



EMPLOYMENT AND EARNINGS

December 1987

U.S. Department of Labor  
Bureau of Labor Statistics





## U.S. DEPARTMENT OF LABOR

Ann McLaughlin, Secretary

### BUREAU OF LABOR STATISTICS

Janet L. Norwood, *Commissioner*

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## Calendar of Features

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

### Household data

Annual averages	Jan.
Union affiliation	Jan.

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.
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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 <sup>1</sup>
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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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<sup>1</sup> The latest supplement was published in July 1987.

# Employment and Earnings

Vol. 34 No. 12 December 1987

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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 1987

Employment continued to rise in November, while unemployment remained at about the same level that has prevailed since early summer. The overall jobless rate was 5.8 percent, and the civilian worker rate was 5.9 percent.

Nonagricultural payroll employment, as measured by the monthly survey of business establishments, rose by 275,000, and civilian employment, as measured by the household survey, rose by 315,000. Both surveys showed increases of roughly 3 million from a year earlier.

## Unemployment

The number of unemployed persons, at 7.1 million in November, and the civilian unemployment rate, at 5.9 percent, were little changed from October, after seasonal adjustment. These measures have shown little or no movement since June. However, the November unemployment level was 1.1 million lower than a year earlier, and the jobless rate was down a full percentage point over this period. (See table A-33.)

Unemployment rates for virtually all major labor force groups were about unchanged from October to November, but, as with the overall rate, there has been considerable improvement for most groups over the past year. For example, jobless rates for adult men (5.0 percent), adult women (5.2 percent), whites (5.1 percent), and blacks (12.1 percent) all were down substantially from November 1986. The teenage rate (16.8 percent) has edged down only slightly. The jobless rate for manufacturing workers, at 5.3 percent, was down nearly 2 percentage points from a year earlier. (See tables A-33, A-34, and A-39.)

Both the mean and median duration of unemployment, at 13.8 and 6.1 weeks, respectively, were about unchanged from October. (See table A-40.)

## Civilian employment and the labor force

Civilian employment rose by 315,000 in November, after seasonal adjustment, following a substantial increase in the prior month. All of the employment growth occurred among adults. The proportion of the population that is employed increased by two-tenths of a percentage point, reaching a new high of 61.9 percent. (See table A-33.)

The civilian labor force continued to expand, rising by 255,000 in November to a seasonally adjusted level of 120.6

million. The labor force participation rate remained at a high of 65.7 percent. Over the year, the labor force has grown by 2.0 million, with adult women accounting for about three-fifths of the increase. Hispanics comprised about a quarter of the over-the-year gain.

## Industry payroll employment

Total nonagricultural employment, at 103.2 million, rose by 275,000 in November, seasonally adjusted. The goods-producing sector was unusually strong, accounting for more than a third of the job gain. (See table B-4.)

Factory employment rose by 70,000 in November, following a similar advance in October. Job growth was widespread in both the durable and nondurable goods components, as nearly all of the 20 individual industries showed gains. Since June, the number of factory jobs has increased by 300,000. Elsewhere in the goods sector, construction employment increased by 35,000 after seasonal adjustment, as seasonal layoffs were fewer than usual (following weak summer hiring).

Employment in the service-producing sector rose by 175,000 in November. There was a 90,000 increase in the services industry, paced by gains in health services; transportation and public utilities and wholesale trade each added 25,000 jobs; and the finance, insurance, and real estate industry posted a 15,000 gain. However, retail trade employment was about unchanged after seasonal adjustment, primarily because holiday-related hiring in one of its major components—general merchandise stores—was less than seasonally expected.

## Weekly hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was unchanged at 34.9 hours in November, seasonally adjusted. In manufacturing, both the workweek (41.2 hours) and overtime (3.9 hours), while down fractionally over the month, were at historically high levels. (See table C-5.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls rose 0.2 percent to 122.2 (1977=100) seasonally adjusted, as a result of the employment gains. The manufacturing index rose 0.3 percent to 95.3. (See table C-6.)

## Hourly and weekly earnings

Both average hourly earnings and average weekly earnings rose by 0.6 percent in November, seasonally adjusted. Before seasonal adjustment, average hourly earnings rose by 5 cents to \$9.14, and average weekly earnings were up 83 cents to \$318.07. Over the past 12 months, hourly earnings have risen 26 cents and weekly earnings have increased by \$9.93. (See tables C-1 and C-7.)

## The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 175.7 (1977=100) in November, seasonally adjusted, an increase of 0.5 percent from October. For the 12 months ended in November, the increase was 2.6 percent. The HEI excludes the effects of two types of changes unrelated to underlying wage rate movements—fluctuations in manufacturing overtime and interindustry employment shifts. In dollars of constant purchasing power, the HEI decreased 1.8 percent during the 12-month period ended in October. (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 8	March	April 1
January	February 5	April	May 6
February	March 4	May	June 3

**HOUSEHOLD DATA  
HISTORICAL**

**A-1. Employment status of the noninstitutional population 16 years and over, 1953 to date**

(Numbers in thousands)

Year and month	Noninstitutional population	Labor force									Not in labor force	
		Number	Percent of population	Employed						Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force		
						Total	Agriculture	Nonagricultural industries				
<b>Annual averages</b>												
1953 <sup>1</sup> .....	109,287	65,246	59.7	63,410	2,231	61,179	6,260	54,919	1,834	2.8	44,041	
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 <sup>1</sup> .....	119,106	71,489	60.0	67,639	1,861	65,778	5,458	60,318	3,852	5.4	47,617	
1961 .....	120,671	72,359	60.0	67,646	1,900	65,746	5,200	60,546	4,714	6.5	48,312	
1962 <sup>2</sup> .....	122,214	72,675	59.5	68,763	2,061	66,702	4,944	61,759	3,911	5.4	49,539	
1963 .....	124,422	73,839	59.3	69,768	2,006	67,762	4,687	63,076	4,070	5.5	50,583	
1964 .....	126,503	75,109	59.4	71,323	2,018	69,305	4,523	64,782	3,786	5.0	51,394	
1965 .....	128,459	76,401	59.5	73,034	1,946	71,088	4,361	66,726	3,366	4.4	52,058	
1966 .....	130,180	77,892	59.8	75,017	2,122	72,895	3,979	68,915	2,875	3.7	52,288	
1967 .....	132,092	79,565	60.2	76,590	2,218	74,372	3,844	70,527	2,975	3.7	52,527	
1968 .....	134,281	80,990	60.3	78,173	2,253	75,920	3,817	72,103	2,817	3.5	53,291	
1969 .....	136,573	82,972	60.8	80,140	2,238	77,902	3,606	74,296	2,832	3.4	53,602	
1970 .....	139,203	84,889	61.0	80,796	2,118	78,678	3,463	75,215	4,093	4.8	54,315	
1971 .....	142,189	86,355	60.7	81,340	1,973	79,367	3,394	75,972	5,016	5.8	55,834	
1972 <sup>2</sup> .....	145,939	88,847	60.9	83,966	1,813	82,153	3,484	78,669	4,882	5.5	57,091	
1973 <sup>1</sup> .....	148,870	91,203	61.3	86,838	1,774	85,064	3,470	81,594	4,365	4.8	57,667	
1974 .....	151,841	93,670	61.7	88,515	1,721	86,794	3,515	83,279	5,156	5.5	58,171	
1975 .....	154,831	95,453	61.6	87,524	1,678	85,846	3,408	82,438	7,929	8.3	59,377	
1976 .....	157,818	97,826	62.0	90,420	1,668	88,752	3,331	85,421	7,406	7.6	59,991	
1977 .....	160,689	100,665	62.6	93,673	1,656	92,017	3,283	88,734	6,991	6.9	60,025	
1978 <sup>1</sup> .....	163,541	103,882	63.5	97,679	1,631	96,048	3,387	92,661	6,202	6.0	59,659	
1979 .....	166,460	106,559	64.0	100,421	1,597	98,824	3,347	95,477	6,137	5.8	59,900	
1980 .....	169,349	108,544	64.1	100,907	1,604	99,303	3,364	95,938	7,637	7.0	60,806	
1981 .....	171,775	110,315	64.2	102,042	1,645	100,397	3,368	97,030	8,273	7.5	61,460	
1982 .....	173,939	111,872	64.3	101,194	1,668	99,526	3,401	96,125	10,678	9.5	62,067	
1983 .....	175,891	113,226	64.4	102,510	1,676	100,834	3,383	97,450	10,717	9.5	62,665	
1984 .....	178,080	115,241	64.7	106,702	1,697	105,005	3,321	101,685	8,539	7.4	62,839	
1985 .....	179,912	117,167	65.1	108,856	1,706	107,150	3,179	103,971	8,312	7.1	62,744	
1986 <sup>1</sup> .....	182,293	119,540	65.6	111,303	1,706	109,597	3,163	106,434	8,237	6.9	62,752	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1986:</b>												
November .....	183,114	120,426	65.8	112,183	1,751	110,432	3,215	107,217	8,243	6.8	62,688	
December .....	183,297	120,336	65.7	112,387	1,750	110,637	3,161	107,476	7,949	6.6	62,961	
<b>1987:</b>												
January .....	183,575	120,782	65.8	112,759	1,748	111,011	3,145	107,866	8,023	6.6	62,793	
February .....	183,738	121,089	65.9	113,122	1,740	111,382	3,236	108,146	7,967	6.6	62,649	
March .....	183,915	120,958	65.8	113,104	1,736	111,368	3,284	108,084	7,854	6.5	62,957	
April .....	184,079	121,070	65.8	113,570	1,735	111,835	3,290	108,545	7,500	6.2	63,009	
May .....	184,259	121,719	66.1	114,173	1,726	112,447	3,335	109,112	7,546	6.2	62,540	
June .....	184,421	121,235	65.7	113,975	1,718	112,257	3,178	109,079	7,260	6.0	63,187	
July .....	184,605	121,672	65.9	114,447	1,720	112,727	3,219	109,508	7,224	5.9	62,933	
August .....	184,738	122,038	66.1	114,817	1,736	113,081	3,092	109,989	7,221	5.9	62,700	
September .....	184,904	121,604	65.8	114,515	1,743	112,772	3,170	109,602	7,089	5.8	63,300	
October .....	185,052	122,102	66.0	114,928	1,741	113,187	3,283	109,903	7,174	5.9	62,950	
November .....	185,225	122,371	66.1	115,255	1,755	113,500	3,167	110,333	7,116	5.8	62,854	

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

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

seasonal variation.

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



**HOUSEHOLD DATA  
HISTORICAL**

**A-2. Employment status of the noninstitutional population 16 years and over by sex, 1976 to date**

(Numbers in thousands)

Sex, year, and month	Noninstitutional population	Labor force									Not in labor force	
		Number	Percent of population	Employed						Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force		
						Total	Agriculture	Nonagricultural industries				
<b>Annual averages</b>												
<b>MEN</b>												
1976 .....	75,341	58,756	78.0	54,720	1,582	53,138	2,744	50,394	4,036	6.9	16,585	
1977 .....	76,756	59,959	78.1	56,291	1,563	54,728	2,671	52,057	3,667	6.1	16,797	
1978 <sup>1</sup> .....	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	58,320	1,533	56,787	2,704	54,083	6,260	9.7	19,484	
1984 .....	85,156	65,386	76.8	60,642	1,551	59,091	2,668	56,423	4,744	7.3	19,771	
1985 .....	86,025	65,967	76.7	61,447	1,556	59,891	2,535	57,356	4,521	6.9	20,058	
1986 <sup>1</sup> .....	87,349	66,973	76.7	62,443	1,551	60,892	2,511	58,381	4,530	6.8	20,376	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1986:</b>												
November .....	87,773	67,407	76.8	62,833	1,592	61,241	2,506	58,735	4,574	6.8	20,366	
December .....	87,868	67,425	76.7	62,986	1,593	61,393	2,489	58,904	4,439	6.6	20,443	
<b>1987:</b>												
January .....	88,020	67,672	76.9	63,187	1,591	61,596	2,474	59,123	4,484	6.6	20,348	
February .....	88,099	67,764	76.9	63,335	1,584	61,751	2,544	59,207	4,429	6.5	20,335	
March .....	88,186	67,644	76.7	63,282	1,575	61,707	2,639	59,068	4,362	6.4	20,542	
April .....	88,271	67,603	76.6	63,417	1,575	61,842	2,664	59,178	4,186	6.2	20,668	
May .....	88,361	67,816	76.7	63,562	1,566	61,996	2,653	59,343	4,254	6.3	20,545	
June .....	88,442	67,556	76.4	63,471	1,559	61,912	2,521	59,391	4,085	6.0	20,886	
July .....	88,534	67,656	76.4	63,715	1,561	62,154	2,556	59,597	3,941	5.8	20,878	
August .....	88,598	67,925	76.7	63,918	1,575	62,343	2,445	59,898	4,007	5.9	20,673	
September .....	88,683	67,736	76.4	63,939	1,581	62,358	2,550	59,807	3,798	5.6	20,947	
October .....	88,756	67,916	76.5	64,024	1,580	62,444	2,591	59,852	3,893	5.7	20,840	
November .....	88,849	68,025	76.6	64,179	1,593	62,586	2,469	60,117	3,846	5.7	20,824	
<b>Annual averages</b>												
<b>WOMEN</b>												
1976 .....	82,476	39,069	47.4	35,701	86	35,615	588	35,027	3,369	8.6	43,406	
1977 .....	83,932	40,705	48.5	37,381	92	37,289	612	36,677	3,324	8.2	43,227	
1978 <sup>1</sup> .....	85,434	42,731	50.0	39,669	100	39,569	669	38,900	3,061	7.2	42,703	
1979 .....	86,951	44,343	51.0	41,325	108	41,217	661	40,556	3,018	6.8	42,608	
1980 .....	88,472	45,611	51.6	42,241	124	42,117	656	41,461	3,370	7.4	42,861	
1981 .....	89,751	46,829	52.2	43,133	133	43,000	667	42,333	3,696	7.9	42,922	
1982 .....	90,887	47,894	52.7	43,395	139	43,256	665	42,591	4,499	9.4	42,993	
1983 .....	91,827	48,646	53.0	44,190	143	44,047	680	43,367	4,457	9.2	43,181	
1984 .....	92,924	49,855	53.7	46,061	146	45,915	653	45,262	3,794	7.6	43,068	
1985 .....	93,886	51,200	54.5	47,409	150	47,259	644	46,615	3,791	7.4	42,686	
1986 <sup>1</sup> .....	94,944	52,568	55.4	48,861	155	48,706	652	48,054	3,707	7.1	42,376	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1986:</b>												
November .....	95,341	53,019	55.6	49,350	159	49,191	709	48,482	3,669	6.9	42,322	
December .....	95,429	52,911	55.4	49,401	157	49,244	672	48,572	3,510	6.6	42,518	
<b>1987:</b>												
January .....	95,556	53,110	55.6	49,572	157	49,415	671	48,744	3,538	6.7	42,446	
February .....	95,639	53,325	55.8	49,787	156	49,631	692	48,939	3,538	6.6	42,314	
March .....	95,729	53,314	55.7	49,822	161	49,661	645	49,016	3,492	6.6	42,415	
April .....	95,808	53,467	55.8	50,153	160	49,993	626	49,367	3,314	6.2	42,341	
May .....	95,898	53,903	56.2	50,611	160	50,451	681	49,769	3,292	6.1	41,995	
June .....	95,979	53,679	55.9	50,504	159	50,345	657	49,688	3,175	5.9	42,300	
July .....	96,071	54,016	56.2	50,733	159	50,574	663	49,911	3,283	6.1	42,055	
August .....	96,140	54,113	56.3	50,899	161	50,738	647	50,091	3,213	5.9	42,027	
September .....	96,221	53,868	56.0	50,576	162	50,414	620	49,794	3,291	6.1	42,353	
October .....	96,295	54,185	56.3	50,904	161	50,743	692	50,051	3,281	6.1	42,110	
November .....	96,376	54,346	56.4	51,076	162	50,914	698	50,215	3,270	6.0	42,030	

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

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

**HOUSEHOLD DATA  
HISTORICAL**

**A-3. Employment status of the civilian noninstitutional population 16 years and over, 1953 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								
1953 <sup>1</sup> .....	107,056	63,015	58.9	61,179	1,834	2.9	2.8	3.3
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 <sup>1</sup> .....	117,245	69,628	59.4	65,778	3,852	5.5	5.4	5.9
1961 .....	118,771	70,459	59.3	65,746	4,714	6.7	6.4	7.2
1962 <sup>1</sup> .....	120,153	70,614	58.8	66,702	3,911	5.5	5.2	6.2
1963 .....	122,416	71,833	58.7	67,762	4,070	5.7	5.2	6.5
1964 .....	124,485	73,091	58.7	69,305	3,786	5.2	4.6	6.2
1965 .....	126,513	74,455	58.9	71,088	3,366	4.5	4.0	5.5
1966 .....	128,058	75,770	59.2	72,895	2,875	3.8	3.2	4.8
1967 .....	129,874	77,347	59.6	74,372	2,975	3.8	3.1	5.2
1968 .....	132,028	78,737	59.6	75,920	2,817	3.6	2.9	4.8
1969 .....	134,335	80,734	60.1	77,902	2,832	3.5	2.8	4.7
1970 .....	137,085	82,771	60.4	78,678	4,093	4.9	4.4	5.9
1971 .....	140,216	84,382	60.2	79,367	5,016	5.9	5.3	6.9
1972 <sup>2</sup> .....	144,126	87,034	60.4	82,153	4,882	5.6	5.0	6.6
1973 <sup>1</sup> .....	147,096	89,429	60.8	85,064	4,365	4.9	4.2	6.0
1974 .....	150,120	91,949	61.3	86,794	5,156	5.6	4.9	6.7
1975 .....	153,153	93,775	61.2	85,846	7,929	8.5	7.9	9.3
1976 .....	156,150	96,158	61.6	88,752	7,406	7.7	7.1	8.6
1977 .....	159,033	99,009	62.3	92,017	6,991	7.1	6.3	8.2
1978 <sup>1</sup> .....	161,910	102,251	63.2	96,048	6,202	6.1	5.3	7.2
1979 .....	164,863	104,962	63.7	98,824	6,137	5.8	5.1	6.8
1980 .....	167,745	106,940	63.8	99,303	7,637	7.1	6.9	7.4
1981 .....	170,130	108,670	63.9	100,397	8,273	7.6	7.4	7.9
1982 .....	172,271	110,204	64.0	99,526	10,678	9.7	9.9	9.4
1983 .....	174,215	111,550	64.0	100,834	10,717	9.6	9.9	9.2
1984 .....	176,383	113,544	64.4	105,005	8,539	7.5	7.4	7.6
1985 .....	178,206	115,461	64.8	107,150	8,312	7.2	7.0	7.4
1986 <sup>1</sup> .....	180,587	117,834	65.3	109,597	8,237	7.0	6.9	7.1
Monthly data, seasonally adjusted <sup>2</sup>								
<b>1986:</b>								
November .....	181,363	118,675	65.4	110,432	8,243	6.9	6.9	6.9
December .....	181,547	118,586	65.3	110,637	7,949	6.7	6.7	6.7
<b>1987:</b>								
January .....	181,827	119,034	65.5	111,011	8,023	6.7	6.8	6.7
February .....	181,998	119,349	65.6	111,382	7,967	6.7	6.7	6.7
March .....	182,179	119,222	65.4	111,368	7,854	6.6	6.6	6.6
April .....	182,344	119,335	65.4	111,835	7,500	6.3	6.3	6.2
May .....	182,533	119,993	65.7	112,447	7,546	6.3	6.4	6.1
June .....	182,703	119,517	65.4	112,257	7,260	6.1	6.2	5.9
July .....	182,885	119,952	65.6	112,727	7,224	6.0	6.0	6.1
August .....	183,002	120,302	65.7	113,081	7,221	6.0	6.0	6.0
September .....	183,161	119,861	65.4	112,772	7,089	5.9	5.7	6.1
October .....	183,311	120,361	65.7	113,187	7,174	6.0	5.9	6.1
November .....	183,470	120,616	65.7	113,500	7,116	5.9	5.8	6.0

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

Explanatory Notes.

