1.8	.6	4.7	3.4	3.0	2.5	2.6	1.9	2.5	2.6
Manufacturing												
Output per hour of all persons	5.5	3.2	1.3	3.2	3.7	4.3	3.6	3.7	3.4	3.3	2.8	3.1
Output	4.9	7.8	7.5	4.6	5.8	6.5	3.7	5.1	6.0	6.2	6.4	6.1
Hours	-.6	4.4	6.1	1.3	2.0	2.1	.1	1.4	2.6	2.8	3.4	2.9
Compensation per hour .....	.7	2.1	2.1	5.4	3.0	4.6	2.3	2.0	1.6	2.6	3.2	3.8
Real compensation per hour	-4.0	-1.7	-1.5	2.0	-1.7	-.1	-1.4	-2.1	-2.7	-1.3	-.7	-.3
Unit labor costs	-4.6	-1.1	.8	2.2	-.7	.3	-1.2	-1.7	-1.8	-.7	.3	.7
Durable goods												
Output per hour of all persons	4.4	2.9	2.6	3.8	3.8	3.7	4.1	3.8	3.7	3.4	3.3	3.5
Output	2.8	7.0	10.2	4.3	7.7	6.6	3.3	4.5	6.1	6.0	7.3	7.2
Hours	-1.5	4.0	7.3	.4	3.8	2.8	-.8	.6	2.3	2.5	3.8	3.6
Compensation per hour	-1.0	2.0	1.9	7.1	1.4	4.4	2.0	1.7	1.1	2.5	3.1	3.7
Real compensation per hour	-5.6	-1.7	-1.7	3.6	-3.2	-.4	-1.7	-2.4	-3.2	-1.4	-.8	-.4
Unit labor costs	-5.1	-.9	-.7	3.2	-2.3	.7	-2.0	-2.1	-2.5	-.9	-.2	.2
Nondurable goods												
Output per hour of all persons	7.6	3.8	-1.1	2.3	3.2	5.1	2.9	3.6	3.0	3.1	2.0	2.3
Output	8.5	9.0	3.1	5.1	2.7	6.2	4.4	6.2	6.0	6.4	4.9	4.3
Hours .....	.8	5.1	4.2	2.7	-.5	1.1	1.5	2.5	2.9	3.2	2.9	1.9
Compensation per hour	3.8	2.4	2.2	2.9	5.2	4.9	3.1	2.6	2.5	2.8	3.2	3.8
Real compensation per hour	-1.0	-1.4	-1.4	-.5	.4	.1	-.7	-1.5	-1.9	-1.1	-.7	-.3
Unit labor costs	-3.6	-1.3	3.4	.6	2.0	-.2	.2	-1.0	-.5	-.3	1.1	1.4
Nonfinancial corporations												
Output per all-employee hour	3.1	4.7	-.1	4.3	-1.6	(¹)	1.5	2.3	1.6	3.0	1.8	(¹)
Output	6.1	8.8	4.7	7.2	3.0	(¹)	3.9	5.6	5.6	6.7	5.9	(¹)
Hours	2.9	4.0	4.8	2.8	4.7	(¹)	2.4	3.2	3.9	3.6	4.1	(¹)
Compensation per hour	2.9	4.1	5.2	3.0	4.2	(¹)	3.2	3.3	3.4	3.8	4.1	(¹)
Real compensation per hour	-1.8	.3	1.5	-.4	-.6	(¹)	-.6	-.9	-1.0	-.1	.2	(¹)
Total unit costs	1.0	-.2	4.2	-1.0	5.3	(¹)	2.1	1.1	1.9	1.0	2.1	(¹)
Unit labor costs	-.2	-.6	5.3	-1.2	5.9	(¹)	1.7	.9	1.8	.8	2.3	(¹)
Unit nonlabor costs	4.1	.8	1.3	-.3	3.7	(¹)	3.2	1.5	2.2	1.5	1.4	(¹)
Unit profits	3.9	21.9	-21.5	13.8	.3	(¹)	-2.2	2.0	-1.1	3.1	2.2	(¹)
Implicit price deflator	1.2	1.7	1.5	.3	4.8	(¹)	1.7	1.2	1.6	1.2	2.1	(¹)

¹ Not available.

^p =preliminary.

¹ =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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Alabama	1,903.0	1,881.6	1,878.8	134.6	132.5	125.5	7.1	7.0	6.7
Birmingham	450.8	451.7	449.4	28.2	26.5	25.2	6.3	5.9	5.6
Huntsville	132.0	133.4	134.4	6.1	6.8	6.5	4.6	5.1	4.8
Mobile	214.3	208.5	206.3	19.5	17.1	17.8	9.1	8.2	8.6
Montgomery	137.8	134.8	134.1	8.6	8.3	8.0	6.3	6.2	6.0
Tuscaloosa	70.2	69.1	70.2	3.9	3.7	3.7	5.5	5.4	5.3
Alaska	253.4	252.3	244.5	21.6	19.1	17.7	8.5	7.6	7.2
Arizona	1,607.8	1,634.6	1,671.5	94.5	113.6	109.5	5.9	7.0	6.6
Phoenix	998.7	1,014.7	1,035.1	48.7	54.8	55.6	4.9	5.4	5.4
Tucson	304.4	308.6	317.5	14.5	16.5	16.8	4.8	5.4	5.3
Arkansas	1,105.5	1,112.3	1,116.2	75.5	84.3	80.2	6.8	7.6	7.2
Fayetteville-Springdale	59.4	60.3	61.6	2.1	2.7	2.7	3.6	4.5	4.3
Fort Smith	92.1	92.7	92.7	5.0	5.7	6.6	5.4	6.1	7.1
Little Rock-North Little Rock	259.0	262.5	263.9	16.7	17.2	16.2	6.4	6.6	6.1
Pine Bluff	37.2	36.7	37.1	2.9	3.2	3.1	7.9	8.8	8.3
California¹	13,790.2	14,256.3	14,116.5	764.1	794.3	707.0	5.5	5.6	5.0
Anaheim-Santa Ana	1,278.8	1,346.3	1,335.3	42.8	44.9	40.9	3.3	3.3	3.1
Bakersfield	225.4	230.2	232.1	22.4	23.1	21.9	9.9	10.1	9.5
Fresno	320.8	328.9	341.9	25.9	31.7	27.7	8.1	9.6	8.1
Los Angeles-Long Beach	4,254.0	4,128.5	4,097.7	255.0	221.1	195.4	6.0	5.4	4.8
Modesto	155.1	165.6	164.3	13.7	16.9	15.1	8.8	10.2	9.2
Oakland	1,023.9	1,084.5	1,068.2	51.2	53.3	47.5	5.0	4.9	4.4
Oxnard-Ventura	336.2	365.8	355.8	19.8	23.3	19.9	5.9	6.4	5.6
Riverside-San Bernardino	899.4	975.8	957.7	55.1	66.6	58.1	6.1	6.8	6.1
Sacramento	678.5	732.6	721.2	34.7	38.5	35.5	5.1	5.3	4.9
San Diego	1,061.8	1,142.1	1,125.4	49.3	53.9	48.9	4.6	4.7	4.3
San Francisco	859.3	910.3	889.4	32.1	36.1	30.8	3.7	4.0	3.5
San Jose	792.4	836.5	826.5	33.8	34.1	31.2	4.3	4.1	3.8
Santa Barbara-Santa Maria-Lompoc	174.7	185.5	180.1	7.7	8.5	7.6	4.4	4.6	4.2
Santa Rosa-Petaluma	191.3	202.5	199.1	8.2	9.5	8.4	4.3	4.7	4.2
Stockton	197.3	199.7	204.0	15.2	17.8	15.9	7.7	8.9	7.8
Vallejo-Fairfield-Napa	185.9	199.9	196.1	10.0	11.4	10.1	5.4	5.7	5.1
Colorado	1,671.1	1,696.0	1,709.6	110.3	92.0	90.7	6.6	5.4	5.3
Boulder-Longmont	130.0	130.3	133.3	6.3	5.3	5.6	4.9	4.1	4.2
Denver	882.2	883.5	893.4	55.7	46.4	45.5	6.3	5.2	5.1
Connecticut	1,748.9	1,782.5	1,788.4	50.4	54.5	51.1	2.9	3.1	2.9
Bridgeport-Milford	229.1	232.2	234.4	7.9	9.1	8.7	3.5	3.9	3.7
Hartford	424.0	430.9	434.0	11.0	12.2	11.5	2.6	2.8	2.6
New Haven-Meriden	271.9	279.6	278.0	7.5	8.4	7.9	2.8	3.0	2.8
Stamford	117.8	120.8	120.1	2.5	2.5	2.3	2.2	2.1	1.9
Waterbury	101.3	104.3	104.5	3.9	4.0	3.6	3.8	3.9	3.4
Delaware	331.4	351.3	348.5	7.3	10.9	10.0	2.2	3.1	2.9
Wilmington	284.3	301.0	301.4	7.7	11.7	10.7	2.7	3.9	3.5
District of Columbia	332.1	355.0	339.7	19.2	17.6	16.5	5.8	5.0	4.9
Washington	2,123.0	2,255.8	2,223.5	63.8	65.8	64.5	3.0	2.9	2.9
Florida¹	5,905.1	6,235.0	6,119.4	310.7	314.1	309.7	5.3	5.0	5.1
Daytona Beach	145.7	156.1	152.0	6.2	6.9	6.6	4.2	4.4	4.3
Fort Lauderdale-Hollywood-Pompano Beach	614.7	659.6	644.7	25.4	25.7	25.4	4.1	3.9	3.9
Fort Myers-Cape Coral	131.7	144.3	142.6	4.9	5.4	5.8	3.7	3.8	4.1
Jacksonville	450.8	486.6	478.4	22.8	25.3	25.8	5.1	5.2	5.4
Melbourne-Titusville-Palm Bay	177.4	191.4	185.5	9.1	8.3	8.1	5.1	4.3	4.4
Miami-Hialeah	920.7	943.9	929.6	51.6	50.3	49.1	5.6	5.3	5.3
Orlando	562.4	599.5	587.4	25.5	25.5	27.0	4.5	4.3	4.6
Pensacola	152.2	155.8	155.3	8.8	8.4	10.2	5.8	5.4	6.6
Sarasota	117.3	126.0	122.4	4.3	4.4	4.3	3.7	3.5	3.5
Tallahassee	124.9	130.2	128.7	4.5	4.8	4.5	3.6	3.7	3.5
Tampa-St. Petersburg-Clearwater	961.0	1,003.6	984.8	44.7	45.0	43.8	4.7	4.5	4.5
West Palm Beach-Boca Raton-Delray Beach	397.8	420.8	415.0	23.7	23.8	22.3	6.0	5.6	5.4

