



EMPLOYMENT AND EARNINGS

December 1988

U.S. Department of Labor
Bureau of Labor Statistics





U.S. DEPARTMENT OF LABOR

Ann McLaughlin, Secretary

BUREAU OF LABOR STATISTICS

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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.

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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.
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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.
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Establishment data

National annual averages:	
Industry divisions (preliminary)	Jan.

Industry detail (final)	Mar.
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Women employees (final)	Mar.
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National data revised to reflect new benchmarks and new seasonal adjustment factors	June
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Revised historical national data	Supplement ¹
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State and area annual averages	May
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Area definitions	May
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State and area labor force data

Annual averages	May
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¹ The latest supplement was published in August 1988.

Employment and Earnings

Vol. 35 No. 12 December 1988

Editors: Gloria Peterson Green, Rosalie K. Epstein

Editors' Note

In accordance with usual practice, the January issue of this publication will incorporate revisions in seasonally adjusted unemployment and other labor force series derived from the household survey. Seasonally adjusted data for the most recent 5 years are subject to revision each year.

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Employment and Unemployment Developments, November 1988

Employment rose sharply in November, and the unemployment rate was little changed. The overall unemployment rate was 5.3 percent, and the civilian worker rate was 5.4 percent. Both have shown little movement since the spring.

Nonagricultural payroll jobs, as measured by the survey of business establishments, increased by 465,000 to 107.4 million. Total civilian employment, as measured by the household survey, rose by a similar amount to 116.0 million.

Unemployment

The civilian worker unemployment rate and the number of unemployed persons were essentially unchanged in November at 5.4 percent and 6.6 million persons, respectively. These series have moved within relatively narrow ranges for most of this year—5.3 to 5.6 percent for the jobless rate and 6.5 to 6.8 million persons for the level of unemployment. (See table A-33.)

Jobless rates for adult men (4.8 percent), adult women (4.8 percent), teenagers (13.9 percent), whites (4.6 percent), blacks (11.2 percent), and Hispanics (8.1 percent) showed little or no movement in November. Whereas all of these groups have shown some improvement over the past year, the largest drop occurred among teenagers—3 percentage points. Most of this was among white teens, as the rate for black teenagers continues to remain above 30 percent. (See tables A-33 and A-34.)

The number of newly unemployed persons, those unemployed less than 5 weeks, has been between 3.0 and 3.2 million every month since mid-1987. In contrast, the number of long-term unemployed, those jobless for more than half a year, has declined over this period, from 1.1 million to about 700,000. (See table A-40.)

Civilian employment and the labor force

Civilian employment expanded by 455,000 to 116.0 million in November, and the employment-population ratio gained 0.2 percentage point to reach a record high of 62.6 percent. Most of November's employment gain occurred among adult women, whose employment increased by 380,000. Over the year, total civilian employment has increased by 2.5 million. The number of persons voluntarily working part-time schedules, at 15.5 million in November, was 1.1 million more than a year earlier. (See tables A-33 and A-35.)

After remaining essentially unchanged from August to October, the civilian labor force jumped by 560,000 to 122.6 million in November. As a result, the labor force participation rate rose 0.3 percentage point to a record 66.5 percent. Over the year, the labor force has expanded by 2.0 million, 1.4 million of whom were adult women. (See table A-33.)

Industry payroll employment

Total nonagricultural employment rose by 465,000 in November, seasonally adjusted, to a level of 107.4 million. Increases were widespread, occurring in both goods-producing and service-producing industries. (See table B-4.)

The service-producing sector added 345,000 jobs in November, after seasonal adjustment. Following more moderate growth in recent months, employment gains in the services industry itself totaled 195,000, with increases spread across most of its major industries. Elsewhere in the sector, transportation and public utilities jobs increased by 40,000, mostly in the transportation component. Job growth of 30,000 in wholesale trade occurred mainly in the distribution of durable goods. Employment in finance, insurance, and real estate rose by about 20,000 for the second month in a row. Employment in retail trade and in government was little changed after seasonal adjustment.

In the goods-producing sector, manufacturing employment rose sharply for the second month in a row. The 70,000 increase reflected widespread gains among durable and nondurable goods industries, with particular strength in machinery, electrical equipment, and lumber and wood products. Construction employment rose by 55,000, after seasonal adjustment, as seasonal cutbacks were smaller than usual. In contrast, the number of mining jobs continued to edge downward in November, having declined by nearly 20,000 in the past 4 months, all of it in the oil and gas extraction component.

Weekly hours

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls dropped by 0.2 hour in November, seasonally adjusted, to 34.7 hours, the same level as in September. In manufacturing, both the workweek and overtime were unchanged at historically high levels of 41.2 and 4.0 hours, respectively. (See table C-5.)

The index of aggregate weekly hours of production or non-supervisory workers on private nonagricultural payrolls, at 127.0 (1977=100), was essentially unchanged in November, as the drop in the workweek about offset the gain in employment. The index for manufacturing rose by 0.5 percent to 97.4. (See table C-6.)

Hourly and weekly earnings

Average hourly earnings of private production or non-supervisory workers were little changed in November on a seasonally adjusted basis. Average weekly earnings declined 0.7 percent, reflecting the decrease in the workweek. Prior to seasonal adjustment, average hourly earnings remained at \$9.45, and average weekly earnings fell by \$1.89 to

\$327.92. (See tables C-1 and C-7.)

The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 181.5 (1977=100) in November, seasonally adjusted, unchanged from October. For the 12 months ended in November, the increase was 3.3 percent. In dollars of constant purchasing power, the HEI decreased 0.4 percent during the 12-month period ending in October. 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 Hourly Earnings Index 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:			
<i>Reference month</i>	<i>Release date</i>	<i>Reference month</i>	<i>Release date</i>
December	January 6	March	April 7
January	February 3	April	May 5
February	March 10	May	June 2

**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	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	62,087	
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 adjusted ²												
1987:												
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	
November	186,949	124,277	66.5	117,681	1,705	115,976	3,276	112,700	6,595	5.3	62,672	

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.

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	16,956	
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	58,665	1,479	57,186	2,709	54,477	4,267	6.8	17,945	
1981	82,023	63,486	77.4	58,909	1,512	57,397	2,700	54,697	4,577	7.2	18,537	
1982	83,052	63,979	77.0	57,800	1,529	56,271	2,736	53,534	6,179	9.7	19,073	
1983	84,064	64,580	76.8	56,320	1,533	56,767	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	58,423	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:												
November	88,849	68,019	76.6	64,174	1,593	62,581	2,491	60,090	3,845	5.7	20,830	
December	88,924	68,030	76.5	64,245	1,589	62,858	2,523	60,133	3,785	5.8	20,894	
1988:												
January	89,033	66,243	76.8	64,396	1,588	62,808	2,593	60,218	3,847	5.6	20,790	
February	89,099	66,343	76.7	64,638	1,577	63,059	2,510	60,548	3,707	5.4	20,756	
March	89,168	66,148	76.4	64,332	1,573	62,759	2,474	60,285	3,818	5.6	21,020	
April	89,225	66,445	76.7	64,892	1,589	63,323	2,487	60,858	3,553	5.2	20,780	
May	89,287	66,318	76.5	64,583	1,553	63,030	2,391	60,839	3,736	5.5	20,989	
June	89,387	66,429	76.6	64,934	1,523	63,411	2,422	60,988	3,495	5.1	20,938	
July	89,445	66,521	76.6	65,002	1,512	63,490	2,471	61,019	3,519	5.1	20,924	
August	89,504	66,723	76.8	64,954	1,529	63,425	2,526	60,899	3,788	5.5	20,781	
September	89,577	66,808	76.6	65,052	1,540	63,512	2,489	61,023	3,555	5.2	20,970	
October	89,637	66,544	76.5	64,943	1,526	63,417	2,567	60,850	3,600	5.3	21,093	
November	89,716	66,721	76.6	65,079	1,542	63,537	2,550	60,987	3,842	5.3	20,995	
Annual averages												
WOMEN												
1977	83,932	40,705	46.5	37,381	92	37,289	612	36,677	3,324	8.2	43,227	
1978 ¹	85,434	42,731	50.0	39,889	100	39,569	689	36,900	3,061	7.2	42,703	
1979	86,951	44,343	51.0	41,325	108	41,217	681	40,556	3,018	6.8	42,608	
1980	88,472	45,611	51.6	42,241	124	42,117	858	41,461	3,370	7.4	42,861	
1981	89,751	46,829	52.2	43,133	133	43,000	887	42,333	3,696	7.9	42,922	
1982	90,887	47,694	52.7	43,395	139	43,256	665	42,591	4,499	9.4	42,993	
1983	91,827	48,648	53.0	44,190	143	44,047	660	43,367	4,457	9.2	43,181	
1984	92,924	49,855	53.7	46,081	146	45,915	653	45,282	3,794	7.6	43,088	
1985	93,886	51,200	54.5	47,409	150	47,259	644	46,615	3,791	7.4	42,688	
1986 ¹	94,944	52,568	55.4	48,861	155	48,708	652	48,054	3,707	7.1	42,378	
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:												
November	98,376	54,330	56.4	51,065	162	50,923	881	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	56.6	51,482	181	51,321	700	50,621	3,200	5.9	41,857	
February	96,806	54,740	56.7	51,509	159	51,350	717	50,833	3,231	5.9	41,866	
March	96,879	54,491	56.4	51,507	163	51,344	730	50,614	2,965	5.5	42,188	
April	96,739	54,610	56.5	51,553	163	51,390	781	50,629	3,057	5.8	42,129	
May	96,801	54,374	56.2	51,327	161	51,166	645	50,521	3,047	5.8	42,427	
June	96,880	54,728	56.5	51,769	162	51,807	662	50,944	2,980	5.4	42,152	
July	96,957	54,836	56.8	51,730	161	51,569	575	50,994	3,106	5.7	42,121	
August	97,016	55,000	56.7	51,918	163	51,755	625	51,130	3,083	5.8	42,018	
September	97,089	55,020	56.7	51,878	164	51,615	880	51,135	3,041	5.5	42,089	
October	97,184	55,155	56.8	52,285	161	52,104	699	51,405	2,880	5.2	42,009	
November	97,234	55,566	57.1	52,602	163	52,439	726	51,713	2,954	5.3	41,878	

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:								
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
November	185,244	122,572	66.2	115,976	6,595	5.4	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	November 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											
16 years and over	185,244	122,839	66.2	116,314	6,325	5.2	62,605	26,984	9,282	3,284	23,055
16 to 19 years	14,433	7,542	52.3	6,492	1,050	13.9	6,890	426	6,039	38	369
16 to 17 years	7,138	3,078	43.1	2,579	499	16.2	4,059	71	3,843	5	139
18 to 19 years	7,295	4,464	61.2	3,913	551	12.3	2,831	354	2,196	31	249
20 to 24 years	18,267	14,197	77.7	13,023	1,174	8.3	4,071	1,466	2,001	94	490
25 to 54 years	102,163	85,501	83.7	81,830	3,672	4.3	16,661	11,313	1,199	1,226	2,924
25 to 34 years	42,699	35,809	83.9	33,911	1,898	5.3	6,890	4,773	830	291	996
25 to 29 years	21,225	17,820	84.0	16,797	1,023	5.7	3,406	2,250	524	117	515
30 to 34 years	21,474	17,989	83.8	17,114	875	4.9	3,485	2,523	307	174	481
35 to 44 years	35,180	30,180	85.8	29,099	1,081	3.6	4,999	3,518	277	374	831
35 to 39 years	19,000	16,320	85.9	15,693	627	3.8	2,680	1,901	187	184	415
40 to 44 years	16,180	13,860	85.7	13,406	454	3.3	2,320	1,625	90	190	415
45 to 54 years	24,284	19,513	80.4	18,819	693	3.6	4,771	3,022	91	561	1,097
45 to 49 years	13,110	10,923	83.3	10,540	382	3.5	2,187	1,391	67	265	464
50 to 54 years	11,174	8,590	76.9	8,280	311	3.6	2,584	1,631	24	295	634
55 to 64 years	21,585	11,925	55.2	11,592	333	2.8	9,660	4,662	31	722	4,245
55 to 59 years	10,767	7,166	66.6	6,968	197	2.8	3,602	1,994	18	374	1,216
60 to 64 years	10,818	4,759	44.0	4,623	136	2.9	6,059	2,668	14	347	3,030
65 years and over	28,797	3,473	12.1	3,377	96	2.8	25,323	9,098	13	1,206	15,006
65 to 69 years	9,875	2,108	21.3	2,033	74	3.5	7,768	2,980	4	285	4,498
70 to 74 years	7,697	911	11.8	890	20	2.2	6,786	2,445	1	249	4,091
75 years and over	11,224	455	4.1	454	1	.2	10,769	3,673	8	672	6,417
Men											
16 years and over	88,174	66,906	75.9	63,442	3,464	5.2	21,267	593	4,668	1,840	14,167
16 to 19 years	7,249	3,910	53.9	3,341	569	14.6	3,339	19	3,101	24	195
16 to 17 years	3,629	1,582	43.6	1,299	284	17.9	2,047	3	1,974	1	70
18 to 19 years	3,620	2,328	64.3	2,043	285	12.3	1,292	16	1,128	23	125
20 to 24 years	8,860	7,409	83.6	6,791	619	8.4	1,450	18	1,083	68	261
25 to 54 years	49,953	46,820	93.7	44,824	1,996	4.3	3,133	223	468	803	1,640
25 to 34 years	20,977	19,826	94.5	18,793	1,033	5.2	1,152	90	352	191	519
25 to 29 years	10,415	9,780	93.9	9,225	555	5.7	635	36	239	81	279
30 to 34 years	10,563	10,046	95.1	9,568	478	4.8	517	54	113	110	240
35 to 44 years	17,210	16,308	94.8	15,740	568	3.5	902	78	87	268	468
35 to 39 years	9,320	8,852	95.0	8,519	334	3.8	468	45	65	134	223
40 to 44 years	7,890	7,456	94.5	7,221	235	3.1	434	33	22	134	245
45 to 54 years	11,766	10,686	90.8	10,291	395	3.7	1,080	55	29	344	652
45 to 49 years	6,370	5,906	92.7	5,685	221	3.7	464	27	18	159	260
50 to 54 years	5,396	4,780	88.6	4,607	174	3.6	616	28	11	184	393
55 to 64 years	10,165	6,777	66.7	6,555	222	3.3	3,388	96	12	483	2,797
55 to 59 years	5,131	4,053	79.0	3,914	139	3.4	1,078	37	8	256	776
60 to 64 years	5,034	2,724	54.1	2,641	83	3.0	2,310	59	4	226	2,021
65 years and over	11,946	1,990	16.7	1,931	59	2.9	9,957	237	4	462	9,254
65 to 69 years	4,479	1,175	26.2	1,132	42	3.6	3,305	83	3	141	3,077
70 to 74 years	3,327	538	16.2	523	15	2.8	2,789	61	1	114	2,613
75 years and over	4,140	277	6.7	276	1	.4	3,863	93		207	3,564
Women											
16 years and over	97,071	55,732	57.4	52,872	2,860	5.1	41,338	26,392	4,614	1,445	8,888
16 to 19 years	7,183	3,632	50.6	3,151	481	13.2	3,551	407	2,938	12	193
16 to 17 years	3,508	1,496	42.6	1,281	215	14.4	2,012	69	1,870	5	69
18 to 19 years	3,675	2,137	58.1	1,871	266	12.4	1,539	338	1,069	8	124
20 to 24 years	9,407	6,787	72.1	6,232	555	8.2	2,620	1,468	917	26	209
25 to 54 years	52,210	38,682	74.1	37,006	1,676	4.3	13,528	11,090	731	423	1,284
25 to 34 years	21,722	15,983	73.6	15,118	865	5.4	5,739	4,683	479	100	477
25 to 29 years	10,810	8,040	74.4	7,572	468	5.8	2,771	2,214	285	36	236
30 to 34 years	10,911	7,943	72.8	7,546	397	5.0	2,968	2,469	194	64	241
35 to 44 years	17,970	13,872	77.2	13,360	512	3.7	4,098	3,440	190	105	363
35 to 39 years	9,680	7,468	77.1	7,174	293	3.9	2,212	1,847	122	50	192
40 to 44 years	8,290	6,404	77.3	6,185	219	3.4	1,886	1,592	68	56	170
45 to 54 years	12,518	8,826	70.5	8,528	298	3.4	3,692	2,967	62	218	445
45 to 49 years	6,740	5,017	74.4	4,855	161	3.2	1,723	1,364	49	106	204
50 to 54 years	5,778	3,810	65.9	3,673	137	3.6	1,968	1,603	13	111	241
55 to 64 years	11,420	5,148	45.1	5,037	111	2.2	6,272	4,566	19	239	1,448
55 to 59 years	5,636	3,112	55.2	3,054	58	1.9	2,524	1,957	9	118	440
60 to 64 years	5,784	2,035	35.2	1,983	53	2.6	3,749	2,609	10	121	1,009
65 years and over	16,850	1,484	8.8	1,446	37	2.5	15,367	8,861	9	744	5,752
65 to 69 years	5,396	933	17.3	901	32	3.4	4,463	2,897	1	144	1,421
70 to 74 years	4,370	373	8.5	367	5	1.3	3,997	2,384		135	1,478
75 years and over	7,084	178	2.5	178		.1	6,906	3,580	8	465	2,853

**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	November 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	158,603	105,509	66.5	100,818	4,691	4.4	53,094	23,443	7,145	2,510	19,996
16 to 19 years	11,749	8,518	55.5	5,741	777	11.9	5,231	336	4,589	31	275
16 to 17 years	5,755	2,670	46.4	2,299	371	13.9	3,085	61	2,914	5	103
18 to 19 years	5,994	3,846	64.2	3,442	406	10.6	2,146	275	1,674	25	172
20 to 24 years	15,098	11,944	79.1	11,103	841	7.0	3,153	1,133	1,632	62	326
25 to 54 years	88,957	73,379	84.4	70,654	2,724	3.7	13,577	9,598	889	918	2,170
25 to 34 years	35,914	30,391	84.6	29,044	1,348	4.4	5,523	3,970	596	235	719
25 to 29 years	17,805	15,090	84.8	14,375	715	4.7	2,715	1,867	376	94	378
30 to 34 years	18,109	15,301	84.5	14,669	633	4.1	2,808	2,103	222	142	342
35 to 44 years	30,139	26,035	86.4	25,199	836	3.2	4,104	3,043	218	271	572
35 to 39 years	16,151	13,883	86.6	13,497	485	5.8	2,168	1,629	144	126	276
40 to 44 years	13,988	12,053	86.2	11,702	351	2.9	1,936	1,411	74	145	297
45 to 54 years	20,903	16,953	81.1	16,412	540	3.2	3,951	2,587	74	412	679
45 to 49 years	11,301	9,512	84.2	9,210	301	3.2	1,789	1,162	57	207	366
50 to 54 years	9,602	7,441	77.5	7,202	239	4.0	2,181	1,450	18	204	512
55 to 64 years	18,692	10,543	55.8	10,271	272	2.8	8,349	4,080	24	555	3,691
55 to 59 years	9,359	6,309	67.4	6,151	158	2.5	3,050	1,716	13	274	1,047
60 to 64 years	9,533	4,234	44.4	4,119	114	2.7	5,300	2,364	12	281	2,644
65 years and over	25,906	3,125	12.1	3,049	77	2.4	22,783	8,295	10	943	13,534
65 to 69 years	8,612	1,895	21.5	1,831	85	3.4	6,917	2,688	2	216	4,009
70 to 74 years	6,959	821	11.8	809	12	1.5	6,138	2,254	1	167	3,695
75 years and over	10,137	409	4.0	409	-	-	9,728	3,353	8	537	5,831
Men											
16 years and over	76,089	58,282	76.6	55,847	2,635	4.5	17,786	444	3,642	1,407	12,293
16 to 19 years	5,926	3,362	56.7	2,948	414	12.3	2,564	12	2,396	19	136
16 to 17 years	2,944	1,362	46.3	1,154	208	15.3	1,582	2	1,525	1	54
18 to 19 years	2,982	2,000	67.1	1,794	208	10.3	982	10	873	18	82
20 to 24 years	7,385	6,230	84.4	5,771	459	7.4	1,154	10	918	47	180
25 to 54 years	43,035	40,777	94.8	39,233	1,544	3.8	2,257	139	317	610	1,191
25 to 34 years	17,887	17,083	95.5	16,301	782	4.8	804	51	236	156	381
25 to 29 years	8,639	8,368	94.9	7,960	428	5.1	451	14	189	84	204
30 to 34 years	9,046	8,695	96.1	8,341	354	4.1	353	37	87	93	157
35 to 44 years	14,906	14,291	95.9	13,845	445	3.1	617	51	66	191	309
35 to 39 years	6,017	7,710	98.2	7,441	268	3.5	307	28	45	95	140
40 to 44 years	6,891	6,581	95.5	6,404	177	2.7	310	24	21	96	170
45 to 54 years	10,240	9,404	91.6	9,067	316	3.4	836	37	15	263	520
45 to 49 years	5,552	5,196	93.6	5,014	182	3.5	356	18	12	128	200
50 to 54 years	4,667	4,208	89.8	4,073	135	3.2	479	19	4	137	320
55 to 64 years	8,959	8,068	67.7	8,068	169	2.8	2,890	77	8	373	2,433
55 to 59 years	4,491	3,813	80.4	3,508	105	2.9	879	28	6	169	655
60 to 64 years	4,467	2,455	55.0	2,391	64	2.8	2,012	49	2	183	1,778
65 years and over	10,765	1,845	17.1	1,796	49	2.7	8,920	208	2	359	8,354
65 to 69 years	4,022	1,094	27.2	1,055	40	3.6	2,926	70	1	114	2,743
70 to 74 years	3,013	502	18.7	492	10	2.0	2,511	59	1	78	2,378
75 years and over	3,730	249	8.7	249	-	-	3,481	83		166	3,233
Women											
16 years and over	62,535	47,227	57.2	45,171	2,056	4.4	35,308	22,999	3,503	1,102	7,704
16 to 19 years	5,823	3,158	54.2	2,793	363	11.5	2,667	324	2,191	12	140
16 to 17 years	2,611	1,308	46.5	1,145	183	12.5	1,503	60	1,389	5	50
18 to 19 years	3,012	1,848	61.4	1,648	200	10.8	1,164	265	802	6	90
20 to 24 years	7,713	5,714	74.1	5,332	382	6.7	1,999	1,123	714	15	146
25 to 54 years	43,922	32,802	74.2	31,421	1,180	3.6	11,320	9,459	572	308	979
25 to 34 years	18,027	13,309	73.8	12,743	566	4.3	4,718	3,919	362	79	359
25 to 29 years	8,966	6,702	74.8	6,415	287	4.3	2,284	1,653	207	30	174
30 to 34 years	9,061	6,808	72.9	6,328	279	4.2	2,455	2,066	155	49	185
35 to 44 years	15,231	11,745	77.1	11,353	391	3.3	3,487	2,991	152	81	283
35 to 39 years	8,134	6,273	77.1	6,056	217	3.5	1,861	1,595	99	31	136
40 to 44 years	7,097	5,472	77.1	5,298	174	3.2	1,626	1,396	53	49	127
45 to 54 years	10,664	7,549	70.8	7,325	224	3.0	3,115	2,550	58	149	358
45 to 49 years	5,749	4,318	75.1	4,198	119	2.8	1,433	1,141	45	81	166
50 to 54 years	4,915	3,233	65.8	3,129	104	3.2	1,682	1,408	14	67	192
55 to 64 years	9,934	4,475	45.0	4,372	103	2.3	5,459	4,003	17	182	1,257
55 to 59 years	4,887	2,696	55.4	2,844	53	2.0	2,171	1,688	7	85	392
60 to 64 years	5,088	1,779	35.1	1,728	50	2.8	3,268	2,315	10	97	666
65 years and over	15,143	1,260	8.5	1,253	27	2.1	13,863	6,069	9	584	5,181
65 to 69 years	4,790	601	16.7	776	25	3.1	3,989	2,816	1	104	1,266
70 to 74 years	3,946	319	8.1	317	2	.6	3,627	2,201		109	1,317
75 years and over	6,407	160	2.5	160	-	-	6,247	3,270	6	371	2,598

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	November 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	20,811	13,350	64.1	11,923	1,427	10.7	7,462	2,673	1,543	700	2,545
16 to 19 years	2,180	849	38.9	597	252	29.7	1,331	79	1,156	5	91
16 to 17 years	1,120	338	30.1	219	119	35.1	782	8	747		27
18 to 19 years	1,061	511	48.2	378	134	26.1	549	71	409	6	64
20 to 24 years	2,507	1,825	72.8	1,540	285	15.6	682	284	229	25	144
25 to 54 years	11,588	9,304	80.3	8,477	825	8.9	2,285	1,202	154	280	650
25 to 34 years	5,262	4,271	81.2	3,766	505	11.8	992	572	116	55	249
25 to 29 years	2,673	2,143	80.2	1,862	282	13.2	530	304	77	23	125
30 to 34 years	2,590	2,127	82.1	1,904	223	10.5	463	268	38	32	124
35 to 44 years	3,778	3,121	82.6	2,923	198	6.4	656	332	30	88	207
35 to 39 years	2,149	1,781	82.9	1,668	114	6.4	368	187	17	51	114
40 to 44 years	1,629	1,340	82.3	1,255	85	6.3	288	145	13	37	93
45 to 54 years	2,548	1,911	75.0	1,789	123	6.4	637	298	8	137	194
45 to 49 years	1,356	1,044	77.0	973	72	6.9	312	159	6	57	89
50 to 54 years	1,192	867	72.7	816	51	5.9	325	138	3	60	104
55 to 64 years	2,114	1,067	51.4	1,040	46	4.3	1,027	436	2	154	435
55 to 59 years	1,101	675	61.4	647	29	4.3	425	198	2	89	136
60 to 64 years	1,013	411	40.6	394	18	4.3	602	238		64	300
65 years and over	2,422	286	11.8	268	18	6.4	2,136	672	2	236	1,225
65 to 69 years	888	163	18.4	153	10	6.1	726	242	2	64	418
70 years and over	1,534	124	8.1	115	9	7.3	1,410	430		172	808
Men											
16 years and over	9,344	6,599	70.6	5,878	721	10.9	2,746	113	705	380	1,547
16 to 19 years	1,076	469	43.6	321	148	31.5	608	7	548	5	47
16 to 17 years	565	199	35.3	125	74	37.1	365	1	353		11
18 to 19 years	512	270	52.7	196	74	27.4	242	6	195	6	36
20 to 24 years	1,141	926	81.1	791	135	14.6	215	7	99	19	90
25 to 54 years	5,196	4,534	87.3	4,141	390	8.6	663	60	56	167	382
25 to 34 years	2,380	2,131	89.5	1,905	226	10.6	250	31	46	34	139
25 to 29 years	1,209	1,078	89.2	962	116	10.7	131	17	29	17	68
30 to 34 years	1,172	1,053	89.9	943	110	10.5	119	14	17	17	71
35 to 44 years	1,684	1,468	87.2	1,371	96	6.6	215	16	6	64	130
35 to 39 years	958	841	87.8	788	54	6.4	117	11	6	32	68
40 to 44 years	725	627	86.5	583	44	7.0	98	4		32	62
45 to 54 years	1,132	934	82.5	866	68	7.2	198	13	4	69	113
45 to 49 years	603	510	84.6	479	32	6.2	93	6	2	32	53
50 to 54 years	529	424	80.2	388	36	8.5	105	6	3	37	59
55 to 64 years	953	548	57.5	509	40	7.2	405	14		99	291
55 to 59 years	498	335	67.2	310	24	7.3	163	7		58	98
60 to 64 years	455	214	46.9	198	15	7.1	241	7		40	194
65 years and over	978	123	12.6	115	8	6.7	855	25	2	90	737
65 to 69 years	388	69	17.7	66	3	(¹)	320	10	2	26	282
70 years and over	590	55	9.2	49	6	(¹)	535	15		64	456
Women											
16 years and over	11,467	6,751	58.9	6,045	706	10.5	4,716	2,561	837	320	998
16 to 19 years	1,104	380	34.4	276	104	27.5	724	72	608		44
16 to 17 years	555	139	24.9	94	45	32.3	417	7	394		16
18 to 19 years	549	242	44.1	182	60	24.7	307	65	214		28
20 to 24 years	1,366	899	65.8	749	150	16.7	467	277	130	6	54
25 to 54 years	6,392	4,770	74.6	4,336	435	9.1	1,622	1,142	98	113	268
25 to 34 years	2,882	2,140	74.2	1,861	279	13.0	742	541	70	21	110
25 to 29 years	1,464	1,065	72.8	900	166	15.5	399	287	48	6	57
30 to 34 years	1,418	1,074	75.8	961	113	10.5	344	254	21	15	53
35 to 44 years	2,094	1,653	78.9	1,552	101	6.1	441	316	24	24	77
35 to 39 years	1,191	940	78.9	880	60	6.3	251	176	11	19	46
40 to 44 years	904	713	78.9	672	41	5.8	190	141	13	5	31
45 to 54 years	1,416	977	69.0	922	55	5.6	439	285	4	68	81
45 to 49 years	753	534	70.9	494	40	7.5	219	153	4	25	36
50 to 54 years	663	443	66.8	428	15	3.4	220	132		43	45
55 to 64 years	1,161	538	46.4	532	7	1.3	622	422	2	55	144
55 to 59 years	602	341	56.6	336	4	1.3	262	191	2	31	38
60 to 64 years	558	198	35.4	195	2	1.2	361	231		24	106
65 years and over	1,444	163	11.3	153	10	6.1	1,281	647		146	488
65 to 69 years	500	94	18.8	87	7	7.2	406	232		38	136
70 years and over	944	69	7.3	66	3	(¹)	875	415		108	352

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	November 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	26,641	17,129	64.3	15,496	198	15,298	1,634	9.5	9,512
16 to 19 years	2,684	1,025	38.2	751	3	749	273	26.7	1,659
16 to 17 years	1,383	408	29.5	280	-	280	128	31.4	975
18 to 19 years	1,301	617	47.4	471	3	469	145	23.5	684
20 to 24 years	3,170	2,252	71.1	1,919	10	1,909	333	14.8	917
25 to 54 years	15,206	12,123	79.7	11,174	145	11,028	947	7.8	3,084
25 to 34 years	6,785	5,418	79.8	4,868	65	4,803	550	10.1	1,368
25 to 29 years	3,421	2,730	79.8	2,422	32	2,390	308	11.3	691
30 to 34 years	3,365	1,423	42.3	2,446	33	2,413	242	17.0	677
35 to 44 years	5,040	4,145	82.2	3,901	34	3,867	244	5.9	895
35 to 39 years	2,849	2,338	82.1	2,196	17	2,180	141	6.0	511
40 to 44 years	2,191	1,807	82.5	1,705	17	1,688	103	5.7	384
45 to 54 years	3,381	2,560	75.7	2,407	48	2,359	153	6.0	821
45 to 49 years	1,809	1,411	78.0	1,330	17	1,314	81	5.7	398
50 to 54 years	1,572	1,149	73.1	1,077	31	1,046	72	6.3	424
55 to 64 years	2,693	1,382	51.3	1,321	28	1,293	61	4.4	1,311
55 to 59 years	1,408	856	60.8	817	14	804	39	4.6	552
60 to 64 years	1,284	525	40.9	504	14	489	21	4.1	759
65 years and over	2,889	348	12.0	328	11	318	20	5.8	2,540
65 to 69 years	1,063	213	20.0	203	1	202	10	4.7	851
70 to 74 years	738	90	12.2	82	10	72	9	10.0	648
75 years and over	1,087	46	4.2	44	-	44	1	(¹)	1,041
Men									
16 years and over	12,105	8,624	71.2	7,795	169	7,626	829	9.6	3,481
16 to 19 years	1,324	548	41.4	394	2	392	155	28.3	775
16 to 17 years	686	220	32.1	145	-	145	76	34.4	465
18 to 19 years	638	328	51.4	249	2	247	79	24.1	310
20 to 24 years	1,475	1,179	79.9	1,020	9	1,011	160	13.5	296
25 to 54 years	6,918	6,043	87.4	5,590	128	5,461	452	7.5	876
25 to 34 years	3,090	2,743	88.8	2,492	56	2,436	251	9.1	347
25 to 29 years	1,576	1,392	88.4	1,265	28	1,237	127	9.1	184
30 to 34 years	1,515	1,351	89.2	1,227	28	1,199	124	9.2	164
35 to 44 years	2,301	2,017	87.7	1,894	28	1,866	123	6.1	284
35 to 39 years	1,303	1,143	87.7	1,077	14	1,064	65	5.7	160
40 to 44 years	998	875	87.6	817	14	803	58	6.8	124
45 to 54 years	1,527	1,282	84.0	1,204	44	1,159	79	6.1	244
45 to 49 years	818	710	86.8	671	15	656	39	5.5	108
50 to 54 years	709	572	80.7	533	29	504	39	6.8	137
55 to 64 years	1,206	709	58.8	656	19	637	53	7.4	497
55 to 59 years	640	440	68.9	407	9	398	34	7.6	199
60 to 64 years	567	269	47.4	249	10	239	19	7.1	298
65 years and over	1,181	145	12.2	135	11	124	9	6.5	1,037
65 to 69 years	457	81	17.6	78	1	77	3	3.5	376
70 to 74 years	314	36	11.5	31	10	21	6	(¹)	278
75 years and over	410	28	6.8	26	-	26	1	(¹)	382
Women									
16 years and over	14,536	8,505	58.5	7,701	29	7,672	805	9.5	6,031
16 to 19 years	1,360	476	35.0	358	1	357	118	24.8	884
16 to 17 years	697	188	26.9	136	-	136	52	27.8	509
18 to 19 years	663	288	43.5	222	1	222	66	22.9	375
20 to 24 years	1,695	1,073	63.3	900	2	898	174	16.2	621
25 to 54 years	8,288	6,080	73.4	5,584	17	5,567	495	8.1	2,208
25 to 34 years	3,695	2,675	72.4	2,376	8	2,367	299	11.2	1,020
25 to 29 years	1,845	1,338	72.5	1,157	4	1,153	181	13.5	507
30 to 34 years	1,850	1,337	72.3	1,219	5	1,214	118	8.8	513
35 to 44 years	2,739	2,127	77.7	2,006	6	2,000	121	5.7	611
35 to 39 years	1,546	1,195	77.3	1,119	3	1,116	76	6.4	351
40 to 44 years	1,193	932	78.2	888	3	885	45	4.8	260
45 to 54 years	1,854	1,278	68.9	1,203	3	1,200	75	5.8	577
45 to 49 years	991	701	70.7	659	2	658	42	6.0	290
50 to 54 years	863	577	66.8	544	2	542	33	5.7	287
55 to 64 years	1,486	673	45.3	665	9	655	8	1.2	813
55 to 59 years	769	416	54.1	411	5	405	5	1.3	353
60 to 64 years	717	257	35.8	254	4	250	2	.9	461
65 years and over	1,707	204	11.9	193	1	193	10	5.0	1,504
65 to 69 years	606	132	21.7	125	7	125	7	5.4	475
70 to 74 years	424	54	12.7	51	1	51	3	(¹)	370
75 years and over	677	18	2.7	18	-	18	1	(¹)	659

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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
TOTAL								
Civilian noninstitutional population	183,470	185,244	79,885	80,924	88,923	89,887	14,663	14,433
Civilian labor force	120,611	122,639	62,288	62,996	50,690	52,100	7,633	7,542
Percent of population	65.7	66.2	78.0	77.8	57.0	58.0	52.1	52.3
Employed	113,809	116,314	59,289	60,101	48,166	49,721	6,354	6,492
Agriculture	3,020	3,111	2,234	2,268	624	642	162	200
Nonagricultural industries	110,789	113,203	57,056	57,833	47,542	49,078	6,192	6,292
Unemployed	6,802	6,325	2,999	2,895	2,525	2,379	1,279	1,050
Unemployment rate	5.6	5.2	4.8	4.6	5.0	4.6	16.8	13.9
Not in labor force	62,859	62,605	17,597	17,928	38,233	37,788	7,029	6,890
White								
Civilian noninstitutional population	157,449	158,603	69,424	70,143	76,092	76,711	11,933	11,749
Civilian labor force	103,729	105,509	54,349	54,921	42,850	44,071	6,531	6,518
Percent of population	65.9	66.5	78.3	78.3	56.3	57.4	54.7	55.5
Employed	98,698	100,818	52,050	52,700	41,058	42,378	5,590	5,741
Agriculture	2,815	2,913	2,059	2,101	595	614	161	198
Nonagricultural industries	95,883	97,906	49,991	50,599	40,463	41,764	5,429	5,543
Unemployed	5,031	4,691	2,298	2,221	1,792	1,693	941	777
Unemployment rate	4.9	4.4	4.2	4.0	4.2	3.8	14.4	11.9
Not in labor force	53,720	53,094	15,075	15,222	33,242	32,641	5,403	5,231
Black								
Civilian noninstitutional population	20,482	20,811	8,116	8,268	10,192	10,363	2,174	2,180
Civilian labor force	13,178	13,350	6,053	6,130	6,252	6,370	872	849
Percent of population	64.3	64.1	74.6	74.2	61.3	61.5	40.1	38.9
Employed	11,632	11,923	5,454	5,557	5,594	5,769	585	597
Agriculture	152	158	131	135	21	22	1	2
Nonagricultural industries	11,480	11,765	5,324	5,421	5,572	5,748	584	595
Unemployed	1,545	1,427	599	574	659	601	287	252
Unemployment rate	11.7	10.7	9.9	9.4	10.5	9.4	32.9	29.7
Not in labor force	7,304	7,462	2,062	2,138	3,939	3,993	1,302	1,331

**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	November 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	15,505	7,554	48.7	6,768	1,161	5,606	786	69	717	10.4
16 to 19 years	10,704	4,718	44.1	4,089	345	3,744	629	40	590	13.3
20 to 24 years	4,801	2,835	59.1	2,679	817	1,862	157	30	127	5.5
High school	7,620	3,205	42.1	2,699	159	2,540	506	30	477	15.8
College	7,884	4,348	55.2	4,069	1,002	3,067	280	40	240	6.4
Full-time students	6,753	3,327	49.3	3,107	369	2,738	220	27	193	6.6
Part-time students	1,132	1,022	90.3	962	633	329	60	13	47	5.8
Men, 16 to 24 years	7,844	3,722	47.4	3,302	570	2,732	420	45	375	11.3
16 to 19 years	5,431	2,361	43.5	2,029	201	1,827	332	28	305	14.1
20 to 24 years	2,413	1,361	56.4	1,273	368	905	88	18	70	6.4
High school	4,055	1,702	42.0	1,419	111	1,307	284	20	264	16.7
College	3,789	2,019	53.3	1,883	458	1,425	136	25	111	6.7
Full-time students	3,327	1,595	47.9	1,484	210	1,274	111	18	93	6.9
Part-time students	462	424	91.8	399	248	151	25	8	18	6.0
Women, 16 to 24 years	7,660	3,832	50.0	3,466	592	2,874	366	24	342	9.6
16 to 19 years	5,273	2,357	44.7	2,060	143	1,917	297	12	285	12.6
20 to 24 years	2,387	1,475	61.8	1,406	448	957	69	12	57	4.7
High school	3,565	1,503	42.2	1,281	48	1,233	222	9	213	14.8
College	4,095	2,329	56.9	2,185	544	1,642	144	15	129	6.2
Full-time students	3,426	1,732	50.6	1,622	159	1,463	109	9	100	6.3
Part-time students	670	597	89.2	563	385	178	34	5	29	5.7
White										
Total, 16 to 24 years	12,709	6,546	51.5	5,985	1,034	4,951	561	56	505	8.6
16 to 19 years	8,640	4,084	47.3	3,622	301	3,321	463	33	430	11.3
20 to 24 years	4,069	2,462	60.5	2,364	734	1,630	98	24	75	4.0
Men	6,467	3,200	49.5	2,904	509	2,395	296	39	257	9.2
Women	6,242	3,346	53.6	3,081	525	2,556	265	17	248	7.9
High school	6,020	2,736	45.4	2,373	134	2,239	363	26	337	13.3
College	6,690	3,611	57.0	3,612	900	2,712	199	30	168	5.2
Full-time students	5,697	2,902	50.9	2,740	321	2,420	161	19	142	5.6
Part-time students	992	909	91.6	872	580	292	37	11	26	4.1
Black										
Total, 16 to 24 years	2,107	757	35.9	554	102	451	203	10	193	26.8
16 to 19 years	1,640	505	30.8	352	32	320	153	7	146	30.4
20 to 24 years	467	252	53.9	202	70	132	50	3	47	19.8
Men	1,017	383	37.6	267	44	223	116	7	109	30.3
Women	1,090	374	34.4	287	59	229	87	3	84	23.3
High school	1,305	388	29.7	253	15	238	135	4	131	34.8
College	802	369	46.0	301	87	213	68	6	62	18.5
Full-time students	703	291	41.5	245	44	201	47	5	42	16.0
Part-time students	99	78	78.2	56	44	12	22	2	20	27.7
Hispanic origin										
Total, 16 to 24 years	1,101	458	41.6	389	124	265	69	8	61	15.1
16 to 19 years	796	258	32.4	188	22	167	70	9	61	27.0
20 to 24 years	305	199	65.4	200	102	98	0	0	0	-
Men	546	238	43.7	196	69	127	42	6	36	17.6
Women	555	219	39.5	192	55	138	27	2	25	12.3
High school	619	171	27.6	118	16	102	52	8	44	30.7
College	482	287	59.5	270	108	163	17	1	17	5.8
Full-time students	337	160	47.4	147	24	123	13	1	13	8.0
Part-time students	145	127	87.8	123	84	39	4	0	4	3.0

See footnotes at end of table.

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	November 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	17,195	14,185	82.5	12,747	11,090	1,657	1,438	1,282	156	10.1
16 to 19 years	3,728	2,824	75.7	2,403	1,852	551	421	383	58	14.9
20 to 24 years	13,467	11,361	84.4	10,344	9,238	1,106	1,017	919	99	9.0
Less than 4 years of high school	4,102	2,714	66.2	2,161	1,801	360	553	496	57	20.4
4 years of high school	8,930	7,561	84.7	6,885	5,911	973	676	593	83	8.9
1 to 3 years of college	2,708	2,507	92.6	2,353	2,099	254	154	140	14	6.1
4 years of college or more	1,455	1,403	96.5	1,349	1,279	70	54	52	2	3.9
Men, 16 to 24 years	8,265	7,598	91.9	6,830	8,258	574	768	718	49	10.1
16 to 19 years	1,819	1,549	85.2	1,312	1,088	226	237	211	26	15.3
20 to 24 years	8,446	6,049	93.8	5,518	5,170	347	531	508	24	8.8
Less than 4 years of high school	2,203	1,855	84.2	1,516	1,342	173	339	318	21	18.3
4 years of high school	4,271	4,012	93.9	3,874	3,368	306	338	311	27	8.4
1 to 3 years of college	1,180	1,142	96.7	1,072	992	80	70	68	1	8.1
4 years of college or more	611	590	96.5	568	553	15	21	22		3.8
Women, 16 to 24 years	8,930	6,588	73.8	5,917	4,834	1,084	870	583	107	10.2
16 to 19 years	1,910	1,275	66.8	1,091	766	325	184	152	32	14.4
20 to 24 years	7,020	5,312	75.7	4,826	4,068	758	486	411	75	9.2
Less than 4 years of high school	1,899	860	45.3	845	458	187	215	178	38	24.9
4 years of high school	4,859	3,549	73.2	3,210	2,543	667	339	283	56	9.5
1 to 3 years of college	1,528	1,385	90.6	1,281	1,108	173	85	72	13	6.2
4 years of college or more	843	813	96.4	781	726	55	33	30	2	4.0
White										
Total, 16 to 24 years	14,137	11,916	84.3	10,859	9,480	1,379	1,057	942	115	8.9
16 to 19 years	3,109	2,434	78.3	2,119	1,642	477	314	266	48	12.9
20 to 24 years	11,029	9,482	86.0	8,740	7,838	902	742	676	67	7.8
Men	6,643	6,392	93.4	5,814	5,347	468	577	545	32	9.0
Women	7,294	5,524	75.7	5,045	4,133	911	479	396	83	8.7
Less than 4 years of high school	3,315	2,282	68.9	1,852	1,544	308	431	380	51	18.9
4 years of high school	7,334	6,324	86.2	5,846	5,038	808	478	424	54	7.8
1 to 3 years of college	2,200	2,080	94.5	1,954	1,754	201	105	97	8	5.1
4 years of college or more	1,288	1,250	97.0	1,207	1,145	62	43	40	2	3.4
Black										
Total, 16 to 24 years	2,580	1,917	74.3	1,583	1,328	255	334	304	30	17.4
16 to 19 years	541	344	63.6	245	176	68	99	91	8	28.7
20 to 24 years	2,040	1,573	77.1	1,338	1,150	188	235	213	22	14.9
Men	1,201	1,012	84.3	845	751	95	167	158	10	18.5
Women	1,380	905	65.6	737	577	160	167	147	20	18.5
Less than 4 years of high school	664	358	53.7	245	203	43	111	104	6	31.1
4 years of high school	1,362	1,082	78.3	908	753	155	173	157	17	18.0
1 to 3 years of college	438	385	88.3	340	267	73	45	38	7	11.8
4 years of college or more	99	94	95.2	89	84	5	5	5		5.3
Hispanic origin										
Total, 16 to 24 years	2,175	1,641	75.4	1,427	1,229	198	214	187	27	13.1
16 to 19 years	588	367	62.4	317	234	83	70	54	17	18.2
20 to 24 years	1,609	1,254	77.9	1,110	995	115	144	134	10	11.5
Men	1,157	1,062	91.8	950	863	87	112	108	4	10.6
Women	1,018	579	56.9	477	366	111	102	78	23	17.6
Less than 4 years of high school	1,111	730	65.7	627	560	67	103	84	19	14.1
4 years of high school	611	674	110.3	598	480	118	79	73	6	11.7
1 to 3 years of college	204	191	93.7	181	148	33	30	28	2	15.8
4 years of college or more	48	45	(?)	43	42	1	2	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
NOT 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							
	Nov. 1987	Nov. 1988	Total		Employed		Unemployed			
			Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Number		Percent of labor force	
							Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
VIETNAM-ERA VETERANS										
Total, 30 years and over	7,861	7,907	7,257	7,325	6,918	7,051	339	274	4.7	3.7
30 to 44 years	6,112	5,769	5,796	5,498	5,507	5,295	289	203	5.0	3.7
30 to 34 years	832	613	790	570	716	534	74	36	9.4	6.3
35 to 39 years	2,439	2,001	2,319	1,923	2,227	1,851	92	72	4.0	3.7
40 to 44 years	2,841	3,155	2,687	3,005	2,564	2,910	123	95	4.6	3.2
45 years and over	1,749	2,138	1,461	1,827	1,411	1,756	50	71	3.4	3.9
NONVETERANS										
Total, 30 to 44 years	19,819	20,789	18,776	19,706	18,031	18,917	745	789	4.0	4.0
30 to 34 years	8,949	9,175	8,513	8,738	8,134	8,338	379	400	4.5	4.6
35 to 39 years	6,420	7,049	6,071	6,678	5,861	6,428	210	250	3.5	3.7
40 to 44 years	4,450	4,565	4,192	4,290	4,036	4,151	156	139	3.7	3.2

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	November 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	95,430	93,764	1,666	20,883	17,594	3,289	4,927	1,398
16 to 19 years	2,196	2,068	128	4,295	3,955	340	403	647
16 to 17 years	244	229	15	2,335	2,244	91	82	417
18 to 19 years	1,954	1,840	114	1,960	1,711	249	321	231
20 years and over	93,234	91,696	1,538	16,587	13,638	2,949	4,524	750
20 to 24 years	10,055	9,763	292	2,968	2,448	520	948	226
25 years and over	83,178	81,932	1,246	13,621	11,191	2,430	3,577	524
25 to 54 years	72,014	70,968	1,046	9,817	7,770	2,047	3,268	404
55 years and over	11,164	10,964	200	3,804	3,421	383	309	120
Men, 16 years and over	56,731	55,695	1,036	6,711	5,416	1,295	2,910	554
16 to 19 years	1,288	1,202	86	2,054	1,897	157	239	330
20 years and over	55,443	54,493	950	4,657	3,519	1,138	2,671	224
20 to 24 years	5,539	5,364	175	1,252	1,024	228	525	94
25 years and over	49,904	49,129	775	3,406	2,495	911	2,146	131
25 to 54 years	42,900	42,249	651	1,924	1,164	760	1,934	62
55 years and over	7,004	6,880	124	1,482	1,331	151	212	69
Women, 16 years and over	38,700	38,070	630	14,172	12,178	1,994	2,017	843
16 to 19 years	910	867	43	2,243	2,059	184	164	317
20 years and over	37,791	37,203	588	11,930	10,119	1,811	1,853	526
20 to 24 years	4,516	4,399	117	1,716	1,424	292	423	132
25 years and over	33,274	32,803	471	10,214	8,695	1,519	1,430	393
25 to 54 years	29,115	28,720	395	7,892	6,605	1,287	1,333	342
55 years and over	4,160	4,084	76	2,322	2,090	232	97	51
White								
Men, 16 years and over	49,839	48,973	866	5,807	4,769	1,038	2,237	398
16 to 19 years	1,143	1,068	75	1,805	1,666	139	177	237
20 years and over	48,696	47,905	791	4,003	3,103	900	2,060	161
20 to 24 years	4,713	4,562	151	1,058	878	180	407	52
25 years and over	43,984	43,343	641	2,945	2,225	720	1,653	109
25 to 54 years	37,660	37,131	529	1,575	989	586	1,494	50
55 years and over	6,324	6,212	112	1,370	1,236	134	159	59
Women, 16 years and over	32,533	32,037	496	12,639	11,039	1,600	1,396	660
16 to 19 years	799	764	35	1,994	1,825	169	121	241
20 years and over	31,734	31,273	461	10,645	9,214	1,431	1,274	418
20 to 24 years	3,859	3,771	88	1,473	1,255	218	292	89
25 years and over	27,874	27,502	372	9,172	7,960	1,212	982	328
25 to 54 years	24,303	23,989	314	7,118	6,091	1,027	898	282
55 years and over	3,570	3,513	57	2,053	1,868	185	84	46
Black								
Men, 16 years and over	5,211	5,063	148	667	440	227	581	141
16 to 19 years	124	114	10	198	183	15	59	89
20 years and over	5,087	4,949	138	469	257	212	521	52
20 to 24 years	671	647	24	120	77	43	104	31
25 years and over	4,415	4,302	113	350	181	169	417	22
25 to 54 years	3,887	3,784	103	256	100	156	378	13
55 years and over	528	518	10	95	81	14	39	9
Women, 16 years and over	4,848	4,741	107	1,197	862	335	546	160
16 to 19 years	86	84	2	190	175	15	38	66
20 years and over	4,762	4,657	105	1,008	688	320	507	94
20 to 24 years	549	521	28	200	131	69	112	38
25 years and over	4,212	4,135	77	807	556	251	396	56
25 to 54 years	3,756	3,694	62	579	367	212	383	52
55 years and over	456	441	15	228	189	39	13	4

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	November 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, 18 years and over ¹	98,638	66.6	93,481	5,157	5.2	49,569	21,916	8,440	2,349	16,864
Husbands	39,706	78.1	38,494	1,212	3.1	11,120	239	242	949	9,689
With employed wife	26,181	91.9	25,490	691	2.6	2,322	88	125	363	1,748
With unemployed wife	945	90.2	808	137	14.5	103	2	4	24	73
With wife not in labor force	12,581	59.1	12,196	385	3.1	8,695	149	114	562	7,870
Wives	29,550	58.1	28,503	1,047	3.5	21,276	17,139	414	397	3,327
With employed husband	26,298	68.3	25,490	808	3.1	12,196	10,746	328	137	985
With unemployed husband	828	66.3	691	137	16.5	385	355	7	1	21
With husband not in labor force	2,424	21.8	2,322	103	4.2	8,695	6,037	79	259	2,320
Relatives in married-couple families	12,921	62.5	11,832	1,289	10.0	7,753	670	5,524	323	1,237
16 to 19 years	4,850	51.9	4,225	625	12.9	4,495	94	4,192	25	184
20 to 24 years	4,469	74.5	4,109	360	6.1	1,531	115	1,205	35	178
25 years and over	3,602	87.6	3,298	304	8.4	1,727	461	127	263	877
Women who maintain families	6,887	62.7	6,365	522	7.6	4,092	2,789	215	207	882
Relatives in families maintained by women	5,588	60.2	4,820	768	13.7	3,893	711	1,678	307	998
16 to 19 years	1,385	48.4	1,113	272	19.7	1,602	79	1,385	8	130
20 to 24 years	1,587	76.8	1,341	226	14.5	473	106	235	34	97
25 years and over	2,636	62.0	2,366	270	10.2	1,618	526	58	265	771
Men who maintain families	2,186	77.3	2,055	131	6.0	643	43	51	89	461
Relatives in families maintained by men	1,798	64.4	1,611	187	10.4	992	325	316	77	275
16 to 19 years	341	58.9	289	52	15.3	258	11	225	-	22
20 to 24 years	476	78.9	438	38	7.9	127	48	58	2	21
25 years and over	981	61.8	884	97	9.9	607	266	35	75	232

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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total, 16 years and over	3,669	3,464	5.5	5.2	3,133	2,860	5.8	5.1
Married, spouse present	1,424	1,329	3.4	3.2	1,227	1,135	4.1	3.7
Widowed, divorced, or separated	498	482	7.6	7.0	691	663	6.4	6.0
Single (never married)	1,747	1,654	10.1	9.1	1,215	1,062	8.8	7.6
White, 16 years and over	2,797	2,635	4.9	4.5	2,234	2,056	4.8	4.4
Married, spouse present	1,169	1,072	3.1	2.9	1,020	938	3.9	3.5
Widowed, divorced, or separated	382	358	7.0	6.3	488	457	5.7	5.2
Single (never married)	1,247	1,205	8.6	8.0	726	660	6.6	5.8
Black, 16 years and over	746	721	11.5	10.9	799	706	12.0	10.5
Married, spouse present	203	215	6.2	6.8	158	150	6.5	6.2
Widowed, divorced, or separated	103	102	11.1	11.0	193	193	10.0	9.5
Single (never married)	440	404	19.2	16.2	448	363	19.4	15.7
Total, 25 years and over	2,333	2,277	4.3	4.1	1,950	1,824	4.5	4.0
Married, spouse present	1,301	1,223	3.2	3.0	992	935	3.6	3.3
Widowed, divorced, or separated	467	458	7.4	6.9	614	597	6.0	5.6
Single (never married)	566	596	7.0	6.8	344	293	5.9	4.6
White, 25 years and over	1,818	1,762	3.8	3.6	1,436	1,311	3.9	3.4
Married, spouse present	1,068	986	3.0	2.7	828	760	3.4	3.0
Widowed, divorced, or separated	355	343	6.7	6.2	432	404	5.3	4.8
Single (never married)	396	433	6.0	6.1	176	146	3.9	3.0
Black, 25 years and over	437	439	8.5	8.4	453	452	8.5	8.3
Married, spouse present	182	203	5.8	6.7	126	129	5.6	5.8
Widowed, divorced, or separated	102	95	11.2	10.6	172	182	9.3	9.3
Single (never married)	153	140	13.7	10.9	155	139	12.9	10.8

**HOUSEHOLD DATA
NOT SEASONALLY ADJUSTED**

A-12. Unemployed persons by occupation and sex

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total, 16 years and over	6,802	6,325	5.6	5.2	5.5	5.2	5.8	5.1
Managerial and professional specialty	584	483	2.0	1.6	2.1	1.5	2.0	1.7
Executive, administrative, and managerial	355	266	2.6	1.8	2.4	1.7	2.9	2.0
Professional specialty	229	217	1.5	1.4	1.7	1.3	1.3	1.5
Technical, sales, and administrative support	1,518	1,421	4.1	3.8	3.2	3.3	4.6	4.1
Technicians and related support	84	90	2.5	2.5	1.8	2.6	3.2	2.4
Sales occupations	633	604	4.5	4.1	3.0	3.2	5.9	5.1
Administrative support, including clerical	801	727	4.1	3.8	4.0	3.9	4.2	3.8
Service occupations	1,236	1,123	7.5	6.8	7.3	6.6	7.7	6.9
Private household	46	58	4.5	5.8	(¹)	(¹)	4.3	5.2
Protective service	97	92	4.8	4.5	4.5	4.2	6.5	6.8
Service, except private household and protective	1,093	973	8.2	7.2	8.3	7.4	8.1	7.0
Precision production, craft, and repair	750	750	5.2	5.2	5.2	5.2	4.8	5.0
Mechanics and repairers	163	198	3.5	4.3	3.5	4.1	3.6	7.9
Construction trades	398	353	7.2	6.4	7.1	6.5	13.0	2.5
Other precision production, craft, and repair	189	199	4.4	4.5	4.5	4.5	3.9	4.7
Operators, fabricators, and laborers	1,627	1,524	8.3	7.8	8.2	7.6	8.6	8.3
Machine operators, assemblers, and inspectors	686	587	7.7	6.6	7.0	5.3	8.8	8.5
Transportation and material moving occupations	293	339	5.7	6.5	5.9	6.8	3.2	3.6
Handlers, equipment cleaners, helpers, and laborers	647	598	11.7	10.9	12.0	11.2	10.3	10.0
Construction laborers	190	208	19.0	22.0	18.8	21.1	(¹)	(¹)
Other handlers, equipment cleaners, helpers, and laborers	458	390	10.1	8.6	10.1	8.6	9.6	8.7
Farming, forestry, and fishing	296	269	8.4	7.5	8.2	7.4	9.1	7.7
No previous work experience	753	710						
16 to 19 years	539	442						
20 to 24 years	124	142						
25 years and over	91	127						

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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total, 16 years and over	6,802	6,325	5.6	5.2	5.5	5.2	5.8	5.1
Nonagricultural private wage and salary workers	5,054	4,875	5.6	5.3	5.6	5.4	5.6	5.3
Mining	51	55	5.8	7.4	5.9	8.0	5.5	4.6
Construction	613	622	9.8	9.9	9.8	10.2	9.2	6.8
Manufacturing	1,144	1,076	5.3	5.0	4.6	4.3	6.6	6.3
Durable goods	599	590	4.7	4.6	4.4	4.1	5.5	5.8
Lumber and wood products	61	55	8.5	7.1	8.2	7.2	10.1	6.7
Furniture and fixtures	28	35	4.6	5.2	5.3	5.3	3.3	5.2
Stone, clay, and glass products	35	21	5.6	3.4	5.1	2.7	7.7	6.2
Primary metal industries	42	28	4.8	3.3	4.4	3.7	8.3	.5
Fabricated metal products	59	77	4.4	5.6	4.4	5.2	4.3	6.7
Machinery, except electrical	97	101	3.7	3.9	3.0	3.2	5.7	6.0
Electrical machinery, equipment, and supplies	89	92	4.2	4.3	3.0	3.2	5.8	6.0
Transportation equipment	129	131	4.9	4.8	4.8	4.2	5.2	7.2
Automobiles	81	72	6.6	5.5	6.1	4.7	8.3	8.2
Other transportation equipment	48	59	3.4	4.2	3.5	3.7	3.0	5.9
Professional and photographic equipment	27	27	3.8	3.9	4.3	3.4	3.2	4.5
Other durable goods industries	32	22	6.0	4.2	6.4	4.1	5.5	4.3
Nondurable goods	545	486	6.2	5.5	5.0	4.7	7.7	6.6
Food and kindred products	150	151	8.2	7.9	7.2	7.0	9.9	9.7
Textile mill products	49	50	6.5	7.0	4.1	5.7	8.8	8.5
Apparel and other textile products	107	91	8.5	8.0	4.4	8.4	9.7	7.8
Paper and allied products	22	28	3.0	3.8	3.1	3.4	2.6	4.9
Printing and publishing	81	72	4.6	4.1	3.6	3.7	5.7	4.5
Chemicals and allied products	60	38	4.8	2.9	4.5	2.7	5.4	3.3
Rubber and miscellaneous plastics products	42	30	5.4	3.5	6.5	2.3	3.2	6.2
Other nondurable goods industries	32	26	8.1	7.5	4.9	8.7	13.0	5.4
Transportation and public utilities	254	249	4.1	3.9	4.1	4.2	4.1	3.0
Transportation	185	203	5.1	5.3	5.0	5.7	5.7	4.0
Communications and other public utilities	70	46	2.6	1.8	2.6	1.6	2.7	2.0
Wholesale and retail trade	1,481	1,351	6.5	5.8	5.9	5.3	7.1	6.4
Wholesale trade	178	166	4.0	3.8	3.8	3.5	4.6	4.5
Retail trade	1,303	1,185	7.0	6.3	6.6	6.0	7.4	6.6
Finance, insurance, and real estate	215	227	2.9	3.2	3.0	3.1	2.9	3.2
Service industries	1,296	1,295	5.2	5.0	5.7	5.1	5.0	4.9
Professional services	427	427	3.1	2.9	2.6	2.3	3.4	3.2
Other service industries	869	868	7.8	7.7	8.0	7.4	7.7	7.9
Agricultural wage and salary workers	217	180	12.7	10.4	12.8	10.5	12.2	9.8
Government, self-employed, and unpaid family workers	778	560	2.8	1.9	2.8	2.0	2.7	1.8
No previous work experience	753	710	-	-	-	-	-	-

**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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
NUMBER OF UNEMPLOYED												
Total unemployed	6,802	6,325	2,999	2,895	2,525	2,379	1,279	1,050	5,031	4,691	1,545	1,427
Job losers	3,171	2,909	1,995	1,882	980	853	196	174	2,363	2,246	721	578
On layoff	825	757	549	451	231	258	45	48	681	619	122	121
Other job losers	2,346	2,152	1,446	1,431	749	595	151	126	1,682	1,627	600	456
Job leavers	950	966	421	383	385	419	144	163	777	754	137	182
Reentrants	1,929	1,740	510	525	1,017	943	402	272	1,378	1,237	476	444
New entrants	752	709	73	105	142	163	537	441	513	453	210	224
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	46.6	46.0	66.5	65.0	38.8	35.9	15.3	16.5	46.9	47.9	46.7	40.5
On layoff	12.1	12.0	18.3	15.6	9.1	10.8	3.5	4.6	13.5	13.2	7.9	8.5
Other job losers	34.5	34.0	48.2	49.4	29.7	25.1	11.8	11.9	33.4	34.7	38.8	32.0
Job leavers	14.0	15.3	14.0	13.2	15.3	17.6	11.3	15.5	15.4	16.1	8.9	12.7
Reentrants	28.4	27.5	17.0	18.1	40.3	39.6	31.4	25.9	27.4	26.4	30.8	31.1
New entrants	11.1	11.2	2.4	3.6	5.6	6.8	42.0	42.0	10.2	9.7	13.6	15.7
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE												
Job losers	2.6	2.4	3.2	3.0	2.0	1.6	2.6	2.3	2.3	2.1	5.5	4.3
Job leavers .....	.8	.8	.7	.6	.8	.8	1.9	2.2	.7	.7	1.0	1.4
Reentrants	1.6	1.4	.8	.8	2.0	1.8	5.3	3.6	1.3	1.2	3.6	3.3
New entrants .....	.6	.6	.1	.2	.3	.3	7.0	5.8	.5	.4	1.6	1.7

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

(Percent distribution)