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

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

(Numbers in thousands)

Age, sex, and race	November 1987										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>TOTAL</b>											
16 years and over .....	183,470	120,611	65.7	113,809	6,802	5.6	62,859	28,403	9,227	3,040	22,189
16 to 19 years .....	14,663	7,633	52.1	6,354	1,279	16.8	7,029	415	6,108	34	472
16 to 17 years .....	7,487	3,115	41.6	2,489	625	20.1	4,372	104	4,084	6	179
18 to 19 years .....	7,176	4,519	63.0	3,865	654	14.5	2,657	311	2,024	28	294
20 to 24 years .....	18,695	14,623	78.2	13,383	1,240	8.5	4,073	1,453	2,000	101	519
25 to 54 years .....	100,021	83,074	83.1	79,294	3,780	4.6	16,947	11,973	1,059	1,112	2,801
25 to 34 years .....	42,413	35,563	83.8	33,641	1,922	5.4	6,851	4,904	729	280	938
25 to 29 years .....	21,381	17,952	84.0	16,967	986	5.5	3,429	2,345	468	113	502
30 to 34 years .....	21,033	17,610	83.7	16,675	936	5.3	3,421	2,559	260	167	435
35 to 44 years .....	34,172	29,004	84.9	27,854	1,149	4.0	5,169	3,705	268	362	834
35 to 39 years .....	18,596	15,726	84.6	15,116	610	3.9	2,871	2,085	160	169	448
40 to 44 years .....	15,576	13,277	85.2	12,739	540	4.1	2,298	1,611	108	193	387
45 to 54 years .....	23,435	18,507	79.0	17,798	709	3.8	4,928	3,364	64	471	1,029
45 to 49 years .....	12,498	10,292	82.3	9,891	401	3.9	2,204	1,560	41	207	395
50 to 54 years .....	10,938	8,214	75.1	7,907	308	3.7	2,724	1,804	22	263	634
55 to 64 years .....	21,790	12,065	55.4	11,659	407	3.4	9,724	5,016	33	649	4,026
55 to 59 years .....	10,968	7,274	66.3	7,030	244	3.3	3,694	2,158	28	357	1,151
60 to 64 years .....	10,822	4,792	44.3	4,629	163	3.4	6,030	2,858	6	292	2,875
65 years and over .....	28,302	3,216	11.4	3,120	97	3.0	25,085	9,546	25	1,143	14,371
65 to 69 years .....	9,795	1,974	20.2	1,917	57	2.9	7,821	3,165	9	244	4,402
70 to 74 years .....	7,594	793	10.4	765	29	3.7	6,801	2,585	3	214	3,999
75 years and over .....	10,913	449	4.1	438	11	2.4	10,464	3,795	13	685	5,971
<b>Men</b>											
16 years and over .....	87,256	66,160	75.8	62,491	3,669	5.5	21,096	573	4,720	1,701	14,103
16 to 19 years .....	7,371	3,872	52.5	3,202	670	17.3	3,499	23	3,203	14	258
16 to 17 years .....	3,823	1,549	40.5	1,221	328	21.2	2,274	14	2,150	2	109
18 to 19 years .....	3,548	2,323	65.5	1,981	343	14.7	1,225	9	1,053	12	150
20 to 24 years .....	9,053	7,576	83.7	6,911	665	8.8	1,476	32	1,066	65	313
25 to 54 years .....	48,855	45,743	93.6	43,726	2,017	4.4	3,111	192	433	772	1,714
25 to 34 years .....	20,835	19,697	94.5	18,674	1,022	5.2	1,138	63	315	189	571
25 to 29 years .....	10,488	9,869	94.1	9,342	528	5.3	619	29	214	86	290
30 to 34 years .....	10,347	9,827	95.0	9,333	495	5.0	519	34	101	103	281
35 to 44 years .....	16,688	15,781	94.6	15,177	605	3.8	907	68	91	250	498
35 to 39 years .....	9,105	8,628	94.8	8,311	317	3.7	478	43	52	120	263
40 to 44 years .....	7,583	7,153	94.3	6,866	288	4.0	430	25	40	130	236
45 to 54 years .....	11,332	10,266	90.6	9,875	390	3.8	1,066	61	27	334	645
45 to 49 years .....	6,077	5,658	93.1	5,451	207	3.7	418	25	17	144	231
50 to 54 years .....	5,255	4,607	87.7	4,424	183	4.0	648	36	9	189	413
55 to 64 years .....	10,258	7,000	68.2	6,742	258	3.7	3,258	104	16	398	2,740
55 to 59 years .....	5,235	4,187	80.0	4,044	143	3.4	1,049	39	12	227	770
60 to 64 years .....	5,022	2,814	56.0	2,699	115	4.1	2,209	65	3	171	1,969
65 years and over .....	11,719	1,968	16.8	1,910	58	3.0	9,751	221	2	450	9,077
65 to 69 years .....	4,441	1,224	27.6	1,191	33	2.7	3,217	40	1	145	3,031
70 to 74 years .....	3,264	455	13.9	438	17	3.7	2,809	71	1	105	2,633
75 years and over .....	4,014	289	7.2	281	8	2.7	3,725	110	-	200	3,414
<b>Women</b>											
16 years and over .....	96,214	54,451	56.6	51,318	3,133	5.8	41,763	27,830	4,507	1,339	8,087
16 to 19 years .....	7,291	3,761	51.6	3,152	609	16.2	3,530	392	2,905	19	214
16 to 17 years .....	3,663	1,565	42.7	1,268	297	19.0	2,098	90	1,935	3	70
18 to 19 years .....	3,628	2,195	60.5	1,884	311	14.2	1,432	302	971	16	144
20 to 24 years .....	9,642	7,046	73.1	6,472	574	8.1	2,596	1,421	934	35	206
25 to 54 years .....	51,166	37,330	73.0	35,567	1,763	4.7	13,836	11,781	626	340	1,087
25 to 34 years .....	21,578	15,866	73.5	14,967	899	5.7	5,712	4,841	413	91	367
25 to 29 years .....	10,893	8,083	74.2	7,625	458	5.7	2,810	2,316	254	27	212
30 to 34 years .....	10,686	7,783	72.8	7,342	441	5.7	2,902	2,525	159	64	154
35 to 44 years .....	17,484	13,222	75.6	12,677	545	4.1	4,261	3,637	176	112	336
35 to 39 years .....	9,491	7,098	74.8	6,805	293	4.1	2,393	2,051	108	49	185
40 to 44 years .....	7,993	6,124	76.6	5,873	252	4.1	1,868	1,586	68	63	151
45 to 54 years .....	12,104	8,242	68.1	7,923	319	3.9	3,862	3,303	37	137	385
45 to 49 years .....	6,421	4,634	72.2	4,440	194	4.2	1,786	1,535	24	63	164
50 to 54 years .....	5,683	3,607	63.5	3,483	125	3.5	2,076	1,768	13	74	221
55 to 64 years .....	11,532	5,065	43.9	4,917	149	2.9	6,467	4,912	18	251	1,286
55 to 59 years .....	5,732	3,087	53.9	2,987	101	3.3	2,645	2,119	16	130	381
60 to 64 years .....	5,800	1,978	34.1	1,930	48	2.4	3,822	2,793	2	121	905
65 years and over .....	16,583	1,248	7.5	1,210	38	3.1	15,334	9,324	24	693	5,294
65 to 69 years .....	5,354	750	14.0	726	24	3.2	4,604	3,125	8	99	1,371
70 to 74 years .....	4,330	338	7.8	327	12	3.6	3,992	2,514	2	109	1,366
75 years and over .....	6,899	160	2.3	157	3	2.0	6,739	3,685	13	485	2,557

**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 1987										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>WHITE</b>											
16 years and over .....	157,449	103,729	65.9	98,698	5,031	4.9	53,720	24,892	7,147	2,301	19,380
16 to 19 years .....	11,933	6,531	54.7	5,590	941	14.4	5,403	310	4,712	28	354
16 to 17 years .....	6,067	2,734	45.1	2,248	485	17.7	3,334	78	3,115	6	136
18 to 19 years .....	5,866	3,797	64.7	3,341	456	12.0	2,069	232	1,597	22	218
20 to 24 years .....	15,592	12,367	79.3	11,531	836	6.8	3,224	1,178	1,616	59	371
25 to 54 years .....	85,296	71,306	83.6	68,478	2,829	4.0	13,988	10,224	776	805	2,183
25 to 34 years .....	35,761	30,225	84.5	28,861	1,364	4.5	5,535	4,128	528	201	677
25 to 29 years .....	17,961	15,238	84.8	14,548	691	4.5	2,722	1,915	351	81	376
30 to 34 years .....	17,800	14,987	84.2	14,313	673	4.5	2,813	2,214	178	121	301
35 to 44 years .....	29,342	25,021	85.3	24,133	888	3.5	4,320	3,217	198	251	655
35 to 39 years .....	15,837	13,447	84.9	12,992	456	5.6	2,390	1,800	117	117	342
40 to 44 years .....	13,504	11,574	85.7	11,142	432	3.7	1,932	1,407	81	133	314
45 to 54 years .....	20,193	16,061	79.5	15,483	577	3.6	4,132	2,879	50	353	851
45 to 49 years .....	10,759	8,889	82.6	8,575	313	3.5	1,871	1,347	34	170	328
50 to 54 years .....	9,434	7,172	76.0	6,908	265	4.4	2,262	1,553	16	184	523
55 to 64 years .....	19,147	10,634	55.5	10,290	343	3.2	8,514	4,486	26	511	3,491
55 to 59 years .....	9,584	6,373	66.5	6,173	200	3.1	3,210	1,946	20	280	964
60 to 64 years .....	9,564	4,260	44.5	4,117	143	3.4	5,303	2,540	6	231	2,527
65 years and over .....	25,482	2,890	11.3	2,809	82	2.8	22,591	8,695	17	898	12,982
65 to 69 years .....	8,727	1,747	20.0	1,696	51	2.9	6,981	2,855	7	179	3,939
70 to 74 years .....	6,855	725	10.6	702	23	3.2	6,130	2,326	4	172	3,630
75 years and over .....	9,899	418	4.2	410	8	1.9	9,481	3,514	6	547	5,413
<b>Men</b>											
16 years and over .....	75,440	57,653	76.4	54,856	2,797	4.9	17,787	443	3,710	1,294	12,340
16 to 19 years .....	6,017	3,305	54.9	2,806	499	15.1	2,712	17	2,482	12	201
16 to 17 years .....	3,103	1,357	43.7	1,100	257	18.9	1,746	8	1,650	3	86
18 to 19 years .....	2,913	1,948	66.9	1,706	242	12.4	965	9	833	9	115
20 to 24 years .....	7,618	6,460	84.8	5,980	480	7.4	1,158	15	883	39	220
25 to 54 years .....	42,182	39,838	94.4	38,292	1,547	3.9	2,343	144	333	561	1,305
25 to 34 years .....	17,802	16,980	95.4	16,223	757	4.5	822	44	247	142	388
25 to 29 years .....	8,918	8,457	94.8	8,073	385	4.5	460	17	174	63	207
30 to 34 years .....	8,884	8,523	95.9	8,150	372	4.4	362	28	74	80	181
35 to 44 years .....	14,495	13,817	95.3	13,358	459	3.3	677	54	65	174	385
35 to 39 years .....	7,848	7,488	95.4	7,248	241	3.2	360	36	39	86	199
40 to 44 years .....	6,646	6,329	95.2	6,111	218	3.4	318	18	26	88	186
45 to 54 years .....	9,885	9,041	91.5	8,710	331	3.7	844	46	21	244	533
45 to 49 years .....	5,283	4,948	93.6	4,773	174	3.5	336	18	12	116	190
50 to 54 years .....	4,602	4,094	89.0	3,937	157	3.8	508	28	9	129	343
55 to 64 years .....	9,061	6,246	68.9	6,025	221	3.5	2,815	83	10	321	2,400
55 to 59 years .....	4,594	3,725	81.1	3,604	120	3.2	870	31	7	185	646
60 to 64 years .....	4,467	2,522	56.5	2,421	100	4.0	1,945	51	3	136	1,754
65 years and over .....	10,564	1,804	17.1	1,753	51	2.8	8,760	184	2	360	8,214
65 to 69 years .....	3,979	1,107	27.8	1,076	31	2.8	2,873	33	1	107	2,731
70 to 74 years .....	2,951	421	14.3	406	15	3.6	2,530	58	1	86	2,387
75 years and over .....	3,633	276	7.6	271	5	1.9	3,357	93	-	167	3,096
<b>Women</b>											
16 years and over .....	82,009	46,076	56.2	43,842	2,234	4.8	35,933	24,449	3,437	1,007	7,040
16 to 19 years .....	5,917	3,226	54.5	2,784	442	13.7	2,691	293	2,229	16	152
16 to 17 years .....	2,964	1,377	46.4	1,148	228	16.6	1,587	70	1,465	3	49
18 to 19 years .....	2,953	1,849	62.6	1,635	214	11.6	1,104	223	764	13	103
20 to 24 years .....	7,974	5,907	74.1	5,551	356	6.0	2,067	1,163	734	19	151
25 to 54 years .....	43,114	31,468	73.0	30,186	1,282	4.1	11,645	10,080	443	244	878
25 to 34 years .....	17,959	13,245	73.8	12,638	607	4.6	4,714	4,084	281	59	289
25 to 29 years .....	9,043	6,781	75.0	6,475	306	4.5	2,262	1,898	177	18	169
30 to 34 years .....	8,916	6,464	72.5	6,163	301	4.7	2,451	2,186	104	41	120
35 to 44 years .....	14,847	11,204	75.5	10,775	429	3.8	3,643	3,163	133	77	270
35 to 39 years .....	7,989	5,959	74.6	5,744	215	3.6	2,030	1,777	78	31	143
40 to 44 years .....	6,858	5,245	76.5	5,031	214	4.1	1,614	1,386	55	45	128
45 to 54 years .....	10,308	7,019	68.1	6,773	246	3.5	3,288	2,833	29	109	318
45 to 49 years .....	5,476	3,941	72.0	3,802	139	3.5	1,535	1,321	22	54	138
50 to 54 years .....	4,832	3,078	63.7	2,971	108	3.5	1,754	1,511	7	55	180
55 to 64 years .....	10,087	4,388	43.5	4,265	123	2.8	5,699	4,403	15	190	1,091
55 to 59 years .....	4,989	2,649	53.1	2,569	80	3.0	2,341	1,915	13	95	318
60 to 64 years .....	5,097	1,739	34.1	1,696	43	2.5	3,358	2,488	2	95	773
65 years and over .....	14,918	1,087	7.3	1,055	31	2.9	13,831	8,511	15	538	4,768
65 to 69 years .....	4,748	640	13.5	620	20	3.2	4,108	2,822	6	72	1,208
70 to 74 years .....	3,904	304	7.8	296	8	2.6	3,600	2,268	3	86	1,243
75 years and over .....	6,266	142	2.3	139	3	2.3	6,124	3,421	6	380	2,317

**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 1987										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>BLACK</b>											
16 years and over .....	20,482	13,178	64.3	11,632	1,545	11.7	7,304	2,712	1,548	667	2,374
16 to 19 years .....	2,174	872	40.1	585	287	32.9	1,302	96	1,096	6	104
16 to 17 years .....	1,131	303	26.8	176	127	41.9	828	23	771	-	34
18 to 19 years .....	1,043	569	54.5	409	160	28.1	474	73	325	6	70
20 to 24 years .....	2,556	1,860	72.8	1,491	369	19.8	696	244	277	39	136
25 to 54 years .....	11,277	9,052	80.3	8,228	824	9.1	2,225	1,244	171	270	538
25 to 34 years .....	5,176	4,198	81.1	3,690	508	12.1	978	560	120	69	228
25 to 29 years .....	2,661	2,133	80.2	1,868	265	12.4	528	324	61	31	111
30 to 34 years .....	2,515	2,064	82.1	1,822	244	11.8	451	236	59	38	117
35 to 44 years .....	3,619	2,989	82.6	2,781	208	7.0	630	332	45	97	156
35 to 39 years .....	2,075	1,726	83.2	1,604	122	7.1	349	183	30	41	96
40 to 44 years .....	1,544	1,263	81.8	1,176	86	6.8	281	148	15	56	61
45 to 54 years .....	2,482	1,866	75.2	1,757	109	5.8	616	352	6	104	154
45 to 49 years .....	1,319	1,063	80.6	990	73	6.9	254	167	4	31	54
50 to 54 years .....	1,164	802	68.9	767	35	4.4	362	185	2	74	101
55 to 64 years .....	2,102	1,139	54.2	1,089	50	4.4	963	410	2	124	426
55 to 59 years .....	1,099	713	64.9	679	34	4.7	386	162	2	69	153
60 to 64 years .....	1,002	426	42.5	409	16	3.8	577	248	-	55	273
65 years and over .....	2,373	255	10.7	240	15	5.9	2,118	718	2	228	1,170
65 to 69 years .....	868	169	19.5	164	5	3.0	697	246	-	61	391
70 years and over .....	1,506	85	5.6	76	9	10.6	1,420	472	2	167	779
<b>Men</b>											
16 years and over .....	9,188	6,512	70.9	5,764	746	11.5	2,676	101	720	359	1,493
16 to 19 years .....	1,072	458	42.7	311	147	32.1	614	3	556	3	52
16 to 17 years .....	570	158	27.8	94	64	40.5	412	3	392	-	17
18 to 19 years .....	502	299	59.7	216	83	27.7	202	-	164	3	35
20 to 24 years .....	1,162	909	78.2	746	163	17.9	254	17	125	25	87
25 to 54 years .....	5,052	4,428	87.6	4,024	404	9.1	623	40	39	182	360
25 to 34 years .....	2,338	2,100	89.9	1,854	247	11.7	237	13	25	41	157
25 to 29 years .....	1,202	1,089	90.6	958	131	12.0	113	11	7	22	72
30 to 34 years .....	1,136	1,011	89.0	896	116	11.4	125	2	18	19	85
35 to 44 years .....	1,612	1,418	88.0	1,309	109	7.7	194	12	14	65	103
35 to 39 years .....	924	827	89.5	772	55	6.6	97	5	7	25	61
40 to 44 years .....	687	591	86.0	537	54	9.1	96	6	7	40	42
45 to 54 years .....	1,102	910	82.6	861	50	5.4	192	15	-	76	100
45 to 49 years .....	586	523	89.4	495	28	5.4	62	7	-	21	35
50 to 54 years .....	516	387	74.9	365	21	5.5	130	8	-	56	66
55 to 64 years .....	947	595	62.9	571	24	4.1	351	18	-	68	264
55 to 59 years .....	497	358	72.0	345	13	3.8	139	7	-	38	94
60 to 64 years .....	449	237	52.8	226	11	4.5	212	11	-	30	170
65 years and over .....	956	121	12.7	114	8	6.3	834	23	-	81	730
65 to 69 years .....	378	84	22.4	82	2	2.9	293	4	-	36	253
70 years and over .....	578	37	6.4	32	5	( <sup>1</sup> )	541	19	-	45	477
<b>Women</b>											
16 years and over .....	11,294	6,666	59.0	5,868	799	12.0	4,628	2,612	829	306	881
16 to 19 years .....	1,102	414	37.6	274	140	33.7	688	93	540	3	52
16 to 17 years .....	561	145	25.8	82	63	43.5	416	20	379	-	17
18 to 19 years .....	541	269	49.8	192	77	28.5	272	73	161	3	35
20 to 24 years .....	1,394	951	68.3	746	206	21.6	442	227	152	14	49
25 to 54 years .....	6,225	4,624	74.3	4,204	420	9.1	1,602	1,204	132	88	178
25 to 34 years .....	2,838	2,098	73.9	1,836	262	12.5	740	547	95	28	71
25 to 29 years .....	1,459	1,044	71.6	910	134	12.8	415	313	54	9	39
30 to 34 years .....	1,379	1,053	76.4	926	128	12.1	326	234	41	19	32
35 to 44 years .....	2,007	1,571	78.2	1,472	99	6.3	437	320	31	32	53
35 to 39 years .....	1,151	899	78.1	832	67	7.4	252	178	23	16	35
40 to 44 years .....	857	672	78.4	639	32	4.8	185	142	8	16	19
45 to 54 years .....	1,380	956	69.2	896	59	6.2	425	337	6	28	54
45 to 49 years .....	733	540	73.7	495	45	8.4	192	160	4	10	19
50 to 54 years .....	648	415	64.1	402	14	3.3	232	177	2	18	35
55 to 64 years .....	1,155	544	47.1	518	26	4.7	612	392	2	56	162
55 to 59 years .....	602	355	59.0	335	20	5.7	247	155	2	31	59
60 to 64 years .....	553	189	34.1	183	6	2.9	364	237	-	25	103
65 years and over .....	1,417	134	9.4	126	7	5.5	1,284	695	2	147	440
65 to 69 years .....	490	85	17.4	82	3	3.9	404	242	-	25	138
70 years and over .....	928	48	5.2	44	4	( <sup>1</sup> )	879	453	2	122	302