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
Georgia	3,069.7	3,197.0	3,190.2	157.4	197.3	181.6	5.1	6.2	5.7
Athens	70.6	73.1	74.6	3.0	3.1	3.2	4.3	4.2	4.2
Atlanta	1,449.4	1,518.1	1,520.4	65.5	84.3	82.8	4.5	5.5	5.4
Augusta	178.5	184.2	183.0	9.8	11.1	10.9	5.5	6.1	6.0
Columbus	100.4	101.9	101.4	5.7	6.5	6.5	5.7	6.3	6.4
Macon-Warner Robins	128.8	132.1	131.5	6.2	7.0	6.1	4.8	5.3	4.6
Savannah	110.5	114.4	113.8	6.2	7.6	6.8	5.6	6.7	6.0
Hawaii	513.4	519.7	509.4	18.9	15.4	14.9	3.7	3.0	2.9
Honolulu	381.1	387.5	378.1	13.0	10.0	9.9	3.4	2.6	2.6
Idaho	483.4	485.4	487.9	28.9	25.8	20.6	6.0	5.3	4.2
Boise City	104.3	106.4	106.1	4.9	3.5	3.0	4.7	3.3	2.9
Illinois¹	5,845.8	5,961.8	5,818.5	357.9	402.4	312.8	6.1	6.7	5.4
Aurora-Elgin	176.8	182.5	179.9	8.2	9.3	7.4	4.6	5.1	4.1
Bloomington-Normal	66.8	67.1	66.9	2.3	3.5	2.7	3.4	5.2	4.1
Champaign-Urbana-Rantoul	87.4	85.5	86.9	3.1	3.5	2.7	3.5	4.1	3.1
Chicago	3,220.3	3,300.2	3,214.6	183.2	205.3	164.2	5.7	6.2	5.1
Davenport-Rock Island-Moline	180.3	184.1	180.2	11.6	14.0	11.0	6.4	7.6	6.1
Decatur	58.3	58.8	57.3	4.7	5.0	3.9	8.0	8.5	6.8
Joliet	198.3	196.8	193.2	13.1	14.3	10.6	6.6	7.3	5.5
Lake County	274.0	283.7	280.0	10.4	12.1	9.3	3.8	4.3	3.3
Peoria	154.7	158.2	154.3	9.9	10.7	8.3	6.4	6.8	5.4
Rockford	149.2	150.3	145.6	11.9	10.6	8.1	8.0	7.0	5.5
Springfield	109.6	117.4	109.3	4.8	5.8	4.6	4.4	4.9	4.2
Indiana	2,773.1	2,845.7	2,861.0	151.3	131.2	131.5	5.5	4.6	4.6
Anderson	59.8	58.4	59.8	3.4	3.0	3.1	5.6	5.2	5.2
Bloomington	59.2	59.4	63.3	2.0	1.7	1.7	3.3	2.9	2.8
Elkhart-Goshen	93.4	98.4	98.2	4.1	3.5	3.0	4.4	3.5	3.1
Evansville	142.0	144.9	145.9	9.2	7.1	7.4	6.5	4.9	5.0
Fort Wayne	197.3	204.6	205.3	10.0	8.3	8.1	5.1	4.1	4.0
Gary-Hammond	254.6	256.4	255.1	19.7	14.3	13.9	7.7	5.6	5.4
Indianapolis	660.6	688.3	686.5	31.8	30.1	29.1	4.8	4.4	4.2
Lafayette	67.2	65.0	70.1	2.2	1.5	1.7	3.3	2.3	2.4
Muncie	59.3	58.7	61.9	3.5	3.0	3.5	5.9	5.1	5.6
South Bend-Mishawaka	128.7	129.6	132.3	6.3	6.0	8.3	4.9	4.6	4.8
Terre Haute	59.6	57.1	59.4	3.2	2.9	3.0	5.4	5.0	5.1
Iowa	1,435.9	1,475.6	1,495.1	61.1	59.8	52.9	4.3	4.1	3.5
Cedar Rapids	93.0	95.5	95.8	4.1	3.3	2.8	4.4	3.4	2.9
Des Moines	222.3	232.2	233.3	8.2	8.6	7.7	3.7	3.7	3.3
Dubuque	44.4	43.8	45.4	2.0	2.0	1.8	4.5	4.5	3.9
Sioux City	59.4	61.0	61.2	2.8	2.9	2.5	4.8	4.8	4.0
Waterloo-Cedar Falls	68.1	66.9	70.0	4.3	3.3	3.0	6.2	4.9	4.2
Kansas	1,278.1	1,277.0	1,281.7	52.9	53.3	52.5	4.1	4.2	4.1
Topeka	90.1	92.7	90.5	3.9	3.9	4.0	4.3	4.2	4.4
Wichita	252.5	254.3	251.0	10.6	11.9	11.0	4.2	4.7	4.4
Kentucky	1,679.4	1,695.2	1,706.1	126.2	117.2	107.4	7.5	6.9	6.3
Lexington-Fayette	180.4	183.9	185.7	8.2	8.1	7.1	4.5	4.4	3.8
Louisville	495.1	513.2	514.2	30.0	28.2	25.6	6.1	5.5	5.0
Owensboro	44.7	44.1	44.2	4.1	3.2	3.0	9.3	7.4	6.8
Louisiana	1,936.5	1,924.4	1,928.4	200.3	193.5	186.5	10.3	10.1	9.7
Alexandria	61.1	61.1	60.9	5.2	5.8	5.4	8.5	9.5	8.8
Baton Rouge	263.7	263.2	266.1	23.2	24.1	23.3	8.8	9.2	8.8
Houma-Thibodaux	71.1	69.0	68.8	9.0	6.5	6.5	12.6	9.5	9.4
Lafayette	98.3	98.7	98.2	10.6	9.1	8.7	10.8	9.2	8.8
Monroe	69.1	67.8	68.6	6.1	6.5	6.4	8.8	9.6	9.3
New Orleans	601.0	603.1	598.6	55.4	53.3	52.4	9.2	8.8	8.7
Shreveport	166.9	164.3	164.7	15.8	15.9	15.4	9.4	9.7	9.3
Maine	606.6	619.3	604.6	19.3	16.1	13.0	3.2	2.6	2.2
Lewiston-Auburn	41.2	41.1	41.3	1.6	1.3	1.1	3.9	3.3	2.6
Portland	128.2	129.6	128.3	2.3	1.8	1.6	1.8	1.4	1.3