Reason, sex, and age	November 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	6,325	100.0	48.7	30.2	21.1	10.8	10.3
Job losers	2,909	100.0	42.5	31.1	26.4	12.8	13.6
On layoff	757	100.0	60.0	26.2	13.8	9.0	4.8
Other job losers	2,152	100.0	36.3	32.8	30.9	14.1	16.8
Job leavers	966	100.0	50.6	32.8	16.5	9.5	7.0
Reentrants	1,740	100.0	56.1	28.8	15.1	7.6	7.5
New entrants	709	100.0	53.6	26.3	20.1	12.0	8.1
Men, 20 years and over	2,895	100.0	42.7	29.4	28.0	13.2	14.8
Job losers	1,882	100.0	39.9	29.6	30.5	14.2	16.3
On layoff	451	100.0	56.8	26.8	16.4	10.9	5.5
Other job losers	1,431	100.0	34.6	30.5	35.0	15.3	19.7
Job leavers	383	100.0	45.2	32.0	22.8	11.1	11.7
Reentrants	525	100.0	51.5	27.8	20.7	10.9	9.8
New entrants	105	100.0	38.7	23.4	37.9	14.7	23.3
Women, 20 years and over	2,379	100.0	50.9	31.7	17.5	9.2	8.3
Job losers	853	100.0	43.5	34.7	21.9	11.5	10.4
On layoff	258	100.0	62.8	25.9	11.3	7.3	4.0
Other job losers	595	100.0	35.1	38.5	26.4	13.3	13.1
Job leavers	419	100.0	49.1	36.1	14.9	9.8	5.2
Reentrants	943	100.0	58.0	27.9	14.1	6.5	7.5
New entrants	163	100.0	52.7	26.6	20.7	10.8	10.1
Both sexes, 16 to 19 years	1,050	100.0	60.5	29.0	10.4	7.7	2.7
Job losers	174	100.0	65.2	30.1	4.7	3.7	1.0
On layoff	48	100.0	(¹)	(¹)	(¹)	(¹)	(¹)
Other job losers	128	100.0	61.3	33.1	5.6	5.3	.3
Job leavers	163	100.0	67.4	26.5	8.1	5.2	.9
Reentrants	272	100.0	58.3	33.7	8.1	5.1	3.0
New entrants	441	100.0	57.5	26.6	15.7	11.9	3.7

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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total, 18 years and over	6,802	8,325	100.0	* 100.0	5,287	4,927	100.0	100.0
Less than 5 weeks	3,131	3,080	46.0	48.7	2,185	2,184	41.3	44.3
5 to 14 weeks	2,039	1,909	30.0	30.2	1,645	1,515	31.1	30.7
5 to 10 weeks	1,523	1,439	22.4	22.8	1,227	1,152	23.2	23.4
11 to 14 weeks	516	470	7.6	7.4	417	364	7.9	7.4
15 weeks and over	1,633	1,335	24.0	21.1	1,457	1,228	27.6	24.9
15 to 26 weeks	770	682	11.3	10.8	677	625	12.8	12.7
27 weeks and over	863	653	12.7	10.3	780	603	14.8	12.2
27 to 51 weeks	319	213	4.7	3.4	295	203	5.6	4.1
52 weeks and over	544	440	8.0	7.0	485	400	9.2	8.1
Average (mean) duration, in weeks	14.0	12.5			15.6	14.0		
Median duration, in weeks	5.9	5.3			7.0	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	
								Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
	November 1988										
Total, 16 years and over	6,325	3,080	1,909	682	653	12.5	5.3	46.0	48.7	24.0	21.1
16 to 19 years	1,050	635	305	81	28	7.1	4.1	59.3	60.5	12.0	10.4
20 to 24 years	1,174	639	323	137	75	9.5	4.6	51.3	54.4	17.6	18.1
25 to 34 years	1,898	877	625	191	205	12.1	5.7	44.0	46.2	24.4	20.9
35 to 44 years	1,081	494	329	105	152	15.8	6.0	38.7	45.8	32.8	23.8
45 to 54 years	693	291	197	97	109	17.1	6.8	37.0	41.9	33.0	29.7
55 to 64 years	333	101	106	56	70	20.0	9.2	34.0	30.2	38.0	37.9
65 years and over	96	44	24	14	14	18.5	5.8	47.3	45.6	27.9	29.7
Men, 16 years and over	3,464	1,552	1,033	431	448	14.8	6.1	42.9	44.8	26.8	25.4
16 to 19 years	569	317	184	48	20	8.2	4.5	57.7	55.8	11.5	12.0
20 to 24 years	619	321	186	70	42	9.9	4.8	50.0	51.8	19.0	18.1
25 to 34 years	1,033	445	319	137	132	13.7	6.2	42.1	43.1	24.7	26.0
35 to 44 years	568	236	164	73	96	19.2	7.0	33.8	41.5	40.7	29.6
45 to 54 years	395	134	111	57	93	22.6	9.1	28.9	33.9	42.6	38.0
55 to 64 years	222	69	64	35	54	22.4	9.4	32.7	31.1	38.4	40.2
65 years and over	59	30	6	11	11	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Women, 16 years and over	2,860	1,528	876	251	205	9.7	4.7	49.7	53.4	20.7	16.0
16 to 19 years	481	318	122	33	8	5.9	3.8	61.1	66.1	12.5	8.5
20 to 24 years	555	318	137	67	33	9.1	4.4	52.8	57.3	16.0	18.0
25 to 34 years	865	432	306	54	73	10.1	5.0	46.0	49.9	24.0	14.7
35 to 44 years	512	258	166	32	56	12.1	5.0	44.0	50.4	24.1	17.3
45 to 54 years	298	157	86	40	16	9.7	4.8	47.0	52.5	21.2	18.7
55 to 64 years	111	32	42	21	16	15.4	8.9	36.4	28.5	37.3	33.4
65 years and over	37	13	17	3	3	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
White, 16 years and over	4,691	2,327	1,391	504	470	12.5	5.1	47.1	49.6	22.8	20.8
Men	2,635	1,195	780	327	334	14.9	6.0	44.4	45.3	25.7	25.1
Women	2,056	1,132	611	176	136	9.3	4.5	50.6	55.1	19.3	15.2
Black, 16 years and over	1,427	651	470	152	154	12.4	5.9	42.8	45.6	27.4	21.4
Men	721	308	232	87	95	13.9	6.3	36.6	42.6	31.4	25.2
Women	706	343	239	65	59	10.9	5.3	48.5	48.6	23.5	17.6
Men, 16 years and over:											
Married, spouse present	1,329	543	372	186	228	17.5	6.6	38.6	40.8	34.2	31.2
Widowed, divorced, or separated	482	186	153	48	95	20.8	7.8	34.3	38.7	31.8	29.6
Single (never married)	1,654	824	509	196	125	10.8	5.0	48.8	49.8	19.3	19.4
Women, 16 years and over:											
Married, spouse present	1,135	614	336	108	78	9.4	4.6	50.7	54.1	18.4	16.4
Widowed, divorced, or separated	663	323	213	62	64	11.1	5.3	43.1	48.7	27.8	19.1
Single (never married)	1,062	591	327	81	63	9.2	4.5	52.5	55.7	19.1	13.6

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	
								Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
	November 1988							Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
OCCUPATION											
Managerial and professional specialty	483	193	161	72	57	13.6	7.1	39.4	39.9	26.2	26.8
Technical, sales, and administrative support ..	1,421	713	450	145	112	10.5	5.0	46.0	50.2	25.3	18.1
Service occupations	1,123	587	348	99	89	10.4	4.8	47.2	52.2	20.4	16.8
Precision production, craft, and repair	750	341	238	77	93	14.4	6.0	47.1	45.5	23.4	22.7
Operators, fabricators, and laborers	1,524	715	424	171	213	14.8	5.7	43.0	46.9	29.0	25.2
Farming, forestry, and fishing	269	137	84	28	20	10.4	4.9	45.9	50.9	17.5	17.9
INDUSTRY¹											
Agriculture	180	91	57	14	17	11.9	4.9	45.4	50.7	16.2	17.6
Construction	637	341	166	69	61	11.6	4.7	48.8	53.5	22.4	20.4
Manufacturing	1,076	458	356	117	145	14.7	6.4	40.4	42.6	31.9	24.4
Durable goods	590	257	165	71	96	16.1	6.4	39.2	43.5	34.6	28.4
Nondurable goods	486	201	191	46	49	12.9	6.4	41.9	41.4	28.9	19.4
Transportation and public utilities ..	283	100	87	45	50	17.7	9.6	45.8	35.4	23.9	33.7
Wholesale and retail trade	1,355	697	410	128	119	11.4	4.9	43.9	51.5	24.5	18.2
Finance and service industries ..	1,724	854	547	175	147	10.8	5.1	48.4	49.5	20.6	18.7
Public administration ..	163	66	48	29	21	16.0	7.5	35.2	40.4	35.0	30.3
No previous work experience ..	710	381	186	85	57	11.9	4.7	55.2	53.6	17.4	20.1

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	November 1988								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over	6,325	5,459	20.6	7.4	73.8	34.5	17.5	5.0	1.59
16 to 19 years	1,050	990	12.5	3.0	82.9	24.2	12.5	3.6	1.39
20 to 24 years	1,174	1,047	18.4	8.2	73.7	36.1	19.0	5.0	1.60
25 to 34 years	1,898	1,640	23.3	7.1	73.5	37.0	17.6	5.0	1.63
35 to 44 years	1,081	871	29.6	12.4	68.2	40.2	19.6	5.5	1.76
45 to 54 years	693	567	19.4	6.7	75.1	34.7	18.3	5.8	1.60
55 to 64 years	333	264	19.7	7.6	58.3	36.0	21.2	6.4	1.49
65 years and over	96	79	8.9	5.1	75.9	22.8	13.9	6.3	1.33
Men, 16 years and over	3,464	2,917	22.6	7.7	74.6	31.6	19.2	5.6	1.61
16 to 19 years	569	526	14.6	1.7	82.1	23.6	15.0	3.4	1.40
20 to 24 years	619	550	20.7	9.5	77.3	30.9	19.8	4.4	1.63
25 to 34 years	1,033	844	25.4	8.2	74.8	34.1	19.9	6.0	1.68
35 to 44 years	568	443	33.6	14.2	67.9	36.8	19.9	5.0	1.77
45 to 54 years	395	332	20.2	4.2	74.4	32.8	23.8	8.1	1.64
55 to 64 years	222	178	20.2	7.9	56.2	38.2	19.1	9.6	1.51
65 years and over	59	46	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Women, 16 years and over	2,860	2,542	16.3	7.0	73.0	37.8	15.5	4.4	1.56
16 to 19 years	481	464	10.1	4.3	83.8	25.0	9.7	4.1	1.37
20 to 24 years	555	497	15.9	6.8	69.8	41.9	18.1	5.6	1.58
25 to 34 years	865	796	21.1	6.0	72.0	39.9	15.2	3.9	1.58
35 to 44 years	512	428	25.7	10.5	68.5	43.7	19.4	6.1	1.74
45 to 54 years	296	235	18.3	10.6	75.7	37.4	10.6	2.6	1.55
55 to 64 years	111	87	18.4	5.7	62.1	31.0	25.3	-	1.43
65 years and over	37	34	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
White, 16 years and over	4,691	3,977	19.6	8.3	73.7	36.1	18.0	5.2	1.61
Men	2,635	2,176	21.9	8.1	74.4	33.6	19.5	6.1	1.64
Women	2,056	1,801	16.9	8.6	72.8	39.1	16.2	4.1	1.58
Black, 16 years and over	1,427	1,299	22.8	5.0	74.4	29.8	16.2	4.2	1.52
Men	721	644	24.4	6.4	75.0	26.7	18.9	3.3	1.55
Women	706	655	21.2	3.7	73.9	32.8	13.6	5.0	1.50

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	November 1988								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over	6,325	5,459	20.6	7.4	73.8	34.5	17.5	5.0	1.59
Job losers ¹	2,909	2,156	28.5	8.9	74.5	36.3	21.3	5.0	1.74
Job leavers	966	984	20.6	10.7	71.5	39.7	15.9	4.0	1.62
Reentrants	1,740	1,614	14.7	5.3	71.3	35.4	14.8	7.0	1.46
New entrants	709	705	10.1	3.1	80.7	19.6	14.2	2.0	1.30
Men, 16 years and over	3,464	2,917	22.6	7.7	74.6	31.6	19.2	5.6	1.61
Job losers ¹	2,001	1,512	28.6	8.3	76.3	33.5	20.8	4.5	1.72
Job leavers	463	472	21.4	9.1	70.8	37.7	19.3	5.5	1.64
Reentrants	661	597	16.6	7.5	68.2	30.5	17.8	9.7	1.50
New entrants	340	337	7.4	2.7	83.7	16.9	14.8	3.3	1.29
Women, 16 years and over	2,860	2,542	18.3	7.0	73.0	37.8	15.5	4.4	1.56
Job losers ¹	906	644	28.0	10.1	70.7	42.7	22.5	6.2	1.80
Job leavers	503	512	19.9	12.1	72.5	41.8	12.7	2.7	1.62
Reentrants	1,079	1,018	13.6	4.0	73.0	36.3	13.2	5.4	1.47
New entrants	370	366	12.2	3.3	78.3	22.3	13.6	.8	1.30

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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
All industries	113,809	116,314	62,491	63,442	51,318	52,872
16 to 19 years	6,354	6,492	3,202	3,341	3,152	3,151
16 to 17 years	2,489	2,579	1,221	1,299	1,268	1,281
18 to 19 years	3,865	3,913	1,981	2,043	1,884	1,871
20 to 24 years	13,383	13,023	6,911	6,791	6,472	6,232
25 to 54 years	79,294	81,830	43,726	44,824	35,567	37,006
25 to 34 years	33,641	33,911	18,674	18,793	14,967	15,118
35 to 44 years	27,854	29,099	15,177	15,740	12,677	13,360
45 to 54 years	17,798	18,819	9,875	10,291	7,923	8,528
55 to 64 years	11,659	11,592	6,742	6,555	4,917	5,037
55 to 59 years	7,030	6,968	4,044	3,914	2,987	3,054
60 to 64 years	4,629	4,623	2,699	2,641	1,930	1,983
65 years and over	3,120	3,377	1,910	1,931	1,210	1,446
Agriculture	3,020	3,111	2,367	2,426	653	684
16 to 19 years	162	200	134	158	29	42
16 to 17 years	86	95	72	68	15	27
18 to 19 years	76	105	62	90	14	16
20 to 24 years	342	317	297	266	45	51
25 to 54 years	1,809	1,879	1,366	1,444	443	436
25 to 34 years	745	779	584	617	161	162
35 to 44 years	602	586	439	435	164	152
45 to 54 years	461	514	343	392	118	122
55 to 64 years	441	438	341	330	101	108
55 to 59 years	227	248	170	190	57	58
60 to 64 years	214	190	170	140	44	50
65 years and over	266	275	230	228	36	47
Nonagricultural industries	110,789	113,203	60,124	61,016	50,665	52,188
16 to 19 years	6,192	6,292	3,069	3,183	3,124	3,109
16 to 17 years	2,403	2,484	1,150	1,230	1,253	1,254
18 to 19 years	3,789	3,808	1,919	1,953	1,871	1,855
20 to 24 years	13,041	12,706	6,614	6,525	6,427	6,181
25 to 54 years	77,485	79,950	42,361	43,380	35,124	36,570
25 to 34 years	32,896	33,132	18,091	18,176	14,806	14,956
35 to 44 years	27,252	28,513	14,738	15,305	12,514	13,208
45 to 54 years	17,337	18,305	9,532	9,899	7,805	8,406
55 to 64 years	11,218	11,153	6,402	6,225	4,816	4,928
55 to 59 years	6,803	6,721	3,873	3,725	2,930	2,996
60 to 64 years	4,415	4,433	2,528	2,500	1,886	1,933
65 years and over	2,854	3,102	1,680	1,703	1,174	1,399

**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	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total	113,809	116,314	62,491	63,442	59,289	60,101	51,318	52,872	48,166	49,721
Managerial and professional specialty	28,266	29,800	15,698	16,281	15,620	16,215	12,568	13,519	12,457	13,390
Executive, administrative, and managerial	13,444	14,430	8,293	8,685	8,260	8,649	5,151	5,745	5,101	5,690
Officials and administrators, public administration	564	596	346	341	346	341	218	255	218	255
Other executive, administrative, and managerial	9,357	10,032	6,178	6,526	6,150	6,495	3,179	3,506	3,145	3,459
Management-related occupations	3,524	3,802	1,769	1,818	1,765	1,813	1,755	1,984	1,738	1,975
Professional specialty	14,822	15,370	7,405	7,597	7,360	7,565	7,417	7,773	7,356	7,700
Engineers	1,740	1,755	1,625	1,625	1,625	1,624	115	130	115	128
Mathematical and computer scientists	683	705	458	460	455	460	225	245	225	245
Natural scientists	402	357	312	260	312	260	90	97	90	97
Health diagnosing occupations	826	867	676	715	676	715	150	152	150	149
Health assessment and treating occupations	2,118	2,158	293	298	291	298	1,826	1,860	1,822	1,856
Teachers, college and university	742	823	456	515	456	511	286	308	282	305
Teachers, except college and university	3,805	4,068	1,023	1,097	1,012	1,088	2,782	2,971	2,756	2,928
Lawyers and judges	706	775	577	630	574	630	129	146	129	146
Other professional specialty occupations	3,799	3,860	1,985	1,995	1,958	1,979	1,814	1,865	1,786	1,846
Technical, sales, and administrative support	35,461	35,863	12,387	12,574	11,775	11,869	23,074	23,289	21,366	21,548
Technicians and related support	3,346	3,538	1,734	1,810	1,707	1,781	1,612	1,728	1,592	1,710
Health technologists and technicians	1,173	1,261	191	218	188	216	981	1,043	973	1,037
Engineering and science technicians	1,029	1,149	847	915	828	896	183	234	173	221
Technicians, except health, engineering, and science	1,144	1,128	696	676	691	669	448	452	445	452
Sales occupations	13,577	14,044	6,981	7,125	6,598	6,706	6,597	6,919	5,604	5,855
Supervisors and proprietors	3,597	3,708	2,394	2,477	2,367	2,465	1,202	1,232	1,180	1,199
Sales representatives, finance and business services	2,379	2,526	1,443	1,474	1,434	1,460	936	1,052	904	1,006
Sales representatives, commodities, except retail	1,545	1,568	1,269	1,234	1,255	1,229	276	334	271	326
Sales workers, retail and personal services	5,991	6,177	1,855	1,928	1,524	1,540	4,136	4,249	3,205	3,274
Sales-related occupations	66	65	20	13	18	13	46	52	44	50
Administrative support, including clerical	18,538	18,281	3,673	3,640	3,470	3,381	14,865	14,642	14,171	13,983
Supervisors	767	705	334	276	334	275	433	429	428	430
Computer equipment operators	901	854	313	276	295	266	588	577	564	542
Secretaries, stenographers, and typists	5,078	4,669	106	111	102	104	4,972	4,557	4,790	4,395
Financial records processing	2,403	2,460	231	232	217	227	2,172	2,228	2,122	2,183
Mail and message distributing	991	964	640	604	621	583	351	360	332	342
Other administrative support, including clerical	8,399	8,630	2,050	2,140	1,901	1,927	6,350	6,490	5,934	6,092
Service occupations	15,199	15,489	5,909	5,952	5,012	5,061	9,290	9,538	8,236	8,528
Private household	965	941	34	23	22	15	931	918	786	777
Protective service	1,939	1,929	1,663	1,649	1,613	1,621	276	280	255	263
Service, except private household and protective	12,296	12,619	4,213	4,280	3,377	3,425	8,083	8,340	7,195	7,488
Food service	5,156	5,223	1,893	1,995	1,277	1,349	3,263	3,228	2,638	2,636
Health service	1,922	1,954	203	181	187	169	1,719	1,773	1,617	1,703
Cleaning and building service	2,892	3,027	1,695	1,695	1,538	1,542	1,197	1,332	1,141	1,266
Personal service	2,325	2,415	421	408	376	365	1,904	2,007	1,799	1,884
Precision production, craft, and repair	13,712	13,779	12,541	12,607	12,227	12,278	1,171	1,171	1,139	1,130
Mechanics and repairers	4,456	4,425	4,312	4,280	4,208	4,176	144	145	143	132
Construction trades	5,108	5,172	5,003	5,068	4,846	4,912	104	104	102	98
Other precision production, craft, and repair	4,148	4,182	3,225	3,259	3,173	3,190	923	923	894	900
Operators, fabricators, and laborers	17,936	18,057	13,244	13,251	12,127	12,115	4,693	4,806	4,471	4,614
Machine operators, assemblers, and inspectors	8,172	8,279	4,759	4,880	4,565	4,660	3,413	3,399	3,312	3,306
Manufacturing industries	6,694	6,836	3,843	3,986	3,693	3,854	2,851	2,849	2,773	2,775
Durable goods	3,678	3,792	2,493	2,563	2,399	2,488	1,185	1,228	1,170	1,197
Nondurable goods	3,016	3,044	1,350	1,423	1,294	1,366	1,666	1,621	1,603	1,579
Nonmanufacturing industries	1,478	1,444	916	894	872	806	562	550	539	531
Transportation and material moving occupations	4,867	4,903	4,441	4,435	4,289	4,299	426	469	410	464
Motor vehicle operators	3,613	3,630	3,236	3,215	3,109	3,096	378	416	364	412
Other transportation and material moving occupations	1,254	1,273	1,205	1,220	1,180	1,203	49	53	46	52
Handlers, equipment cleaners, helpers, and laborers	4,897	4,874	4,044	3,936	3,273	3,155	854	938	749	844
Construction laborers	809	739	775	714	700	640	34	26	27	22
Other handlers, equipment cleaners, helpers, and laborers	4,088	4,135	3,269	3,222	2,572	2,516	820	912	723	822
Farming, forestry, and fishing	3,235	3,326	2,713	2,776	2,527	2,563	522	549	496	511
Farm operators and managers	1,278	1,311	1,087	1,086	1,086	1,077	191	225	189	221
Other farming, forestry, and fishing occupations	1,957	2,015	1,626	1,690	1,441	1,486	330	324	307	291

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

(Percent distribution)

Occupation and race	Total		Men		Women	
	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
TOTAL						
Total, 16 years and over (thousands)	113,809	116,314	62,491	63,442	51,318	52,872
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	24.8	25.6	25.1	25.7	24.5	25.6
Executive, administrative, and managerial	11.8	12.4	13.3	13.7	10.0	10.9
Professional specialty	13.0	13.2	11.8	12.0	14.5	14.7
Technical, sales, and administrative support	31.2	30.8	19.8	19.8	45.0	44.0
Technicians and related support	2.9	3.0	2.8	2.9	3.1	3.3
Sales occupations	11.9	12.1	11.2	11.2	12.9	13.1
Administrative support, including clerical	16.3	15.7	5.9	5.7	29.0	27.7
Service occupations	13.4	13.3	9.5	9.4	18.1	18.0
Private household .....	.8	.8	.1	(¹)	1.8	1.7
Protective service	1.7	1.7	2.7	2.6	.5	.5
Service, except private household and protective	10.8	10.8	6.7	6.7	15.8	15.8
Precision production, craft, and repair	12.0	11.8	20.1	19.9	2.3	2.2
Operators, fabricators, and laborers	15.8	15.5	21.2	20.9	9.1	9.1
Machine operators, assemblers, and inspectors	7.2	7.1	7.6	7.7	6.7	6.4
Transportation and material moving occupations	4.3	4.2	7.1	7.0	.8	.9
Handlers, equipment cleaners, helpers, and laborers	4.3	4.2	6.5	6.2	1.7	1.8
Farming, forestry, and fishing	2.8	2.9	4.3	4.4	1.0	1.0
White						
Total, 16 years and over (thousands)	98,698	100,818	54,856	55,647	43,842	45,171
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	25.9	26.8	26.2	26.9	25.5	26.7
Executive, administrative, and managerial	12.4	13.1	14.0	14.5	10.5	11.4
Professional specialty	13.4	13.7	12.2	12.4	15.0	15.3
Technical, sales, and administrative support	31.5	31.1	20.1	20.0	45.8	44.8
Technicians and related support	3.0	3.0	2.9	2.9	3.1	3.3
Sales occupations	12.4	12.6	11.7	11.8	13.3	13.6
Administrative support, including clerical	16.1	15.4	5.5	5.3	29.4	27.9
Service occupations	12.1	12.2	8.4	8.5	16.7	16.7
Private household .....	.7	.7	.1	(¹)	1.6	1.6
Protective service	1.7	1.6	2.6	2.5	.5	.5
Service, except private household and protective	9.7	9.9	5.8	6.0	14.7	14.7
Precision production, craft, and repair	12.5	12.3	20.7	20.5	2.3	2.1
Operators, fabricators, and laborers	14.9	14.6	20.0	19.6	8.5	8.5
Machine operators, assemblers, and inspectors	6.7	6.7	7.2	7.3	6.1	6.0
Transportation and material moving occupations	4.1	4.1	6.8	6.7	.8	.8
Handlers, equipment cleaners, helpers, and laborers	4.1	3.8	6.0	5.6	1.6	1.7
Farming, forestry, and fishing	3.0	3.0	4.5	4.5	1.1	1.2
Black						
Total, 16 years and over (thousands)	11,632	11,923	5,764	5,878	5,868	6,045
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty	15.4	14.8	13.2	12.5	17.6	17.0
Executive, administrative, and managerial	6.8	6.7	6.4	6.3	7.2	7.1
Professional specialty	8.6	8.1	6.8	6.2	10.4	10.0
Technical, sales, and administrative support	27.5	28.7	16.1	17.4	38.6	39.7
Technicians and related support	2.3	2.3	1.5	1.9	3.1	2.7
Sales occupations	7.4	7.8	5.6	5.8	9.2	9.8
Administrative support, including clerical	17.7	18.6	9.0	9.7	26.2	27.2
Service occupations	23.4	22.3	18.3	16.5	28.3	28.0
Private household	1.8	1.7	.1	(¹)	3.5	3.4
Protective service	2.4	2.7	3.7	4.2	1.2	1.2
Service, except private household and protective	19.1	17.9	14.5	12.3	23.7	23.4
Precision production, craft, and repair	8.6	8.5	15.5	15.0	1.9	2.1
Operators, fabricators, and laborers	23.5	23.8	34.0	35.1	13.3	12.9
Machine operators, assemblers, and inspectors	10.7	10.2	11.5	11.2	9.9	9.2
Transportation and material moving occupations	6.2	6.2	11.3	11.2	1.1	1.3
Handlers, equipment cleaners, helpers, and laborers	6.7	7.5	11.2	12.7	2.3	2.3
Farming, forestry, and fishing	1.6	1.9	2.9	3.5	.3	.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	November 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	104,123	1,213	17,657	85,252	8,793	288	1,559	1,437	115
16 to 19 years	6,223	184	271	5,768	52	17	158	25	17
16 to 17 years	2,456	126	79	2,251	21	7	72	14	9
18 to 19 years	3,767	58	193	3,516	30	11	86	12	7
20 to 24 years	12,358	118	992	11,248	340	7	265	46	7
25 to 34 years	31,070	206	4,346	26,519	1,987	75	482	279	19
35 to 44 years	25,844	226	5,602	20,016	2,588	81	251	313	22
45 to 54 years	16,363	164	3,816	12,383	1,869	73	210	282	22
55 to 64 years	9,786	187	2,156	7,442	1,345	23	134	284	20
55 to 59 years	5,902	96	1,335	4,471	805	13	79	157	12
60 to 64 years	3,883	91	821	2,971	540	10	54	127	9
65 years and over	2,478	127	474	1,877	612	11	60	208	8
Men, 16 years and over	55,263	134	8,107	47,022	5,713	40	1,218	1,176	33
16 to 19 years	3,142	41	119	2,981	32	9	126	21	11
16 to 17 years	1,215	31	32	1,151	11	4	52	10	7
18 to 19 years	1,927	10	87	1,830	21	5	74	11	5
20 to 24 years	6,302	2	399	5,902	219	4	220	41	5
25 to 34 years	16,897	32	1,998	14,868	1,268	10	378	233	7
35 to 44 years	13,646	24	2,599	11,023	1,656	3	190	242	2
45 to 54 years	8,665	25	1,777	6,863	1,226	8	149	239	4
55 to 64 years	5,322	7	1,013	4,302	901	2	107	222	1
55 to 59 years	3,186	6	616	2,564	538	-	68	121	1
60 to 64 years	2,136	2	396	1,738	362	2	40	100	-
65 years and over	1,287	3	202	1,083	412	4	47	178	4
Women, 16 years and over	48,860	1,079	9,550	38,230	3,080	248	341	261	82
16 to 19 years	3,081	143	152	2,786	20	8	33	4	6
16 to 17 years	1,241	96	46	1,100	10	2	20	4	3
18 to 19 years	1,840	48	106	1,686	10	6	12	-	3
20 to 24 years	6,056	117	593	5,346	121	4	44	5	2
25 to 34 years	14,173	174	2,347	11,651	718	65	104	46	12
35 to 44 years	12,197	202	3,003	8,992	933	78	61	71	20
45 to 54 years	7,698	140	2,039	5,519	643	66	60	43	18
55 to 64 years	4,463	180	1,144	3,140	445	20	26	62	20
55 to 59 years	2,716	91	719	1,906	267	13	12	35	11
60 to 64 years	1,747	89	425	1,233	178	7	15	27	8
65 years and over	1,191	124	272	795	200	7	13	30	4

A-25. Employed civilians by industry and occupation

(In thousands)

Industry	November 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	3,111	81	87	21	30	104		11	42	13	44	24	2,655
Mining	721	96	71	25	15	99		8	226	17	143	21	-
Construction	7,867	991	175	35	83	431		32	4,449	75	518	851	26
Manufacturing	21,256	2,509	1,696	708	742	2,335		343	4,070	6,836	770	1,158	92
Durable goods	12,734	1,529	1,154	521	307	1,313		192	2,809	3,792	468	571	79
Nondurable goods	8,523	981	543	185	436	1,021		151	1,260	3,044	302	587	13
Transportation and public utilities	8,148	897	480	310	301	2,211		239	1,237	100	1,769	608	14
Wholesale and retail trade	23,876	2,056	405	117	9,960	2,370		4,355	1,499	329	1,006	1,742	38
Wholesale trade	4,572	502	72	30	1,799	799		74	302	121	473	387	12
Retail trade	19,304	1,554	333	87	8,161	1,570		4,281	1,197	208	532	1,354	26
Finance, insurance, and real estate	7,827	2,003	184	134	1,988	2,973	-	275	175	15	6	9	65
Services	37,981	4,547	11,544	1,946	895	6,095	941	7,939	1,812	861	595	417	390
Private households	1,219	1	8	4	-	8	941	143	12	1	7	25	70
Other service industries	36,762	4,545	11,536	1,942	895	6,087	-	7,797	1,799	860	588	392	320
Professional services	24,489	2,502	10,329	1,605	146	4,411		4,377	367	240	344	87	82
Public administration	5,728	1,250	748	245	30	1,665		1,346	268	34	53	45	47

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					
	Nov. 1987	Nov. 1988	Total		Wage and salary workers ¹			
			Nov. 1987	Nov. 1988	Paid absences		Unpaid absences	
					Nov. 1987	Nov. 1988	Nov. 1987	Nov. 1988
Total, 16 years and over	3,905	3,845	3,790	3,720	1,759	1,700	1,583	1,606
Vacation	1,418	1,473	1,381	1,429	1,003	1,011	236	294
Illness	1,362	1,291	1,328	1,264	480	509	743	677
Bad weather	53	57	37	50	(²)	(²)	(²)	(²)
Industrial dispute	35	32	35	32	(²)	(²)	(²)	(²)
All other reasons	1,037	991	1,008	945	276	180	604	635
Men, 16 years and over	2,157	2,041	2,058	1,931	1,017	958	764	737
Vacation	891	936	858	898	661	661	108	168
Illness	730	599	696	575	249	230	393	308
All other reasons ³	536	505	503	457	108	67	283	261
Women, 16 years and over	1,749	1,804	1,733	1,789	742	745	818	870
Vacation	528	536	523	531	342	351	126	126
Illness	633	692	632	689	231	280	350	369
All other reasons ³	589	578	578	569	169	114	340	374

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	November 1988					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over	112,469	2,986	109,483	100.0	100.0	100.0
1 to 34 hours	32,398	859	31,539	28.8	28.8	28.8
1 to 4 hours	800	54	746	.7	1.8	.7
5 to 14 hours	5,150	205	4,945	4.6	6.9	4.5
15 to 29 hours	14,580	404	14,176	13.0	13.5	12.9
30 to 34 hours	11,868	196	11,672	10.6	6.6	10.7
35 hours and over	80,072	2,127	77,943	71.2	71.2	71.2
35 to 39 hours	6,796	133	6,662	6.0	4.5	6.1
40 hours	40,030	617	39,413	35.6	20.7	36.0
41 hours and over	33,246	1,377	31,868	29.6	46.1	29.1
41 to 48 hours	11,684	253	11,431	10.4	8.5	10.4
49 to 59 hours	12,618	390	12,227	11.2	13.1	11.2
60 hours and over	8,944	734	8,210	8.0	24.6	7.5
Average hours, total at work	38.7	43.4	38.6			
Average hours, workers on full-time schedules	43.3	50.8	43.1			

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	November 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	32,398	12,388	20,010	31,539	12,070	19,470
Economic reasons	4,955	1,666	3,289	4,699	1,528	3,171
Slack work	2,322	1,269	1,053	2,138	1,146	992
Material shortages or repairs to plant and equipment	45	45	-	44	44	-
New job started during week	245	245	-	231	231	-
Job terminated during week	108	108	-	108	108	-
Could find only part-time work	2,237	-	2,237	2,180	-	2,180
Other reasons	27,443	10,722	16,721	26,840	10,542	16,298
Does not want, or unavailable for, full-time work	13,923	-	13,923	13,606	-	13,606
Vacation	1,250	1,250	-	1,241	1,241	-
Illness	1,529	1,372	157	1,479	1,339	140
Bad weather	253	253	-	217	217	-
Industrial dispute	21	21	-	21	21	-
Legal or religious holiday	6,325	6,325	-	6,308	6,308	-
Full time for this job	1,770	-	1,770	1,735	-	1,735
All other reasons	2,371	1,501	870	2,235	1,417	818
Average hours:						
Economic reasons	21.7	23.9	20.6	21.8	24.0	20.7
Other reasons	22.7	28.3	19.1	22.8	28.4	19.1
Worked 30 to 34 hours:						
Economic reasons	1,516	722	794	1,449	672	777
Other reasons	10,352	7,409	2,943	10,223	7,329	2,894

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

(Numbers in thousands)

Industry	November 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	109,483	4,699	16,298	88,486	56,618	11,431	20,437	38.6	43.1
Wage and salary workers	100,774	4,079	14,745	81,950	53,681	10,777	17,492	38.4	42.7
Mining	669	20	14	635	357	94	184	44.2	45.5
Construction	5,943	419	240	5,284	3,622	587	1,075	39.8	42.1
Manufacturing	20,096	442	741	18,913	11,713	3,170	4,030	42.1	43.4
Durable goods	12,088	177	349	11,562	7,103	1,919	2,540	42.6	43.5
Nondurable goods	8,008	265	393	7,350	4,609	1,252	1,489	41.5	43.3
Transportation and public utilities	7,484	191	515	6,778	4,397	835	1,546	41.1	43.2
Wholesale and retail trade	21,396	1,258	5,412	14,726	8,693	2,292	3,741	36.7	44.1
Finance, insurance, and real estate	6,932	142	638	6,152	4,295	684	1,173	39.0	41.3
Service industries	32,781	1,537	6,662	24,582	16,784	2,740	5,058	36.4	42.2
Private households	1,178	228	500	450	274	62	114	26.0	44.9
All other industries	31,603	1,309	6,162	24,132	16,510	2,678	4,944	36.8	42.2
Public administration	5,474	69	525	4,880	3,820	375	685	36.6	38.9
Self-employed workers	8,421	607	1,414	6,400	2,866	638	2,896	40.9	48.0
Unpaid family workers	288	14	139	135	70	16	49	33.5	46.2

**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	November 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	109,483	4,699	16,298	88,486	56,618	31,868	38.6	43.1
16 to 19 years	6,145	450	3,739	1,956	1,529	427	24.7	40.5
16 to 17 years	2,405	94	2,095	216	183	33	17.4	37.4
18 to 19 years	3,740	357	1,644	1,739	1,345	394	29.3	40.9
20 years and over	103,339	4,249	12,559	86,531	55,090	31,441	39.4	43.1
20 to 24 years	12,394	789	2,332	9,273	6,430	2,843	36.5	42.2
25 years and over	90,946	3,461	10,227	77,258	48,661	28,597	39.9	43.2
25 to 44 years	59,722	2,336	5,608	51,778	32,063	19,715	40.5	43.4
45 to 64 years	28,319	997	3,198	24,124	15,628	8,496	39.7	43.0
65 years and over	2,904	127	1,421	1,356	969	387	28.3	41.1
Men, 16 years and over	59,085	2,128	4,889	52,068	29,566	22,502	41.7	44.7
16 to 19 years	3,106	225	1,772	1,109	849	260	26.1	41.1
16 to 17 years	1,187	50	1,006	131	112	19	18.5	38.5
18 to 19 years	1,919	175	766	978	739	239	30.8	41.5
20 years and over	55,978	1,903	3,117	50,958	28,716	22,242	42.6	44.7
20 to 24 years	6,372	385	968	5,019	3,189	1,830	38.6	43.6
25 years and over	49,606	1,517	2,149	45,940	25,527	20,413	43.1	44.9
25 to 44 years	32,529	1,046	821	30,662	16,587	14,075	43.8	45.1
45 to 64 years	15,485	410	665	14,410	8,360	6,050	42.9	44.5
65 years and over	1,593	62	663	868	580	288	30.6	41.6
Women, 16 years and over	50,399	2,571	11,409	36,419	27,051	9,368	34.9	40.8
16 to 19 years	3,038	225	1,967	846	677	169	23.2	39.7
16 to 17 years	1,217	44	1,089	84	71	13	16.4	35.8
18 to 19 years	1,821	181	878	762	607	155	27.7	40.1
20 years and over	47,361	2,346	9,442	35,573	26,374	9,199	35.7	40.8
20 to 24 years	6,022	404	1,364	4,254	3,241	1,013	34.4	40.6
25 years and over	41,339	1,942	8,078	31,319	23,132	8,187	35.9	40.9
25 to 44 years	27,194	1,290	4,787	21,117	15,477	5,640	36.5	40.9
45 to 64 years	12,834	588	2,533	9,713	7,267	2,446	35.8	40.8
65 years and over	1,311	64	758	489	388	101	25.4	40.4
RACE								
White, 16 years and over	94,760	3,808	14,624	76,328	47,295	29,033	38.7	43.4
Men	51,751	1,755	4,292	45,704	25,000	20,704	42.0	45.0
Women	43,009	2,052	10,332	30,625	22,295	8,330	34.8	41.0
Black, 16 years and over	11,288	758	1,212	9,318	7,231	2,087	37.5	41.0
Men	5,508	326	400	4,782	3,473	1,309	39.3	42.2
Women	5,780	432	812	4,536	3,757	779	35.8	39.8
MARITAL STATUS								
Men, 16 years and over:								
Married, spouse present	37,839	914	1,461	35,464	19,179	16,285	43.6	45.1
Widowed, divorced, or separated	5,888	300	322	5,266	3,002	2,264	42.0	44.5
Single (never married)	15,357	915	3,107	11,335	7,383	3,952	37.0	43.4
Women, 16 years and over:								
Married, spouse present	27,866	1,298	6,661	19,907	15,018	4,889	34.8	40.6
Widowed, divorced, or separated	9,978	562	1,323	8,093	5,836	2,257	37.2	41.1
Single (never married)	12,556	711	3,425	8,420	6,199	2,221	33.6	41.1

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

(Numbers in thousands)

Occupation and sex	November 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	109,287	4,672	16,278	88,338	56,428	11,432	20,478	38.6	43.1
Managerial and professional specialty	28,958	497	2,950	25,512	14,280	3,131	8,101	41.3	44.3
Executive, administrative, and managerial	14,003	170	767	13,067	6,898	1,607	4,562	43.4	45.0
Professional specialty	14,955	327	2,183	12,445	7,382	1,524	3,539	39.4	43.5
Technical, sales, and administrative support	34,783	1,239	6,803	26,741	18,385	3,115	5,241	36.9	42.1
Technicians and related support	3,421	73	461	2,886	2,070	361	455	38.1	41.3
Sales occupations	13,640	613	3,037	9,989	5,095	1,382	3,513	38.9	45.9
Administrative support, including clerical	17,723	553	3,304	13,866	11,221	1,372	1,273	35.1	39.5
Service occupations	14,937	1,336	4,339	9,262	6,646	1,008	1,608	33.6	42.4
Private household	914	185	407	323	203	52	68	24.3	42.8
Protective service	1,841	33	164	1,644	955	260	430	42.3	45.3
Service, except private household and protective	12,182	1,119	3,768	7,295	5,488	696	1,111	33.0	41.7
Precision production, craft, and repair	13,271	632	511	12,128	7,750	1,765	2,612	41.3	43.2
Operators, fabricators, and laborers	17,337	968	1,675	14,694	9,366	2,412	2,916	39.8	43.2
Machine operators, assemblers, and inspectors	7,966	320	395	7,251	4,793	1,304	1,154	40.8	42.6
Transportation and material moving occupations	4,687	235	405	4,047	2,115	588	1,344	42.3	45.7
Handlers, equipment cleaners, helpers, and laborers	4,684	413	876	3,396	2,459	519	418	35.7	41.4
Men, 16 years and over ¹	58,757	2,104	4,812	51,840	29,326	7,245	15,269	41.8	44.7
Managerial and professional specialty	15,843	229	812	14,802	7,159	1,777	5,867	44.5	46.2
Executive, administrative, and managerial	8,436	94	283	8,060	3,682	960	3,418	45.5	46.7
Professional specialty	7,407	135	530	6,743	3,477	817	2,449	43.2	45.7
Technical, sales, and administrative support	12,261	282	1,389	10,591	5,570	1,495	3,526	41.7	45.3
Technicians and related support	1,764	34	150	1,580	1,049	216	315	39.6	42.1
Sales occupations	6,963	139	740	6,084	2,473	898	2,713	44.4	48.0
Administrative support, including clerical	3,535	109	498	2,927	2,048	381	498	37.6	41.5
Service occupations	5,751	341	1,174	4,236	2,830	515	892	37.2	43.7
Private household	23	14	6	3	-	-	3	(²)	(²)
Protective service	1,566	30	89	1,447	808	235	404	43.9	45.9
Service, except private household and protective	4,162	297	1,078	2,787	2,022	280	485	34.8	42.5
Precision production, craft, and repair	12,159	577	361	11,221	7,129	1,625	2,466	41.6	43.3
Operators, fabricators, and laborers	12,742	676	1,076	10,990	6,639	1,833	2,518	40.7	43.9
Machine operators, assemblers, and inspectors	4,710	134	163	4,414	2,728	837	849	42.2	43.5
Transportation and material moving occupations	4,243	195	251	3,797	1,927	560	1,310	43.4	46.1
Handlers, equipment cleaners, helpers, and laborers	3,789	347	662	2,780	1,984	437	359	35.9	41.5
Women, 16 years and over ¹	50,530	2,568	11,465	36,497	27,101	4,187	5,209	34.9	40.8
Managerial and professional specialty	13,115	268	2,137	10,710	7,121	1,354	2,234	37.6	41.6
Executive, administrative, and managerial	5,567	76	484	5,008	3,216	647	1,144	40.1	42.3
Professional specialty	7,548	192	1,653	5,702	3,905	707	1,090	35.7	41.0
Technical, sales, and administrative support	22,522	957	5,414	16,151	12,815	1,620	1,715	34.2	39.9
Technicians and related support	1,657	39	311	1,307	1,021	146	140	36.5	40.3
Sales occupations	6,676	474	2,297	3,905	2,622	484	799	33.1	42.6
Administrative support, including clerical	14,188	444	2,806	10,939	9,173	991	776	34.5	39.0
Service occupations	9,186	995	3,165	5,026	3,816	493	716	31.4	41.3
Private household	892	171	400	320	203	53	65	24.4	42.6
Protective service	274	2	75	197	147	24	26	33.3	40.3
Service, except private household and protective	8,020	822	2,690	4,508	3,466	417	626	32.1	41.3
Precision production, craft, and repair	1,113	55	150	908	621	140	146	38.2	42.1
Operators, fabricators, and laborers	4,595	292	599	3,704	2,728	579	397	37.3	41.1
Machine operators, assemblers, and inspectors	3,256	187	232	2,837	2,065	468	305	38.8	41.2
Transportation and material moving occupations	444	39	154	251	189	29	34	31.3	39.9
Handlers, equipment cleaners, helpers, and laborers	895	66	213	616	474	82	59	34.7	41.1

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
TOTAL													
Noninstitutional population ¹	185,225	185,370	185,571	185,705	185,847	185,964	186,088	186,247	186,402	186,522	186,666	186,801	186,949
Labor force ¹	122,349	122,472	122,924	123,084	122,639	123,055	122,692	123,157	123,357	123,723	123,628	123,699	124,277
Percent of population ²	66.1	66.1	66.2	66.3	66.0	66.2	65.9	66.1	66.2	66.3	66.2	66.2	66.5
Total employed ¹	115,259	115,494	115,878	116,145	115,839	116,445	115,909	116,703	116,732	116,872	117,032	117,208	117,681
Employment-population ratio ³	62.2	62.3	62.4	62.5	62.3	62.6	62.3	62.7	62.6	62.7	62.7	62.7	62.9
Resident Armed Forces	1,755	1,750	1,749	1,736	1,736	1,732	1,714	1,685	1,673	1,692	1,704	1,687	1,705
Civilian employed	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521	115,976
Agriculture	3,172	3,215	3,293	3,228	3,204	3,228	3,035	3,085	3,046	3,151	3,169	3,266	3,276
Nonagricultural industries	110,332	110,529	110,836	111,182	110,899	111,485	111,160	111,933	112,014	112,029	112,158	112,255	112,700
Unemployed	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491	6,595
Unemployment rate ⁴	5.8	5.7	5.7	5.6	5.5	5.4	5.5	5.2	5.4	5.5	5.3	5.2	5.3
Not in labor force	62,876	62,898	62,647	62,621	63,208	62,909	63,396	63,090	63,045	62,799	63,038	63,102	62,672
Men													
Noninstitutional population ¹	88,849	88,924	89,033	89,099	89,168	89,225	89,287	89,367	89,445	89,504	89,577	89,637	89,716
Labor force ¹	68,019	68,030	68,243	68,343	68,148	68,445	68,318	68,429	68,521	68,723	68,608	68,544	68,721
Percent of population ²	76.6	76.5	76.6	76.7	76.4	76.7	76.5	76.6	76.6	76.8	76.6	76.5	76.6
Total employed ¹	64,174	64,245	64,396	64,636	64,332	64,892	64,583	64,934	65,002	64,954	65,052	64,943	65,079
Employment-population ratio ³	72.2	72.2	72.3	72.5	72.1	72.7	72.3	72.7	72.7	72.6	72.6	72.5	72.5
Resident Armed Forces	1,593	1,589	1,588	1,577	1,573	1,569	1,553	1,523	1,512	1,529	1,540	1,526	1,542
Civilian employed	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490	63,425	63,512	63,417	63,537
Unemployed	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519	3,768	3,555	3,600	3,642
Unemployment rate ⁴	5.7	5.6	5.6	5.4	5.6	5.2	5.5	5.1	5.1	5.5	5.2	5.3	5.3
Not in labor force	20,830	20,894	20,790	20,756	21,020	20,780	20,969	20,938	20,924	20,781	20,970	21,093	20,995
Women													
Noninstitutional population ¹	96,376	96,446	96,538	96,606	96,679	96,739	96,801	96,880	96,957	97,018	97,089	97,164	97,234
Labor force ¹	54,330	54,442	54,681	54,740	54,491	54,610	54,374	54,728	54,836	55,000	55,020	55,155	55,556
Percent of population ²	56.4	56.4	56.6	56.7	56.4	56.5	56.2	56.5	56.6	56.7	56.7	56.8	57.1
Total employed ¹	51,085	51,249	51,482	51,509	51,507	51,553	51,327	51,769	51,730	51,918	51,979	52,265	52,602
Employment-population ratio ³	53.0	53.1	53.3	53.3	53.3	53.3	53.0	53.4	53.4	53.5	53.5	53.8	54.1
Resident Armed Forces	162	161	161	159	163	163	161	162	161	163	164	161	163
Civilian employed	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569	51,755	51,815	52,104	52,439
Unemployed	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106	3,083	3,041	2,890	2,954
Unemployment rate ⁴	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7	5.6	5.5	5.2	5.3
Not in labor force	42,046	42,004	41,857	41,866	42,188	42,129	42,427	42,152	42,121	42,018	42,069	42,009	41,678

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
TOTAL													
Civilian noninstitutional population ¹	183,470	183,620	183,822	183,969	184,111	184,232	184,374	184,562	184,729	184,830	184,962	185,114	185,244
Civilian labor force	120,594	120,722	121,175	121,348	120,903	121,323	120,978	121,472	121,684	122,031	121,924	122,012	122,572
Percent of population	65.7	65.7	65.9	66.0	65.7	65.9	65.6	65.8	65.9	66.0	65.9	65.9	66.2
Employed	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521	115,976
Employment-population ratio ²	61.9	61.9	62.1	62.2	62.0	62.3	61.9	62.3	62.3	62.4	62.4	62.4	62.6
Unemployed	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491	6,595
Unemployment rate	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3	5.4
Men, 20 years and over													
Civilian noninstitutional population ¹	79,885	80,002	80,120	80,203	80,260	80,326	80,402	80,526	80,608	80,669	80,751	80,851	80,924
Civilian labor force	62,299	62,248	62,440	62,696	62,497	62,791	62,662	62,667	62,769	62,925	62,881	62,892	63,019
Percent of population	78.0	77.8	77.9	78.2	77.9	78.2	77.9	77.8	77.9	78.0	77.9	77.8	77.9
Employed	59,164	59,185	59,287	59,625	59,407	59,883	59,590	59,797	59,954	59,834	60,024	59,989	59,981
Employment-population ratio ²	74.1	74.0	74.0	74.3	74.0	74.5	74.1	74.3	74.4	74.2	74.3	74.2	74.1
Agriculture	2,297	2,298	2,323	2,280	2,253	2,255	2,181	2,208	2,247	2,311	2,236	2,330	2,321
Nonagricultural industries	56,867	56,887	56,964	57,344	57,154	57,627	57,409	57,588	57,706	57,523	57,788	57,659	57,660
Unemployed	3,135	3,063	3,154	3,071	3,089	2,909	3,072	2,870	2,815	3,090	2,857	2,902	3,038
Unemployment rate	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.5	4.9	4.5	4.6	4.8
Not in labor force	17,586	17,754	17,680	17,507	17,763	17,535	17,740	17,859	17,839	17,744	17,870	17,959	17,905
Women, 20 years and over													
Civilian noninstitutional population ¹	88,923	89,010	89,110	89,178	89,261	89,307	89,382	89,502	89,588	89,670	89,735	89,807	89,887
Civilian labor force	50,254	50,361	50,558	50,640	50,542	50,612	50,441	50,642	50,775	50,934	50,912	51,172	51,611
Percent of population	56.5	56.6	56.7	56.8	56.6	56.7	56.4	56.6	56.7	56.8	56.7	57.0	57.4
Employed	47,634	47,750	47,977	48,005	48,132	48,170	47,960	48,169	48,199	48,466	48,452	48,771	49,153
Employment-population ratio ²	53.6	53.6	53.8	53.8	53.9	53.9	53.7	53.8	53.8	54.0	54.0	54.3	54.7
Agriculture	636	643	646	654	656	692	587	616	542	586	633	647	657
Nonagricultural industries	46,998	47,107	47,331	47,351	47,476	47,478	47,373	47,553	47,657	47,881	47,818	48,124	48,496
Unemployed	2,620	2,611	2,581	2,635	2,411	2,442	2,481	2,473	2,576	2,468	2,461	2,401	2,458
Unemployment rate	5.2	5.2	5.1	5.2	4.8	4.8	4.9	4.9	5.1	4.8	4.8	4.7	4.8
Not in labor force	38,669	38,649	38,552	38,538	38,719	38,695	38,941	38,860	38,813	38,736	38,823	38,635	38,276
Both sexes, 16 to 19 years													
Civilian noninstitutional population ¹	14,663	14,609	14,592	14,588	14,591	14,598	14,590	14,534	14,533	14,491	14,477	14,456	14,433
Civilian labor force	8,041	8,113	8,177	8,011	7,865	7,919	7,875	8,163	8,141	8,172	8,131	7,948	7,942
Percent of population	54.8	55.5	56.0	54.9	53.9	54.2	54.0	56.2	56.0	56.4	56.2	55.0	55.0
Employed	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907	6,879	6,853	6,761	6,842
Employment-population ratio ²	45.7	46.6	47.0	46.5	45.0	45.6	45.5	48.5	47.5	47.5	47.3	46.8	47.4
Agriculture	239	274	323	293	295	280	267	260	257	254	301	289	298
Nonagricultural industries	6,467	6,535	6,542	6,486	6,269	6,380	6,378	6,791	6,650	6,625	6,552	6,472	6,544
Unemployed	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234	1,293	1,278	1,187	1,100
Unemployment rate	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9	13.9
Not in labor force	6,622	6,496	6,415	6,577	6,726	6,679	6,715	6,371	6,392	6,319	6,346	6,508	6,491

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
WHITE													
Civilian noninstitutional population ¹	157,449	157,552	157,676	157,773	157,868	157,943	158,034	158,166	158,279	158,340	158,422	158,524	158,603
Civilian labor force	103,731	103,907	104,252	104,530	104,171	104,574	104,209	104,691	104,603	105,007	105,043	105,002	105,475
Percent of population	65.9	66.0	66.1	66.3	66.0	66.2	65.9	66.2	66.1	66.3	66.3	66.2	66.5
Employed	98,492	98,779	99,044	99,474	99,274	99,751	99,297	99,932	99,725	99,901	100,019	100,144	100,578
Employment-population ratio ² ..	62.6	62.7	62.8	63.0	62.9	63.2	62.8	63.2	63.0	63.1	63.1	63.2	63.4
Unemployed	5,239	5,128	5,208	5,056	4,897	4,824	4,913	4,759	4,878	5,106	5,024	4,858	4,898
Unemployment rate	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7	4.9	4.8	4.6	4.6
Men, 20 years and over													
Civilian labor force	54,381	54,368	54,455	54,650	54,522	54,699	54,618	54,662	54,732	54,825	54,850	54,878	54,945
Percent of population	78.3	78.2	78.3	78.5	78.2	78.5	78.3	78.2	78.3	78.4	78.3	78.3	78.3
Employed	51,969	52,046	52,053	52,389	52,245	52,538	52,314	52,491	52,603	52,464	52,594	52,614	52,595
Employment-population ratio ² ..	74.9	74.9	74.8	75.2	75.0	75.4	75.0	75.1	75.2	75.0	75.1	75.1	75.0
Unemployed	2,412	2,322	2,402	2,260	2,277	2,161	2,304	2,171	2,129	2,361	2,255	2,263	2,350
Unemployment rate	4.4	4.3	4.4	4.1	4.2	4.0	4.2	4.0	3.9	4.3	4.1	4.1	4.3
Women, 20 years and over													
Civilian labor force	42,464	42,569	42,710	42,915	42,841	42,986	42,827	42,921	42,887	43,177	43,170	43,258	43,662
Percent of population	55.8	55.9	56.1	56.3	56.2	56.3	56.1	56.2	56.1	56.4	56.4	56.4	56.9
Employed	40,606	40,712	40,896	40,985	41,183	41,297	41,104	41,183	41,040	41,399	41,371	41,553	41,917
Employment-population ratio ² ..	53.4	53.5	53.7	53.8	54.0	54.1	53.8	53.9	53.7	54.1	54.0	54.2	54.6
Unemployed	1,858	1,857	1,813	1,930	1,658	1,689	1,723	1,738	1,847	1,778	1,799	1,706	1,745
Unemployment rate	4.4	4.4	4.2	4.5	3.9	3.9	4.0	4.0	4.3	4.1	4.2	3.9	4.0
Both sexes, 16 to 19 years													
Civilian labor force	6,886	6,970	7,087	6,965	6,807	6,889	6,764	7,108	6,983	7,005	7,023	6,866	6,868
Percent of population	57.7	58.6	59.6	58.6	57.2	58.0	57.0	59.9	58.9	59.2	59.5	58.3	58.5
Employed	5,917	6,021	6,095	6,100	5,845	5,916	5,879	6,258	6,081	6,038	6,054	5,977	6,066
Employment-population ratio ² ..	49.6	50.6	51.2	51.3	49.1	49.8	49.5	52.7	51.3	51.0	51.3	50.8	51.6
Unemployed	969	949	992	865	962	973	885	850	902	967	969	889	802
Unemployment rate	14.1	13.6	14.0	12.4	14.1	14.1	13.1	12.0	12.9	13.8	13.8	12.9	11.7
Men	14.8	14.9	14.4	12.2	15.7	14.5	13.8	12.8	14.6	13.8	15.0	14.8	12.2
Women	13.3	12.3	13.6	12.7	12.4	13.7	12.4	11.1	11.1	13.8	12.5	11.0	11.2
BLACK													
Civilian noninstitutional population ¹	20,482	20,508	20,539	20,569	20,596	20,622	20,650	20,683	20,715	20,736	20,762	20,786	20,811
Civilian labor force	13,193	13,215	13,222	13,168	13,098	13,078	13,069	12,989	13,293	13,262	13,191	13,290	13,348
Percent of population	64.4	64.4	64.4	64.0	63.6	63.4	63.3	62.8	64.2	64.0	63.5	63.9	64.1
Employed	11,589	11,605	11,608	11,504	11,420	11,482	11,452	11,489	11,774	11,764	11,771	11,829	11,850
Employment-population ratio ² ..	56.6	56.6	56.5	55.9	55.4	55.7	55.5	56.8	56.7	56.7	56.7	56.9	56.9
Unemployed	1,604	1,610	1,614	1,663	1,678	1,597	1,617	1,500	1,519	1,498	1,419	1,461	1,497
Unemployment rate	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4	11.3	10.8	11.0	11.2
Men, 20 years and over													
Civilian labor force	6,045	6,043	6,115	6,166	6,127	6,163	6,107	6,064	6,070	6,154	6,123	6,158	6,133
Percent of population	74.5	74.3	75.0	75.6	75.0	75.3	74.5	73.8	73.8	74.7	74.2	74.6	74.2
Employed	5,430	5,430	5,497	5,472	5,429	5,511	5,449	5,458	5,492	5,566	5,581	5,576	5,535
Employment-population ratio ² ..	66.9	66.8	67.5	67.1	66.4	67.3	66.5	66.5	66.8	67.6	67.7	67.5	66.9
Unemployed	615	613	618	694	699	652	658	606	578	588	542	582	599
Unemployment rate	10.2	10.1	10.1	11.3	11.4	10.6	10.8	10.0	9.5	9.6	8.8	9.4	9.8
Women, 20 years and over													
Civilian labor force	6,207	6,224	6,244	6,131	6,136	6,093	6,059	6,074	6,307	6,182	6,147	6,238	6,300
Percent of population	60.9	61.0	61.1	59.9	59.9	59.4	59.0	59.0	61.2	59.9	59.5	60.3	60.8
Employed	5,537	5,544	5,550	5,495	5,465	5,407	5,414	5,421	5,650	5,572	5,564	5,630	5,689
Employment-population ratio ² ..	54.3	54.3	54.3	53.7	53.3	52.7	52.7	52.7	54.8	54.0	53.8	54.4	54.9
Unemployed	670	680	694	636	671	686	645	652	657	610	583	607	611
Unemployment rate	10.8	10.9	11.1	10.4	10.9	11.3	10.6	10.7	10.4	9.9	9.5	9.7	9.7

See footnotes at end of table.