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Age and sex	November 1987								Not in labor force
	Civilian noninstitutional population	Civilian labor force							
		Total	Percent of population	Employed			Unemployed		
				Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
<b>TOTAL</b>									
16 years and over .....	26,021	16,882	64.9	15,112	205	14,906	1,771	10.5	9,139
16 to 19 years .....	2,729	1,103	40.4	765	1	763	338	30.7	1,626
16 to 17 years .....	1,419	381	26.8	241	-	241	140	36.8	1,038
18 to 19 years .....	1,310	722	55.1	524	1	523	198	27.4	588
20 to 24 years .....	3,104	2,256	72.7	1,852	17	1,835	404	17.9	848
25 to 54 years .....	14,727	11,766	79.9	10,816	150	10,665	950	8.1	2,960
25 to 34 years .....	6,653	5,338	80.2	4,780	69	4,711	557	10.4	1,315
25 to 29 years .....	3,421	2,714	79.3	2,419	40	2,379	295	10.9	707
30 to 34 years .....	3,232	1,380	42.7	2,361	29	2,332	262	19.0	609
35 to 44 years .....	4,831	3,982	82.4	3,721	45	3,676	262	6.6	848
35 to 39 years .....	2,759	2,278	82.6	2,123	17	2,106	154	6.8	481
40 to 44 years .....	2,072	1,704	82.2	1,597	28	1,569	107	6.3	367
45 to 54 years .....	3,243	2,447	75.5	2,315	36	2,278	132	5.4	796
45 to 49 years .....	1,739	1,404	80.7	1,316	19	1,296	89	6.3	335
50 to 54 years .....	1,504	1,043	69.3	999	17	982	43	4.1	461
55 to 64 years .....	2,642	1,432	54.2	1,369	24	1,344	63	4.4	1,210
55 to 59 years .....	1,384	900	65.1	857	17	840	44	4.8	483
60 to 64 years .....	1,258	531	42.2	512	8	504	20	3.7	727
65 years and over .....	2,820	326	11.6	311	13	298	15	4.6	2,494
65 to 69 years .....	1,067	227	21.3	221	4	217	5	2.2	841
70 to 74 years .....	739	69	9.3	62	7	56	6	( <sup>1</sup> )	671
75 years and over .....	1,014	30	3.0	28	2	25	3	( <sup>1</sup> )	983
<b>Men</b>									
16 years and over .....	11,816	8,507	72.0	7,636	176	7,460	872	10.2	3,309
16 to 19 years .....	1,355	568	41.9	396	1	395	171	30.2	787
16 to 17 years .....	720	192	26.7	121	-	121	71	36.9	528
18 to 19 years .....	635	376	59.2	275	1	274	101	26.8	259
20 to 24 years .....	1,435	1,116	77.8	931	17	915	185	16.6	319
25 to 54 years .....	6,674	5,905	88.5	5,435	129	5,305	470	8.0	769
25 to 34 years .....	3,033	2,717	89.6	2,451	55	2,396	265	9.8	316
25 to 29 years .....	1,571	1,412	89.9	1,269	29	1,240	143	10.1	159
30 to 34 years .....	1,462	1,305	89.2	1,182	26	1,156	122	9.4	158
35 to 44 years .....	2,194	1,964	89.5	1,818	41	1,777	146	7.4	230
35 to 39 years .....	1,257	1,139	90.6	1,063	14	1,049	76	6.7	118
40 to 44 years .....	937	824	88.0	755	27	728	69	8.4	112
45 to 54 years .....	1,447	1,224	84.6	1,165	33	1,132	59	4.8	222
45 to 49 years .....	794	711	89.6	678	18	660	33	4.6	83
50 to 54 years .....	653	514	78.7	487	15	472	26	5.1	139
55 to 64 years .....	1,197	754	63.0	717	18	699	37	4.9	443
55 to 59 years .....	641	462	72.1	439	10	429	23	4.9	179
60 to 64 years .....	556	292	52.5	278	8	270	14	4.9	264
65 years and over .....	1,155	164	14.2	156	11	146	8	4.7	991
65 to 69 years .....	462	117	25.4	115	4	111	2	2.1	345
70 to 74 years .....	313	35	11.2	32	7	26	2	( <sup>1</sup> )	279
75 years and over .....	381	12	3.1	10	-	9	3	( <sup>1</sup> )	368
<b>Women</b>									
16 years and over .....	14,205	8,375	59.0	7,476	29	7,447	899	10.7	5,830
16 to 19 years .....	1,374	535	38.9	368	-	368	167	31.1	839
16 to 17 years .....	699	189	27.0	120	-	119	69	36.7	510
18 to 19 years .....	675	346	51.3	249	-	249	97	28.1	329
20 to 24 years .....	1,669	1,139	68.3	921	-	921	218	19.2	530
25 to 54 years .....	8,053	5,861	72.8	5,381	21	5,360	480	8.2	2,191
25 to 34 years .....	3,620	2,621	72.4	2,329	14	2,315	292	11.1	999
25 to 29 years .....	1,850	1,302	70.4	1,150	11	1,139	152	11.7	548
30 to 34 years .....	1,770	1,319	74.5	1,179	3	1,176	140	10.6	451
35 to 44 years .....	2,637	2,018	76.6	1,902	4	1,898	116	5.7	618
35 to 39 years .....	1,502	1,139	75.8	1,060	3	1,057	78	6.9	363
40 to 44 years .....	1,135	880	77.5	842	1	841	38	4.3	255
45 to 54 years .....	1,796	1,222	68.0	1,149	3	1,146	73	6.0	574
45 to 49 years .....	945	693	73.4	638	1	636	56	8.0	252
50 to 54 years .....	851	529	62.1	512	2	510	17	3.2	322
55 to 64 years .....	1,445	678	46.9	652	7	645	26	3.8	768
55 to 59 years .....	743	439	59.0	418	7	411	21	4.7	304
60 to 64 years .....	702	239	34.1	234	-	234	5	2.2	463
65 years and over .....	1,665	162	9.7	155	2	153	7	4.5	1,503
65 to 69 years .....	605	110	18.1	106	-	106	3	3.0	496
70 to 74 years .....	426	34	8.0	30	-	30	4	( <sup>1</sup> )	392
75 years and over .....	633	18	2.8	18	2	16	-	( <sup>1</sup> )	615

<sup>1</sup> 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. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
<b>TOTAL</b>								
Civilian noninstitutional population .....	181,363	183,470	78,874	79,885	87,933	88,923	14,557	14,663
Civilian labor force .....	118,623	120,611	61,654	62,288	49,458	50,690	7,511	7,633
Percent of population .....	65.4	65.7	78.2	78.0	56.2	57.0	51.6	52.1
Employed .....	110,751	113,809	58,019	59,289	46,597	48,166	6,135	6,354
Agriculture .....	3,078	3,020	2,263	2,234	640	624	174	162
Nonagricultural industries .....	107,673	110,789	55,755	57,056	45,958	47,542	5,960	6,192
Unemployed .....	7,872	6,802	3,636	2,999	2,860	2,525	1,376	1,279
Unemployment rate .....	6.6	5.6	5.9	4.8	5.8	5.0	18.3	16.8
Not in labor force .....	62,740	62,859	17,220	17,597	38,475	38,233	7,046	7,029
<b>White</b>								
Civilian noninstitutional population .....	155,979	157,449	68,671	69,424	75,404	76,092	11,903	11,933
Civilian labor force .....	102,455	103,729	53,930	54,349	41,951	42,850	6,573	6,531
Percent of population .....	65.7	65.9	78.5	78.3	55.6	56.3	55.2	54.7
Employed .....	96,555	98,698	51,163	52,050	39,893	41,058	5,500	5,590
Agriculture .....	2,888	2,815	2,103	2,059	615	595	170	161
Nonagricultural industries .....	93,668	95,883	49,060	49,991	39,278	40,463	5,329	5,429
Unemployed .....	5,899	5,031	2,768	2,298	2,058	1,792	1,073	941
Unemployment rate .....	5.8	4.9	5.1	4.2	4.9	4.2	16.3	14.4
Not in labor force .....	53,524	53,720	14,741	15,075	33,453	33,242	5,330	5,403
<b>Black</b>								
Civilian noninstitutional population .....	20,120	20,482	7,961	8,116	10,015	10,192	2,144	2,174
Civilian labor force .....	12,695	13,178	5,951	6,053	5,977	6,252	767	872
Percent of population .....	63.1	64.3	74.8	74.6	59.7	61.3	35.8	40.1
Employed .....	10,946	11,632	5,209	5,454	5,238	5,594	499	585
Agriculture .....	149	152	131	131	15	21	3	1
Nonagricultural industries .....	10,797	11,480	5,078	5,324	5,223	5,572	495	584
Unemployed .....	1,749	1,545	742	599	738	659	269	287
Unemployment rate .....	13.8	11.7	12.5	9.9	12.4	10.5	35.0	32.9
Not in labor force .....	7,425	7,304	2,010	2,062	4,038	3,939	1,377	1,302

**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 1987									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time <sup>1</sup>	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	
<b>TOTAL ENROLLED</b>										
Total, 16 to 24 years .....	15,557	7,512	48.3	6,635	1,203	5,432	877	99	778	11.7
16 to 19 years .....	10,861	4,764	43.9	4,023	342	3,681	741	53	688	15.6
20 to 24 years .....	4,696	2,748	58.5	2,612	861	1,751	136	46	90	4.9
High school .....	7,962	3,341	42.0	2,716	171	2,546	625	36	589	18.7
College .....	7,596	4,171	54.9	3,919	1,032	2,887	253	63	190	6.1
Full-time students .....	6,436	3,111	48.3	2,888	312	2,576	223	40	183	7.2
Part-time students .....	1,160	1,060	91.4	1,030	719	311	30	23	7	2.8
Men, 16 to 24 years .....	8,016	3,779	47.1	3,316	624	2,692	463	50	413	12.3
16 to 19 years .....	5,623	2,429	43.2	2,027	212	1,815	402	31	371	16.5
20 to 24 years .....	2,393	1,350	56.4	1,289	413	877	61	20	42	4.5
High school .....	4,198	1,736	41.4	1,392	99	1,292	344	18	326	19.8
College .....	3,818	2,043	53.5	1,924	525	1,400	119	32	86	5.8
Full-time students .....	3,284	1,544	47.0	1,445	193	1,252	99	17	82	6.4
Part-time students .....	534	499	93.5	479	331	148	20	16	4	4.0
Women, 16 to 24 years .....	7,542	3,733	49.5	3,319	579	2,740	414	49	366	11.1
16 to 19 years .....	5,239	2,335	44.6	1,996	130	1,866	339	22	317	14.5
20 to 24 years .....	2,303	1,398	60.7	1,323	448	875	75	26	49	5.4
High school .....	3,764	1,605	42.6	1,325	71	1,253	280	18	262	17.5
College .....	3,778	2,128	56.3	1,994	507	1,487	134	30	103	6.3
Full-time students .....	3,152	1,567	49.7	1,443	119	1,324	124	24	100	7.9
Part-time students .....	626	561	89.6	551	388	163	10	7	3	1.8
<b>White</b>										
Total, 16 to 24 years .....	12,747	6,467	50.7	5,825	1,038	4,787	642	49	593	9.9
16 to 19 years .....	8,813	4,096	46.5	3,543	310	3,233	553	27	526	13.5
20 to 24 years .....	3,934	2,371	60.3	2,282	728	1,555	88	21	67	3.7
Men .....	6,598	3,250	49.3	2,902	541	2,361	347	24	324	10.7
Women .....	6,149	3,217	52.3	2,923	497	2,426	294	25	269	9.1
High school .....	6,354	2,867	45.1	2,405	152	2,253	462	21	441	16.1
College .....	6,393	3,600	56.3	3,420	885	2,535	180	27	152	5.0
Full-time students .....	5,440	2,712	49.9	2,548	273	2,275	164	19	145	6.1
Part-time students .....	953	888	93.2	873	613	260	16	9	7	1.8
<b>Black</b>										
Total, 16 to 24 years .....	2,113	758	35.9	549	123	426	209	45	164	27.6
16 to 19 years .....	1,594	516	32.3	348	22	326	167	23	144	32.4
20 to 24 years .....	519	242	46.7	200	100	100	42	22	20	17.3
Men .....	1,050	383	36.5	278	63	215	105	24	81	27.4
Women .....	1,063	375	35.3	271	60	211	104	21	83	27.8
High school .....	1,295	386	29.8	236	17	219	150	12	137	38.8
College .....	819	372	45.4	312	106	207	60	33	27	16.0
Full-time students .....	684	266	38.9	220	38	181	46	19	28	17.4
Part-time students .....	135	106	78.3	92	67	25	13	14	-	12.6
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	1,141	474	41.6	404	103	302	70	-	71	14.8
16 to 19 years .....	818	263	32.2	201	21	180	62	-	64	23.7
20 to 24 years .....	324	211	65.3	204	82	122	8	-	8	3.6
Men .....	607	266	43.8	224	48	175	42	-	44	15.9
Women .....	534	209	39.1	181	54	126	28	-	27	13.3
High school .....	698	211	30.2	160	24	136	51	-	52	24.1
College .....	443	264	59.5	244	78	166	19	-	19	7.3
Full-time students .....	351	183	52.1	164	22	142	19	-	19	10.6
Part-time students .....	92	81	87.8	81	57	24	-	-	-	-

See footnotes at end of table.



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

(Numbers in thousands)

Employment status, years of school completed, race, and Hispanic origin	November 1987									
	Civilian noninstitutional population	Civilian labor force								
		Total	Percent of population	Employed			Unemployed			Percent of labor force
				Total	Full time <sup>1</sup>	Part time <sup>1</sup>	Total	Looking for full-time work	Looking for part-time work	
<b>TOTAL NOT ENROLLED</b>										
Total, 16 to 24 years .....	17,800	14,744	82.8	13,102	11,195	1,908	1,641	1,472	169	11.1
16 to 19 years .....	3,801	2,869	75.5	2,332	1,792	540	538	460	77	18.7
20 to 24 years .....	13,999	11,874	84.8	10,771	9,403	1,368	1,104	1,012	92	9.3
Less than 4 years of high school .....	4,224	2,770	65.6	2,152	1,717	435	618	542	76	22.3
4 years of high school .....	9,292	7,993	86.0	7,182	6,075	1,107	811	726	86	10.1
1 to 3 years of college .....	2,767	2,512	90.8	2,348	2,070	278	164	156	8	6.5
4 years of college or more .....	1,516	1,469	96.9	1,421	1,333	88	48	48	-	3.3
Men, 16 to 24 years .....	8,409	7,670	91.2	6,797	6,053	744	873	836	36	11.4
16 to 19 years .....	1,749	1,444	82.6	1,175	938	237	268	252	17	18.6
20 to 24 years .....	6,660	6,226	93.5	5,622	5,115	507	604	585	19	9.7
Less than 4 years of high school .....	2,164	1,740	80.4	1,385	1,172	214	354	335	20	20.4
4 years of high school .....	4,406	4,144	94.1	3,728	3,326	402	416	402	14	10.0
1 to 3 years of college .....	1,157	1,119	96.6	1,048	946	102	70	68	2	6.3
4 years of college or more .....	682	668	98.0	636	610	26	32	32	-	4.8
Women, 16 to 24 years .....	9,392	7,074	75.3	6,305	5,142	1,164	769	635	133	10.9
16 to 19 years .....	2,053	1,426	69.5	1,156	853	303	269	209	61	18.9
20 to 24 years .....	7,339	5,648	77.0	5,149	4,288	861	499	427	73	8.8
Less than 4 years of high school .....	2,060	1,030	50.0	767	546	221	264	207	57	25.6
4 years of high school .....	4,887	3,849	78.8	3,454	2,749	705	395	324	72	10.3
1 to 3 years of college .....	1,610	1,394	86.6	1,300	1,124	177	94	88	5	6.7
4 years of college or more .....	835	801	96.0	785	723	62	16	16	-	2.0
<b>White</b>										
Total, 16 to 24 years .....	14,778	12,431	84.1	11,296	9,730	1,566	1,135	1,006	129	9.1
16 to 19 years .....	3,121	2,435	78.0	2,047	1,587	460	388	328	60	15.9
20 to 24 years .....	11,657	9,996	85.8	9,249	8,143	1,106	748	678	70	7.5
Men .....	7,036	6,515	92.6	5,883	5,317	567	632	608	23	9.7
Women .....	7,742	5,916	76.4	5,412	4,413	999	503	398	106	8.5
Less than 4 years of high school .....	3,460	2,352	68.0	1,897	1,525	371	456	393	63	19.4
4 years of high school .....	7,658	6,670	87.1	6,135	5,231	904	535	475	60	8.0
1 to 3 years of college .....	2,275	2,065	90.8	1,963	1,755	207	102	95	7	4.9
4 years of college or more .....	1,385	1,344	97.0	1,301	1,218	83	43	43	-	3.2
<b>Black</b>										
Total, 16 to 24 years .....	2,617	1,974	75.4	1,527	1,218	309	446	412	35	22.6
16 to 19 years .....	579	356	61.4	236	166	70	120	106	14	33.6
20 to 24 years .....	2,037	1,618	79.4	1,291	1,052	239	327	306	21	20.2
Men .....	1,184	983	83.1	778	624	155	205	197	8	20.9
Women .....	1,433	990	69.1	749	595	154	241	215	26	24.4
Less than 4 years of high school .....	658	348	53.0	205	145	61	143	131	12	41.1
4 years of high school .....	1,442	1,155	80.1	911	731	181	244	222	22	21.1
1 to 3 years of college .....	426	383	89.8	327	262	65	56	55	1	14.6
4 years of college or more .....	91	87	95.8	84	81	3	4	4	-	4.0
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	2,130	1,613	75.7	1,376	1,162	214	237	197	40	14.7
16 to 19 years .....	526	375	71.3	274	221	53	100	63	37	26.8
20 to 24 years .....	1,604	1,238	77.2	1,102	941	161	136	134	2	11.0
Men .....	1,059	954	90.0	830	725	104	124	113	11	13.0
Women .....	1,070	659	61.5	546	437	110	112	84	28	17.0
Less than 4 years of high school .....	940	626	66.6	494	397	97	132	109	23	21.1
4 years of high school .....	914	742	81.1	651	551	100	91	76	15	12.3
1 to 3 years of college .....	224	193	86.3	185	169	16	9	7	2	4.5
4 years of college or more .....	52	52	( <sup>2</sup> )	47	46	1	5	5	-	( <sup>2</sup> )