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
Maryland	2,398.5	2,471.8	2,458.8	92.7	102.9	102.9	3.9	4.2	4.2
Baltimore	1,157.4	1,182.3	1,176.8	48.9	53.4	54.1	4.2	4.5	4.6
Massachusetts¹	3,065.2	3,186.5	3,130.0	84.5	98.7	94.1	2.8	3.1	3.0
Boston	1,516.7	1,565.3	1,537.1	38.0	42.8	41.1	2.5	2.7	2.7
Brockton	96.0	100.7	99.9	3.0	3.7	3.4	3.1	3.7	3.5
Fall River	75.2	76.6	76.7	3.0	3.5	3.3	4.0	4.6	4.3
Fitchburg-Leominster	45.0	44.8	44.7	1.7	2.0	1.8	3.8	4.4	4.0
Lawrence-Haverhill	182.6	184.9	184.1	7.4	7.4	7.8	4.0	4.0	4.2
Lowell	147.0	150.9	149.0	4.4	5.4	5.2	3.0	3.6	3.5
New Bedford	83.2	88.8	86.1	3.1	3.8	3.5	3.8	4.3	4.0
Springfield	248.1	255.4	251.1	6.7	8.0	7.6	2.7	3.1	3.0
Worcester	212.2	221.8	220.2	5.3	6.5	5.8	2.5	2.9	2.6
Michigan¹	4,580.2	4,661.9	4,587.5	333.8	325.3	304.6	7.3	7.0	6.6
Ann Arbor	158.7	163.7	163.5	6.0	6.2	5.9	3.8	3.8	3.6
Battle Creek	65.7	66.7	65.3	5.1	4.2	4.0	7.7	6.3	6.1
Benton Harbor	78.8	80.3	78.8	4.9	4.7	4.9	6.4	5.8	6.2
Detroit	2,214.2	2,239.8	2,192.9	166.8	169.3	150.5	7.5	7.6	6.9
Flint	203.4	200.6	198.5	22.7	29.9	25.5	11.2	14.9	12.9
Grand Rapids	353.0	364.7	360.8	19.2	17.0	16.4	5.4	4.7	4.5
Kalamazoo	116.6	118.9	118.3	5.9	5.2	5.5	5.1	4.4	4.7
Lansing-East Lansing	233.7	237.6	239.5	14.9	12.4	12.2	6.4	5.2	5.1
Muskegon	69.2	70.1	68.9	6.2	5.1	5.5	9.0	7.2	8.0
Saginaw-Bay City-Midland	186.7	191.3	190.5	13.4	11.2	11.7	7.2	5.9	6.2
Minnesota	2,261.9	2,343.3	2,329.9	95.4	84.8	80.3	4.2	3.6	3.4
Duluth	105.1	107.5	106.5	7.4	5.7	5.3	7.0	5.3	5.0
Minneapolis-St.Paul	1,346.5	1,398.1	1,380.3	51.7	45.8	43.9	3.8	3.3	3.2
Rochester	57.5	60.7	60.1	1.8	1.4	1.4	3.1	2.3	2.4
St. Cloud	89.6	93.3	94.8	4.0	3.7	3.7	4.5	3.9	3.9
Mississippi	1,144.7	1,137.3	1,137.7	97.5	89.0	82.9	8.5	7.8	7.3
Jackson	199.1	200.2	201.1	12.2	10.8	10.2	6.1	5.4	5.1
Missouri	2,588.2	2,605.4	2,618.8	142.1	146.5	143.0	5.5	5.6	5.5
Kansas City	835.9	835.2	827.2	42.6	41.3	41.3	5.1	4.9	5.0
St. Louis	1,278.0	1,285.0	1,276.1	79.0	83.6	76.1	6.2	6.5	6.0
Springfield	122.0	124.2	126.3	5.1	5.2	5.4	4.1	4.2	4.3
Montana	405.0	401.6	390.5	22.9	23.0	18.5	5.6	5.7	4.7
Nebraska	818.0	818.1	818.5	33.3	26.1	26.3	4.1	3.2	3.2
Lincoln	122.9	122.4	123.7	4.0	2.9	3.1	3.3	2.3	2.5
Omaha	320.4	326.1	326.7	14.6	12.3	11.8	4.5	3.8	3.6
Nevada	563.6	586.6	590.1	30.8	29.4	26.8	5.5	5.0	4.5
Las Vegas	326.3	338.6	342.2	19.3	19.1	17.3	5.9	5.6	5.1
Reno	140.0	143.1	143.3	6.4	5.9	5.2	4.6	4.2	3.6
New Hampshire	601.9	618.2	607.0	14.3	13.9	14.5	2.4	2.2	2.4
Nashua	99.4	99.5	100.2	2.8	2.9	3.2	2.8	2.9	3.2
Portsmouth-Dover-Rochester	135.8	138.9	137.6	2.7	2.4	2.1	2.0	1.7	1.5
New Jersey¹	3,895.1	4,028.9	3,942.9	152.9	143.2	133.8	3.9	3.6	3.4
Atlantic City	175.8	189.1	179.7	8.3	7.2	7.1	4.7	3.8	4.0
Bergen-Passaic	707.7	722.5	713.7	24.0	22.6	21.3	3.4	3.1	3.0
Jersey City	263.6	271.6	267.1	16.3	15.8	15.4	6.2	5.8	5.8
Middlesex-Somerset-Hunterdon	544.3	567.9	556.1	15.8	15.6	13.4	2.9	2.7	2.4
Monmouth-Ocean	464.3	499.2	478.6	14.7	15.0	14.2	3.2	3.0	3.0
Newark	943.1	962.9	945.3	41.4	36.6	34.0	4.4	3.8	3.6
Trenton	168.0	171.6	170.4	5.6	4.7	4.4	3.3	2.7	2.6
New Mexico	686.3	697.2	698.2	54.4	58.0	50.9	7.9	8.3	7.3
Albuquerque	262.4	266.2	269.7	16.3	17.5	15.7	6.2	6.6	5.8
Las Cruces	55.8	57.5	57.8	3.9	4.5	4.0	7.1	7.9	7.0
Santa Fe	65.5	69.8	67.9	3.4	3.6	3.1	5.2	5.1	4.6