**HOUSEHOLD DATA
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1987		1988										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
BLACK—Continued													
Both sexes, 16 to 19 years													
Civilian labor force	941	948	863	870	834	822	903	852	917	926	921	894	914
Percent of population	43.3	43.7	39.8	40.0	38.3	37.7	41.4	39.0	42.0	42.4	42.2	41.0	41.9
Employed	622	631	561	537	526	564	589	610	632	626	627	622	626
Employment-population ratio ²	28.6	29.1	25.8	24.7	24.2	25.9	27.0	28.0	28.9	28.7	28.7	28.5	28.7
Unemployed	319	317	302	333	308	258	314	242	285	300	294	272	288
Unemployment rate	33.9	33.4	35.0	38.3	36.9	31.4	34.8	28.4	31.1	32.4	31.9	30.4	31.5
Men	32.2	33.5	35.1	42.0	39.0	27.6	33.3	30.4	30.4	32.2	31.7	33.5	32.4
Women	35.8	33.4	34.9	34.7	35.0	35.5	36.6	25.9	31.8	32.7	32.2	26.5	30.4
HISPANIC ORIGIN													
Civilian noninstitutional population ¹	13,043	13,082	13,115	13,153	13,192	13,230	13,268	13,306	13,344	13,381	13,419	13,458	13,495
Civilian labor force	8,763	8,772	8,879	9,017	8,803	8,828	8,859	9,027	8,984	8,935	9,063	9,058	9,172
Percent of population	67.2	67.1	67.7	68.6	66.7	66.7	66.8	67.8	67.3	66.8	67.5	67.3	68.0
Employed	7,978	8,058	8,238	8,268	8,079	8,010	8,058	8,219	8,264	8,185	8,394	8,361	8,428
Employment-population ratio ²	61.2	61.6	62.8	62.9	61.2	60.5	60.7	61.8	61.9	61.2	62.6	62.1	62.5
Unemployed	785	714	642	749	724	818	801	809	720	750	669	697	744
Unemployment rate	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0	8.4	7.4	7.7	8.1

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
CHARACTERISTIC													
Total	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521	115,976
Married men, spouse present	40,645	40,711	40,404	40,475	40,481	40,459	40,267	40,485	40,535	40,505	40,531	40,483	40,318
Married women, spouse present	28,175	28,249	28,441	28,707	28,805	28,859	28,567	28,713	28,654	28,832	28,801	28,851	28,975
Women who maintain families	6,237	6,227	6,168	6,157	6,160	6,055	5,957	6,085	6,145	6,282	6,251	6,367	6,410
MAJOR INDUSTRY AND CLASS OF WORKER													
Agriculture:													
Wage and salary workers	1,595	1,599	1,666	1,677	1,648	1,678	1,526	1,562	1,539	1,580	1,593	1,709	1,678
Self-employed workers	1,407	1,450	1,454	1,414	1,423	1,385	1,346	1,359	1,346	1,416	1,438	1,414	1,463
Unpaid family workers	155	156	138	114	142	155	159	167	148	163	134	183	123
Nonagricultural industries:													
Wage and salary workers	101,943	101,997	102,507	102,683	102,279	102,538	101,927	103,000	103,133	103,097	103,415	103,781	103,751
Government	17,118	17,064	17,197	16,948	16,908	17,015	16,887	17,064	16,959	17,112	17,103	17,231	17,430
Private industries	84,825	84,933	85,310	85,735	85,371	85,523	85,040	85,935	86,174	85,984	86,312	86,550	86,320
Private households	1,286	1,200	1,147	1,170	1,175	1,092	1,156	1,150	1,123	1,108	1,085	1,142	1,252
Other industries	83,539	83,733	84,163	84,565	84,196	84,431	83,884	84,786	85,051	84,877	85,227	85,408	85,069
Self-employed workers	8,222	8,280	8,150	8,312	8,366	8,637	8,917	8,577	8,528	8,491	8,575	8,366	8,629
Unpaid family workers	235	248	237	228	248	281	307	301	255	243	228	227	298
PERSONS AT WORK PART TIME¹													
All industries:													
Part time for economic reasons	5,534	5,262	5,367	5,566	5,343	5,194	4,844	5,317	5,382	5,181	5,053	4,893	5,025
Slack work	2,408	2,284	2,396	2,478	2,520	2,236	2,227	2,364	2,490	2,318	2,190	2,166	2,241
Could only find part-time work	2,696	2,638	2,640	2,598	2,535	2,502	2,315	2,637	2,581	2,491	2,356	2,382	2,347
Voluntary part time	14,523	14,711	14,571	14,572	14,603	15,016	14,790	14,507	15,070	15,021	15,314	15,078	15,540
Nonagricultural industries:													
Part time for economic reasons	5,241	5,004	5,145	5,254	5,106	4,924	4,623	5,076	5,185	4,959	4,814	4,662	4,761
Slack work	2,209	2,111	2,260	2,327	2,325	2,121	2,120	2,199	2,351	2,178	2,031	2,043	2,072
Could only find part-time work	2,597	2,552	2,566	2,457	2,475	2,397	2,236	2,566	2,545	2,429	2,284	2,298	2,264
Voluntary part time	14,064	14,222	14,096	14,123	14,141	14,592	14,338	14,083	14,669	14,585	14,861	14,596	15,063

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and over	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059	115,180	115,328	115,521	115,976
16 to 24 years	20,065	20,112	20,312	20,271	19,916	19,990	19,773	20,404	20,159	20,153	20,060	19,913	19,862
16 to 19 years	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907	6,879	6,853	6,761	6,842
16 to 17 years	2,734	2,826	2,776	2,752	2,657	2,682	2,649	2,820	2,691	2,645	2,650	2,683	2,810
18 to 19 years	3,985	3,994	4,061	4,045	3,906	3,967	3,995	4,227	4,210	4,170	4,213	4,084	4,032
20 to 24 years	13,359	13,303	13,447	13,491	13,353	13,330	13,128	13,353	13,253	13,273	13,208	13,151	13,020
25 years and over	93,424	93,625	93,778	94,118	94,239	94,686	94,359	94,592	95,016	95,119	95,263	95,574	96,125
25 to 54 years	78,731	78,916	79,170	79,351	79,588	79,946	79,920	80,088	80,481	80,657	80,647	80,975	81,265
55 years and over	14,663	14,716	14,581	14,673	14,566	14,712	14,438	14,542	14,469	14,553	14,651	14,693	14,836
Men, 16 years and over	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490	63,425	63,512	63,417	63,537
16 to 24 years	10,370	10,369	10,456	10,444	10,349	10,427	10,351	10,591	10,446	10,508	10,414	10,277	10,399
16 to 19 years	3,417	3,471	3,521	3,434	3,352	3,440	3,439	3,614	3,537	3,591	3,489	3,428	3,556
16 to 17 years	1,390	1,451	1,441	1,406	1,376	1,397	1,369	1,418	1,388	1,392	1,396	1,406	1,461
18 to 19 years	2,040	2,035	2,053	2,046	1,982	2,042	2,068	2,184	2,150	2,149	2,099	2,026	2,098
20 to 24 years	6,953	6,898	6,935	7,010	6,998	6,987	6,912	6,977	6,910	6,917	6,925	6,849	6,843
25 years and over	52,210	52,299	52,338	52,623	52,469	52,862	52,654	52,793	53,064	52,972	53,078	53,116	53,146
25 to 54 years	43,592	43,690	43,848	43,992	43,975	44,336	44,175	44,278	44,541	44,463	44,595	44,697	44,710
55 years and over	8,605	8,629	8,470	8,567	8,467	8,530	8,466	8,542	8,534	8,529	8,495	8,474	8,422
Women, 16 years and over	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569	51,755	51,815	52,104	52,439
16 to 24 years	9,695	9,743	9,857	9,826	9,567	9,563	9,422	9,814	9,713	9,645	9,647	9,636	9,463
16 to 19 years	3,289	3,338	3,344	3,345	3,212	3,220	3,206	3,438	3,370	3,288	3,364	3,333	3,286
16 to 17 years	1,344	1,375	1,332	1,346	1,281	1,285	1,280	1,402	1,303	1,253	1,254	1,277	1,349
18 to 19 years	1,945	1,959	2,008	1,999	1,924	1,925	1,927	2,043	2,060	2,021	2,114	2,058	1,934
20 to 24 years	6,406	6,405	6,513	6,481	6,355	6,343	6,216	6,376	6,343	6,357	6,283	6,303	6,177
25 years and over	41,214	41,326	41,440	41,495	41,770	41,824	41,705	41,798	41,953	42,147	42,185	42,458	42,979
25 to 54 years	35,139	35,226	35,322	35,359	35,613	35,610	35,745	35,809	35,939	36,194	36,052	36,279	36,555
55 years and over	6,058	6,087	6,111	6,106	6,099	6,182	5,972	5,999	5,935	6,024	6,156	6,219	6,414

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

(In thousands)

Sex and age	1987		1988										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and over	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625	6,851	6,596	6,491	6,595
16 to 24 years	2,641	2,547	2,659	2,525	2,637	2,532	2,519	2,341	2,468	2,513	2,460	2,433	2,365
16 to 19 years	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234	1,293	1,278	1,187	1,100
16 to 17 years	649	613	638	580	568	580	509	512	569	607	682	561	510
18 to 19 years	691	688	689	655	732	658	720	627	630	671	612	628	588
20 to 24 years	1,306	1,243	1,347	1,293	1,336	1,273	1,289	1,229	1,234	1,220	1,182	1,246	1,265
25 years and over	4,442	4,412	4,393	4,416	4,161	4,082	4,251	4,077	4,150	4,358	4,181	4,060	4,231
25 to 54 years	3,909	3,939	3,896	3,926	3,730	3,625	3,744	3,654	3,691	3,871	3,728	3,629	3,769
55 years and over	513	488	527	499	441	446	520	442	461	476	437	409	426
Men, 16 years and over	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519	3,768	3,555	3,600	3,642
16 to 24 years	1,414	1,378	1,456	1,333	1,423	1,315	1,354	1,247	1,334	1,359	1,338	1,419	1,281
16 to 19 years	710	722	693	636	727	644	664	625	704	678	698	698	604
16 to 17 years	356	347	348	285	313	291	275	290	302	297	388	331	304
18 to 19 years	355	367	360	354	414	352	388	360	370	371	325	367	300
20 to 24 years	704	656	763	697	696	671	690	622	630	681	640	721	677
25 years and over	2,419	2,390	2,391	2,390	2,385	2,243	2,363	2,235	2,174	2,426	2,253	2,189	2,362
25 to 54 years	2,109	2,112	2,070	2,095	2,089	1,951	2,051	1,940	1,906	2,118	1,997	1,923	2,079
55 years and over	313	282	351	305	299	276	323	279	275	301	248	258	275
Women, 16 years and over	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106	3,083	3,041	2,890	2,954
16 to 24 years	1,227	1,169	1,203	1,192	1,214	1,217	1,166	1,094	1,134	1,154	1,122	1,014	1,085
16 to 19 years	625	582	619	596	574	615	566	487	530	615	580	489	496
16 to 17 years	293	266	290	295	255	289	234	222	267	310	294	230	206
18 to 19 years	336	321	329	301	318	306	332	267	260	300	287	261	288
20 to 24 years	602	587	584	596	640	602	600	607	604	539	542	525	589
25 years and over	2,023	2,022	2,002	2,026	1,776	1,838	1,888	1,842	1,976	1,933	1,928	1,872	1,869
25 to 54 years	1,800	1,827	1,826	1,831	1,641	1,674	1,693	1,714	1,785	1,753	1,731	1,706	1,690
55 years and over	200	206	175	194	142	170	197	163	186	175	189	150	152

HOUSEHOLD DATA
SEASONALLY ADJUSTED

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

(Civilian workers)

Sex and age	1987		1988										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and over	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3	5.4
16 to 24 years	11.6	11.2	11.6	11.1	11.7	11.2	11.3	10.3	10.9	11.1	10.9	10.9	10.6
16 to 19 years	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9	13.9
16 to 17 years	19.2	17.8	18.7	17.4	17.6	17.8	16.1	15.4	17.5	18.7	20.5	17.3	15.4
18 to 19 years	14.8	14.7	14.5	13.9	15.8	14.2	15.3	12.9	13.0	13.9	12.7	13.3	12.7
20 to 24 years	8.9	8.5	9.1	8.7	9.1	8.7	8.9	8.4	8.5	8.4	8.2	8.7	8.9
25 years and over	4.5	4.5	4.5	4.5	4.2	4.1	4.3	4.1	4.2	4.4	4.2	4.1	4.2
25 to 54 years	4.7	4.8	4.7	4.7	4.5	4.3	4.5	4.4	4.4	4.6	4.4	4.3	4.4
55 years and over	3.4	3.2	3.5	3.3	2.9	2.9	3.5	2.9	3.1	3.2	2.9	2.7	2.8
Men, 16 years and over	5.8	5.7	5.8	5.6	5.7	5.3	5.6	5.2	5.3	5.6	5.3	5.4	5.4
16 to 24 years	12.0	11.7	12.2	11.3	12.1	11.2	11.6	10.5	11.3	11.5	11.4	12.1	11.0
16 to 19 years	17.2	17.2	16.4	15.6	17.8	15.8	16.2	14.7	16.6	15.9	16.7	16.9	14.5
16 to 17 years	20.4	19.3	19.4	16.9	18.5	17.2	16.7	17.0	17.9	17.6	21.7	19.1	17.2
18 to 19 years	14.8	15.3	14.9	14.7	17.3	14.7	15.8	14.2	14.7	14.7	13.4	15.3	12.5
20 to 24 years	9.2	8.7	9.9	9.0	9.1	8.8	9.1	8.2	8.4	9.0	8.5	9.5	9.0
25 years and over	4.4	4.4	4.4	4.3	4.3	4.1	4.3	4.1	3.9	4.4	4.1	4.0	4.3
25 to 54 years	4.6	4.6	4.5	4.5	4.5	4.2	4.4	4.2	4.1	4.5	4.3	4.1	4.4
55 years and over	3.5	3.2	4.0	3.4	3.4	3.1	3.7	3.2	3.1	3.4	2.8	3.0	3.2
Women, 16 years and over	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7	5.6	5.5	5.3	5.3
16 to 24 years	11.2	10.7	10.9	10.8	11.3	11.3	11.0	10.0	10.5	10.7	10.4	9.5	10.3
16 to 19 years	16.0	14.8	15.6	15.1	15.2	16.0	15.0	12.4	13.6	15.8	14.7	12.8	13.1
16 to 17 years	17.9	16.2	17.9	18.0	16.6	18.4	15.5	13.7	17.0	19.8	19.0	15.3	13.2
18 to 19 years	14.7	14.1	14.1	13.1	14.2	13.7	14.7	11.6	11.2	12.9	12.0	11.3	13.0
20 to 24 years	8.6	8.4	8.2	8.4	9.1	8.7	8.8	8.7	8.7	7.8	7.9	7.7	8.7
25 years and over	4.7	4.7	4.6	4.7	4.1	4.2	4.3	4.2	4.5	4.4	4.4	4.2	4.2
25 to 54 years	4.9	4.9	4.9	4.9	4.4	4.5	4.5	4.6	4.7	4.6	4.6	4.5	4.4
55 years and over	3.2	3.3	2.8	3.1	2.3	2.7	3.2	2.6	3.0	2.8	3.0	2.4	2.3

A-39. Selected unemployment indicators, seasonally adjusted

(Unemployment rates)

Category	1987		1988										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
CHARACTERISTIC													
Total (all civilian workers)	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4	5.6	5.4	5.3	5.4
Men, 20 years and over	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.9	4.6	4.9	4.5	4.6
Women, 20 years and over	5.2	5.2	5.1	5.2	4.8	4.8	4.9	4.9	5.1	4.8	4.8	4.7	4.8
Both sexes, 16 to 19 years	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2	15.8	15.7	14.9	13.9
White	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7	4.9	4.8	4.6	4.6
Black and other	11.0	10.9	10.9	11.3	11.5	10.7	11.3	10.3	10.0	10.0	9.4	9.6	10.0
Black	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4	11.3	10.8	11.0	11.2
Hispanic origin	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0	8.4	7.4	7.7	8.1
Married men, spouse present	3.5	3.4	3.6	3.4	3.4	3.0	3.3	3.1	3.0	3.4	3.1	3.1	3.4
Married women, spouse present	4.2	4.3	4.2	4.1	4.0	3.8	3.9	3.7	4.1	4.1	3.8	3.7	3.8
Women who maintain families	8.5	8.4	8.9	8.3	7.5	8.7	8.4	7.8	8.6	7.4	8.1	7.9	7.6
Full-time workers	5.5	5.4	5.4	5.3	5.3	5.1	5.2	4.9	5.0	5.3	5.1	4.9	5.1
Part-time workers	8.2	8.0	8.3	7.9	7.7	7.4	7.7	7.8	8.1	7.4	7.5	7.4	7.1
Unemployed 15 weeks and over ¹	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.3	1.4	1.3	1.3	1.2
Labor force time lost ²	6.8	6.6	6.6	6.6	6.5	6.2	6.4	6.3	6.4	6.5	6.4	6.1	6.2
INDUSTRY													
Nonagricultural private wage and salary workers	5.8	5.7	5.8	5.7	5.6	5.3	5.7	5.4	5.4	5.6	5.4	5.4	5.5
Goods-producing industries	6.5	6.4	7.1	6.9	6.5	6.5	6.6	6.0	6.3	6.8	6.5	6.4	6.4
Mining	7.0	8.0	7.7	7.8	7.9	8.4	10.4	6.7	5.3	6.8	8.6	9.0	8.9
Construction	10.6	10.6	12.2	11.0	10.7	10.6	10.5	10.2	10.2	11.0	9.2	9.9	10.9
Manufacturing	5.3	5.1	5.6	5.6	5.2	5.3	5.4	4.8	5.2	5.6	5.6	5.3	5.0
Durable goods	4.8	4.8	5.5	5.9	5.2	4.8	4.9	4.4	5.0	5.0	5.5	5.0	4.7
Nondurable goods	5.9	5.6	5.8	5.3	5.3	6.0	6.0	5.4	5.6	6.4	5.9	5.7	5.3
Service-producing industries	5.5	5.3	5.3	5.1	5.2	4.7	5.2	5.1	5.0	5.1	4.9	5.0	5.1
Transportation and public utilities	4.5	4.6	3.6	3.6	4.2	3.8	4.4	4.1	3.5	3.8	3.7	3.3	4.2
Wholesale and retail trade	6.8	6.2	6.1	6.4	6.8	5.9	6.3	5.9	6.2	6.5	6.1	5.9	6.1
Finance and service industries	4.8	4.8	4.9	4.5	4.2	4.1	4.6	4.6	4.5	4.4	4.3	4.6	4.6
Government workers	3.4	3.2	3.0	2.8	2.8	3.0	2.9	2.8	3.1	3.1	2.7	2.5	2.4
Agricultural wage and salary workers	11.1	10.9	11.5	10.2	11.0	10.6	13.9	9.7	10.8	11.4	11.3	10.0	9.2

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
DURATION													
Less than 5 weeks	3,218	3,229	3,089	3,084	3,009	3,125	3,075	3,066	2,965	3,197	3,139	3,062	3,153
5 to 14 weeks	2,029	1,968	2,263	2,145	2,101	1,956	2,110	1,890	2,078	1,957	1,823	1,814	1,924
15 weeks and over	1,834	1,791	1,733	1,740	1,722	1,540	1,609	1,512	1,629	1,676	1,596	1,551	1,487
15 to 26 weeks	899	892	839	841	887	725	784	727	838	859	789	778	776
27 weeks and over	935	899	894	899	835	816	825	785	791	817	807	773	711
Average (mean) duration, in weeks	14.0	14.2	14.4	14.4	13.7	13.4	13.8	12.9	13.6	13.7	13.7	13.5	12.5
Median duration, in weeks	6.1	6.0	6.4	6.4	6.6	5.6	5.9	6.0	6.3	5.9	5.5	5.6	5.5
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	45.4	46.2	43.6	44.3	44.0	47.2	45.3	47.4	44.4	46.8	47.9	47.6	48.0
5 to 14 weeks	28.7	28.2	31.9	30.8	30.8	29.5	31.1	29.2	31.1	28.7	27.8	28.2	29.3
15 weeks and over	25.9	25.6	24.5	25.0	25.2	23.3	23.7	23.4	24.4	24.5	24.3	24.1	22.6
15 to 26 weeks	12.7	12.8	11.8	12.1	13.0	10.9	11.5	11.2	12.6	12.6	12.0	12.1	11.8
27 weeks and over	13.2	12.9	12.6	12.9	12.2	12.3	12.1	12.1	11.9	12.0	12.3	12.0	10.8

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

(Numbers in thousands)

Reasons for unemployment	1987		1988										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
NUMBER OF UNEMPLOYED													
Job losers	3,307	3,200	3,209	3,207	3,139	2,916	3,236	3,059	3,087	3,138	3,087	2,909	3,037
On layoff	878	856	888	884	899	821	793	863	852	891	816	853	810
Other job losers	2,429	2,344	2,320	2,323	2,240	2,095	2,443	2,196	2,235	2,247	2,271	2,056	2,227
Job leavers	926	946	1,082	961	1,075	993	926	944	904	997	994	986	948
Reentrants	1,974	1,945	1,917	1,951	1,756	1,784	1,789	1,723	1,901	1,869	1,761	1,764	1,765
New entrants	855	909	885	864	887	915	807	777	776	793	745	728	805
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	46.8	45.7	45.2	45.9	45.8	44.1	47.9	47.0	46.3	46.2	46.9	45.5	46.3
On layoff	12.4	12.2	12.5	12.7	13.1	12.4	11.7	13.3	12.8	13.1	12.4	13.4	12.4
Other job losers	34.4	33.5	32.7	33.3	32.7	31.7	36.2	33.8	33.5	33.1	34.5	32.2	34.0
Job leavers	13.1	13.5	15.3	13.8	15.7	15.0	13.7	14.5	13.6	14.7	15.1	15.4	14.5
Reentrants	28.0	27.8	27.0	27.9	25.6	27.0	26.5	26.5	28.5	27.5	26.7	27.6	26.9
New entrants	12.1	13.0	12.5	12.4	12.9	13.8	11.9	11.9	11.6	11.7	11.3	11.4	12.3
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE													
Job losers	2.7	2.7	2.6	2.6	2.6	2.4	2.7	2.5	2.5	2.6	2.5	2.4	2.5
Job leavers .....	.8	.8	.9	.8	.9	.8	.8	.8	.7	.8	.8	.8	.8
Reentrants	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.6	1.5	1.4	1.4	1.4
New entrants .....	.7	.8	.7	.7	.7	.8	.7	.6	.6	.6	.6	.6	.7

**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							Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Federal	State	Local	
Annual averages																
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	3,645	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:																
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	106,425	89,066	25,639	739	5,340	19,560	80,786	5,605	6,192	19,279	6,689	25,662	2,956	4,070	10,333	
September	106,737	89,205	25,648	734	5,365	19,549	81,089	5,618	6,219	19,291	6,692	25,737	2,989	4,086	10,457	
October ^p	106,975	89,459	25,741	729	5,364	19,648	81,234	5,623	6,242	19,329	6,710	25,814	2,990	4,071	10,455	
November ^p	107,438	89,877	25,860	722	5,419	19,719	81,578	5,662	6,270	19,348	6,729	26,008	2,991	4,097	10,473	

¹ Not available.

² Data include Alaska and Hawaii beginning in 1959. This inclusion resulted in an increase of 212,000 (0.4 percent) in the nonagricultural total for the March 1959 benchmark month.

^p = preliminary.

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

**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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Total		104,210	104,548	107,138	107,854	108,332					
Total private		86,855	87,034	89,939	90,104	90,408	70,369	70,523	72,799	72,938	73,172
Mining		746	745	740	736	731	540	541	536	533	528
Metal mining		44.7	44.8	50.9	51.3		34.0	34.2	39.7	40.1	
Iron ores	101	6.6	6.6	7.4	7.3		5.1	5.1	6.0	6.0	
Copper ores	102	14.1	14.2	14.2	14.3		11.2	11.3	11.0	11.1	
Coal mining	11,12	163.1	163.1	153.2	152.9		133.9	134.1	125.2	125.4	
Bituminous coal and lignite mining	12	161.2	161.2	151.2	150.9		132.2	132.4	123.5	123.7	
Oil and gas extraction	13	423.8	424.3	418.6	415.8	412.4	283.9	284.9	281.5	278.7	
Crude petroleum, natural gas, and natural gas liquids ...	131,2	204.3	203.9	197.6	196.8	-	102.2	101.7	99.2	98.5	
Oil and gas field services	138	219.5	220.4	221.0	219.0		181.7	183.2	182.3	180.2	
Nonmetallic minerals, except fuels	14	114.1	112.6	116.8	116.0		88.3	87.3	89.8	89.1	
Crushed and broken stone	142	41.8	41.3	43.0	42.6		33.3	32.8	34.0	33.7	
Sand and gravel	144	35.6	34.8	36.6	36.1		-	-	-	-	
Chemical and fertilizer minerals	147	17.2	17.1	17.4	17.8		-	-	-	-	
Construction		5,323	5,227	5,660	5,643	5,565	4,208	4,106	4,476	4,455	4,374
General building contractors	15	1,400.8	1,385.1	1,460.5	1,455.9	1,442.5	1,035.0	1,018.2	1,080.9	1,075.5	
Residential building construction	152	742.7	736.4	792.3	788.2	-	533.5	526.9	576.4	571.7	
Operative builders	153	55.1	54.0	53.0	52.6		26.7	25.3	24.1	23.5	
Nonresidential building construction	154	603.0	594.7	615.2	615.1		474.8	466.0	480.4	480.3	
Heavy construction contractors	16	844.6	806.4	856.1	849.0		718.0	680.0	726.3	719.5	
Highway and street construction	161	315.7	294.0	326.1	319.2		268.9	246.9	275.6	269.2	
Heavy construction, except highway	162	528.9	512.4	530.0	529.8		449.1	433.1	450.7	450.3	
Special trade contractors	17	3,077.7	3,035.0	3,343.2	3,338.5		2,454.6	2,408.2	2,668.8	2,660.0	
Plumbing, heating, and air conditioning	171	655.4	653.5	698.3	702.7		489.3	485.3	522.5	525.4	
Painting, paper hanging, and decorating	172	183.2	179.3	194.6	192.2		154.8	150.9	165.7	162.9	
Electrical work	173	557.3	559.2	600.6	603.1		436.1	437.8	471.5	472.3	
Masonry, stonework, and plastering	174	508.3	499.6	572.9	563.6		438.2	428.4	495.3	486.2	
Carpentering and flooring	175	191.9	188.3	197.2	195.2		149.0	144.7	153.6	151.0	
Roofing and sheet metal work	176	227.2	220.2	231.6	234.2		185.1	178.5	185.6	188.5	
Manufacturing		19,335	19,379	19,726	19,762	19,804	13,226	13,256	13,498	13,523	13,563
Durable goods		11,360	11,400	11,606	11,642	11,688	7,578	7,609	7,753	7,782	7,828
Lumber and wood products	24	755.5	751.0	773.6	771.9	769.0	632.3	627.8	645.6	643.5	639.7
Logging camps and logging contractors	241	88.1	89.3	92.7	95.9	-	73.7	74.7	77.0	80.5	-
Sawmills and planing mills	242	204.8	203.9	206.5	205.5		181.0	180.2	181.3	180.3	
Sawmills and planing mills, general	2421	166.8	165.8	169.0	167.8		147.4	146.5	148.3	147.2	
Hardwood dimension and flooring	2426	34.6	34.7	34.1	34.2		30.5	30.5	30.1	30.1	
Millwork, plywood, and structural members	243	263.9	260.7	269.4	265.2		218.2	215.1	222.1	217.6	
Millwork	2431	101.9	100.0	105.0	102.8		82.6	80.5	85.1	82.7	
Wood kitchen cabinets	2434	71.0	70.9	70.8	70.2		57.4	57.2	56.9	56.0	
Hardwood veneer and plywood	2435	24.3	24.1	24.6	24.8		21.3	21.2	21.4	21.6	
Softwood veneer and plywood	2436	37.9	37.5	38.9	38.1		34.5	34.1	35.1	34.3	
Wood containers	244	42.1	41.4	44.0	44.3		35.6	35.0	37.3	37.5	
Wood buildings and mobile homes	245	72.7	72.0	75.6	75.3		55.2	54.4	58.0	57.5	
Mobile homes	2451	48.3	47.8	51.6	51.8		39.3	38.7	42.3	42.4	
Miscellaneous wood products	249	83.9	83.7	85.4	85.7		68.6	68.4	69.9	70.1	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Furniture and fixtures	25	532.9	536.7	539.8	544.9	546.0	427.7	430.2	432.0	437.0	438.0
Household furniture	251	316.2	319.2	317.0	321.1	-	267.9	270.2	268.4	272.2	-
Wood household furniture	2511	142.1	143.1	144.2	144.6	-	124.5	125.2	126.1	126.5	-
Upholstered household furniture	2512	101.9	102.7	103.4	104.4	-	85.6	86.4	86.9	87.8	-
Metal household furniture	2514	26.6	27.8	24.2	26.5	-	21.7	22.7	19.3	21.4	-
Mattresses and bedsprings	2515	29.3	28.9	30.8	30.4	-	22.3	21.9	24.1	23.7	-
Office furniture	252	68.8	69.2	68.3	68.2	-	52.0	52.4	51.6	51.6	-
Public building and related furniture	253	29.5	29.7	31.0	31.2	-	22.5	22.7	24.2	24.6	-
Partitions and fixtures	254	77.4	77.2	79.4	79.7	-	56.5	56.1	58.1	58.2	-
Miscellaneous furniture and fixtures	259	41.0	41.4	44.1	44.7	-	28.8	28.8	29.7	30.4	-
Stone, clay, and glass products	32	591.8	589.3	597.9	597.3	594.6	460.0	457.7	466.7	466.6	464.3
Flat glass	321	14.6	14.8	15.1	15.1	-	11.3	11.5	11.8	12.0	-
Glass and glassware, pressed or blown	322	87.5	86.6	86.4	85.9	-	75.4	74.6	74.4	74.4	-
Glass containers	3221	44.5	43.7	43.1	43.2	-	40.2	39.4	39.1	39.3	-
Pressed and blown glass, nec	3229	43.0	42.9	43.3	42.7	-	35.2	35.2	35.3	35.1	-
Products of purchased glass	323	51.4	51.6	52.6	52.6	-	37.0	37.3	40.0	39.9	-
Cement, hydraulic	324	20.6	20.4	20.3	20.2	-	15.8	15.6	15.5	15.4	-
Structural clay products	325	38.7	38.5	39.0	39.1	-	30.4	30.3	30.6	30.7	-
Pottery and related products	326	36.7	37.0	38.4	38.5	-	29.3	29.4	30.5	30.7	-
Concrete, gypsum, and plaster products	327	218.0	215.5	218.0	217.3	-	169.9	167.5	168.8	167.9	-
Concrete block and brick	3271	20.3	20.3	21.2	20.9	-	13.5	13.4	13.7	13.6	-
Concrete products, nec	3272	72.8	72.5	73.5	73.9	-	55.9	55.6	56.1	56.3	-
Ready-mixed concrete	3273	105.6	103.3	104.3	103.5	-	85.6	83.4	84.3	83.2	-
Misc. nonmetallic mineral products	329	111.4	112.2	114.3	114.7	-	80.7	81.5	84.3	84.7	-
Abrasive products	3291	21.6	21.7	22.1	22.1	-	14.9	14.9	15.3	15.5	-
Asbestos products	3292	8.7	8.7	8.7	8.6	-	6.7	6.7	6.5	6.4	-
Mineral wool	3296	24.6	24.9	24.6	24.8	-	-	-	-	-	-
Primary metal industries	33	762.6	766.4	789.5	790.6	796.6	578.0	582.6	605.9	606.2	611.9
Blast furnaces and basic steel products	331	276.0	277.3	280.6	279.7	282.7	210.6	212.2	217.6	216.1	219.1
Blast furnaces and steel mills	3312	209.1	209.9	211.3	210.6	-	161.0	161.9	165.4	164.1	-
Steel pipe and tubes	3317	24.2	24.2	25.3	25.1	-	17.8	18.2	19.0	19.1	-
Iron and steel foundries	332	132.4	133.7	143.7	144.5	-	104.6	106.1	115.8	116.7	-
Gray iron foundries	3321	82.4	83.2	87.3	87.7	-	66.9	67.7	71.6	72.2	-
Malleable iron foundries	3322	9.0	8.9	9.5	9.5	-	6.6	6.6	7.2	7.2	-
Steel foundries, nec	3325	27.1	27.6	32.5	32.6	-	20.4	20.9	25.7	25.7	-
Primary nonferrous metals	333	40.0	40.7	42.5	42.5	-	28.7	29.6	31.5	31.6	-
Primary aluminum	3334	21.2	21.6	23.0	23.0	-	15.3	15.9	17.5	17.5	-
Nonferrous rolling and drawing	335	183.5	183.4	186.1	186.8	-	131.7	131.8	134.1	134.4	-
Copper rolling and drawing	3351	23.7	23.7	24.4	24.5	-	18.4	18.4	18.7	18.8	-
Aluminum sheet, plate, and foil	3353	28.0	27.9	28.0	28.0	-	20.0	19.7	19.3	19.2	-
Nonferrous wire drawing and insulating	3357	79.1	79.3	81.2	81.8	-	56.4	56.9	59.2	59.7	-
Nonferrous foundries	336	87.8	88.2	91.6	92.1	-	70.8	71.0	73.8	74.0	-
Aluminum foundries	3361	54.3	54.4	56.1	56.0	-	44.5	44.6	46.0	45.7	-
Fabricated metal products	34	1,430.0	1,437.1	1,470.0	1,477.5	1,479.5	1,063.9	1,070.1	1,098.1	1,105.1	1,107.8
Metal cans and shipping containers	341	55.5	55.5	54.4	53.8	-	47.2	47.1	46.9	46.0	-
Metal cans	3411	44.6	44.7	43.5	42.8	-	38.5	38.4	37.8	36.9	-
Cutlery, hand tools, and hardware	342	134.6	135.4	132.5	132.9	-	99.5	100.4	98.3	98.6	-
Hand and edge tools, and hand saws and blades	3423,5	46.5	46.8	45.6	45.9	-	34.2	34.4	33.1	33.4	-
Hardware, nec	3429	77.2	77.7	75.6	75.6	-	57.9	58.6	57.4	57.3	-
Plumbing and heating, except electric	343	62.4	62.7	64.8	64.9	-	44.9	45.1	47.0	47.5	-
Plumbing fittings and brass goods	3432	25.1	25.3	25.9	25.9	-	18.3	18.5	18.9	19.0	-
Heating equipment, except electric	3433	26.0	25.6	26.7	26.9	-	17.9	17.5	18.7	19.1	-
Fabricated structural metal products	344	436.0	436.4	448.8	449.8	-	312.6	312.9	324.2	325.4	-
Fabricated structural metal	3441	78.4	78.7	80.6	80.5	-	56.0	56.5	58.7	58.4	-
Metal doors, sash, and trim	3442	94.7	94.1	94.3	93.3	-	70.6	69.7	69.3	68.6	-
Fabricated plate work (boiler shops)	3443	87.4	88.0	94.2	95.3	-	57.1	57.8	63.8	64.9	-
Sheet metal work	3444	112.1	112.1	114.4	115.1	-	84.7	84.7	86.0	86.8	-
Architectural metal work	3446	31.1	31.0	32.2	32.5	-	22.9	22.7	23.9	24.3	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Fabricated metal products—Continued											
Screw machine products, bolts, etc	345	93.6	94.3	98.5	98.6		71.8	72.3	75.8	75.7	
Screw machine products	3451	47.2	47.6	50.9	50.9		38.7	39.1	41.9	41.7	
Bolts, nuts, rivets, and washers	3452	46.4	46.7	47.6	47.7		33.1	33.2	33.9	34.0	
Metal forgings and stampings	346	234.5	236.8	238.9	241.7		187.3	189.3	189.9	192.7	
Iron and steel forgings	3462	29.6	29.7	30.4	30.6		22.7	22.8	23.4	23.4	
Automotive stampings	3465	96.1	97.8	95.5	97.9		81.9	83.5	80.6	83.0	
Metal stampings, nec	3469	97.6	98.0	101.7	101.8		74.7	74.8	77.5	77.9	
Metal services, nec	347	114.7	115.9	119.5	122.1		92.2	93.2	95.6	98.1	
Plating and polishing	3471	74.2	75.2	78.0	79.7		60.0	60.9	62.8	64.3	
Metal coating and allied services	3479	40.5	40.7	41.5	42.4		32.2	32.3	32.8	33.8	
Ordinance and accessories, nec	348	78.1	78.3	78.0	77.5		47.4	47.7	49.5	48.9	
Ammunition, except for small arms, nec	3483	43.7	43.8	42.6	42.4		23.8	23.9	24.2	23.7	
Misc. fabricated metal products	349	220.6	221.8	234.6	236.2		161.0	162.1	170.9	172.2	
Valves and pipe fittings	3494	81.5	80.9	89.0	89.1		55.0	54.8	60.3	60.4	
Misc. fabricated wire products	3496	53.5	54.4	55.6	56.1		40.9	41.5	42.5	43.1	
Machinery, except electrical	35	2,045.2	2,058.3	2,156.6	2,167.9	2,182.3	1,218.2	1,227.7	1,288.6	1,296.7	1,307.5
Engines and turbines	351	89.4	89.0	88.6	89.0	-	57.9	58.0	58.6	58.9	-
Turbines and turbine generator sets	3511	24.4	24.2	22.9	23.1		13.1	13.3	13.4	13.7	
Internal combustion engines, nec	3519	65.0	64.8	65.7	65.9		44.8	44.7	45.2	45.2	
Farm and garden machinery	352	96.0	97.4	103.6	104.5		65.7	66.9	74.1	74.8	
Farm machinery and equipment	3523	69.8	70.5	76.7	76.5		45.7	46.3	53.3	53.0	
Construction and related machinery	353	219.3	221.1	235.4	235.5		132.1	133.3	144.8	144.7	
Construction machinery	3531	79.8	80.5	84.4	84.4		48.6	49.3	52.7	52.8	
Mining machinery	3532	17.3	17.7	18.3	18.4		10.6	10.7	11.2	11.3	
Oil field machinery	3533	40.3	40.7	44.9	44.9		24.1	24.2	27.3	27.0	
Conveyors and conveying equipment	3535	32.5	32.8	34.3	34.1		17.2	17.3	18.4	18.3	
Industrial trucks and tractors	3537	25.1	25.0	26.6	26.5		17.6	17.5	18.5	18.4	
Metalworking machinery	354	287.8	289.4	303.2	305.5		205.7	207.1	218.6	219.9	
Machine tools, metal cutting types	3541	45.0	45.0	46.9	47.3		28.3	28.5	29.9	30.3	
Machine tools, metal forming types	3542	16.8	17.0	17.6	17.8		10.6	10.8	11.4	11.4	
Special dies, tools, jigs, and fixtures	3544	136.8	137.5	143.5	144.6		104.5	105.0	110.5	111.2	
Machine tool accessories	3545	52.4	52.8	56.5	56.8		37.2	37.6	40.4	40.6	
Power driven hand tools	3546	20.0	20.0	20.4	20.5		14.7	14.7	14.9	14.8	
Special industry machinery	355	163.9	164.8	175.3	175.9		98.0	99.1	105.5	105.8	
Food products machinery	3551	38.5	38.7	40.9	40.9		23.2	23.5	24.6	24.7	
Textile machinery	3552	20.5	20.5	21.2	21.3		13.7	13.7	14.1	14.1	
Printing trades machinery	3555	27.0	27.2	29.1	29.2		16.1	16.3	17.6	17.6	
General industrial machinery	356	248.2	249.2	259.5	261.1		159.1	159.8	167.4	169.1	
Pumps and pumping equipment	3561	43.7	44.1	46.0	46.4		25.0	25.3	26.7	26.8	
Ball and roller bearings	3562	41.2	41.2	42.7	42.8		32.0	32.0	33.1	33.2	
Air and gas compressors	3563	20.2	20.3	20.8	20.8		11.7	11.8	12.0	12.3	
Blowers and fans	3564	30.2	30.1	30.5	30.7		19.6	19.4	19.7	20.0	
Speed changers, drives, and gears	3566	19.3	19.4	20.7	20.7		13.1	13.2	14.3	14.3	
Power transmission equipment, nec	3568	16.7	16.9	17.8	17.9		11.1	11.3	12.0	12.2	
Office and computing machines	357	488.5	493.7	517.8	519.7		165.1	167.4	167.4	167.8	
Electronic computing equipment	3573	435.5	440.3	463.3	465.1		139.7	141.7	142.4	142.9	
Refrigeration and service machinery	358	178.0	177.3	180.9	181.9		128.2	127.4	130.2	131.4	
Refrigeration and heating equipment	3585	126.5	126.1	129.4	130.3		93.5	93.1	95.5	96.6	
Misc. machinery, except electrical	359	274.1	276.4	292.3	294.8		206.4	208.7	222.0	224.3	
Carburetors, pistons, rings, and valves	3592	31.1	31.3	32.3	32.3		24.7	24.9	25.7	25.7	
Machinery, except electrical, nec	3599	243.0	245.1	260.0	262.5		181.7	183.8	196.3	198.6	
Electrical and electronic equipment	36	2,101.3	2,108.7	2,130.3	2,134.6	2,141.2	1,240.1	1,243.9	1,260.3	1,264.7	1,271.5
Electric distributing equipment	361	108.2	108.6	111.3	112.1	-	78.2	78.6	79.3	79.8	-
Transformers	3612	49.1	49.5	50.2	50.5		35.9	36.1	36.3	36.5	
Switchgear and switchboard apparatus	3613	59.1	59.1	61.1	61.6		42.3	42.5	43.0	43.3	
Electrical industrial apparatus	362	181.8	183.6	188.4	188.1		124.8	126.4	131.2	130.7	
Motors and generators	3621	87.0	87.8	90.1	89.9		66.8	67.6	70.8	70.6	
Industrial controls	3622	60.2	60.9	62.6	62.4		34.5	35.0	36.6	36.4	
Household appliances	363	138.9	139.2	139.2	139.8		111.1	111.0	113.2	113.6	
Household refrigerators and freezers	3632	29.2	29.3	29.2	28.9		23.6	23.8	24.0	23.7	
Household laundry equipment	3633	22.5	22.5	22.7	22.7		18.0	18.0	18.5	18.6	
Electric housewares and fans	3634	36.5	36.3	37.8	38.2		28.5	28.1	30.4	30.6	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Electrical and electronic equipment—Continued											
Electric lighting and wiring equipment	364	193.7	194.1	193.3	195.0		141.2	141.7	140.2	141.1	
Electric lamps	3641	25.4	25.5	25.0	25.1		21.7	21.7	21.4	21.3	
Current-carrying wiring devices	3643	75.9	75.5	75.3	75.1		50.2	50.0	49.0	48.7	
Noncurrent-carrying wiring devices	3644	15.6	15.5	16.0	16.0		11.4	11.3	11.9	11.9	
Residential lighting fixtures	3645	27.9	28.2	28.1	29.1		21.3	21.6	21.5	22.2	
Radio and TV receiving equipment	365	85.2	84.2	85.7	86.8		59.1	58.6	59.7	60.5	
Radio and TV receiving sets	3651	64.0	63.5	64.5	65.2		43.4	43.4	43.4	43.9	
Communication equipment	366	605.4	605.7	592.6	589.2		253.3	252.2	248.4	247.6	
Telephone and telegraph apparatus	3661	116.8	116.9	116.9	116.2		66.0	66.1	69.8	69.9	
Radio and TV communication equipment	3662	488.6	488.8	475.7	473.0		187.3	186.1	178.6	177.7	
Electronic components and accessories	367	637.8	642.2	666.2	667.6		365.9	368.2	379.2	380.4	
Electronic tubes	3671-3	38.0	38.0	38.6	38.4		24.3	24.3	24.9	24.9	
Semiconductors and related devices	3674	250.0	251.9	268.6	269.0		97.5	98.4	106.6	106.9	
Electronic components, nec	3679	276.1	278.2	281.0	281.7		188.5	190.3	189.5	190.0	
Misc. electrical equipment and supplies	369	150.3	151.1	153.6	156.0		106.5	107.2	109.1	111.0	
Storage batteries	3691	28.9	29.1	30.5	31.2		22.7	22.8	23.4	23.8	
Engine electrical equipment	3694	66.0	66.5	66.5	68.2		50.6	51.1	50.8	52.4	
Transportation equipment	37	2,055.7	2,060.7	2,042.4	2,048.9	2,067.8	1,292.7	1,298.6	1,274.9	1,279.3	1,301.9
Motor vehicles and equipment	371	863.0	863.1	857.8	862.4	869.0	672.2	674.9	671.0	674.7	681.0
Motor vehicles and car bodies	3711	376.3	373.4	360.3	363.8	-	283.3	282.6	273.1	275.9	-
Truck and bus bodies	3713	43.4	42.9	43.3	42.7	-	33.9	33.6	33.8	33.4	-
Motor vehicle parts and accessories	3714	393.0	397.4	399.7	401.4	-	315.4	320.0	321.0	322.3	-
Truck trailers	3715	31.6	30.6	33.6	33.2	-	24.8	23.8	26.6	26.5	-
Aircraft and parts	372	705.8	707.2	697.9	696.4	-	351.6	353.0	339.1	337.8	-
Aircraft	3721	364.9	366.8	368.5	369.1	-	163.1	164.4	160.9	161.7	-
Aircraft engines and engine parts	3724	156.3	155.7	149.2	148.1	-	78.9	79.1	74.1	74.0	-
Aircraft equipment, nec	3728	184.6	184.7	180.2	179.2	-	109.6	109.5	104.1	102.1	-
Ship and boat building and repairing	373	188.8	191.8	185.6	189.0	-	142.8	144.9	137.3	138.9	-
Ship building and repairing	3731	125.4	128.2	119.8	122.7	-	91.3	93.3	83.2	84.2	-
Boat building and repairing	3732	63.4	63.6	65.8	66.3	-	51.5	51.6	54.1	54.7	-
Railroad equipment	374	27.5	27.6	33.5	34.3	-	19.4	19.5	24.8	25.6	-
Guided missiles, space vehicles, and parts	376	206.4	207.4	205.5	205.6	-	63.3	63.5	61.1	61.6	-
Guided missiles and space vehicles	3761	155.4	156.0	153.5	153.6	-	46.8	46.6	43.3	43.8	-
Miscellaneous transportation equipment	379	52.5	51.8	50.9	50.0	-	35.3	34.7	33.8	32.9	-
Travel trailers and campers	3792	20.6	19.9	20.6	20.0	-	16.0	15.3	16.1	15.5	-
Instruments and related products	38	699.1	704.3	716.4	717.8	720.6	381.4	385.8	396.0	398.0	400.4
Engineering and scientific instruments	381	83.2	84.0	87.0	86.7	-	37.9	38.7	40.4	40.5	-
Measuring and controlling devices	382	237.1	237.7	235.9	236.4	-	132.4	132.9	135.1	135.5	-
Environmental controls	3822	41.6	41.7	41.8	41.5	-	27.1	27.2	27.8	27.7	-
Process control instruments	3823	53.4	53.8	53.7	54.0	-	27.8	28.2	28.7	29.0	-
Instruments to measure electricity	3825	101.3	101.2	100.3	100.4	-	49.7	49.6	51.1	51.2	-
Optical instruments and lenses	383	33.7	33.9	35.3	35.6	-	16.4	16.7	18.2	18.5	-
Medical instruments and supplies	384	190.8	193.1	201.1	202.8	-	114.8	116.9	121.2	122.7	-
Surgical and medical instruments	3841	94.5	95.2	98.5	98.8	-	54.4	55.0	56.9	57.6	-
Surgical appliances and supplies	3842	82.3	83.8	87.6	88.9	-	52.5	53.9	55.9	56.6	-
Ophthalmic goods	385	37.6	37.6	38.3	37.9	-	25.8	25.9	26.4	26.2	-
Photographic equipment and supplies	386	105.3	106.2	107.7	107.5	-	45.6	45.8	46.4	46.4	-
Watches, clocks, and watchcases	387	11.4	11.8	11.1	10.9	-	8.5	8.9	8.3	8.2	-
Miscellaneous manufacturing	39	385.9	387.5	389.1	390.2	390.2	283.5	284.8	284.9	285.3	284.6
Jewelry, silverware, and plated ware	391	56.7	56.8	57.5	57.8	-	39.8	39.6	40.8	41.3	-
Jewelry, precious metal	3911	40.6	40.7	40.9	41.0	-	28.3	28.2	28.9	29.1	-
Musical instruments	393	13.0	13.0	12.6	12.5	-	10.9	10.9	10.5	10.4	-
Toys and sporting goods	394	103.4	103.9	106.7	106.9	-	78.7	79.0	80.1	79.8	-
Dolls, games, toys, and children's vehicles	3942,4	49.1	48.5	49.0	49.4	-	36.9	36.2	35.9	36.0	-
Sporting and athletic goods, nec	3949	54.3	55.4	57.7	57.5	-	41.8	42.8	44.2	43.8	-
Pens, pencils, office, and art supplies	395	32.8	32.8	33.1	32.9	-	22.8	22.8	23.2	23.2	-
Costume jewelry and notions	396	43.7	44.4	41.3	40.9	-	34.0	34.9	32.4	31.5	-
Costume jewelry	3961	23.2	23.8	21.7	21.4	-	18.2	18.9	16.8	16.3	-
Miscellaneous manufactures	399	136.3	136.6	137.9	139.2	-	97.3	97.6	97.9	99.1	-
Signs and advertising displays	3993	59.6	59.9	60.6	61.3	-	41.3	41.5	42.0	42.3	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods		7,975	7,979	8,120	8,120	8,116	5,648	5,647	5,745	5,741	5,735
Food and kindred products	20	1,671.2	1,650.6	1,714.1	1,697.0	1,675.5	1,192.4	1,173.9	1,231.4	1,214.8	1,195.1
Meat products	201	394.3	398.3	400.7	404.5	-	334.8	338.3	339.4	342.8	-
Meat packing plants	2011	138.4	140.7	143.4	144.1	-	116.6	118.6	120.1	120.7	-
Sausages and other prepared meats	2013	80.7	81.1	80.7	81.8	-	59.6	60.0	59.5	60.4	-
Poultry dressing plants	2016	154.1	155.4	156.2	157.9	-	139.7	140.9	141.7	143.3	-
Dairy products	202	162.6	162.4	165.3	163.3	-	98.1	98.1	99.4	98.3	-
Cheese, natural and processed	2022	42.2	42.4	43.1	43.2	-	32.2	32.5	32.9	33.0	-
Fluid milk	2026	80.5	80.5	81.0	80.8	-	39.9	40.0	40.0	40.1	-
Preserved fruits and vegetables	203	256.8	238.1	294.1	267.9	-	213.7	195.2	248.0	222.6	-
Canned specialties	2032	25.3	24.5	26.5	26.1	-	17.7	17.3	19.4	19.2	-
Canned fruits and vegetables	2033	83.1	73.4	116.9	92.6	-	69.6	60.1	101.9	78.5	-
Frozen fruits and vegetables	2037	52.8	46.8	53.0	52.6	-	47.0	41.0	47.3	46.8	-
Grain mill products	204	128.9	129.4	134.2	135.4	-	89.5	89.7	94.0	95.6	-
Flour and other grain mill products	2041	23.2	23.4	24.4	24.2	-	15.9	16.1	16.9	17.0	-
Prepared feeds, nec	2048	42.7	42.8	44.4	44.7	-	27.1	27.1	28.3	28.6	-
Bakery products	205	211.5	211.5	208.8	210.1	-	130.1	130.4	128.3	129.2	-
Bread, cake, and related products	2051	163.9	163.6	160.6	161.6	-	92.0	92.3	90.9	91.5	-
Cookies and crackers	2052	47.6	47.9	48.2	48.5	-	38.1	38.1	37.4	37.7	-
Sugar and confectionery products	206	106.8	106.8	101.3	110.3	-	85.6	85.4	80.8	88.7	-
Cane and beet sugar	2061-3	27.7	27.0	20.5	26.6	-	22.3	21.6	16.2	22.0	-
Confectionery products	2065	59.2	60.1	60.9	63.9	-	49.7	50.4	51.1	53.2	-
Fats and oils	207	36.3	34.7	34.3	35.2	-	26.0	25.8	25.0	26.0	-
Beverages	208	201.8	200.1	202.2	198.2	-	85.4	84.2	87.3	84.1	-
Malt beverages	2082	39.7	39.6	39.5	39.3	-	24.7	24.7	23.7	23.4	-
Bottled and canned soft drinks	2086	118.3	117.1	117.8	115.8	-	38.1	37.6	39.9	38.3	-
Misc. food and kindred products	209	172.2	169.3	173.2	172.1	-	129.2	126.8	129.2	127.5	-
Tobacco manufactures	21	56.3	55.2	54.9	55.2	54.2	42.8	41.9	41.1	41.3	40.5
Cigarettes	211	38.2	38.6	38.1	38.2	-	28.1	28.7	28.0	27.9	-
Textile mill products	22	734.7	736.1	727.3	726.1	726.3	637.8	638.7	630.6	629.6	630.2
Weaving mills, cotton	221	101.9	102.5	97.5	96.9	-	92.2	92.6	88.3	87.6	-
Weaving mills, synthetics	222	89.6	90.2	94.1	94.2	-	79.9	80.4	83.2	83.4	-
Weaving and finishing mills, wool	223	18.5	18.8	19.3	19.5	-	15.1	15.4	15.7	15.8	-
Narrow fabric mills	224	23.6	23.6	25.1	25.2	-	20.6	20.4	21.5	21.6	-
Knitting mills	225	213.4	214.0	207.2	206.3	-	187.1	187.5	182.9	182.2	-
Women's hosiery, except socks	2251	35.0	35.1	32.6	32.4	-	31.2	31.3	29.7	29.4	-
Hosiery, nec	2252	35.3	35.4	35.0	34.9	-	31.6	31.7	31.6	31.5	-
Knit outerwear mills	2253	72.1	72.4	69.4	69.1	-	64.0	64.5	61.9	61.6	-
Knit underwear mills	2254	25.9	26.2	25.6	25.4	-	22.0	21.9	21.5	21.5	-
Circular knit fabric mills	2257	26.0	26.0	25.4	25.6	-	22.6	22.5	22.2	22.4	-
Textile finishing, except wool	226	61.2	61.0	58.9	58.5	-	51.5	51.3	48.7	48.5	-
Finishing plants, cotton	2261	24.4	24.5	24.1	24.0	-	20.7	20.7	19.8	19.9	-
Finishing plants, synthetics	2262	22.4	22.3	21.2	21.2	-	18.3	18.2	17.1	17.1	-
Floor covering mills	227	59.9	59.4	59.6	59.8	-	48.3	48.0	48.5	48.6	-
Yarn and thread mills	228	112.2	112.4	110.5	110.8	-	100.6	100.9	98.8	98.9	-
Yarn mills, except wool	2281	82.9	83.2	81.7	82.2	-	75.2	75.6	74.0	74.2	-
Throwing and winding mills	2282	15.4	15.3	15.1	15.1	-	13.6	13.5	13.3	13.3	-
Miscellaneous textile goods	229	54.4	54.2	55.1	54.9	-	42.5	42.2	43.0	43.0	-
Apparel and other textile products	23	1,118.4	1,117.8	1,095.7	1,098.3	1,099.1	940.5	940.3	923.0	925.4	926.7
Men's and boys' suits and coats	231	57.9	58.1	58.8	58.4	-	49.9	50.1	51.1	50.6	-
Men's and boys' furnishings	232	313.3	314.6	309.7	307.8	-	270.2	271.3	266.9	265.1	-
Men's and boys' shirts and nightwear	2321	86.4	86.4	83.3	83.0	-	74.1	73.9	71.1	70.8	-
Men's and boys' separate trousers	2327	50.0	50.6	49.5	49.7	-	43.8	44.2	43.0	43.2	-
Men's and boys' work clothing	2328	97.6	97.9	94.8	92.7	-	85.1	85.5	82.8	80.6	-
Women's and misses' outerwear	233	357.6	355.9	341.9	344.2	-	298.8	297.3	285.1	287.8	-
Women's and misses' blouses and waists	2331	46.2	46.2	44.5	44.5	-	38.6	38.5	36.6	36.7	-
Women's and misses' dresses	2335	84.4	82.3	80.6	81.6	-	71.0	68.9	66.8	67.6	-
Women's and misses' suits and coats	2337	43.5	42.6	43.6	42.9	-	36.0	35.3	36.2	35.4	-
Women's and misses' outerwear, nec	2339	183.5	184.8	173.2	175.2	-	153.2	154.6	145.5	148.1	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Apparel and other textile products—Continued											
Women's and children's undergarments	234	73.2	72.7	70.3	70.7		60.0	59.7	58.4	58.8	
Women's and children's underwear	2341	60.0	59.4	57.6	57.7		51.1	50.7	49.5	49.6	
Brassieres and allied garments	2342	13.2	13.3	12.7	13.0		8.9	9.0	8.9	9.2	
Children's outerwear	236	59.7	59.6	55.3	55.1		50.0	50.0	46.7	46.3	
Children's dresses and blouses	2361	25.1	25.2	23.0	23.1		22.1	22.1	20.0	20.1	
Misc. apparel and accessories	238	42.8	42.5	42.8	42.9		35.7	35.2	35.3	35.5	
Misc. fabricated textile products	239	196.5	197.1	198.7	200.7		162.2	163.2	165.0	166.7	
Curtains and draperies	2391	26.0	26.0	25.1	25.1		21.1	21.2	20.7	20.7	
House furnishings, nec	2392	55.7	56.0	56.0	57.5		47.7	48.1	47.7	48.7	
Automotive and apparel trimmings	2396	40.3	40.6	40.5	41.2		33.8	34.0	33.8	34.6	
Paper and allied products	26	682.7	684.0	690.9	691.3	693.8	518.3	519.7	522.0	521.6	526.3
Paper and pulp mills	261,2,6	190.0	190.3	190.5	190.1	-	144.3	144.7	144.3	143.5	-
Paper mills, except building paper	262	166.3	166.6	167.8	167.3		125.6	126.0	126.6	125.7	
Paperboard mills	263	53.2	53.2	53.2	52.9		40.1	40.2	40.6	40.3	
Misc. converted paper products	264	233.8	234.3	237.2	237.9		173.2	173.5	174.1	174.2	
Paper coating and glazing	2641	58.6	58.6	58.9	58.9		36.9	36.7	35.4	35.0	
Envelopes	2642	27.1	27.1	27.1	27.3		21.0	21.1	20.9	21.1	
Bags, except textile bags	2643	52.7	53.1	54.0	54.2		41.6	42.0	42.5	42.6	
Paperboard containers and boxes	265	205.7	206.2	210.0	210.4		160.7	161.3	163.0	163.6	
Folding paperboard boxes	2651	45.2	45.5	45.9	46.0		35.9	36.2	36.5	36.7	
Corrugated and solid fiber boxes	2653	111.3	111.5	113.5	113.7		84.8	84.9	85.4	85.6	
Sanitary food containers	2654	22.4	22.5	23.7	23.3		19.2	19.3	20.0	19.6	
Printing and publishing	27	1,521.3	1,535.3	1,569.8	1,579.3	1,588.7	850.4	859.8	876.1	881.7	886.9
Newspapers	271	475.3	479.0	477.2	479.4	-	174.6	175.9	170.9	171.9	-
Periodicals	272	122.9	124.3	128.2	129.6		46.5	46.7	45.6	46.0	
Books	273	106.6	108.3	111.3	110.4		54.7	56.6	58.1	56.8	
Book publishing	2731	79.3	80.4	82.3	81.6		33.3	34.7	34.8	33.8	
Book printing	2732	27.3	27.9	29.0	28.8		21.4	21.9	23.3	23.0	
Miscellaneous publishing	274	79.0	80.2	82.1	82.7		41.4	42.1	41.3	41.5	
Commercial printing	275	535.5	540.5	558.3	562.3		389.2	393.6	406.8	410.3	
Commercial printing, letterpress	2751	166.5	167.4	173.7	174.2		119.0	119.8	124.7	125.1	
Commercial printing, lithographic	2752	340.7	344.3	355.3	358.4		247.5	250.7	258.7	261.6	
Manifold business forms	276	50.2	50.6	51.5	51.6		34.5	34.8	35.4	35.3	
Blankbooks and bookbinding	278	73.4	73.8	79.8	80.9		58.6	58.9	63.1	64.1	
Printing trade services	279	53.8	54.2	56.6	57.6		40.2	40.5	41.8	42.7	
Chemicals and allied products	28	1,035.4	1,039.7	1,072.5	1,071.6	1,074.5	580.9	583.2	604.0	602.5	603.9
Industrial inorganic chemicals	281	133.2	133.4	133.4	132.5		67.0	67.0	67.3	66.4	
Industrial inorganic chemicals, nec	2819	89.9	90.4	89.4	88.5		48.3	48.3	48.6	47.7	
Plastics materials and synthetics	282	166.8	167.3	170.1	170.7		109.2	109.2	112.2	112.4	
Plastics materials and resins	2821	76.0	76.3	79.1	79.1		44.8	44.5	46.9	46.9	
Organic fibers, noncellulosic	2824	63.6	63.4	63.6	64.1		44.3	44.3	45.5	45.7	
Drugs	283	216.2	218.1	231.8	231.3		98.6	99.8	103.6	103.8	
Pharmaceutical preparations	2834	171.3	173.1	184.0	183.6		76.7	77.8	80.2	80.6	
Soap, cleaners, and toilet goods	284	157.0	158.2	167.6	166.5		101.0	101.8	108.4	107.1	
Soap and other detergents	2841	44.5	45.2	45.2	45.0		27.8	28.5	27.9	28.0	
Polishing, sanitation, and finishing preparations	2842,3	41.7	41.9	43.7	43.9		23.6	23.6	24.9	25.0	
Toilet preparations	2844	70.8	71.1	78.7	77.6		49.6	49.7	55.6	54.1	
Paints and allied products	285	62.1	61.8	61.8	61.7		30.5	30.3	30.7	30.6	
Industrial organic chemicals	286	151.3	152.0	157.7	158.4		86.4	86.9	91.3	91.4	
Cyclic crudes and intermediates	2865	28.9	29.1	30.1	30.5		18.4	18.5	18.6	18.6	
Gum, wood, and industrial organic chemicals, nec	2861,9	122.4	122.9	127.6	127.9		68.0	68.4	72.7	72.8	
Agricultural chemicals	287	51.0	50.6	51.4	51.8		32.0	31.7	32.6	32.8	
Miscellaneous chemical products	289	97.8	98.3	98.7	98.7		56.2	56.5	57.9	58.0	
Petroleum and coal products	29	167.1	166.1	169.8	169.8	169.7	109.6	108.7	111.1	111.9	110.5
Petroleum refining	291	127.0	127.1	128.8	128.9	-	81.3	81.4	82.1	83.2	-
Paving and roofing materials	295	27.8	26.6	27.8	27.8		21.4	20.3	21.7	21.5	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Rubber and misc. plastics products	30	840.8	846.3	877.1	884.5	887.6	652.7	657.4	683.6	690.2	694.1
Tires and inner tubes	301	85.6	85.7	84.9	87.4	-	60.4	60.7	62.3	64.9	-
Rubber and plastics footwear	302	12.2	12.3	11.9	12.0	-	10.1	10.2	9.9	9.9	-
Reclaimed rubber, and rubber and plastics hose and belting	303,4	23.0	23.2	24.9	25.3	-	16.8	17.0	18.5	18.8	-
Fabricated rubber products, nec	306	105.0	105.7	109.3	109.8	-	80.5	81.2	83.9	84.3	-
Miscellaneous plastics products	307	615.0	619.4	646.1	650.0	-	484.9	488.3	509.0	512.3	-
Leather and leather products	31	147.1	147.8	147.4	146.6	146.1	122.8	123.3	122.0	121.5	121.0
Leather tanning and finishing	311	14.3	14.4	14.3	14.2	-	11.9	11.9	11.9	11.9	-
Footwear, except rubber	314	86.3	86.8	85.9	85.4	-	74.3	74.6	73.3	72.7	-
Men's footwear, except athletic	3143	38.0	38.4	38.5	38.6	-	31.0	31.3	31.1	31.2	-
Women's footwear, except athletic	3144	30.3	30.3	29.2	28.7	-	26.7	26.8	25.8	25.3	-
Luggage	316	11.4	11.5	12.4	12.3	-	8.2	8.2	9.1	9.0	-
Handbags and personal leather goods	317	17.2	17.0	16.3	16.1	-	13.8	13.7	12.7	12.7	-
Transportation and public utilities		5,499	5,498	5,665	5,675	5,697	4,565	4,565	4,703	4,712	4,730
Transportation		3,267	3,265	3,413	3,426	3,442	-	-	-	-	-
Railroad transportation	40	311.9	303.2	303.7	300.6	-	-	-	-	-	-
Class I railroads ²	4011	272.5	263.8	261.6	258.6	-	-	-	-	-	-
Local and interurban passenger transit	41	312.6	311.6	317.2	323.2	-	288.8	288.1	290.4	297.1	-
Local and suburban transportation	411	110.7	110.9	117.2	117.2	-	100.8	101.3	106.3	106.5	-
Taxicabs	412	33.4	33.8	32.1	32.4	-	-	-	-	-	-
Intercity highway transportation	413	31.2	31.1	32.5	33.1	-	28.2	28.1	29.2	29.8	-
School buses	415	114.1	113.4	110.2	114.9	-	-	-	-	-	-
Trucking and warehousing	42	1,521.3	1,523.6	1,588.4	1,602.8	-	1,326.8	1,329.0	1,385.6	1,398.8	-
Trucking and trucking terminals	421,3	1,397.6	1,405.4	1,465.2	1,472.2	-	1,221.2	1,228.8	1,281.5	1,287.5	-
Public warehousing	422	123.7	118.2	123.2	130.6	-	105.6	100.2	104.1	111.3	-
Water transportation	44	175.2	177.0	188.6	182.4	-	-	-	-	-	-
Local water transportation	445	26.6	25.6	29.0	28.3	-	-	-	-	-	-
Water transportation services	446	95.1	97.8	106.7	101.4	-	-	-	-	-	-
Transportation by air	45	619.8	623.4	660.6	660.0	-	-	-	-	-	-
Air transportation	451,2	544.3	547.7	580.2	578.8	-	-	-	-	-	-
Air transportation services	458	75.5	75.7	80.4	81.2	-	-	-	-	-	-
Pipe lines, except natural gas	46	18.3	18.2	16.4	16.2	-	13.3	13.2	11.6	11.4	-
Transportation services	47	308.2	308.1	337.8	340.5	-	-	-	-	-	-
Freight forwarding	471	65.4	65.4	70.3	71.7	-	-	-	-	-	-
Communication and public utilities		2,232	2,233	2,252	2,249	2,255	-	-	-	-	-
Communication	48	1,304.3	1,307.5	1,316.1	1,313.0	-	986.0	988.1	992.4	990.7	-
Telephone communication	481	914.3	912.9	908.7	906.0	-	673.2	672.5	664.3	662.7	-
Radio and television broadcasting	483	235.6	239.6	246.4	245.9	-	193.2	195.7	202.7	202.6	-
Radio broadcasting	4832	114.9	114.7	118.2	117.8	-	-	-	-	-	-
Television broadcasting	4833	120.7	124.9	128.2	128.1	-	-	-	-	-	-
Electric, gas, and sanitary services	49	927.2	925.8	935.8	935.7	-	733.8	732.1	738.4	737.7	-
Electric services	491	445.5	445.3	445.0	445.3	-	339.4	339.0	338.1	338.7	-
Gas production and distribution	492	165.5	165.1	167.2	166.9	-	131.0	130.5	132.0	131.6	-
Combination utility services	493	203.6	202.4	202.3	202.1	-	167.6	166.4	165.4	164.8	-
Sanitary services	495	85.6	86.3	93.3	93.6	-	74.4	74.9	80.9	80.9	-
Wholesale trade		5,964	5,975	6,241	6,272	6,287	4,780	4,793	5,031	5,056	5,065
Durable goods	50	3,505	3,518	3,718	3,742	3,759	2,778	2,791	2,973	2,993	-
Motor vehicles and automotive equipment	501	437.9	438.7	456.3	456.5	-	350.9	352.0	367.0	367.2	-
Automobiles and other motor vehicles	5012	113.7	114.2	120.1	120.8	-	-	-	-	-	-
Automotive parts and supplies	5013	293.5	293.9	304.8	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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Wholesale trade—Continued											
Durable goods—Continued											
Furniture and home furnishings	502	145.7	147.6	145.7	147.8		118.4	120.3	117.4	119.6	
Furniture	5021	63.2	63.7	65.1	65.4		-	-	-	-	
Home furnishings	5023	82.5	83.9	80.6	82.4		-	-	-	-	
Lumber and construction materials	503	246.4	247.4	285.8	290.8		202.9	203.3	234.1	238.2	
Lumber, plywood, and millwork	5031	112.3	112.2	129.1	131.8		-	-	-	-	
Construction materials, nec	5039	134.1	135.2	156.7	159.0		-	-	-	-	
Sporting goods, toys, and hobby goods	504	87.3	88.8	89.1	90.9		71.9	73.0	72.4	73.6	
Metals and minerals, except petroleum	505	138.2	138.2	147.9	148.2		108.3	108.6	117.2	117.6	
Electrical goods	506	505.1	506.9	532.3	538.9		384.1	384.9	409.4	415.0	
Electrical apparatus and equipment	5063	277.4	279.1	297.0	300.7		-	-	-	-	
Electrical appliances, TV and radios	5064	69.5	68.9	69.2	70.6		-	-	-	-	
Electronic parts and equipment	5065	158.2	158.9	166.1	167.6		-	-	-	-	
Hardware, plumbing, and heating equipment	507	266.9	266.0	274.0	274.5		215.4	215.8	221.1	221.6	
Hardware	5072	92.3	92.0	93.3	93.2		-	-	-	-	
Plumbing and hydronic heating supplies	5074	109.8	109.0	113.3	114.3		-	-	-	-	
Machinery, equipment, and supplies	508	1,473.3	1,479.0	1,570.4	1,573.2		1,161.7	1,167.6	1,260.0	1,261.6	
Commercial machines and equipment	5081	551.5	554.4	581.6	582.5		-	-	-	-	
Construction and mining machinery	5082	78.7	78.9	83.2	83.7		-	-	-	-	
Farm machinery and equipment	5083	116.4	115.3	122.7	121.9		-	-	-	-	
Industrial machinery and equipment	5084	305.6	307.1	328.1	330.1		-	-	-	-	
Industrial supplies	5085	130.9	131.9	139.6	140.3		-	-	-	-	
Professional equipment and supplies	5086	177.8	178.6	194.4	194.3		-	-	-	-	
Miscellaneous durable goods	509	204.1	205.3	216.9	221.0		164.5	165.8	174.6	178.1	
Scrap and waste materials	5093	92.5	93.2	101.3	103.2		-	-	-	-	
Nondurable goods	51	2,459	2,457	2,523	2,530	2,528	2,002	2,002	2,058	2,063	
Paper and paper products	511	206.8	206.7	213.3	214.0	-	168.2	167.7	172.4	173.3	
Drugs, proprietaries, and sundries	512	171.2	171.3	177.5	179.4		142.3	142.7	148.8	150.8	
Apparel, piece goods, and notions	513	201.8	202.2	204.4	206.9		153.7	154.6	158.1	160.2	
Groceries and related products	514	792.5	792.6	814.2	810.6		668.9	669.7	687.7	683.5	
Groceries, general line	5141	248.5	251.6	259.3	259.5		-	-	-	-	
Meats and meat products	5147	65.4	66.2	64.7	64.5		-	-	-	-	
Fresh fruits and vegetables	5148	99.0	97.1	109.8	105.9		-	-	-	-	
Chemicals and allied products	516	130.7	130.5	133.6	133.5		96.4	96.7	98.2	97.6	
Petroleum and petroleum products	517	199.6	200.5	206.1	205.7		155.5	156.6	161.4	161.0	
Petroleum bulk stations and terminals	5171	84.6	84.9	89.0	88.8		-	-	-	-	
Petroleum products, nec	5172	115.0	115.6	117.1	116.9		-	-	-	-	
Beer, wine, and distilled beverages	518	151.3	152.9	156.7	155.2		123.9	125.1	128.7	127.2	
Beer and ale	5181	94.5	94.6	98.8	97.5		-	-	-	-	
Wines and distilled beverages	5182	56.8	58.3	57.9	57.7		-	-	-	-	
Miscellaneous nondurable goods	519	468.7	468.1	486.1	486.9		380.2	380.8	394.6	394.5	
Farm supplies	5191	151.6	148.6	162.8	161.7		-	-	-	-	
Retail trade		18,777	19,050	19,387	19,406	19,638	16,679	16,938	17,163	17,182	17,380
Building materials and garden supplies	52	756.0	752.9	770.0	767.8		627.8	625.0	636.5	634.5	
Lumber and other building materials	521	418.5	415.7	421.6	418.2		353.5	350.7	354.5	351.3	
Hardware stores	525	158.7	159.8	165.5	166.4		131.9	133.0	137.3	138.1	
General merchandise stores	53	2,516.9	2,665.7	2,489.5	2,549.1	2,690.4	2,349.7	2,496.0	2,292.2	2,350.3	
Department stores	531	2,106.3	2,235.2	2,069.3	2,115.1	-	1,981.3	2,108.4	1,916.1	1,961.0	
Variety stores	533	244.6	251.0	242.4	249.5		224.2	230.2	221.6	228.3	
Misc. general merchandise stores	539	166.0	179.5	177.8	184.5		144.2	157.4	154.5	161.0	
Food stores	54	2,978.5	3,016.1	3,116.1	3,147.3	3,182.4	2,741.0	2,774.8	2,867.1	2,897.4	
Grocery stores	541	2,624.9	2,648.2	2,756.5	2,779.3	-	2,426.5	2,447.1	2,551.0	2,573.7	
Meat markets and freezer provisioners	542	57.4	58.0	58.3	58.9		-	-	-	-	
Dairy products stores	545	29.2	30.9	25.5	27.1		-	-	-	-	
Retail bakeries	546	174.1	178.5	176.2	178.8		158.3	162.4	159.0	161.3	
Automotive dealers and service stations	55	2,029.8	2,021.4	2,109.3	2,106.6	2,107.9	1,700.3	1,691.8	1,763.4	1,760.8	
New and used car dealers	551,2	992.3	987.5	1,024.2	1,024.5	-	823.5	818.3	848.8	848.9	
Auto and home supply stores	553	329.7	328.2	336.0	337.6		267.4	266.6	271.7	273.2	
Gasoline service stations	554	610.4	610.4	638.5	636.8		531.9	531.0	554.7	553.4	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Retail trade—Continued											
Apparel and accessory stores	56	1,109.5	1,150.7	1,092.7	1,106.1		940.6	979.2	920.6	930.2	
Men's and boys' clothing and furnishings	561	105.6	110.1	101.1	102.3		86.8	91.4	81.6	82.6	
Women's ready-to-wear stores	562	387.2	394.4	378.7	384.9		329.1	335.5	318.2	322.8	
Family clothing stores	565	257.6	275.2	254.9	258.4		224.4	241.5	220.9	224.3	
Shoe stores	566	224.0	227.8	220.5	223.2		184.4	188.1	183.8	184.6	
Furniture and home furnishings stores	57	818.0	831.5	820.5	829.9		677.5	688.3	670.7	679.3	
Furniture and home furnishings stores	571	453.4	460.4	459.2	464.1		373.0	379.9	373.6	378.1	
Furniture stores	5712	281.4	284.0	285.8	288.6		-	-	-	-	
Household appliance stores	572	90.7	90.4	87.6	89.1		78.1	77.6	73.6	75.0	
Radio, television, and music stores	573	273.9	280.7	273.5	276.7		226.4	230.8	223.5	226.2	
Radio and television stores	5732	199.7	204.7	195.6	197.9		-	-	-	-	
Music stores	5733	74.2	76.0	77.9	78.8		-	-	-	-	
Eating and drinking places	58	6,196.1	6,162.8	6,556.2	6,421.9	6,381.7	5,638.1	5,604.2	5,971.6	5,846.5	
Miscellaneous retail	59	2,372.4	2,448.4	2,432.5	2,477.2		2,003.8	2,078.3	2,040.6	2,082.6	
Drug stores and proprietary stores	591	584.0	592.2	584.9	586.3		499.2	508.0	497.5	499.5	
Liquor stores	592	123.8	125.3	124.1	125.2		-	-	-	-	
Miscellaneous shopping goods stores	594	794.5	845.3	815.7	840.8		666.7	717.7	682.2	707.0	
Sporting goods and bicycle shops	5941	141.1	147.7	146.4	150.0		-	-	-	-	
Book stores	5942	78.0	78.7	83.7	82.9		-	-	-	-	
Stationery stores	5943	75.9	76.9	77.0	77.9		-	-	-	-	
Jewelry stores	5944	150.3	156.7	154.4	156.5		-	-	-	-	
Gift, novelty, and souvenir shops	5947	159.4	164.9	168.1	169.0		-	-	-	-	
Sewing, needlework, and piece goods	5949	61.4	63.3	60.7	62.7		-	-	-	-	
Nonstore retailers	596	290.0	293.5	275.9	278.5		263.3	266.0	246.3	249.0	
Mail order houses	5961	140.7	144.8	130.8	133.2		-	-	-	-	
Merchandising machine operators	5962	88.8	89.3	89.9	90.3		-	-	-	-	
Fuel and ice dealers	598	109.3	111.9	113.5	117.4		90.7	93.1	93.7	97.3	
Retail stores, nec	599	384.5	393.3	427.1	437.0		312.2	319.8	345.3	352.3	
Finance, insurance, and real estate³		6,589	6,582	6,706	6,693	6,704	4,806	4,796	4,857	4,843	4,853
Finance		3,283	3,289	3,297	3,294	3,304					
Banking	60	1,725.9	1,727.0	1,732.0	1,729.5		1,238.8	1,241.0	1,235.9	1,232.8	
Commercial and stock savings banks	602	1,556.9	1,557.1	1,555.1	1,551.9		1,113.6	1,115.3	1,106.4	1,102.9	
State banks, Federal Reserve	6022	342.2	343.5	344.6	343.9		-	-	-	-	
State banks, not Federal Reserve	6023,4	371.1	371.0	374.2	374.0		-	-	-	-	
Mutual savings banks	603	84.0	84.1	85.3	85.6		-	-	-	-	
Credit agencies other than banks	61	889.8	890.2	892.8	893.6		664.4	664.0	664.2	665.0	
Savings and loan associations	612	398.6	399.2	389.8	390.2		302.8	303.4	295.2	295.4	
Federal savings and loan associations	6122	221.0	221.3	219.9	220.6		-	-	-	-	
State associations, insured	6123	172.8	173.1	165.4	165.0		-	-	-	-	
Personal credit institutions	614	238.3	239.8	249.7	250.3		183.9	185.3	193.2	193.9	
Business credit institutions	615	57.6	58.3	68.3	69.6		-	-	-	-	
Mortgage bankers and brokers	616	170.9	168.6	162.9	161.7		-	-	-	-	
Security, commodity brokers, and services	62	461.1	463.5	453.7	452.4						
Security brokers and dealers	621	361.1	362.4	348.4	347.1						
Holding and other investment offices	67	206.5	208.4	218.4	218.6						
Insurance		2,039	2,039	2,079	2,086	2,091					
Insurance carriers	63	1,429.1	1,429.0	1,453.1	1,457.2		955.0	955.2	967.6	972.1	
Life insurance	631	587.9	586.0	592.5	593.9		355.8	355.0	353.2	356.1	
Medical service and health insurance	632	198.6	199.6	204.5	206.8		159.8	160.8	165.3	167.0	
Fire, marine, and casualty insurance	633	537.5	539.6	551.6	551.9		359.4	360.6	370.1	369.6	
Title insurance	636	58.1	56.7	57.3	56.9		-	-	-	-	
Insurance agents, brokers, and service	64	609.5	609.6	625.8	629.0						