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

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

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

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

**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. 1986	Nov. 1987	Total		Employed		Unemployed			
			Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Number		Percent of labor force	
							Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
<b>VIETNAM-ERA VETERANS</b>										
Total, 30 years and over .....	7,785	7,861	7,289	7,257	6,980	6,918	309	339	4.2	4.7
30 to 44 years .....	6,331	6,112	6,087	5,796	5,804	5,507	283	289	4.6	5.0
30 to 34 years .....	1,065	832	1,020	790	948	716	72	74	7.1	9.4
35 to 39 years .....	2,894	2,439	2,790	2,319	2,654	2,227	136	92	4.9	4.0
40 to 44 years .....	2,372	2,841	2,277	2,687	2,202	2,564	75	123	3.3	4.6
45 years and over .....	1,454	1,749	1,202	1,461	1,176	1,411	26	50	2.2	3.4
<b>NONVETERANS</b>										
Total, 30 to 44 years .....	18,783	19,819	17,791	18,776	16,803	18,031	988	745	5.6	4.0
30 to 34 years .....	8,638	8,949	8,212	8,513	7,756	8,134	456	379	5.6	4.5
35 to 39 years .....	5,909	6,420	5,578	6,071	5,282	5,861	296	210	5.3	3.5
40 to 44 years .....	4,236	4,450	4,001	4,192	3,765	4,036	236	156	5.9	3.7

NOTE: Male Vietnam-era veterans are men who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are men who have never served in the Armed Forces; published data are limited to those 30 to 44 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

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

(In thousands)

Sex, age, and race	November 1987							
	Employed						Unemployed	
	Full time			Part time			Looking for full-time work	Looking for part-time work
	Total	Full-time schedules <sup>1</sup>	Part time for economic reasons, usually work full time	Total	Voluntary <sup>1</sup>	Part time for economic reasons, usually work part time		
<b>TOTAL</b>								
Total, 16 years and over .....	93,469	91,775	1,694	20,340	16,604	3,736	5,287	1,515
16 to 19 years .....	2,134	2,026	108	4,221	3,874	347	514	765
16 to 17 years .....	226	206	20	2,264	2,197	67	126	499
18 to 19 years .....	1,908	1,820	88	1,958	1,677	281	388	266
20 years and over .....	91,336	89,749	1,587	16,119	12,730	3,389	4,773	750
20 to 24 years .....	10,265	9,995	270	3,119	2,403	716	1,057	182
25 years and over .....	81,071	79,754	1,317	12,999	10,327	2,672	3,716	567
25 to 54 years .....	69,821	68,719	1,102	9,471	7,268	2,203	3,357	423
55 years and over .....	11,251	11,036	215	3,527	3,058	469	358	144
<b>Men, 16 years and over .....</b>	<b>55,758</b>	<b>54,797</b>	<b>961</b>	<b>6,733</b>	<b>5,233</b>	<b>1,500</b>	<b>3,075</b>	<b>594</b>
16 to 19 years .....	1,150	1,101	49	2,052	1,903	149	282	388
20 years and over .....	54,608	53,696	912	4,681	3,330	1,351	2,792	206
20 to 24 years .....	5,528	5,375	153	1,384	1,053	331	604	61
25 years and over .....	49,080	48,321	759	3,296	2,277	1,019	2,188	145
25 to 54 years .....	41,893	41,252	641	1,833	996	837	1,932	85
55 years and over .....	7,187	7,069	118	1,463	1,281	182	256	60
<b>Women, 16 years and over .....</b>	<b>37,711</b>	<b>36,978</b>	<b>733</b>	<b>13,607</b>	<b>11,371</b>	<b>2,236</b>	<b>2,212</b>	<b>921</b>
16 to 19 years .....	984	925	59	2,168	1,970	198	231	377
20 years and over .....	36,727	36,053	674	11,438	9,400	2,038	1,981	544
20 to 24 years .....	4,737	4,620	117	1,736	1,350	386	453	121
25 years and over .....	31,992	31,434	558	9,704	8,051	1,653	1,527	422
25 to 54 years .....	27,928	27,466	462	7,640	6,274	1,366	1,425	337
55 years and over .....	4,064	3,968	96	2,064	1,777	287	102	85
<b>White</b>								
<b>Men, 16 years and over .....</b>	<b>49,084</b>	<b>48,292</b>	<b>792</b>	<b>5,772</b>	<b>4,566</b>	<b>1,206</b>	<b>2,336</b>	<b>462</b>
16 to 19 years .....	1,024	983	41	1,782	1,652	130	199	300
20 years and over .....	48,060	47,309	751	3,991	2,914	1,077	2,137	161
20 to 24 years .....	4,834	4,711	123	1,146	903	243	433	47
25 years and over .....	43,226	42,598	628	2,844	2,011	833	1,704	114
25 to 54 years .....	36,761	36,243	518	1,530	850	680	1,476	71
55 years and over .....	6,465	6,355	110	1,314	1,161	153	228	44
<b>Women, 16 years and over .....</b>	<b>31,715</b>	<b>31,133</b>	<b>582</b>	<b>12,127</b>	<b>10,338</b>	<b>1,789</b>	<b>1,503</b>	<b>731</b>
16 to 19 years .....	873	825	48	1,911	1,741	170	157	285
20 years and over .....	30,842	30,308	534	10,216	8,597	1,619	1,346	446
20 to 24 years .....	4,037	3,961	76	1,514	1,202	312	266	90
25 years and over .....	26,805	26,346	459	8,702	7,395	1,307	1,080	355
25 to 54 years .....	23,315	22,940	375	6,871	5,789	1,082	998	284
55 years and over .....	3,490	3,406	84	1,831	1,606	225	83	71
<b>Black</b>								
<b>Men, 16 years and over .....</b>	<b>5,044</b>	<b>4,896</b>	<b>148</b>	<b>720</b>	<b>457</b>	<b>263</b>	<b>634</b>	<b>113</b>
16 to 19 years .....	101	95	6	210	193	17	70	77
20 years and over .....	4,943	4,801	142	511	265	246	563	36
20 to 24 years .....	585	557	28	161	82	79	151	12
25 years and over .....	4,360	4,245	115	350	183	167	413	23
25 to 54 years .....	3,795	3,688	107	229	92	137	394	11
55 years and over .....	565	557	8	120	91	29	19	12
<b>Women, 16 years and over .....</b>	<b>4,742</b>	<b>4,617</b>	<b>125</b>	<b>1,126</b>	<b>746</b>	<b>380</b>	<b>633</b>	<b>166</b>
16 to 19 years .....	87	82	5	187	162	25	59	81
20 years and over .....	4,655	4,535	120	939	584	355	574	85
20 to 24 years .....	568	531	37	178	106	72	177	29
25 years and over .....	4,088	4,005	83	760	477	283	396	56
25 to 54 years .....	3,636	3,561	75	568	342	226	377	43
55 years and over .....	453	444	9	192	135	57	19	13

<sup>1</sup> 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 1987									
	Civilian labor force					Not in labor force				
	Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
				Number	Percent of labor force					
Total, 16 years and over <sup>1</sup> .....	97,647	66.1	92,194	5,453	5.6	49,996	23,013	8,374	2,181	16,428
Husbands .....	39,897	78.5	38,609	1,288	3.2	10,944	230	211	833	9,670
With employed wife .....	25,563	91.9	24,835	728	2.8	2,259	79	118	291	1,772
With unemployed wife .....	1,034	92.0	928	106	10.2	90	5	3	25	57
With wife not in labor force .....	13,301	60.7	12,847	454	3.4	8,596	146	91	518	7,841
Wives .....	28,945	56.9	27,822	1,123	3.9	21,896	18,142	380	324	3,051
With employed husband .....	25,762	66.7	24,835	928	3.6	12,847	11,571	327	133	816
With unemployed husband .....	834	64.8	728	106	12.7	454	398	20	9	27
With husband not in labor force .....	2,349	21.5	2,259	90	3.8	8,596	6,174	33	181	2,208
Relatives in married-couple families .....	12,866	62.0	11,494	1,372	10.7	7,902	759	5,631	359	1,154
16 to 19 years .....	4,773	50.5	4,122	651	13.6	4,673	94	4,346	16	217
20 to 24 years .....	4,614	75.5	4,209	405	8.8	1,495	119	1,160	51	164
25 years and over .....	3,479	66.7	3,163	316	9.1	1,734	546	125	292	773
Women who maintain families .....	6,708	62.6	6,137	571	8.5	4,001	2,804	196	192	808
Relatives in families maintained by women .....	5,582	60.6	4,808	774	13.9	3,632	703	1,646	296	986
16 to 19 years .....	1,415	47.7	1,059	356	25.2	1,550	89	1,320	8	133
20 to 24 years .....	1,645	75.9	1,451	193	11.8	523	97	264	27	135
25 years and over .....	2,523	61.8	2,298	225	8.9	1,559	517	62	261	718
Men who maintain families .....	1,960	74.4	1,836	123	6.3	673	59	36	96	482
Relatives in families maintained by men .....	1,689	64.1	1,487	202	11.9	947	316	274	81	276
16 to 19 years .....	299	54.2	232	67	22.5	252	13	195	1	44
20 to 24 years .....	473	79.3	414	58	12.3	123	27	60	-	36
25 years and over .....	918	61.6	841	77	8.4	572	276	19	80	196

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

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

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Marital status, race, and age	Men				Women			
	Thousands of persons		Unemployment rates		Thousands of persons		Unemployment rates	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
Total, 16 years and over .....	4,360	3,669	6.7	5.5	3,512	3,133	6.6	5.8
Married, spouse present .....	1,764	1,424	4.2	3.4	1,397	1,227	4.8	4.1
Widowed, divorced, or separated .....	574	498	8.8	7.6	729	691	7.0	6.4
Single (never married) .....	2,022	1,747	11.8	10.1	1,386	1,215	10.4	8.8
White, 16 years and over .....	3,336	2,797	5.8	4.9	2,564	2,234	5.7	4.8
Married, spouse present .....	1,458	1,169	3.9	3.1	1,181	1,020	4.5	3.9
Widowed, divorced, or separated .....	416	382	7.7	7.0	533	488	6.4	5.7
Single (never married) .....	1,462	1,247	10.2	8.6	849	726	7.9	6.6
Black, 16 years and over .....	880	746	13.9	11.5	869	799	13.7	12.0
Married, spouse present .....	242	203	7.7	6.2	181	158	7.7	6.5
Widowed, divorced, or separated .....	144	103	15.1	11.1	180	193	10.0	10.0
Single (never married) .....	494	440	22.2	19.2	508	448	23.1	19.4
Total, 25 years and over .....	2,818	2,333	5.2	4.3	2,207	1,950	5.2	4.5
Married, spouse present .....	1,581	1,301	4.0	3.2	1,164	992	4.3	3.6
Widowed, divorced, or separated .....	542	467	8.6	7.4	630	614	6.4	6.0
Single (never married) .....	694	566	9.0	7.0	413	344	7.6	5.9
White, 25 years and over .....	2,179	1,818	4.6	3.8	1,623	1,436	4.5	3.9
Married, spouse present .....	1,307	1,068	3.7	3.0	981	828	4.1	3.4
Widowed, divorced, or separated .....	386	355	7.4	6.7	451	432	5.7	5.3
Single (never married) .....	485	396	7.7	6.0	192	176	4.6	3.9
Black, 25 years and over .....	538	437	10.7	8.5	539	453	10.7	8.5
Married, spouse present .....	215	182	7.2	5.8	154	126	7.1	5.6
Widowed, divorced, or separated .....	141	102	15.0	11.2	168	172	9.5	9.3
Single (never married) .....	182	153	16.8	13.7	216	155	19.0	12.9

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
Total, 16 years and over .....	7,872	6,802	6.6	5.6	6.7	5.5	6.6	5.8
Managerial and professional specialty .....	627	584	2.3	2.0	2.1	2.1	2.4	2.0
Executive, administrative, and managerial .....	344	355	2.6	2.6	2.1	2.4	3.4	2.9
Professional specialty .....	283	229	1.9	1.5	2.1	1.7	1.8	1.3
Technical, sales, and administrative support .....	1,647	1,518	4.5	4.1	4.0	3.2	4.8	4.6
Technicians and related support .....	104	84	3.0	2.5	3.2	1.8	2.8	3.2
Sales occupations .....	640	633	4.5	4.5	3.5	3.0	5.5	5.9
Administrative support, including clerical .....	903	801	4.8	4.1	5.4	4.0	4.6	4.2
Service occupations .....	1,309	1,236	8.1	7.5	7.5	7.3	8.6	7.7
Private household .....	62	46	6.2	4.5	( <sup>1</sup> )	( <sup>1</sup> )	5.6	4.3
Protective service .....	87	97	4.7	4.8	3.9	4.5	10.2	6.5
Service, except private household and protective .....	1,161	1,093	8.8	8.2	8.6	8.3	8.8	8.1
Precision production, craft, and repair .....	956	750	6.6	5.2	6.5	5.2	7.4	4.8
Mechanics and repairers .....	219	163	4.8	3.5	4.6	3.5	9.7	3.6
Construction trades .....	483	398	8.8	7.2	8.7	7.1	12.6	13.0
Other precision production, craft, and repair .....	253	189	5.7	4.4	5.4	4.5	6.4	3.9
Operators, fabricators, and laborers .....	2,048	1,627	10.7	8.3	10.5	8.2	11.3	8.6
Machine operators, assemblers, and inspectors .....	885	686	10.1	7.7	9.3	7.0	11.2	8.8
Transportation and material moving occupations .....	361	293	7.1	5.7	7.2	5.9	6.6	3.2
Handlers, equipment cleaners, helpers, and laborers .....	802	647	15.1	11.7	15.3	12.0	13.9	10.3
Construction laborers .....	235	190	24.8	19.0	24.1	18.8	( <sup>1</sup> )	( <sup>1</sup> )
Other handlers, equipment cleaners, helpers, and laborers .....	567	458	13.0	10.1	13.1	10.1	12.5	9.6
Farming, forestry, and fishing .....	270	296	7.6	8.4	7.3	8.2	9.5	9.1
No previous work experience .....	975	753	-	-	-	-	-	-
16 to 19 years .....	647	539	-	-	-	-	-	-
20 to 24 years .....	191	124	-	-	-	-	-	-
25 years and over .....	137	91	-	-	-	-	-	-

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Industry	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
Total, 16 years and over .....	7,872	6,802	6.6	5.6	6.7	5.5	6.6	5.8
Nonagricultural private wage and salary workers .....	5,938	5,054	6.7	5.6	6.9	5.6	6.5	5.6
Mining .....	122	51	13.5	5.8	13.7	5.9	12.2	5.5
Construction .....	874	613	13.8	9.8	14.0	9.8	12.1	9.2
Manufacturing .....	1,528	1,144	7.0	5.3	6.2	4.6	8.7	6.6
Durable goods .....	857	599	6.5	4.7	6.1	4.4	7.6	5.5
Lumber and wood products .....	46	61	6.4	8.5	6.5	8.2	6.1	10.1
Furniture and fixtures .....	47	28	6.9	4.6	7.1	5.3	6.5	3.3
Stone, clay, and glass products .....	48	35	7.5	5.6	5.7	5.1	14.1	7.7
Primary metal industries .....	97	42	11.0	4.8	10.5	4.4	13.4	8.3
Fabricated metal products .....	119	59	8.7	4.4	8.8	4.4	8.4	4.3
Machinery, except electrical .....	189	97	7.3	3.7	7.1	3.0	8.1	5.7
Electrical machinery, equipment, and supplies .....	121	89	5.4	4.2	4.4	3.0	6.9	5.8
Transportation equipment .....	124	129	4.5	4.9	3.6	4.8	7.9	5.2
Automobiles .....	68	81	5.3	6.6	3.5	6.1	12.2	8.3
Other transportation equipment .....	57	48	3.8	3.4	3.7	3.5	4.2	3.0
Professional and photographic equipment .....	21	27	3.0	3.8	3.0	4.3	2.9	3.2
Other durable goods industries .....	45	32	7.6	6.0	7.4	6.4	7.7	5.5
Nondurable goods .....	671	545	7.9	6.2	6.6	5.0	9.7	7.7
Food and kindred products .....	172	150	9.6	8.2	8.8	7.2	11.2	9.9
Textile mill products .....	62	49	8.1	6.5	6.6	4.1	9.7	8.8
Apparel and other textile products .....	171	107	14.1	8.5	16.1	4.4	13.5	9.7
Paper and allied products .....	22	22	3.2	3.0	1.9	3.1	6.8	2.6
Printing and publishing .....	87	81	5.1	4.6	4.6	3.6	5.6	5.7
Chemicals and allied products .....	68	60	5.6	4.8	4.8	4.5	7.1	5.4
Rubber and miscellaneous plastics products .....	65	42	9.1	5.4	7.1	6.5	13.2	3.2
Other nondurable goods industries .....	23	32	6.3	8.1	6.5	4.9	7.4	13.0
Transportation and public utilities .....	252	254	4.0	4.1	4.0	4.1	4.1	4.1
Transportation .....	189	185	5.4	5.1	5.3	5.0	5.3	5.7
Communications and other public utilities .....	63	70	2.3	2.6	1.9	2.6	3.1	2.7
Wholesale and retail trade .....	1,549	1,481	6.8	6.5	6.1	5.9	7.6	7.1
Wholesale trade .....	198	178	4.6	4.0	3.9	3.8	6.3	4.6
Retail trade .....	1,351	1,303	7.3	7.0	6.9	6.6	7.7	7.4
Finance, insurance, and real estate .....	247	215	3.5	2.9	3.3	3.0	3.6	2.9
Service industries .....	1,365	1,296	5.8	5.2	6.2	5.7	5.6	5.0
Professional services .....	469	427	3.5	3.1	3.0	2.6	3.8	3.4
Other service industries .....	896	869	8.7	7.8	8.9	8.0	8.6	7.7
Agricultural wage and salary workers .....	186	217	11.1	12.7	10.2	12.8	14.3	12.2
Government, self-employed, and unpaid family workers .....	774	778	2.8	2.8	2.9	2.8	2.7	2.7
No previous work experience .....	975	753	-	-	-	-	-	-

**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. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
<b>NUMBER OF UNEMPLOYED</b>												
Total unemployed .....	7,872	6,802	3,636	2,999	2,860	2,525	1,376	1,279	5,899	5,031	1,749	1,545
Job losers .....	3,773	3,171	2,427	1,995	1,118	980	229	196	2,802	2,363	868	721
On layoff .....	986	825	634	549	293	231	59	45	829	681	149	122
Other job losers .....	2,787	2,346	1,793	1,446	825	749	170	151	1,973	1,682	719	600
Job leavers .....	1,090	950	506	421	424	385	159	144	909	777	160	137
Reentrants .....	2,035	1,929	566	510	1,127	1,017	341	402	1,513	1,378	461	476
New entrants .....	975	752	137	73	191	142	647	537	675	513	261	210
<b>PERCENT DISTRIBUTION</b>												
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	47.9	46.6	66.7	66.5	39.0	38.8	16.6	15.3	47.5	46.9	49.6	46.7
On layoff .....	12.5	12.1	17.4	18.3	10.2	9.1	4.3	3.5	14.0	13.5	8.5	7.9
Other job losers .....	35.4	34.5	49.3	48.2	28.8	29.7	12.3	11.8	33.5	33.4	41.1	38.8
Job leavers .....	13.8	14.0	13.9	14.0	14.8	15.3	11.6	11.3	15.4	15.4	9.1	8.9
Reentrants .....	25.8	28.4	15.6	17.0	39.4	40.3	24.8	31.4	25.7	27.4	26.3	30.8
New entrants .....	12.4	11.1	3.8	2.4	6.7	5.6	47.0	42.0	11.4	10.2	14.9	13.6
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>												
Job losers .....	3.1	2.6	3.9	3.2	2.3	2.0	3.1	2.6	2.7	2.3	6.8	5.5
Job leavers .....	.9	.8	.8	.7	.9	.8	2.1	1.9	.9	.7	1.3	1.0
Reentrants .....	1.7	1.6	.9	.8	2.3	2.0	4.5	5.3	1.5	1.3	3.6	3.6
New entrants .....	.8	.6	.2	.1	.4	.3	8.6	7.0	.7	.5	2.1	1.6