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P	Sept. 1987	Aug. 1988	Sept. 1988 ^P
New York¹	8,382.4	8,742.4	8,493.8	368.1	367.0	353.2	4.4	4.2	4.2
Albany-Schenectady-Troy	414.7	433.6	418.1	16.6	14.7	14.0	4.0	3.4	3.4
Binghamton	123.9	128.8	125.9	4.8	4.3	4.2	3.9	3.3	3.4
Buffalo	441.8	457.2	446.8	24.7	22.2	20.7	5.6	4.8	4.6
Elmira	40.9	43.6	42.6	1.7	1.5	1.5	4.0	3.4	3.6
Nassau-Suffolk	1,403.9	1,462.0	1,413.4	51.6	49.9	47.4	3.7	3.4	3.4
New York	3,840.4	4,009.3	3,890.7	165.4	185.7	181.2	4.3	4.6	4.7
New York City	3,171.0	3,302.2	3,218.3	141.0	165.5	161.2	4.5	5.0	5.0
Orange County	129.4	137.5	132.4	5.1	5.1	4.7	3.9	3.7	3.5
Poughkeepsie	125.2	132.8	129.4	3.5	3.1	3.4	2.8	2.4	2.6
Rochester	485.5	505.4	493.5	22.1	18.2	16.8	4.6	3.6	3.4
Syracuse	317.5	321.9	315.0	20.3	13.1	12.2	6.4	4.1	3.9
Utica-Rome	135.6	140.9	137.4	6.4	5.7	5.5	4.7	4.0	4.0
North Carolina¹	3,284.7	3,388.3	3,329.2	115.7	101.4	103.2	3.5	3.0	3.1
Asheville	86.5	90.2	87.6	3.0	2.1	2.1	3.4	2.4	2.4
Charlotte-Gastonia-Rock Hill	631.5	658.2	646.5	20.5	18.0	19.4	3.2	2.7	3.0
Greensboro-Winston-Salem-High Point	513.2	521.7	514.9	15.2	13.7	14.0	3.0	2.6	2.7
Raleigh-Durham	395.2	408.7	399.8	10.2	8.9	9.2	2.6	2.2	2.3
North Dakota	332.3	337.3	332.1	10.9	14.6	12.9	3.3	4.3	3.9
Bismarck	44.9	46.2	44.9	1.5	2.0	1.8	3.3	4.3	4.0
Fargo-Moorhead	84.8	86.2	86.3	2.1	2.4	2.0	2.5	2.8	2.4
Grand Forks	36.5	36.4	36.5	.9	1.8	1.2	2.5	4.9	3.4
Ohio¹	5,190.2	5,343.1	5,251.4	287.6	298.9	299.7	5.5	5.6	5.7
Akron	317.3	321.2	318.6	18.2	17.8	17.7	5.7	5.5	5.6
Canton	185.9	192.0	187.5	11.7	11.6	11.5	6.3	6.0	6.1
Cincinnati	744.1	767.1	758.1	37.5	38.0	35.9	5.0	5.0	4.7
Cleveland	915.0	943.7	921.8	47.0	48.3	47.7	5.1	5.1	5.2
Columbus	686.6	714.3	702.5	31.6	32.2	32.7	4.6	4.5	4.7
Dayton-Springfield	457.4	468.2	464.1	20.9	23.8	23.9	4.6	5.1	5.1
Toledo	305.9	314.1	312.2	18.3	16.9	17.6	6.0	5.4	5.6
Youngstown-Warren	216.6	223.3	221.2	15.0	15.4	15.4	6.9	6.9	7.0
Oklahoma	1,544.3	1,497.9	1,495.4	96.9	97.7	89.0	6.3	6.5	5.9
Enid	29.8	28.9	28.6	1.7	1.5	1.3	5.7	5.0	4.6
Lawton	49.0	48.7	48.2	2.3	2.7	2.5	4.7	5.6	5.2
Oklahoma City	504.5	489.8	490.8	26.8	26.5	24.4	5.3	5.4	5.0
Tulsa	342.1	338.2	334.9	24.7	23.7	21.8	7.2	7.0	6.5
Oregon	1,399.7	1,432.3	1,423.7	71.3	76.6	76.6	5.1	5.3	5.4
Eugene-Springfield	136.2	139.0	140.5	7.0	7.3	8.4	5.1	5.2	6.0
Portland	631.6	648.8	641.5	28.8	29.4	27.6	4.6	4.5	4.3
Salem	133.9	136.8	133.9	6.1	6.4	6.4	4.6	4.7	4.8
Pennsylvania¹	5,715.5	5,928.2	5,844.5	297.2	248.6	295.5	5.2	4.2	5.1
Allentown-Bethlehem	320.6	330.7	326.6	14.0	11.7	13.3	4.4	3.5	4.1
Alltoona	60.3	62.5	60.8	3.8	3.3	3.8	6.3	5.3	6.3
Beaver County	63.1	64.4	64.3	6.3	4.7	5.5	10.0	7.3	8.6
Erie	128.4	131.7	131.1	8.1	6.3	7.4	6.3	4.8	5.7
Harrisburg-Lebanon-Carlisle	318.6	331.2	326.0	12.5	11.1	13.8	3.9	3.3	4.2
Johnstown	95.1	97.9	95.2	6.6	6.4	6.2	6.9	6.6	6.5
Lancaster	215.7	226.0	222.1	8.2	6.0	7.6	3.8	2.7	3.4
Philadelphia	2,388.2	2,481.1	2,435.4	101.7	92.6	104.0	4.3	3.7	4.3
Pittsburgh	950.1	979.5	968.9	58.1	46.3	54.7	6.1	4.7	5.6
Reading	172.2	181.3	180.3	7.6	5.8	7.2	4.4	3.2	4.0
Scranton-Wilkes-Barre	351.3	364.7	359.8	22.6	17.5	20.4	6.4	4.8	5.7
Williamsport	60.2	63.2	62.9	3.0	2.4	3.1	5.0	3.8	4.9
York	213.6	223.2	221.7	9.0	8.1	9.3	4.2	3.6	4.2
Rhode Island	523.1	523.4	523.8	17.2	14.4	12.8	3.3	2.7	2.4
Pawtucket-Woonsocket-Attleboro	166.7	168.8	166.3	6.2	6.1	5.2	3.7	3.6	3.1
Providence	339.9	338.9	341.7	11.1	9.0	8.2	3.3	2.6	2.4
South Carolina	1,644.8	1,667.0	1,667.2	83.6	80.0	72.4	5.1	4.8	4.3
Charleston	219.7	230.7	230.8	9.7	9.4	9.2	4.4	4.1	4.0
Columbia	227.1	235.8	237.5	8.7	7.6	7.7	3.8	3.2	3.2
Greenville-Spartanburg	322.5	329.8	331.9	13.3	11.4	11.3	4.1	3.4	3.4
South Dakota	357.5	363.7	355.0	12.1	14.3	12.6	3.4	3.9	3.5
Rapid City	39.8	41.0	39.4	1.5	1.5	1.8	3.8	3.7	4.6
Sioux Falls	72.5	72.0	71.7	2.4	2.5	2.7	3.3	3.5	3.8