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Finance, insurance, and real estate—Continued											
Real estate, and combined real estate, insurance, etc		1,267	1,254	1,330	1,313	1,309					
Real estate	65	1,257.1	1,244.5	1,320.4	1,303.8						
Real estate operators and lessors	651	532.6	529.4	558.7	548.2						
Real estate agents and managers	653	532.1	530.4	562.3	559.2						
Subdividers and developers	655	158.7	151.2	166.1	163.3						
Combined real estate, insurance, etc	66	10.2	9.9	9.6	9.6						
Services		24,622	24,578	25,814	25,917	25,982	21,565	21,528	22,535	22,634	22,679
Hotels and other lodging places	70	1,491.8	1,460.0	1,653.4	1,606.0						
Hotels, motels, and tourist courts	701	1,450.9	1,422.6	1,604.2	1,561.5	1,293.2	1,263.6	1,433.5	1,392.5		
Personal services	72	1,158.3	1,156.5	1,193.3	1,206.2						
Laundry, cleaning, and garment services	721	411.2	412.6	417.9	419.8	366.6	367.8	371.2	373.2		
Photographic studios, portrait	722	62.1	62.4	55.7	58.6						
Beauty shops	723	356.7	355.6	359.1	358.5	320.0	319.9	320.3	319.4		
Funeral service and crematories	726	76.6	76.6	78.3	78.5						
Business services	73	5,334.4	5,322.3	5,588.0	5,601.4	5,615.7	4,576.2	4,567.2	4,779.0	4,784.4	
Advertising	731	214.7	215.0	215.1	216.7		159.9	160.2	159.3	160.4	
Advertising agencies	7311	158.3	158.7	158.0	159.7						
Credit reporting and collection	732	98.6	97.0	95.4	95.1						
Mailing, reproduction, and stenographic	733	221.9	224.7	247.2	252.1						
Services to buildings	734	715.7	711.5	735.6	726.3	645.3	642.9	664.5	655.8		
Personnel supply services	736	1,282.4	1,268.7	1,339.9	1,341.8						
Employment agencies	7361	190.1	188.3	197.1	200.5						
Temporary help supply services	7362	1,010.8	997.5	1,056.5	1,055.2						
Computer and data processing services	737	670.8	675.4	743.1	748.0	526.9	530.5	580.0	582.3		
Computer programming and software	7372	253.4	254.9	286.3	287.8						
Data processing services	7374	307.2	308.9	332.4	336.8						
Miscellaneous business services	739	2,121.0	2,120.8	2,201.4	2,211.1						
Research development laboratories, nec	7391	192.1	192.8	202.3	201.4						
Management and public relations	7392	593.4	597.2	612.0	614.1						
Detective and protective services	7393	464.2	458.2	478.0	477.8						
Equipment rental and leasing	7394	246.8	247.8	263.1	262.8						
Photofinishing laboratories	7395	85.4	85.3	83.1	85.1						
Auto repair, services, and garages	75	801.2	802.3	836.6	840.1	667.2	667.9	690.0	692.8		
Automotive rentals, without drivers	751	161.6	161.5	170.1	169.9						
Automotive repair shops	753	479.0	480.3	507.2	508.6	396.4	397.3	418.3	419.4		
Miscellaneous repair services	76	323.3	326.2	346.6	346.4	267.3	270.7	283.4	283.4		
Electrical repair shops	762	104.2	105.0	116.2	117.4						
Motion pictures	78	230.5	230.4	244.3	230.4	193.1	193.9	204.6	190.9		
Motion picture production and services	781	116.4	116.5	120.9	116.3	93.9	94.6	95.9	90.7		
Motion picture theaters	783	99.9	99.4	107.7	98.5						
Amusement and recreation services	79	859.0	802.2	994.2	899.3	745.8	696.1	849.6	770.0		
Health services	80	6,927.9	6,954.4	7,322.9	7,364.9	7,413.5	6,158.0	6,182.1	6,509.0	6,541.3	
Offices of physicians	801	1,072.2	1,078.2	1,158.1	1,166.2		881.3	886.1	949.6	954.7	
Offices of dentists	802	473.4	476.6	496.5	499.3		417.2	420.5	434.6	436.9	
Nursing and personal care facilities	805	1,295.8	1,298.7	1,339.1	1,340.2		1,169.8	1,172.2	1,209.9	1,209.4	
Skilled nursing care facilities	8051	869.2	870.8	896.7	897.4						
Nursing and personal care, nec	8059	426.6	427.9	442.4	442.8						
Hospitals	806	3,202.3	3,215.4	3,375.0	3,390.9	2,921.0	2,933.8	3,087.1	3,100.4		
General medical and surgical hospitals	8062	2,985.5	2,997.7	3,144.4	3,158.4						
Psychiatric hospitals	8063	76.6	77.1	82.5	83.0						
Specialty hospitals, excluding psychiatric	8069	140.2	140.6	148.1	149.5						
Medical and dental laboratories	807	138.3	139.5	151.1	155.1						
Outpatient care facilities	808	268.6	269.2	299.2	304.1						

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Services—Continued											
Legal services	81	803.6	805.6	830.0	836.6		672.9	675.6	691.4	696.6	
Educational services	82	1,537.9	1,566.2	1,471.0	1,613.9						
Elementary and secondary schools	821	376.4	380.6	373.9	386.1						
Colleges and universities	822	996.5	1,018.3	922.0	1,047.2						
Correspondence and vocational schools	824	78.5	79.8	78.7	81.3						
Social services	83	1,520.3	1,533.0	1,593.2	1,616.5						
Individual and family services	832	299.0	302.1	306.4	309.1						
Job training and related services	833	220.1	221.5	213.3	215.8						
Residential care	836	354.5	357.2	377.9	379.6						
Museums, botanical and zoological gardens	84	50.4	49.1	50.1	50.7						
Membership organizations	86	1,581.3	1,579.7	1,598.2	1,607.8						
Business associations	861	91.2	91.3	94.4	93.4						
Labor organizations	863	135.5	132.5	135.5	136.5						
Civic and social associations	864	363.5	366.1	371.2	379.8						
Miscellaneous services	89	1,332.1	1,337.7	1,404.1	1,410.2		1,078.8	1,082.7	1,126.6	1,131.4	
Engineering and architectural services	891	727.7	730.8	772.7	775.5		612.5	615.3	643.0	643.9	
Noncommercial research organizations	892	122.2	123.1	125.0	126.7		-	-	-	-	
Accounting, auditing, and bookkeeping	893	456.3	457.1	476.5	478.2		349.7	349.6	361.8	364.8	
Government		17,356	17,513	17,199	17,750	17,924					
Federal Government ⁴		2,944	2,956	2,968	2,969	2,973					
Executive, by agency ¹		2,886.1	2,898.3	2,909.1							
Department of Defense		990.8	994.2	951.0							
Postal Service ⁵		803.2	810.6	828.3							
Other executive agencies		1,092.1	1,093.5	1,129.8							
Legislative		37.9	37.9	37.5							
Judicial		20.0	20.1	21.3							
Federal government, by industry:											
Manufacturing activities		125.0	125.4	121.2	121.3						
Shipbuilding and repairing	3731	76.4	76.4	73.8	74.1						
Transportation and public utilities, except Postal											
Service		44.1	44.1	39.4	39.4						
Services		429.6	428.1	432.9	436.5						
Hospitals	806	250.0	250.5	248.0	247.2						
State government		4,081	4,105	4,004	4,169	4,216					
Hospitals	806	439.5	440.0	444.8	446.1	-					
Education	82	1,704.1	1,735.6	1,552.9	1,732.4						
General administration, including executive, legislative, and judicial functions		1,400.7	1,394.4	1,456.4	1,444.3						
Local government		10,331	10,452	10,227	10,612	10,735					
Transportation and public utilities		492.7	492.4	495.6	494.8	-					
Hospitals	806	616.8	618.3	639.4	640.7						
Education	82	5,867.0	5,974.5	5,585.3	6,007.5						
General administration, including executive, legislative, and judicial functions		3,027.6	3,037.3	3,137.4	3,101.1						

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	Aug. 1987	Sept. 1987	July 1988	Aug. 1988	Sept. 1988
Total	46,803	47,637	48,574	48,673	49,586
Total private	38,951	39,120	40,434	40,599	40,778
Goods-producing	6,957	7,006	7,072	7,166	7,195
Mining	96	96	99	100	98
Construction	543	543	585	589	588
Manufacturing	6,318	6,367	6,388	6,477	6,509
Durable goods	3,005	3,035	3,080	3,102	3,119
Lumber and wood products	121	121	125	126	125
Furniture and fixtures	163	164	163	165	168
Stone, clay, and glass products	115	115	119	119	119
Primary metal industries	103	103	105	107	108
Fabricated metal products	318	322	327	331	333
Machinery, except electrical	451	453	479	479	480
Electrical and electronic equipment	868	877	883	890	894
Transportation equipment	392	400	395	392	397
Instruments and related products	301	302	311	314	314
Miscellaneous manufacturing	173	176	174	180	182
Nondurable goods	3,313	3,332	3,308	3,375	3,390
Food and kindred products	559	559	535	560	562
Tobacco manufactures	16	18	16	17	19
Textile mill products	355	356	345	349	350
Apparel and other textile products	875	886	842	867	873
Paper and allied products	166	166	170	170	170
Printing and publishing	648	649	678	681	681
Chemicals and allied products	298	299	314	315	315
Petroleum and coal products	24	24	26	26	26
Rubber and misc. plastics products	284	288	300	302	305
Leather and leather products	88	87	83	87	88
Service-producing	39,846	40,631	41,502	41,507	42,391
Transportation and public utilities	1,531	1,569	1,607	1,611	1,640
Wholesale trade	1,749	1,761	1,846	1,854	1,870
Retail trade	9,888	9,922	10,208	10,249	10,273
Finance, insurance, and real estate	4,138	4,103	4,205	4,206	4,176
Services	14,688	14,759	15,496	15,513	15,624
Government	7,853	8,517	8,140	8,074	8,808
Federal	1,058	1,049	1,069	1,065	1,061
State	1,805	1,885	1,860	1,863	1,963
Local	4,990	5,583	5,211	5,146	5,784

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
Total	103,678	104,001	104,262	104,729	105,020	105,281	105,489	106,057	106,271	106,425	106,737	106,975	107,438
Total private	86,520	86,794	87,044	87,475	87,700	87,973	88,139	88,678	88,941	89,066	89,205	89,459	89,877
Goods-producing	25,123	25,201	25,180	25,271	25,330	25,435	25,466	25,592	25,663	25,639	25,648	25,741	25,860
Mining	736	735	728	731	733	737	739	740	740	739	734	729	722
Oil and gas extraction	418	417	414	415	419	421	425	425	424	423	419	413	406
Construction	5,090	5,118	5,083	5,150	5,192	5,238	5,237	5,308	5,330	5,340	5,365	5,364	5,419
General building contractors	1,348	1,352	1,365	1,377	1,383	1,400	1,394	1,412	1,400	1,401	1,404	1,393	1,403
Manufacturing	19,297	19,348	19,369	19,390	19,405	19,460	19,490	19,544	19,593	19,560	19,549	19,648	19,719
Durable goods	11,355	11,390	11,393	11,404	11,411	11,459	11,477	11,515	11,566	11,547	11,537	11,595	11,642
Lumber and wood products	750	754	754	756	755	758	757	757	756	753	753	760	768
Furniture and fixtures	531	533	536	535	534	535	537	537	541	537	538	541	540
Stone, clay, and glass products	585	588	583	584	585	587	585	587	589	586	585	588	590
Primary metal industries	768	769	768	770	772	773	776	781	789	785	787	794	798
Blast furnaces and basic steel products	279	279	279	280	281	281	281	281	282	281	280	282	284
Fabricated metal products	1,429	1,433	1,435	1,438	1,439	1,444	1,448	1,457	1,464	1,458	1,460	1,469	1,471
Machinery, except electrical	2,062	2,074	2,085	2,091	2,099	2,111	2,121	2,134	2,151	2,156	2,159	2,172	2,187
Electrical and electronic equipment	2,100	2,110	2,112	2,112	2,115	2,117	2,115	2,120	2,122	2,126	2,124	2,126	2,133
Transportation equipment	2,047	2,046	2,036	2,031	2,025	2,045	2,048	2,047	2,052	2,044	2,032	2,045	2,053
Motor vehicles and equipment	854	851	839	837	835	848	851	850	857	855	849	859	860
Instruments and related products	704	704	704	705	705	706	709	713	715	718	716	719	720
Miscellaneous manufacturing	379	379	380	382	382	383	381	382	387	384	383	381	382
Nondurable goods	7,942	7,958	7,976	7,986	7,994	8,001	8,013	8,029	8,027	8,013	8,012	8,053	8,077
Food and kindred products	1,636	1,638	1,647	1,649	1,647	1,648	1,643	1,645	1,631	1,630	1,632	1,656	1,661
Tobacco manufactures	54	54	55	54	54	54	52	53	52	52	51	51	53
Textile mill products	733	733	732	732	729	727	728	727	726	719	722	722	723
Apparel and other textile products	1,110	1,106	1,105	1,104	1,106	1,100	1,100	1,097	1,096	1,089	1,087	1,086	1,091
Paper and allied products	683	684	685	686	687	687	689	691	692	691	688	690	692
Printing and publishing	1,528	1,532	1,538	1,544	1,548	1,554	1,559	1,565	1,567	1,572	1,575	1,581	1,581
Chemicals and allied products	1,041	1,047	1,047	1,049	1,052	1,056	1,060	1,065	1,067	1,070	1,069	1,072	1,076
Petroleum and coal products	167	167	166	165	164	165	166	167	167	167	168	169	170
Rubber and misc. plastics products	845	851	854	856	860	864	870	873	882	878	874	882	886
Leather and leather products	145	146	147	147	147	146	146	146	147	145	146	144	144
Service-producing	78,555	78,800	79,082	79,458	79,690	79,846	80,023	80,465	80,608	80,786	81,089	81,234	81,578
Transportation and public utilities	5,466	5,481	5,499	5,513	5,530	5,543	5,556	5,582	5,598	5,605	5,618	5,623	5,662
Transportation	3,231	3,244	3,261	3,272	3,285	3,298	3,308	3,332	3,345	3,351	3,366	3,372	3,405
Communication and public utilities	2,235	2,237	2,238	2,241	2,245	2,245	2,248	2,250	2,253	2,254	2,252	2,251	2,257
Wholesale trade	5,958	5,984	6,010	6,035	6,061	6,089	6,115	6,148	6,174	6,192	6,219	6,242	6,270
Durable goods	3,514	3,536	3,555	3,573	3,591	3,610	3,635	3,660	3,681	3,696	3,714	3,735	3,755
Nondurable goods	2,444	2,448	2,455	2,462	2,470	2,479	2,480	2,488	2,493	2,496	2,505	2,507	2,515
Retail trade	18,761	18,784	18,927	19,045	19,050	19,093	19,130	19,205	19,261	19,279	19,291	19,329	19,348
General merchandise stores	2,495	2,494	2,526	2,561	2,543	2,546	2,541	2,549	2,545	2,539	2,533	2,519	2,517
Food stores	2,979	2,988	3,014	3,029	3,044	3,049	3,053	3,080	3,097	3,106	3,110	3,141	3,145
Automotive dealers and service stations	2,026	2,033	2,038	2,047	2,055	2,064	2,070	2,076	2,088	2,095	2,095	2,102	2,114
Eating and drinking places	6,216	6,232	6,260	6,291	6,319	6,326	6,336	6,352	6,369	6,377	6,384	6,415	6,440
Finance, insurance, and real estate	6,608	6,619	6,633	6,636	6,651	6,650	6,656	6,679	6,684	6,689	6,692	6,710	6,729
Finance	3,299	3,301	3,308	3,305	3,306	3,302	3,299	3,304	3,300	3,298	3,300	3,307	3,314
Insurance	2,042	2,049	2,052	2,053	2,060	2,065	2,067	2,074	2,077	2,081	2,083	2,090	2,093
Real estate	1,267	1,269	1,273	1,278	1,285	1,283	1,290	1,301	1,307	1,310	1,309	1,313	1,322
Services	24,604	24,725	24,795	24,975	25,078	25,163	25,216	25,472	25,561	25,662	25,737	25,814	26,008
Business services	5,287	5,306	5,321	5,385	5,405	5,420	5,443	5,480	5,500	5,512	5,538	5,546	5,577
Health services	6,962	6,995	7,019	7,056	7,088	7,126	7,153	7,203	7,238	7,271	7,323	7,365	7,421
Government	17,158	17,207	17,218	17,254	17,320	17,308	17,350	17,379	17,330	17,359	17,532	17,516	17,561
Federal	2,974	2,980	2,973	2,972	2,970	2,963	2,957	2,951	2,951	2,956	2,989	2,990	2,991
State	3,988	4,001	4,006	4,014	4,031	4,041	4,050	4,049	4,059	4,070	4,086	4,071	4,097
Local	10,196	10,226	10,239	10,268	10,319	10,304	10,343	10,379	10,320	10,333	10,457	10,455	10,473

^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								
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Total	47,700	47,941	48,072	48,240	48,396	48,615	48,772	48,865	48,999	49,306	49,371	49,491	49,658
Total private	38,985	39,170	39,295	39,425	39,573	39,767	39,881	39,969	40,075	40,357	40,459	40,549	40,646
Goods-producing	6,931	6,963	6,990	7,007	7,022	7,028	7,040	7,058	7,082	7,103	7,125	7,112	7,116
Mining	96	96	96	96	96	96	96	97	97	99	97	100	98
Construction	536	538	542	543	546	549	552	558	566	569	574	578	581
Manufacturing	6,299	6,329	6,352	6,368	6,380	6,383	6,392	6,403	6,419	6,435	6,454	6,434	6,437
Durable goods	3,024	3,038	3,045	3,056	3,059	3,062	3,067	3,077	3,085	3,096	3,112	3,107	3,106
Lumber and wood products	119	120	120	121	122	122	122	123	123	123	123	123	123
Furniture and fixtures	165	166	166	166	167	166	166	166	167	166	168	166	168
Stone, clay, and glass products	114	115	115	116	116	116	116	117	118	117	119	118	117
Primary metal industries	103	104	104	105	104	105	104	105	106	108	107	107	108
Fabricated metal products	321	322	323	324	325	325	326	327	329	331	333	332	331
Machinery, except electrical	456	458	460	463	466	467	469	471	473	476	480	482	483
Electrical and electronic equipment	873	877	878	881	882	882	885	886	885	890	891	891	890
Transportation equipment	398	398	398	399	396	393	393	396	397	397	398	396	394
Instruments and related products	303	304	306	306	306	308	308	308	309	311	313	314	314
Miscellaneous manufacturing	172	174	175	175	175	178	178	178	178	177	180	178	178
Nondurable goods	3,275	3,291	3,307	3,312	3,321	3,321	3,325	3,326	3,334	3,339	3,342	3,327	3,331
Food and kindred products	515	518	521	521	528	528	526	528	526	526	521	514	519
Tobacco manufactures	17	17	17	18	18	18	17	17	17	17	18	18	17
Textile mill products	353	353	354	354	353	353	352	350	351	351	351	347	347
Apparel and other textile products	880	883	886	883	881	879	880	875	877	874	874	868	867
Paper and allied products	165	165	166	167	167	167	167	167	167	168	169	169	169
Printing and publishing	651	654	658	660	664	666	669	672	673	677	679	683	683
Chemicals and allied products	297	299	301	303	303	304	305	307	309	311	311	313	313
Petroleum and coal products	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Rubber and misc. plastics products	287	291	293	296	296	296	298	300	303	304	307	304	304
Leather and leather products	86	87	87	86	87	86	87	86	86	86	87	85	86
Service-producing	40,769	40,978	41,082	41,233	41,374	41,587	41,732	41,807	41,917	42,203	42,246	42,379	42,542
Transportation and public utilities	1,559	1,568	1,572	1,576	1,580	1,588	1,599	1,602	1,610	1,625	1,625	1,632	1,630
Wholesale trade	1,756	1,762	1,774	1,785	1,795	1,802	1,813	1,813	1,826	1,838	1,848	1,854	1,864
Retail trade	9,876	9,925	9,955	9,972	10,056	10,127	10,123	10,130	10,161	10,192	10,198	10,218	10,232
Finance, insurance, and real estate	4,108	4,120	4,126	4,131	4,139	4,139	4,147	4,141	4,147	4,164	4,167	4,173	4,180
Services	14,755	14,832	14,878	14,954	14,981	15,083	15,159	15,225	15,249	15,435	15,496	15,560	15,624
Government	8,715	8,771	8,777	8,815	8,823	8,848	8,891	8,896	8,924	8,949	8,912	8,942	9,012
Federal	1,056	1,057	1,060	1,062	1,060	1,061	1,061	1,057	1,054	1,050	1,050	1,057	1,067
State	1,927	1,935	1,937	1,945	1,947	1,952	1,960	1,968	1,971	1,978	1,987	1,990	2,007
Local	5,732	5,779	5,780	5,808	5,816	5,835	5,870	5,871	5,899	5,921	5,875	5,895	5,938

¹ 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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
Total private	69,988	70,234	70,405	70,787	70,961	71,170	71,260	71,736	71,948	72,063	72,109	72,302	72,618
Goods-producing	17,678	17,743	17,698	17,798	17,839	17,909	17,925	18,025	18,085	18,058	18,049	18,122	18,226
Mining	531	530	524	527	529	533	535	535	535	536	530	527	518
Construction	3,972	3,998	3,949	4,022	4,059	4,096	4,088	4,149	4,168	4,170	4,187	4,183	4,230
Manufacturing	13,175	13,215	13,225	13,249	13,251	13,280	13,302	13,341	13,382	13,352	13,332	13,412	13,478
Durable goods	7,564	7,590	7,582	7,599	7,598	7,632	7,649	7,676	7,720	7,705	7,689	7,734	7,780
Lumber and wood products	627	630	629	631	631	633	632	634	630	628	626	632	638
Furniture and fixtures	425	427	428	427	426	427	429	429	432	428	430	433	432
Stone, clay, and glass products	453	457	453	454	455	457	455	457	460	457	455	458	460
Primary metal industries	584	584	583	586	588	591	594	599	605	601	603	609	613
Blast furnaces and basic steel products	213	213	214	216	217	219	218	219	220	218	216	218	220
Fabricated metal products	1,063	1,068	1,068	1,071	1,071	1,073	1,079	1,085	1,091	1,087	1,088	1,096	1,100
Machinery, except electrical	1,230	1,238	1,244	1,250	1,256	1,262	1,269	1,273	1,287	1,289	1,289	1,299	1,310
Electrical and electronic equipment	1,235	1,241	1,240	1,241	1,242	1,244	1,244	1,250	1,254	1,256	1,254	1,257	1,263
Transportation equipment	1,285	1,283	1,273	1,271	1,261	1,276	1,278	1,276	1,284	1,284	1,269	1,275	1,288
Motor vehicles and equipment	665	661	651	649	648	658	660	660	671	674	664	671	671
Instruments and related products	385	385	387	388	388	389	391	394	395	396	396	399	400
Miscellaneous manufacturing	277	277	277	280	280	280	278	279	282	279	279	276	276
Nondurable goods	5,611	5,625	5,643	5,650	5,653	5,648	5,653	5,665	5,662	5,647	5,643	5,678	5,698
Food and kindred products	1,159	1,161	1,169	1,172	1,168	1,169	1,164	1,168	1,153	1,151	1,153	1,175	1,180
Tobacco manufactures	40	41	42	41	41	40	39	40	39	38	37	38	39
Textile mill products	636	636	636	636	634	632	632	630	632	622	626	626	627
Apparel and other textile products	932	930	929	928	930	926	925	923	922	916	915	914	918
Paper and allied products	518	519	520	521	521	520	521	523	524	524	520	521	525
Printing and publishing	856	858	863	867	870	871	872	875	876	879	880	883	882
Chemicals and allied products	585	589	589	589	592	593	596	599	600	603	601	604	606
Petroleum and coal products	109	109	109	108	107	107	108	108	108	109	109	111	111
Rubber and misc. plastics products	655	661	664	666	669	670	676	679	687	685	682	687	691
Leather and leather products	121	121	122	122	121	120	120	120	121	120	119	119	119
Service-producing	52,310	52,491	52,707	52,989	53,122	53,261	53,335	53,711	53,863	54,005	54,060	54,180	54,392
Transportation and public utilities	4,533	4,545	4,560	4,574	4,587	4,600	4,611	4,632	4,648	4,661	4,656	4,661	4,697
Wholesale trade	4,777	4,802	4,825	4,848	4,881	4,902	4,924	4,956	4,975	4,990	5,011	5,026	5,050
Retail trade	16,651	16,671	16,795	16,902	16,897	16,949	16,949	17,028	17,070	17,087	17,078	17,114	17,089
Finance, insurance, and real estate	4,818	4,824	4,831	4,827	4,825	4,823	4,828	4,842	4,844	4,851	4,847	4,858	4,877
Services	21,531	21,649	21,696	21,838	21,932	21,987	22,023	22,253	22,326	22,416	22,468	22,521	22,679

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	49.5	^P 64.9	^P 68.9	
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	57.3	^P 58.6	^P 66.8		
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	68.4	^P 65.7	^P 71.9				
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	73.5	^P 73.8	^P 75.7							

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. Beginning with the publication

of January 1989 data, a broader-based diffusion index covering 349 private nonagricultural industries will replace the 185-industry index shown in this table. A new manufacturing index, comprised of 143 industries, will also be published. 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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
Alabama	1,524.3	1,528.5	1,536.3	11.8	11.2	11.5	76.5	74.7	74.5
Birmingham	398.1	406.6	408.8	5.7	5.7	5.6	24.6	27.6	27.5
Huntsville	125.4	129.2	129.9	.1	.1	.1	5.7	5.9	5.9
Mobile	161.6	161.6	162.2	.5	.5	.5	9.6	8.9	9.0
Montgomery	126.1	125.8	126.2	.2	.2	.2	8.1	7.6	7.5
Tuscaloosa	58.9	60.2	61.1	2.5	2.1	2.5	3.1	3.2	3.2
Alaska	211.7	218.6	211.8	8.8	9.1	8.8	11.9	11.0	10.0
Arizona	1,407.0	1,406.4	1,418.9	11.6	12.2	12.1	101.2	96.0	95.5
Phoenix	927.6	924.2	931.3	.6	.6	.6	68.1	64.1	63.8
Tucson	246.5	247.7	250.1	1.6	1.8	1.8	19.3	18.6	18.5
Arkansas	854.4	869.2	871.4	4.1	4.2	4.2	35.4	35.9	35.6
Fayetteville-Springdale	49.3	51.3	51.2	(¹)	(¹)	(¹)	2.0	1.9	1.9
Fort Smith	77.8	77.3	76.6	.9	1.0	.9	2.9	2.9	2.9
Little Rock-North Little Rock	233.5	239.7	240.7	.4	.4	.4	11.6	12.2	12.2
Pine Bluff	32.8	32.8	33.1	(¹)	(¹)	(¹)	1.6	1.5	1.6
California	11,851.4	12,179.5	12,265.5	41.0	40.7	40.3	614.1	663.0	666.2
Anaheim-Santa Ana	1,100.7	1,119.6	1,125.6	1.7	1.3	1.3	63.2	67.4	66.5
Bakersfield	159.2	161.4	159.8	13.1	13.3	13.0	9.5	8.8	8.7
Fresno	208.2	212.1	211.9	.6	.6	.5	12.4	13.1	13.2
Los Angeles-Long Beach	4,058.4	4,111.4	4,146.6	9.4	9.4	9.5	153.6	159.4	160.6
Modesto	107.4	114.3	112.7	(¹)	(¹)	(¹)	7.5	6.7	6.8
Oakland	822.8	843.1	847.6	3.2	3.3	3.3	50.2	53.1	53.0
Oxnard-Ventura	207.2	213.4	213.7	2.6	2.7	2.7	13.3	14.0	14.0
Riverside-San Bernardino	617.8	638.3	645.8	1.2	1.3	1.3	53.5	58.1	58.3
Sacramento	563.0	585.3	587.8	.9	.7	.7	35.8	38.6	38.6
San Diego	878.2	915.6	921.6	.8	.8	.8	57.9	62.4	63.2
San Francisco	942.1	952.1	958.4	.9	.9	.9	36.6	37.4	37.5
San Jose	792.7	803.3	806.8	.2	.2	.2	33.6	33.3	33.1
Santa Barbara-Santa Maria-Lompoc	147.1	146.4	149.1	1.3	1.3	1.3	6.7	6.9	6.9
Santa Rosa-Petaluma	127.6	131.1	131.3	.7	.8	.8	8.9	9.6	9.2
Stockton	144.7	150.5	149.7	.1	.1	.1	8.6	8.6	8.4
Vallejo-Fairfield-Napa	127.8	132.0	131.7	.3	.3	.3	9.5	10.6	10.6
Colorado	1,402.3	1,399.6	1,407.2	20.9	20.8	20.9	69.4	61.3	60.6
Boulder-Longmont	106.4	106.8	108.1	.3	.3	.3	3.7	3.2	3.1
Denver	797.1	791.1	794.2	13.9	13.5	13.4	38.3	34.2	33.9
Connecticut	1,655.3	1,668.5	1,682.3	1.6	1.7	1.7	79.8	81.9	82.0
Bridgeport-Milford	200.7	202.4	203.6	(¹)	(¹)	(¹)	9.4	9.9	9.9
Hartford	482.4	489.8	492.8	.3	.4	.4	21.1	22.1	22.3
New Haven-Meriden	253.1	258.2	260.7	.3	.4	.4	13.7	14.6	14.6
Stamford	127.8	129.3	129.4	.5	.5	.5	5.8	5.9	5.8
Waterbury	87.3	90.0	90.2	(¹)	(¹)	(¹)	4.6	5.1	5.1
Delaware	326.8	333.9	337.0	.1	.1	.1	21.2	22.5	22.5
Wilmington	278.4	283.2	287.8	.2	.1	.1	17.6	18.1	17.9
District of Columbia	655.8	671.2	674.8	.1	.1	.1	16.0	15.1	15.0
Washington MSA	2,095.2	2,154.6	2,171.1	1.3	1.3	1.3	133.7	138.7	138.7
Florida	4,916.8	5,072.2	5,114.0	8.7	8.9	8.9	347.8	355.8	357.0
Daytona Beach	111.9	115.8	116.3	(¹)	(¹)	(¹)	8.5	8.7	8.8
Fort Lauderdale-Hollywood-Pompano Beach	466.8	483.9	486.2	.4	.4	.4	35.5	35.7	35.8
Fort Myers-Cape Coral	108.1	114.8	116.5	(¹)	(¹)	(¹)	12.2	13.2	13.3
Jacksonville	400.4	418.7	421.0	.5	.4	.4	27.7	28.4	28.6
Melbourne-Titusville-Palm Bay	145.1	152.5	153.6	(¹)	(¹)	(¹)	8.3	8.4	8.5
Miami-Hialeah	830.5	837.6	840.4	.9	.9	.9	41.5	40.6	40.8
Orlando	480.6	502.2	504.1	(¹)	(¹)	(¹)	34.3	36.4	36.6
Pensacola	125.6	126.9	127.0	.3	.3	.3	9.5	8.9	9.0
Sarasota	105.2	108.1	109.3	(¹)	(¹)	(¹)	10.7	10.6	10.7
Tallahassee	110.5	113.1	114.2	(¹)	(¹)	(¹)	6.0	6.0	6.1
Tampa-St. Petersburg-Clearwater	806.2	818.5	823.0	.7	.6	.6	59.7	59.0	59.2
West Palm Beach-Boca Raton-Delray Beach	330.7	342.9	349.5	(¹)	(¹)	(¹)	29.1	29.6	29.7

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Alabama	374.3	375.3	375.6	72.6	72.8	73.0	337.0	341.0	342.2
Birmingham	55.2	56.4	56.9	27.9	28.2	28.1	99.4	101.6	102.2
Huntsville	31.7	32.0	32.4	2.9	3.0	3.0	23.7	24.4	24.5
Mobile	26.1	25.7	25.7	9.0	9.3	9.1	43.5	44.3	44.1
Montgomery	19.1	19.2	19.2	5.0	5.0	5.0	28.4	29.0	29.3
Tuscaloosa	9.5	9.9	10.0	1.9	1.9	1.9	12.2	12.6	12.6
Alaska	13.0	15.8	13.3	17.8	18.6	17.8	41.8	43.4	42.0
Arizona	187.9	189.8	189.4	73.7	72.7	73.0	341.0	342.9	346.3
Phoenix	136.5	138.7	138.2	50.7	50.1	50.4	231.4	231.4	233.3
Tucson	30.8	30.1	30.0	9.6	9.5	9.5	55.6	57.1	57.4
Arkansas	225.3	229.6	230.0	53.3	52.7	53.5	192.9	197.3	196.1
Fayetteville-Springdale	12.3	12.6	12.6	4.5	5.3	5.3	11.1	11.7	11.7
Fort Smith	27.0	26.7	26.1	3.9	4.2	4.1	15.7	15.6	15.4
Little Rock-North Little Rock	32.9	34.5	34.7	17.0	17.2	17.2	55.8	56.9	57.2
Pine Bluff	6.4	6.4	6.4	2.6	2.4	2.5	6.8	7.0	7.0
California	2,127.9	2,171.6	2,165.5	588.1	591.5	590.7	2,799.8	2,908.2	2,924.3
Anaheim-Santa Ana	251.5	257.6	258.5	34.4	34.5	34.4	276.1	281.8	282.2
Bakersfield	11.1	11.1	11.1	7.9	8.4	8.5	37.7	38.5	38.4
Fresno	24.1	24.5	24.6	11.5	11.5	11.5	53.5	53.6	53.4
Los Angeles-Long Beach	911.6	906.6	912.3	207.6	211.6	212.1	926.8	936.3	941.7
Modesto	23.7	29.2	26.2	4.5	4.4	4.3	27.5	29.1	29.2
Oakland	104.5	107.3	106.4	56.4	57.5	57.8	202.8	206.2	207.0
Oxnard-Ventura	30.3	31.0	30.9	10.2	10.1	10.0	50.7	52.6	52.6
Riverside-San Bernardino	83.2	84.8	85.2	31.4	32.0	31.8	155.1	159.7	161.6
Sacramento	41.4	45.0	43.5	25.4	26.8	26.7	139.1	142.5	142.9
San Diego	122.8	124.8	125.0	33.9	34.2	34.0	211.0	222.6	224.5
San Francisco	80.5	79.6	80.5	77.2	76.4	76.6	213.9	215.2	217.0
San Jose	262.2	270.0	268.8	21.9	21.6	21.7	153.5	154.1	155.0
Santa Barbara-Santa Maria-Lompoc	22.5	22.2	22.3	5.1	5.1	5.1	35.6	35.9	36.0
Santa Rosa-Petaluma	18.9	19.3	19.0	6.4	6.2	6.2	32.7	34.6	34.6
Stockton	22.9	26.2	24.7	8.6	9.5	9.4	34.5	34.9	35.5
Vallejo-Fairfield-Napa	11.9	13.4	12.4	4.6	4.7	4.7	30.6	31.9	32.1
Colorado	185.2	188.9	189.4	84.5	82.8	83.0	348.4	350.5	351.0
Boulder-Longmont	28.7	29.1	29.1	2.3	2.3	2.3	23.0	23.2	23.4
Denver	94.7	95.8	95.8	61.5	60.1	60.0	199.2	198.8	199.0
Connecticut	383.2	373.1	373.1	73.9	74.0	74.3	372.1	385.4	389.6
Bridgeport-Milford	58.9	57.1	56.9	9.1	9.6	9.6	46.0	46.7	47.1
Hartford	93.5	94.0	93.8	18.0	18.4	18.4	102.1	103.4	104.6
New Haven-Meriden	46.5	46.0	45.9	18.2	18.5	18.5	58.6	60.0	61.2
Stamford	23.7	23.3	23.3	5.2	5.4	5.4	30.9	30.9	31.1
Waterbury	23.8	23.8	23.8	3.2	3.1	3.1	17.8	17.9	18.3
Delaware	70.1	68.4	69.3	13.9	14.3	14.4	72.6	72.6	72.4
Wilmington	59.7	56.7	58.0	15.0	15.2	15.4	58.6	59.8	60.7
District of Columbia	16.4	16.2	16.5	24.5	24.9	24.8	63.7	64.0	66.4
Washington MSA	87.1	86.9	87.3	102.4	108.3	108.9	418.4	426.3	431.1
Florida	533.2	537.0	539.3	259.7	260.5	261.9	1,325.6	1,378.4	1,390.9
Daytona Beach	11.8	11.8	11.8	3.4	3.5	3.5	32.6	34.5	34.2
Fort Lauderdale-Hollywood-Pompano Beach	46.1	46.7	46.8	22.3	23.4	23.3	138.6	144.2	144.3
Fort Myers-Cape Coral	5.4	5.6	5.7	4.9	5.1	5.1	31.1	33.3	34.1
Jacksonville	38.6	40.2	40.4	28.1	28.2	28.7	108.0	112.6	112.9
Melbourne-Titusville-Palm Bay	28.2	30.1	30.2	5.9	6.0	6.0	33.9	35.1	35.5
Miami-Hialeah	95.6	96.1	96.1	68.9	67.6	67.8	222.2	223.4	223.8
Orlando	54.4	54.7	54.9	24.9	25.9	26.0	125.6	132.0	132.7
Pensacola	11.4	11.3	11.5	5.9	6.2	6.2	32.5	33.8	33.3
Sarasota	9.0	8.9	8.8	3.6	3.5	3.5	30.8	31.2	31.8
Tallahassee	4.7	4.9	4.8	3.1	3.2	3.1	23.2	23.5	23.5
Tampa-St. Petersburg-Clearwater	92.8	94.9	95.2	38.6	39.3	39.4	223.3	226.1	227.7
West Palm Beach-Boca Raton-DeLray Beach	36.1	35.6	35.8	12.0	12.4	12.5	88.1	92.0	94.9

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Alabama	70.4	70.9	70.9	279.4	285.3	285.7	302.3	297.3	302.9
Birmingham	29.2	29.7	29.5	94.3	95.9	96.6	61.8	61.5	62.4
Huntsville	3.6	3.8	3.8	27.9	30.3	30.4	29.8	29.7	29.8
Mobile	8.1	7.9	8.0	36.6	37.3	37.4	28.2	27.7	28.4
Montgomery	7.5	7.6	7.7	26.2	26.0	26.1	31.6	31.2	31.2
Tuscaloosa	2.1	2.2	2.2	6.3	6.6	6.6	19.3	19.7	20.1
Alaska	10.9	10.8	10.6	40.8	42.7	41.5	66.7	67.2	67.8
Arizona	95.3	91.5	91.3	350.2	355.2	357.3	246.1	246.1	254.0
Phoenix	75.6	72.8	72.7	235.8	239.6	240.8	128.9	126.9	131.5
Tucson	12.6	12.1	12.0	65.9	66.2	67.1	51.1	52.3	53.8
Arkansas	37.7	38.0	38.0	155.9	161.8	162.1	149.8	149.7	151.9
Fayetteville-Springdale	1.6	1.5	1.4	7.2	7.5	7.5	10.6	10.8	10.8
Fort Smith	2.7	2.6	2.6	17.0	16.6	16.7	7.7	7.7	7.9
Little Rock-North Little Rock	15.8	16.3	16.3	53.4	55.8	56.0	46.6	46.4	46.7
Pine Bluff	1.5	1.5	1.5	6.2	6.3	6.3	7.7	7.7	7.8
California	812.7	826.0	827.1	2,941.7	3,038.2	3,053.0	1,926.1	1,940.3	1,998.4
Anaheim-Santa Ana	91.3	90.5	90.4	266.7	271.9	273.3	115.8	114.6	119.0
Bakersfield	6.3	6.2	6.2	32.8	32.4	32.3	40.8	42.7	41.6
Fresno	13.5	12.6	12.6	47.9	50.7	50.4	44.7	45.5	45.7
Los Angeles-Long Beach	287.6	295.2	296.2	1,059.3	1,086.7	1,092.6	502.5	506.2	521.6
Modesto	4.6	4.6	4.6	21.8	22.6	22.6	17.8	17.7	19.0
Oakland	54.7	56.3	56.3	189.8	195.7	197.2	161.2	163.7	166.6
Oxnard-Ventura	10.2	11.1	11.0	49.4	51.6	51.7	40.5	40.3	40.8
Riverside-San Bernardino	26.7	28.0	27.9	144.9	147.9	149.7	121.8	126.5	130.0
Sacramento	33.7	35.4	35.3	120.3	127.5	128.0	166.4	168.8	172.1
San Diego	61.1	63.0	63.1	232.2	244.5	244.5	158.5	163.3	166.5
San Francisco	112.8	113.6	113.6	285.3	294.4	295.8	134.9	134.6	136.5
San Jose	34.6	35.0	34.8	199.6	203.1	206.2	87.1	86.0	87.0
Santa Barbara-Santa Maria-Lompoc	8.7	8.7	8.7	40.0	40.7	40.8	27.2	25.6	28.0
Santa Rosa-Petaluma	8.4	8.7	8.7	28.8	29.5	29.5	22.8	22.4	23.3
Stockton	8.7	8.5	8.4	30.4	31.0	30.7	30.9	31.7	32.5
Vallejo-Fairfield-Napa	4.5	4.5	4.5	29.0	29.5	29.6	37.4	37.1	37.5
Colorado	97.9	96.8	96.1	326.5	332.3	331.6	269.5	266.2	274.6
Boulder-Longmont	4.1	4.0	4.0	21.6	22.0	22.2	22.7	22.7	23.7
Denver	66.8	65.9	65.6	195.7	197.7	198.1	127.0	125.1	128.4
Connecticut	150.6	151.8	152.1	389.4	400.6	402.8	204.7	200.0	206.7
Bridgeport-Milford	11.9	12.6	12.6	45.4	46.7	47.0	20.0	19.8	20.5
Hartford	78.1	79.8	80.0	108.0	110.5	111.5	61.3	61.2	61.8
New Haven-Meriden	15.3	15.8	15.8	68.8	71.5	72.2	31.7	31.4	32.1
Stamford	13.2	13.8	13.8	37.6	38.6	38.7	10.9	10.8	10.8
Waterbury	4.5	4.5	4.5	20.7	22.5	22.2	12.7	13.1	13.2
Delaware	26.9	29.0	29.4	74.9	80.4	80.7	47.1	46.6	48.2
Wilmington	24.0	25.6	26.0	66.0	70.0	70.7	37.3	37.7	39.0
District of Columbia	37.2	37.6	37.6	235.4	244.1	246.7	262.5	269.1	267.7
Washington MSA	125.9	130.3	130.2	670.9	701.9	704.3	555.6	561.0	569.4
Florida	365.2	370.8	370.9	1,320.3	1,393.7	1,399.4	756.3	767.1	785.7
Daytona Beach	6.6	6.6	6.6	30.9	31.6	31.5	18.1	19.1	19.9
Fort Lauderdale-Hollywood-Pompano Beach	40.0	41.6	41.6	125.0	131.0	132.1	58.9	60.9	61.9
Fort Myers-Cape Coral	8.2	8.3	8.3	30.6	32.9	33.3	15.6	16.3	16.6
Jacksonville	37.9	39.6	39.5	102.0	110.0	110.8	57.6	59.3	59.7
Melbourne-Titusville-Palm Bay	5.5	5.8	5.8	42.0	44.9	45.4	21.2	22.1	22.1
Miami-Hialeah	68.0	68.4	68.5	223.6	228.3	228.3	109.8	112.3	114.2
Orlando	34.0	36.2	36.3	151.5	158.7	158.6	55.8	58.2	58.9
Pensacola	5.7	5.7	5.8	30.9	31.8	31.5	29.4	28.9	29.4
Sarasota	8.5	8.7	8.7	30.2	32.3	32.8	12.3	12.8	13.0
Tallahassee	5.0	5.0	5.0	22.2	23.0	23.0	46.0	47.2	48.4
Tampa-St. Petersburg-Clearwater	66.4	67.3	66.7	221.2	226.3	228.8	103.5	105.0	105.4
West Palm Beach-Boca Raton-Delray Beach	29.1	28.5	28.9	96.3	102.6	105.0	39.9	42.1	42.6

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Georgia	2,798.4	2,802.7	2,814.8	8.3	8.6	8.5	156.0	146.9	143.8
Athens	63.9	61.6	64.5	.2	.2	.2	2.5	2.3	2.3
Atlanta	1,383.0	1,391.4	1,398.8	1.4	1.4	1.4	74.4	71.0	69.9
Augusta	157.6	157.6	157.6	.5	.5	.5	9.8	9.7	9.9
Columbus	93.3	92.0	92.1	.1	.1	.1	5.4	5.2	5.1
Macon-Warner Robins	118.9	119.2	119.0	.1	.1	.1	4.9	4.9	4.8
Savannah	102.8	102.4	101.9	(¹)	(¹)	(¹)	6.9	6.7	6.5
Hawaii	463.1	463.1	470.5	(¹)	(¹)	(¹)	20.8	21.0	21.1
Honolulu	369.0	367.2	373.7	(¹)	(¹)	(¹)	16.4	16.8	16.6
Idaho	345.1	354.0	356.4	2.8	3.3	3.4	15.1	16.6	16.1
Boise City	87.9	91.4	92.8	(²)	(²)	(²)	4.6	4.8	4.8
Illinois	4,957.3	5,066.4	5,075.7	24.3	24.0	23.5	207.0	223.3	224.2
Aurora-Elgin	137.0	142.2	143.0	(¹)	(¹)	(¹)	6.7	7.4	7.4
Bloomington-Normal	56.7	58.0	58.5	(¹)	(¹)	(¹)	1.8	1.8	1.8
Champaign-Urbana-Rantoul	86.8	85.0	87.7	(¹)	(¹)	(¹)	2.5	2.5	2.5
Chicago	3,047.5	3,121.4	3,120.8	2.6	2.5	2.5	127.7	136.3	136.4
Davenport-Rock Island-Moline	155.7	155.9	155.5	(¹)	(¹)	(¹)	4.9	4.8	4.7
Decatur	50.4	50.6	50.7	(¹)	(¹)	(¹)	2.0	1.9	1.9
Joliet	97.6	97.8	98.0	(¹)	(¹)	(¹)	5.6	5.6	5.6
Lake County	189.7	199.3	198.9	(¹)	(¹)	(¹)	9.5	10.4	10.5
Peoria	134.5	137.6	138.0	(¹)	(¹)	(¹)	5.5	5.7	5.6
Rockford	124.9	127.1	127.4	(¹)	(¹)	(¹)	4.9	4.7	4.7
Springfield	98.2	99.1	99.3	(¹)	(¹)	(¹)	3.5	3.4	3.4
Indiana	2,356.0	2,439.0	2,446.6	8.9	8.4	8.3	110.1	120.2	121.5
Anderson	49.1	49.3	49.4	(²)	(²)	(²)	1.5	1.5	1.5
Bloomington	53.3	56.0	57.0	(²)	(²)	(²)	2.3	2.7	2.7
Elkhart-Goshen	99.7	104.6	104.8	(²)	(²)	(²)	2.9	3.1	3.0
Evansville	127.0	131.3	131.3	2.2	2.1	2.1	7.7	7.6	7.6
Fort Wayne	189.5	198.2	199.4	(²)	(²)	(²)	10.3	11.6	11.6
Gary-Hammond	225.2	233.1	233.6	(²)	(²)	(²)	12.5	14.4	14.8
Indianapolis	614.5	636.8	638.8	.8	.8	.8	32.6	34.7	35.0
Lafayette	66.2	67.8	67.9	(²)	(²)	(²)	3.1	3.7	3.7
Muncie	51.8	52.8	53.4	(²)	(²)	(²)	2.2	2.3	2.3
South Bend-Mishawaka	114.3	115.1	116.9	(²)	(²)	(²)	5.4	6.2	6.1
Terre Haute	54.6	54.5	55.1	.3	.3	.3	2.1	2.5	2.6
Iowa	1,135.2	1,148.3	1,164.1	2.4	2.4	2.3	39.3	39.9	39.8
Cedar Rapids	88.9	91.4	92.3	.2	.1	.1	3.4	3.5	3.5
Des Moines	212.2	217.7	220.9	(¹)	(¹)	(¹)	9.1	8.3	8.5
Dubuque	43.7	44.1	44.5	(¹)	(¹)	(¹)	1.5	1.4	1.1
Sioux City	51.8	53.4	53.7	(¹)	(¹)	(¹)	2.0	1.9	1.9
Waterloo-Cedar Falls	62.5	64.3	64.4	(¹)	(¹)	(¹)	2.0	2.4	2.3
Kansas	1,017.1	1,025.1	1,031.6	12.0	11.4	11.1	46.7	44.3	43.2
Topeka	86.1	88.3	88.2	(¹)	(¹)	(¹)	3.7	3.4	3.3
Wichita	230.7	233.4	235.2	2.5	2.3	2.4	10.5	10.3	10.1
Kentucky	1,339.5	1,365.2	1,371.0	38.7	35.7	35.3	63.5	65.9	65.6
Lexington-Fayette	177.7	179.0	181.2	.7	.5	.5	10.5	9.6	9.4
Louisville	445.5	458.7	460.0	.5	.4	.4	24.6	25.6	25.8
Owensboro	34.3	34.6	34.5	.8	.7	.7	2.3	2.2	2.0
Louisiana	1,501.9	1,503.6	1,513.2	54.9	54.8	54.3	80.9	83.6	83.5
Alexandria	46.2	45.8	46.1	.2	.2	.2	2.5	2.5	2.4
Baton Rouge	214.0	215.7	216.6	.8	.8	.8	19.8	21.4	21.7
Houma-Thibodaux	53.0	53.1	54.0	5.7	5.9	5.9	1.4	1.8	1.8
Lafayette	82.4	83.2	84.2	10.6	10.6	10.5	3.2	3.2	3.4
Monroe	54.0	54.2	54.4	.4	.3	.3	2.6	2.6	2.5
New Orleans	510.7	509.8	510.8	14.6	15.1	15.3	22.1	21.9	21.7
Shreveport	133.9	132.4	132.8	3.3	2.9	2.9	7.5	7.8	7.7
Maine	514.5	535.1	533.0	.1	.1	.1	33.0	37.1	37.1
Lewiston-Auburn	40.1	40.9	41.6	(¹)	(¹)	(¹)	2.4	2.5	2.4
Portland	127.5	130.1	130.8	(¹)	(¹)	(¹)	10.0	9.7	9.8