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

(Percent distribution)

Reason, sex, and age	November 1987						
	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 .....	6,802	100.0	46.0	30.0	24.0	11.3	12.7
Job losers .....	3,171	100.0	40.5	29.4	30.1	13.4	16.7
On layoff .....	825	100.0	60.2	26.0	13.8	7.2	6.7
Other job losers .....	2,346	100.0	33.5	30.6	35.8	15.6	20.2
Job leavers .....	950	100.0	42.4	37.3	20.2	9.5	10.8
Reentrants .....	1,929	100.0	53.4	28.2	18.4	8.8	9.6
New entrants .....	752	100.0	55.1	27.5	17.4	11.1	6.3
Men, 20 years and over .....	2,999	100.0	39.6	30.2	30.2	12.2	18.0
Job losers .....	1,995	100.0	39.3	28.3	32.4	12.8	19.6
On layoff .....	549	100.0	60.2	25.4	14.4	7.0	7.5
Other job losers .....	1,446	100.0	31.4	29.4	39.2	15.0	24.2
Job leavers .....	421	100.0	34.2	40.2	25.6	11.0	14.5
Reentrants .....	510	100.0	45.4	30.1	24.5	10.0	14.6
New entrants .....	73	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 20 years and over .....	2,525	100.0	46.9	30.3	22.7	11.8	10.9
Job losers .....	980	100.0	40.1	31.8	28.1	15.5	12.7
On layoff .....	231	100.0	60.2	27.0	12.8	7.7	5.0
Other job losers .....	749	100.0	33.9	33.2	32.9	17.9	15.0
Job leavers .....	385	100.0	44.1	36.5	19.4	9.7	9.6
Reentrants .....	1,017	100.0	53.8	26.8	19.4	9.8	9.6
New entrants .....	142	100.0	52.8	28.7	18.5	6.8	11.7
Both sexes, 16 to 19 years .....	1,279	100.0	59.3	28.7	12.0	8.3	3.7
Job losers .....	196	100.0	53.9	29.3	16.8	10.1	6.7
On layoff .....	45	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other job losers .....	151	100.0	52.1	29.6	18.3	11.2	7.2
Job leavers .....	144	100.0	61.7	31.2	7.1	4.3	2.8
Reentrants .....	402	100.0	62.5	29.5	8.0	4.8	3.2
New entrants .....	537	100.0	58.2	27.3	14.5	11.3	3.2

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

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

Duration of unemployment	Total				Full-time workers			
	Thousands of persons		Percent distribution		Thousands of persons		Percent distribution	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
	Total, 16 years and over .....	7,872	6,802	100.0	100.0	6,215	5,287	100.0
Less than 5 weeks .....	3,281	3,131	41.7	46.0	2,314	2,185	37.2	41.3
5 to 14 weeks .....	2,597	2,039	33.0	30.0	2,108	1,645	33.9	31.1
5 to 10 weeks .....	1,900	1,523	24.1	22.4	1,523	1,227	24.5	23.2
11 to 14 weeks .....	697	516	8.9	7.6	586	417	9.4	7.9
15 weeks and over .....	1,994	1,633	25.3	24.0	1,793	1,457	28.8	27.6
15 to 26 weeks .....	914	770	11.6	11.3	814	677	13.1	12.8
27 weeks and over .....	1,080	863	13.7	12.7	979	780	15.8	14.8
27 to 51 weeks .....	370	319	4.7	4.7	334	295	5.4	5.6
52 weeks and over .....	709	544	9.0	8.0	645	485	10.4	9.2
Average (mean) duration, in weeks .....	15.0	14.0	-	-	16.6	15.6	-	-
Median duration, in weeks .....	6.8	5.9	-	-	7.9	7.0	-	-

**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. 1986	Nov. 1987	Nov. 1986	Nov. 1987
	November 1987										
Total, 16 years and over .....	6,802	3,131	2,039	770	863	14.0	5.9	41.7	46.0	25.3	24.0
16 to 19 years .....	1,279	759	367	106	47	7.5	4.2	54.2	59.3	13.5	12.0
20 to 24 years .....	1,240	636	385	124	95	10.4	4.9	44.8	51.3	20.7	17.6
25 to 34 years .....	1,922	845	608	235	233	13.6	6.1	38.7	44.0	25.0	24.4
35 to 44 years .....	1,149	444	328	166	212	18.4	8.1	37.0	38.7	30.5	32.8
45 to 54 years .....	709	263	213	75	158	20.7	8.5	37.7	37.0	34.9	33.0
55 to 64 years .....	407	138	114	57	98	21.8	10.0	28.9	34.0	46.3	38.0
65 years and over .....	97	46	24	6	21	19.8	5.7	46.3	47.3	25.8	27.9
Men, 16 years and over .....	3,669	1,574	1,113	412	570	16.0	6.6	38.3	42.9	29.2	26.8
16 to 19 years .....	670	387	206	48	30	7.7	4.3	50.8	57.7	16.5	11.5
20 to 24 years .....	665	333	206	69	57	10.9	5.0	42.8	50.0	23.2	19.0
25 to 34 years .....	1,022	431	339	108	144	15.1	6.4	34.8	42.1	29.0	24.7
35 to 44 years .....	605	204	154	100	146	22.5	10.5	34.6	33.8	33.9	40.7
45 to 54 years .....	390	113	111	55	111	25.1	10.5	32.3	28.9	40.4	42.6
55 to 64 years .....	258	84	75	28	71	24.3	10.3	28.0	32.7	48.9	38.4
65 years and over .....	58	22	21	5	10	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over .....	3,133	1,557	926	357	293	11.7	5.1	45.9	49.7	20.5	20.7
16 to 19 years .....	609	372	161	59	17	7.3	4.1	58.1	61.1	10.3	12.5
20 to 24 years .....	574	303	179	55	37	9.8	4.7	47.4	52.8	17.5	16.0
25 to 34 years .....	899	414	269	127	89	11.8	5.7	43.1	46.0	20.3	24.0
35 to 44 years .....	545	240	174	66	66	13.9	6.6	40.1	44.0	26.1	24.1
45 to 54 years .....	319	150	101	21	47	15.2	5.7	45.1	47.0	27.2	21.2
55 to 64 years .....	149	54	39	29	27	17.5	9.3	30.6	36.4	42.0	37.3
65 years and over .....	38	24	3	2	10	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	5,031	2,372	1,510	517	632	13.7	5.6	43.2	47.1	24.3	22.8
Men .....	2,797	1,241	838	274	444	15.9	6.2	39.9	44.4	27.7	25.7
Women .....	2,234	1,131	672	243	188	10.9	4.9	47.5	50.6	19.8	19.3
Black, 16 years and over .....	1,545	661	462	218	204	15.1	6.9	36.9	42.8	28.4	27.4
Men .....	746	274	238	123	112	16.4	8.4	31.7	36.6	35.1	31.4
Women .....	799	387	223	95	93	13.8	5.4	42.2	48.5	21.6	23.5
Men, 16 years and over:											
Married, spouse present .....	1,424	550	386	192	295	19.4	8.3	31.8	38.6	35.9	34.2
Widowed, divorced, or separated .....	498	171	169	59	99	18.7	8.5	36.5	34.3	30.1	31.8
Single (never married) .....	1,747	853	557	161	176	12.4	5.2	44.5	48.8	23.1	19.3
Women, 16 years and over:											
Married, spouse present .....	1,227	622	379	119	107	10.9	4.9	45.3	50.7	22.1	18.4
Widowed, divorced, or separated .....	691	298	201	89	103	15.1	6.8	40.9	43.1	24.5	27.8
Single (never married) .....	1,215	638	346	149	83	10.6	4.8	49.1	52.5	16.8	19.1

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Occupation and industry	Thousands of persons					Weeks		Percent of unemployed in group			
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over	Average (mean) duration	Median duration	Unemployed less than 5 weeks		Unemployed 15 weeks and over	
	November 1987							Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
<b>OCCUPATION</b>											
Managerial and professional specialty .....	584	230	201	54	99	16.6	7.6	30.3	39.4	31.1	26.2
Technical, sales, and administrative support .....	1,518	698	437	194	190	13.6	5.8	43.8	46.0	21.8	25.3
Service occupations .....	1,236	583	400	135	117	12.5	5.7	43.0	47.2	24.2	20.4
Precision production, craft, and repair .....	750	353	221	71	104	14.7	5.6	42.4	47.1	30.2	23.4
Operators, fabricators, and laborers .....	1,627	700	455	204	268	16.1	6.7	39.1	43.0	27.9	29.0
Farming, forestry, and fishing .....	296	136	108	24	28	12.6	6.6	47.6	45.9	14.1	17.5
<b>INDUSTRY<sup>1</sup></b>											
Agriculture .....	217	98	83	17	18	11.2	6.6	48.6	45.4	13.6	16.2
Construction .....	628	306	181	37	104	14.6	5.2	46.0	48.8	20.9	22.4
Manufacturing .....	1,147	464	317	173	193	17.3	8.0	34.3	40.4	33.5	31.9
Durable goods .....	602	236	158	99	109	17.8	8.7	30.4	39.2	39.2	34.6
Nondurable goods .....	545	228	159	74	84	16.7	7.2	39.4	41.9	26.1	28.9
Transportation and public utilities .....	295	135	89	39	32	12.6	5.9	34.0	45.8	31.1	23.9
Wholesale and retail trade .....	1,487	653	469	180	186	13.6	6.3	47.3	43.9	21.3	24.5
Finance and service industries .....	1,779	861	551	173	195	12.7	5.3	40.1	48.4	24.6	20.6
Public administration .....	260	92	78	43	48	19.1	8.4	30.4	35.2	29.6	35.0
No previous work experience .....	753	416	207	83	47	10.3	4.5	47.2	55.2	21.4	17.4

<sup>1</sup> 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 1987								
	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 .....	6,802	5,848	23.6	7.0	75.8	36.3	17.1	4.8	1.65
16 to 19 years .....	1,279	1,202	15.1	2.6	82.0	24.5	14.7	3.8	1.43
20 to 24 years .....	1,240	1,078	20.1	6.6	74.9	32.7	14.5	2.1	1.51
25 to 34 years .....	1,922	1,604	27.7	9.5	75.7	42.5	16.6	4.7	1.77
35 to 44 years .....	1,149	957	31.3	9.0	73.0	41.6	18.6	6.3	1.80
45 to 54 years .....	709	590	25.4	6.8	72.4	38.6	24.7	7.5	1.75
55 to 64 years .....	407	337	22.0	8.0	71.8	41.8	16.3	7.4	1.67
65 years and over .....	97	81	14.8	4.9	67.9	34.6	27.2	11.1	1.60
Men, 16 years and over .....	3,669	3,024	23.9	7.4	77.6	33.4	19.2	5.7	1.67
16 to 19 years .....	670	623	15.1	1.4	85.4	20.9	14.9	3.4	1.41
20 to 24 years .....	665	554	20.8	6.5	75.3	31.4	19.9	2.5	1.56
25 to 34 years .....	1,022	801	28.3	10.6	78.7	41.2	18.4	6.0	1.83
35 to 44 years .....	605	472	32.6	10.8	72.7	37.5	18.0	6.8	1.78
45 to 54 years .....	390	317	25.6	8.8	76.0	31.5	29.7	9.5	1.81
55 to 64 years .....	258	209	21.5	6.2	71.3	40.7	17.2	9.1	1.66
65 years and over .....	58	48	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over .....	3,133	2,824	23.2	6.6	73.8	39.3	14.9	3.8	1.62
16 to 19 years .....	609	579	15.0	3.8	78.4	28.2	14.5	4.3	1.44
20 to 24 years .....	574	524	19.5	6.7	74.4	34.2	9.0	1.7	1.45
25 to 34 years .....	899	803	27.0	8.2	72.7	43.7	14.8	3.4	1.70
35 to 44 years .....	545	485	29.9	7.2	73.4	45.6	19.2	5.8	1.81
45 to 54 years .....	319	272	25.4	4.4	68.4	46.7	18.8	4.8	1.68
55 to 64 years .....	149	128	22.7	10.9	73.4	43.8	14.8	4.7	1.70
65 years and over .....	38	33	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	5,031	4,240	21.9	6.7	76.5	38.3	17.5	5.0	1.66
Men .....	2,797	2,245	22.9	6.9	79.1	34.5	19.4	6.5	1.69
Women .....	2,234	1,994	20.8	6.6	73.6	42.5	15.2	3.4	1.62
Black, 16 years and over .....	1,545	1,408	28.4	8.2	73.9	30.4	15.1	3.6	1.60
Men .....	746	668	27.5	9.4	75.3	28.7	18.1	2.4	1.62
Women .....	799	740	29.2	7.0	72.4	32.0	12.4	4.6	1.58

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

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

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

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

Sex and reason	November 1987								
	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 .....	6,802	5,848	23.6	7.0	75.8	36.3	17.1	4.8	1.65
Job losers <sup>1</sup> .....	3,171	2,343	31.7	8.3	76.4	38.6	22.0	4.1	1.81
Job leavers .....	950	959	22.0	9.4	76.4	43.6	11.4	4.1	1.67
Reentrants .....	1,929	1,807	18.3	6.0	72.8	34.9	15.1	6.8	1.54
New entrants .....	752	739	12.7	2.6	80.0	22.7	13.9	3.0	1.35
Men, 16 years and over .....	3,669	3,024	23.9	7.4	77.6	33.4	19.2	5.7	1.67
Job losers <sup>1</sup> .....	2,137	1,546	29.4	8.7	77.1	35.6	23.0	5.0	1.79
Job leavers .....	501	500	24.4	8.6	78.6	39.6	13.6	4.4	1.69
Reentrants .....	718	669	17.3	6.1	73.7	31.1	16.4	10.2	1.55
New entrants .....	313	309	10.0	1.6	87.4	17.8	14.9	1.6	1.33
Women, 16 years and over .....	3,133	2,824	23.2	6.6	73.8	39.3	14.9	3.8	1.62
Job losers <sup>1</sup> .....	1,034	798	36.1	7.5	75.1	44.5	19.9	2.4	1.85
Job leavers .....	449	459	19.4	10.2	74.1	47.9	8.9	3.7	1.64
Reentrants .....	1,211	1,138	19.0	5.8	72.4	37.1	14.4	4.8	1.54
New entrants .....	439	430	14.4	3.3	74.7	26.3	13.3	4.0	1.36

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

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

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry and age	Total		Men		Women	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
All industries .....	110,751	113,809	61,155	62,491	49,595	51,318
16 to 19 years .....	6,135	6,354	3,137	3,202	2,998	3,152
16 to 17 years .....	2,440	2,489	1,210	1,221	1,230	1,268
18 to 19 years .....	3,695	3,865	1,927	1,981	1,768	1,884
20 to 24 years .....	13,771	13,383	7,151	6,911	6,620	6,472
25 to 54 years .....	76,384	79,294	42,394	43,726	33,990	35,567
25 to 34 years .....	32,751	33,641	18,268	18,674	14,484	14,967
35 to 44 years .....	26,466	27,854	14,526	15,177	11,941	12,677
45 to 54 years .....	17,166	17,798	9,601	9,875	7,566	7,923
55 to 64 years .....	11,529	11,659	6,728	6,742	4,801	4,917
55 to 59 years .....	6,961	7,030	4,040	4,044	2,921	2,987
60 to 64 years .....	4,568	4,629	2,688	2,699	1,880	1,930
65 years and over .....	2,932	3,120	1,746	1,910	1,186	1,210
Agriculture .....	3,078	3,020	2,415	2,367	663	653
16 to 19 years .....	174	162	151	134	23	29
16 to 17 years .....	86	86	72	72	14	15
18 to 19 years .....	88	76	79	62	9	14
20 to 24 years .....	369	342	324	297	45	45
25 to 54 years .....	1,793	1,809	1,349	1,366	443	443
25 to 34 years .....	788	745	608	584	180	161
35 to 44 years .....	558	602	409	439	149	164
45 to 54 years .....	446	461	332	343	114	118
55 to 64 years .....	429	441	331	341	98	101
55 to 59 years .....	224	227	169	170	56	57
60 to 64 years .....	205	214	162	170	43	44
65 years and over .....	313	266	259	230	54	36
Nonagricultural industries .....	107,673	110,789	58,741	60,124	48,932	50,665
16 to 19 years .....	5,960	6,192	2,986	3,069	2,975	3,124
16 to 17 years .....	2,353	2,403	1,138	1,150	1,216	1,253
18 to 19 years .....	3,607	3,789	1,848	1,919	1,759	1,871
20 to 24 years .....	13,401	13,041	6,827	6,614	6,575	6,427
25 to 54 years .....	74,591	77,485	41,044	42,361	33,547	35,124
25 to 34 years .....	31,964	32,896	17,659	18,091	14,304	14,806
35 to 44 years .....	25,908	27,252	14,117	14,738	11,791	12,514
45 to 54 years .....	16,720	17,337	9,269	9,532	7,451	7,805
55 to 64 years .....	11,100	11,218	6,397	6,402	4,703	4,816
55 to 59 years .....	6,737	6,803	3,872	3,873	2,865	2,930
60 to 64 years .....	4,364	4,415	2,526	2,528	1,838	1,886
65 years and over .....	2,620	2,854	1,487	1,680	1,133	1,174