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		
	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p	Sept. 1987	Aug. 1988	Sept. 1988 ^p
Tennessee	2,352.2	2,315.2	2,320.9	135.4	133.8	129.8	5.8	5.8	5.6
Chattanooga	208.7	211.2	211.1	10.8	11.9	11.8	5.2	5.6	5.6
Johnson City-Kingsport-Bristol	215.6	216.5	217.0	13.2	11.9	11.6	6.1	5.5	5.3
Knoxville	284.7	277.9	277.6	14.8	13.6	13.6	5.2	4.9	4.9
Memphis LMA	450.6	445.2	445.9	23.3	22.5	22.1	5.2	5.0	5.0
Nashville	522.8	498.7	501.7	21.6	23.5	22.2	4.1	4.7	4.4
Texas¹	8,273.2	8,469.3	8,387.6	704.0	567.9	594.4	8.5	6.7	7.1
Abilene	54.2	55.1	55.4	4.4	3.1	3.2	8.2	5.6	5.7
Amarillo	101.6	103.1	102.2	6.7	5.5	6.0	6.6	5.4	5.9
Austin	428.9	427.7	430.7	28.9	24.7	25.1	6.7	5.8	5.8
Beaumont-Port Arthur	162.3	163.0	161.9	19.8	15.5	16.3	12.2	9.5	10.1
Brazoria	81.4	83.9	83.3	8.1	6.2	6.4	10.0	7.4	7.7
Brownsville-Harlingen	96.9	100.7	97.3	13.8	12.5	12.1	14.2	12.4	12.4
Bryan-College Station	55.8	57.4	57.9	3.1	2.4	2.5	5.6	4.2	4.4
Corpus Christi	160.7	162.2	161.6	19.1	13.8	14.4	11.9	8.5	8.9
Dallas	1,457.0	1,493.2	1,471.8	97.8	80.5	83.6	6.7	5.4	5.7
El Paso	236.8	242.6	245.9	26.9	24.3	27.4	11.4	10.0	11.1
Fort Worth-Arlington	680.8	693.9	685.4	47.1	40.5	42.1	6.9	5.8	6.1
Galveston-Texas City	110.6	112.5	109.6	12.0	9.1	9.2	10.9	8.1	8.4
Houston	1,610.3	1,658.3	1,634.4	145.2	103.5	107.3	9.0	6.2	6.6
Killeen-Temple	94.0	98.5	97.3	8.2	7.2	7.5	8.7	7.3	7.8
Laredo	45.1	46.8	47.1	6.5	5.2	5.7	14.3	11.2	12.2
Longview-Marshall	79.5	81.0	80.3	8.4	6.2	6.7	10.5	7.7	8.3
Lubbock	113.4	117.2	116.1	7.2	6.0	5.8	6.4	5.1	5.0
McAllen-Edinburg-Mission	143.5	143.4	146.1	27.2	23.1	26.3	18.9	16.1	18.0
Midland	50.0	50.7	50.3	4.3	2.6	2.8	8.5	5.1	5.6
Odessa	53.6	54.3	54.1	5.3	3.8	4.1	9.9	7.0	7.6
San Angelo	45.1	46.4	46.1	2.8	2.7	2.8	6.3	5.7	6.2
San Antonio	610.0	634.8	632.0	49.9	47.0	49.2	8.2	7.4	7.8
Sherman-Denison	49.5	50.9	50.5	4.0	3.0	3.5	8.2	5.8	7.0
Texarkana	57.7	58.7	58.2	4.6	4.6	4.5	8.0	7.8	7.8
Tyler	76.9	78.2	76.8	6.9	5.5	5.7	9.0	7.0	7.4
Victoria	37.1	37.5	37.1	3.3	2.4	2.5	8.8	6.5	6.8
Waco	93.3	94.0	94.3	7.7	6.1	6.1	8.2	6.5	6.5
Wichita Falls	57.6	58.9	58.7	4.5	3.2	3.6	7.9	5.4	6.0
Utah	757.2	747.3	755.6	42.1	32.3	31.6	5.6	4.3	4.2
Provo-Orem	101.2	99.6	103.2	6.0	3.8	3.8	5.9	3.8	3.6
Salt Lake City-Ogden	497.5	491.6	495.1	25.9	20.6	20.4	5.2	4.2	4.1
Vermont	297.7	303.1	300.0	7.8	5.3	5.6	2.6	1.7	1.9
Burlington	74.3	78.6	78.0	1.7	1.2	1.2	2.2	1.6	1.6
Virginia	3,001.4	3,143.7	3,136.1	116.6	114.3	117.9	3.9	3.6	3.8
Charlottesville	65.2	67.8	69.8	1.7	2.0	2.0	2.6	2.9	2.9
Danville	50.9	52.2	53.9	2.8	3.2	3.4	5.5	6.0	6.3
Lynchburg	71.8	71.3	72.2	3.3	2.9	3.0	4.5	4.1	4.2
Norfolk-Virginia Beach-Newport News	601.5	633.1	631.1	27.9	27.2	29.1	4.6	4.3	4.6
Richmond-Petersburg	431.0	454.1	456.7	15.5	14.3	15.8	3.6	3.2	3.5
Roanoke	118.1	120.5	120.4	4.0	4.6	4.9	3.4	3.8	4.0
Washington	2,285.5	2,297.0	2,289.9	153.3	135.0	125.4	6.7	5.9	5.5
Seattle	1,004.7	1,031.8	1,022.0	58.3	47.6	44.4	5.8	4.6	4.3
West Virginia	738.6	734.1	723.4	65.0	64.1	61.7	8.8	8.7	8.5
Charleston	116.0	115.4	114.5	9.3	9.1	8.8	8.1	7.9	7.7
Huntington-Ashland	125.2	124.3	124.3	10.7	9.5	9.0	8.5	7.6	7.2
Parkersburg-Marietta	70.4	70.8	69.2	4.9	4.6	4.4	7.0	6.5	6.4
Wheeling	70.4	70.6	69.2	4.9	4.7	5.0	7.0	6.7	7.2
Wisconsin	2,493.8	2,585.1	2,592.4	113.2	95.0	88.1	4.5	3.7	3.4
Appleton-Oshkosh-Neenah	165.3	173.4	175.0	7.4	5.3	5.7	4.5	3.0	3.3
Eau Claire	69.3	73.4	75.3	3.1	2.5	2.3	4.5	3.4	3.1
Green Bay	105.8	111.0	111.2	5.1	3.7	3.9	4.8	3.4	3.5
Janesville-Beloit	70.2	73.1	74.3	4.3	3.0	2.6	6.1	4.1	3.5
Kenosha	57.4	53.6	55.5	2.9	3.8	2.0	5.1	7.1	3.6
La Crosse	53.3	56.4	57.3	1.9	1.9	1.8	3.6	3.4	3.1
Madison	214.7	223.2	227.4	6.4	5.0	5.5	3.0	2.2	2.4
Milwaukee	737.3	768.8	770.5	32.8	27.1	25.8	4.4	3.5	3.3
Racine	85.9	89.5	89.2	4.9	4.0	3.3	5.7	4.4	3.7
Wausau	58.3	61.8	61.6	2.7	2.2	2.0	4.6	3.6	3.3
Wyoming	240.0	236.1	232.6	15.1	10.9	11.4	6.3	4.6	4.9

¹ Data are obtained directly from the Current Population Survey. See the Explanatory Notes for State and Area Labor Force Data.

² Not available.

^p = preliminary.

NOTE: Data refer to place of residence. Estimates for 1987 have been

benchmarked to 1987 Current Population Survey annual averages. Except in the 11 States designated by footnote 1, estimates for 1988 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 over about 55,800 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 nonagricultural 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 300,000 establishments employing over 38 million nonagricultural wage and salary workers. The data relate to all workers, full or part time, who received 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 nonagricultural 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 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 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 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 nonagricultural 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: A Databook*, BLS Bulletin 2096.

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 55,800 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 55,800 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 ori-

gin 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 noninstitutional 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; and (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 were 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 appear in "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986" in the February 1986 issue of this publication.

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 a much less 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 mo-

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 rather than 1970 census information. The selection of new sample areas provided an opportunity to improve the efficiency of the sample design. Sample areas chosen to replace incoming sample areas account for only 10 percent of the national estimate. The new CPS sample has resulted in increased reliability for State estimates with a slightly reduced sample size. 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.