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Georgia	573.5	563.5	565.2	177.5	179.2	179.3	699.5	702.0	707.2
Athens	15.6	15.4	15.5	1.7	1.7	1.7	13.1	12.9	13.1
Atlanta	187.7	179.3	181.9	117.5	121.1	121.3	381.2	382.5	385.4
Augusta	36.2	36.8	36.7	5.3	5.2	5.0	34.2	33.3	33.3
Columbus	20.2	20.3	20.4	3.6	3.5	3.4	20.6	20.0	19.9
Macon-Warner Robins	18.5	18.6	18.2	4.9	4.9	4.8	26.8	27.0	27.1
Savannah	17.4	16.8	16.7	9.1	9.2	9.0	24.9	25.3	25.2
Hawaii	22.2	21.9	22.0	37.2	36.8	36.7	124.8	125.1	125.0
Honolulu	16.5	16.1	16.2	30.6	30.5	30.5	98.0	98.2	98.1
Idaho	56.4	59.1	59.6	18.4	19.2	19.1	86.4	87.4	88.3
Boise City	11.4	12.9	12.9	5.2	5.3	5.3	22.9	23.3	24.3
Illinois	935.9	950.5	948.0	300.5	305.2	303.3	1,237.5	1,273.2	1,279.6
Aurora-Elgin	38.6	37.4	37.6	3.1	3.1	3.1	38.2	39.7	39.8
Bloomington-Normal	5.0	6.2	6.3	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	19.3	19.3
Chicago	552.1	554.4	551.0	195.6	197.4	195.8	764.7	787.5	785.4
Davenport-Rock Island-Moline	33.0	32.9	32.4	8.2	8.2	8.2	42.4	42.5	42.5
Decatur	12.9	13.3	13.1	4.9	4.8	4.8	11.8	11.6	11.7
Joliet	19.7	20.0	19.9	8.4	8.3	8.3	22.8	22.9	22.8
Lake County	42.5	44.5	44.1	6.9	7.3	7.4	51.1	53.2	54.1
Peoria	32.1	34.7	34.8	6.8	6.6	6.7	33.2	33.1	33.2
Rockford	42.2	45.0	44.8	4.3	4.4	4.4	29.0	28.9	29.0
Springfield	3.8	3.9	3.9	4.9	5.0	5.0	22.1	22.1	22.1
Indiana	625.0	638.1	639.8	122.3	131.3	131.4	555.2	578.3	578.1
Anderson	17.3	17.0	16.9	1.5	1.6	1.6	11.4	11.5	11.5
Bloomington	9.2	9.8	10.1	1.7	1.8	1.8	12.0	12.6	12.7
Elkhart-Goshen	53.8	57.0	56.9	2.8	2.9	2.9	18.4	19.1	19.0
Evansville	30.6	31.2	31.0	6.7	6.7	6.8	33.3	34.8	35.0
Fort Wayne	51.1	52.6	52.7	12.1	12.8	12.8	46.4	49.1	49.3
Gary-Hammond	56.3	57.2	57.1	15.0	15.3	15.3	53.0	55.6	55.2
Indianapolis	107.3	106.1	106.4	37.5	38.9	38.7	159.5	165.5	166.6
Lafayette	11.9	12.6	12.6	2.0	2.0	2.0	13.2	13.2	13.3
Muncie	10.4	10.9	10.8	2.5	2.5	2.5	12.8	13.0	13.2
South Bend-Mishawaka	24.3	22.0	23.2	5.0	5.2	5.3	30.1	31.1	31.3
Terre Haute	10.4	10.0	9.9	2.8	2.9	2.9	14.6	15.3	15.2
Iowa	219.1	227.0	228.6	54.0	55.3	55.4	286.6	293.4	294.6
Cedar Rapids	22.9	24.1	24.2	6.0	6.6	6.7	21.5	22.0	22.1
Des Moines	24.9	25.4	26.5	12.2	12.6	12.6	55.7	58.5	58.7
Dubuque	12.7	13.1	13.2	1.7	1.9	1.9	9.8	10.0	10.0
Sioux City	10.2	10.6	11.0	3.1	3.2	3.2	13.6	14.2	14.2
Waterloo-Cedar Falls	13.9	15.4	15.5	1.7	1.8	1.8	14.9	15.5	15.4
Kansas	177.3	181.2	181.6	61.9	61.5	61.5	256.1	258.0	259.4
Topeka	8.5	8.6	8.3	6.6	6.4	6.3	19.6	20.6	20.7
Wichita	60.5	60.7	61.3	10.7	10.7	10.5	53.1	53.9	54.2
Kentucky	263.6	274.1	273.5	67.9	67.8	67.9	321.1	332.2	334.8
Lexington-Fayette	27.8	30.0	30.1	7.8	8.0	8.0	42.8	44.7	45.4
Louisville	86.9	88.0	87.4	28.6	30.4	30.8	110.4	116.0	116.5
Owensboro	6.0	6.2	6.1	2.1	2.2	2.1	8.6	8.6	8.8
Louisiana	167.2	170.2	171.0	104.7	106.1	105.9	366.2	364.4	367.6
Alexandria	3.4	3.3	3.3	2.2	2.2	2.2	10.9	11.1	11.1
Baton Rouge	18.7	18.9	18.9	10.2	10.5	10.4	51.7	52.1	52.5
Houma-Thibodaux	4.9	4.3	4.7	5.6	6.2	6.2	13.7	13.6	13.5
Lafayette	5.8	5.9	6.1	5.7	5.9	5.9	22.0	23.1	23.2
Monroe	7.1	7.4	7.4	2.7	2.6	2.6	14.3	13.8	14.1
New Orleans	42.2	42.9	43.1	43.4	44.3	43.7	135.0	131.5	132.1
Shreveport	17.5	17.4	17.4	8.2	8.1	8.1	32.7	31.7	32.0
Maine	105.2	108.5	109.2	20.7	22.0	21.7	127.5	133.7	131.2
Lewiston-Auburn	10.5	10.3	10.3	1.4	1.5	1.4	9.7	10.0	10.6
Portland	16.3	16.7	16.9	6.0	5.8	5.6	37.2	38.7	39.0

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Georgia	156.5	157.6	158.1	545.5	561.6	560.7	481.5	483.3	492.2
Athens	1.9	2.0	2.0	9.5	9.8	10.2	19.2	17.3	19.5
Atlanta	99.0	100.3	100.2	324.6	336.2	334.3	197.0	199.7	204.5
Augusta	6.2	6.0	6.0	32.0	32.7	32.6	33.4	33.4	33.6
Columbus	6.2	6.1	6.0	16.3	16.5	16.7	20.8	20.3	20.5
Macon-Warner Robins	7.6	7.8	7.8	22.8	22.4	22.6	33.3	33.5	33.6
Savannah	4.5	4.3	4.3	23.8	23.9	23.9	16.2	16.1	16.3
Hawaii	34.3	34.7	34.5	128.9	131.7	133.1	94.9	91.9	98.1
Honolulu	28.7	29.0	28.9	99.2	100.4	101.3	79.6	76.2	82.1
Idaho	19.3	19.4	19.4	69.7	72.4	72.2	77.0	76.6	78.3
Boise City	7.6	7.7	7.7	19.1	20.2	20.4	17.1	17.2	17.4
Illinois	359.3	364.6	363.7	1,163.7	1,197.9	1,204.0	729.1	727.7	729.4
Aurora-Elgin	6.4	6.6	6.6	30.5	32.8	32.9	15.4	15.1	15.5
Bloomington-Normal	9.4	9.6	9.6	11.7	11.9	12.0	13.4	13.1	13.4
Champaign-Urbana-Rantoul	3.3	3.4	3.4	16.2	16.4	16.5	35.4	32.9	35.5
Chicago	259.5	264.6	264.5	789.6	817.4	820.2	355.7	361.3	365.0
Davenport-Rock Island-Moline	8.0	8.2	8.2	31.4	31.8	31.7	27.8	27.5	27.8
Decatur	2.7	2.7	2.7	10.5	10.6	10.7	5.6	5.7	5.8
Joliet	3.8	3.8	3.8	20.0	19.9	20.0	17.0	17.0	17.3
Lake County	6.7	6.7	6.8	41.9	45.2	43.6	30.5	31.4	31.8
Peoria	7.0	7.0	7.0	33.7	34.3	34.2	16.2	16.2	16.5
Rockford	5.3	5.3	5.3	26.7	26.8	26.9	12.5	12.0	12.3
Springfield	7.8	8.0	8.0	23.9	23.8	23.8	32.1	32.8	33.0
Indiana	116.2	120.3	120.2	461.6	481.5	480.9	356.7	361.0	366.5
Anderson	1.6	1.7	1.7	9.9	10.0	10.0	5.9	6.0	6.2
Bloomington	1.8	2.0	1.9	8.0	8.6	8.6	18.3	18.6	19.1
Elkhart-Goshen	2.6	2.7	2.7	13.4	14.2	14.2	5.8	5.8	5.9
Evansville	5.2	5.4	5.4	29.3	31.1	30.9	12.0	12.4	12.6
Fort Wayne	12.1	12.0	12.0	39.3	41.6	42.0	18.2	18.4	19.0
Gary-Hammond	8.4	8.5	8.5	48.4	50.4	50.6	31.7	31.7	32.1
Indianapolis	46.3	48.9	48.7	139.1	147.7	148.2	91.5	94.2	94.4
Lafayette	3.0	3.2	3.2	11.6	11.7	11.7	21.3	21.3	21.4
Muncie	1.7	1.7	1.7	10.7	11.1	11.0	11.6	11.4	11.9
South Bend-Mishawaka	6.3	6.4	6.4	31.5	32.9	33.1	11.7	11.3	11.5
Terre Haute	2.0	2.1	2.1	11.2	10.8	10.9	11.1	10.5	11.2
Iowa	65.2	67.0	67.1	251.5	253.9	256.7	217.1	209.4	219.6
Cedar Rapids	4.9	4.9	4.9	19.5	20.2	20.5	10.5	10.0	10.3
Des Moines	27.7	29.9	30.2	52.9	54.5	54.3	29.5	28.3	29.9
Dubuque	1.4	1.5	1.5	12.8	12.7	12.9	3.7	3.4	3.6
Sioux City	2.7	2.6	2.6	13.9	14.4	14.3	6.3	6.5	6.5
Waterloo-Cedar Falls	2.9	2.8	2.7	14.4	14.2	14.1	12.6	12.1	12.5
Kansas	56.4	57.3	57.1	203.4	210.8	211.6	203.3	200.6	206.1
Topeka	6.2	6.6	6.6	20.7	21.3	21.3	20.7	21.3	21.6
Wichita	11.5	11.4	11.4	54.4	57.0	57.4	27.5	27.1	27.9
Kentucky	61.1	61.8	61.2	279.5	287.7	289.8	244.1	240.0	242.9
Lexington-Fayette	9.2	9.4	9.4	42.8	41.5	41.7	36.1	35.3	36.7
Louisville	28.9	29.7	29.3	104.0	107.4	107.7	61.6	61.2	62.1
Owensboro	1.5	1.5	1.5	7.8	8.1	8.1	5.2	5.1	5.2
Louisiana	84.7	84.1	84.0	327.7	332.1	333.9	315.6	308.3	313.0
Alexandria	2.6	2.6	2.6	11.5	11.6	11.7	12.9	12.3	12.6
Baton Rouge	13.4	13.5	13.6	43.7	44.2	43.9	55.7	54.3	54.8
Houma-Thibodaux	2.3	2.1	2.1	8.7	9.2	9.2	10.7	10.0	10.6
Lafayette	3.8	3.5	3.5	18.3	18.7	16.7	13.0	12.3	12.9
Monroe	4.7	4.6	4.5	11.6	12.0	11.9	10.6	10.9	11.1
New Orleans	34.1	33.4	33.4	134.3	136.4	137.3	85.0	84.3	84.2
Shreveport	7.2	6.9	6.9	32.4	32.9	32.7	25.1	24.7	25.1
Maine	25.1	25.4	25.5	110.5	117.7	114.3	92.4	90.6	93.9
Lewiston-Auburn	2.2	2.5	2.4	10.1	10.2	10.4	3.8	3.9	4.1
Portland	12.7	12.8	12.7	29.3	30.7	30.5	16.0	15.7	16.3

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
Maryland	2,043.2	2,057.5	2,069.1	1.9	1.9	1.9	157.0	157.4	158.9
Baltimore MSA	1,096.3	1,093.2	1,101.8	.3	.3	.3	75.2	75.7	76.0
Baltimore City	459.3	459.7	461.1	(¹)	(¹)	(¹)	20.2	20.3	20.3
Suburban Maryland-D.C.	721.6	730.0	737.0	.7	.7	.7	64.1	63.9	64.4
Massachusetts	3,080.2	3,129.3	3,152.0	1.9	2.0	2.0	147.0	162.0	162.2
Boston	1,734.2	1,743.6	1,762.9	.9	1.1	1.2	73.3	78.6	77.9
Brockton	73.2	75.3	75.3	(¹)	(¹)	(¹)	4.0	4.6	4.4
Fall River	56.1	57.5	57.2	(¹)	(¹)	(¹)	2.6	3.0	3.0
Fitchburg-Leominster	40.3	40.4	40.6	(¹)	(¹)	(¹)	2.7	3.0	3.0
Lawrence-Haverhill	163.1	164.6	164.5	(¹)	(¹)	(¹)	8.4	8.9	8.6
Lowell	106.5	106.4	107.7	.2	.1	.1	5.8	6.6	6.6
New Bedford	67.4	68.8	69.1	(¹)	(¹)	(¹)	3.3	3.8	3.7
Springfield	240.4	240.0	242.5	.1	.1	.1	10.5	11.1	11.2
Worcester	202.7	208.2	211.1	.1	.2	.2	10.1	11.1	11.1
Michigan	3,768.9	3,761.5	3,814.9	10.1	10.3	10.2	134.3	146.0	146.5
Ann Arbor	169.7	170.4	176.5	(¹)	(¹)	(¹)	5.7	7.0	7.3
Battle Creek	57.7	58.8	59.2	(¹)	(¹)	(¹)	2.2	2.4	2.3
Benton Harbor	65.0	65.2	66.1	(¹)	(¹)	(¹)	1.6	1.6	1.6
Detroit	1,873.8	1,874.2	1,895.4	.9	.9	.8	64.8	68.9	69.3
Flint	173.0	168.0	168.7	(¹)	(¹)	(¹)	4.6	4.7	4.9
Grand Rapids	318.9	328.0	331.6	(¹)	(¹)	(¹)	15.1	16.2	16.3
Kalamazoo	106.6	107.8	109.5	(¹)	(¹)	(¹)	3.3	3.5	3.5
Lansing-East Lansing	207.8	204.2	212.1	(¹)	(¹)	(¹)	5.7	6.5	6.4
Muskegon	56.9	57.4	57.9	(¹)	(¹)	(¹)	2.3	2.4	2.3
Saginaw-Bay City-Midland	158.4	160.2	162.2	(¹)	(¹)	(¹)	7.1	7.6	7.8
Minnesota	2,007.3	2,052.2	2,068.3	6.9	7.5	7.5	92.5	89.9	87.7
Duluth	91.1	90.7	91.4	4.4	4.8	4.8	5.2	3.9	3.8
Minneapolis-St. Paul	1,312.2	1,323.1	1,331.8	(¹)	(¹)	(¹)	59.1	59.9	59.1
Rochester	57.6	59.8	59.7	(¹)	(¹)	(¹)	2.1	2.1	2.1
St. Cloud	71.5	72.6	73.8	(¹)	(¹)	(¹)	4.3	4.2	4.1
Mississippi	882.8	892.0	895.7	6.3	6.3	6.2	35.6	34.7	34.4
Jackson	179.9	182.7	183.4	1.1	1.1	1.1	9.1	8.8	8.7
Missouri	2,221.5	2,236.1	2,242.4	5.6	5.7	5.6	104.7	105.5	104.7
Kansas City	737.7	740.4	742.7	.5	.5	.5	38.5	38.5	39.0
St. Louis	1,136.8	1,146.1	1,148.7	3.6	3.6	3.6	58.3	59.0	58.1
Springfield	110.7	114.5	115.2	.1	.1	.1	5.5	6.2	6.1
Montana	279.5	280.2	280.4	6.1	6.2	6.2	10.4	10.3	10.0
Nebraska	669.4	672.4	675.7	1.7	1.7	1.6	25.3	25.3	25.1
Lincoln	112.6	113.8	114.7	(¹)	(¹)	(¹)	4.4	4.4	4.4
Omaha	302.5	307.4	309.2	.2	.2	.2	12.6	12.6	12.7
Nevada	510.0	541.2	543.6	8.7	11.0	11.0	30.8	35.4	35.6
Las Vegas	291.6	306.8	309.1	.3	.3	.3	18.6	21.0	21.0
Reno	135.9	141.5	141.8	1.0	1.2	1.2	7.4	8.8	9.0
New Hampshire	523.4	546.5	547.0	.7	.7	.7	39.8	42.3	41.3
Nashua	94.7	96.2	96.3	.1	.1	.1	5.4	5.8	5.6
Portsmouth-Dover-Rochester	111.5	118.1	117.9	.1	.1	.1	6.4	6.7	6.5
New Jersey	3,637.9	3,687.2	3,715.8	2.4	2.5	2.5	180.0	191.3	192.3
Atlantic City	160.6	175.5	167.3	(¹)	(¹)	(¹)	10.7	10.6	10.5
Bergen-Passaic	679.9	685.9	694.9	.1	.2	.2	32.9	33.9	34.1
Camden	430.7	440.0	446.2	.1	.1	.1	26.9	29.3	29.6
Jersey City	246.2	249.1	250.1	(¹)	(¹)	(¹)	7.7	8.3	8.6
Middlesex-Somerset-Hunterdon	523.4	534.7	543.3	.6	.7	.7	23.9	25.7	25.7
Monmouth-Ocean	323.6	337.9	336.7	(¹)	(¹)	(¹)	21.9	25.6	25.5
Newark	964.9	971.1	981.8	.7	.7	.7	40.8	44.7	45.2
Trenton	197.9	199.1	202.0	(¹)	(¹)	(¹)	5.7	5.9	6.0

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	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Maryland	207.6	207.6	207.2	93.7	94.1	94.0	522.7	525.6	525.5
Baltimore MSA	131.5	130.9	130.8	54.0	53.3	53.2	270.3	269.3	271.7
Baltimore City	44.2	44.2	44.2	28.0	27.8	27.7	98.3	97.9	98.0
Suburban Maryland-D.C.	35.3	35.8	36.0	27.7	27.7	28.1	193.4	194.2	195.8
Massachusetts	595.3	579.1	578.8	131.4	132.4	132.4	722.7	735.1	733.3
Boston	281.6	273.2	272.7	75.6	76.3	76.2	385.2	385.8	388.5
Brockton	11.5	11.4	11.6	5.2	5.3	5.3	22.1	23.5	23.4
Fall River	17.0	16.1	15.9	1.8	1.9	1.9	14.9	16.1	15.7
Fitchburg-Leominster	11.6	11.4	11.5	1.6	1.6	1.7	10.2	10.2	10.4
Lawrence-Haverhill	50.8	49.5	49.2	7.0	6.7	6.7	36.6	38.2	38.3
Lowell	36.1	35.3	35.3	3.7	3.3	3.3	22.4	22.6	23.2
New Bedford	19.2	18.5	18.6	3.0	3.0	3.1	16.3	17.2	16.9
Springfield	51.3	50.6	51.3	9.6	10.1	10.1	57.0	58.1	58.1
Worcester	46.6	46.0	46.2	8.9	8.6	8.6	47.7	48.4	48.7
Michigan	960.3	938.9	943.3	149.6	151.8	153.2	872.0	882.8	888.0
Ann Arbor	39.1	38.6	38.9	4.1	4.4	4.4	29.6	30.9	31.5
Battle Creek	15.2	15.6	15.6	1.8	1.9	1.8	11.5	12.2	12.3
Benton Harbor	21.4	21.1	21.0	2.3	2.5	2.4	13.5	14.0	14.0
Detroit	464.5	451.1	453.8	84.8	87.0	86.7	444.5	448.6	450.2
Flint	53.9	48.6	48.6	4.5	4.5	4.6	46.2	47.3	47.4
Grand Rapids	96.8	99.6	99.7	11.1	11.3	11.2	82.4	85.7	86.8
Kalamazoo	29.6	30.1	30.3	3.3	3.4	3.4	23.9	24.2	24.8
Lansing-East Lansing	34.9	33.3	33.3	5.7	5.6	5.6	42.4	43.7	44.6
Muskegon	17.4	17.5	17.3	2.3	1.9	2.4	12.6	12.9	12.9
Saginaw-Bay City-Midland	44.5	43.8	44.7	6.7	7.0	7.1	37.4	37.8	38.1
Minnesota	381.1	396.4	393.0	102.5	104.1	104.4	494.6	515.0	514.4
Duluth	7.7	7.8	7.9	5.9	6.2	6.1	22.1	21.9	22.0
Minneapolis-St. Paul	257.3	263.0	261.6	71.5	72.1	72.5	322.2	325.9	326.2
Rochester	10.7	11.5	11.2	1.7	1.7	1.7	11.5	11.7	11.8
St. Cloud	12.0	12.7	12.8	3.4	3.7	3.7	21.5	22.8	22.8
Mississippi	232.3	234.2	234.5	43.1	43.6	44.2	187.9	191.4	191.9
Jackson	21.1	21.2	21.3	12.7	13.1	13.1	42.4	43.3	43.5
Missouri	422.9	424.3	420.7	144.0	144.1	144.3	546.4	556.9	556.5
Kansas City	108.8	109.1	108.8	56.6	56.0	56.2	192.9	193.7	193.6
St. Louis	220.2	224.5	221.5	74.0	75.3	75.2	276.5	276.8	278.8
Springfield	20.8	21.7	21.5	7.2	7.4	7.6	30.6	31.9	32.1
Montana	21.6	21.3	21.3	19.6	19.3	19.5	73.2	74.0	73.8
Nebraska	90.9	93.4	94.0	43.8	44.2	45.0	172.2	171.7	172.3
Lincoln	13.4	14.2	14.2	5.9	5.9	6.0	26.0	25.5	25.7
Omaha	34.8	36.4	36.3	23.2	24.0	24.6	77.2	77.4	78.0
Nevada	23.7	24.3	24.4	28.2	28.8	28.8	103.8	109.4	110.0
Las Vegas	8.9	9.0	9.0	16.0	16.3	16.3	61.3	64.5	65.2
Reno	8.1	7.9	8.0	9.2	9.3	9.5	30.3	31.6	31.7
New Hampshire	120.0	122.1	122.5	17.2	17.8	17.7	131.4	136.3	137.9
Nashua	37.3	37.1	37.1	2.0	2.1	2.2	21.2	21.3	21.2
Portsmouth-Dover-Rochester	20.6	21.1	21.1	2.9	3.4	3.3	28.8	31.9	31.7
New Jersey	677.6	671.5	672.4	242.9	247.0	248.5	872.9	877.7	884.9
Atlantic City	8.7	8.3	8.1	6.1	6.3	6.2	33.4	41.4	34.9
Bergen-Passaic	161.5	160.4	160.7	29.3	28.5	28.9	196.2	195.4	198.8
Camden	71.7	72.5	72.8	18.5	19.1	19.4	117.0	118.7	121.3
Jersey City	50.2	48.8	48.7	31.6	31.3	31.1	61.2	61.6	62.0
Middlesex-Somerset-Hunterdon	114.4	117.3	117.9	43.9	44.9	45.0	127.6	129.1	132.0
Monmouth-Ocean	30.2	30.0	29.9	16.6	17.2	17.3	87.7	90.9	89.9
Newark	181.8	178.1	178.2	82.0	79.4	80.2	199.1	198.0	201.1
Trenton	31.2	30.9	30.9	6.7	6.8	6.8	32.2	32.4	33.0

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Maryland	125.5	128.6	128.0	543.0	551.4	553.1	391.8	390.9	400.5
Baltimore MSA	75.4	75.6	75.5	287.3	291.2	290.8	202.3	196.9	203.5
Baltimore City	44.0	44.8	44.8	140.9	141.0	142.1	83.7	83.6	83.9
Suburban Maryland-D.C.	41.4	43.1	43.0	209.7	212.4	212.6	149.5	152.2	156.4
Massachusetts	219.0	230.2	229.1	862.7	892.8	906.9	400.2	395.7	407.3
Boston	151.5	155.9	155.9	561.3	565.9	580.4	204.8	206.8	210.1
Brockton	3.1	3.2	3.1	15.3	15.8	15.5	12.0	11.5	12.0
Fall River	3.0	3.2	3.3	10.2	10.8	10.8	6.6	6.4	6.6
Fitchburg-Leominster	1.8	2.0	1.9	8.1	8.2	8.1	4.3	4.0	4.0
Lawrence-Haverhill	6.4	6.6	6.5	33.2	34.6	34.4	20.7	20.1	20.8
Lowell	4.3	4.3	4.3	20.6	20.7	20.9	13.4	13.5	14.0
New Bedford	2.5	2.7	2.8	13.0	13.7	13.7	10.1	9.9	10.3
Springfield	16.3	16.7	16.3	57.5	57.8	58.4	38.1	35.5	37.0
Worcester	14.2	15.1	14.9	50.0	53.5	55.6	25.1	25.3	25.8
Michigan	177.9	184.4	184.1	825.0	842.6	848.3	639.7	604.8	641.3
Ann Arbor	4.6	4.7	4.7	33.4	35.2	35.4	53.0	49.4	54.3
Battle Creek	3.3	3.3	3.4	12.2	12.0	12.1	11.5	11.4	11.6
Benton Harbor	2.6	2.7	2.7	14.8	14.8	15.4	8.6	8.5	8.8
Detroit	102.6	107.5	107.3	464.7	475.8	478.8	247.0	234.5	248.4
Flint	5.9	5.9	6.0	31.6	31.3	30.8	26.3	25.5	26.5
Grand Rapids	13.8	14.1	14.2	67.2	69.0	70.3	32.1	31.9	32.9
Kalamazoo	4.8	5.1	5.1	23.4	23.4	23.6	18.2	17.9	18.7
Lansing-East Lansing	11.8	12.4	12.5	38.0	39.6	40.4	69.0	62.9	69.2
Muskegon	1.3	1.3	1.3	12.0	12.2	12.4	9.1	9.1	9.1
Saginaw-Bay City-Midland	6.2	6.3	6.3	34.4	35.7	36.0	22.1	21.8	22.0
Minnesota	121.0	124.2	123.8	485.6	506.7	507.5	323.1	308.4	330.0
Duluth	3.1	3.3	3.2	20.6	21.7	21.4	22.1	21.1	22.3
Minneapolis-St. Paul	94.4	96.5	96.4	330.2	337.9	336.1	177.0	167.1	179.1
Rochester	1.5	1.7	1.7	24.0	25.1	25.1	6.1	6.0	6.2
St. Cloud	2.4	2.4	2.4	14.6	14.9	15.0	13.2	11.9	13.0
Mississippi	38.7	39.2	39.0	140.9	143.1	144.1	197.9	199.5	201.3
Jackson	14.4	14.4	14.4	39.6	40.7	41.1	39.5	40.1	40.4
Missouri	134.3	135.5	134.9	513.2	518.8	521.3	350.4	345.3	354.4
Kansas City	57.8	58.2	58.0	170.9	173.9	173.8	110.7	110.5	112.8
St. Louis	73.8	73.3	73.2	287.9	295.0	295.8	142.5	138.6	142.5
Springfield	4.8	4.6	4.7	27.7	28.9	29.0	14.0	13.7	14.1
Montana	13.1	12.6	12.4	65.0	66.7	66.3	70.5	69.8	70.9
Nebraska	47.5	48.1	48.2	150.2	150.1	149.1	137.8	137.9	140.4
Lincoln	8.3	8.9	8.9	23.8	23.8	23.9	30.8	31.1	31.6
Omaha	28.4	28.7	28.7	80.3	82.9	82.4	45.8	45.2	46.3
Nevada	23.9	25.2	25.3	224.5	239.4	239.6	66.4	67.7	68.9
Las Vegas	14.5	15.5	15.7	138.1	145.9	146.4	33.9	34.3	35.2
Reno	7.0	7.1	7.0	56.2	58.6	58.2	16.7	17.0	17.2
New Hampshire	32.6	33.8	33.7	115.9	124.0	122.7	65.8	69.5	70.5
Nashua	4.0	4.1	4.1	17.9	18.6	18.9	6.8	7.1	7.1
Portsmouth-Dover-Rochester	6.7	6.8	6.8	20.5	23.1	22.3	25.5	25.0	26.1
New Jersey	229.8	237.3	237.8	888.6	918.6	920.0	543.7	541.3	557.4
Atlantic City	7.2	7.4	7.5	70.5	77.0	75.6	23.9	24.4	24.4
Bergen-Passaic	38.2	40.2	40.4	153.9	160.1	162.0	67.8	67.2	69.8
Camden	25.3	26.4	26.4	99.6	102.5	103.2	71.6	71.4	73.4
Jersey City	13.0	13.7	13.7	42.4	44.1	44.2	40.1	41.5	41.8
Middlesex-Somerset-Hunterdon	35.6	36.5	36.4	105.9	112.0	112.7	71.5	68.5	72.9
Monmouth-Ocean	18.0	18.3	18.2	88.6	94.3	91.8	60.4	61.4	62.9
Newark	77.3	79.8	79.7	249.9	258.8	261.0	133.3	131.6	135.7
Trenton	9.6	9.6	9.6	57.5	58.1	60.1	55.0	55.4	55.6

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
New Mexico	536.8	547.4	548.8	15.6	15.4	15.3	32.5	30.7	30.6
Albuquerque	234.6	240.0	239.6	.2	.1	.1	16.0	15.8	15.7
Las Cruces	41.1	41.4	42.4	.1	.1	.1	2.2	2.2	2.2
Santa Fe	53.9	56.2	56.0	.1	.1	.1	2.6	2.6	2.6
New York	8,165.8	8,236.7	8,305.4	6.3	6.3	6.3	356.0	371.5	369.4
Albany-Schenectady-Troy	411.6	414.5	418.6	.4	.4	.5	21.8	22.0	21.6
Binghamton	122.4	123.1	124.2	(¹)	(¹)	(¹)	5.7	5.6	5.7
Buffalo	445.7	450.6	453.5	.4	.4	.4	19.5	19.7	19.5
Elmira	39.6	40.9	41.6	(¹)	(¹)	(¹)	1.8	1.9	1.9
Nassau-Suffolk	1,143.2	1,146.4	1,158.6	.2	.2	.2	63.9	65.1	65.0
New York PMSA	4,146.0	4,159.1	4,188.5	1.2	1.2	1.2	159.1	165.6	164.8
New York City	3,612.5	3,624.7	3,650.9	.6	.6	.6	123.0	129.8	129.5
Niagara Falls	83.2	83.6	84.2	(¹)	(¹)	(¹)	3.9	3.9	3.8
Orange County	103.7	105.5	106.9	(¹)	(¹)	(¹)	6.1	6.9	7.2
Poughkeepsie	118.8	120.6	122.5	(²)	(²)	(²)	6.4	7.1	7.1
Rochester	474.1	474.1	481.4	.8	.7	.8	20.9	21.1	20.8
Rockland County	98.3	98.2	99.6	(²)	(²)	(²)	5.6	5.5	5.4
Syracuse	307.3	306.8	310.3	.3	.3	.2	17.6	18.2	18.2
Utica-Rome	124.2	126.2	126.4	.2	.2	.2	4.6	4.7	4.3
Westchester County	416.6	417.3	419.1	.3	.3	.3	28.7	28.4	28.0
North Carolina	2,915.9	2,967.4	2,994.2	5.0	5.1	5.1	163.0	170.9	170.4
Asheville	78.5	80.3	80.5	.1	.1	.1	4.2	4.3	4.4
Charlotte-Gastonia-Rock Hill	590.3	603.7	607.3	.4	.4	.4	35.4	39.2	39.0
Greensboro-Winston-Salem-High Point	469.9	471.4	475.2	.3	.3	.3	24.9	25.6	25.7
Raleigh-Durham	388.8	393.7	397.6	.4	.4	.4	21.7	22.5	22.6
North Dakota	257.9	259.5	261.8	4.6	4.3	4.3	12.9	12.1	11.7
Bismarck	37.2	37.8	37.7	.2	.2	.2	1.8	1.8	1.7
Fargo-Moorhead	72.9	73.5	75.6	(¹)	(¹)	(¹)	4.0	4.2	4.1
Grand Forks	30.7	30.0	31.3	(¹)	(¹)	(¹)	1.9	1.5	1.5
Ohio	4,658.8	4,745.2	4,772.2	20.7	20.5	20.5	198.6	211.6	212.1
Akron	271.0	275.9	275.8	.6	.6	.6	10.0	10.6	10.7
Canton	158.6	161.6	162.5	1.0	1.1	1.1	7.2	8.2	8.1
Cincinnati	688.8	710.6	712.4	.5	.6	.6	32.7	35.1	35.5
Cleveland	904.5	918.9	924.8	1.2	1.0	1.1	31.4	32.0	31.9
Columbus	670.3	686.7	695.2	1.0	1.0	1.0	29.8	32.3	32.5
Dayton-Springfield	434.2	443.8	445.5	.4	.4	.4	18.1	20.0	20.0
Toledo	285.8	294.7	297.0	.2	.3	.2	12.0	13.6	13.7
Youngstown-Warren	191.8	198.3	198.5	.7	.7	.7	8.5	9.2	9.3
Oklahoma	1,111.4	1,106.8	1,110.0	46.2	43.1	43.3	34.1	32.1	31.5
Enid	22.1	21.6	21.6	1.0	.9	.9	.6	.6	.6
Lawton	33.6	33.2	32.7	.2	.2	.2	1.1	1.1	1.1
Oklahoma City	402.9	401.5	401.6	11.3	10.8	10.5	13.0	12.2	12.4
Tulsa	289.4	292.4	291.6	15.3	14.9	15.0	9.5	9.8	9.3
Oregon	1,121.1	1,161.3	1,176.3	1.5	1.5	1.5	37.4	41.3	40.8
Eugene-Springfield	107.7	108.7	111.7	.2	.2	.2	3.7	3.7	3.6
Portland	565.6	580.6	585.5	.5	.5	.5	21.1	21.9	21.9
Salem	100.5	102.7	102.7	.1	.1	.1	3.5	3.7	3.7
Pennsylvania	5,006.2	5,080.2	5,111.9	31.1	30.1	30.1	241.5	256.6	256.2
Allentown-Bethlehem	274.5	278.4	279.5	.6	.6	.6	14.4	15.2	15.3
Altoona	51.4	52.8	52.7	(²)	(²)	(²)	2.9	2.8	2.9
Beaver County	51.3	52.1	52.5	(²)	(²)	(²)	4.2	4.7	4.9
Erie	112.4	114.0	114.6	.2	.2	.2	3.9	4.1	4.0
Harrisburg-Lebanon-Carlisle	298.7	302.8	303.5	.3	.3	.3	13.0	13.6	13.5
Johnstown	79.2	80.2	80.0	3.7	3.6	3.6	3.2	3.3	3.1
Lancaster	182.4	186.4	187.9	.4	.4	.4	10.9	11.9	11.9
Philadelphia PMSA	2,182.5	2,180.3	2,208.8	1.1	1.1	1.1	111.2	116.5	117.4
Philadelphia City	786.8	774.4	783.9	(²)	(²)	(²)	18.9	18.0	18.8
Pittsburgh	866.7	869.7	875.3	5.8	5.6	5.5	44.4	43.9	42.9

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
New Mexico	40.0	41.6	41.8	29.1	28.7	29.0	130.1	134.8	134.5
Albuquerque	20.2	20.5	20.6	12.5	12.5	12.5	60.4	62.9	62.7
Las Cruces	4.4	4.3	4.3	1.3	1.2	1.2	8.3	9.2	9.1
Santa Fe	1.7	1.8	1.8	1.2	1.3	1.3	10.7	11.3	11.2
New York	1,232.7	1,226.0	1,226.4	409.4	411.1	411.5	1,716.1	1,724.5	1,734.4
Albany-Schenectady-Troy	49.2	47.4	47.7	16.7	16.9	17.0	88.1	89.4	91.2
Binghamton	38.0	38.2	38.0	4.5	4.6	4.6	26.8	27.4	27.5
Buffalo	77.5	78.1	77.8	22.1	21.8	21.8	110.5	112.4	113.0
Elmira	8.2	9.0	8.9	1.4	1.5	1.5	10.6	10.7	10.7
Nassau-Suffolk	176.3	170.1	170.3	49.2	49.9	49.9	307.8	312.6	312.9
New York PMSA	467.5	461.0	461.6	241.9	242.2	241.9	769.4	765.6	772.4
New York City	383.9	377.6	378.5	215.7	216.1	215.9	642.6	639.4	645.2
Niagara Falls	24.3	24.1	24.0	3.9	3.9	3.9	19.1	19.9	20.0
Orange County	14.8	15.0	15.0	6.1	6.1	6.2	27.6	28.6	28.7
Poughkeepsie	29.7	30.1	30.1	3.3	3.3	3.4	24.2	24.6	25.1
Rochester	133.5	136.8	136.9	14.6	14.7	14.8	101.2	101.1	102.0
Rockland County	14.7	14.9	14.8	4.1	4.1	4.1	23.5	23.6	23.8
Syracuse	52.4	52.7	52.4	18.1	18.1	18.3	71.9	73.8	73.6
Utica-Rome	24.6	24.8	25.0	4.5	4.7	4.7	27.5	27.7	27.4
Westchester County	67.0	66.6	66.4	21.4	21.3	21.3	99.1	98.3	99.0
North Carolina	866.5	864.8	867.5	144.9	150.7	152.7	656.0	672.5	677.8
Asheville	19.4	19.4	19.3	3.8	3.7	3.7	18.7	19.1	18.9
Charlotte-Gastonia-Rock Hill	155.1	153.7	154.4	49.6	49.6	49.7	141.9	145.9	147.2
Greensboro-Winston-Salem-High Point	152.4	150.8	150.9	27.6	27.6	27.9	105.9	106.1	106.5
Raleigh-Durham	58.1	58.4	59.4	17.0	16.5	16.6	83.4	83.2	83.7
North Dakota	16.6	17.0	17.2	16.3	17.2	17.2	68.2	69.1	69.0
Bismarck	2.0	2.1	2.2	2.7	2.6	2.6	9.8	9.8	9.7
Fargo-Moorhead	4.8	5.0	5.0	4.7	5.2	5.2	21.3	21.8	21.9
Grand Forks	1.6	1.8	1.7	1.6	1.6	1.6	8.5	8.5	8.6
Ohio	1,099.8	1,109.4	1,109.5	210.0	212.5	212.7	1,114.7	1,144.0	1,148.2
Akron	66.7	66.3	66.3	13.1	13.1	13.1	66.4	67.8	68.1
Canton	43.7	43.8	43.8	5.8	6.1	6.2	39.9	40.5	40.6
Cincinnati	144.1	145.4	144.5	36.2	37.8	38.1	173.4	178.3	180.5
Cleveland	202.4	204.3	205.2	41.5	41.4	41.6	217.2	222.5	223.7
Columbus	102.9	104.2	104.0	28.5	29.2	29.2	170.9	176.8	178.3
Dayton-Springfield	103.6	104.0	103.5	15.6	15.9	15.9	98.4	101.6	102.1
Toledo	61.6	63.6	62.9	14.1	14.1	14.1	70.3	72.8	73.3
Youngstown-Warren	49.8	51.4	51.2	7.7	7.8	7.8	49.0	51.6	51.9
Oklahoma	154.7	158.5	158.8	62.2	61.3	61.2	268.7	266.9	266.5
Enid	1.7	1.7	1.6	2.2	2.2	2.2	6.3	6.2	6.2
Lawton	3.4	3.6	3.6	1.2	1.2	1.2	8.5	8.7	8.4
Oklahoma City	47.0	48.0	47.9	19.4	19.2	19.4	100.5	99.9	99.3
Tulsa	47.0	48.8	48.7	23.3	24.0	23.8	70.6	69.2	68.4
Oregon	210.0	219.4	219.0	59.1	60.2	60.7	282.5	302.7	304.7
Eugene-Springfield	19.7	20.6	20.7	4.2	4.4	4.4	26.9	27.5	28.0
Portland	96.3	99.3	98.6	35.1	35.7	36.0	146.9	153.3	154.0
Salem	16.1	18.1	16.9	2.9	3.1	3.1	22.2	22.7	22.4
Pennsylvania	1,052.4	1,056.6	1,056.0	249.7	247.3	249.3	1,140.9	1,149.5	1,155.7
Allentown-Bethlehem	77.0	76.6	76.5	14.2	13.9	14.1	60.2	61.0	61.6
Alltoona	11.4	11.3	11.3	4.6	4.6	4.6	13.0	13.7	13.6
Beaver County	9.7	9.5	9.4	5.3	5.3	5.3	11.0	11.0	10.9
Erie	34.6	35.1	34.9	4.0	3.7	3.7	24.0	23.9	24.1
Harrisburg-Lebanon-Carlisle	53.0	53.0	53.0	18.4	17.9	18.2	68.0	67.9	68.8
Johnstown	13.2	13.3	13.2	5.3	5.3	5.3	16.4	16.9	16.8
Lancaster	59.9	59.2	59.2	7.2	7.4	7.4	43.5	45.7	45.8
Philadelphia PMSA	377.8	370.9	371.7	99.3	97.7	97.9	508.7	508.0	520.6
Philadelphia City	96.3	94.8	94.5	45.7	44.5	44.5	151.5	153.3	156.2
Pittsburgh	124.8	125.0	124.9	45.7	43.0	43.3	216.4	218.6	218.5

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
New Mexico	27.4	27.7	27.8	122.2	127.2	126.8	139.9	141.3	143.0
Albuquerque	14.9	15.1	15.1	64.1	65.4	65.3	48.3	47.7	47.6
Las Cruces	1.7	1.8	1.8	6.5	6.8	7.1	16.6	15.8	16.6
Santa Fe	2.0	1.9	1.9	14.4	15.1	14.8	21.2	22.1	22.3
New York	799.4	800.0	799.5	2,237.0	2,306.4	2,321.5	1,409.0	1,390.7	1,436.3
Albany-Schenectady-Troy	22.8	23.4	23.3	101.8	105.4	105.2	111.0	109.7	112.0
Binghamton	4.0	4.1	4.1	22.0	22.6	22.7	21.2	20.5	21.5
Buffalo	26.9	27.7	27.9	114.7	117.3	117.8	74.2	73.2	75.3
Elmira	1.4	1.4	1.4	9.8	10.1	10.3	6.5	6.4	6.9
Nassau-Suffolk	76.2	78.4	78.4	289.0	297.0	298.5	180.8	173.1	183.4
New York PMSA	587.2	577.0	575.7	1,282.1	1,289.6	1,300.6	657.4	656.8	670.2
New York City	553.7	542.1	540.8	1,116.7	1,142.6	1,153.1	576.1	576.5	587.4
Niagara Falls	1.9	2.0	2.0	16.8	17.2	17.6	13.0	12.4	12.8
Orange County	4.0	4.0	4.1	22.1	22.7	22.6	23.0	22.0	23.0
Poughkeepsie	4.5	4.9	4.9	25.9	26.7	27.1	24.9	23.8	24.8
Rochester	21.9	22.4	22.3	115.2	115.3	117.9	66.0	61.9	66.0
Rockland County	5.2	5.4	5.4	24.0	24.4	24.7	21.2	20.2	21.3
Syracuse	19.3	19.5	19.5	76.0	75.4	76.7	51.7	48.9	51.5
Utica-Rome	6.8	7.1	7.1	26.9	27.7	27.8	29.1	29.4	29.8
Westchester County	27.6	28.7	28.7	116.2	117.3	117.6	56.4	56.5	57.8
North Carolina	128.8	133.6	133.3	498.0	521.0	526.8	453.7	448.8	460.6
Asheville	2.7	2.7	2.7	17.7	18.5	18.7	11.9	12.5	12.7
Charlotte-Gastonia-Rock Hill	36.5	36.9	36.8	108.8	113.5	114.6	62.7	64.5	65.2
Greensboro-Winston-Salem-High Point	23.0	23.7	23.7	82.2	84.6	85.2	53.5	52.7	55.0
Raleigh-Durham	23.1	23.6	23.6	96.9	100.7	101.3	88.3	88.4	90.0
North Dakota	12.3	12.3	12.3	61.5	64.5	64.4	65.5	63.0	65.7
Bismarck	1.7	1.6	1.6	10.6	11.1	11.1	8.4	8.6	8.6
Fargo-Moorhead	4.5	4.6	4.6	19.2	19.0	20.1	14.4	13.7	14.7
Grand Forks	1.1	1.2	1.2	6.8	6.9	7.0	9.2	8.5	9.7
Ohio	245.7	252.9	253.1	1,070.4	1,115.2	1,112.3	698.9	679.0	703.8
Akron	10.6	10.8	10.8	59.1	62.5	61.4	44.5	44.1	44.6
Canton	6.5	6.4	6.4	35.8	36.8	37.1	18.6	18.7	19.2
Cincinnati	40.8	42.7	42.6	172.2	182.8	180.4	88.8	87.9	90.4
Cleveland	55.0	57.3	57.4	238.8	246.1	247.2	117.0	114.2	116.7
Columbus	57.9	59.9	59.7	158.4	166.2	166.9	120.8	117.1	123.6
Dayton-Springfield	17.9	18.3	18.3	107.0	111.2	111.5	73.3	72.3	73.7
Toledo	11.5	11.3	11.4	72.7	76.4	76.8	43.3	42.6	44.5
Youngstown-Warren	8.2	8.4	8.3	44.4	46.4	45.7	23.6	22.8	23.6
Oklahoma	58.0	56.7	56.5	233.4	240.9	239.0	254.1	247.3	253.2
Enid	1.0	1.0	1.0	5.7	5.5	5.6	3.6	3.5	3.5
Lawton	1.5	1.5	1.5	5.9	5.9	5.7	11.8	11.0	11.0
Oklahoma City	24.3	23.8	23.7	90.2	91.5	90.8	97.2	96.1	97.6
Tulsa	17.5	17.4	17.3	70.6	72.3	72.5	35.6	36.0	36.6
Oregon	71.9	75.0	74.0	247.1	259.5	260.5	211.6	201.7	215.1
Eugene-Springfield	4.9	4.9	4.8	24.3	25.7	25.8	23.8	21.7	24.2
Portland	47.2	49.2	48.6	138.8	143.7	145.1	79.7	77.0	80.8
Salem	5.5	5.8	5.8	19.7	20.3	20.6	30.5	28.9	30.1
Pennsylvania	293.0	298.8	298.4	1,300.9	1,359.0	1,366.2	696.7	682.3	700.0
Allentown-Bethlehem	11.5	11.8	11.7	66.7	70.5	69.5	29.9	28.8	30.2
Altoona	1.6	1.8	1.8	10.7	11.1	11.2	7.2	7.5	7.3
Beaver County	1.8	1.9	1.9	11.5	11.9	11.9	7.8	7.8	8.2
Erie	5.4	5.4	5.4	26.5	28.0	27.9	13.8	13.6	14.4
Harrisburg-Lebanon-Carlisle	17.4	18.6	18.7	61.8	65.2	63.7	66.8	66.3	67.3
Johnstown	4.7	4.8	4.7	19.7	20.2	20.4	13.0	12.8	12.9
Lancaster	6.8	7.2	7.2	37.7	39.2	39.8	16.0	15.4	16.2
Philadelphia PMSA	163.8	164.7	163.7	620.7	624.7	635.4	299.9	296.7	301.0
Philadelphia City	74.1	72.5	71.4	257.0	248.7	255.5	143.3	142.6	143.0
Pittsburgh	53.8	54.1	53.9	270.5	276.1	278.7	105.3	103.4	107.6

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Pennsylvania—Continued									
Reading	151.1	155.3	157.8	(?)	(?)	(?)	7.3	7.7	7.9
Scranton—Wilkes-Barre	294.7	298.2	302.7	0.7	0.6	0.6	12.9	14.2	14.4
Williamsport	52.1	54.0	54.2	(?)	(?)	(?)	2.1	2.1	2.1
York	172.9	177.8	179.1	.4	.5	.5	10.4	11.6	11.8
Rhode Island	459.7	460.6	463.3	.2	.2	.2	20.7	21.5	21.7
Pawtucket—Woonsocket—Attleboro	134.6	135.0	136.1	.1	.1	.1	5.3	5.4	5.5
Providence	323.7	325.3	327.2	.1	.1	.1	15.4	15.8	15.9
South Carolina	1,416.9	1,452.5	1,458.5	1.6	1.6	1.6	87.4	91.4	92.0
Charleston	189.1	195.4	196.5	(¹)	(¹)	(¹)	13.6	14.2	14.4
Columbia	227.3	232.9	234.4	(¹)	(¹)	(¹)	13.4	14.9	15.0
Greenville—Spartanburg	311.0	319.8	321.4	(¹)	(¹)	(¹)	21.8	22.2	22.5
South Dakota	259.3	262.2	263.3	2.5	2.6	2.6	11.6	12.0	11.7
Rapid City	35.1	36.0	35.9	.3	.3	.3	2.4	2.5	2.4
Sioux Falls	65.6	67.6	67.7	(¹)	(¹)	(¹)	3.2	3.6	3.3
Tennessee	2,056.3	2,069.9	2,076.5	6.6	6.5	6.4	102.2	102.0	101.8
Chattanooga	190.3	193.3	195.3	.8	.8	.8	8.6	9.5	9.6
Johnson City—Kingsport—Bristol	163.1	165.0	165.2	.3	.3	.3	7.3	6.7	6.7
Knoxville	255.5	253.3	253.5	1.9	1.8	1.8	12.1	11.4	11.5
Memphis	430.7	434.9	435.9	.1	.1	.1	20.6	20.4	20.4
Nashville	474.9	460.9	460.9	.7	.6	.6	27.6	25.6	25.6
Texas	6,559.6	6,620.2	6,655.3	183.4	179.4	178.6	343.9	321.5	319.2
Abilene	49.1	50.2	50.5	2.1	2.0	2.0	2.1	2.2	2.3
Amarillo	78.5	77.5	77.4	1.3	1.2	1.2	3.8	3.8	3.8
Austin	354.1	350.6	351.5	.8	.7	.7	16.5	15.3	15.3
Beaumont—Port Arthur	129.2	128.8	129.8	1.5	1.5	1.5	7.4	8.2	8.3
Brazoria	57.1	58.5	59.0	1.9	1.6	1.6	5.7	6.9	6.9
Brownsville—Harlingen	65.7	67.4	67.6	.1	.1	.1	2.1	2.1	2.0
Bryan—College Station	48.5	47.6	50.2	.7	.7	.6	2.1	2.2	2.4
Corpus Christi	124.3	125.4	125.7	3.9	4.2	4.4	6.3	6.1	6.2
Dallas	1,339.2	1,337.2	1,336.9	18.4	18.1	17.8	60.2	48.6	47.9
El Paso	186.7	191.3	191.8	.1	.1	.1	9.5	9.2	9.2
Ft. Worth—Arlington	519.5	518.6	518.1	3.5	3.6	3.6	24.0	19.3	19.2
Galveston—Texas City	70.4	69.8	69.3	.6	.5	.5	3.5	2.9	2.9
Houston	1,395.2	1,422.1	1,430.2	63.1	64.6	64.6	83.8	86.1	85.2
Killeen—Temple	69.8	71.2	70.9	.1	.1	.1	3.6	3.6	3.7
Laredo	35.6	37.5	37.8	2.1	1.9	1.9	1.2	1.2	1.2
Longview—Marshall	64.7	66.0	66.1	3.6	3.6	3.6	2.9	3.4	3.4
Lubbock	92.2	93.6	93.5	.4	.4	.4	3.4	3.6	3.4
McAllen—Edinburg—Mission	89.6	89.6	93.0	.9	.9	.9	3.9	4.1	4.1
Midland	43.6	44.9	44.8	9.8	9.6	9.6	1.2	1.2	1.2
Odessa	42.9	43.0	43.1	6.2	5.8	5.7	2.1	2.0	2.1
San Angelo	36.5	36.4	36.5	.5	.4	.4	1.6	1.5	1.5
San Antonio	504.8	511.0	514.2	2.5	2.5	2.5	29.6	25.3	25.2
Sherman—Denison	38.0	37.8	37.4	.1	.1	.1	1.6	1.8	1.7
Texarkana	45.9	45.2	45.7	.1	.1	.1	2.1	1.7	1.8
Tyler	61.3	61.0	61.6	1.8	1.8	1.8	2.2	2.3	2.3
Victoria	27.3	27.5	27.5	1.6	1.4	1.3	1.7	1.7	1.7
Waco	79.0	78.7	79.7	.1	.1	.1	3.5	3.9	3.9
Wichita Falls	50.0	51.2	51.3	1.9	1.9	1.9	1.7	2.1	2.1
Utah	647.7	670.2	669.9	8.3	8.2	8.0	27.2	27.5	26.9
Provo—Orem	78.1	83.1	83.5	(¹)	(¹)	(¹)	2.6	2.9	3.0
Salt Lake City—Ogden	449.4	462.0	460.5	2.7	2.9	2.7	19.4	18.6	18.0
Vermont	249.4	255.3	258.8	.6	.8	.7	17.7	19.4	19.7
Barre—Montpelier	34.2	35.9	36.1	.2	.2	.2	2.2	2.7	2.7
Burlington	76.1	79.0	80.4	(¹)	(¹)	(¹)	4.9	5.5	5.5

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Pennsylvania—Continued									
Reading	49.1	49.7	50.1	6.8	7.3	7.4	33.3	33.8	34.0
Scranton-Wilkes-Barre	71.8	71.3	71.8	15.9	16.1	16.3	67.4	67.9	68.5
Williamsport	16.9	16.6	16.5	1.9	1.9	1.9	11.9	12.7	12.7
York	59.4	60.8	61.3	7.7	8.2	8.3	41.5	41.9	42.4
Rhode Island									
Pawtucket-Woonsocket-Attleboro	117.8	116.1	117.0	15.8	15.9	15.8	105.2	106.8	106.6
Providence	54.4	53.4	54.0	3.5	3.5	3.5	32.6	33.4	33.3
	73.6	72.3	72.9	12.2	12.4	12.3	70.7	72.8	72.7
South Carolina									
Charleston	378.2	378.2	379.0	59.9	61.2	61.7	318.1	334.4	332.8
Columbia	19.6	20.7	20.6	9.9	10.4	10.5	47.0	46.4	46.4
Greenville-Spartanburg	29.0	30.0	30.1	10.3	10.6	10.8	50.0	50.1	50.3
	101.2	101.4	101.4	11.3	11.9	11.9	71.7	74.0	74.5
South Dakota									
Rapid City	29.8	30.5	30.8	12.5	13.0	13.1	67.0	69.1	68.1
Sioux Falls	3.2	3.2	3.1	1.8	1.9	1.9	9.8	10.4	10.0
	8.7	8.9	8.7	4.6	4.7	4.8	17.4	17.9	17.9
Tennessee									
Chattanooga	503.6	499.8	499.6	105.5	108.1	108.5	481.7	486.1	489.1
Johnson City-Kingsport-Bristol	46.0	46.5	47.1	8.5	8.5	8.5	44.7	44.7	44.9
Knoxville	53.7	55.2	55.1	6.0	6.2	6.3	36.5	36.0	35.8
Memphis	52.0	51.8	51.2	10.3	10.2	10.2	65.4	65.1	65.9
Nashville	53.1	54.2	53.9	39.4	39.9	40.6	119.4	120.2	120.4
	89.9	87.6	87.6	24.1	24.1	24.0	115.8	109.9	110.2
Texas									
Abilene	942.1	951.8	954.4	388.7	393.3	394.3	1,650.0	1,659.9	1,662.2
Amarillo	4.5	4.8	4.8	2.5	2.4	2.4	13.5	13.9	14.1
Austin	9.8	9.5	9.4	5.9	5.8	5.8	22.9	23.2	23.1
Beaumont-Port Arthur	39.7	40.0	40.2	10.8	10.7	10.7	79.2	77.4	77.2
Brazoria	24.8	25.1	25.2	9.8	9.7	9.6	32.1	31.2	31.5
Brownsville-Harlingen	15.4	15.6	15.7	2.3	2.3	2.2	11.0	10.8	11.0
Bryan-College Station	9.9	10.4	10.4	3.1	3.3	3.2	17.4	17.9	18.0
Corpus Christi	3.1	3.1	3.1	1.5	1.6	1.7	9.9	9.6	9.9
Dallas	11.5	11.2	11.2	7.0	6.8	6.8	31.8	32.1	32.3
El Paso	221.9	222.2	221.8	89.8	93.2	92.8	347.8	351.5	352.8
Ft. Worth-Arlington	37.5	38.7	38.2	10.2	10.8	10.9	46.5	47.7	47.1
Galveston-Texas City	117.3	119.1	119.2	29.9	31.3	31.3	138.2	134.1	133.9
Houston	8.6	8.4	8.5	5.1	4.5	4.6	14.0	14.7	14.1
Killeen-Temple	149.0	152.3	153.0	98.0	99.6	99.6	351.4	359.0	359.4
Laredo	8.0	8.3	8.3	2.7	2.8	2.8	15.9	16.4	16.3
Longview-Marshall	1.7	1.8	1.9	4.5	5.0	5.0	10.2	10.7	10.8
Lubbock	15.7	15.8	15.7	3.1	3.1	3.1	16.6	17.0	17.0
McAllen-Edinburg-Mission	7.1	7.6	7.6	4.8	5.1	5.1	27.5	27.8	27.7
Midland	12.0	11.5	12.4	2.8	2.9	2.9	26.4	26.4	27.9
Odessa	2.9	2.8	2.8	2.0	2.2	2.2	10.3	10.6	10.4
San Angelo	3.7	3.7	3.7	2.1	2.1	2.2	12.4	12.8	12.9
San Antonio	5.7	5.5	5.4	3.0	3.0	3.0	9.4	9.5	9.6
Sherman-Denison	46.6	47.1	46.9	18.3	17.9	18.0	131.7	135.2	134.6
Texarkana	11.1	11.1	10.9	2.0	1.8	1.9	8.4	8.3	8.2
Tyler	7.5	7.3	7.3	1.8	1.9	1.9	10.7	10.8	10.8
Victoria	10.9	10.3	10.5	2.8	2.7	2.7	16.5	16.8	16.7
Waco	3.0	3.0	3.0	1.4	1.6	1.6	7.8	7.9	7.8
Wichita Falls	15.1	15.0	15.0	3.3	3.3	3.4	19.2	19.1	19.0
	8.2	8.3	8.3	2.6	2.6	2.6	12.2	12.2	12.4
Utah									
Provo-Orem	94.5	99.3	98.9	38.7	40.3	40.3	152.6	158.1	156.6
Salt Lake City-Ogden	11.5	14.0	14.4	3.0	2.9	2.7	16.4	17.1	17.2
	62.6	64.0	63.9	29.5	29.7	29.7	111.9	114.7	114.5
Vermont									
Barre-Montpelier	49.7	49.8	49.9	10.3	10.7	10.7	58.2	58.7	60.3
Burlington	4.9	4.8	4.8	.9	.9	.9	7.3	7.4	7.6
	16.7	16.9	16.8	3.0	3.0	3.0	17.4	18.0	18.6

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	Finance, insurance, and real estate			Services			Government		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Pennsylvania—Continued									
Reading	7.5	8.2	8.2	30.1	31.8	32.7	17.0	16.8	17.5
Scranton-Wilkes-Barre	12.8	12.9	12.9	71.3	75.1	75.8	41.9	40.1	42.4
Williamsport	2.3	2.4	2.4	9.9	11.1	11.1	7.1	7.2	7.5
York	4.9	5.2	5.2	30.3	31.7	31.3	18.3	17.9	18.3
Rhode Island									
Pawtucket-Woonsocket-Attleboro	25.6	26.7	26.5	115.8	116.4	117.0	58.6	57.0	58.5
Providence	3.6	3.8	3.7	25.0	25.4	25.8	10.1	10.0	10.2
	21.3	22.3	22.2	85.7	86.3	86.7	44.7	43.3	44.4
South Carolina									
Charleston	64.4	67.2	66.7	247.2	261.5	261.4	260.1	257.0	263.3
Columbia	8.6	8.8	8.7	40.5	41.7	42.1	49.8	53.1	53.7
Greenville-Spartanburg	18.3	19.0	18.9	44.4	45.2	45.6	61.5	62.7	63.3
	11.9	12.1	12.1	53.6	56.9	57.0	39.2	41.0	41.7
South Dakota									
Rapid City	14.3	14.7	14.6	62.1	63.4	62.8	59.4	57.0	59.6
Sioux Falls	1.7	1.7	1.7	9.1	9.4	9.4	6.8	6.7	7.0
	6.1	6.6	6.5	18.2	18.7	19.3	7.3	7.2	7.3
Tennessee									
Chattanooga	103.8	103.5	103.6	418.8	427.1	428.4	334.0	336.8	339.1
Johnson City-Kingsport-Bristol	11.9	11.8	11.9	36.4	38.0	38.2	33.5	33.5	34.3
Knoxville	5.3	5.6	5.5	29.6	31.2	31.3	24.4	23.8	24.2
Memphis	9.6	9.6	9.6	53.2	52.9	53.3	51.1	50.5	50.0
Nashville	24.7	25.1	25.1	99.9	101.9	102.0	73.5	73.1	73.4
	33.6	32.9	33.0	115.8	111.8	110.0	67.6	68.4	69.9
Texas									
Abilene	440.0	440.3	439.6	1,448.5	1,504.0	1,510.2	1,163.0	1,170.0	1,196.8
Amarillo	2.7	2.6	2.6	13.2	13.3	13.2	8.5	9.0	9.1
Austin	4.3	4.3	4.3	16.3	16.6	16.4	14.2	13.1	13.4
Beaumont-Port Arthur	24.9	24.6	24.6	84.6	83.8	83.7	97.6	98.1	99.1
Brazoria	5.3	5.3	5.2	28.1	27.7	28.0	20.2	20.1	20.5
Brownsville-Harlingen	2.0	1.9	2.0	7.9	8.2	8.3	10.9	11.2	11.3
Bryan-College Station	3.5	3.5	3.5	13.8	14.1	14.2	15.9	16.1	16.3
Corpus Christi	1.8	1.6	1.6	8.3	8.6	8.9	21.1	20.2	22.0
Dallas	6.9	7.0	7.0	28.9	29.5	29.5	28.0	28.5	28.3
El Paso	132.2	127.7	126.8	318.0	324.9	326.1	150.9	151.0	150.9
Ft. Worth-Arlington	9.6	9.1	9.1	34.6	36.7	37.3	38.8	39.0	39.9
Galveston-Texas City	27.8	26.6	26.5	112.0	116.9	116.0	66.8	67.7	68.4
Houston	4.1	4.1	4.1	13.8	14.8	14.5	20.7	19.9	20.1
Killeen-Temple	98.8	97.1	96.9	363.2	374.4	377.2	187.9	189.0	194.3
Laredo	3.0	3.0	3.0	15.2	15.8	15.5	21.3	21.2	21.2
Longview-Marshall	1.6	1.6	1.6	5.9	6.1	6.1	8.4	9.2	9.3
Lubbock	2.7	2.7	2.7	11.6	12.0	12.0	8.5	8.4	8.6
McAllen-Edinburg-Mission	5.4	5.5	5.5	21.8	22.6	22.4	21.8	21.0	21.4
Midland	3.8	3.7	3.8	14.4	14.4	14.8	25.4	25.7	26.2
Odessa	2.5	2.5	2.5	8.6	8.7	8.7	6.3	7.3	7.4
San Angelo	1.7	1.7	1.7	7.0	7.3	7.3	7.7	7.8	7.5
San Antonio	1.8	1.8	1.8	7.8	7.9	7.9	6.7	6.8	6.9
Sherman-Denison	39.7	40.6	40.8	120.8	126.4	127.1	115.6	116.0	119.1
Texarkana	1.7	1.7	1.8	8.7	8.7	8.6	4.4	4.3	4.2
Tyler	1.9	1.9	1.9	9.4	9.6	9.6	12.4	11.9	12.3
Victoria	3.7	3.7	3.7	14.4	14.6	14.7	9.0	8.8	9.2
Waco	1.5	1.5	1.5	5.7	5.8	5.9	4.6	4.6	4.7
Wichita Falls	4.8	4.7	4.7	20.4	20.5	21.0	12.6	12.1	12.6
	2.3	2.4	2.3	11.5	11.6	11.6	9.6	10.1	10.1
Utah									
Provo-Orem	33.9	33.3	33.0	151.1	162.2	162.4	141.5	141.3	143.8
Salt Lake City-Ogden	2.3	2.3	2.3	28.8	30.0	30.1	13.5	13.9	13.8
	28.0	28.0	27.5	102.1	111.2	110.6	93.1	92.9	93.6
Vermont									
Barre-Montpelier	12.0	12.5	12.5	60.2	62.8	63.3	40.7	40.6	41.7
Burlington	3.0	2.9	3.0	7.4	8.2	8.2	8.3	8.8	8.7
	3.6	3.8	3.8	18.6	20.3	20.5	11.9	11.5	12.2