**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. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
Total .....	110,751	113,809	61,155	62,491	58,019	59,289	49,595	51,318	46,597	48,166
Managerial and professional specialty .....	27,150	28,266	15,221	15,698	15,158	15,620	11,929	12,568	11,837	12,457
Executive, administrative, and managerial .....	12,848	13,444	7,961	8,293	7,929	8,260	4,887	5,151	4,847	5,101
Officials and administrators, public administration .....	606	564	344	346	344	346	262	218	262	218
Other executive, administrative, and managerial .....	8,721	9,357	5,740	6,178	5,710	6,150	2,980	3,179	2,949	3,145
Management-related occupations .....	3,522	3,524	1,876	1,769	1,875	1,765	1,645	1,755	1,636	1,738
Professional specialty .....	14,302	14,822	7,261	7,405	7,229	7,360	7,042	7,417	6,990	7,356
Engineers .....	1,794	1,740	1,664	1,625	1,664	1,625	129	115	129	115
Mathematical and computer scientists .....	652	683	432	458	429	455	221	225	222	225
Natural scientists .....	385	402	312	312	312	312	73	90	73	90
Health diagnosing occupations .....	758	826	642	676	642	676	116	150	116	150
Health assessment and treating occupations .....	1,969	2,118	281	293	279	291	1,688	1,826	1,682	1,822
Teachers, college and university .....	698	742	449	456	449	456	249	286	248	282
Teachers, except college and university .....	3,688	3,805	929	1,023	923	1,012	2,759	2,782	2,732	2,756
Lawyers and judges .....	673	706	563	577	563	574	110	129	110	129
Other professional specialty occupations .....	3,685	3,799	1,990	1,985	1,969	1,958	1,695	1,814	1,676	1,786
Technical, sales, and administrative support .....	34,920	35,461	12,245	12,387	11,602	11,775	22,675	23,074	20,999	21,366
Technicians and related support .....	3,376	3,346	1,740	1,734	1,698	1,707	1,636	1,612	1,612	1,592
Health technologists and technicians .....	1,180	1,173	175	191	172	188	1,005	991	993	973
Engineering and science technicians .....	1,082	1,029	867	847	838	828	215	183	209	173
Technicians, except health, engineering, and science .....	1,114	1,144	698	696	688	691	417	448	410	445
Sales occupations .....	13,621	13,577	7,022	6,981	6,634	6,598	6,599	6,597	5,604	5,604
Supervisors and proprietors .....	3,633	3,597	2,503	2,394	2,483	2,367	1,130	1,202	1,116	1,180
Sales representatives, finance and business services .....	2,292	2,379	1,381	1,443	1,371	1,434	910	936	883	904
Sales representatives, commodities, except retail .....	1,483	1,545	1,211	1,269	1,201	1,255	272	276	262	271
Sales workers, retail and personal services .....	6,142	5,991	1,895	1,855	1,548	1,524	4,247	4,136	3,307	3,205
Sales-related occupations .....	71	66	32	20	32	18	39	46	36	44
Administrative support, including clerical .....	17,922	18,538	3,483	3,673	3,270	3,470	14,440	14,865	13,783	14,171
Supervisors .....	798	767	303	334	304	334	495	433	493	428
Computer equipment operators .....	838	901	267	313	250	295	571	588	541	564
Secretaries, stenographers, and typists .....	4,881	5,078	75	106	70	102	4,805	4,972	4,607	4,790
Financial records processing .....	2,421	2,403	244	231	236	217	2,177	2,172	2,124	2,122
Mail and message distributing .....	923	991	593	640	561	621	331	351	323	332
Other administrative support, including clerical .....	8,061	8,399	2,000	2,050	1,849	1,901	6,061	6,350	5,695	5,934
Service occupations .....	14,756	15,199	5,804	5,909	4,951	5,012	8,952	9,290	7,961	8,236
Private household .....	928	965	27	34	24	22	901	931	775	786
Protective service .....	1,748	1,939	1,531	1,663	1,494	1,613	217	276	202	255
Service, except private household and protective .....	12,080	12,296	4,246	4,213	3,433	3,377	7,834	8,083	6,985	7,195
Food service .....	5,237	5,156	1,965	1,893	1,371	1,277	3,272	3,263	2,636	2,638
Health service .....	1,778	1,922	192	203	182	187	1,587	1,719	1,505	1,617
Cleaning and building service .....	2,886	2,892	1,680	1,695	1,514	1,538	1,206	1,197	1,159	1,141
Personal service .....	2,179	2,325	410	421	367	376	1,769	1,904	1,684	1,799
Precision production, craft, and repair .....	13,582	13,712	12,443	12,541	12,111	12,227	1,139	1,171	1,121	1,139
Mechanics and repairers .....	4,350	4,456	4,209	4,312	4,087	4,208	141	144	141	143
Construction trades .....	5,011	5,108	4,920	5,003	4,777	4,846	91	104	91	102
Other precision production, craft, and repair .....	4,221	4,148	3,314	3,225	3,247	3,173	907	923	888	894
Operators, fabricators, and laborers .....	17,076	17,936	12,692	13,244	11,668	12,127	4,384	4,693	4,187	4,471
Machine operators, assemblers, and inspectors .....	7,868	8,172	4,631	4,759	4,477	4,565	3,237	3,413	3,149	3,312
Manufacturing industries .....	6,486	6,694	3,776	3,843	3,691	3,693	2,710	2,851	2,646	2,773
Durable goods .....	3,655	3,678	2,554	2,493	2,512	2,399	1,101	1,185	1,088	1,170
Nondurable goods .....	2,830	3,016	1,222	1,350	1,179	1,294	1,609	1,666	1,558	1,603
Nonmanufacturing industries .....	1,383	1,478	855	916	786	872	528	562	504	539
Transportation and material moving occupations .....	4,687	4,867	4,264	4,441	4,150	4,289	423	426	406	410
Motor vehicle operators .....	3,502	3,613	3,114	3,236	3,020	3,109	388	378	371	364
Other transportation and material moving occupations .....	1,185	1,254	1,150	1,205	1,130	1,180	35	49	35	46
Handlers, equipment cleaners, helpers, and laborers .....	4,520	4,897	3,797	4,044	3,042	3,273	723	854	632	749
Construction laborers .....	713	809	689	775	608	700	25	34	25	27
Other handlers, equipment cleaners, helpers, and laborers .....	3,807	4,088	3,108	3,269	2,434	2,572	698	820	607	723
Farming, forestry, and fishing .....	3,267	3,235	2,751	2,713	2,527	2,527	516	522	493	496
Farm operators and managers .....	1,304	1,278	1,122	1,087	1,118	1,086	182	191	181	189
Other farming, forestry, and fishing occupations .....	1,963	1,957	1,629	1,626	1,409	1,441	334	330	312	307

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Percent distribution)

Occupation and race	Total		Men		Women	
	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
<b>TOTAL</b>						
Total, 16 years and over (thousands) .....	110,751	113,809	61,155	62,491	49,595	51,318
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	24.5	24.8	24.9	25.1	24.1	24.5
Executive, administrative, and managerial .....	11.6	11.8	13.0	13.3	9.9	10.0
Professional specialty .....	12.9	13.0	11.9	11.8	14.2	14.5
Technical, sales, and administrative support .....	31.5	31.2	20.0	19.8	45.7	45.0
Technicians and related support .....	3.0	2.9	2.8	2.8	3.3	3.1
Sales occupations .....	12.3	11.9	11.5	11.2	13.3	12.9
Administrative support, including clerical .....	16.2	16.3	5.7	5.9	29.1	29.0
Service occupations .....	13.3	13.4	9.5	9.5	18.1	18.1
Private household .....	.8	.8	( <sup>1</sup> )	.1	1.8	1.8
Protective service .....	1.6	1.7	2.5	2.7	.4	.5
Service, except private household and protective .....	10.9	10.8	6.9	6.7	15.8	15.8
Precision production, craft, and repair .....	12.3	12.0	20.3	20.1	2.3	2.3
Operators, fabricators, and laborers .....	15.4	15.8	20.8	21.2	8.8	9.1
Machine operators, assemblers, and inspectors .....	7.1	7.2	7.6	7.6	6.5	6.7
Transportation and material moving occupations .....	4.2	4.3	7.0	7.1	.9	.8
Handlers, equipment cleaners, helpers, and laborers .....	4.1	4.3	6.2	6.5	1.5	1.7
Farming, forestry, and fishing .....	2.9	2.8	4.5	4.3	1.0	1.0
<b>White</b>						
Total, 16 years and over (thousands) .....	96,555	98,698	53,972	54,856	42,583	43,842
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	25.5	25.9	25.9	26.2	24.8	25.5
Executive, administrative, and managerial .....	12.2	12.4	13.7	14.0	10.3	10.5
Professional specialty .....	13.3	13.4	12.3	12.2	14.6	15.0
Technical, sales, and administrative support .....	32.0	31.5	20.4	20.1	46.8	45.8
Technicians and related support .....	3.1	3.0	2.9	2.9	3.3	3.1
Sales occupations .....	12.9	12.4	12.2	11.7	13.9	13.3
Administrative support, including clerical .....	16.0	16.1	5.3	5.5	29.6	29.4
Service occupations .....	12.1	12.1	8.5	8.4	16.8	16.7
Private household .....	.7	.7	( <sup>1</sup> )	.1	1.5	1.6
Protective service .....	1.5	1.7	2.3	2.6	.4	.5
Service, except private household and protective .....	10.0	9.7	6.1	5.8	14.9	14.7
Precision production, craft, and repair .....	12.7	12.5	20.9	20.7	2.2	2.3
Operators, fabricators, and laborers .....	14.6	14.9	19.7	20.0	8.2	8.5
Machine operators, assemblers, and inspectors .....	6.7	6.7	7.3	7.2	5.9	6.1
Transportation and material moving occupations .....	4.1	4.1	6.6	6.8	.9	.8
Handlers, equipment cleaners, helpers, and laborers .....	3.9	4.1	5.8	6.0	1.4	1.6
Farming, forestry, and fishing .....	3.1	3.0	4.6	4.5	1.1	1.1
<b>Black</b>						
Total, 16 years and over (thousands) .....	10,946	11,632	5,459	5,764	5,487	5,868
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	15.4	15.4	12.7	13.2	18.0	17.6
Executive, administrative, and managerial .....	6.6	6.8	6.3	6.4	6.9	7.2
Professional specialty .....	8.8	8.6	6.4	6.8	11.1	10.4
Technical, sales, and administrative support .....	27.3	27.5	16.2	16.1	38.4	38.6
Technicians and related support .....	2.3	2.3	1.9	1.5	2.8	3.1
Sales occupations .....	7.0	7.4	5.3	5.6	8.6	9.2
Administrative support, including clerical .....	18.0	17.7	9.0	9.0	27.0	26.2
Service occupations .....	22.9	23.4	17.9	18.3	27.9	28.3
Private household .....	2.1	1.8	.1	.1	4.2	3.5
Protective service .....	2.7	2.4	4.5	3.7	.8	1.2
Service, except private household and protective .....	18.1	19.1	13.3	14.5	23.0	23.7
Precision production, craft, and repair .....	9.4	8.6	16.6	15.5	2.2	1.9
Operators, fabricators, and laborers .....	22.7	23.5	32.4	34.0	13.1	13.3
Machine operators, assemblers, and inspectors .....	10.4	10.7	10.5	11.5	10.4	9.9
Transportation and material moving occupations .....	5.9	6.2	10.9	11.3	.9	1.1
Handlers, equipment cleaners, helpers, and laborers .....	6.4	6.7	11.0	11.2	1.8	2.3
Farming, forestry, and fishing .....	2.3	1.6	4.1	2.9	.4	.3

<sup>1</sup> 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 1987								
	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 .....	102,245	1,244	17,307	83,694	8,316	228	1,492	1,384	144
16 to 19 years .....	6,132	206	313	5,613	49	11	132	6	24
16 to 17 years .....	2,372	140	74	2,158	24	7	65	5	17
18 to 19 years .....	3,761	66	240	3,455	26	3	67	1	7
20 to 24 years .....	12,688	140	1,144	11,403	324	30	253	76	12
25 to 34 years .....	30,891	217	4,536	26,137	1,977	28	486	244	16
35 to 44 years .....	24,837	234	5,391	19,212	2,347	68	284	279	40
45 to 54 years .....	15,542	152	3,412	11,979	1,746	48	169	280	13
55 to 64 years .....	9,909	173	2,131	7,605	1,272	37	123	294	24
55 to 59 years .....	6,039	90	1,348	4,601	745	19	79	139	10
60 to 64 years .....	3,870	83	783	3,003	527	18	44	156	14
65 years and over .....	2,246	120	380	1,746	602	6	46	205	15
Men, 16 years and over .....	54,631	186	8,135	46,310	5,465	28	1,146	1,168	53
16 to 19 years .....	3,034	52	145	2,837	30	5	109	5	20
16 to 17 years .....	1,134	34	25	1,074	14	2	55	3	14
18 to 19 years .....	1,900	18	120	1,762	15	3	55	2	6
20 to 24 years .....	6,389	24	496	5,868	210	15	219	68	10
25 to 34 years .....	16,871	38	2,083	14,749	1,217	3	367	212	5
35 to 44 years .....	13,211	43	2,535	10,632	1,527	1	202	231	6
45 to 54 years .....	8,354	9	1,611	6,733	1,178	-	125	218	1
55 to 64 years .....	5,518	8	1,078	4,432	880	4	88	248	5
55 to 59 years .....	3,370	4	678	2,687	501	2	59	112	-
60 to 64 years .....	2,148	4	399	1,745	379	1	29	137	5
65 years and over .....	1,255	12	186	1,058	424	1	37	186	7
Women, 16 years and over .....	47,615	1,058	9,172	37,385	2,851	199	345	217	91
16 to 19 years .....	3,098	154	168	2,776	19	6	23	2	4
16 to 17 years .....	1,238	106	48	1,084	9	6	10	2	3
18 to 19 years .....	1,860	49	120	1,692	10	-	13	-	2
20 to 24 years .....	6,299	116	648	5,536	113	15	34	8	2
25 to 34 years .....	14,020	179	2,453	11,388	760	25	119	32	11
35 to 44 years .....	11,626	191	2,856	8,579	820	67	81	48	34
45 to 54 years .....	7,189	143	1,801	5,245	568	48	44	62	12
55 to 64 years .....	4,391	165	1,053	3,173	392	33	35	46	20
55 to 59 years .....	2,669	86	669	1,914	244	17	20	27	10
60 to 64 years .....	1,722	79	384	1,259	148	17	15	19	10
65 years and over .....	991	109	194	688	178	5	8	19	8



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

(In thousands)

Industry	November 1987												
	Total employed	Managerial and professional specialty		Technical, sales, and administrative support			Service occupations		Precision production, craft, and repair	Operators, fabricators, and laborers			Farming, forestry, and fishing
		Executive, administrative, and managerial	Professional specialty	Technicians and related support	Sales	Administrative support, including clerical	Private household	Other service <sup>1</sup>		Machine operators, assemblers, and inspectors	Transportation and material moving	Handlers, equipment cleaners, helpers, and laborers	
Agriculture .....	3,020	74	81	23	18	109	-	14	31	18	34	28	2,589
Mining .....	847	151	98	39	15	81	-	11	224	16	168	44	-
Construction .....	7,685	962	145	71	61	437	-	33	4,426	103	516	912	18
Manufacturing .....	21,076	2,301	1,740	655	695	2,486	-	373	4,030	6,694	837	1,169	96
Durable goods .....	12,604	1,423	1,192	463	278	1,406	-	211	2,825	3,678	449	594	84
Nondurable goods .....	8,472	878	548	193	416	1,080	-	161	1,205	3,016	388	575	12
Transportation and public utilities .....	7,995	861	447	249	266	2,217	-	294	1,267	141	1,753	484	17
Wholesale and retail trade .....	23,523	1,970	416	94	9,771	2,282	-	4,291	1,538	382	979	1,762	37
Wholesale trade .....	4,617	467	63	47	1,832	759	-	47	373	173	467	367	21
Retail trade .....	18,906	1,502	353	46	7,939	1,523	-	4,244	1,166	209	511	1,396	16
Finance, insurance, and real estate .....	7,891	1,932	174	136	1,896	3,197	-	289	149	22	13	31	52
Services .....	36,527	4,099	11,029	1,849	823	6,227	965	7,619	1,837	752	506	422	398
Private households .....	1,253	3	14	5	13	6	965	112	9	2	13	18	92
Other service industries .....	35,274	4,095	11,015	1,844	810	6,221	-	7,507	1,828	750	493	404	306
Professional services .....	23,544	2,243	9,788	1,526	142	4,552	-	4,290	361	178	296	101	67
Public administration .....	5,245	1,096	692	231	32	1,502	-	1,307	210	44	61	45	26

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

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

(In thousands)

Reason not working and sex	All industries		Nonagricultural industries					
	Nov. 1986	Nov. 1987	Total		Wage and salary workers <sup>1</sup>			
			Nov. 1986	Nov. 1987	Paid absences		Unpaid absences	
					Nov. 1986	Nov. 1987	Nov. 1986	Nov. 1987
Total, 16 years and over .....	3,964	3,905	3,839	3,790	1,750	1,759	1,582	1,583
Vacation .....	1,516	1,418	1,478	1,381	1,042	1,003	263	236
Illness .....	1,303	1,362	1,273	1,328	511	480	637	743
Bad weather .....	123	53	97	37	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Industrial dispute .....	58	35	58	35	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
All other reasons .....	964	1,037	932	1,008	197	276	682	604
Men, 16 years and over .....	2,244	2,157	2,146	2,056	1,057	1,017	771	764
Vacation .....	968	891	943	858	693	661	135	108
Illness .....	717	730	690	696	295	249	310	393
All other reasons <sup>3</sup> .....	560	536	513	503	69	108	326	263
Women, 16 years and over .....	1,720	1,749	1,692	1,733	693	742	812	818
Vacation .....	549	528	535	523	348	342	129	128
Illness .....	586	633	583	632	215	231	326	350
All other reasons <sup>3</sup> .....	585	589	574	578	130	169	356	340

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

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

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

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Hours of work	November 1987					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over .....	109,904	2,904	107,000	100.0	100.0	100.0
1 to 34 hours .....	31,493	895	30,598	28.7	30.8	28.6
1 to 4 hours .....	816	40	776	.7	1.4	.7
5 to 14 hours .....	4,954	220	4,734	4.5	7.6	4.4
15 to 29 hours .....	13,987	352	13,635	12.7	12.1	12.7
30 to 34 hours .....	11,736	283	11,453	10.7	9.7	10.7
35 hours and over .....	78,411	2,009	76,401	71.3	69.2	71.4
35 to 39 hours .....	6,999	102	6,897	6.4	3.5	6.4
40 hours .....	39,674	592	39,082	36.1	20.4	36.5
41 hours and over .....	31,738	1,315	30,422	28.9	45.3	28.4
41 to 48 hours .....	11,115	241	10,873	10.1	8.3	10.2
49 to 59 hours .....	11,845	419	11,426	10.8	14.4	10.7
60 hours and over .....	8,778	655	8,123	8.0	22.6	7.6
Average hours, total at work .....	38.7	42.9	38.6	-	-	-
Average hours, workers on full-time schedules .....	43.2	50.1	43.0	-	-	-

**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 1987					
	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 .....	31,493	12,117	19,375	30,598	11,810	18,787
Economic reasons .....	5,430	1,694	3,736	5,152	1,597	3,555
Slack work .....	2,504	1,337	1,167	2,293	1,248	1,045
Material shortages or repairs to plant and equipment .....	55	55	-	52	52	-
New job started during week .....	209	209	-	207	207	-
Job terminated during week .....	94	94	-	91	91	-
Could find only part-time work .....	2,569	-	2,569	2,510	-	2,510
Other reasons .....	26,062	10,423	15,639	25,444	10,212	15,232
Does not want, or unavailable for, full-time work .....	13,358	-	13,358	13,041	-	13,041
Vacation .....	1,157	1,157	-	1,126	1,126	-
Illness .....	1,634	1,479	155	1,603	1,454	149
Bad weather .....	627	627	-	561	561	-
Industrial dispute .....	21	21	-	21	21	-
Legal or religious holiday .....	5,689	5,689	-	5,678	5,678	-
Full time for this job .....	1,570	-	1,570	1,542	-	1,542
All other reasons .....	2,005	1,449	556	1,872	1,372	500
Average hours:						
Economic reasons .....	21.8	24.2	20.7	21.8	24.2	20.7
Other reasons .....	22.8	28.3	19.1	22.9	28.4	19.1
Worked 30 to 34 hours:						
Economic reasons .....	1,689	786	903	1,567	740	827
Other reasons .....	10,047	7,155	2,892	9,886	7,067	2,819