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 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

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 present	729	53,200	2,600	11,500

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

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

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 contain 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 32 age-sex groups each; the other races category has 6 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. 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 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 postcensal 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-Hispanic 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-Hispanic 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 error 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 change between 2 consecutive months. Estimates of change for non-consecutive 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

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

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 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

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

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 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

Table D. Standard errors for estimates of monthly level

(in thousands)

Estimated monthly level	Characteristic ¹								
	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	-	-	-	-	-

¹ 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 ¹							
	Unemployment				Labor force data other than unemployment and agricultural employment			
	Total or white	Both sexes 16 to 19 years, or part-time labor force ²	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	-	-	-

¹ See footnote 1, table D.

² 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.

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:

Standard error of year-to-year change =

$$\sqrt{\left(\frac{\text{Stand-ard error}}{x}\right)^2 + \left(\frac{\text{Stand-ard error}}{y}\right)^2 - 2(P) \left(\frac{\text{Stand-ard error}}{x}\right) \left(\frac{\text{Stand-ard error}}{y}\right)}$$

X is the estimate for one quarter and Y is the estimate for another quarter. The coefficient, P, is a measure of the corre-

lation 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:

$$(216,000)^2 + (221,000)^2 - 2(.30) (216,000) (221,000),$$

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 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	11	11	11
75	13	15	15	13	15	15	13	13	13
100	15	17	17	15	17	17	15	15	15
150	19	21	21	19	21	21	19	19	19
200	22	24	24	22	24	24	22	21	21
250	24	27	27	24	27	27	24	24	24
300	26	30	30	26	30	30	26	26	26
500	34	38	38	34	38	38	34	33	33
750	42	47	46	42	47	47	42	41	41
1,000	48	54	53	48	54	54	48	46	46
1,500	59	66	63	59	66	66	59	56	56
2,000	68	76	72	68	76	76	68	63	63
2,500	76	85	79	75	84	84	75	69	69
3,000	83	93	85	82	92	92	82	74	74
5,000	107	119	100	105	117	116	105	85	85
7,500	130	145	107	127	140	138	127	88	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 and hours and earnings in nonagricultural establishments, by industry and geographic location. Historical statistics are published in *Employment, Hours, and Earnings, United States, 1909-84*, and *Employment, Hours, and Earnings, States and Areas, 1939-82* 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 nonagricultural establishments and, for most industries, employment, payroll, and hours of production and related workers or nonsupervisory 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 and for States and areas are classified in accordance with the 1972 *Standard Industrial Classification Manual (SICM)*, 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 also are 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 changes in number of employees on nonagricultural payrolls. These indexes measure the percent of industries which posted increases in employment over the specified time span. The indexes are calculated from 185 seasonally adjusted employment series (two-digit non-manufacturing industries and three-digit manufacturing industries) covering all nonagricultural payroll employment in the private sector. A more detailed discussion of these indexes appears in "Introduction of Diffusion Indexes," in the December 1974 issue of *Employment and Earnings*.

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 differ-

ent 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 1977. 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; for example, overtime premiums may be paid for hours in excess of the straight-time workday although less than a full week is worked. 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. In addition, such factors as work stoppages, absenteeism, and labor turnover may not have the same influence on overtime hours as on average hours.

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-time 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 nonproduction 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 selected 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.

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

Benchmark adjustments

Employment estimates are compared periodically with benchmarks (comprehensive counts of employment) for the various nonagricultural industries, and appropriate adjustments are made as indicated. The industry estimates are currently projected from March 1987 levels. Normally, benchmark adjustments are made annually.

The primary sources of benchmark information are employment data, by industry, compiled quarterly by State agencies from reports of establishments covered under State unemployment insurance laws. These tabulations cover about 98 percent of employees on nonagricultural payrolls in the United States. Benchmark data for the residual are obtained

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. ¹	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. ²	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. ²	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. ²	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. ²	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.

¹ 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.
² 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.

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 1987 benchmark adjustment is shown in table M.

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 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

Table M. Comparison of nonagricultural employment benchmarks and estimates for March 1987

Industry	Benchmark	Estimate	Percent difference
Total	100,427	100,462	(1)
Mining	696	718	-3.2
Construction	4,531	4,599	-1.5
Manufacturing	18,810	18,897	-5
Transportation and public utilities	5,274	5,275	(1)
Wholesale trade	5,763	5,725	.7
Retail trade	17,902	17,737	.9
Finance, insurance, and real estate	6,443	6,478	-5
Services	23,754	23,723	.1
Government	17,254	17,310	-3

¹Less than 0.05 percent.

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 later 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 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.

Table N. Approximate size and coverage of BLS employment and payrolls sample, March 1987¹

Industry	Number of establishments in sample	Employees	
		Number reported	Percent of total
Total	246,256	37,530,000	37
Mining	3,434	265,000	38
Construction	22,567	808,000	18
Manufacturing	49,214	9,522,000	51
Transportation and public utilities	11,820	2,377,000	45
Wholesale trade	21,802	956,000	17
Retail trade	44,982	3,509,000	20
Finance, insurance, and real estate	17,699	2,140,000	33
Services	54,782	5,495,000	23
Government:			
Federal	(2)	2,916,000	100
State	4,795	3,298,000	81
Local	15,161	6,244,000	61

¹ 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.

² Total Federal employment counts 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 4,600 reports covering about 55 percent of employment in Federal establishments.

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 usually adjusted annually to new benchmarks. In addition to taking account of sampling and 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

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 estimates of employment ¹	Relative error ²	
		Average weekly hours	Average hourly earnings
Total	0.2		
Total private . . . . .	.2	0.1	0.2
Mining	2.9	1.0	1.3
Construction	1.4	.2	.5
Manufacturing . . . . .	.8	.1	.2
Durable goods . . . . .	.9	.1	.3
Nondurable goods . . . . .	.8	.1	.2
Transportation and public utilities . . . . .	.3	.7	.6
Wholesale trade . . . . .	.8	.2	.4
Retail trade . . . . .	.9	.2	.4
Finance, insurance, and real estate . . . . .	.3	.2	.4
Services . . . . .	.2	.4	.6
Government ³ . . . . .	.5	—	—

¹ The average percent revision in employment for the 1983-87 benchmarks.

² Relative errors relate to 1982 data.

³ Estimates 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.

relative errors of the estimate. (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:

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

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 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.

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 ¹	Relative error ² (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

¹ Assuming 12-month intervals between benchmark revisions.

² Relative errors relate to 1982 data.

Definitions 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	89,600	89,100	Nondurable goods—Continued		
Total private	62,700	60,000	Chemicals and allied products	2,700	2,900
Goods-producing industries	22,400	20,800	Petroleum and coal products	1,200	1,100
Mining	4,700	4,400	Rubber and misc. plastics products	1,600	1,700
Oil and gas extraction	4,000	3,400	Leather and leather products	1,800	1,700
Construction	14,800	15,700	Service-producing industries	86,300	85,700
General building contractors	5,000	5,200	Transportation and public utilities	15,500	13,900
Manufacturing	19,200	19,300	Transportation	17,800	17,300
Durable goods	14,400	12,700	Communication and public utilities	6,800	6,400
Lumber and wood products	2,300	2,100	Wholesale trade	9,400	8,200
Furniture and fixtures	1,700	1,700	Durable goods	6,100	5,500
Stone, clay, and glass products	1,600	1,600	Nondurable goods	5,400	4,600
Primary metal industries	4,700	4,700	Retail trade	40,700	36,100
Blast furnaces and basic steel products	3,600	3,400	General merchandise stores	23,900	21,400
Fabricated metal products	2,500	2,300	Food stores	6,900	6,200
Machinery, except electrical	6,000	7,300	Automotive dealers and service stations	3,300	3,200
Electrical and electronic equipment	5,100	5,100	Eating and drinking places	10,900	10,300
Transportation equipment	8,100	7,400	Finance, insurance, and real estate	8,400	7,500
Motor vehicles and equipment	7,000	7,000	Finance	4,000	3,900
Instruments and related products	2,000	2,200	Insurance	3,800	3,100
Miscellaneous manufacturing	1,900	1,800	Real estate	4,800	3,800
Nondurable goods	8,900	8,500	Services	34,700	31,700
Food and kindred products	5,600	5,700	Business services	11,000	10,500
Tobacco manufactures	1,600	1,500	Health services	10,300	10,100
Textile mill products	1,800	1,700	Government	62,800	54,500
Apparel and other textile products	4,700	4,100	Federal	16,900	11,700
Paper and allied products	1,600	1,400	State	22,600	20,600
Printing and publishing	2,200	2,100	Local	34,900	32,400

NOTE: Data are based on differences from December 1982 through December 1987.