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
Virginia	2,718.9	2,822.9	2,841.3	15.8	14.9	15.0	186.0	203.2	202.2
Bristol	31.4	33.6	33.9	.1	.1	.1	1.0	1.0	1.0
Charlottesville	67.4	68.4	69.2	.1	.1	.1	3.7	3.9	3.9
Danville	40.8	42.1	42.3	.1	.1	.1	1.8	2.1	2.1
Lynchburg	72.7	73.1	73.5	.1	.1	.1	3.6	3.6	3.5
Norfolk-Virginia Beach-Newport News	558.9	575.5	575.8	.1	.1	.1	39.8	40.9	40.7
Northern Virginia	717.8	753.1	759.4	.5	.5	.5	53.5	59.7	59.3
Richmond-Petersburg	442.1	457.1	460.6	.5	.6	.6	30.3	32.0	32.1
Roanoke	120.8	119.5	120.0	.2	.2	.2	7.9	8.0	8.0
Washington	1,885.6	1,962.8	1,974.0	3.1	3.4	3.5	94.2	108.8	108.4
Seattle	951.1	995.3	1,002.6	.6	.7	.7	49.5	56.7	56.3
West Virginia	607.3	606.9	610.9	36.4	34.1	34.1	24.8	27.1	27.4
Charleston	106.8	107.8	108.3	2.1	2.0	2.0	4.3	4.7	5.0
Huntington-Ashland	103.3	104.8	105.6	1.3	1.3	1.3	4.4	4.9	4.9
Parkersburg-Marietta	60.1	60.2	60.6	.6	.6	.6	2.9	3.1	3.2
Wheeling	58.7	59.1	59.4	2.2	2.4	2.4	2.2	2.4	2.4
Wisconsin	2,123.2	2,183.5	2,188.9	2.3	2.5	2.4	73.2	77.2	78.0
Appleton-Oshkosh-Neenah	146.7	153.6	153.8	(^b)	(^b)	(^b)	6.6	6.9	6.9
Eau Claire	55.3	58.6	59.5	(^b)	(^b)	(^b)	1.5	1.6	1.7
Green Bay	96.6	99.8	101.2	(^b)	(^b)	(^b)	3.5	3.5	3.8
Janesville-Beloit	55.1	57.1	57.6	(^b)	(^b)	(^b)	1.4	1.4	1.5
Kenosha	43.4	42.6	41.9	(^b)	(^b)	(^b)	1.1	1.0	.9
La Crosse	53.0	54.5	54.9	(^b)	(^b)	(^b)	1.5	1.9	1.9
Madison	204.1	206.9	208.5	(^b)	(^b)	(^b)	8.1	7.1	7.1
Milwaukee	709.1	722.4	729.6	(^b)	(^b)	(^b)	23.0	23.0	23.2
Racine	70.4	72.2	72.2	(^b)	(^b)	(^b)	2.1	2.1	2.0
Wausau	46.4	48.6	48.7	(^b)	(^b)	(^b)	1.5	1.7	1.6
Wyoming	181.3	180.2	179.3	18.4	18.2	18.0	10.3	9.3	9.0
Puerto Rico	774.0	796.8	804.7	.8	.8	.8	35.2	39.0	39.2
Caguas	50.3	50.3	50.5	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)
Mayaguez	55.6	55.0	57.0	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)
Ponce	49.8	51.1	50.8	.2	.2	.2	3.0	3.8	3.6
San Juan	471.0	489.1	494.1	.4	.4	.4	26.2	28.4	28.4
Virgin Islands	38.8	39.0	39.1	(^b)	(^b)	(^b)	1.9	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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Virginia	432.3	429.2	428.9	143.8	150.0	151.0	621.4	648.0	651.3
Bristol	10.2	11.5	11.7	1.1	1.1	1.1	8.0	8.4	8.4
Charlottesville	8.8	8.5	8.7	2.3	2.4	2.4	13.7	14.4	14.7
Danville	17.1	17.7	17.7	1.0	1.0	1.0	8.6	9.4	9.5
Lynchburg	23.7	23.0	23.1	2.8	2.8	2.7	14.8	15.6	15.7
Norfolk-Virginia Beach-Newport News	68.5	69.6	69.1	26.0	26.2	26.0	138.0	140.6	140.9
Northern Virginia	35.5	35.0	34.7	50.2	55.6	56.1	161.3	168.0	168.7
Richmond-Petersburg	62.5	62.5	62.7	23.1	23.9	24.1	105.7	111.8	112.2
Roanoke	19.9	19.6	19.5	8.9	8.5	8.4	32.4	32.1	32.5
Washington	326.5	340.7	341.6	100.4	106.8	105.7	462.7	485.9	484.6
Seattle	187.3	198.3	199.7	60.0	61.2	61.3	232.4	241.9	241.9
West Virginia	86.7	87.5	87.6	36.6	37.1	36.8	141.9	144.2	143.1
Charleston	11.0	11.0	11.0	8.5	8.5	8.5	28.1	28.5	28.5
Huntington-Ashland	19.2	19.7	19.7	7.8	7.8	7.7	26.8	27.0	27.3
Parkersburg-Marietta	13.9	14.2	14.2	2.1	2.1	2.1	14.6	14.8	14.9
Wheeling	7.0	7.0	7.0	3.3	3.3	3.2	16.1	15.9	16.0
Wisconsin	535.6	558.8	556.2	97.0	99.9	100.3	508.3	524.6	524.0
Appleton-Oshkosh-Neenah	50.9	54.0	53.7	5.4	5.6	5.6	32.1	34.1	34.2
Eau Claire	10.1	10.9	10.9	3.6	3.8	3.9	16.1	16.9	17.1
Green Bay	25.2	26.2	26.1	6.5	6.4	6.6	25.5	26.0	26.3
Janesville-Beloit	17.9	18.2	18.0	2.2	2.2	2.2	13.6	14.0	13.9
Kenosha	15.5	14.4	14.1	1.4	1.3	1.3	9.0	9.6	9.3
La Crosse	11.0	11.3	11.2	2.6	2.6	2.6	14.4	14.8	14.9
Madison	23.2	23.9	24.2	7.3	7.5	7.6	46.4	47.5	48.2
Milwaukee	171.3	175.7	177.7	35.4	35.8	36.3	163.5	169.0	169.2
Racine	24.4	25.0	25.1	2.4	2.2	2.3	16.9	17.6	17.6
Wausau	12.9	14.0	13.9	2.8	2.9	3.1	11.4	11.8	11.8
Wyoming	8.7	8.5	8.7	12.9	12.8	12.5	40.4	40.3	40.1
Puerto Rico	154.9	153.2	154.4	16.1	15.0	14.7	136.2	139.2	139.9
Caguas	15.8	15.0	14.8	(¹)	(¹)	(¹)	9.3	9.9	9.9
Mayaguez	20.5	18.6	20.3	(¹)	(¹)	(¹)	7.6	7.8	7.7
Ponce	9.8	8.9	9.2	(¹)	(¹)	(¹)	7.6	8.0	8.0
San Juan	65.9	66.7	67.2	14.4	12.4	12.1	95.2	98.5	98.9
Virgin Islands	2.2	2.3	2.3	2.6	2.5	2.5	9.0	9.0	9.0

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^p	Oct. 1987	Sept. 1988	Oct. 1988 ^p	Oct. 1987	Sept. 1988	Oct. 1988 ^p
Virginia	145.6	150.4	150.3	636.7	690.5	690.8	537.3	536.7	551.8
Bristol	1.2	1.4	1.4	4.8	5.1	5.1	5.0	5.0	5.1
Charlottesville	3.6	3.7	3.7	12.0	12.0	12.0	23.2	23.4	23.7
Danville	1.2	1.2	1.2	5.8	5.6	5.6	5.1	5.0	5.1
Lynchburg	3.8	4.1	4.2	14.3	14.4	14.5	9.6	9.5	9.7
Norfolk-Virginia Beach-Newport News	27.0	28.3	28.1	132.3	143.0	142.6	127.3	126.8	128.3
Northern Virginia	47.3	49.4	49.6	225.8	245.3	245.1	143.7	139.6	145.4
Richmond-Petersburg	36.0	37.0	37.1	93.8	98.4	98.5	90.2	90.9	93.3
Roanoke	8.2	8.5	8.4	27.9	27.7	27.7	15.4	14.9	15.3
Washington	107.1	109.4	108.9	430.4	454.7	454.6	361.2	353.1	366.7
Seattle	67.8	69.6	69.4	224.3	237.7	238.8	129.2	129.2	134.5
West Virginia	24.4	24.3	24.4	127.1	126.4	127.4	129.4	126.2	130.1
Charleston	6.0	5.9	6.0	25.8	25.4	25.5	21.0	21.8	21.8
Huntington-Ashland	3.9	3.9	3.9	20.2	22.0	21.8	19.7	18.2	19.0
Parkersburg-Marietta	2.3	2.3	2.3	13.9	13.3	13.3	9.8	9.8	10.0
Wheeling	2.7	2.7	2.6	15.8	15.8	16.0	9.4	9.6	9.8
Wisconsin	112.8	114.9	114.8	462.5	477.3	475.6	331.4	328.3	337.6
Appleton-Oshkosh-Neenah	7.1	7.6	7.6	27.8	28.9	28.7	16.5	16.1	16.8
Eau Claire	1.9	2.0	2.0	12.0	12.5	12.5	10.0	10.9	11.4
Green Bay	3.5	3.6	3.6	21.5	23.1	23.4	10.9	10.9	11.3
Janesville-Beloit	1.6	1.7	1.7	11.6	12.4	12.9	6.7	7.1	7.3
Kenosha	1.3	1.4	1.5	8.4	8.5	8.4	6.6	6.4	6.4
La Crosse	1.5	1.5	1.5	14.2	14.6	14.8	7.9	7.8	8.0
Madison	17.9	18.4	18.5	43.4	45.0	44.9	57.7	57.3	57.8
Milwaukee	49.2	49.7	49.5	184.8	188.6	189.9	81.7	80.3	83.5
Racine	2.1	2.3	2.3	14.3	14.7	14.4	8.2	8.2	8.4
Wausau	3.4	3.5	3.5	8.1	8.5	8.5	6.2	6.2	6.3
Wyoming	7.4	7.2	7.2	31.7	33.5	31.4	51.5	50.4	52.4
Puerto Rico	35.5	35.9	36.1	112.1	115.1	117.3	283.2	298.7	302.3
Caguas	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	15.8	15.6	15.9
Mayaguez	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	18.3	19.2	19.4
Ponce	(¹)	(¹)	(¹)	9.6	9.3	9.3	16.7	17.7	17.3
San Juan	29.0	29.1	29.3	79.4	82.5	84.7	160.9	171.2	173.0
Virgin Islands	1.6	1.7	1.7	8.9	8.8	8.9	12.6	12.9	12.9

¹ Not available.
² Combined with construction.
^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.

**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:									
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	34.8	9.40	327.12	42.2	12.75	538.05	38.4	13.13	504.19
October ^p	34.9	9.45	329.81	42.7	12.73	543.57	39.0	13.14	512.46
November ^p	34.7	9.45	327.92	42.2	12.70	535.94	37.6	13.07	491.43

See footnotes at end of table.

**ESTABLISHMENT DATA
HISTORICAL HOURS AND EARNINGS**

C-1. Average hours and earnings of production or nonsupervisory workers' 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:										
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	41.3	10.25	9.75	423.33	39.5	12.41	490.20	38.1	10.01	381.38
October ^a	41.3	10.24	9.76	422.91	39.7	12.41	492.68	38.2	10.08	385.06
November ^b	41.5	10.30	9.81	427.45	39.4	12.47	491.32	38.0	10.02	380.76

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:									
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	29.0	6.37	184.73	35.8	9.14	327.21	32.5	8.98	291.85
October ^p	29.1	6.39	185.95	36.0	9.29	334.44	32.7	9.07	296.59
November ^p	28.8	6.44	185.47	35.6	9.26	329.66	32.4	9.08	294.19

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Total private		34.9	34.8	34.8	34.9	34.7					
Mining		42.9	42.6	42.2	42.7	42.2					
Metal mining	10	42.1	42.1	42.2	41.5						
Iron ores	101	41.6	41.6	42.0	42.3						
Copper ores	102	43.0	43.0	43.5	43.5						
Coal mining	11,12	42.8	42.1	43.1	43.1						
Bituminous coal and lignite mining	12	42.8	42.1	43.2	43.2						
Oil and gas extraction	13	41.8	42.0	40.6	41.6						
Crude petroleum, natural gas, and natural gas liquids	131,2	40.6	40.9	41.7	41.0						
Oil and gas field services	138	42.5	42.7	40.0	41.8						
Nonmetallic minerals, except fuels	14	46.9	45.6	46.1	46.4						
Crushed and broken stone	142	48.9	47.1	47.7	48.0						
Construction		38.8	37.1	38.4	39.0	37.6					
General building contractors	15	38.0	36.8	37.7	38.3						
Residential building construction	152	37.1	36.1	36.7	37.3						
Operative builders	153	38.1	37.7	38.5	39.1						
Nonresidential building construction	154	39.0	37.5	38.9	39.6						
Heavy construction contractors	16	43.5	40.3	42.6	44.1						
Highway and street construction	161	44.6	39.9	44.3	46.0						
Heavy construction, except highway	162	42.8	40.5	41.6	42.9						
Special trade contractors	17	37.8	36.3	37.5	38.0						
Plumbing, heating, and air conditioning	171	38.4	37.6	38.7	39.1						
Painting, paper hanging, and decorating	172	37.0	35.5	36.8	36.4						
Electrical work	173	39.1	38.3	38.7	38.8						
Masonry, stonework, and plastering	174	35.8	34.0	35.2	35.9						
Carpentering and flooring	175	36.2	35.4	35.0	35.3						
Roofing and sheet metal work	176	35.8	32.6	34.9	35.6						
Manufacturing		41.3	41.4	41.3	41.3	41.5	4.0	4.1	4.2	4.1	4.1
Durable goods		41.8	42.0	42.0	42.0	42.2	4.1	4.2	4.3	4.3	4.4
Lumber and wood products	24	40.6	40.4	40.2	40.9	40.2	3.9	3.8	3.8	3.9	
Logging camps and logging contractors	241	38.4	40.0	37.1	41.8		4.2	4.8	4.1	5.6	
Sawmills and planing mills	242	41.8	41.3	41.4	41.8		4.6	4.4	4.2	4.3	
Sawmills and planing mills, general	2421	42.0	41.3	41.7	42.1		4.8	4.6	4.4	4.6	
Hardwood dimension and flooring	2426	41.2	41.5	40.3	40.7		3.6	4.0	3.3	3.4	
Millwork, plywood, and structural members	243	40.8	40.6	40.4	40.4		3.5	3.3	3.6	3.5	
Millwork	2431	40.7	40.2	40.3	40.0		2.9	2.5	3.1	2.7	
Wood kitchen cabinets	2434	40.5	40.1	39.3	39.2		3.3	3.1	3.4	3.0	
Hardwood veneer and plywood	2435	41.5	41.6	40.6	41.3		4.0	4.0	3.4	3.8	
Softwood veneer and plywood	2436	41.3	41.8	42.8	42.8		4.5	4.7	4.8	5.4	
Wood containers	244	39.0	38.3	38.9	39.3		3.1	2.8	3.4	3.5	
Wood buildings and mobile homes	245	39.4	38.4	40.2	39.8		3.1	2.5	3.5	2.9	
Mobile homes	2451	39.0	37.7	39.8	39.5		2.7	2.1	3.3	2.7	
Miscellaneous wood products	249	40.8	40.7	40.5	40.5		3.6	3.6	3.2	3.4	
Furniture and fixtures	25	40.8	40.6	40.1	40.1	39.8	3.3	3.1	3.3	3.1	
Household furniture	251	40.5	40.3	39.5	39.7		3.1	2.9	2.9	2.8	
Wood household furniture	2511	41.3	41.0	39.7	39.9		3.3	3.2	2.9	2.9	
Upholstered household furniture	2512	39.5	39.3	38.5	39.1		2.6	2.5	2.2	2.5	
Metal household furniture	2514	41.2	41.8	40.5	40.4		3.4	3.5	3.1	3.0	
Mattresses and bedsprings	2515	38.8	38.2	41.1	39.3		2.9	2.5	4.6	3.4	
Office furniture	252	41.5	42.1	40.9	40.7		3.2	3.0	3.4	3.0	
Public building and related furniture	253	41.1	40.5	41.4	40.8		4.3	3.6	4.6	3.7	
Partitions and fixtures	254	41.4	40.5	41.4	41.3		4.2	3.8	4.5	4.2	
Miscellaneous furniture and fixtures	259	40.4	40.6	40.0	40.0		3.0	3.0	3.3	2.8	
Stone, clay, and glass products	32	43.0	42.4	42.8	42.9	42.7	5.7	5.1	5.4	5.5	
Flat glass	321	45.4	45.6	46.5	46.1		6.8	7.4	8.8	8.4	
Glass and glassware, pressed or blown	322	41.1	41.3	41.7	41.2		4.8	4.7	4.6	4.4	

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Total private		\$9.08	\$9.13	\$9.40	\$9.45	\$9.45	\$316.89	\$317.72	\$327.12	\$329.81	\$327.92
Mining		12.42	12.54	12.75	12.73	12.70	532.82	534.20	538.05	543.57	535.94
Metal mining	10	12.90	12.84	13.24	13.30		543.09	540.56	558.73	551.95	
Iron ores	101	13.71	13.49	13.64	13.63		570.34	561.18	572.88	576.55	
Copper ores	102	11.38	11.39	11.75	11.60		489.34	489.77	511.13	504.60	
Coal mining	11,12	15.79	16.17	16.03	15.95		675.81	680.76	690.89	687.45	
Bituminous coal and lignite mining	12	15.84	16.23	16.08	16.00		677.95	683.28	694.66	691.20	
Oil and gas extraction	13	11.32	11.39	11.74	11.73		473.18	478.38	476.64	487.97	
Crude petroleum, natural gas, and natural gas liquids	131,2	14.00	14.07	14.49	14.59		568.40	575.46	604.23	598.19	
Oil and gas field services	138	9.88	9.97	10.17	10.20		419.90	425.72	406.80	426.36	
Nonmetallic minerals, except fuels	14	10.73	10.73	11.10	11.10		503.24	489.29	511.71	515.04	
Crushed and broken stone	142	10.22	10.15	10.51	10.57		499.76	478.07	501.33	507.36	
Construction		12.82	12.83	13.13	13.14	13.07	497.42	475.99	504.19	512.46	491.43
General building contractors	15	11.89	11.88	12.28	12.34		451.82	437.18	462.96	472.62	
Residential building construction	152	11.12	11.13	11.65	11.68		412.55	401.79	427.56	435.66	
Operative builders	153	10.77	10.69	11.36	11.54		410.34	403.01	437.36	451.21	
Nonresidential building construction	154	12.79	12.76	13.05	13.13		498.81	478.50	507.65	519.95	
Heavy construction contractors	16	12.26	12.22	12.73	12.70		533.31	492.47	542.30	560.07	
Highway and street construction	161	12.22	12.14	12.86	12.80		545.01	484.39	569.70	588.80	
Heavy construction, except highway	162	12.29	12.26	12.65	12.63		526.01	496.53	526.24	541.83	
Special trade contractors	17	13.40	13.44	13.59	13.60		506.52	487.87	509.63	516.80	
Plumbing, heating, and air conditioning	171	13.63	13.57	13.86	13.94		523.39	510.23	536.38	545.05	
Painting, paper hanging, and decorating	172	12.68	12.70	12.82	12.92		469.16	450.85	471.78	470.29	
Electrical work	173	14.72	14.80	14.76	14.69		575.55	566.84	571.21	569.97	
Masonry, stonework, and plastering	174	13.51	13.49	13.81	13.76		483.66	458.66	486.11	493.98	
Carpentering and flooring	175	12.84	12.86	13.05	13.18		464.81	455.24	456.75	465.25	
Roofing and sheet metal work	176	11.86	11.90	12.11	12.07		424.59	387.94	422.64	429.69	
Manufacturing		9.95	10.01	10.25	10.24	10.30	410.94	414.41	423.33	422.91	427.45
Durable goods		10.48	10.54	10.78	10.78	10.84	438.06	442.68	452.76	452.76	457.45
Lumber and wood products	24	8.42	8.47	8.67	8.76	8.71	341.85	342.19	348.53	358.28	350.14
Logging camps and logging contractors	241	10.67	10.90	10.94	11.44	-	409.73	436.00	405.87	478.19	-
Sawmills and planing mills	242	8.58	8.61	8.80	8.81		358.64	355.59	364.32	368.26	
Sawmills and planing mills, general	2421	8.93	8.96	9.12	9.14		375.06	370.05	380.30	384.79	
Hardwood dimension and flooring	2426	6.84	6.91	7.16	7.13		281.81	286.77	288.55	290.19	
Millwork, plywood, and structural members	243	8.36	8.36	8.69	8.61		341.09	339.42	351.08	347.84	
Millwork	2431	8.69	8.60	8.93	8.74		353.68	345.72	359.88	349.60	
Wood kitchen cabinets	2434	7.69	7.74	8.06	8.09		311.45	310.37	316.76	317.13	
Hardwood veneer and plywood	2435	6.89	6.85	7.00	7.09		285.94	284.96	284.20	292.82	
Softwood veneer and plywood	2436	9.78	9.87	10.21	10.19		403.91	412.57	436.99	436.13	
Wood containers	244	6.23	6.20	6.47	6.47		242.97	237.46	251.68	254.27	
Wood buildings and mobile homes	245	8.04	7.97	8.19	8.20		316.78	306.05	329.24	326.36	
Mobile homes	2451	8.10	8.04	8.29	8.31		315.90	303.11	329.94	328.25	
Miscellaneous wood products	249	7.27	7.29	7.49	7.52		296.62	296.70	303.35	304.56	
Furniture and fixtures	25	7.71	7.71	8.07	8.04	8.00	314.57	313.03	323.61	322.40	318.40
Household furniture	251	7.13	7.13	7.43	7.41	-	288.77	287.34	293.49	294.18	-
Wood household furniture	2511	6.62	6.64	6.95	6.94		273.41	272.24	275.92	276.91	
Upholstered household furniture	2512	7.82	7.88	8.08	8.07		308.89	309.68	311.08	315.54	
Metal household furniture	2514	7.16	6.99	7.48	7.38		294.99	292.18	302.94	298.15	
Mattresses and bedspreads	2515	7.67	7.64	7.92	7.92		297.60	291.85	325.51	311.26	
Office furniture	252	8.72	8.58	9.14	9.15		361.88	361.22	373.83	372.41	
Public building and related furniture	253	8.03	7.99	8.47	8.38		330.03	323.60	350.66	341.90	
Partitions and fixtures	254	9.17	9.27	9.58	9.58		379.64	375.44	396.61	395.65	
Miscellaneous furniture and fixtures	259	8.09	8.19	8.47	8.33		326.84	332.51	338.80	333.20	
Stone, clay, and glass products	32	10.27	10.30	10.55	10.57	10.56	441.61	436.72	451.54	453.45	450.91
Flat glass	321	14.65	14.90	15.20	15.24	-	665.11	679.44	706.80	702.56	-
Glass and glassware, pressed or blown	322	11.34	11.36	11.66	11.73		466.07	469.17	486.22	483.28	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Stone, clay, and glass products—Continued											
Glass containers	3221	40.9	40.8	41.4	40.8		5.6	5.5	5.1	5.3	
Pressed and blown glass, nec	3229	41.4	41.9	42.1	41.6		3.8	3.9	4.0	3.4	
Products of purchased glass	323	42.3	41.8	43.0	42.6		4.1	3.7	4.2	4.2	
Cement, hydraulic	324	42.4	42.5	42.3	41.6		3.6	3.0	3.8	3.2	
Structural clay products	325	42.4	42.3	42.0	41.9		4.7	4.3	4.5	4.5	
Pottery and related products	326	40.3	40.5	40.6	40.7		3.6	3.6	3.7	3.7	
Concrete, gypsum, and plaster products	327	44.9	42.9	43.9	44.6		7.6	6.2	6.9	7.4	
Concrete block and brick	3271	46.7	44.9	46.4	45.9		8.4	7.3	7.5	7.4	
Concrete products, nec	3272	44.1	42.6	42.9	43.4		7.0	5.9	6.1	6.5	
Ready-mixed concrete	3273	44.5	41.8	43.5	44.7		7.5	5.8	7.0	7.8	
Misc. nonmetallic mineral products	329	42.3	43.1	42.6	42.4		5.1	4.9	4.9	4.9	
Abrasive products	3291	42.1	43.9	43.5	43.6		3.9	4.1	4.3	4.5	
Asbestos products	3292	42.5	43.3	42.7	43.0		5.4	5.5	3.6	5.1	
Primary metal industries											
Blast furnaces and basic steel products	331	43.4	43.7	44.0	43.6	43.9	5.3	5.4	5.9	5.8	
Blast furnaces and steel mills	3312	43.5	43.8	44.7	43.8	44.3	5.6	5.6	6.3	6.0	
Blast furnaces and steel mills	3312	43.6	43.8	45.3	44.3		5.6	5.7	6.6	6.3	
Steel pipe and tubes	3317	42.6	43.7	42.4	41.9		5.7	6.2	4.9	4.7	
Iron and steel foundries	332	43.5	43.6	43.9	43.9		5.3	5.4	6.0	6.1	
Gray iron foundries	3321	43.4	43.9	44.1	44.1		5.8	5.8	6.5	6.5	
Malleable iron foundries	3322	42.3	42.2	42.1	41.9		4.0	3.9	4.2	4.3	
Steel foundries, nec	3325	43.2	42.4	43.6	43.8		4.3	4.6	5.8	5.8	
Primary nonferrous metals	333	44.0	44.2	43.8	43.1		4.6	5.1	5.0	4.8	
Primary aluminum	3334	45.1	44.7	43.8	42.9		4.8	4.8	4.9	4.6	
Nonferrous rolling and drawing	335	43.5	44.1	44.2	43.9		5.9	5.9	6.6	6.3	
Copper rolling and drawing	3351	43.7	44.5	44.0	43.3		6.1	6.2	6.6	6.4	
Aluminum sheet, plate, and foil	3353	45.6	45.0	45.8	45.3		7.9	7.1	8.5	7.7	
Nonferrous wire drawing and insulating	3357	42.8	43.7	43.7	43.6		5.4	5.5	6.0	6.1	
Nonferrous foundries	336	42.3	42.5	42.0	42.0		4.1	4.1	4.2	4.3	
Aluminum foundries	3361	43.0	43.3	42.3	42.6		4.5	4.4	4.5	4.4	
Fabricated metal products											
Metal cans and shipping containers	341	42.0	42.4	42.0	41.9	42.3	4.3	4.4	4.4	4.3	
Metal cans	3411	43.9	44.1	45.1	44.7	-	5.9	5.9	6.5	6.3	
Metal cans	3411	43.9	44.5	45.7	45.0		5.9	6.0	6.7	6.4	
Cutlery, hand tools, and hardware	342	41.7	42.4	41.4	41.3		4.1	4.2	3.6	3.6	
Hand and edge tools, and hand saws and blades	3423.5	42.1	42.6	41.1	41.0		4.1	4.3	3.2	3.0	
Hardware, nec	3429	41.2	42.0	41.0	41.1		4.1	4.1	3.7	3.7	
Plumbing and heating, except electric	343	42.3	42.1	41.3	40.8		4.4	4.2	3.9	3.6	
Plumbing fittings and brass goods	3432	42.2	42.4	40.8	40.7		4.0	4.0	2.6	2.8	
Heating equipment, except electric	3433	42.1	42.4	41.4	40.7		4.2	4.5	4.8	4.3	
Fabricated structural metal products	344	41.3	41.5	41.2	41.2		3.9	3.8	4.1	4.0	
Fabricated structural metal	3441	42.3	42.0	42.2	41.9		4.3	4.0	5.2	4.8	
Metal doors, sash, and trim	3442	40.0	40.4	39.8	40.1		3.0	3.0	3.0	2.9	
Fabricated plate work (boiler shops)	3443	42.5	42.9	43.0	42.4		4.2	4.3	4.8	4.2	
Sheet metal work	3444	40.6	40.6	40.1	40.2		3.7	3.7	3.3	3.5	
Architectural metal work	3446	40.9	40.9	41.3	40.7		3.6	3.4	4.9	4.5	
Screw machine products, bolts, etc	345	43.1	43.5	43.2	42.9		5.2	5.5	5.7	5.6	
Screw machine products	3451	41.9	42.4	42.0	41.6		4.3	4.6	4.9	4.6	
Bolts, nuts, rivets, and washers	3452	44.4	44.8	44.8	44.6		6.3	6.6	6.8	6.7	
Metal forgings and stampings	346	42.8	43.2	43.3	43.2		4.9	5.1	5.4	5.5	
Iron and steel forgings	3462	42.4	43.3	43.1	43.1		4.5	4.9	4.9	5.1	
Automotive stampings	3465	44.4	44.6	45.4	45.2		5.7	5.8	6.7	7.0	
Metal stampings, nec	3469	41.2	41.7	41.2	41.3		4.2	4.5	4.1	4.1	
Metal services, nec	347	41.4	41.9	40.9	41.2		3.9	4.1	3.8	3.8	
Plating and polishing	3471	41.2	41.6	40.6	40.9		4.0	4.1	3.6	3.6	
Metal coating and allied services	3479	41.7	42.5	41.5	41.8		3.7	4.2	4.2	4.3	
Ordnance and accessories, nec	348	41.3	42.9	41.9	41.4		3.3	3.1	3.6	3.1	
Ammunition, except for small arms, nec	3483	40.1	42.8	41.2	41.0		2.5	2.8	3.1	2.7	
Misc. fabricated metal products	349	42.1	42.2	41.9	41.8		4.3	4.1	4.1	4.0	
Valves and pipe fittings	3494	43.1	43.1	42.4	41.9		4.7	4.5	4.3	3.7	
Misc. fabricated wire products	3496	40.3	40.8	40.6	40.9		3.8	3.8	4.0	4.0	
Machinery, except electrical											
Engines and turbines	35	42.5	43.0	42.7	42.5	42.8	4.3	4.6	4.6	4.4	
Turbines and turbine generator sets	351	43.7	45.2	44.2	44.2	-	5.8	6.9	5.0	5.1	
Internal combustion engines, nec	3511	41.1	42.5	43.2	44.7		5.3	6.1	6.2	8.1	
Farm and garden machinery	3519	44.5	46.0	44.5	44.1		6.0	7.1	4.6	4.2	
Farm machinery and equipment	352	42.0	42.6	41.3	41.3		3.7	3.9	3.9	3.5	
Farm machinery and equipment	3523	42.8	43.3	41.6	41.4		4.6	4.6	4.7	4.1	

See footnotes at end of table.

ESTABLISHMENT DATA
HOURS AND EARNINGS
NOT SEASONALLY ADJUSTED

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Stone, clay, and glass products—Continued											
Glass containers	3221	\$11.73	\$11.78	\$12.10	\$12.28		\$479.76	\$480.62	\$500.94	\$501.02	
Pressed and blown glass, nec	3229	10.89	10.91	11.17	11.13		450.85	457.13	470.26	463.01	
Products of purchased glass	323	8.74	8.76	9.19	9.30		369.70	366.17	395.17	396.18	
Cement, hydraulic	324	13.40	13.68	13.48	13.38		568.16	581.40	570.20	556.61	
Structural clay products	325	8.59	8.62	8.95	9.03		364.22	364.63	375.90	378.36	
Pottery and related products	326	8.94	8.99	9.42	9.41		360.28	364.10	382.45	382.99	
Concrete, gypsum, and plaster products	327	10.12	10.08	10.34	10.35		454.39	432.43	453.93	461.61	
Concrete block and brick	3271	9.06	9.04	9.37	9.38		423.10	405.90	434.77	430.54	
Concrete products, nec	3272	9.03	9.04	9.32	9.35		398.22	385.10	399.83	405.79	
Ready-mixed concrete	3273	10.95	10.89	11.14	11.14		487.28	455.20	484.59	497.96	
Misc. nonmetallic mineral products	329	10.40	10.45	10.63	10.60		439.92	450.40	452.84	449.44	
Abrasive products	3291	9.77	9.88	10.17	10.07		411.32	433.73	442.40	439.05	
Asbestos products	3292	10.40	10.46	10.74	10.88		442.00	452.92	458.60	467.84	
Primary metal industries	33	12.00	12.04	12.25	12.20	\$12.27	520.80	526.15	539.00	531.92	\$538.65
Blast furnaces and basic steel products	331	13.88	13.89	14.08	14.02	14.13	603.78	608.38	629.38	614.08	625.96
Blast furnaces and steel mills	3312	14.60	14.61	14.84	14.76		636.56	639.92	672.25	653.87	
Steel pipe and tubes	3317	10.97	10.98	10.83	10.96		467.32	479.83	459.19	459.22	
Iron and steel foundries	332	10.81	10.86	11.03	11.04		470.24	473.50	484.22	484.66	
Gray iron foundries	3321	11.26	11.35	11.59	11.58		488.68	498.27	511.12	510.68	
Malleable iron foundries	3322	11.83	11.74	11.72	11.86		500.41	495.43	493.41	496.93	
Steel foundries, nec	3325	10.06	10.07	10.29	10.28		434.59	426.97	448.64	450.26	
Primary nonferrous metals	333	12.99	13.11	13.34	13.40		571.56	579.46	584.29	577.54	
Primary aluminum	3334	13.25	13.38	13.72	13.67		597.58	598.09	600.94	586.44	
Nonferrous rolling and drawing	335	11.46	11.54	11.83	11.77		498.51	508.91	522.89	516.70	
Copper rolling and drawing	3351	10.65	10.60	11.03	11.07		465.41	471.70	485.32	479.33	
Aluminum sheet, plate, and foil	3353	14.06	14.06	14.17	13.95		641.14	632.70	648.99	631.94	
Nonferrous wire drawing and insulating	3357	11.54	11.66	12.05	12.08		493.91	509.54	526.59	526.69	
Nonferrous foundries	336	9.47	9.55	9.69	9.65		400.58	405.88	406.98	405.30	
Aluminum foundries	3361	9.68	9.79	9.91	9.88		416.24	423.91	419.19	420.89	
Fabricated metal products	34	10.06	10.10	10.32	10.31	10.37	422.52	428.24	433.44	431.99	438.65
Metal cans and shipping containers	341	13.22	13.23	13.60	13.47		580.36	583.44	613.36	602.11	
Metal cans	3411	14.02	13.99	14.46	14.37		615.48	622.56	660.82	646.65	
Cutlery, hand tools, and hardware	342	10.01	10.07	10.20	10.29		417.42	426.97	422.28	424.98	
Hand and edge tools, and hand saws and blades	3423,5	9.29	9.28	9.35	9.34		391.11	395.33	384.29	382.94	
Hardware, nec	3429	10.36	10.45	10.61	10.73		426.83	438.90	435.01	441.00	
Plumbing and heating, except electric	343	9.34	9.31	9.36	9.39		395.08	391.95	386.57	383.11	
Plumbing fittings and brass goods	3432	8.90	8.96	9.02	8.97		375.58	379.90	368.02	365.08	
Heating equipment, except electric	3433	9.28	9.21	9.22	9.33		390.69	390.50	381.71	379.73	
Fabricated structural metal products	344	9.33	9.39	9.66	9.67		385.33	389.69	397.99	398.40	
Fabricated structural metal	3441	9.92	9.95	10.36	10.37		419.62	417.90	437.19	434.50	
Metal doors, sash, and trim	3442	7.70	7.80	8.12	8.06		308.00	315.12	323.18	323.21	
Fabricated plate work (boiler shops)	3443	10.36	10.36	10.32	10.35		440.30	444.44	443.76	438.84	
Sheet metal work	3444	9.69	9.70	9.92	9.97		393.41	393.82	397.79	400.79	
Architectural metal work	3446	8.73	8.83	9.16	9.23		357.06	361.15	378.31	375.66	
Screw machine products, bolts, etc	345	9.89	9.96	10.07	10.10		426.26	433.26	435.02	433.29	
Screw machine products	3451	9.22	9.25	9.43	9.49		386.32	392.20	396.06	394.78	
Bolts, nuts, rivets, and washers	3452	10.63	10.75	10.82	10.79		471.97	481.60	484.74	481.23	
Metal forgings and stampings	346	11.94	12.03	12.24	12.25		511.03	519.70	529.99	529.20	
Iron and steel forgings	3462	12.55	12.75	12.91	12.82		532.12	552.08	556.42	552.54	
Automotive stampings	3465	13.96	14.02	14.37	14.45		619.82	625.29	652.40	653.14	
Metal stampings, nec	3469	9.35	9.40	9.51	9.48		385.22	391.98	391.81	391.52	
Metal services, nec	347	8.04	8.01	8.29	8.25		332.86	335.62	339.06	339.90	
Plating and polishing	3471	7.98	7.96	8.25	8.25		328.78	331.14	334.95	337.43	
Metal coating and allied services	3479	8.14	8.11	8.36	8.24		339.44	344.68	346.94	344.43	
Ordnance and accessories, nec	348	11.15	11.05	11.45	11.36		460.50	474.05	479.76	470.30	
Ammunition, except for small arms, nec	3483	10.83	10.60	11.00	11.04		434.28	453.68	453.20	452.64	
Misc. fabricated metal products	349	9.40	9.39	9.59	9.57		395.74	396.26	401.82	400.03	
Valves and pipe fittings	3494	10.14	10.16	10.37	10.27		437.03	437.90	439.69	430.31	
Misc. fabricated wire products	3496	8.52	8.51	8.63	8.59		343.36	347.21	350.38	351.33	
Machinery, except electrical	35	10.79	10.83	11.05	11.07	11.14	458.58	465.69	471.84	470.48	476.79
Engines and turbines	351	13.47	13.51	13.71	13.77		588.64	610.65	605.98	608.63	
Turbines and turbine generator sets	3511	13.65	13.75	14.02	13.96		561.02	584.38	605.66	624.01	
Internal combustion engines, nec	3519	13.42	13.45	13.62	13.71		597.19	618.70	606.09	604.61	
Farm and garden machinery	352	10.13	10.12	10.29	10.28		425.46	431.11	424.98	424.56	
Farm machinery and equipment	3523	10.80	10.79	10.94	11.01		462.24	467.21	455.10	455.81	

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Machinery, except electrical—Continued											
Construction and related machinery	353	43.1	44.0	43.3	42.9		4.3	4.7	4.2	4.0	
Construction machinery	3531	44.1	44.6	44.6	43.8		3.9	3.9	3.9	3.9	
Mining machinery	3532	42.6	43.1	42.6	42.4		4.6	4.7	4.5	4.4	
Oil field machinery	3533	43.6	45.0	41.5	42.6		6.1	6.7	4.2	4.1	
Conveyors and conveying equipment	3535	42.3	43.3	43.4	43.0		4.0	4.6	5.0	4.8	
Industrial trucks and tractors	3537	41.3	42.2	41.9	41.2		3.5	4.5	3.6	3.4	
Metalworking machinery	354	42.8	43.1	43.9	43.6		4.9	5.2	5.6	5.5	
Machine tools, metal cutting types	3541	42.0	42.4	43.5	43.3		4.1	4.6	5.1	5.0	
Machine tools, metal forming types	3542	43.9	44.9	45.3	45.1		6.0	6.3	7.1	6.7	
Special dies, tools, jigs, and fixtures	3544	43.5	43.7	44.7	44.2		5.7	5.8	6.3	6.2	
Machine tool accessories	3545	41.9	42.6	42.0	41.8		4.3	4.6	4.5	4.4	
Power driven hand tools	3546	41.0	40.5	43.2	43.5		2.6	2.7	4.4	4.2	
Special industry machinery	355	42.1	42.2	42.4	42.4		4.4	4.6	5.3	4.8	
Food products machinery	3551	42.1	42.5	42.5	42.5		3.9	4.6	4.4	4.3	
Textile machinery	3552	42.4	42.5	42.6	42.7		3.6	4.1	4.0	4.2	
Printing trades machinery	3555	39.7	40.3	39.5	39.7		4.9	4.6	5.5	5.1	
General industrial machinery	356	42.4	43.4	43.2	42.9		4.3	4.6	5.1	4.9	
Pumps and pumping equipment	3561	43.8	44.1	43.6	43.2		4.6	4.6	4.6	4.2	
Ball and roller bearings	3562	43.4	44.3	44.3	44.5		5.1	5.6	6.3	6.6	
Air and gas compressors	3563	41.7	43.7	42.8	42.0		4.6	5.6	4.8	4.1	
Blowers and fans	3564	41.1	41.6	41.9	41.5		3.4	2.9	4.3	3.6	
Speed changers, drives, and gears	3566	42.3	42.8	43.4	43.3		4.6	4.5	5.8	5.2	
Power transmission equipment, nec	3568	41.5	42.3	42.2	41.3		4.2	4.9	5.5	4.8	
Office and computing machines	357	42.7	42.8	41.9	41.8		3.6	3.9	3.7	3.4	
Electronic computing equipment	3573	42.6	42.9	41.9	41.8		3.5	3.8	3.6	3.3	
Refrigeration and service machinery	358	41.9	42.7	41.8	41.7		3.7	4.0	3.5	3.3	
Refrigeration and heating equipment	3585	42.2	43.3	42.2	42.1		4.0	4.4	3.7	3.5	
Misc. machinery, except electrical	359	42.0	42.1	42.1	42.0		4.3	4.5	4.7	4.8	
Carburetors, pistons, rings, and valves	3592	41.9	42.5	42.2	42.8		4.0	4.4	4.9	4.8	
Machinery, except electrical, nec	3599	42.0	42.0	42.1	41.9		4.3	4.5	4.6	4.8	
Electrical and electronic equipment	36	41.0	41.4	41.0	40.9	41.4	3.2	3.5	3.5	3.4	
Electric distributing equipment	361	41.5	41.9	42.4	42.5		3.5	3.6	4.0	4.0	
Transformers	3612	42.1	42.5	42.5	42.3		3.7	3.8	3.9	3.8	
Switchgear and switchboard apparatus	3613	41.1	41.4	42.3	42.6		3.4	3.4	4.2	4.1	
Electrical industrial apparatus	362	41.7	42.3	42.1	42.0		3.6	4.2	3.9	3.9	
Motors and generators	3621	41.3	41.9	41.9	41.9		3.5	4.2	4.2	4.3	
Industrial controls	3622	41.1	42.3	41.1	41.0		2.8	3.5	2.8	2.6	
Household appliances	363	40.1	40.6	40.5	40.7		2.8	3.3	3.6	3.9	
Household refrigerators and freezers	3632	39.9	40.4	41.1	40.9		2.7	4.5	4.4	5.2	
Household laundry equipment	3633	40.0	39.6	40.6	40.2		2.2	1.9	2.7	2.0	
Electric housewares and fans	3634	41.8	43.4	41.6	41.6		3.7	4.6	4.2	4.1	
Electric lighting and wiring equipment	364	40.3	40.7	40.1	39.9		3.1	3.5	3.3	3.1	
Electric lamps	3641	40.1	41.0	40.6	40.3		3.6	4.3	2.9	2.6	
Current-carrying wiring devices	3643	39.8	40.8	39.3	38.9		2.8	3.5	2.8	2.6	
Noncurrent-carrying wiring devices	3644	41.1	41.8	41.1	40.9		2.9	3.6	3.5	3.6	
Residential lighting fixtures	3645	39.7	39.7	39.2	39.3		2.4	2.3	2.7	2.6	
Radio and TV receiving equipment	365	40.9	41.2	41.9	42.2		3.1	3.3	4.2	4.6	
Radio and TV receiving sets	3651	40.3	41.1	41.8	41.5		2.5	2.9	3.9	3.9	
Communication equipment	366	41.0	41.2	40.7	40.2		2.8	3.0	2.7	2.4	
Telephone and telegraph apparatus	3661	42.2	42.1	41.4	41.0		2.9	3.4	2.8	2.3	
Radio and TV communication equipment	3662	40.6	40.9	40.4	39.9		2.8	2.9	2.6	2.4	
Electronic components and accessories	367	40.7	41.2	40.3	40.2		3.3	3.6	3.5	3.2	
Electronic tubes	3671-3	41.1	42.6	42.1	42.3		1.9	2.7	4.5	4.3	
Semiconductors and related devices	3674	40.4	40.8	39.9	39.7		3.6	3.8	3.7	3.4	
Electronic components, nec	3679	41.0	41.5	40.7	40.6		3.5	3.8	3.5	3.3	
Misc. electrical equipment and supplies	369	43.0	42.7	43.0	43.6		4.1	4.1	4.6	4.9	
Storage batteries	3691	44.4	43.2	43.5	44.8		5.7	4.4	4.0	5.1	
Engine electrical equipment	3694	43.7	43.1	43.8	43.6		4.2	4.5	5.8	5.6	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Machinery, except electrical—Continued											
Construction and related machinery	353	\$11.05	\$11.04	\$11.08	\$11.07		\$476.26	\$485.76	\$479.76	\$474.90	
Construction machinery	3531	12.31	12.21	12.38	12.34		542.87	544.57	552.15	540.49	
Mining machinery	3532	11.51	11.38	11.44	11.32		490.33	490.48	487.34	479.97	
Oil field machinery	3533	10.71	10.86	10.43	10.56		466.96	488.70	432.85	449.86	
Conveyors and conveying equipment	3535	9.74	9.79	10.14	10.07		412.00	423.91	440.08	433.01	
Industrial trucks and tractors	3537	9.82	9.90	9.96	9.89		405.57	417.78	417.32	407.47	
Metalworking machinery	354	11.16	11.21	11.51	11.52		477.65	483.15	505.29	502.27	
Machine tools, metal cutting types	3541	11.13	11.13	11.38	11.41		467.46	471.91	495.03	494.05	
Machine tools, metal forming types	3542	11.60	11.76	12.05	11.95		509.24	528.02	545.87	538.95	
Special dies, tools, jigs, and fixtures	3544	11.93	11.93	12.33	12.36		518.96	521.34	551.15	546.31	
Machine tool accessories	3545	9.97	10.12	10.28	10.26		417.74	431.11	431.76	428.87	
Power driven hand tools	3546	8.69	8.81	9.07	9.07		356.29	356.81	391.82	394.55	
Special industry machinery	355	10.80	10.88	11.26	11.25		454.68	459.14	477.42	477.00	
Food products machinery	3551	10.85	10.99	11.09	11.17		456.79	467.08	471.33	474.73	
Textile machinery	3552	8.86	8.94	9.30	9.36		375.66	379.95	396.18	399.67	
Printing trades machinery	3555	11.60	11.69	12.42	12.29		460.52	471.11	490.59	487.91	
General industrial machinery	356	10.41	10.47	10.62	10.64		441.38	454.40	458.78	456.46	
Pumps and pumping equipment	3561	11.02	10.99	11.20	11.20		482.68	484.66	488.32	483.84	
Ball and roller bearings	3562	10.91	11.01	11.01	11.07		473.49	487.74	487.74	492.62	
Air and gas compressors	3563	10.38	10.55	10.51	10.55		432.85	461.04	449.83	443.10	
Blowers and fans	3564	9.22	9.21	9.58	9.52		378.94	383.14	401.40	395.08	
Speed changers, drives, and gears	3566	10.29	10.33	10.80	10.68		435.27	442.12	468.72	462.44	
Power transmission equipment, nec	3568	10.54	10.70	10.64	10.61		437.41	452.61	449.01	438.19	
Office and computing machines	357	10.41	10.39	10.80	10.90		444.51	444.69	452.52	455.62	
Electronic computing equipment	3573	10.39	10.40	10.75	10.85		442.61	446.16	450.43	453.53	
Refrigeration and service machinery	358	10.49	10.58	10.64	10.69		439.53	451.77	444.75	445.77	
Refrigeration and heating equipment	3585	10.67	10.82	10.81	10.89		450.27	458.51	456.18	458.47	
Misc. machinery, except electrical	359	10.42	10.48	10.71	10.71		437.64	441.21	450.89	449.82	
Carburetors, pistons, rings, and valves	3592	12.66	12.87	12.91	12.78		530.45	546.98	544.80	546.98	
Machinery, except electrical, nec	3599	10.12	10.15	10.42	10.44		425.04	426.30	438.68	437.44	
Electrical and electronic equipment	36	9.92	9.98	10.19	10.16	\$10.21	406.72	413.17	417.79	415.54	\$422.69
Electric distributing equipment	361	9.37	9.40	9.53	9.49	-	388.86	393.86	404.07	403.33	-
Transformers	3612	9.29	9.21	9.35	9.26		391.11	391.43	397.38	391.70	
Switchgear and switchboard apparatus	3613	9.45	9.57	9.68	9.68		388.40	396.20	409.46	412.37	
Electrical industrial apparatus	362	9.87	9.95	10.09	10.09		411.58	420.89	424.79	423.78	
Motors and generators	3621	9.75	9.85	10.05	10.12		402.68	412.72	421.10	424.03	
Industrial controls	3622	9.76	9.88	10.07	9.89		401.14	417.92	413.88	405.49	
Household appliances	363	9.86	9.93	10.04	10.06		395.39	403.16	406.62	409.44	
Household refrigerators and freezers	3632	11.40	11.70	11.84	11.92		454.86	472.68	486.62	487.53	
Household laundry equipment	3633	11.66	11.80	11.98	11.90		466.40	467.28	486.39	478.38	
Electric housewares and fans	3634	7.37	7.37	7.39	7.37		308.07	319.86	307.42	306.59	
Electric lighting and wiring equipment	364	9.21	9.27	9.61	9.61		371.16	377.29	385.36	383.44	
Electric lamps	3641	10.56	10.49	10.87	10.83		423.46	430.09	441.32	436.45	
Current-carrying wiring devices	3643	8.86	8.93	9.43	9.49		352.63	364.34	370.60	369.16	
Noncurrent-carrying wiring devices	3644	9.25	9.38	9.32	9.31		380.18	392.08	383.05	380.78	
Residential lighting fixtures	3645	6.71	6.73	7.02	6.85		266.39	267.18	275.18	269.21	
Radio and TV receiving equipment	365	9.25	9.39	9.73	9.70		378.33	386.87	407.69	409.34	
Radio and TV receiving sets	3651	9.51	9.71	10.19	10.22		383.25	399.08	425.94	424.13	
Communication equipment	366	11.83	11.90	12.18	12.10		485.03	490.28	495.73	486.42	
Telephone and telegraph apparatus	3661	11.27	11.44	11.76	11.57		475.59	481.62	486.86	474.37	
Radio and TV communication equipment	3662	12.03	12.06	12.35	12.31		488.42	493.25	498.94	491.17	
Electronic components and accessories	367	8.93	8.98	9.19	9.16		363.45	369.98	370.36	368.23	
Electronic tubes	3671-3	11.33	11.32	11.39	11.33		465.66	482.23	479.52	479.26	
Semiconductors and related devices	3674	10.84	10.92	11.19	11.18		437.94	445.54	446.48	443.85	
Electronic components, nec	3679	8.07	8.09	8.22	8.21		330.87	335.74	334.55	333.33	
Misc. electrical equipment and supplies	369	10.61	10.70	10.89	10.84		456.23	456.89	468.27	472.62	
Storage batteries	3691	11.58	11.49	11.35	11.57		514.15	496.37	493.73	518.34	
Engine electrical equipment	3694	11.06	11.24	11.63	11.40		483.32	484.44	509.39	497.04	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^a	Nov. 1988 ^a	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^a	Nov. 1988 ^a
Durable goods—Continued											
Transportation equipment	37	42.2	42.5	43.0	43.1	43.3	4.5	4.5	5.0	5.1	
Motor vehicles and equipment	371	42.6	42.9	44.1	44.0	44.2	4.7	4.5	5.6	5.7	
Motor vehicles and car bodies	3711	42.2	42.2	44.7	44.4	-	4.3	4.0	5.8	5.8	
Truck and bus bodies	3713	41.5	41.4	42.5	42.4		3.5	3.4	4.5	4.3	
Motor vehicle parts and accessories	3714	43.3	44.0	44.1	44.2		5.3	5.4	5.8	6.1	
Truck trailers	3715	40.5	40.4	40.7	40.4		3.0	2.3	3.2	2.6	
Aircraft and parts	372	42.4	42.9	42.5	42.6		5.0	5.4	4.8	5.1	
Aircraft	3721	42.3	42.7	42.3	42.4		4.5	4.9	4.7	4.8	
Aircraft engines and engine parts	3724	42.0	42.6	42.4	42.3		5.1	5.5	4.5	5.3	
Aircraft equipment, nec	3728	42.7	43.5	42.8	43.3		5.7	5.9	5.2	5.6	
Ship and boat building and repairing	373	40.5	40.2	39.8	40.9		2.9	3.1	3.3	3.0	
Ship building and repairing	3731	40.7	40.7	40.1	41.7		2.9	3.3	3.6	3.4	
Boat building and repairing	3732	40.3	39.4	39.5	39.6		2.9	2.6	2.9	2.5	
Railroad equipment	374	40.8	42.0	42.4	43.1		2.6	3.2	4.4	4.7	
Guided missiles, space vehicles, and parts	376	42.4	42.8	43.6	43.1		4.3	4.8	4.7	4.5	
Guided missiles and space vehicles	3761	42.5	42.7	43.6	43.1		4.2	4.7	4.7	4.6	
Miscellaneous transportation equipment	379	40.3	39.2	40.5	40.5		3.7	2.6	2.9	2.7	
Travel trailers and campers	3792	39.3	37.4	38.3	38.5		2.8	1.1	2.0	1.9	
Instruments and related products	38	41.7	41.8	41.6	41.9	42.5	3.3	3.4	3.2	3.3	
Engineering and scientific instruments	381	41.8	42.5	41.9	41.9	-	3.6	3.9	3.1	3.3	
Measuring and controlling devices	382	41.1	41.8	41.7	41.5		2.7	3.0	3.0	3.0	
Environmental controls	3822	39.6	40.9	40.1	39.6		2.9	3.8	2.4	2.2	
Process control instruments	3823	42.6	43.5	43.4	43.2		3.4	3.8	4.0	4.0	
Instruments to measure electricity	3825	40.6	41.4	41.0	41.2		2.2	2.6	2.5	2.7	
Optical instruments and lenses	383	43.0	42.7	44.2	44.3		3.5	3.8	3.8	3.7	
Medical instruments and supplies	384	41.2	41.5	40.8	40.7		3.5	3.7	3.0	2.8	
Surgical and medical instruments	3841	41.1	41.4	40.6	40.1		3.1	3.4	2.9	2.5	
Surgical appliances and supplies	3842	41.2	41.6	40.8	41.1		3.8	4.0	3.1	3.1	
Ophthalmic goods	385	40.4	40.0	39.8	39.9		2.6	2.5	3.1	3.1	
Photographic equipment and supplies	386	44.9	42.8	43.2	46.3		4.5	4.1	4.1	5.9	
Watches, clocks, and watchcases	387	40.9	40.2	41.6	41.2		2.8	2.4	3.7	2.7	
Miscellaneous manufacturing	39	40.0	39.7	39.3	39.6	39.9	3.3	3.1	2.7	3.0	
Jewelry, silverware, and plated ware	391	40.0	39.3	38.6	39.6	-	3.8	3.5	2.5	3.7	
Jewelry, precious metal	3911	39.6	39.2	37.3	38.7		3.7	3.6	1.9	3.5	
Musical instruments	393	41.6	40.6	40.3	39.7		3.1	2.7	2.4	2.1	
Toys and sporting goods	394	39.8	40.1	39.0	39.0		3.1	3.0	2.3	2.2	
Dolls, games, toys, and children's vehicles	3942.4	39.8	39.4	38.9	38.8		3.6	2.8	2.2	2.3	
Sporting and athletic goods, nec	3949	39.8	40.7	39.1	39.2		2.6	3.2	2.4	2.1	
Pens, pencils, office, and art supplies	395	40.9	41.2	39.4	39.7		2.4	2.9	2.6	2.7	
Costume jewelry and notions	396	38.1	36.7	38.3	38.6		3.6	2.8	2.6	2.8	
Costume jewelry	3961	35.4	32.9	35.8	36.4		3.0	1.8	2.1	2.5	
Miscellaneous manufactures	399	40.5	40.2	40.1	40.3		3.5	3.1	3.2	3.5	
Signs and advertising displays	3993	40.3	40.0	40.2	41.1		3.3	2.9	3.4	4.0	
Nondurable goods		40.5	40.6	40.5	40.3	40.5	3.9	3.9	4.1	3.9	3.9
Food and kindred products	20	40.6	40.7	40.9	40.7	41.1	4.4	4.4	5.0	4.6	-
Meat products	201	40.7	41.1	41.4	41.0		4.5	4.7	5.1	4.8	
Meat packing plants	2011	43.2	43.2	43.1	42.7		5.9	5.7	6.4	6.2	
Sausages and other prepared meats	2013	40.4	41.3	41.8	40.7		4.1	4.3	5.4	4.5	
Poultry dressing plants	2016	39.0	39.2	39.8	39.7		3.5	4.0	3.6	3.6	
Dairy products	202	40.7	41.2	41.4	40.7		4.1	4.4	4.7	4.0	
Cheese, natural and processed	2022	38.9	39.3	40.1	39.4		3.7	3.7	4.3	3.4	
Fluid milk	2026	41.9	42.6	42.8	42.0		4.7	5.1	5.4	4.8	
Preserved fruits and vegetables	203	39.6	39.0	39.8	40.2		4.0	3.6	5.4	4.8	
Canned specialties	2032	39.7	39.9	43.4	40.6		4.3	6.4	7.7	6.0	
Canned fruits and vegetables	2033	38.9	37.9	38.6	39.2		4.0	3.2	5.8	5.1	
Frozen fruits and vegetables	2037	38.6	37.3	39.3	40.2		3.9	2.6	5.1	4.9	
Grain mill products	204	44.3	44.7	45.7	45.0		6.3	6.4	7.6	6.9	
Flour and other grain mill products	2041	48.1	47.8	49.0	47.5		8.1	7.6	8.7	8.0	
Prepared feeds, nec	2048	43.7	43.9	43.7	43.6		6.1	6.3	6.9	6.9	
Bakery products	205	40.1	40.3	40.6	40.2		4.1	4.4	4.6	4.2	
Bread, cake, and related products	2051	38.9	39.1	39.4	39.3		4.2	4.3	4.5	4.2	
Cookies and crackers	2052	42.7	43.1	43.4	42.6		3.8	4.6	4.7	4.3	

See footnotes at end of table.