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Industry	November 1987								
	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 .....	107,000	5,152	15,232	86,616	56,194	10,873	19,549	38.6	43.0
Wage and salary workers .....	98,865	4,539	13,860	80,466	53,446	10,241	16,779	38.4	42.6
Mining .....	782	24	16	742	387	117	238	45.2	46.4
Construction .....	6,003	405	293	5,305	3,646	664	995	39.2	41.7
Manufacturing .....	19,997	434	661	18,902	11,999	3,079	3,824	42.0	43.2
Durable goods .....	11,966	157	296	11,513	7,267	1,886	2,360	42.5	43.3
Nondurable goods .....	8,031	277	365	7,389	4,732	1,193	1,464	41.3	43.1
Transportation and public utilities .....	7,228	224	426	6,578	4,262	861	1,455	41.3	43.3
Wholesale and retail trade .....	20,915	1,457	5,156	14,302	8,462	2,164	3,676	36.7	44.2
Finance, insurance, and real estate .....	7,057	146	667	6,244	4,648	584	1,012	38.4	40.8
Service industries .....	31,827	1,787	6,346	23,694	16,399	2,433	4,862	36.4	42.3
Private households .....	1,211	229	514	468	341	32	95	25.2	42.8
All other industries .....	30,616	1,558	5,832	23,226	16,058	2,401	4,767	36.8	42.3
Public administration .....	5,054	63	296	4,695	3,643	338	714	37.9	39.3
Self-employed workers .....	7,907	602	1,289	6,016	2,673	607	2,736	41.0	48.1
Unpaid family workers .....	228	11	84	133	73	25	35	36.2	46.5

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Sex, age, race, and marital status	November 1987							
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 hours or more		
<b>TOTAL</b>								
Total, 16 years and over .....	107,000	5,152	15,232	86,616	56,194	30,422	38.6	43.0
16 to 19 years .....	6,047	447	3,681	1,919	1,513	406	24.5	40.4
16 to 17 years .....	2,343	85	2,067	191	164	27	17.2	36.7
18 to 19 years .....	3,704	362	1,614	1,728	1,349	379	29.1	40.8
20 years and over .....	100,953	4,707	11,551	84,695	54,678	30,017	39.4	43.1
20 to 24 years .....	12,724	945	2,263	9,516	6,682	2,834	36.6	42.1
25 years and over .....	88,229	3,762	9,288	75,179	47,997	27,182	39.8	43.2
25 to 44 years .....	58,192	2,482	5,158	50,552	31,723	18,829	40.4	43.3
45 to 64 years .....	27,361	1,109	2,861	23,391	15,401	7,990	39.7	43.0
65 years and over .....	2,676	171	1,270	1,235	871	364	28.7	42.1
<b>Men, 16 years and over</b> .....	58,068	2,257	4,637	51,174	29,397	21,777	41.6	44.6
16 to 19 years .....	3,007	192	1,789	1,026	766	260	25.2	41.0
16 to 17 years .....	1,125	30	982	113	97	16	17.8	37.5
18 to 19 years .....	1,882	162	807	913	669	244	29.6	41.4
20 years and over .....	55,061	2,065	2,848	50,148	28,630	21,518	42.5	44.7
20 to 24 years .....	6,443	449	978	5,016	3,213	1,803	38.2	43.4
25 years and over .....	48,618	1,616	1,870	45,132	25,417	19,715	43.0	44.8
25 to 44 years .....	31,795	1,100	689	30,006	16,469	13,537	43.7	45.0
45 to 64 years .....	15,267	427	526	14,314	8,422	5,892	42.9	44.4
65 years and over .....	1,557	90	654	813	528	285	30.9	43.5
<b>Women, 16 years and over</b> .....	48,932	2,895	10,596	35,441	26,796	8,645	35.0	40.7
16 to 19 years .....	3,040	254	1,892	894	748	146	23.8	39.6
16 to 17 years .....	1,218	54	1,085	79	68	11	16.6	35.6
18 to 19 years .....	1,822	200	807	815	679	136	28.5	40.0
20 years and over .....	45,892	2,641	8,704	34,547	26,048	8,499	35.7	40.8
20 to 24 years .....	6,280	495	1,285	4,500	3,469	1,031	34.9	40.7
25 years and over .....	39,612	2,146	7,419	30,047	22,579	7,468	35.8	40.7
25 to 44 years .....	26,398	1,383	4,469	20,546	15,253	5,293	36.4	40.9
45 to 64 years .....	12,095	682	2,334	9,079	6,982	2,097	35.7	40.7
65 years and over .....	1,119	81	616	422	343	79	25.6	39.3
<b>RACE</b>								
White, 16 years and over .....	92,644	4,139	13,648	74,857	47,095	27,762	38.8	43.3
Men .....	50,890	1,835	4,019	45,036	25,017	20,019	42.0	44.9
Women .....	41,754	2,304	9,629	29,821	22,078	7,743	34.8	40.9
Black, 16 years and over .....	11,051	874	1,123	9,054	7,169	1,885	37.2	40.9
Men .....	5,421	374	419	4,628	3,422	1,206	38.7	41.9
Women .....	5,630	500	704	4,426	3,746	680	35.9	39.9
<b>MARITAL STATUS</b>								
Men, 16 years and over:								
Married, spouse present .....	37,881	1,035	1,310	35,536	19,687	15,849	43.5	45.0
Widowed, divorced, or separated .....	5,636	317	267	5,052	2,847	2,205	42.4	45.0
Single (never married) .....	14,551	906	3,059	10,586	6,862	3,724	36.5	43.2
Women, 16 years and over:								
Married, spouse present .....	27,139	1,464	6,248	19,427	14,968	4,459	34.7	40.4
Widowed, divorced, or separated .....	9,603	655	1,209	7,739	5,619	2,120	37.4	41.4
Single (never married) .....	12,190	776	3,139	8,275	6,208	2,067	33.7	40.9

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Occupation and sex	November 1987								
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules	
				Total	40 hours or less	41 to 48 hours			49 hours or more
Total, 16 years and over <sup>1</sup> .....	106,800	5,116	15,196	86,487	56,040	10,893	19,554	38.6	43.0
Managerial and professional specialty .....	27,433	563	2,623	24,248	13,633	2,934	7,680	41.6	44.5
Executive, administrative, and managerial .....	13,006	178	634	12,195	6,482	1,452	4,262	43.7	45.2
Professional specialty .....	14,427	385	1,989	12,052	7,152	1,482	3,419	39.7	43.8
Technical, sales, and administrative support .....	34,323	1,316	6,257	26,750	18,669	3,164	4,917	37.1	41.9
Technicians and related support .....	3,211	49	364	2,798	1,942	357	499	39.4	42.1
Sales occupations .....	13,116	678	2,803	9,636	5,095	1,347	3,194	38.8	45.5
Administrative support, including clerical .....	17,995	589	3,091	14,316	11,631	1,460	1,225	35.4	39.4
Service occupations .....	14,653	1,519	4,269	8,865	6,472	857	1,537	33.3	42.3
Private household .....	948	160	440	348	253	23	72	24.3	42.3
Protective service .....	1,841	63	181	1,597	948	216	433	41.8	45.4
Service, except private household and protective .....	11,864	1,296	3,648	6,920	5,271	618	1,031	32.6	41.6
Precision production, craft, and repair .....	13,191	673	453	12,065	7,648	1,801	2,616	41.3	43.2
Operators, fabricators, and laborers .....	17,199	1,046	1,595	14,559	9,618	2,138	2,803	39.6	43.0
Machine operators, assemblers, and inspectors .....	7,864	340	338	7,186	4,991	1,151	1,044	40.6	42.2
Transportation and material moving occupations .....	4,611	246	358	4,007	2,154	547	1,306	42.6	46.0
Handlers, equipment cleaners, helpers, and laborers .....	4,725	460	898	3,367	2,474	440	453	34.9	41.1
Men, 16 years and over <sup>1</sup> .....	57,740	2,203	4,569	50,968	29,197	7,093	14,677	41.7	44.6
Managerial and professional specialty .....	15,289	237	738	14,313	6,899	1,817	5,598	44.6	46.3
Executive, administrative, and managerial .....	8,029	99	223	7,706	3,501	964	3,241	45.8	46.8
Professional specialty .....	7,260	138	515	6,607	3,398	853	2,356	43.2	45.8
Technical, sales, and administrative support .....	12,024	238	1,249	10,536	5,679	1,517	3,341	41.9	45.1
Technicians and related support .....	1,661	10	97	1,553	983	204	366	41.7	43.3
Sales occupations .....	6,799	124	695	5,980	2,600	868	2,512	44.1	47.5
Administrative support, including clerical .....	3,564	103	457	3,003	2,095	444	464	37.8	41.3
Service occupations .....	5,705	410	1,179	4,116	2,775	462	878	36.9	43.8
Private household .....	33	10	11	12	8	1	3	( <sup>2</sup> )	( <sup>2</sup> )
Protective service .....	1,582	44	121	1,418	812	199	407	43.2	46.0
Service, except private household and protective .....	4,090	356	1,048	2,686	1,955	262	468	34.6	42.7
Precision production, craft, and repair .....	12,065	622	326	11,117	6,990	1,653	2,475	41.5	43.3
Operators, fabricators, and laborers .....	12,658	697	1,076	10,885	6,855	1,645	2,385	40.4	43.7
Machine operators, assemblers, and inspectors .....	4,560	141	134	4,285	2,812	740	734	41.8	43.0
Transportation and material moving occupations .....	4,210	201	225	3,785	2,007	532	1,246	43.5	46.2
Handlers, equipment cleaners, helpers, and laborers .....	3,888	355	717	2,815	2,036	374	405	35.3	41.3
Women, 16 years and over <sup>1</sup> .....	49,060	2,913	10,628	35,519	26,843	3,800	4,877	35.0	40.7
Managerial and professional specialty .....	12,145	326	1,884	9,934	6,735	1,117	2,083	37.8	41.8
Executive, administrative, and managerial .....	4,978	78	410	4,489	2,980	488	1,021	40.2	42.4
Professional specialty .....	7,167	248	1,474	5,446	3,754	629	1,062	36.1	41.4
Technical, sales, and administrative support .....	22,299	1,078	5,008	16,213	12,990	1,647	1,576	34.4	39.8
Technicians and related support .....	1,551	39	267	1,245	959	153	133	37.0	40.7
Sales occupations .....	6,317	553	2,107	3,656	2,495	479	682	33.1	42.3
Administrative support, including clerical .....	14,431	485	2,633	11,312	9,536	1,015	761	34.8	38.9
Service occupations .....	8,948	1,109	3,089	4,749	3,697	394	658	30.9	41.0
Private household .....	915	150	429	336	244	22	69	24.3	42.4
Protective service .....	259	19	61	179	136	17	26	33.5	41.2
Service, except private household and protective .....	7,774	940	2,600	4,234	3,316	355	563	31.6	40.8
Precision production, craft, and repair .....	1,126	51	127	948	658	148	141	39.0	42.3
Operators, fabricators, and laborers .....	4,542	349	519	3,674	2,763	493	418	37.3	41.1
Machine operators, assemblers, and inspectors .....	3,304	199	205	2,900	2,178	411	311	38.9	41.1
Transportation and material moving occupations .....	400	46	133	222	147	15	59	33.1	43.3
Handlers, equipment cleaners, helpers, and laborers .....	837	104	181	552	438	66	48	33.2	39.9

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

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

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Employment status and sex	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>TOTAL</b>													
Noninstitutional population <sup>1</sup> .....	183,114	183,297	183,575	183,738	183,915	184,079	184,259	184,421	184,605	184,738	184,904	185,052	185,225
Labor force <sup>1</sup> .....	120,426	120,336	120,782	121,089	120,958	121,070	121,719	121,235	121,672	122,038	121,604	122,102	122,371
Percent of population <sup>2</sup> .....	65.8	65.7	65.8	65.9	65.8	65.8	66.1	65.7	65.9	66.1	65.8	66.0	66.1
Total employed <sup>1</sup> .....	112,183	112,387	112,759	113,122	113,104	113,570	114,173	113,975	114,447	114,817	114,515	114,928	115,255
Employment-population ratio <sup>3</sup> .....	61.3	61.3	61.4	61.6	61.5	61.7	62.0	61.8	62.0	62.2	61.9	62.1	62.2
Resident Armed Forces .....	1,751	1,750	1,748	1,740	1,736	1,735	1,726	1,718	1,720	1,736	1,743	1,741	1,755
Civilian employed .....	110,432	110,637	111,011	111,382	111,368	111,835	112,447	112,257	112,727	113,081	112,772	113,187	113,500
Agriculture .....	3,215	3,161	3,145	3,236	3,284	3,290	3,335	3,178	3,219	3,092	3,170	3,283	3,167
Nonagricultural industries .....	107,217	107,476	107,866	108,146	108,084	108,545	109,112	109,079	109,508	109,989	109,602	109,903	110,333
Unemployed .....	8,243	7,949	8,023	7,967	7,854	7,500	7,546	7,260	7,224	7,221	7,089	7,174	7,116
Unemployment rate <sup>4</sup> .....	6.8	6.6	6.6	6.6	6.5	6.2	6.2	6.0	5.9	5.9	5.8	5.9	5.8
Not in labor force .....	62,688	62,961	62,793	62,649	62,957	63,009	62,540	63,187	62,933	62,700	63,300	62,950	62,854
<b>Men</b>													
Noninstitutional population <sup>1</sup> .....	87,773	87,868	88,020	88,099	88,186	88,271	88,361	88,442	88,534	88,598	88,683	88,756	88,849
Labor force <sup>1</sup> .....	67,407	67,425	67,672	67,764	67,644	67,603	67,816	67,556	67,656	67,925	67,736	67,916	68,025
Percent of population <sup>2</sup> .....	76.8	76.7	76.9	76.9	76.7	76.6	76.7	76.4	76.4	76.7	76.4	76.5	76.6
Total employed <sup>1</sup> .....	62,833	62,986	63,187	63,335	63,282	63,417	63,562	63,471	63,715	63,918	63,939	64,024	64,179
Employment-population ratio <sup>3</sup> .....	71.6	71.7	71.8	71.9	71.8	71.8	71.9	71.8	72.0	72.1	72.1	72.1	72.2
Resident Armed Forces .....	1,592	1,593	1,591	1,584	1,575	1,575	1,566	1,559	1,561	1,575	1,581	1,580	1,593
Civilian employed .....	61,241	61,393	61,596	61,751	61,707	61,842	61,996	61,912	62,154	62,343	62,358	62,444	62,586
Unemployed .....	4,574	4,439	4,484	4,429	4,362	4,186	4,254	4,085	3,941	4,007	3,798	3,893	3,846
Unemployment rate <sup>4</sup> .....	6.8	6.6	6.6	6.5	6.4	6.2	6.3	6.0	5.8	5.9	5.6	5.7	5.7
Not in labor force .....	20,366	20,443	20,348	20,335	20,542	20,668	20,545	20,886	20,878	20,673	20,947	20,840	20,824
<b>Women</b>													
Noninstitutional population <sup>1</sup> .....	95,341	95,429	95,556	95,639	95,729	95,808	95,898	95,979	96,071	96,140	96,221	96,295	96,376
Labor force <sup>1</sup> .....	53,019	52,911	53,110	53,325	53,314	53,467	53,903	53,679	54,016	54,113	53,868	54,185	54,346
Percent of population <sup>2</sup> .....	55.6	55.4	55.6	55.8	55.7	55.8	56.2	55.9	56.2	56.3	56.0	56.3	56.4
Total employed <sup>1</sup> .....	49,350	49,401	49,572	49,787	49,822	50,153	50,611	50,504	50,733	50,899	50,576	50,904	51,076
Employment-population ratio <sup>3</sup> .....	51.8	51.8	51.9	52.1	52.0	52.3	52.8	52.6	52.8	52.9	52.6	52.9	53.0
Resident Armed Forces .....	159	157	157	156	161	160	160	159	159	161	162	161	162
Civilian employed .....	49,191	49,244	49,415	49,631	49,661	49,993	50,451	50,345	50,574	50,738	50,414	50,743	50,914
Unemployed .....	3,669	3,510	3,538	3,538	3,492	3,314	3,292	3,175	3,283	3,213	3,291	3,281	3,270
Unemployment rate <sup>4</sup> .....	6.9	6.6	6.7	6.6	6.6	6.2	6.1	5.9	6.1	5.9	6.1	6.1	6.0
Not in labor force .....	42,322	42,518	42,446	42,314	42,415	42,341	41,995	42,300	42,055	42,027	42,353	42,110	42,030

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

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

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

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

Armed Forces).

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

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

(Numbers in thousands)

Employment status, sex, and age	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>TOTAL</b>													
Civilian noninstitutional population <sup>1</sup> .....	181,363	181,547	181,827	181,998	182,179	182,344	182,533	182,703	182,885	183,002	183,161	183,311	183,470
Civilian labor force .....	118,675	118,586	119,034	119,349	119,222	119,335	119,993	119,517	119,952	120,302	119,861	120,361	120,616
Percent of population .....	65.4	65.3	65.5	65.6	65.4	65.4	65.7	65.4	65.6	65.7	65.4	65.7	65.7
Employed .....	110,432	110,637	111,011	111,382	111,368	111,835	112,447	112,257	112,727	113,081	112,772	113,187	113,500
Employment-population ratio <sup>2</sup> .....	60.9	60.9	61.1	61.2	61.1	61.3	61.6	61.4	61.6	61.8	61.6	61.7	61.9
Unemployed .....	8,243	7,949	8,023	7,967	7,854	7,500	7,546	7,260	7,224	7,221	7,089	7,174	7,116
Unemployment rate .....	6.9	6.7	6.7	6.7	6.6	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9
<b>Men, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	78,874	78,973	79,132	79,216	79,303	79,387	79,474	79,536	79,625	79,668	79,740	79,807	79,885
Civilian labor force .....	61,703	61,826	61,948	61,973	61,983	61,976	62,156	62,057	62,116	62,053	62,045	62,160	62,304
Percent of population .....	78.2	78.3	78.3	78.2	78.2	78.1	78.2	78.0	78.0	77.9	77.8	77.9	78.0
Employed .....	57,883	58,101	58,227	58,325	58,410	58,567	58,721	58,620	58,793	58,818	58,957	58,997	59,167
Employment-population ratio <sup>2</sup> .....	73.4	73.6	73.6	73.6	73.7	73.8	73.9	73.7	73.8	73.8	73.9	73.9	74.1
Agriculture .....	2,303	2,289	2,254	2,300	2,411	2,411	2,441	2,307	2,343	2,254	2,355	2,354	2,282
Nonagricultural industries .....	55,580	55,812	55,974	56,024	55,999	56,155	56,280	56,313	56,450	56,564	56,601	56,643	56,885
Unemployed .....	3,820	3,725	3,720	3,648	3,573	3,409	3,436	3,437	3,323	3,235	3,089	3,163	3,137
Unemployment rate .....	6.2	6.0	6.0	5.9	5.8	5.5	5.5	5.5	5.4	5.2	5.0	5.1	5.0
Not in labor force .....	17,171	17,147	17,184	17,243	17,320	17,411	17,318	17,479	17,509	17,615	17,695	17,647	17,581
<b>Women, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	87,933	88,016	88,150	88,237	88,321	88,395	88,464	88,546	88,632	88,685	88,785	88,843	88,923
Civilian labor force .....	49,043	48,923	49,161	49,348	49,355	49,466	49,774	49,714	49,971	49,989	49,882	50,098	50,256
Percent of population .....	55.8	55.6	55.8	55.9	55.9	56.0	56.3	56.1	56.4	56.4	56.2	56.4	56.5
Employed .....	46,067	46,058	46,261	46,475	46,498	46,751	47,094	47,126	47,288	47,324	47,179	47,493	47,634
Employment-population ratio <sup>2</sup> .....	52.4	52.3	52.5	52.7	52.6	52.9	53.2	53.2	53.4	53.4	53.1	53.5	53.6
Agriculture .....	675	621	628	641	589	587	634	615	619	603	585	648	655
Nonagricultural industries .....	45,392	45,437	45,633	45,835	45,909	46,164	46,460	46,512	46,669	46,722	46,594	46,845	46,978
Unemployed .....	2,976	2,865	2,900	2,873	2,857	2,715	2,680	2,588	2,683	2,664	2,703	2,605	2,622
Unemployment rate .....	6.1	5.9	5.9	5.8	5.8	5.5	5.4	5.2	5.4	5.3	5.4	5.2	5.2
Not in labor force .....	38,890	39,093	38,989	38,889	38,966	38,929	38,690	38,832	38,661	38,696	38,903	38,745	38,667
<b>Both sexes, 16 to 19 years</b>													
Civilian noninstitutional population <sup>1</sup> .....	14,557	14,558	14,545	14,546	14,555	14,562	14,595	14,621	14,628	14,649	14,637	14,661	14,663
Civilian labor force .....	7,929	7,837	7,926	8,028	7,884	7,894	8,063	7,746	7,865	8,260	7,933	8,103	8,056
Percent of population .....	54.5	53.8	54.5	55.2	54.2	54.2	55.2	53.0	53.8	56.4	54.2	55.3	54.9
Employed .....	6,482	6,478	6,524	6,582	6,460	6,518	6,633	6,511	6,647	6,939	6,636	6,697	6,699
Employment-population ratio <sup>2</sup> .....	44.5	44.5	44.9	45.2	44.4	44.8	45.4	44.5	45.4	47.4	45.3	45.7	45.7
Agriculture .....	237	251	264	295	284	292	261	257	258	236	230	282	230
Nonagricultural industries .....	6,245	6,227	6,260	6,287	6,176	6,226	6,372	6,254	6,389	6,703	6,406	6,415	6,469
Unemployed .....	1,447	1,359	1,402	1,446	1,424	1,376	1,430	1,235	1,218	1,321	1,297	1,406	1,357
Unemployment rate .....	18.2	17.3	17.7	18.0	18.1	17.4	17.7	15.9	15.5	16.0	16.3	17.4	16.8
Not in labor force .....	6,628	6,721	6,619	6,518	6,671	6,668	6,532	6,875	6,763	6,389	6,704	6,558	6,607

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

population.