Productivity Data (Tables C-9 through C-11)

COLLECTION

Productivity data are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and gross national product supplied by the U.S. Department of Commerce and the Federal Reserve Board.

CONCEPTS

Hours of wage and salary workers in nonagricultural establishments refer to hours paid for all employees—production workers, nonsupervisory workers, and salaried workers.

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 measure changes in the volume of goods and services produced per paid hour of labor input.

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 to eliminate the effect of changes in 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, depreciation, interest, and indirect taxes per unit of output. They are com-

puted by subtracting compensation of all persons from the current-dollar gross national product 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 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 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.

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 of determining eligibility of an area for benefits under Federal programs such as the Job Training Partnership Act and the Public Works and Economic Development Act.

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 and unemployment 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, D.C. 20402. The report "Employment and Unemployment in States and Local Areas" is published monthly through GPO and is available on microfiche only on a subscription basis.

ESTIMATING METHODS

The civilian labor force and unemployment estimates in 11 large States: New York, California, Illinois, Ohio, New Jersey, Pennsylvania, Michigan, Texas, Massachusetts,

North Carolina, and Florida are sufficiently reliable to be used directly from the CPS. For a description of the CPS concepts, see "Household Data," above.

Monthly labor force and unemployment estimates in the remaining 39 States, the District of Columbia, and over 2,600 labor market areas are prepared in several stages. The civilian labor force is the sum of the employment and unemployment levels, which are estimated in accordance with the BLS *Manual for Developing Local Area Unemployment Statistics*.

1. *Preliminary estimate—employment*: The total civilian employment estimate is based on data from the survey of establishments which produces an estimate of payroll employment. This place-of-work estimate 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 the several categories of employment on the basis of employment relationships which existed at the time of the 1980 decennial census. These factors are applied to the payroll employment estimates for the current period to obtain adjusted employment estimates to which are added estimates for employment not covered by unemployment insurance (UI).

2. *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. This is referred to below as the UI-based estimate.

An estimate for those previously employed in covered industries is derived from a count of current employment insurance claimants, plus estimates of claimants whose benefits have been exhausted, those persons disqualified from receiving benefits for nonmonetary reasons (because they quit, were discharged for cause, etc., but would otherwise have been eligible), and persons who either filed claims late or not at all.

The estimate of those previously employed in industries not covered by UI is derived by applying to the employment estimate for each noncovered industry or class of worker subgroup in the State, the ratio of covered unemployment to covered employment weighted by factors reflecting national historical relationships.

For the third category, new entrants and reentrants into the labor force, a composite estimate is developed from equations that relate the total entrants into the labor force to the experienced unemployed and the experienced labor force. For each month, the estimate of entrants into the labor force

is a function of: (a) the month of the year; (b) the level of the experienced unemployed; (c) the level of the experienced labor force; and (d) the proportion of the working age population that is considered "youth."

3. *Monthly reconciliation with the CPS*. Each month correction factors for employment and unemployment are applied at the State level to the UI-based estimates obtained above for each of the 39 States and the District of Columbia. These correction factors are based on the ratio of the CPS to the UI-based estimates for the 6-month period ending in the current month (e.g., a 6-month moving average). The adjustment is necessary because the State-prepared estimates are not as reliable as the CPS data due to differences in the State UI laws, the structural limitations of the UI-based estimating method, and errors in the UI data.

4. *Substate adjustment for additivity*. Independent estimates of employment and unemployment are prepared for the State (obtained directly from the CPS in the 11 large States or by the UI-based method in the remaining States), and labor market areas (LMA's) within the State. The total of the geographic areas in the LMA's exhausts the geographic boundaries of the State. A proportional adjustment is applied to all substate LMA estimates to ensure that the sub-State estimates of employment and unemployment add to the independent State totals.

5. *Benchmark correction procedures*. Once each year, monthly estimates prepared by the State employment security agencies using UI-based estimating procedures are adjusted, or benchmarked, by BLS to the annual average CPS estimates for the 39 States and the District of Columbia for which monthly CPS estimates are not used directly. This adjustment is made because the State-prepared monthly estimates are not as reliable as the CPS annual averages due to the limitations of the 6-month moving average adjustment procedure. Revisions to the inputs used in the UI-based estimates are also made at the time of the annual benchmark.

The State wide benchmarked estimates are produced in three stages. First the monthly UI-based estimates are adjusted by the ratio of the CPS to the UI-based annual averages. Second, the difference between the ratio of annual averages for two consecutive years is wedged into the monthly estimates in order to minimize the disturbance to the original series. Finally, the third-stage estimates are forced into agreement with CPS annual averages. In the 11 States for which CPS estimates are used monthly, no benchmark correction is required, as the average of the 12 monthly State CPS estimates will equal CPS annual averages.

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 regularly in *Employment and Earnings*.

The seasonal adjustment program used for these series is an adaptation of the standard ratio-to-moving-average method. It provides for "moving" adjustment factors to take account of changing seasonal patterns. A detailed description of the method is given in *The X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15, Bureau of the Census (1967).

Beginning in January 1980, BLS introduced two major modifications in the seasonal adjustment methodology for data from the household survey. First, the data are being seasonally adjusted with a procedure called X-11 ARIMA, which was developed at Statistics Canada as an extension of the existing 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. The X-11 procedure was originally developed at the Bureau of the Census and had been used by the BLS to seasonally adjust labor force series since 1973. Tests have shown that use of the X-11 ARIMA procedure, which places more emphasis on recent data, provides better seasonal adjustments than does the X-11 method alone.

The second change is that seasonal adjustment factors are calculated for use during the first 6 months of the year rather than for the entire year. In July of each year, BLS calculates and publishes in *Employment and Earnings* a set of 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 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 the sum of eight seasonally adjusted civilian employment components, plus the resident Armed Forces total (not adjusted for seasonality), and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the overall unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the labor force. 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 methodology 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.

Beginning in July 1980, the BLS also uses the X-11 ARIMA methodology in seasonally adjusting the establishment data, which previously had been computed using the *BLS Seasonal Factor Method*. All series are seasonally adjusted using the multiplicative models under X-11 ARIMA. Seasonal adjustment factors used in calculating the current year's estimates are based on actual data through March 1988 and projected data through March 1989. The ARIMA model options for projecting the data series for 1 year ahead have been used in seasonally adjusting the establishment series since June 1981.

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 1977 base. For total private, total goods-producing, total private service-producing, wholesale trade, retail trade, manufacturing, and durable and nondurable goods industries, 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 1977 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 are used in the aggregation to broader level seasonally adjusted series, however.