ESTABLISHMENT DATA
HOURS AND EARNINGS
NOT SEASONALLY ADJUSTED

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Durable goods—Continued											
Transportation equipment	37	\$13.07	\$13.18	\$13.49	\$13.50	\$13.55	\$551.55	\$560.15	\$580.07	\$581.85	\$586.72
Motor vehicles and equipment	371	13.69	13.79	14.17	14.17	14.23	583.19	591.59	624.90	623.48	628.97
Motor vehicles and car bodies	3711	15.52	15.66	16.14	16.09	-	654.94	660.85	721.46	714.40	-
Truck and bus bodies	3713	11.35	11.56	12.11	11.82	-	471.03	478.58	514.68	501.17	-
Motor vehicle parts and accessories	3714	12.89	12.96	13.34	13.39	-	558.14	570.24	588.29	591.84	-
Truck trailers	3715	9.27	9.19	9.19	9.17	-	375.44	371.28	374.03	370.47	-
Aircraft and parts	372	13.30	13.43	13.75	13.78	-	563.92	576.15	584.38	587.03	-
Aircraft	3721	(^a)	(^a)	(^a)	(^a)	-	-	-	-	-	-
Aircraft engines and engine parts	3724	\$13.51	\$13.71	\$13.99	\$13.91	-	\$567.42	\$584.05	\$593.18	\$588.39	-
Aircraft equipment, nec	3728	12.39	12.47	12.63	12.67	-	529.05	542.45	540.56	548.61	-
Ship and boat building and repairing	373	10.33	10.44	10.44	10.41	-	418.37	419.69	415.51	425.77	-
Ship building and repairing	3731	11.58	11.70	11.64	11.59	-	471.31	476.19	466.76	483.30	-
Boat building and repairing	3732	8.10	8.09	8.56	8.50	-	326.43	318.75	338.12	336.60	-
Railroad equipment	374	12.01	12.18	12.24	12.35	-	490.01	511.56	518.98	532.29	-
Guided missiles, space vehicles, and parts	376	12.82	12.95	13.19	13.39	-	543.57	554.26	575.08	577.11	-
Guided missiles and space vehicles	3761	(^a)	(^a)	(^a)	(^a)	-	-	-	-	-	-
Miscellaneous transportation equipment	379	\$10.41	\$10.40	\$10.30	\$10.33	-	\$419.52	\$407.68	\$417.15	\$418.37	-
Travel trailers and campers	3792	8.60	8.49	8.67	8.73	-	337.98	317.53	332.06	336.11	-
Instruments and related products	38	9.78	9.83	9.97	10.05	10.05	407.83	410.89	414.75	421.10	427.13
Engineering and scientific instruments	381	10.78	10.74	11.11	11.19	-	450.60	456.45	465.51	468.86	-
Measuring and controlling devices	382	9.59	9.75	9.70	9.67	-	394.15	407.55	404.49	401.31	-
Environmental controls	3822	9.00	9.11	9.14	9.14	-	356.40	372.60	366.51	361.94	-
Process control instruments	3823	9.45	9.54	9.44	9.44	-	402.57	414.99	409.70	407.81	-
Instruments to measure electricity	3825	9.82	10.11	9.84	9.73	-	398.69	418.55	403.44	400.88	-
Optical instruments and lenses	383	10.45	10.61	11.04	11.01	-	449.35	453.05	487.97	487.74	-
Medical instruments and supplies	384	8.69	8.69	8.98	9.03	-	358.03	360.64	366.38	367.52	-
Surgical and medical instruments	3841	8.82	8.79	9.24	9.37	-	362.50	363.91	375.14	375.74	-
Surgical appliances and supplies	3842	8.53	8.57	8.68	8.67	-	351.44	356.51	354.14	356.34	-
Ophthalmic goods	385	7.45	7.47	7.59	7.64	-	300.98	298.80	302.08	304.84	-
Photographic equipment and supplies	386	13.41	13.56	13.45	13.76	-	602.11	580.37	581.04	637.09	-
Watches, clocks, and watchcases	387	7.16	7.07	7.34	7.42	-	292.84	284.21	305.34	305.70	-
Miscellaneous manufacturing	39	7.79	7.80	7.99	8.08	8.09	311.60	309.66	314.01	319.97	322.79
Jewelry, silverware, and plated ware	391	8.47	8.47	8.55	8.79	-	338.80	332.87	330.03	348.08	-
Jewelry, precious metal	3911	8.56	8.59	8.62	8.91	-	338.98	336.73	321.53	344.82	-
Musical instruments	393	7.64	7.66	8.06	7.95	-	317.82	311.00	324.82	315.62	-
Toys and sporting goods	394	7.14	7.12	7.16	7.19	-	284.17	285.51	279.24	280.41	-
Dolls, games, toys, and children's vehicles	3942,4	6.89	6.87	6.93	6.96	-	274.22	270.68	269.58	270.05	-
Sporting and athletic goods, nec	3949	7.35	7.33	7.34	7.38	-	292.53	298.33	286.99	289.30	-
Pens, pencils, office, and art supplies	395	7.67	7.78	7.95	7.99	-	313.70	320.54	313.23	317.20	-
Costume jewelry and notions	396	6.28	6.40	6.87	6.96	-	239.27	234.88	263.12	268.66	-
Costume jewelry	3961	5.72	5.87	6.51	6.61	-	202.49	193.12	233.06	240.60	-
Miscellaneous manufactures	399	8.57	8.57	8.77	8.86	-	347.09	344.51	351.68	357.06	-
Signs and advertising displays	3993	9.02	8.97	9.20	9.36	-	363.51	358.80	369.84	384.70	-
Nondurable goods		9.20	9.26	9.50	9.48	9.54	372.60	375.96	384.75	382.04	386.37
Food and kindred products	20	8.88	8.98	9.12	9.04	9.13	360.53	365.49	373.01	367.93	375.24
Meat products	201	7.50	7.51	7.67	7.60	-	305.25	308.66	317.54	311.60	-
Meat packing plants	2011	8.52	8.47	8.56	8.47	-	368.06	365.90	366.94	361.67	-
Sausages and other prepared meats	2013	8.85	8.87	9.03	8.93	-	357.54	366.33	377.45	363.45	-
Poultry dressing plants	2016	6.13	6.17	6.38	6.36	-	239.07	241.86	253.92	252.49	-
Dairy products	202	9.67	9.77	10.02	9.99	-	393.57	402.52	414.83	406.59	-
Cheese, natural and processed	2022	8.97	9.10	9.31	9.20	-	348.93	357.63	373.33	362.48	-
Fluid milk	2026	10.17	10.22	10.48	10.39	-	426.12	435.37	448.54	436.38	-
Preserved fruits and vegetables	203	8.04	8.25	8.26	8.14	-	318.38	321.75	326.75	327.23	-
Canned specialties	2032	10.02	10.44	10.27	10.21	-	397.79	416.56	445.72	414.53	-
Canned fruits and vegetables	2033	7.84	8.06	8.29	7.95	-	304.98	305.47	319.99	311.64	-
Frozen fruits and vegetables	2037	7.41	7.58	7.35	7.45	-	286.03	282.73	288.86	299.49	-
Grain mill products	204	10.80	10.98	11.14	11.13	-	478.44	490.81	509.10	500.85	-
Flour and other grain mill products	2041	10.63	10.72	11.01	10.94	-	511.30	512.42	539.49	519.65	-
Prepared feeds, nec	2048	8.43	8.63	8.67	8.69	-	368.39	378.86	378.88	378.88	-
Bakery products	205	10.04	10.17	10.37	10.25	-	402.60	409.85	421.02	412.05	-
Bread, cake, and related products	2051	10.03	10.13	10.28	10.19	-	390.17	396.08	405.03	400.47	-
Cookies and crackers	2052	10.05	10.25	10.57	10.39	-	429.14	441.78	458.74	442.61	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Food and kindred products—Continued											
Sugar and confectionery products	206	41.0	41.4	40.9	41.3		4.1	4.3	4.4	4.5	
Cane and beet sugar	2061-3	43.0	45.3	40.9	41.9		6.4	7.5	6.0	6.8	
Confectionery products	2065	39.7	39.6	40.3	40.8		3.3	3.2	3.9	3.7	
Fats and oils	207	43.6	44.0	43.1	43.7		5.8	5.7	5.8	5.8	
Beverages	208	40.3	40.6	40.3	39.9		3.5	3.7	4.0	3.2	
Malt beverages	2082	43.0	42.8	42.6	42.3		5.6	6.4	5.6	5.3	
Bottled and canned soft drinks	2086	39.0	39.4	38.8	38.1		2.7	2.7	2.8	2.1	
Misc. food and kindred products	209	39.5	38.6	37.9	37.8		4.2	3.8	4.0	3.6	
Tobacco manufactures	21	41.4	40.9	41.2	41.2	40.3	3.5	3.7	2.6	2.6	
Cigarettes	211	40.6	41.1	41.3	40.8	-	3.4	4.1	2.7	2.5	
Textile mill products	22	42.0	42.0	41.4	41.2	41.3	4.5	4.6	4.3	4.2	
Weaving mills, cotton	221	43.0	43.2	41.4	41.6	-	5.7	5.8	4.6	4.4	
Weaving mills, synthetics	222	42.5	42.7	42.4	42.1		4.8	4.9	4.7	4.7	
Weaving and finishing mills, wool	223	41.9	41.4	42.7	42.7		1.9	3.1	3.5	3.6	
Narrow fabric mills	224	41.3	40.9	42.5	41.9		3.7	3.8	4.2	4.2	
Knitting mills	225	40.2	40.1	39.9	39.7		3.6	3.6	3.6	3.9	
Women's hosiery, except socks	2251	39.0	39.9	38.1	38.5		2.9	3.7	2.8	3.0	
Hosiery, nec	2252	40.0	40.8	38.8	39.1		3.1	3.4	2.6	2.8	
Knit outerwear mills	2253	39.4	38.4	40.1	39.2		3.7	3.4	4.4	4.6	
Knit underwear mills	2254	40.0	39.8	39.7	39.5		2.4	2.3	2.2	2.0	
Circular knit fabric mills	2257	42.4	42.8	40.8	41.2		4.9	5.2	4.6	5.1	
Textile finishing, except wool	226	42.5	42.7	42.6	42.3		5.4	5.5	5.1	4.7	
Finishing plants, cotton	2261	43.4	43.3	43.5	43.6		5.8	5.7	5.2	5.3	
Finishing plants, synthetics	2262	42.6	43.0	42.9	42.0		5.2	5.6	5.5	4.4	
Floor covering mills	227	44.7	43.4	44.0	43.1		4.4	4.1	4.9	4.7	
Yarn and thread mills	228	42.3	42.5	40.6	40.3		5.1	5.0	4.1	4.0	
Yarn mills, except wool	2281	43.2	43.4	41.1	40.9		5.5	5.4	4.3	4.3	
Throwing and winding mills	2282	37.6	37.9	38.1	37.8		2.7	2.7	2.9	2.4	
Miscellaneous textile goods	229	43.1	43.4	42.6	42.4		4.8	5.2	4.8	4.4	
Apparel and other textile products	23	37.5	37.4	37.0	37.1	37.2	2.1	2.0	1.9	1.9	
Men's and boys' suits and coats	231	36.1	36.7	36.8	36.6	-	1.2	1.5	1.4	1.4	
Men's and boys' furnishings	232	37.8	37.7	36.6	36.8		1.9	1.8	1.4	1.3	
Men's and boys' shirts and nightwear	2321	37.6	37.7	37.2	37.3		1.5	1.6	1.4	1.3	
Men's and boys' separate trousers	2327	37.8	37.0	36.4	36.3		1.9	1.4	1.1	1.1	
Men's and boys' work clothing	2328	37.6	37.2	34.9	35.2		2.0	1.9	1.4	1.2	
Women's and misses' outerwear	233	35.3	35.5	35.5	35.5		1.5	1.5	1.5	1.6	
Women's and misses' blouses and waists	2331	35.9	35.9	35.9	36.3		1.5	1.4	1.2	1.3	
Women's and misses' dresses	2335	34.8	35.0	35.0	34.9		1.5	1.4	1.5	1.6	
Women's and misses' suits and coats	2337	34.9	35.1	36.1	36.1		1.8	1.5	2.2	2.1	
Women's and misses' outerwear, nec	2339	35.5	35.7	35.4	35.4		1.5	1.6	1.5	1.5	
Women's and children's undergarments	234	38.9	38.5	37.9	38.6		2.1	1.8	1.8	2.2	
Women's and children's underwear	2341	39.2	38.7	38.5	39.2		2.0	1.7	1.8	2.2	
Brassieres and allied garments	2342	37.2	37.3	34.4	35.6		2.6	2.6	1.6	2.0	
Children's outerwear	236	38.1	37.8	37.1	36.6		2.1	2.0	1.8	1.7	
Children's dresses and blouses	2361	37.1	36.9	36.9	36.2		2.2	1.8	1.7	1.3	
Misc. apparel and accessories	238	39.5	39.3	38.9	39.1		2.7	2.9	2.6	2.8	
Misc. fabricated textile products	239	40.4	39.9	39.7	39.6		3.7	3.2	3.3	3.4	
Curtains and draperies	2391	38.7	37.2	37.5	36.3		2.4	1.6	1.5	1.7	
House furnishings, nec	2392	41.0	40.5	40.2	40.7		4.4	3.7	3.6	3.7	
Automotive and apparel trimmings	2396	42.2	42.4	42.8	42.8		5.8	5.9	6.0	6.3	
Paper and allied products	26	43.7	43.8	43.7	43.3	43.5	5.5	5.4	5.6	5.3	
Paper and pulp mills	261,2,6	45.9	45.7	45.8	45.1	-	7.0	6.6	6.7	6.2	
Paper mills, except building paper	262	46.0	46.0	45.9	45.2		7.0	6.8	6.8	6.2	
Paperboard mills	263	44.5	44.9	44.4	44.8		7.5	8.1	7.4	7.6	
Misc. converted paper products	264	42.2	42.5	42.1	41.7		4.2	4.1	4.7	4.2	
Paper coating and glazing	2641	43.9	44.4	43.7	43.1		4.4	4.6	4.8	4.3	
Envelopes	2642	41.3	41.8	41.3	40.9		3.3	3.2	3.8	3.5	
Bags, except textile bags	2643	41.6	42.3	42.3	41.9		4.1	4.4	5.0	4.6	
Paperboard containers and boxes	265	43.2	43.3	43.4	43.1		5.0	5.0	5.3	5.0	
Folding paperboard boxes	2651	42.9	43.6	42.9	42.9		4.7	5.2	5.1	4.9	
Corrugated and solid fiber boxes	2653	43.9	43.7	44.2	43.9		5.4	5.4	5.8	5.5	
Sanitary food containers	2654	41.7	42.3	43.0	41.6		4.1	4.2	4.6	3.6	

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Food and kindred products—Continued											
Sugar and confectionery products	206	\$8.98	\$9.06	\$9.47	\$9.26		\$368.18	\$375.08	\$387.32	\$382.44	
Cane and beet sugar	2061-3	9.76	10.14	11.33	10.46		419.68	459.34	463.40	438.27	
Confectionery products	2065	8.00	7.94	8.32	8.18		317.60	314.42	335.30	333.74	
Fats and oils	207	9.24	9.23	9.37	9.17		402.86	406.12	403.85	400.73	
Beverages	208	12.08	12.13	12.25	12.21		486.82	492.48	493.68	487.18	
Malt beverages	2082	16.63	16.87	17.18	16.97		715.09	722.04	731.87	717.83	
Bottled and canned soft drinks	2086	9.49	9.44	9.72	9.70		370.11	371.94	377.14	369.57	
Misc. food and kindred products	209	8.41	8.43	8.65	8.53		332.20	325.40	327.84	322.43	
Tobacco manufactures	21	13.18	13.75	13.98	13.98	\$14.65	545.65	562.38	575.98	575.98	\$590.40
Cigarettes	211	16.92	17.03	17.40	17.65	-	686.95	699.93	718.62	720.12	-
Textile mill products	22	7.24	7.29	7.43	7.44	7.49	304.08	306.18	307.60	306.53	309.34
Weaving mills, cotton	221	7.60	7.71	7.73	7.72	-	326.80	333.07	320.02	321.15	-
Weaving mills, synthetics	222	7.79	7.87	8.02	8.02	-	331.08	336.05	340.05	337.64	-
Weaving and finishing mills, wool	223	7.69	7.86	8.03	7.98	-	322.21	325.40	342.88	340.75	-
Narrow fabric mills	224	6.69	6.74	6.86	6.86	-	276.30	275.67	291.55	287.43	-
Knitting mills	225	6.62	6.64	6.70	6.71	-	266.12	266.26	267.33	266.39	-
Women's hosiery, except socks	2251	6.46	6.53	6.64	6.64	-	251.94	260.55	252.98	255.64	-
Hosiery, nec	2252	6.32	6.35	6.48	6.48	-	252.80	259.08	251.42	253.37	-
Knit outerwear mills	2253	6.64	6.60	6.37	6.33	-	261.62	253.44	255.44	248.14	-
Knit underwear mills	2254	6.16	6.24	6.51	6.51	-	246.40	248.35	258.45	257.15	-
Circular knit fabric mills	2257	7.20	7.26	7.47	7.58	-	305.28	310.73	304.78	312.30	-
Textile finishing, except wool	226	7.58	7.66	7.86	7.88	-	322.15	327.08	334.84	333.32	-
Finishing plants, cotton	2261	7.56	7.69	7.85	7.88	-	328.10	332.98	341.48	343.57	-
Finishing plants, synthetics	2262	7.82	7.87	8.14	8.15	-	333.13	338.41	349.21	342.30	-
Floor covering mills	227	7.52	7.50	7.77	7.87	-	336.14	325.50	341.88	339.20	-
Yarn and thread mills	228	6.91	6.95	7.14	7.15	-	292.29	295.38	289.88	288.15	-
Yarn mills, except wool	2281	6.89	6.94	7.12	7.13	-	297.65	301.20	292.63	291.62	-
Throwing and winding mills	2282	6.96	7.05	7.34	7.31	-	261.70	267.20	279.65	276.32	-
Miscellaneous textile goods	229	8.11	8.16	8.44	8.47	-	349.54	354.14	359.54	359.13	-
Apparel and other textile products	23	5.97	5.98	6.19	6.20	6.21	223.88	223.65	229.03	230.02	231.01
Men's and boys' suits and coats	231	6.79	6.82	6.86	6.96	-	245.12	250.29	252.45	254.74	-
Men's and boys' furnishings	232	5.48	5.48	5.66	5.62	-	207.14	206.60	207.16	206.82	-
Men's and boys' shirts and nightwear	2321	5.28	5.31	5.54	5.54	-	198.53	200.19	206.09	206.64	-
Men's and boys' separate trousers	2327	5.37	5.37	5.46	5.48	-	202.99	198.69	198.74	198.92	-
Men's and boys' work clothing	2328	5.49	5.48	5.68	5.59	-	206.42	203.86	198.23	196.77	-
Women's and misses' outerwear	233	5.76	5.75	5.98	6.02	-	203.33	204.13	212.29	213.71	-
Women's and misses' blouses and waists	2331	5.07	5.10	5.18	5.16	-	182.01	183.09	185.96	187.31	-
Women's and misses' dresses	2335	6.17	6.09	6.38	6.47	-	214.72	213.15	223.30	225.80	-
Women's and misses' suits and coats	2337	6.61	6.54	6.65	6.63	-	230.69	229.55	240.07	239.34	-
Women's and misses' outerwear, nec	2339	5.55	5.58	5.82	5.89	-	197.03	199.21	206.03	208.51	-
Women's and children's undergarments	234	5.55	5.57	5.70	5.78	-	215.90	214.45	216.03	223.11	-
Women's and children's underwear	2341	5.38	5.38	5.58	5.65	-	210.90	208.21	214.83	221.48	-
Brassieres and allied garments	2342	6.60	6.67	6.46	6.53	-	245.52	248.79	222.22	232.47	-
Children's outerwear	236	5.33	5.37	5.59	5.49	-	203.07	202.99	207.39	200.93	-
Children's dresses and blouses	2361	5.20	5.27	5.57	5.53	-	192.92	194.46	205.53	200.19	-
Misc. apparel and accessories	238	5.85	5.80	6.02	6.10	-	231.08	227.94	234.18	238.51	-
Misc. fabricated textile products	239	7.18	7.22	7.42	7.42	-	290.07	288.08	294.57	293.83	-
Curtains and draperies	2391	5.87	5.79	6.04	6.10	-	227.17	215.39	226.50	221.43	-
House furnishings, nec	2392	6.10	6.08	6.35	6.32	-	250.10	246.24	255.27	257.22	-
Automotive and apparel trimmings	2396	11.04	11.14	11.40	11.39	-	465.89	472.34	487.92	487.49	-
Paper and allied products	26	11.46	11.49	11.70	11.65	11.69	500.80	503.26	511.29	504.45	508.52
Paper and pulp mills	261,2,6	14.15	14.17	14.47	14.41	-	649.49	647.57	662.73	649.89	-
Paper mills, except building paper	262	14.17	14.24	14.50	14.41	-	651.82	655.04	665.55	651.33	-
Paperboard mills	263	14.43	14.59	14.53	14.62	-	642.14	655.09	645.13	654.98	-
Misc. converted paper products	264	9.90	9.90	10.11	10.07	-	417.78	420.75	425.63	419.92	-
Paper coating and glazing	2641	11.13	11.16	11.40	11.38	-	488.61	495.50	498.18	490.48	-
Envelopes	2642	9.37	9.37	9.66	9.60	-	386.98	391.67	398.96	392.64	-
Bags, except textile bags	2643	9.20	9.17	9.40	9.36	-	382.72	387.89	397.62	392.18	-
Paperboard containers and boxes	265	9.77	9.82	10.06	10.00	-	422.06	425.21	436.60	431.00	-
Folding paperboard boxes	2651	10.10	10.21	10.42	10.42	-	433.29	445.16	447.02	447.02	-
Corrugated and solid fiber boxes	2653	9.97	10.03	10.26	10.21	-	437.68	438.31	453.49	448.22	-
Sanitary food containers	2654	9.43	9.50	9.81	9.75	-	393.23	401.85	421.83	405.60	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Printing and publishing	27	38.2	38.3	38.5	38.0	38.1	3.4	3.4	3.6	3.3	
Newspapers	271	33.8	34.1	33.6	33.5	-	1.7	1.8	1.6	1.5	
Periodicals	272	38.5	38.6	39.3	38.2		3.7	3.4	4.2	3.3	
Books	273	38.5	38.6	38.9	38.0		3.4	3.4	3.8	3.6	
Book publishing	2731	37.5	37.8	37.8	36.9		2.9	3.0	2.4	2.7	
Book printing	2732	40.1	39.9	40.7	39.7		4.3	4.2	5.9	5.0	
Miscellaneous publishing	274	36.4	37.5	36.4	36.6		2.8	3.2	2.6	2.4	
Commercial printing	275	39.9	39.8	40.2	39.6		4.0	3.9	4.3	3.9	
Commercial printing, letterpress	2751	39.7	39.8	40.0	39.4		3.3	3.4	3.8	3.3	
Commercial printing, lithographic	2752	39.7	39.6	40.3	39.6		4.1	3.9	4.5	4.2	
Manifold business forms	276	41.7	42.1	40.8	41.2		4.4	4.5	3.8	3.7	
Blankbooks and bookbinding	278	39.0	39.2	39.8	39.4		3.4	3.4	4.0	3.8	
Printing trade services	279	38.5	38.3	38.9	38.9		4.5	4.1	5.1	4.5	
Chemicals and allied products	28	42.3	42.7	42.3	42.3	42.6	4.1	4.1	4.3	4.2	
Industrial inorganic chemicals	281	42.4	43.1	42.8	43.1	-	4.2	4.3	4.3	4.8	
Industrial inorganic chemicals, nec	2819	42.7	43.5	43.0	43.1		4.1	4.1	4.5	4.7	
Plastics materials and synthetics	282	42.8	43.5	43.6	43.4		4.3	4.5	5.1	5.0	
Plastics materials and resins	2821	43.2	44.3	43.9	44.0		4.6	5.0	5.3	5.5	
Organic fibers, noncellulosic	2824	42.6	42.7	43.6	42.8		3.8	3.8	5.0	4.6	
Drugs	283	41.3	41.7	40.9	40.8		3.2	3.3	3.1	3.1	
Pharmaceutical preparations	2834	41.0	41.5	40.5	40.5		3.2	3.3	3.2	3.2	
Soap, cleaners, and toilet goods	284	41.0	41.6	40.4	39.9		3.4	3.4	3.7	2.9	
Soap and other detergents	2841	43.8	44.6	44.3	43.5		5.5	5.6	5.6	5.3	
Polishing, sanitation, and finishing preparations	2842,3	41.4	41.6	40.6	40.9		3.3	3.0	3.1	3.3	
Toilet preparations	2844	39.2	39.8	38.4	37.6		2.3	2.3	3.0	1.4	
Paints and allied products	285	41.7	41.3	41.8	41.5		3.6	3.2	3.9	3.5	
Industrial organic chemicals	286	44.8	44.6	44.5	44.4		5.6	5.5	5.7	5.5	
Cyclic crudes and intermediates	2865	43.5	43.7	42.4	42.5		6.1	6.2	5.3	5.0	
Gum, wood, and industrial organic chemicals, nec	2861,9	45.2	44.9	45.0	44.9		5.5	5.3	5.8	5.6	
Agricultural chemicals	287	43.0	42.8	43.2	43.9		4.7	4.7	5.0	5.5	
Miscellaneous chemical products	289	41.4	42.0	42.0	42.1		3.7	3.8	4.0	3.9	
Petroleum and coal products	29	44.0	44.1	44.7	44.8	44.5	5.4	5.2	5.8	6.1	
Petroleum refining	291	43.4	44.2	44.6	44.9		4.7	4.9	5.3	5.8	
Paving and roofing materials	295	47.4	44.6	46.4	45.6		9.2	7.1	8.6	8.1	
Rubber and misc. plastics products	30	41.9	42.0	41.6	41.7	42.0	4.4	4.4	4.4	4.3	
Tires and inner tubes	301	45.6	45.8	44.7	44.9	-	6.3	6.3	6.4	6.6	
Rubber and plastics footwear	302	42.0	42.9	40.2	41.4		2.3	3.3	2.1	2.3	
Reclaimed rubber, and rubber and plastics hose and belting	303,4	45.3	44.6	43.8	43.9		5.7	5.1	4.2	4.4	
Fabricated rubber products, nec	306	42.2	41.8	41.5	41.5		4.0	4.0	3.8	3.6	
Miscellaneous plastics products	307	41.3	41.4	41.2	41.2		4.2	4.2	4.3	4.2	
Leather and leather products	31	38.8	38.4	37.5	37.9	37.8	2.5	2.4	2.2	2.0	
Leather tanning and finishing	311	41.8	41.2	40.5	40.7	-	4.4	4.0	3.5	3.4	
Footwear, except rubber	314	38.4	38.0	37.1	37.5		2.0	1.9	1.9	1.6	
Men's footwear, except athletic	3143	38.1	37.1	38.0	37.2		1.7	1.4	1.5	1.1	
Women's footwear, except athletic	3144	39.1	39.2	35.6	37.4		2.5	2.7	2.2	2.0	
Luggage	316	41.0	40.9	38.7	38.9		4.8	4.8	3.8	3.0	
Handbags and personal leather goods	317	37.8	37.4	36.8	37.2		3.4	3.4	2.1	2.8	
Transportation and public utilities		39.4	39.3	39.5	39.7	39.4					
Railroad transportation:											
Class I railroads ³	4011	44.5	45.2	45.3	45.1						
Local and interurban passenger transit	41	33.7	33.2	34.2	34.5						
Local and suburban transportation	411	38.6	38.3	38.4	38.7						
Intercity highway transportation	413	40.8	40.4	40.4	39.9						
Trucking and warehousing	42	38.6	38.2	38.5	38.9						
Trucking and trucking terminals	421,3	38.4	38.1	38.5	38.7						
Public warehousing	422	40.5	39.4	38.7	41.0						
Pipe lines, except natural gas	46	41.9	41.9	42.8	41.6						

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Nondurable goods—Continued											
Printing and publishing	27	\$10.41	\$10.39	\$10.70	\$10.69	\$10.68	\$397.66	\$397.94	\$411.95	\$406.22	\$406.91
Newspapers	271	10.24	10.24	10.64	10.57	-	346.11	349.18	357.50	354.10	-
Periodicals	272	10.80	10.79	11.21	11.25	-	415.80	416.49	440.55	429.75	-
Books	273	9.58	9.51	9.73	9.87	-	368.83	367.09	378.50	375.06	-
Book publishing	2731	9.16	9.11	9.44	9.69	-	343.50	344.36	356.83	357.56	-
Book printing	2732	10.20	10.12	10.12	10.11	-	409.02	403.79	411.88	401.37	-
Miscellaneous publishing	274	9.87	9.87	10.06	10.01	-	359.27	370.13	366.18	366.37	-
Commercial printing	275	10.69	10.67	11.00	10.97	-	426.53	424.67	442.20	434.41	-
Commercial printing, letterpress	2751	10.31	10.23	10.44	10.45	-	409.31	407.15	417.60	411.73	-
Commercial printing, lithographic	2752	10.79	10.79	11.20	11.15	-	428.36	427.28	451.36	441.54	-
Manifold business forms	276	10.79	10.83	11.02	10.99	-	449.94	455.94	449.62	452.79	-
Blankbooks and bookbinding	278	8.29	8.37	8.50	8.52	-	323.31	328.10	338.30	335.69	-
Printing trade services	279	12.73	12.64	13.13	13.10	-	490.11	484.11	510.76	509.59	-
Chemicals and allied products	28	12.50	12.55	12.76	12.78	12.87	528.75	535.89	539.75	540.59	548.26
Industrial inorganic chemicals	281	13.69	13.73	14.03	13.97	-	580.46	591.76	600.48	602.11	-
Industrial inorganic chemicals, nec	2819	13.74	13.77	14.10	13.96	-	586.70	599.00	606.30	601.68	-
Plastics materials and synthetics	282	12.66	12.79	13.13	13.15	-	541.85	556.37	572.47	570.71	-
Plastics materials and resins	2821	13.62	13.67	14.11	14.22	-	588.38	605.58	619.43	625.68	-
Organic fibers, noncellulosic	2824	12.15	12.35	12.45	12.34	-	517.59	527.35	542.82	528.15	-
Drugs	283	11.82	11.83	12.09	12.20	-	488.17	493.31	494.48	497.76	-
Pharmaceutical preparations	2834	11.47	11.48	11.88	11.92	-	470.27	476.42	481.14	482.76	-
Soap, cleaners, and toilet goods	284	10.87	10.98	10.98	11.03	-	445.67	456.77	443.59	440.10	-
Soap and other detergents	2841	14.19	14.15	14.76	14.75	-	621.52	631.09	653.87	641.63	-
Polishing, sanitation, and finishing preparations	2842,3	9.99	10.18	10.26	10.42	-	413.59	423.49	416.56	426.18	-
Toilet preparations	2844	9.23	9.35	9.13	9.10	-	361.82	372.13	350.59	342.16	-
Paints and allied products	285	10.91	10.92	11.35	11.32	-	454.95	451.00	474.43	469.78	-
Industrial organic chemicals	286	15.13	15.09	15.23	15.16	-	677.82	673.01	677.74	673.10	-
Cyclic crudes and intermediates	2865	15.07	15.07	14.80	14.63	-	655.55	658.56	627.52	621.78	-
Gum, wood, and industrial organic chemicals, nec	2861,9	15.15	15.10	15.33	15.29	-	684.78	677.99	689.85	686.52	-
Agricultural chemicals	287	12.18	12.21	12.55	12.58	-	523.74	522.59	542.16	552.26	-
Miscellaneous chemical products	289	11.44	11.53	11.58	11.60	-	473.62	484.26	486.36	488.36	-
Petroleum and coal products	29	14.66	14.77	15.08	15.27	15.34	645.04	651.36	674.08	684.10	682.63
Petroleum refining	291	15.85	15.90	16.27	16.49	-	687.89	702.78	725.64	740.40	-
Paving and roofing materials	295	11.64	11.52	11.90	11.83	-	551.74	513.79	552.16	539.45	-
Rubber and misc. plastics products	30	8.93	8.98	9.18	9.20	9.26	374.17	377.16	381.89	383.64	388.92
Tires and inner tubes	301	14.16	14.10	14.39	14.47	-	645.70	645.78	643.23	649.70	-
Rubber and plastics footwear	302	6.09	6.20	6.37	6.40	-	255.78	265.98	256.07	264.96	-
Reclaimed rubber, and rubber and plastics hose and belting	303,4	8.98	8.96	9.16	9.15	-	406.79	399.62	401.21	401.69	-
Fabricated rubber products, nec	306	8.74	8.83	8.79	8.76	-	368.83	369.09	364.79	363.54	-
Miscellaneous plastics products	307	8.31	8.36	8.61	8.60	-	343.20	346.10	354.73	354.32	-
Leather and leather products	31	6.12	6.15	6.31	6.34	6.36	237.46	236.16	236.63	240.29	240.41
Leather tanning and finishing	311	8.27	8.24	8.45	8.41	-	345.69	339.49	342.23	342.29	-
Footwear, except rubber	314	5.80	5.85	6.03	6.07	-	222.72	222.30	223.71	227.63	-
Men's footwear, except athletic	3143	6.18	6.22	6.37	6.39	-	235.46	230.76	242.06	237.71	-
Women's footwear, except athletic	3144	5.51	5.57	5.77	5.83	-	215.44	218.34	205.41	218.04	-
Luggage	316	6.44	6.58	6.32	6.18	-	264.04	269.12	244.58	240.40	-
Handbags and personal leather goods	317	5.86	5.79	5.91	5.91	-	221.51	216.55	217.49	219.85	-
Transportation and public utilities		12.12	12.21	12.41	12.41	12.47	477.53	479.85	490.20	492.68	491.32
Railroad transportation:											
Class I railroads ³	4011	14.23	14.39	15.03	14.98	-	633.24	650.43	680.86	675.60	-
Local and interurban passenger transit	41	8.33	8.38	8.60	8.61	-	280.72	278.22	294.12	297.05	-
Local and suburban transportation	411	8.97	9.02	9.06	9.09	-	346.24	345.47	347.90	351.78	-
Intercity highway transportation	413	11.69	11.62	11.35	11.28	-	476.95	469.45	458.54	450.07	-
Trucking and warehousing	42	10.83	10.93	11.00	11.03	-	418.04	417.53	423.50	429.07	-
Trucking and trucking terminals	421,3	11.09	11.13	11.18	11.26	-	425.86	424.05	430.43	435.76	-
Public warehousing	422	8.03	8.58	8.79	8.52	-	325.22	338.05	340.17	349.32	-
Pipe lines, except natural gas	46	15.48	15.54	15.66	15.86	-	648.61	651.13	670.25	659.78	-

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Transportation and public utilities—Continued											
Communication	48	40.2	40.3	40.1	39.8						
Telephone communication	481	41.7	41.8	41.8	41.3						
Radio and television broadcasting	483	35.7	36.1	36.0	36.0						
Electric, gas, and sanitary services	49	42.1	42.1	41.6	42.0						
Electric services	491	41.5	41.8	41.6	41.6						
Gas production and distribution	492	42.0	41.4	41.4	42.1						
Combination utility services	493	43.4	43.4	41.7	42.7						
Sanitary services	495	42.9	42.5	42.3	42.6						
Wholesale trade		38.3	38.2	38.1	38.2	38.0					
Durable goods	50	38.7	38.7	38.6	38.6						
Motor vehicles and automotive equipment	501	38.3	38.3	38.0	38.0						
Furniture and home furnishings	502	37.2	37.3	37.5	37.5						
Lumber and construction materials	503	39.5	39.2	39.6	39.9						
Sporting goods, toys, and hobby goods	504	36.4	36.5	36.3	36.1						
Metals and minerals, except petroleum	505	40.8	40.8	40.7	40.5						
Electrical goods	506	38.2	38.3	38.0	38.1						
Hardware, plumbing, and heating equipment	507	38.7	38.6	38.8	39.0						
Machinery, equipment, and supplies	508	39.0	39.0	38.9	38.9						
Miscellaneous durable goods	509	37.7	38.0	38.3	38.3						
Nondurable goods	51	37.7	37.5	37.4	37.6						
Paper and paper products	511	37.2	37.1	37.0	37.0						
Drugs, proprietaries, and sundries	512	37.6	37.0	37.3	37.1						
Apparel, piece goods, and notions	513	37.2	37.5	37.0	37.2						
Groceries and related products	514	37.9	38.1	38.0	38.0						
Chemicals and allied products	516	39.0	38.8	40.0	40.1						
Petroleum and petroleum products	517	38.8	38.7	38.3	38.7						
Beer, wine, and distilled beverages	518	35.7	35.8	36.4	36.1						
Miscellaneous nondurable goods	519	37.1	36.6	36.4	36.6						
Retail trade		29.1	29.0	29.0	29.1	28.8					
Building materials and garden supplies	52	36.7	36.4	36.8	36.7						
Lumber and other building materials	521	38.7	38.4	38.8	38.7						
Hardware stores	525	33.0	32.8	32.8	32.8						
General merchandise stores	53	27.7	27.4	27.8	27.6						
Department stores	531	27.5	27.0	27.5	27.2						
Variety stores	533	28.9	29.3	28.8	28.9						
Misc. general merchandise stores	539	29.7	29.0	29.9	29.5						
Food stores	54	29.9	30.0	30.2	30.0						
Grocery stores	541	30.2	30.2	30.4	30.1						
Retail bakeries	546	27.8	27.5	29.2	29.0						
Automotive dealers and service stations	55	36.5	36.5	36.3	36.4						
New and used car dealers	551,2	37.2	37.3	37.0	37.1						
Auto and home supply stores	553	39.1	39.0	38.7	38.9						
Gasoline service stations	554	34.3	34.1	34.2	34.1						
Apparel and accessory stores	56	26.7	26.5	27.0	27.0						
Men's and boys' clothing and furnishings	561	29.3	28.5	28.6	28.7						
Women's ready-to-wear stores	562	25.2	25.0	25.2	25.2						
Family clothing stores	565	27.2	27.0	26.9	27.0						
Shoe stores	566	27.3	27.5	28.7	28.3						
Furniture and home furnishings stores	57	32.9	33.0	32.9	32.9						
Furniture and home furnishings stores	571	33.2	33.2	33.6	33.6						
Household appliance stores	572	33.8	34.1	33.2	33.7						
Radio, television, and music stores	573	32.0	32.3	31.7	31.6						
Eating and drinking places ⁴	58	25.8	25.6	25.6	25.7						

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Transportation and public utilities—Continued											
Communication	48	\$12.52	\$12.58	\$12.91	\$12.90		\$503.30	\$506.97	\$517.69	\$513.42	
Telephone communication	481	13.28	13.36	13.67	13.61		553.78	558.45	571.41	562.09	
Radio and television broadcasting	483	10.84	10.93	11.56	11.79		386.99	394.57	416.16	424.44	
Electric, gas, and sanitary services	49	13.96	14.07	14.40	14.53		587.72	592.35	599.04	610.26	
Electric services	491	13.94	14.10	14.50	14.59		578.51	589.38	603.20	606.94	
Gas production and distribution	492	13.20	13.31	13.37	13.65		554.40	551.03	553.52	574.67	
Combination utility services	493	16.55	16.60	17.04	17.09		718.27	720.44	710.57	729.74	
Sanitary services	495	10.29	10.39	11.11	11.25		441.44	441.58	469.95	479.25	
Wholesale trade		9.65	9.72	10.01	10.08	\$10.02	369.60	371.30	381.38	385.06	\$380.76
Durable goods	50	9.86	9.92	10.24	10.34		381.58	383.90	395.26	399.12	
Motor vehicles and automotive equipment	501	8.89	8.93	9.25	9.30		340.49	342.02	351.50	353.40	
Furniture and home furnishings	502	8.95	8.93	9.46	9.55		332.94	333.09	354.75	358.13	
Lumber and construction materials	503	9.41	9.43	9.82	9.87		371.70	369.66	388.87	393.81	
Sporting goods, toys, and hobby goods	504	9.74	9.73	9.61	9.60		354.54	355.15	348.84	346.56	
Metals and minerals, except petroleum	505	10.43	10.53	10.60	10.76		425.54	429.62	431.42	435.78	
Electrical goods	506	10.27	10.38	10.66	10.73		392.31	397.55	405.08	408.81	
Hardware, plumbing, and heating equipment	507	9.26	9.36	9.54	9.66		358.36	361.30	370.15	376.74	
Machinery, equipment, and supplies	508	10.53	10.58	10.96	11.11		410.67	412.62	426.34	432.18	
Miscellaneous durable goods	509	7.83	7.89	8.04	8.09		295.19	299.82	307.93	309.85	
Nondurable goods	51	9.35	9.44	9.67	9.70		352.50	354.00	361.66	364.72	
Paper and paper products	511	10.15	10.30	10.64	10.67		377.58	382.13	393.68	394.79	
Drugs, proprietaries, and sundries	512	10.75	11.01	11.10	11.23		404.20	407.37	414.03	416.63	
Apparel, piece goods, and notions	513	9.12	9.15	9.44	9.40		339.26	343.13	349.28	349.68	
Groceries and related products	514	9.52	9.60	9.85	9.87		360.81	365.76	374.30	375.06	
Chemicals and allied products	516	12.08	12.23	12.21	12.30		471.12	474.52	488.40	493.23	
Petroleum and petroleum products	517	9.49	9.56	9.69	9.80		368.21	369.97	371.13	379.26	
Beer, wine, and distilled beverages	518	11.00	11.01	11.17	11.32		392.70	394.16	406.59	408.65	
Miscellaneous nondurable goods	519	7.68	7.69	7.96	8.01		284.93	281.45	289.74	293.17	
Retail trade		6.16	6.18	6.37	6.39	6.44	179.26	179.22	184.73	185.95	185.47
Building materials and garden supplies	52	7.14	7.18	7.50	7.49		262.04	261.35	276.00	274.88	
Lumber and other building materials	521	7.47	7.51	7.87	7.88		289.09	288.38	305.36	304.96	
Hardware stores	525	6.02	6.03	6.28	6.24		198.66	197.78	205.98	204.67	
General merchandise stores	53	6.56	6.50	6.65	6.68		181.71	178.10	184.87	184.37	
Department stores	531	6.88	6.81	6.96	7.00		189.20	183.87	191.40	190.40	
Variety stores	533	4.84	4.82	5.03	5.06		139.88	141.23	144.86	146.23	
Misc. general merchandise stores	539	5.06	5.04	5.38	5.37		150.28	146.16	160.86	158.42	
Food stores	54	6.92	7.04	7.04	7.04		206.91	211.20	212.61	211.20	
Grocery stores	541	7.05	7.19	7.14	7.14		212.91	217.14	217.06	214.91	
Retail bakeries	546	5.69	5.74	6.05	6.08		158.18	157.85	176.66	176.32	
Automotive dealers and service stations	55	7.83	7.82	8.36	8.34		285.80	285.43	303.47	303.58	
New and used car dealers	551,2	9.47	9.44	10.24	10.15		352.28	352.11	378.88	376.57	
Auto and home supply stores	553	6.72	6.81	7.15	7.21		262.75	265.59	276.71	280.47	
Gasoline service stations	554	5.62	5.60	5.83	5.87		192.77	190.96	199.39	200.17	
Apparel and accessory stores	56	5.63	5.62	5.83	5.85		150.32	148.93	157.41	157.95	
Men's and boys' clothing and furnishings	561	6.69	6.64	6.98	7.01		196.02	189.24	199.63	201.19	
Women's ready-to-wear stores	562	5.27	5.25	5.54	5.55		132.80	131.25	139.61	139.86	
Family clothing stores	565	5.49	5.45	5.67	5.69		149.33	147.15	152.52	153.63	
Shoe stores	566	5.74	5.85	5.98	6.04		156.70	160.88	171.63	170.93	
Furniture and home furnishings stores	57	7.55	7.59	7.91	7.95		248.40	250.47	260.24	261.56	
Furniture and home furnishings stores	571	7.66	7.72	8.07	8.12		254.31	256.30	271.15	272.83	
Household appliance stores	572	7.43	7.66	7.87	7.98		251.13	261.21	261.28	268.93	
Radio, television, and music stores	573	7.40	7.35	7.63	7.65		236.80	237.41	241.87	241.74	
Eating and drinking places ⁴	58	4.46	4.48	4.62	4.64		115.07	114.69	118.27	119.25	

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^a	Nov. 1988 ^a	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^a	Nov. 1988 ^a
Retail trade—Continued											
Miscellaneous retail	59	30.2	30.0	29.9	30.0						
Drug stores and proprietary stores	591	28.1	28.2	27.3	27.5						
Miscellaneous shopping goods stores	594	28.5	27.9	28.7	28.6						
Nonstore retailers	596	33.3	33.5	32.6	32.6						
Fuel and ice dealers	598	39.3	39.6	38.3	39.7						
Retail stores, nec	599	32.0	31.7	31.3	31.7						
Finance, insurance, and real estate⁵		36.2	36.3	35.8	36.0	35.6					
Banking	60	36.1	36.3	35.7	35.7						
Commercial and stock savings banks	602	36.1	36.3	35.7	35.6						
Credit agencies other than banks	61	36.4	36.7	36.3	36.7						
Savings and loan associations	612	35.7	36.1	35.7	36.0						
Personal credit institutions	614	36.7	36.4	36.2	36.1						
Insurance carriers	63	37.1	37.3	37.1	37.3						
Life insurance	631	36.8	37.0	36.8	37.1						
Medical service and health insurance	632	37.9	37.8	38.0	37.6						
Fire, marine, and casualty insurance	633	37.0	37.3	36.8	36.9						
Services		32.5	32.5	32.5	32.7	32.4					
Hotels and other lodging places:											
Hotels, motels, and tourist courts ⁴	701	31.1	31.2	31.2	32.0						
Personal services:											
Laundry, cleaning, and garment services	721	34.5	34.1	34.1	34.5						
Beauty shops ⁴	723	29.5	29.5	30.1	30.1						
Business services	73	33.5	33.6	33.5	33.8						
Advertising	731	36.6	36.8	36.7	37.3						
Services to buildings	734	28.7	28.8	29.4	29.8						
Computer and data processing services	737	37.3	37.4	37.7	38.1						
Auto repair, services, and garages	75	36.7	36.4	36.9	37.0						
Automotive repair shops	753	38.4	38.0	38.3	38.0						
Miscellaneous repair services	76	37.9	37.5	38.0	38.0						
Motion pictures	78	29.8	29.0	27.9	28.1						
Motion picture production and services	781	37.5	37.1	35.7	36.0						
Amusement and recreation services	79	28.0	28.2	27.9	27.8						
Health services	80	32.3	32.4	32.4	32.4						
Offices of physicians	801	30.9	31.0	31.1	31.3						
Offices of dentists	802	28.5	28.7	28.4	28.5						
Nursing and personal care facilities	805	31.4	31.7	31.7	31.7						
Hospitals	806	34.0	34.1	34.0	33.9						
Legal services	81	34.5	34.5	34.5	34.8						
Miscellaneous services	89	38.3	38.2	38.0	38.1						
Engineering and architectural services	891	39.6	39.4	39.3	39.2						
Accounting, auditing, and bookkeeping	893	36.8	36.5	36.4	36.6						

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				
		Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Retail trade—Continued											
Miscellaneous retail	59	\$6.38	\$6.36	\$6.64	\$6.65		\$192.68	\$190.80	\$198.54	\$199.50	
Drug stores and proprietary stores	591	5.93	5.94	6.31	6.29		166.63	167.51	172.26	172.98	
Miscellaneous shopping goods stores	594	5.93	5.88	6.23	6.20		169.01	164.05	178.80	177.32	
Nonstore retailers	596	7.16	7.15	7.44	7.45		238.43	239.53	242.54	242.87	
Fuel and ice dealers	598	9.13	9.23	9.13	9.31		358.81	365.51	349.68	369.61	
Retail stores, nec	599	6.58	6.53	6.80	6.85		210.56	207.00	212.84	217.15	
Finance, insurance, and real estate⁵		8.76	8.89	9.14	9.29	\$9.26	317.11	322.71	327.21	334.44	\$329.66
Banking	60	7.56	7.66	7.83	7.94		272.92	278.06	279.53	283.46	
Commercial and stock savings banks	602	7.32	7.41	7.55	7.66		264.25	268.98	269.54	272.70	
Credit agencies other than banks	61	7.98	8.08	8.37	8.51		290.47	296.54	303.83	312.32	
Savings and loan associations	612	7.54	7.63	7.84	8.01		269.18	275.44	279.89	288.36	
Personal credit institutions	614	7.45	7.58	7.81	7.93		273.42	275.91	282.72	286.27	
Insurance carriers	63	9.63	9.74	10.28	10.42		357.27	363.30	381.39	388.67	
Life insurance	631	9.01	9.13	9.75	9.84		331.57	337.81	358.80	365.06	
Medical service and health insurance	632	9.47	9.56	9.92	10.16		358.91	361.37	376.96	382.02	
Fire, marine, and casualty insurance	633	10.11	10.21	10.83	10.97		374.07	380.83	398.54	404.79	
Services		8.61	8.71	8.98	9.07	9.08	279.83	283.08	291.85	296.59	294.19
Hotels and other lodging places:											
Hotels, motels, and tourist courts ⁴	701	6.26	6.35	6.44	6.44		194.69	198.12	200.93	206.08	
Personal services:											
Laundry, cleaning, and garment services	721	6.21	6.22	6.34	6.35		214.25	212.10	216.19	219.08	
Beauty shops ⁴	723	6.38	6.44	6.80	6.76		188.21	189.98	204.68	203.48	
Business services	73	8.81	8.93	9.20	9.24		295.14	300.05	308.20	312.31	
Advertising	731	12.09	12.44	12.56	12.51		442.49	457.79	460.95	466.62	
Services to buildings	734	6.73	6.75	6.86	6.89		193.15	194.40	201.68	205.32	
Computer and data processing services	737	12.42	12.53	12.89	12.99		463.27	468.62	485.95	494.92	
Auto repair, services, and garages	75	7.89	7.94	8.30	8.30		289.56	289.02	306.27	307.10	
Automotive repair shops	753	8.52	8.56	8.95	8.96		327.17	325.28	342.79	340.48	
Miscellaneous repair services	76	9.33	9.36	9.63	9.61		354.54	351.94	365.94	365.18	
Motion pictures	78	12.43	12.62	11.80	12.37		370.41	365.98	329.22	347.60	
Motion picture production and services	781	16.74	16.68	15.67	16.36		627.75	618.83	559.42	588.96	
Amusement and recreation services	79	7.22	7.42	7.39	7.66		202.16	209.24	206.18	212.95	
Health services	80	8.84	8.89	9.37	9.43		285.53	288.04	303.59	305.53	
Offices of physicians	801	8.50	8.59	8.90	9.00		262.65	266.29	276.79	281.70	
Offices of dentists	802	8.53	8.57	8.94	9.04		243.11	245.96	253.90	257.64	
Nursing and personal care facilities	805	6.08	6.09	6.45	6.48		190.91	193.05	204.47	205.42	
Hospitals	806	10.04	10.10	10.69	10.74		341.36	344.41	363.46	364.09	
Legal services	81	12.07	12.38	12.75	13.12		416.42	427.11	439.88	456.58	
Miscellaneous services	89	12.23	12.41	12.73	12.93		468.41	474.06	483.74	492.63	
Engineering and architectural services	891	13.05	13.21	13.41	13.60		516.78	520.47	527.01	533.12	
Accounting, auditing, and bookkeeping	893	10.49	10.70	11.09	11.31		386.03	390.55	403.68	413.95	

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)			
	Sept. 1987	Oct. 1987	Sept. 1988	Oct. 1988 ^p	Sept. 1987	Oct. 1987	Sept. 1988	Oct. 1988 ^p
Average hourly earnings, excluding lump-sum payments	\$13.77	\$13.81	\$14.36	\$14.44	\$13.15	\$13.09	\$13.51	\$13.77
Average hourly earnings, including lump-sum payments	14.43	14.13	14.82		13.46	13.32	13.87	

- Data not available.

^p = preliminary.

**ESTABLISHMENT DATA
EARNINGS
NOT SEASONALLY ADJUSTED**

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

Industry	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ²	Nov. 1988 ²
Manufacturing	\$9.48	\$9.54	\$9.75	\$9.76	\$9.81
Durable goods	9.99	10.04	10.25	10.26	10.30
Lumber and wood products	8.04	8.09	8.28	8.35	(3)
Furniture and fixtures	7.41	7.43	7.75	7.74	(3)
Stone, clay, and glass products	9.63	9.72	9.92	9.93	(3)
Primary metal industries	11.30	11.34	11.48	11.44	(3)
Fabricated metal products	9.57	9.60	9.80	9.81	(3)
Machinery, except electrical	10.27	10.28	10.48	10.52	(3)
Electrical and electronic equipment	9.55	9.58	9.77	9.75	(3)
Transportation equipment	12.41	12.51	12.75	12.75	(3)
Instruments and related products	9.41	9.44	9.60	9.67	(3)
Miscellaneous manufacturing	7.48	7.51	7.72	7.79	(3)
Nondurable goods	8.78	8.84	9.04	9.05	\$9.10
Food and kindred products	8.43	8.52	8.59	8.55	(3)
Tobacco manufactures	12.65	13.17	13.56	13.55	(3)
Textile mill products	6.87	6.91	7.07	7.08	(3)
Apparel and other textile products	5.81	5.83	6.03	6.04	(3)
Paper and allied products	10.78	10.82	11.00	10.99	(3)
Printing and publishing	9.96	9.96	10.22	10.24	(3)
Chemicals and allied products	11.92	11.97	12.13	12.17	(3)
Petroleum and coal products	13.81	13.94	14.16	14.30	(3)
Rubber and misc. plastics products	8.49	8.54	8.72	8.74	(3)
Leather and leather products	5.92	5.96	6.13	6.17	(3)

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

² Not available.

³ = 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				
	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p	Oct. 1987	Nov. 1987	Sept. 1988	Oct. 1988 ^p	Nov. 1988 ^p
Total private:										
Current dollars	\$9.08	\$9.13	\$9.40	\$9.45	\$9.45	\$316.89	\$317.72	\$327.12	\$329.81	\$327.92
Constant (1977) dollars	4.85	4.87	4.83	4.84	(²)	169.19	169.45	168.10	168.96	(²)
Mining:										
Current dollars	12.42	12.54	12.75	12.73	\$12.70	532.82	534.20	538.05	543.57	\$535.94
Constant (1977) dollars	6.63	6.69	6.55	6.52	(²)	284.47	284.91	276.49	278.47	(²)
Construction:										
Current dollars	12.82	12.83	13.13	13.14	\$13.07	497.42	475.99	504.19	512.46	\$491.43
Constant (1977) dollars	6.84	6.84	6.75	6.73	(²)	265.57	253.86	259.09	262.53	(²)
Manufacturing:										
Current dollars	9.95	10.01	10.25	10.24	\$10.30	410.94	414.41	423.33	422.91	\$427.45
Constant (1977) dollars	5.31	5.34	5.27	5.25	(²)	219.40	221.02	217.54	216.65	(²)
Transportation and public utilities:										
Current dollars	12.12	12.21	12.41	12.41	\$12.47	477.53	479.85	490.20	492.68	\$491.32
Constant (1977) dollars	6.47	6.51	6.38	6.36	(²)	254.95	255.92	251.90	252.40	(²)
Wholesale trade:										
Current dollars	9.65	9.72	10.01	10.08	\$10.02	369.60	371.30	381.38	385.06	\$380.76
Constant (1977) dollars	5.15	5.18	5.14	5.16	(²)	197.33	198.03	195.98	197.26	(²)
Retail trade:										
Current dollars	6.16	6.18	6.37	6.39	\$6.44	179.26	179.22	184.73	185.95	\$185.47
Constant (1977) dollars	3.29	3.30	3.27	3.27	(²)	95.71	95.58	94.93	95.26	(²)
Finance, insurance, and real estate:										
Current dollars	8.76	8.89	9.14	9.29	\$9.26	317.11	322.71	327.21	334.44	\$329.66
Constant (1977) dollars	4.68	4.74	4.70	4.76	(²)	169.31	172.11	168.14	171.33	(²)
Services:										
Current dollars	8.61	8.71	8.98	9.07	\$9.08	279.83	283.08	291.85	296.59	\$294.19
Constant (1977) dollars	4.60	4.65	4.61	4.65	(²)	149.40	150.98	149.97	151.94	(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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
Total private	34.8	34.6	34.7	34.8	34.6	34.9	34.7	34.7	34.9	34.6	34.7	34.9	34.7
Mining	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Construction	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Manufacturing	41.2	41.0	41.1	41.0	40.9	41.2	41.0	41.1	41.1	41.0	41.2	41.2	41.2
<i>Overtime hours</i>	3.9	3.8	3.9	3.7	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.0	4.0
Durable goods	41.8	41.5	41.6	41.5	41.5	42.0	41.8	41.8	41.8	41.6	41.9	41.9	41.9
<i>Overtime hours</i>	4.0	3.9	4.0	3.8	3.8	4.2	4.2	4.1	4.0	4.1	4.0	4.2	4.2
Lumber and wood products	40.7	40.4	40.2	40.3	40.1	40.6	40.1	40.2	40.5	40.0	39.9	40.7	40.5
Furniture and fixtures	40.2	39.8	39.6	39.5	39.3	39.5	39.5	39.4	39.7	39.0	39.6	39.4	39.4
Stone, clay, and glass products	42.4	42.5	42.0	42.3	42.3	42.5	42.3	42.4	42.1	42.1	42.3	42.4	42.7
Primary metal industries	43.5	43.4	43.4	43.1	43.3	43.5	43.6	43.6	43.4	43.5	44.0	43.8	43.7
Blast furnaces and basic steel products ..	43.8	44.0	44.0	43.8	43.7	43.8	43.9	44.3	44.0	44.0	44.6	44.2	44.3
Fabricated metal products	42.1	41.7	41.8	41.6	41.6	42.0	41.9	42.0	41.7	41.8	42.0	41.8	42.0
Machinery, except electrical	42.7	42.6	42.7	42.6	42.5	42.8	42.6	42.5	43.0	42.4	42.7	42.6	42.5
Electrical and electronic equipment	41.0	40.9	41.1	40.9	40.9	41.2	41.0	41.1	41.0	40.8	41.0	40.9	41.0
Transportation equipment	42.3	41.5	42.0	42.0	42.1	43.0	43.0	43.0	42.6	42.7	43.3	43.3	43.0
Motor vehicles and equipment	42.9	41.4	42.1	42.3	42.3	44.1	44.0	44.2	42.5	43.6	44.5	44.2	44.2
Instruments and related products	41.4	41.2	41.8	41.3	41.4	41.8	41.4	41.3	41.8	41.5	41.6	42.1	42.1
Miscellaneous manufacturing	39.2	39.2	39.1	39.3	39.2	39.4	39.2	39.3	39.2	39.2	39.2	39.1	39.4
Nondurable goods	40.3	40.3	40.3	40.2	40.1	40.3	40.0	40.1	40.2	40.1	40.2	40.2	40.2
<i>Overtime hours</i>	3.7	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.8	3.7
Food and kindred products	40.4	40.5	40.6	40.3	40.1	40.1	40.1	40.3	40.5	40.4	40.3	40.5	40.8
Tobacco manufactures	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Textile mill products	41.6	41.5	41.5	41.6	41.2	41.6	40.8	40.7	41.1	41.1	41.1	41.0	40.9
Apparel and other textile products	37.1	37.1	36.8	37.0	37.0	37.4	36.8	36.9	36.9	36.8	37.1	36.9	36.9
Paper and allied products	43.5	43.3	43.4	43.3	43.2	43.3	43.3	43.2	43.2	43.2	43.3	43.2	43.2
Printing and publishing	38.0	38.0	38.1	38.1	38.1	38.2	37.7	38.0	38.0	38.0	38.1	37.9	37.8
Chemicals and allied products	42.5	42.5	42.5	42.4	42.5	42.1	42.0	42.4	42.3	42.1	42.1	42.5	42.4
Petroleum and coal products	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Rubber and misc. plastics products	41.8	41.6	41.7	41.6	41.7	42.0	41.7	41.6	41.6	41.5	41.6	41.6	41.7
Leather and leather products	38.3	38.0	38.0	37.8	37.9	37.3	37.3	36.9	37.0	37.6	37.5	37.9	37.7
Transportation and public utilities	39.2	39.1	39.5	39.1	38.8	39.5	39.4	39.3	39.5	39.3	39.4	39.6	39.3
Wholesale trade	38.2	38.0	38.1	38.2	38.1	38.3	38.0	37.9	38.2	37.8	38.1	38.1	38.0
Retail trade	29.2	28.8	29.0	29.1	29.0	29.2	29.0	29.1	29.3	29.0	28.9	29.2	29.0
Finance, insurance, and real estate	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Services	32.6	32.5	32.6	32.7	32.4	32.7	32.5	32.5	32.7	32.4	32.6	32.8	32.5

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

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^P	Nov. ^P
Total private	122.8	122.5	123.0	123.9	123.6	125.1	124.4	125.4	126.4	125.5	126.0	127.1	127.0
Goods-producing	101.2	101.3	100.5	101.1	101.6	102.7	102.1	103.2	103.3	102.8	103.1	103.9	104.5
Mining	84.1	84.0	81.7	82.5	83.2	85.9	84.4	85.0	85.6	83.5	82.8	83.5	81.3
Construction	136.4	137.7	132.1	136.0	139.1	141.1	139.3	144.0	142.4	142.5	143.4	145.2	147.2
Manufacturing	95.1	95.0	95.2	95.2	95.2	96.1	95.7	96.1	96.5	96.0	96.3	96.9	97.4
Durable goods	92.9	92.5	92.7	92.7	92.7	94.0	93.9	94.3	94.8	94.2	94.6	95.2	95.7
Lumber and wood products	103.9	103.7	103.0	103.6	103.1	104.7	103.2	103.8	103.9	102.3	101.7	104.8	105.2
Furniture and fixtures	114.6	114.0	113.7	113.2	112.3	113.2	113.7	113.4	115.1	112.0	114.2	114.5	114.2
Stone, clay, and glass products	87.3	88.3	86.5	87.3	87.5	88.3	87.5	88.1	88.0	87.5	87.5	88.3	89.3
Primary metal industries	66.8	66.6	66.5	66.4	66.9	67.6	68.1	68.6	69.0	68.7	69.7	70.1	70.4
Blast furnaces and basic steel products	54.1	54.1	53.9	53.9	54.1	54.8	54.6	55.4	55.3	54.8	55.0	55.0	55.6
Fabricated metal products	91.2	90.7	90.9	90.8	90.8	91.8	92.1	92.8	92.7	92.6	93.1	93.3	94.1
Machinery, except electrical	89.0	89.3	90.0	90.2	90.4	91.5	91.6	91.6	93.7	92.6	93.2	93.7	94.3
Electrical and electronic equipment	101.5	101.8	102.2	101.8	101.9	102.8	102.3	103.0	103.1	102.8	103.1	103.1	103.9
Transportation equipment	99.1	97.1	97.5	97.3	96.8	100.0	100.2	100.0	99.7	99.9	100.2	100.6	101.0
Motor vehicles and equipment	88.7	84.6	84.7	85.7	84.8	89.8	89.9	90.3	88.2	90.9	91.4	91.8	91.8
Instruments and related products	104.4	103.9	106.0	105.0	105.2	106.5	106.1	106.6	108.2	107.7	107.9	110.1	110.3
Miscellaneous manufacturing	83.6	83.6	83.4	84.8	84.5	85.0	83.9	84.5	85.1	84.2	84.2	83.1	83.8
Nondurable goods	98.5	98.7	99.0	99.0	98.8	99.1	98.4	98.9	99.1	98.7	98.7	99.4	99.8
Food and kindred products	100.9	101.3	102.2	101.7	100.9	101.0	100.5	101.4	100.6	100.2	100.1	102.5	103.7
Tobacco manufactures	73.8	76.4	77.2	75.8	74.8	73.8	71.0	71.4	73.7	72.0	69.1	69.6	70.9
Textile mill products	82.7	82.5	82.5	82.7	81.7	82.2	80.6	80.2	81.2	79.9	80.4	80.2	80.2
Apparel and other textile products	86.1	85.9	85.1	85.5	85.7	86.2	84.7	84.8	84.7	83.9	84.5	84.0	84.3
Paper and allied products	101.4	101.2	101.6	101.5	101.3	101.4	101.5	101.7	101.9	101.9	101.4	101.3	102.1
Printing and publishing	133.4	133.7	134.9	135.5	136.0	136.5	134.9	136.4	136.6	137.0	137.5	137.3	136.8
Chemicals and allied products	96.7	97.4	97.4	97.1	97.9	97.1	97.4	98.8	98.7	98.7	98.4	99.8	99.9
Petroleum and coal products	85.3	86.3	86.3	84.5	83.5	84.9	85.3	86.8	86.6	86.6	86.1	88.3	87.6
Rubber and misc. plastics products	119.6	120.1	120.9	121.0	121.8	122.9	123.1	123.4	124.8	124.2	123.9	124.8	125.8
Leather and leather products	57.5	57.0	57.5	57.2	56.9	55.5	55.5	54.9	55.5	56.0	55.8	55.9	55.6
Service-producing	134.7	134.2	135.5	136.4	135.8	137.4	136.8	137.8	139.1	138.1	138.7	139.9	139.4
Transportation and public utilities	111.0	111.0	112.6	111.8	111.2	113.5	113.5	113.8	114.7	114.5	114.6	115.3	115.3
Wholesale trade	121.3	121.3	122.2	123.1	123.6	124.8	124.4	124.9	126.3	125.4	126.9	127.3	127.6
Retail trade	123.8	122.2	124.0	125.2	124.8	126.0	125.1	126.2	127.3	126.2	125.7	127.2	126.2
Finance, insurance, and real estate	141.3	139.6	141.3	141.6	139.6	141.1	140.1	140.1	142.1	140.0	140.6	141.3	140.3
Services	155.3	155.6	156.5	158.0	157.2	159.0	158.3	160.0	161.5	160.7	162.0	163.4	163.0

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										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^p	Nov. ^p
Hourly Earnings Index ² (1977=100)													
Total private (in current dollars)	175.6	175.7	176.6	176.7	177.0	178.0	178.7	178.6	179.3	179.5	180.3	181.5	181.5
Mining	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)
Construction	156.5	155.4	157.6	156.8	157.5	157.8	157.5	157.8	158.8	158.6	159.3	159.2	160.7
Manufacturing	176.4	176.6	176.8	177.0	177.3	177.9	178.4	178.8	178.8	179.3	180.0	180.5	180.8
Transportation and public utilities	177.6	178.2	178.3	179.1	179.4	180.6	181.6	181.0	181.5	181.9	182.0	182.9	182.5
Wholesale trade	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)
Retail trade	162.4	162.7	163.4	163.4	163.8	164.8	165.4	165.7	166.8	166.7	167.1	168.6	168.2
Finance, insurance, and real estate	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)
Services	184.9	185.2	186.5	186.3	186.9	188.3	189.9	189.4	190.8	190.9	191.9	194.1	193.2
Total private (in constant dollars) ⁴	93.8	93.7	93.8	93.7	93.5	93.6	93.6	93.2	93.2	92.9	93.0	93.1	(^q)
Average hourly earnings													
Total private	\$9.10	\$9.11	\$9.14	\$9.13	\$9.16	\$9.23	\$9.27	\$9.27	\$9.32	\$9.32	\$9.37	\$9.43	\$9.42
Mining	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)	(^q)
Construction	\$12.81	\$12.74	\$12.91	\$12.82	\$12.90	\$12.93	\$12.91	\$12.93	\$13.03	\$12.99	\$13.04	\$13.04	\$13.04
Manufacturing	10.00	10.01	10.02	10.03	10.05	10.11	10.15	10.18	10.17	10.20	10.26	10.28	10.29
Transportation and public utilities	12.13	12.16	12.14	12.19	12.21	12.29	12.35	12.33	12.37	12.39	12.37	12.41	12.38
Wholesale trade	9.71	9.69	9.75	9.72	9.76	9.88	9.88	9.86	9.97	9.93	10.01	10.13	10.01
Retail trade	6.17	6.19	6.20	6.20	6.22	6.25	6.28	6.29	6.33	6.32	6.34	6.38	6.43
Finance, insurance, and real estate	8.89	8.84	8.92	8.91	8.90	8.99	9.08	9.00	9.10	9.09	9.18	9.36	9.25
Services	8.65	8.67	8.72	8.72	8.75	8.81	8.88	8.86	8.92	8.93	8.99	9.06	9.02
Average weekly earnings													
Total private:													
In current dollars	316.68	315.21	317.16	317.72	316.94	322.13	321.67	321.67	325.27	322.47	325.14	329.11	326.87
In constant (1977) dollars ⁴	169.08	168.02	168.43	168.46	167.43	169.36	168.41	167.89	169.06	166.82	167.68	168.86	(^q)