Beginning in June 1983, seasonal adjustment factors for Federal Government employment are derived from unadjust-

ed data which include Christmas temporary workers employed by the Postal Service. In earlier years the number of these workers was substantial, and at times varied greatly from year to year, based on administrative decisions of the Postal Service. Hence, it was considered desirable to exclude this group from the unadjusted data upon which the seasonal adjustment factors were based. In the past several years, the number of these workers has decreased to the point where their presence has no impact on seasonal adjustment. Temporary census takers for the 1980 decennial census are removed prior to the calculation of seasonal adjustment factors for Federal Government employment.

The revised seasonally adjusted series for the establishment data reflect experience through March 1988. Seasonal adjustment factors to be used for current adjustment appear in the June 1988 issue of *Employment and Earnings*.

U.S. Department of Labor Bureau of Labor Statistics

REGION I - BOSTON John Fitzgerald Kennedy Federal Building Suite 1603 Boston, MA 02203	REGION II - NEW YORK 201 Varick Street New York, NY 10014	REGION III - PHILADELPHIA 3535 Market Street P.O. Box 13309 Philadelphia, PA 19101	REGION IV - ATLANTA Suite 540 1371 Peachtree Street, NE. Atlanta, GA 30367
REGION V - CHICAGO 9th Floor 230 S. Dearborn Street Chicago, IL 60604	REGION VI - DALLAS Room 221 525 Griffin Street Dallas, TX 75202	REGIONS VII and VIII - KANSAS CITY 15th Floor 911 Walnut Street Kansas City, MO 64106	REGIONS IX and X - SAN FRANCISCO 71 Stevenson Street P.O. Box 3766 San Francisco, CA 94119

COOPERATING STATE AGENCIES

Current Employment Statistics Program (CES), and State and Local Area Unemployment Statistics Program (LAUS)

BLS Region	
IV ALABAMA	-Research and Statistics Div., Depart. of Industrial Relations, Industrial Relations Building, Room 427, Montgomery 36130
X ALASKA	-Employment Security Division, Department of Labor, P.O. Box 25501, Juneau 99802
IX ARIZONA	-Department of Economic Security, 733-A, P.O. Box 6123, Phoenix 85005
VI ARKANSAS	-Employment Security Division, Department of Labor, State Capitol Mall, P.O. Box 2981, Little Rock 72203
IX CALIFORNIA	-Employment Data and Research Div., Employment Development Depart., P.O. Box 1679, Sacramento 95808.
VIII COLORADO	-Division of Employment and Training, 1330 Fox Street, Denver 80204
I CONNECTICUT	-Employment Security Division, Labor Department, 200 Folly Brook Boulevard, Wethersfield 06109
III DELAWARE	-Department of Labor, University Plaza Office Complex, P.O. Box 9029, Newark 19711
III DIST. OF COL.	-Division of Labor Market Information, Research and Analysis, Department of Employment Services, 500 C Street N.W., Room 411, Washington 20001
IV FLORIDA	-Bureau of Research and Information, Depart. of Labor and Employment Security, 2574 Seagate Drive, Tallahassee 32301
IV GEORGIA	-Department of Labor, 254 Washington Street, S.W., Atlanta 30334
IX HAWAII	-Department of Labor and Industrial Relations, 830 Punchbowl Street, Room 304, Honolulu 96813
X IDAHO	-Department of Employment, P.O. Box 35, Boise 83735
V ILLINOIS	-Bureau of Employment Security, 910 South Michigan Avenue, 12th Floor, Chicago 60605
V INDIANA	-Employment Security Division, 10 North Senate Avenue, Indianapolis 46204
VII IOWA	-Department of Job Service, 1000 East Grand Avenue, Des Moines 50319
VII KANSAS	-Department of Human Resources, 401 Topeka Avenue, Topeka 66603
IV KENTUCKY	-Department for Employment Services, Cabinet for Human Resources, 275 E. Main Street, Frankfort 40621
VI LOUISIANA	-Department of Labor, P.O. Box 44094, Capitol Station, Baton Rouge 70804
I MAINE	-Division of Research and Analysis, Department of Labor, 20 Union Street, Augusta 04330
III MARYLAND	-Research and Analysis Division, Department of Human Resources, 1100 North Eutaw Street, Baltimore 21201
I MASSACHUSETTS	-Division of Employment Security, Charles F. Hurley Building, Government Center, Boston 02114
V MICHIGAN	-Research and Statistics Division, Employment Security Commission, 7310 Woodward Avenue, Detroit 48202
V MINNESOTA	-Department of Jobs and Training, 390 North Robert Street, St. Paul 55101
IV MISSISSIPPI	-Labor Market Information Department, Employment Security Commission, P.O. Box 1699, Jackson 39215-1699
VII MISSOURI	-Division of Employment Security, P.O. Box 59, Jefferson City 65104
VIII MONTANA	-Department of Labor and Industry, P.O. Box 1728, Helena 59601
VII NEBRASKA	-Division of Employment, Department of Labor, P.O. Box 94600, Lincoln 68509
IX NEVADA	-Employment Security Department, 500 East Third Street, Carson City 89713
I NEW HAMPSHIRE	-Department of Employment Security, 32 South Main Street, Concord 03301
II NEW JERSEY	-Division of Planning and Research, Department of Labor, P.O. Box 2765, Trenton 08625
VI NEW MEXICO	-Employment Services Division, Employment Security Department, P.O. Box 1928, Albuquerque 87103
II NEW YORK	-Division of Research and Statistics, Department of Labor, State Campus, Building 12, Albany 12240
IV NORTH CAROLINA	-Labor Market Information Division, Employment Security Commission, P.O. Box 25903, Raleigh 27611
VIII NORTH DAKOTA	-Job Service, P.O. Box 1537, Bismarck 58502
V OHIO	-Labor Market Information Division, Bureau of Employment Services, P.O. Box 1618, Columbus 43216
VI OKLAHOMA	-Research and Planning Division, Employment Security Commission, 310 Will Rogers Memorial Office Building, Oklahoma City 73105
X OREGON	-Employment Division, Department of Human Resources, 875 Union Street N.E., Salem 97311
III PENNSYLVANIA	-Research and Statistics Division, Department of Labor and Industry, 7th and Forster Streets, Harrisburg 17121
II PUERTO RICO	-Department of Labor and Human Resources, Bureau of Labor Statistics, 505 Munoz Rivera Ave., 17th Fl., Hato Rey 00918 (CES). Bureau of Employment Security, 505 Munoz Rivera Ave., 15th Fl., Hato Rey 00918 (LAUS)
I RHODE ISLAND	-Department of Employment Security, 24 Mason Street, Providence 02903
IV SOUTH CAROLINA	-Employment Security Commission, P.O. Box 995, Columbia 29202
VIII SOUTH DAKOTA	-Department of Labor, P.O. Box 1730, Aberdeen 57401
IV TENNESSEE	-Department of Employment Security, Cordell Hull Office Building, Room 519, Nashville 37219
VI TEXAS	-Employment Commission, 15th and Congress Avenue, Austin 78778
VIII UTAH	-Department of Employment Security, P.O. Box 11249, Salt Lake City 84147
I VERMONT	-Department of Employment and Training, P.O. Box 488, Montpelier 05602
III VIRGINIA	-Division of Research and Analysis, Employment Commission, P.O. Box 1358, Richmond 23211
II VIRGIN ISLANDS	-Bureau of Labor Statistics, Department of Labor, P.O. Box 818, St. Thomas 00801
X WASHINGTON	-Employment Security Department, 212 Maple Park, Olympia 98504
III WEST VIRGINIA	-Division of Labor and Economic Security, Depart. of Employment Security, 112 California Avenue, Charleston 25305
V WISCONSIN	-Department of Industry, Labor, and Human Relations, P.O. Box 7944, Madison 53707
VIII WYOMING	-Employment Security Commission, P.O. Box 2760, Casper 82602