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
Alabama	41.8	41.6	41.6	\$8.77	\$9.09	\$9.08	\$366.59	\$378.14	\$377.73
Birmingham	40.9	41.6	41.8	9.00	9.17	9.10	368.10	381.47	380.38
Mobile	41.2	40.6	40.8	10.07	10.69	10.49	414.88	434.01	427.99
Alaska	39.2	38.3	43.7	12.92	12.48	12.96	506.46	477.98	566.35
Arizona	40.6	41.1	40.7	9.99	9.96	9.91	405.59	409.36	403.34
Arkansas	41.3	41.6	41.4	7.87	8.06	8.11	325.03	335.30	335.75
Fayetteville-Springdale	42.5	43.1	42.4	7.17	7.18	7.24	304.73	309.46	306.98
Fort Smith	40.0	40.8	40.8	8.59	8.64	8.71	343.60	352.51	355.37
Little Rock-North Little Rock	41.6	41.2	41.6	8.50	8.54	8.53	353.60	351.85	354.85
Pine Bluff	43.1	42.7	43.1	10.41	10.54	10.56	448.67	450.06	455.14
California	40.6	(¹)	(¹)	10.77	(¹)	(¹)	437.26	(¹)	(¹)
Colorado	40.2	40.0	40.6	10.07	10.51	10.13	404.81	420.40	411.28
Denver	40.4	40.0	39.7	10.42	11.20	10.65	420.97	448.00	422.81
Connecticut	42.1	42.0	41.8	10.58	10.73	10.78	445.42	450.66	450.60
Bridgeport-Milford	41.9	41.8	41.3	10.99	11.20	11.21	460.48	468.16	462.97
Hartford	41.9	42.6	42.3	10.69	11.45	11.46	447.91	487.77	484.76
New Haven-Meriden	40.2	41.6	41.8	10.14	10.30	10.35	407.63	428.48	432.63
Stamford	40.3	39.2	39.3	11.41	12.19	12.16	459.82	477.85	477.89
Waterbury	42.9	44.2	43.8	9.05	10.00	10.02	388.25	442.00	438.88
Delaware	40.1	39.9	39.6	11.35	10.32	10.84	455.14	411.77	429.26
Wilmington	41.3	41.0	40.6	12.97	13.20	13.54	535.66	541.20	549.72
District of Columbia:									
Washington MSA	39.1	39.9	39.9	10.88	11.42	11.40	425.41	455.66	454.86
Florida	40.4	40.6	40.9	8.17	8.54	8.58	330.07	346.72	350.92
Fort Lauderdale-Hollywood-Pompano Beach	41.3	41.5	40.3	8.09	8.51	8.51	334.12	353.17	342.95
Jacksonville	41.4	41.3	40.8	8.76	9.14	9.14	362.66	377.48	372.91
Miami-Hialeah	38.2	39.3	39.3	7.08	7.38	7.40	270.46	290.03	290.82
Orlando	39.7	39.9	40.1	8.75	9.01	8.99	347.38	359.50	360.50
Pensacola	41.5	42.2	42.1	10.41	10.86	10.73	432.02	458.29	451.73
Tampa-St. Petersburg-Clearwater	39.9	40.1	41.4	7.64	8.34	8.41	304.84	334.43	348.17
West Palm Beach-Boca Raton-Delray Beach	40.4	40.4	40.2	9.08	9.14	9.45	366.83	369.26	379.89
Georgia	42.5	41.3	41.4	8.57	8.66	8.67	364.23	357.66	358.94
Atlanta	42.2	41.4	41.0	10.13	10.13	10.14	427.49	419.38	415.74
Savannah	45.9	47.3	48.5	10.98	11.32	11.45	503.98	535.44	555.33
Hawaii	40.2	39.8	40.3	9.47	9.80	9.91	380.69	390.04	399.37
Honolulu	39.4	39.5	39.9	9.68	9.96	10.15	381.39	393.42	404.99
Idaho	38.1	36.1	37.7	9.68	10.07	9.97	368.81	363.53	375.87
Illinois	41.7	41.6	41.2	10.84	11.10	11.08	452.03	461.76	456.50
Aurora-Elgin	42.9	42.8	42.9	10.76	10.78	10.79	461.60	461.38	462.89
Bloomington-Normal	41.6	38.7	39.0	10.98	11.28	11.46	456.77	436.54	446.94
Champaign-Urbana-Rantoul	40.0	40.4	39.3	9.11	9.33	9.23	364.40	376.93	362.74
Chicago	42.4	42.4	42.0	10.63	10.82	10.79	450.71	458.77	453.18
Davenport-Rock Island-Moline	40.4	39.4	38.8	12.68	12.80	12.91	512.27	504.32	500.91
Decatur	41.9	42.7	42.6	14.13	14.30	14.46	592.05	610.61	616.00
Joliet	41.4	40.9	41.7	11.79	11.96	12.02	488.11	469.16	501.23
Lake County	40.7	41.0	41.0	11.16	11.65	11.67	454.21	477.65	478.47
Peoria	46.0	46.6	47.5	13.27	13.43	13.55	610.42	625.84	643.63
Rockford	41.5	43.0	42.3	11.32	11.39	11.36	469.78	489.77	480.53
Springfield	43.1	43.5	43.5	12.06	12.14	12.14	519.79	528.09	528.09
Indiana	42.3	42.3	42.1	11.10	11.48	11.47	469.53	485.60	482.89

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a	Oct. 1987	Sept. 1988	Oct. 1988 ^a
Pennsylvania	41.0	41.4	41.3	\$10.06	\$10.38	\$10.38	\$412.46	\$429.73	\$428.69
Allentown-Bethlehem	40.1	40.4	40.3	10.51	10.45	10.41	421.45	422.18	419.52
Altoona	38.9	40.6	40.9	8.51	8.94	8.79	331.04	362.96	359.51
Beaver County	41.5	42.3	40.6	11.18	10.91	10.85	463.97	461.49	440.51
Erie	42.1	43.4	43.4	10.31	10.54	10.64	434.05	457.44	461.78
Harrisburg-Lebanon-Carlisle	39.8	40.3	40.0	9.30	9.79	9.76	370.14	394.54	390.40
Johnstown	39.6	39.4	39.3	8.38	8.45	8.36	331.85	332.93	328.55
Lancaster	40.5	41.3	41.0	9.74	10.21	10.28	394.47	421.67	421.48
Philadelphia PMSA	40.4	40.6	40.7	10.99	11.41	11.40	444.00	463.25	463.98
Pittsburgh	42.3	42.9	42.7	11.28	11.42	11.35	477.14	489.92	484.65
Reading	42.0	41.5	41.0	10.36	10.92	10.91	435.12	453.18	447.31
Scranton-Wilkes-Barre	38.9	39.7	39.4	8.80	9.06	9.04	342.32	359.68	356.18
Williamsport	42.2	41.4	41.0	8.46	9.11	9.11	357.01	377.15	373.51
York	42.5	42.8	42.5	9.47	9.96	9.84	402.48	426.29	418.20
Rhode Island	40.0	39.7	39.6	8.31	8.55	8.59	332.40	339.44	340.16
Pawtucket-Woonsocket-Attleboro	40.3	39.7	39.3	7.82	8.16	8.16	315.15	323.95	320.69
Providence	40.0	39.6	39.6	8.30	8.47	8.52	332.00	335.41	337.39
South Carolina	41.8	41.7	41.4	8.13	8.38	8.36	339.83	349.45	346.10
Charleston	41.7	41.4	41.3	9.05	9.23	9.20	377.38	382.12	379.96
Columbia	40.9	41.5	41.3	7.97	8.49	8.48	325.97	352.34	350.22
Greenville-Spartanburg	41.5	41.8	41.3	8.04	8.29	8.28	333.66	346.52	341.96
South Dakota	41.4	42.9	41.2	7.87	8.08	8.09	325.82	346.63	333.31
Sioux Falls	44.2	44.4	43.7	7.80	8.16	8.22	344.76	362.30	359.21
Tennessee	41.9	41.5	41.3	8.84	8.95	9.00	370.40	371.43	371.70
Chattanooga	43.1	42.4	42.4	7.88	8.32	8.19	339.63	352.77	347.26
Johnson City-Kingsport-Bristol	42.9	43.5	43.6	9.21	9.48	9.35	395.11	412.36	407.66
Knoxville	40.5	40.3	40.4	9.25	8.88	8.86	374.63	357.86	357.94
Memphis	42.2	43.1	42.3	8.78	8.94	9.01	370.52	385.31	381.12
Nashville	42.5	41.4	41.9	10.45	10.35	10.31	444.13	428.49	431.99
Texas	42.0	41.7	41.9	9.85	10.00	9.99	413.70	417.00	418.58
Dallas	41.6	41.9	41.6	9.77	9.95	9.96	406.43	416.91	414.34
Ft. Worth-Arlington	41.0	42.1	42.3	10.08	10.78	10.92	413.28	453.84	461.92
Houston	43.9	42.6	43.6	11.17	11.38	11.33	490.36	484.79	493.99
San Antonio	39.1	39.1	40.1	7.53	7.57	7.57	294.42	295.99	303.56
Utah	39.7	41.0	40.8	10.00	10.07	10.21	397.00	412.87	416.57
Salt Lake City-Ogden	40.0	41.1	40.5	9.99	9.93	9.99	399.60	408.12	404.60
Vermont	40.6	42.2	42.3	9.26	9.70	9.75	375.96	409.34	412.43
Burlington	40.2	41.3	42.2	10.25	10.40	10.47	412.05	429.52	441.83
Virginia	41.5	41.5	41.4	9.22	9.40	9.39	382.63	390.10	388.75
Bristol	41.7	43.2	44.4	7.83	7.69	7.57	326.51	332.21	336.11
Charlottesville	42.8	41.2	42.2	7.51	7.83	7.75	321.43	322.60	327.05
Danville	42.1	41.6	41.0	8.37	8.51	8.47	352.38	354.02	347.27
Lynchburg	41.7	41.9	41.8	8.77	8.82	8.83	365.71	369.56	369.09
Northern Virginia	40.1	40.0	40.0	10.20	10.76	10.82	409.02	430.40	432.80
Richmond-Petersburg	41.6	43.1	43.0	11.84	12.01	11.74	492.54	517.63	504.82
Roanoke	41.9	42.6	41.5	8.86	9.44	9.32	371.23	402.14	386.78
Washington	39.9	39.8	40.2	11.59	11.78	11.77	462.44	468.84	473.15

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
West Virginia	41.1	41.2	41.3	\$10.57	\$10.98	\$11.05	\$434.43	\$452.38	\$456.37
Charleston	43.7	44.1	44.4	13.45	13.67	13.96	587.77	602.85	619.82
Huntington-Ashland	40.4	40.4	40.4	12.14	12.22	12.37	490.46	493.69	499.75
Parkersburg-Marietta	42.1	41.6	40.4	11.81	12.74	12.76	497.20	529.98	515.50
Wheeling	43.1	40.5	39.0	12.75	12.09	12.20	549.53	489.65	475.80
Wisconsin	42.0	41.9	42.0	10.60	10.60	10.66	445.20	444.14	447.72
Appleton-Oshkosh	42.8	43.3	42.7	10.92	11.27	11.22	467.38	487.99	479.09
Eau Claire	41.0	41.3	39.8	10.84	10.61	10.49	444.44	438.19	417.50
Green Bay	42.2	42.8	42.0	11.20	11.53	11.48	472.64	493.48	482.16
Janesville-Beloit	40.3	40.1	43.4	11.96	12.34	13.20	481.99	494.83	572.88
Kenosha	41.6	40.0	40.8	12.73	12.60	12.78	529.57	504.00	521.42
La Crosse	40.6	40.8	39.6	9.09	8.90	8.95	369.05	363.12	354.42
Madison	41.2	44.3	42.0	9.77	9.86	9.76	402.52	436.80	409.92
Milwaukee	42.1	42.2	41.9	11.73	11.58	11.54	493.83	488.68	483.53
Racine	41.1	39.8	40.2	11.16	10.85	10.92	458.68	431.83	438.98
Wausau	43.3	43.0	42.9	10.10	10.04	9.98	437.33	431.72	428.14
Wyoming	39.8	38.3	43.1	9.80	10.06	10.16	390.04	385.30	437.90
Puerto Rico	39.1	39.1	39.2	5.43	5.59	5.60	212.31	218.57	219.52
Virgin Islands	41.3	41.2	40.9	9.35	9.65	9.88	386.15	397.58	404.09

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.

**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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
New Jersey	41.4	41.0	41.1	\$10.52	\$10.89	\$10.90	\$435.53	\$448.49	\$447.99
New Mexico	40.1	39.8	39.9	8.85	8.74	8.65	354.89	347.85	345.14
Albuquerque	41.1	39.0	39.8	9.09	9.62	9.54	373.60	375.18	379.69
New York	39.9	40.0	40.0	10.15	10.52	10.52	404.99	420.80	420.80
Albany-Schenectady-Troy	40.3	40.8	41.6	10.60	11.11	11.20	427.18	453.29	465.92
Binghamton	40.6	40.5	40.9	9.27	9.90	9.76	376.36	400.95	399.18
Buffalo	42.0	43.6	43.7	11.93	12.29	12.25	501.06	535.84	535.33
Elmira	40.9	41.8	41.2	9.60	9.59	9.68	392.64	400.86	398.82
Nassau-Suffolk	39.6	39.9	40.0	10.84	11.29	11.37	429.26	450.47	454.80
New York PMSA	37.2	36.7	37.3	9.70	9.91	9.92	360.84	363.70	370.02
New York City	36.8	36.5	37.0	9.52	9.68	9.70	350.34	353.32	358.90
Niagara Falls	40.7	42.2	42.2	13.32	13.54	13.77	542.12	571.39	581.09
Orange County	38.1	38.6	37.7	8.08	8.35	8.49	307.85	322.31	320.07
Poughkeepsie	40.2	41.6	41.1	9.71	10.06	10.12	390.34	418.50	415.93
Rochester	42.5	43.9	43.8	12.00	12.42	12.26	510.00	545.24	536.99
Rockland County	38.2	34.9	35.2	10.31	10.93	10.87	393.84	381.46	382.62
Syracuse	42.2	42.1	41.7	11.33	12.16	12.14	478.13	511.94	506.24
Utica-Rome	41.9	42.2	41.5	9.37	9.76	9.67	392.60	411.87	401.31
Westchester County	40.2	39.5	40.2	10.90	11.37	11.34	438.18	449.12	455.87
North Carolina	41.6	40.8	40.8	7.86	8.18	8.20	326.98	333.74	334.56
Asheville	42.5	41.3	41.8	7.96	8.28	8.32	338.30	341.96	347.78
Charlotte-Gastonia-Rock Hill	42.4	40.8	40.8	8.17	8.58	8.54	346.41	350.06	348.43
Greensboro-Winston-Salem-High Point	41.1	40.1	40.2	8.62	8.91	8.97	354.28	357.29	360.59
Raleigh-Durham	42.1	42.1	41.3	8.98	9.29	9.14	378.06	391.11	377.48
North Dakota	38.8	38.7	39.6	8.44	8.40	8.37	327.47	325.08	331.45
Fargo-Moorhead	39.3	41.1	40.5	8.66	8.50	8.60	340.34	349.35	348.30
Ohio	42.9	43.3	43.3	11.76	12.05	12.08	504.50	521.77	523.06
Akron	43.2	43.2	42.9	11.29	11.34	11.43	487.73	489.89	490.35
Canton	41.8	42.6	43.0	11.40	11.44	11.50	476.52	487.34	494.50
Cincinnati	43.0	43.0	43.1	10.87	11.25	11.29	467.41	483.75	486.60
Cleveland	43.3	43.2	43.4	11.59	11.91	11.93	501.85	514.51	517.76
Columbus	42.3	41.4	41.7	11.44	11.63	11.65	483.91	481.48	485.81
Dayton-Springfield	42.6	43.6	44.1	11.91	12.67	12.90	507.37	552.41	568.89
Toledo	42.1	44.6	44.4	12.75	13.15	12.84	536.78	586.49	570.10
Youngstown-Warren	42.8	43.4	43.1	13.24	13.59	13.63	566.67	589.81	587.45
Oklahoma	40.7	41.0	41.5	10.11	10.45	10.57	411.48	428.45	438.66
Oklahoma City	40.0	42.0	43.0	11.07	11.61	11.87	442.80	487.62	510.41
Tulsa	41.6	41.8	42.1	10.67	10.78	10.69	443.87	450.60	450.05
Oregon	38.8	39.6	40.4	10.45	10.54	10.68	405.46	417.38	431.47
Eugene-Springfield	37.8	37.7	39.9	10.63	10.50	10.70	401.81	395.85	426.93
Portland	39.4	39.9	40.3	10.76	10.94	10.83	423.94	436.51	436.45
Salem	37.7	37.1	39.8	8.73	8.08	8.31	329.12	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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Iowa	42.2	41.8	41.8	\$10.61	\$10.67	\$10.59	\$447.74	\$446.01	\$442.66
Cedar Rapids	41.0	41.4	41.4	11.87	12.35	12.33	486.67	511.29	510.46
Des Moines	42.4	41.1	41.9	11.85	11.59	11.59	502.44	476.35	485.62
Dubuque	43.5	42.1	43.2	12.10	11.62	11.88	526.35	489.20	513.22
Sioux City	42.5	32.0	32.2	8.46	8.85	8.14	359.55	283.20	262.11
Kansas	41.0	41.1	41.2	9.98	10.34	10.37	409.18	424.97	427.24
Topeka	42.7	41.9	41.4	11.99	11.92	11.55	511.97	499.45	478.17
Wichita	40.7	40.9	41.9	10.76	10.78	10.95	437.93	440.90	458.81
Kentucky	41.3	40.6	40.3	10.14	10.23	10.19	418.78	415.34	410.66
Lexington-Fayette	40.4	39.3	39.2	10.44	10.24	10.32	421.78	402.43	404.54
Louisville	42.8	41.8	41.6	11.55	11.73	11.65	494.34	490.31	484.64
Louisiana	42.3	42.4	42.6	10.84	11.05	11.00	458.53	468.52	468.60
Baton Rouge	44.1	42.7	42.0	12.28	13.15	12.88	541.55	561.51	540.96
New Orleans	40.3	40.5	41.6	10.70	10.75	10.72	431.21	435.38	445.95
Shreveport	40.8	41.7	41.2	11.42	11.47	11.68	465.94	478.30	481.22
Maine	42.1	40.8	40.3	8.78	9.16	9.19	369.64	373.73	370.36
Lewiston-Auburn	39.9	39.1	39.5	7.43	8.23	8.26	296.46	321.79	326.27
Portland	42.0	42.1	41.9	9.18	9.48	9.43	385.56	399.11	395.12
Maryland	41.2	41.3	41.3	10.17	10.51	10.51	419.00	434.06	434.06
Baltimore MSA	42.2	42.5	41.8	11.07	11.31	11.22	467.15	480.68	469.00
Massachusetts	41.1	41.6	41.0	10.00	10.38	10.46	411.00	431.81	428.86
Boston	40.9	41.5	41.3	10.81	11.08	11.10	442.13	459.82	458.43
Springfield	41.9	42.9	42.7	9.39	9.84	9.88	393.44	422.14	421.88
Worcester	40.7	40.9	40.8	10.10	10.61	10.64	411.07	433.95	434.11
Michigan	42.7	43.9	43.5	13.01	13.45	13.37	555.53	590.45	581.59
Ann Arbor	45.5	46.8	46.9	14.10	14.62	14.58	641.55	684.22	683.80
Battle Creek	43.1	42.9	44.2	13.47	14.93	14.84	580.56	640.50	655.93
Detroit	43.6	45.0	44.3	14.05	14.50	14.37	612.58	652.50	636.59
Flint	40.9	44.6	45.0	15.60	16.86	16.86	638.04	751.96	758.70
Grand Rapids	41.0	42.1	41.1	11.16	11.43	11.62	457.56	481.20	477.58
Kalamazoo	43.9	42.8	42.9	12.59	12.85	12.59	552.70	549.98	540.11
Lansing-East Lansing	41.9	43.9	42.8	13.44	14.74	14.32	563.14	647.09	612.90
Muskegon	41.6	41.0	40.7	11.78	12.03	11.97	490.05	493.23	487.18
Saginaw-Bay City-Midland	43.1	44.2	43.5	14.38	15.34	15.06	619.78	678.03	655.11
Minnesota	41.3	41.3	41.0	10.42	10.62	10.65	430.35	438.61	436.65
Duluth	38.8	38.9	38.9	10.83	11.02	11.11	420.20	428.68	432.18
Minneapolis-St. Paul	41.2	41.5	40.8	11.17	11.29	11.34	460.20	468.54	462.67
St. Cloud	39.2	39.2	38.2	9.65	10.18	9.98	378.28	399.06	381.24
Mississippi	40.7	40.1	40.8	7.58	7.89	7.91	308.51	316.39	322.73
Jackson	40.9	41.8	40.9	8.60	8.80	8.71	351.74	367.84	356.24
Missouri	41.2	41.2	41.4	9.98	10.25	10.17	411.18	422.30	421.04
Kansas City	41.1	41.4	41.8	11.11	11.48	11.61	456.62	475.27	485.30
St. Louis	41.4	41.5	41.5	11.72	11.89	11.78	485.21	493.44	488.87
Springfield	39.7	40.9	40.9	8.44	8.50	8.41	335.07	347.65	343.97
Montana	39.1	38.1	37.7	10.28	10.69	10.70	401.95	407.29	403.39
Nebraska	41.0	40.7	40.8	9.38	9.65	9.57	384.58	392.76	390.46
Lincoln	40.8	40.5	40.2	10.08	10.02	9.98	411.26	405.81	401.20
Omaha	40.7	41.5	41.9	10.04	10.39	10.28	408.63	431.19	430.73
Nevada	40.2	39.2	38.9	9.92	10.19	10.37	398.78	399.45	403.39
Las Vegas	39.5	40.5	40.2	12.80	12.66	13.12	505.60	512.73	527.42
New Hampshire	41.0	40.2	39.7	9.45	9.77	9.92	387.45	392.75	393.82
Nashua	40.9	40.2	39.5	11.57	12.04	12.60	473.21	484.01	497.70
Portsmouth-Dover-Rochester	40.4	40.7	41.4	9.03	9.19	9.27	364.81	374.03	383.78

See footnotes at end of table.

**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		
	Sept. 1988 ^r	Oct. 1988 ^r	Nov. 1988 ^p	Nov. 1987 to Nov. 1988 ^p	Sept. 1988 to Oct. 1988 ^r	Oct. 1988 to Nov. 1988 ^p
Total	198,208	199,970	198,931	3.1	0.9	-0.5
Private sector	163,049	164,692	164,544	3.5	1.0	-.1
Mining	1,616	1,628	1,581	-2.9	.7	-2.8
Construction	10,446	10,745	10,828	7.9	2.9	.8
Manufacturing	41,743	41,994	42,158	2.2	.6	.4
Durable goods	24,945	25,112	25,219	2.7	.7	.4
Nondurable goods	16,797	16,882	16,938	1.6	.5	.3
Transportation and public utilities	11,487	11,593	11,623	3.8	.9	.3
Wholesale trade	12,307	12,386	12,371	4.7	.6	-.1
Retail trade	29,007	29,393	29,153	2.4	1.3	-.8
Finance, insurance, and real estate	12,490	12,578	12,493	.1	.7	-.7
Services	43,952	44,375	44,338	5.3	1.0	-.1
Government	35,159	35,278	34,387	1.1	.3	-2.5

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

^p = preliminary.

= 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	III'
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	112.2
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	139.7
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	201.0
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	102.4
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	179.1
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	172.4
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	176.7
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	110.6
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	140.4
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	199.4
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	180.2
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	173.6
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	177.9
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	137.2
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	139.3
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	101.5
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	194.4
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	141.6
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	144.2
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	146.4
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	192.3
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	98.0
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	133.4
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	126.9
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	128.8
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	197.9
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	100.8
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	156.0
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	112.6
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	141.9
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	126.1
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	194.4
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	99.0
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	176.4
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	172.7
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	187.6
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	129.5
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	170.8

= 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	III 1988'	II 1987	III 1987	IV 1987	I 1988	II 1988	III 1988'
Business sector												
Output per hour of all persons	2.7	3.9	0.6	3.5	-3.4	1.5	0.2	1.5	1.9	2.7	1.1	0.5
Output	5.3	6.6	5.7	5.5	2.4	2.6	3.1	4.5	5.3	5.8	5.0	4.0
Hours	2.5	2.6	5.1	1.9	6.0	1.1	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	6.1	3.8	3.9	4.2	4.5	4.8	5.2
Real compensation per hour	-1.2	.8	2.4	.3	.0	1.3	.0	-.3	-.2	.5	.9	1.0
Unit labor costs .....	.8	.7	5.6	.2	8.5	4.5	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	4.6	2.1	2.9	3.2	2.7	1.0	.5
Implicit price deflator	3.2	2.8	1.4	1.0	5.8	4.5	3.1	2.5	2.6	2.1	2.7	3.2
Nonfarm business sector												
Output per hour of all persons	3.2	3.7	.9	3.4	-2.4	1.9	.2	1.5	1.9	2.8	1.4	.9
Output	5.7	6.8	5.9	5.6	4.0	3.4	3.2	4.7	5.6	6.0	5.6	4.7
Hours	2.5	2.9	4.9	2.1	6.6	1.5	3.0	3.2	3.6	3.1	4.1	3.8
Compensation per hour	3.4	4.5	6.4	3.5	4.2	5.6	3.7	3.7	4.1	4.4	4.6	4.9
Real compensation per hour	-1.4	.6	2.6	.1	-.5	.8	-.1	-.4	-.4	.5	.7	.8
Unit labor costs .....	.2	.7	5.4	.1	6.8	3.7	3.5	2.2	2.1	1.6	3.2	4.0
Unit nonlabor payments	6.5	7.7	-4.8	1.6	.7	4.1	1.9	2.9	3.6	2.6	1.2	.3
Implicit price deflator	2.3	3.1	1.8	.6	4.7	3.8	3.0	2.5	2.6	1.9	2.5	2.7
Manufacturing												
Output per hour of all persons	5.5	3.2	1.3	3.2	3.7	5.2	3.6	3.7	3.4	3.3	2.8	3.3
Output	4.9	7.8	7.5	4.6	5.8	7.2	3.7	5.1	6.0	6.2	6.4	6.2
Hours	-6	4.4	6.1	1.3	2.0	1.8	.1	1.4	2.6	2.8	3.4	2.8
Compensation per hour .....	.7	2.1	2.1	5.4	3.0	4.7	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	.0	-1.4	-2.1	-2.7	-1.3	-.7	-.3
Unit labor costs	-4.6	-1.1	.8	2.2	-.7	-.5	-1.2	-1.7	-1.8	-.7	.3	.4
Durable goods												
Output per hour of all persons	4.4	2.9	2.6	3.8	3.8	4.3	4.1	3.8	3.7	3.4	3.3	3.6
Output	2.8	7.0	10.2	4.3	7.7	6.9	3.3	4.5	6.1	6.0	7.3	7.2
Hours	-1.5	4.0	7.3	.4	3.8	2.5	-.8	.6	2.3	2.5	3.8	3.5
Compensation per hour	-1.0	2.0	1.9	7.1	1.4	4.7	2.0	1.7	1.1	2.5	3.1	3.8
Real compensation per hour	-5.6	-1.7	-1.7	3.6	-3.2	.0	-1.7	-2.4	-3.2	-1.4	-.8	-.4
Unit labor costs	-5.1	-.9	-.7	3.2	-2.3	.4	-2.0	-2.1	-2.5	-.9	-.2	.1
Nondurable goods												
Output per hour of all persons	7.6	3.8	-1.1	2.3	3.2	6.7	2.9	3.6	3.0	3.1	2.0	2.7
Output	8.5	9.0	3.1	5.1	2.7	7.6	4.4	6.2	6.0	6.4	4.9	4.6
Hours .....	.8	5.1	4.2	2.7	-.5	.9	1.5	2.5	2.9	3.2	2.9	1.8
Compensation per hour	3.8	2.4	2.2	2.9	5.2	4.6	3.1	2.6	2.5	2.8	3.2	3.7
Real compensation per hour	-1.0	-1.4	-1.4	-.5	.4	-.1	-.7	-1.5	-1.9	-1.1	-.7	-.4
Unit labor costs	-3.6	-1.3	3.4	.6	2.0	-1.9	.2	-1.0	-.5	-.3	1.1	1.0
Nonfinancial corporations												
Output per all-employee hour	3.1	4.7	-.1	4.3	-1.6	-1.1	1.5	2.3	1.6	3.0	1.8	.3
Output	6.1	8.8	4.7	7.2	3.0	2.1	3.9	5.6	5.6	6.7	5.9	4.2
Hours	2.9	4.0	4.8	2.8	4.7	3.3	2.4	3.2	3.9	3.6	4.1	3.9
Compensation per hour	2.9	4.1	5.2	3.0	4.2	5.4	3.2	3.3	3.4	3.8	4.1	4.5
Real compensation per hour	-1.8	.3	1.5	-.4	-.6	.7	-.6	-.9	-1.0	-.1	.2	.3
Total unit costs	1.0	-.2	4.2	-1.0	5.3	6.3	2.1	1.1	1.9	1.0	2.1	3.7
Unit labor costs	-.2	-.6	5.3	-1.2	5.9	6.6	1.7	.9	1.8	.8	2.3	4.1
Unit nonlabor costs	4.1	.8	1.3	-.3	3.7	5.5	3.2	1.5	2.2	1.5	1.4	2.5
Unit profits	3.9	21.9	-21.5	13.8	.3	-9.1	-2.2	2.0	-1.1	3.1	2.2	-5.0
Implicit price deflator	1.2	1.7	1.5	.3	4.8	4.8	1.7	1.2	1.6	1.2	2.1	2.8

' = 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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Alabama	1,903.7	1,880.6	1,915.5	130.6	126.2	127.7	6.9	6.7	6.7
Birmingham	449.6	449.7	457.5	26.5	25.3	25.1	5.9	5.6	5.5
Huntsville	132.5	134.5	136.1	6.2	6.5	6.3	4.7	4.9	4.6
Mobile	212.5	206.8	210.3	19.7	17.9	17.6	9.3	8.7	8.4
Montgomery	138.0	134.8	137.0	8.3	8.1	7.8	6.0	6.0	5.7
Tuscaloosa	70.6	70.1	71.8	3.7	3.7	3.5	5.2	5.3	4.9
Alaska	248.7	241.8	238.8	22.8	17.6	20.1	9.2	7.3	8.4
Arizona	1,631.8	1,675.1	1,715.7	93.1	113.0	117.7	5.7	6.7	6.9
Phoenix	1,012.6	1,036.6	1,059.8	49.0	57.3	60.9	4.8	5.5	5.7
Tucson	309.5	317.9	325.8	14.6	17.2	18.5	4.7	5.4	5.7
Arkansas	1,112.0	1,115.1	1,114.8	76.4	80.1	74.6	6.9	7.2	6.7
Fayetteville-Springdale	60.1	61.6	61.5	2.2	2.7	2.5	3.6	4.3	4.0
Fort Smith	92.8	92.4	92.1	5.1	6.5	6.7	5.5	7.1	7.2
Little Rock-North Little Rock	260.8	263.8	264.0	16.3	16.3	15.0	6.2	6.2	5.7
Pine Bluff	37.4	37.1	37.4	2.9	3.1	2.8	7.7	8.4	7.4
California¹	13,824.7	14,116.5	14,200.3	770.0	707.0	675.9	5.6	5.0	4.8
Anaheim-Santa Ana	1,286.6	1,335.3	1,353.3	42.7	40.9	40.0	3.3	3.1	3.0
Bakersfield	229.3	232.1	232.2	23.7	21.9	23.1	10.3	9.5	10.0
Fresno	285.5	341.9	300.9	30.0	27.7	29.1	10.5	8.1	9.7
Los Angeles-Long Beach	4,293.0	4,097.7	4,155.2	254.0	195.4	179.5	5.9	4.8	4.3
Modesto	150.2	164.3	160.5	15.7	15.1	15.8	10.5	9.2	9.9
Oakland	1,029.8	1,068.2	1,081.6	48.8	47.5	45.1	4.7	4.4	4.2
Oxnard-Ventura	336.6	355.6	354.8	19.0	19.9	18.1	5.6	5.6	5.1
Riverside-San Bernardino	913.2	957.7	973.5	53.7	58.1	53.8	5.9	6.1	5.5
Sacramento	683.1	721.2	727.0	36.1	35.5	34.6	5.3	4.9	4.8
San Diego	1,068.4	1,125.4	1,140.8	49.5	48.9	45.8	4.6	4.3	4.0
San Francisco	868.4	889.4	901.0	31.0	30.8	28.6	3.6	3.5	3.2
San Jose	797.2	826.5	834.2	33.4	31.2	30.4	4.2	3.8	3.6
Santa Barbara-Santa Maria-Lompoc	177.2	180.1	184.5	7.4	7.6	7.3	4.2	4.2	4.0
Santa Rosa-Petaluma	190.1	199.1	199.3	8.0	8.4	8.1	4.2	4.2	4.0
Stockton	187.3	204.0	199.2	17.0	15.9	16.8	9.1	7.8	8.4
Vallejo-Fairfield-Napa	185.9	196.1	195.6	10.6	10.1	9.8	5.7	5.1	5.0
Colorado	1,693.5	1,709.0	1,728.4	112.5	90.9	99.5	6.6	5.3	5.8
Boulder-Longmont	131.9	133.9	136.3	8.4	5.6	6.3	4.8	4.2	4.6
Denver	889.1	893.6	903.0	56.1	45.5	49.1	6.3	5.1	5.4
Connecticut	1,767.5	1,788.4	1,791.1	50.4	51.1	53.7	2.9	2.9	3.0
Bridgeport-Milford	232.5	234.4	235.7	7.9	8.7	8.9	3.4	3.7	3.8
Hartford	428.9	434.0	436.5	10.9	11.5	12.1	2.5	2.6	2.8
New Haven-Meriden	273.5	278.0	281.0	7.5	7.9	8.4	2.7	2.8	3.0
Stamford	119.5	120.1	120.1	2.5	2.3	2.4	2.1	1.9	2.0
Waterbury	102.1	104.5	104.9	3.8	3.6	3.8	3.7	3.4	3.6
Delaware	337.0	348.9	352.4	8.8	10.0	10.0	2.6	2.9	2.9
Wilmington	292.6	301.3	306.2	8.4	10.5	10.2	2.9	3.5	3.3
District of Columbia	331.4	340.0	340.1	19.3	16.6	16.5	5.8	4.9	4.8
Washington	2,136.6	2,226.0	2,235.7	62.6	64.8	67.1	2.9	2.9	3.0
Florida¹	5,966.1	6,119.4	6,173.8	296.1	309.7	303.0	5.0	5.1	4.9
Daytona Beach	147.7	152.5	153.2	6.4	6.6	6.8	4.3	4.3	4.4
Fort Lauderdale-Hollywood-Pompano Beach	622.5	645.7	649.0	24.7	25.6	25.1	4.0	4.0	3.9
Fort Myers-Cape Coral	134.5	142.4	144.6	5.0	5.7	5.6	3.7	4.0	3.9
Jacksonville	453.8	476.4	477.2	22.5	25.1	23.7	5.0	5.3	5.0
Melbourne-Titusville-Palm Bay	179.0	185.7	188.5	8.3	8.1	9.0	4.6	4.3	4.8
Miami-Hialeah	925.2	930.8	932.6	50.5	50.1	48.3	5.5	5.4	5.2
Orlando	563.5	586.8	592.8	23.6	26.6	26.4	4.2	4.5	4.4
Pensacola	151.7	154.7	154.2	8.4	9.9	9.5	5.6	6.4	6.1
Sarasota	118.9	122.5	123.5	3.9	4.2	4.0	3.2	3.4	3.2
Tallahassee	126.4	128.6	130.8	4.7	4.5	4.4	3.7	3.5	3.3
Tampa-St. Petersburg-Clearwater	973.6	984.4	993.5	43.3	43.3	44.8	4.5	4.4	4.5
West Palm Beach-Boca Raton-DeLray Beach	402.2	416.5	426.5	20.6	22.9	21.3	5.1	5.5	5.0

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Georgia	3,073.4	3,194.2	3,212.9	152.5	183.7	162.9	5.0	5.8	5.1
Athens	73.4	73.0	77.1	2.9	3.1	2.9	3.9	4.3	3.8
Atlanta	1,450.2	1,522.9	1,523.1	63.7	83.6	70.0	4.4	5.5	4.6
Augusta	178.5	183.3	184.4	9.5	11.1	10.1	5.3	6.0	5.5
Columbus	100.4	101.7	103.5	5.5	6.5	7.2	5.5	6.4	6.9
Macon-Warner Robins	128.1	132.1	133.1	5.9	6.2	5.9	4.6	4.7	4.4
Savannah	110.3	114.0	113.4	6.1	7.0	6.4	5.5	6.1	5.7
Hawaii	522.3	509.4	518.5	18.8	14.9	15.8	3.6	2.9	3.0
Honolulu	389.3	378.1	385.0	12.8	9.9	10.4	3.3	2.6	2.7
Idaho	478.4	487.7	483.3	28.4	20.9	20.7	5.9	4.3	4.3
Boise City	104.9	105.6	109.5	5.0	3.1	3.2	4.7	2.9	2.9
Illinois¹	5,895.8	5,818.5	5,848.8	371.2	312.8	353.4	6.3	5.4	6.0
Aurora-Elgin	179.3	180.2	179.8	8.9	7.4	8.2	5.0	4.1	4.5
Bloomington-Normal	67.7	68.0	68.1	2.6	2.7	2.8	3.8	4.0	4.1
Champaign-Urbana-Rantoul	90.3	87.6	90.1	3.3	2.7	3.3	3.6	3.0	3.7
Chicago	3,241.7	3,215.8	3,215.3	189.1	164.3	182.3	5.8	5.1	5.7
Davenport-Rock Island-Moline	182.5	180.3	182.0	12.0	11.0	13.4	6.6	6.1	7.4
Decatur	59.9	57.3	58.5	5.5	3.9	5.3	9.1	6.8	9.0
Joliet	199.6	192.9	193.5	13.3	10.6	12.2	6.7	5.5	6.3
Lake County	275.4	280.0	278.4	10.6	9.3	10.4	3.8	3.3	3.7
Peoria	156.1	154.3	155.0	10.3	8.3	9.7	6.6	5.4	6.2
Rockford	149.9	144.9	145.8	12.2	8.0	9.1	8.1	5.5	6.3
Springfield	111.1	109.3	109.5	5.1	4.6	5.2	4.6	4.2	4.8
Indiana	2,796.4	2,862.0	2,854.8	151.9	131.7	135.2	5.4	4.6	4.7
Anderson	59.9	59.9	59.5	3.4	3.1	3.0	5.6	5.2	5.1
Bloomington	60.2	63.3	63.6	1.9	1.7	1.7	3.1	2.8	2.7
Elkhart-Goshen	94.4	98.0	98.8	4.1	3.0	4.8	4.4	3.1	4.9
Evansville	142.4	145.6	144.9	8.8	7.4	7.2	6.1	5.1	5.0
Fort Wayne	198.1	204.7	206.2	9.3	8.1	9.7	4.7	4.0	4.7
Gary-Hammond	254.7	259.0	257.4	18.8	14.0	14.0	7.4	5.4	5.4
Indianapolis	665.5	685.9	683.6	32.1	29.1	29.1	4.8	4.2	4.3
Lafayette	67.5	69.1	69.5	2.1	1.7	1.7	3.1	2.4	2.5
Muncie	61.1	61.9	61.7	4.0	3.5	3.1	6.5	5.7	5.0
South Bend-Mishawaka	130.3	132.5	132.1	6.8	6.3	6.3	5.2	4.8	4.7
Terre Haute	60.2	60.0	60.0	3.3	3.1	2.8	5.5	5.1	4.7
Iowa	1,469.5	1,497.4	1,512.6	59.1	54.0	52.6	4.0	3.6	3.5
Cedar Rapids	94.4	96.9	97.8	3.6	2.8	2.8	3.8	2.9	2.8
Des Moines	226.0	233.4	237.0	7.9	8.0	7.4	3.5	3.4	3.1
Dubuque	45.2	45.4	45.9	1.9	1.8	1.8	4.3	4.0	4.0
Sioux City	59.6	61.5	61.6	3.0	2.5	2.2	5.0	4.1	3.6
Waterloo-Cedar Falls	68.8	69.9	70.5	4.0	3.0	2.9	5.8	4.3	4.1
Kansas	1,282.3	1,282.7	1,298.0	52.6	52.7	55.5	4.1	4.1	4.3
Topeka	90.6	90.6	90.7	3.9	4.0	4.2	4.3	4.4	4.7
Wichita	253.9	251.3	255.2	10.6	11.1	11.6	4.2	4.4	4.6
Kentucky	1,705.3	1,708.8	1,727.8	129.2	107.9	111.7	7.6	6.3	6.5
Lexington-Fayette	185.1	186.6	190.2	7.9	7.1	7.9	4.3	3.8	4.1
Louisville	504.1	515.1	517.5	30.4	25.9	26.8	6.0	5.0	5.2
Owensboro	45.2	44.8	45.1	3.8	3.0	2.9	8.5	6.8	6.5
Louisiana	1,933.1	1,925.1	1,930.4	190.1	188.4	183.4	9.8	9.8	9.5
Alexandria	61.5	61.0	61.2	4.9	5.4	5.2	8.0	8.9	8.6
Baton Rouge	264.0	267.2	267.9	22.0	23.7	23.1	8.3	8.9	8.6
Houma-Thibodaux	71.4	68.8	69.9	8.3	6.5	6.2	11.6	9.5	8.9
Lafayette	99.3	98.2	99.0	10.0	8.8	8.6	10.1	8.9	8.7
Monroe	68.6	68.7	69.0	5.8	6.4	6.3	8.5	9.3	9.1
New Orleans	598.5	595.6	593.9	52.8	53.1	51.3	8.8	8.9	8.6
Shreveport	167.3	165.1	165.6	15.3	15.5	15.4	9.2	9.4	9.3
Maine	601.5	604.6	603.0	17.9	13.0	14.1	3.0	2.2	2.3
Lewiston-Auburn	41.9	41.1	42.1	1.5	1.1	1.3	3.6	2.6	3.0
Portland	129.1	127.8	128.7	2.4	1.6	1.7	1.8	1.3	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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Maryland	2,413.1	2,461.9	2,479.2	91.9	103.1	115.0	3.8	4.2	4.6
Baltimore	1,165.4	1,179.3	1,189.5	49.0	54.3	62.0	4.2	4.6	5.2
Massachusetts ¹	3,109.3	3,130.0	3,148.7	83.9	94.1	89.0	2.7	3.0	2.8
Boston	1,544.3	1,537.1	1,547.9	36.2	41.1	38.6	2.3	2.7	2.5
Brockton	97.6	99.9	100.2	3.0	3.4	3.5	3.1	3.5	3.4
Fall River	76.3	76.7	76.6	3.2	3.3	3.2	4.2	4.3	4.2
Fitchburg-Leominster	45.5	44.7	45.5	1.6	1.8	1.8	3.5	4.0	3.8
Lawrence-Haverhill	184.9	184.1	184.0	7.5	7.8	7.2	4.1	4.2	3.9
Lowell	150.2	149.0	151.0	4.6	5.2	4.9	3.1	3.5	3.3
New Bedford	85.0	86.1	86.5	3.1	3.5	3.3	3.6	4.0	3.8
Springfield	252.7	251.1	253.4	6.9	7.6	7.2	2.7	3.0	2.8
Worcester	217.2	220.2	225.1	5.3	5.8	5.5	2.4	2.6	2.4
Michigan ¹	4,522.7	4,587.5	4,596.2	310.4	304.6	305.2	6.9	6.6	6.6
Ann Arbor	160.4	163.6	167.0	5.6	5.9	5.8	3.5	3.6	3.4
Battle Creek	64.2	65.3	65.7	4.6	4.0	4.3	7.2	6.1	6.5
Benton Harbor	77.6	78.9	79.3	4.5	4.9	5.1	5.8	6.2	6.4
Detroit	2,177.7	2,194.6	2,195.2	154.4	150.5	149.8	7.1	6.9	6.8
Flint	200.1	198.5	195.1	24.1	25.5	22.9	12.0	12.9	11.7
Grand Rapids	349.2	360.7	362.8	17.3	16.4	17.4	5.0	4.6	4.8
Kalamazoo	116.0	118.3	119.3	5.4	5.5	5.7	4.7	4.7	4.7
Lansing-East Lansing	240.5	239.4	245.1	13.4	12.2	12.3	5.6	5.1	5.0
Muskegon	67.6	68.9	69.0	5.7	5.5	6.0	8.5	8.0	8.7
Saginaw-Bay City-Midland	186.9	189.7	191.7	12.4	11.7	11.6	6.6	6.2	6.1
Minnesota	2,293.5	2,346.6	2,357.6	98.6	80.7	86.0	4.3	3.4	3.6
Duluth	106.5	107.2	107.4	7.5	5.4	5.5	7.1	5.0	5.1
Minneapolis-St. Paul	1,364.8	1,389.7	1,398.9	52.2	44.0	47.5	3.8	3.2	3.4
Rochester	58.6	60.4	60.1	2.2	1.4	1.6	3.7	2.4	2.6
St. Cloud	94.1	95.6	97.0	4.2	3.7	3.7	4.5	3.9	3.8
Mississippi	1,146.8	1,136.3	1,144.8	95.5	85.0	91.5	8.3	7.5	8.0
Jackson	199.6	200.8	201.5	11.7	10.5	11.4	5.9	5.2	5.7
Missouri	2,627.5	2,622.0	2,629.7	150.3	143.8	141.7	5.7	5.5	5.4
Kansas City	842.1	829.0	828.4	42.5	41.6	40.4	5.1	5.0	4.9
St. Louis	1,288.6	1,276.4	1,280.2	80.8	76.6	78.1	6.3	6.0	6.1
Springfield	125.0	126.5	128.0	5.7	5.4	5.3	4.6	4.3	4.1
Montana	402.7	391.2	391.9	23.1	18.7	19.4	5.7	4.8	5.0
Nebraska	823.6	817.8	828.4	33.2	26.3	26.1	4.0	3.2	3.2
Lincoln	123.8	123.8	125.9	3.7	3.1	4.0	3.0	2.5	3.2
Omaha	322.4	327.4	329.3	14.4	11.9	11.2	4.5	3.6	3.4
Nevada	564.6	589.6	592.4	31.4	26.9	25.9	5.6	4.6	4.4
Las Vegas	328.6	342.0	344.2	19.7	17.3	16.3	6.0	5.1	4.7
Reno	139.4	143.7	144.2	6.6	5.4	5.3	4.7	3.7	3.6
New Hampshire	601.9	607.0	611.2	12.6	14.5	14.1	2.1	2.4	2.3
Nashua	99.6	100.2	101.0	2.3	3.2	3.1	2.4	3.2	3.1
Portsmouth-Dover-Rochester	133.6	137.4	137.7	2.1	2.1	2.1	1.5	1.5	1.5
New Jersey ¹	3,962.5	3,942.9	3,909.9	144.5	133.8	138.2	3.6	3.4	3.5
Atlantic City	170.7	178.1	170.0	10.1	7.1	8.6	5.9	4.0	5.1
Bergen-Passaic	722.5	714.5	712.1	22.4	21.3	21.9	3.1	3.0	3.1
Jersey City	269.7	266.9	264.0	15.9	15.4	15.6	5.9	5.8	5.9
Middlesex-Somerset-Hunterdon	555.1	556.8	555.8	14.3	13.4	13.7	2.6	2.4	2.5
Monmouth-Ocean	467.1	479.0	468.2	14.0	14.2	14.9	3.0	3.0	3.2
Newark	960.8	946.0	941.3	38.1	34.0	35.0	4.0	3.6	3.7
Trenton	172.4	169.8	169.6	4.9	4.4	4.5	2.9	2.6	2.7
New Mexico	696.5	698.4	704.6	54.3	51.1	49.2	7.8	7.3	7.0
Albuquerque	264.1	270.1	270.6	16.2	15.7	15.0	6.1	5.8	5.5
Las Cruces	58.1	57.7	60.0	4.2	4.1	4.1	7.2	7.1	6.8
Santa Fe	66.1	67.8	67.8	3.4	3.1	3.2	5.2	4.6	4.7

See footnotes at end of table.

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

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

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
New York¹	8,521.4	8,493.8	8,544.1	415.5	353.2	359.2	4.9	4.2	4.2
Albany-Schenectady-Troy	419.7	418.1	422.2	16.7	14.0	14.5	4.0	3.4	3.4
Binghamton	125.5	125.9	127.1	4.9	4.2	4.5	3.9	3.4	3.5
Buffalo	448.9	446.8	450.3	25.0	20.7	21.4	5.6	4.6	4.7
Elmira	42.0	42.6	43.3	1.8	1.5	1.6	4.2	3.6	3.8
Nassau-Suffolk	1,422.7	1,413.4	1,432.6	50.1	47.4	48.1	3.5	3.4	3.4
New York	3,908.9	3,890.7	3,900.2	208.4	181.2	178.1	5.3	4.7	4.6
New York City	3,232.0	3,218.3	3,222.5	188.0	161.2	158.9	5.8	5.0	4.9
Orange County	131.6	132.4	134.9	4.8	4.7	4.9	3.6	3.5	3.7
Poughkeepsie	127.1	129.4	130.2	3.7	3.4	3.5	2.9	2.6	2.7
Rochester	500.2	493.5	500.8	21.7	16.8	17.6	4.3	3.4	3.5
Syracuse	324.8	315.0	318.1	21.0	12.2	12.7	6.5	3.9	4.0
Utica-Rome	136.8	137.4	137.7	6.8	5.5	6.2	5.0	4.0	4.5
North Carolina¹	3,335.6	3,329.2	3,376.7	128.5	103.2	127.9	3.9	3.1	3.8
Asheville	87.9	87.8	88.9	3.2	2.1	3.1	3.7	2.4	3.4
Charlotte-Gastonia-Rock Hill	641.7	646.7	656.9	21.6	19.4	22.5	3.4	3.0	3.4
Greensboro-Winston-Salem-High Point	521.8	515.0	522.0	17.0	14.0	17.6	3.3	2.7	3.4
Raleigh-Durham	403.8	401.4	408.9	11.4	9.3	11.2	2.8	2.3	2.7
North Dakota	334.1	332.9	337.8	11.4	13.0	13.5	3.4	3.9	4.0
Bismarck	44.6	45.0	44.8	1.5	1.8	2.0	3.4	4.0	4.4
Fargo-Moorhead	86.8	86.9	89.0	2.3	2.1	2.1	2.7	2.4	2.3
Grand Forks	37.5	36.6	37.4	1.1	1.2	1.1	2.8	3.4	3.1
Ohio¹	5,242.6	5,251.4	5,327.5	302.4	299.7	275.7	5.8	5.7	5.2
Akron	321.3	321.4	324.3	18.8	17.7	16.3	5.8	5.5	5.0
Canton	188.7	187.5	189.7	12.5	11.5	10.3	6.6	6.1	5.4
Cincinnati	751.5	758.0	767.4	41.6	36.0	34.5	5.5	4.7	4.5
Cleveland	925.6	922.0	936.7	48.2	47.7	44.8	5.2	5.2	4.8
Columbus	699.9	701.7	718.6	33.1	32.7	32.2	4.7	4.7	4.5
Dayton-Springfield	462.2	465.3	471.8	21.8	23.9	22.7	4.7	5.1	4.8
Toledo	311.2	312.7	317.5	19.5	17.7	16.2	6.3	5.6	5.1
Youngstown-Warren	218.8	221.2	222.1	15.5	15.4	13.4	7.1	7.0	6.0
Oklahoma	1,551.1	1,494.9	1,505.4	98.7	91.1	93.5	6.4	6.1	6.2
Enid	30.0	28.6	28.8	1.7	1.4	1.5	5.5	4.8	5.3
Lawton	49.6	48.1	47.7	2.3	2.6	2.8	4.6	5.4	5.8
Oklahoma City	507.7	490.3	489.7	27.9	25.3	25.7	5.5	5.2	5.3
Tulsa	344.0	334.9	337.0	24.9	22.3	22.4	7.2	6.6	6.6
Oregon	1,410.7	1,421.7	1,415.8	74.0	76.3	70.0	5.2	5.4	4.9
Eugene-Springfield	141.2	140.6	142.3	7.7	8.4	7.1	5.4	6.0	5.0
Portland	640.3	642.1	644.7	29.8	27.6	27.9	4.6	4.3	4.3
Salem	130.9	133.6	133.0	6.5	6.2	6.0	5.0	4.7	4.5
Pennsylvania¹	5,796.9	5,844.5	5,770.1	307.6	295.5	291.9	5.3	5.1	5.1
Allentown-Bethlehem	323.8	326.7	321.2	14.9	13.4	13.5	4.6	4.1	4.2
Altoona	59.7	61.3	60.3	4.1	3.9	4.1	6.8	6.3	6.8
Beaver County	63.8	64.2	63.3	6.4	5.6	5.4	10.0	8.7	8.5
Erie	130.5	130.9	129.5	8.5	7.5	7.8	6.5	5.7	6.0
Harrisburg-Lebanon-Carlisle	319.2	326.6	319.6	12.1	13.9	13.4	3.8	4.2	4.2
Johnstown	95.4	95.7	94.1	7.1	6.2	6.5	7.5	6.5	6.9
Lancaster	217.7	222.3	220.2	9.0	7.6	8.9	4.1	3.4	4.1
Philadelphia	2,440.3	2,433.3	2,411.0	103.0	103.9	100.1	4.2	4.3	4.2
Pittsburgh	965.9	969.1	953.1	58.7	54.6	53.0	6.1	5.6	5.6
Reading	175.6	180.4	179.0	7.2	7.2	6.5	4.1	4.0	3.7
Scranton-Wilkes-Barre	356.9	358.8	357.4	22.9	20.4	20.8	6.4	5.7	5.8
Williamsport	60.9	62.8	61.8	3.0	3.1	3.0	5.0	4.9	4.9
York	214.9	221.7	218.7	9.5	9.4	9.6	4.4	4.2	4.4
Rhode Island	526.3	523.8	527.9	16.0	12.8	13.4	3.0	2.4	2.5
Pawtucket-Woonsocket-Attleboro	168.9	166.3	169.9	5.8	5.2	5.4	3.4	3.1	3.2
Providence	342.7	341.7	344.5	10.2	8.2	8.3	3.0	2.4	2.4
South Carolina	1,649.2	1,667.0	1,697.4	82.6	72.2	78.0	5.0	4.3	4.6
Charleston	221.6	230.8	233.3	9.3	9.1	9.3	4.2	4.0	4.0
Columbia	228.7	237.5	238.3	8.4	7.7	8.0	3.7	3.2	3.3
Greenville-Spartanburg	323.0	331.9	338.4	12.6	11.3	11.8	3.9	3.4	3.5
South Dakota	358.6	355.1	356.9	11.8	12.7	14.7	3.3	3.6	4.1
Rapid City	40.2	39.7	39.5	1.6	1.8	2.1	4.1	4.6	5.3
Sioux Falls	72.3	71.7	71.3	1.9	2.7	2.8	2.6	3.8	4.0

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		
	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P	Oct. 1987	Sept. 1988	Oct. 1988 ^P
Tennessee	2,362.7	2,320.2	2,328.2	134.4	130.7	130.9	5.7	5.6	5.6
Chattanooga	208.2	211.3	212.8	10.2	12.0	11.8	4.9	5.7	5.6
Johnson City-Kingsport-Bristol	218.5	216.5	215.9	13.1	11.0	10.4	6.0	5.1	4.8
Knoxville	285.8	277.7	277.9	14.1	13.8	14.6	4.9	5.0	5.2
Memphis LMA	451.5	445.9	448.7	23.5	22.5	22.9	5.2	5.0	5.1
Nashville	525.3	501.5	502.0	22.3	22.4	21.4	4.3	4.5	4.3
Texas¹	8,244.5	8,387.6	8,375.4	606.1	594.4	571.2	7.4	7.1	6.8
Abilene	54.0	55.4	55.4	3.9	3.2	3.1	7.1	5.8	5.6
Amarillo	100.9	101.9	101.3	5.8	6.0	6.1	5.8	5.9	6.1
Austin	429.6	430.6	430.1	25.7	25.0	24.2	6.0	5.8	5.6
Beaumont-Port Arthur	160.8	161.7	161.6	16.7	16.3	15.2	10.4	10.1	9.4
Brazoria	81.0	83.6	83.5	6.8	6.4	5.9	8.4	7.6	7.1
Brownsville-Harlingen	95.2	97.8	97.9	12.4	12.1	11.5	13.0	12.4	11.8
Bryan-College Station	57.8	57.8	60.3	2.7	2.5	2.7	4.7	4.4	4.5
Corpus Christi	158.9	160.9	160.7	15.9	14.3	13.9	10.0	8.9	8.6
Dallas	1,457.5	1,476.2	1,473.7	84.3	83.4	82.7	5.8	5.7	5.6
El Paso	233.8	247.4	244.6	23.1	28.3	25.9	9.9	11.4	10.6
Fort Worth-Arlington	679.2	687.4	684.5	41.1	42.1	40.5	6.0	6.1	5.9
Galveston-Texas City	107.7	107.4	105.6	10.3	9.2	8.4	9.5	8.5	8.0
Houston	1,600.6	1,635.1	1,635.3	121.2	107.0	101.1	7.6	6.5	6.2
Killeen-Temple	93.2	97.2	97.0	7.0	7.6	7.8	7.5	7.8	8.0
Laredo	44.7	47.1	47.2	5.6	5.7	5.5	12.6	12.2	11.7
Longview-Marshall	78.7	80.0	80.2	7.1	6.7	6.8	9.1	8.3	8.5
Lubbock	113.0	115.8	115.7	6.0	5.8	5.7	5.3	5.0	4.9
McAllen-Edinburg-Mission	146.7	148.2	153.3	24.7	26.6	25.3	16.8	18.0	16.5
Midland	49.5	50.3	50.2	3.6	2.8	2.7	7.2	5.6	5.5
Odessa	53.3	54.0	53.7	4.3	4.1	4.0	8.1	7.6	7.4
San Angelo	45.4	46.2	46.3	2.5	2.8	2.8	5.6	6.1	6.0
San Antonio	611.3	631.7	632.3	44.3	49.0	46.8	7.3	7.8	7.4
Sherman-Denison	49.6	50.4	49.8	3.4	3.5	3.2	7.0	7.0	6.4
Texarkana	58.2	58.4	58.4	4.3	4.5	4.3	7.4	7.8	7.4
Tyler	76.2	76.6	76.8	5.7	5.7	5.4	7.5	7.4	7.1
Victoria	36.5	36.9	36.7	2.8	2.5	2.3	7.6	6.7	6.3
Waco	94.0	94.3	94.3	7.0	6.1	5.7	7.5	6.4	6.1
Wichita Falls	57.1	58.6	58.4	3.8	3.5	3.2	6.7	6.0	5.5
Utah	756.8	757.4	763.6	40.0	31.7	32.8	5.3	4.2	4.3
Provo-Orem	100.8	103.4	104.0	5.2	3.8	3.9	5.1	3.6	3.8
Salt Lake City-Ogden	499.6	496.5	501.6	24.9	20.4	21.0	5.0	4.1	4.2
Vermont	304.6	300.0	305.0	10.0	5.6	7.1	3.3	1.9	2.3
Burlington	75.5	78.0	79.0	2.0	1.2	1.3	2.6	1.6	1.7
Virginia	3,015.5	3,137.8	3,157.3	118.9	118.1	126.4	3.9	3.8	4.0
Charlottesville	66.8	70.1	70.6	1.5	2.0	2.1	2.3	2.8	3.0
Danville	51.2	53.8	54.0	3.4	3.4	3.7	6.6	6.3	6.9
Lynchburg	72.0	72.3	73.5	3.6	3.0	3.9	4.9	4.2	5.3
Norfolk-Virginia Beach-Newport News	600.0	631.3	635.4	27.4	29.1	31.4	4.6	4.6	4.9
Richmond-Petersburg	433.2	455.7	459.4	16.1	16.0	15.5	3.7	3.5	3.4
Roanoke	119.6	120.5	121.4	5.0	4.9	5.5	4.2	4.0	4.5
Washington	2,307.3	2,296.2	2,304.1	159.0	128.6	123.9	6.9	5.6	5.4
Seattle	1,016.2	1,025.5	1,035.8	58.8	45.5	46.3	5.8	4.4	4.5
West Virginia	742.3	723.4	724.6	62.6	61.7	63.9	8.4	8.5	8.8
Charleston	116.1	114.5	114.3	9.0	8.8	8.8	7.7	7.7	7.7
Huntington-Ashland	126.0	124.4	124.7	10.7	9.0	8.5	8.5	7.2	6.8
Parkersburg-Marietta	71.2	69.2	69.9	4.7	4.4	4.4	6.7	6.4	6.3
Wheeling	71.0	69.2	70.1	5.2	5.0	4.8	7.3	7.2	6.8
Wisconsin	2,519.6	2,591.6	2,590.9	118.8	88.4	88.7	4.7	3.4	3.4
Appleton-Oshkosh-Neenah	165.6	174.7	174.2	7.5	5.7	5.7	4.5	3.3	3.3
Eau Claire	70.6	74.8	75.3	3.2	2.3	2.3	4.5	3.1	3.1
Green Bay	107.0	111.2	112.0	5.2	3.9	4.1	4.9	3.5	3.6
Janesville-Beloit	71.5	73.6	73.9	4.3	2.6	2.6	6.0	3.5	3.5
Kenosha	57.2	56.5	55.4	2.8	2.0	1.9	5.0	3.5	3.5
La Crosse	54.8	57.2	57.3	2.1	1.8	1.7	3.7	3.1	2.9
Madison	219.3	226.1	226.6	6.6	5.5	5.0	3.0	2.4	2.2
Milwaukee	744.5	770.8	775.5	32.0	25.9	24.5	4.3	3.4	3.2
Racine	85.9	89.0	88.8	4.4	3.3	3.3	5.1	3.8	3.8
Wausau	58.8	61.7	61.3	2.7	2.0	2.1	4.6	3.3	3.4
Wyoming	235.0	231.1	232.6	15.3	11.4	13.5	6.5	4.9	5.8

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

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

X is the estimate for one quarter and Y is the estimate for another quarter. The coefficient, P, is a measure of the 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)									
		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)									
		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	12	11	11
75	13	15	15	13	15	15	15	13	13
100	15	17	17	15	17	17	17	15	15
150	19	21	21	19	21	21	21	19	19
200	22	24	24	22	24	24	24	22	21
250	24	27	27	24	27	27	27	24	24
300	26	30	30	26	30	30	29	26	26
500	34	38	38	34	38	38	37	34	33
750	42	47	46	42	47	47	45	42	41
1,000	48	54	53	48	54	54	50	48	46
1,500	59	66	63	59	66	66	59	59	56
2,000	68	76	72	68	76	76	65	68	63
2,500	76	85	79	75	84	84	69	75	69
3,000	83	93	85	82	92	92	71	82	74
5,000	107	119	100	105	117	116	64	105	85
7,500	130	145	107	127	140	138	64	127	88
10,000	149	165	102	144	157	155		145	
15,000	180	198	102	187	183	179		173	
20,000	205	224		192	199	193		195	
25,000	226	244		207	209	199		211	
30,000	224	261		219	212	198		224	
40,000	273	286		233	201	174		242	
50,000	296	301		-	160	100		249	
75,000	331	304			160			-	
100,000	343	255			-				

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

COLLECTION

Payroll reports provide current information on wage and salary employment 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:

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

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*.

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