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

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>WHITE</b>													
Civilian noninstitutional population <sup>1</sup> .....	155,979	156,111	156,313	156,431	156,561	156,676	156,811	156,930	157,058	157,134	157,242	157,342	157,449
Civilian labor force .....	102,455	102,503	102,746	102,893	102,797	102,894	103,573	103,106	103,272	103,614	103,278	103,640	103,717
Percent of population .....	65.7	65.7	65.7	65.8	65.7	65.7	66.1	65.7	65.8	65.9	65.7	65.9	65.9
Employed .....	96,281	96,533	96,717	96,995	96,998	97,340	98,050	97,716	97,958	98,299	97,995	98,284	98,457
Employment-population ratio <sup>2</sup> .....	61.7	61.8	61.9	62.0	62.0	62.1	62.5	62.3	62.4	62.6	62.3	62.5	62.5
Unemployed .....	6,174	5,970	6,029	5,898	5,799	5,554	5,524	5,390	5,314	5,315	5,283	5,357	5,260
Unemployment rate .....	6.0	5.8	5.9	5.7	5.6	5.4	5.3	5.2	5.1	5.1	5.1	5.2	5.1
<b>Men, 20 years and over</b>													
Civilian labor force .....	54,015	54,172	54,182	54,175	54,107	54,051	54,314	54,213	54,214	54,164	54,152	54,367	54,412
Percent of population .....	78.7	78.8	78.7	78.6	78.4	78.3	78.6	78.4	78.3	78.2	78.1	78.4	78.4
Employed .....	51,089	51,286	51,297	51,362	51,364	51,462	51,755	51,581	51,682	51,714	51,771	51,856	51,998
Employment-population ratio <sup>2</sup> .....	74.4	74.6	74.5	74.5	74.5	74.6	74.9	74.6	74.7	74.7	74.7	74.8	74.9
Unemployed .....	2,926	2,886	2,885	2,813	2,743	2,589	2,558	2,632	2,532	2,449	2,382	2,511	2,414
Unemployment rate .....	5.4	5.3	5.3	5.2	5.1	4.8	4.7	4.9	4.7	4.5	4.4	4.6	4.4
<b>Women, 20 years and over</b>													
Civilian labor force .....	41,540	41,514	41,680	41,762	41,828	41,982	42,239	42,159	42,280	42,418	42,312	42,352	42,438
Percent of population .....	55.1	55.0	55.2	55.2	55.3	55.5	55.8	55.6	55.7	55.9	55.7	55.7	55.8
Employed .....	39,399	39,456	39,568	39,735	39,839	40,041	40,343	40,318	40,379	40,535	40,395	40,522	40,571
Employment-population ratio <sup>2</sup> .....	52.3	52.3	52.4	52.6	52.7	52.9	53.2	53.2	53.2	53.4	53.2	53.3	53.3
Unemployed .....	2,141	2,058	2,111	2,028	1,989	1,941	1,895	1,841	1,902	1,882	1,917	1,830	1,867
Unemployment rate .....	5.2	5.0	5.1	4.9	4.8	4.6	4.5	4.4	4.5	4.4	4.5	4.3	4.4
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	6,900	6,817	6,885	6,955	6,862	6,861	7,021	6,734	6,778	7,033	6,814	6,922	6,867
Percent of population .....	58.0	57.3	57.8	58.4	57.5	57.4	58.7	56.3	56.6	58.8	57.0	58.0	57.5
Employed .....	5,793	5,791	5,852	5,898	5,795	5,837	5,951	5,817	5,898	6,049	5,829	5,906	5,888
Employment-population ratio <sup>2</sup> .....	48.7	48.7	49.2	49.5	48.5	48.9	49.8	48.6	49.3	50.6	48.8	49.5	49.3
Unemployed .....	1,107	1,026	1,033	1,057	1,067	1,024	1,070	917	880	984	985	1,016	979
Unemployment rate .....	16.0	15.1	15.0	15.2	15.5	14.9	15.2	13.6	13.0	14.0	14.5	14.7	14.3
Men .....	16.3	15.5	16.1	16.0	17.1	16.7	17.3	14.5	13.0	15.4	15.3	15.0	14.8
Women .....	15.7	14.6	13.8	14.3	13.9	13.1	13.1	12.7	13.0	12.5	13.6	14.3	13.7
<b>BLACK</b>													
Civilian noninstitutional population <sup>1</sup> .....	20,120	20,152	20,187	20,218	20,249	20,279	20,312	20,341	20,373	20,396	20,426	20,453	20,482
Civilian labor force .....	12,719	12,707	12,831	12,957	12,844	12,743	12,860	12,863	13,047	13,194	13,027	13,167	13,211
Percent of population .....	63.2	63.1	63.6	64.1	63.4	62.8	63.3	63.2	64.0	64.7	63.8	64.4	64.5
Employed .....	10,910	10,968	10,997	11,101	11,053	11,090	11,080	11,223	11,401	11,563	11,427	11,582	11,607
Employment-population ratio <sup>2</sup> .....	54.2	54.4	54.5	54.9	54.6	54.7	54.6	55.2	56.0	56.7	55.9	56.6	56.7
Unemployed .....	1,809	1,739	1,833	1,855	1,791	1,653	1,779	1,640	1,647	1,630	1,599	1,586	1,604
Unemployment rate .....	14.2	13.7	14.3	14.3	13.9	13.0	13.8	12.7	12.6	12.4	12.3	12.0	12.1
<b>Men, 20 years and over</b>													
Civilian labor force .....	5,934	5,947	5,986	6,012	5,997	5,980	6,033	6,001	6,089	6,079	6,025	6,012	6,036
Percent of population .....	74.5	74.5	74.9	75.1	74.8	74.4	75.0	74.5	75.4	75.2	74.4	74.2	74.4
Employed .....	5,171	5,244	5,256	5,288	5,305	5,328	5,279	5,311	5,404	5,431	5,425	5,435	5,421
Employment-population ratio <sup>2</sup> .....	65.0	65.7	65.7	66.0	66.1	66.3	65.6	65.9	66.9	67.2	67.0	67.1	66.8
Unemployed .....	763	703	730	724	692	652	754	690	686	647	600	577	614
Unemployment rate .....	12.9	11.8	12.2	12.0	11.5	10.9	12.5	11.5	11.3	10.7	10.0	9.6	10.2
<b>Women, 20 years and over</b>													
Civilian labor force .....	5,943	5,907	5,984	6,030	5,987	5,918	5,970	6,017	6,125	6,120	6,074	6,191	6,224
Percent of population .....	59.3	58.9	59.6	59.9	59.4	58.7	59.1	59.5	60.4	60.3	59.8	60.8	61.1
Employed .....	5,200	5,182	5,221	5,255	5,211	5,238	5,278	5,349	5,426	5,428	5,350	5,511	5,561
Employment-population ratio <sup>2</sup> .....	51.9	51.7	52.0	52.2	51.7	51.9	52.2	52.9	53.5	53.5	52.7	54.2	54.6
Unemployed .....	743	725	763	775	776	680	691	669	699	692	723	680	664
Unemployment rate .....	12.5	12.3	12.8	12.9	13.0	11.5	11.6	11.1	11.4	11.3	11.9	11.0	10.7

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	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>BLACK—Continued</b>													
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	842	853	860	915	861	845	857	844	833	995	928	964	951
Percent of population .....	39.3	39.8	40.1	42.6	40.0	39.2	39.7	39.0	38.4	45.9	42.7	44.4	43.7
Employed .....	539	542	520	559	537	524	523	563	571	704	652	636	625
Employment-population ratio <sup>2</sup> .....	25.1	25.3	24.2	26.0	24.9	24.3	24.2	26.0	26.3	32.5	30.0	29.3	28.7
Unemployed .....	303	311	340	356	324	321	334	281	262	291	276	328	326
Unemployment rate .....	36.0	36.5	39.5	38.9	37.6	38.0	39.0	33.3	31.5	29.2	29.7	34.0	34.3
Men .....	35.0	36.1	36.5	38.3	36.5	39.3	40.3	31.5	31.5	32.6	30.9	32.2	32.1
Women .....	37.0	36.9	43.2	39.5	38.8	36.5	37.6	35.1	31.4	25.3	28.7	35.8	36.7
<b>HISPANIC ORIGIN</b>													
Civilian noninstitutional population <sup>1</sup> .....	12,505	12,540	12,653	12,692	12,732	12,770	12,809	12,848	12,887	12,925	12,965	13,003	13,043
Civilian labor force .....	8,226	8,320	8,431	8,457	8,392	8,484	8,586	8,452	8,411	8,544	8,568	8,653	8,774
Percent of population .....	65.8	66.3	66.6	66.6	65.9	66.4	67.0	65.8	65.3	66.1	66.1	66.5	67.3
Employed .....	7,437	7,446	7,538	7,644	7,639	7,701	7,838	7,730	7,744	7,864	7,869	7,935	7,978
Employment-population ratio <sup>2</sup> .....	59.5	59.4	59.6	60.2	60.0	60.3	61.2	60.2	60.1	60.8	60.7	61.0	61.2
Unemployed .....	789	874	893	813	753	783	748	722	667	680	699	718	796
Unemployment rate .....	9.6	10.5	10.6	9.6	9.0	9.2	8.7	8.5	7.9	8.0	8.2	8.3	9.1

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

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

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

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

(In thousands)

Category	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>CHARACTERISTIC</b>													
Total .....	110,432	110,637	111,011	111,382	111,368	111,835	112,447	112,257	112,727	113,081	112,772	113,187	113,500
Married men, spouse present .....	39,952	40,093	40,102	39,913	40,100	39,967	40,029	40,057	40,241	40,260	40,370	40,580	40,716
Married women, spouse present .....	27,333	27,400	27,525	27,817	27,965	28,213	28,495	28,458	28,426	28,196	27,988	28,013	28,098
Women who maintain families .....	6,041	6,005	5,985	5,906	5,933	5,972	5,921	5,939	6,013	6,108	6,164	6,205	6,281
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>													
Agriculture:													
Wage and salary workers .....	1,582	1,621	1,650	1,647	1,739	1,589	1,695	1,614	1,619	1,566	1,615	1,716	1,589
Self-employed workers .....	1,425	1,400	1,370	1,454	1,418	1,505	1,442	1,386	1,429	1,363	1,417	1,441	1,399
Unpaid family workers .....	198	152	136	126	150	175	170	165	154	159	134	136	159
Nonagricultural industries:													
Wage and salary workers .....	98,869	99,164	99,550	99,748	99,834	100,112	100,834	100,420	100,838	101,334	101,221	101,503	102,056
Government .....	16,457	16,443	16,412	16,532	16,568	16,484	16,710	16,956	16,931	16,760	16,915	17,083	17,170
Private industries .....	82,412	82,721	83,138	83,216	83,265	83,628	84,124	83,464	83,907	84,574	84,306	84,420	84,886
Private households .....	1,183	1,189	1,269	1,204	1,227	1,266	1,266	1,146	1,224	1,172	1,088	1,235	1,297
Other industries .....	81,229	81,532	81,869	82,012	82,038	82,362	82,858	82,318	82,683	83,402	83,218	83,185	83,589
Self-employed workers .....	8,179	8,056	8,192	8,187	8,050	8,117	8,142	8,328	8,205	8,216	8,184	8,320	8,097
Unpaid family workers .....	252	239	246	255	273	268	275	274	268	250	300	238	226
<b>PERSONS AT WORK PART TIME<sup>1</sup></b>													
All industries:													
Part time for economic reasons .....	5,563	5,596	5,505	5,780	5,456	5,391	5,282	5,184	5,508	5,262	5,241	5,416	5,575
Slack work .....	2,510	2,444	2,473	2,535	2,440	2,322	2,223	2,317	2,456	2,515	2,212	2,389	2,455
Could only find part-time work .....	2,714	2,867	2,695	2,828	2,698	2,746	2,665	2,579	2,722	2,494	2,702	2,664	2,739
Voluntary part time .....	14,021	13,877	14,170	14,061	14,167	13,862	14,573	15,054	14,422	14,634	14,313	14,459	14,494
Nonagricultural industries:													
Part time for economic reasons .....	5,319	5,342	5,201	5,459	5,164	5,110	5,029	4,918	5,235	4,998	4,968	5,101	5,290
Slack work .....	2,366	2,286	2,281	2,340	2,218	2,137	2,071	2,155	2,295	2,306	2,038	2,211	2,250
Could only find part-time work .....	2,626	2,765	2,599	2,742	2,595	2,662	2,594	2,477	2,634	2,433	2,628	2,555	2,659
Voluntary part time .....	13,567	13,455	13,750	13,597	13,682	13,399	14,069	14,485	13,946	14,168	13,930	14,007	14,039

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

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



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

(Civilian workers)

Sex and age	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Total, 16 years and over .....	6.9	6.7	6.7	6.7	6.6	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9
16 to 24 years .....	12.9	12.9	13.1	13.1	12.9	12.6	12.6	12.2	11.7	11.6	11.7	11.8	11.7
16 to 19 years .....	18.2	17.3	17.7	18.0	18.1	17.4	17.7	15.9	15.5	16.0	16.3	17.4	16.8
16 to 17 years .....	20.6	18.8	20.1	20.3	20.0	19.2	21.4	18.8	17.1	18.0	17.4	20.9	19.7
18 to 19 years .....	16.7	16.3	16.2	16.6	16.5	16.3	15.0	13.7	13.9	14.7	15.4	14.6	14.9
20 to 24 years .....	10.2	10.7	10.7	10.5	10.2	10.1	9.8	10.2	9.8	9.1	9.3	8.7	8.9
25 years and over .....	5.5	5.2	5.2	5.1	5.1	4.8	4.8	4.6	4.7	4.7	4.6	4.6	4.5
25 to 54 years .....	5.8	5.5	5.6	5.5	5.4	5.0	5.0	4.9	5.0	5.0	4.7	4.9	4.7
55 years and over .....	3.8	3.5	3.2	3.0	3.4	3.4	3.7	3.2	3.1	3.2	3.4	3.2	3.3
Men, 16 years and over .....	6.9	6.7	6.8	6.7	6.6	6.3	6.4	6.2	6.0	6.0	5.7	5.9	5.8
16 to 24 years .....	13.4	13.4	13.4	13.6	13.2	13.2	13.4	12.6	11.9	12.4	11.9	12.0	12.0
16 to 19 years .....	18.3	17.8	18.5	18.6	19.3	19.2	20.0	16.4	15.5	18.0	17.3	17.5	17.2
16 to 17 years .....	21.3	19.1	21.4	21.2	20.2	21.5	23.2	18.7	16.6	20.6	18.3	21.5	21.0
18 to 19 years .....	16.2	17.0	16.9	17.0	18.6	17.5	17.7	14.4	13.8	16.3	16.0	14.4	14.4
20 to 24 years .....	10.9	11.3	10.7	11.1	10.1	10.1	10.0	10.7	10.0	9.3	9.1	9.1	9.3
25 years and over .....	5.5	5.2	5.4	5.1	5.1	4.8	4.9	4.7	4.7	4.7	4.4	4.5	4.4
25 to 54 years .....	5.7	5.5	5.7	5.4	5.4	5.0	5.1	5.0	4.9	4.9	4.6	4.8	4.6
55 years and over .....	4.1	4.0	3.5	3.3	3.6	3.7	4.1	3.4	3.4	3.4	3.2	3.1	3.6
Women, 16 years and over .....	6.9	6.7	6.7	6.7	6.6	6.2	6.1	5.9	6.1	6.0	6.1	6.1	6.0
16 to 24 years .....	12.4	12.4	12.7	12.4	12.5	12.0	11.7	11.7	11.6	10.7	11.6	11.5	11.4
16 to 19 years .....	18.2	16.8	16.8	17.4	16.7	15.6	15.4	15.4	15.4	13.9	15.4	17.2	16.5
16 to 17 years .....	19.8	18.4	18.7	19.2	19.7	16.7	19.6	18.9	17.7	15.3	16.5	20.3	18.3
18 to 19 years .....	17.2	15.7	15.3	16.1	14.2	15.1	12.4	13.0	14.0	12.9	14.6	14.8	15.4
20 to 24 years .....	9.4	10.0	10.6	9.8	10.3	10.1	9.7	9.7	9.5	8.9	9.5	8.3	8.5
25 years and over .....	5.5	5.2	5.1	5.1	5.0	4.7	4.7	4.4	4.7	4.7	4.7	4.7	4.7
25 to 54 years .....	5.8	5.5	5.5	5.6	5.4	5.0	4.9	4.7	5.0	5.0	4.9	5.0	4.9
55 years and over .....	3.4	2.9	2.7	2.6	3.2	3.0	3.0	2.8	2.6	2.9	3.7	3.2	3.0

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

(Unemployment rates)

Category	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>CHARACTERISTIC</b>													
Total (all civilian workers) .....	6.9	6.7	6.7	6.7	6.6	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9
Men, 20 years and over .....	6.2	6.0	6.0	5.9	5.8	5.5	5.5	5.5	5.4	5.2	5.0	5.1	5.0
Women, 20 years and over .....	6.1	5.9	5.9	5.8	5.8	5.5	5.4	5.2	5.4	5.3	5.4	5.2	5.2
Both sexes, 16 to 19 years .....	18.2	17.3	17.7	18.0	18.1	17.4	17.7	15.9	15.5	16.0	16.3	17.4	16.8
White .....	6.0	5.8	5.9	5.7	5.6	5.4	5.3	5.2	5.1	5.1	5.1	5.2	5.1
Black and other .....	12.7	12.3	12.6	12.8	12.5	11.7	12.2	11.4	11.3	11.3	10.8	10.8	11.0
Black .....	14.2	13.7	14.3	14.3	13.9	13.0	13.8	12.7	12.6	12.4	12.3	12.0	12.1
Hispanic origin .....	9.6	10.5	10.6	9.6	9.0	9.2	8.7	8.5	7.9	8.0	8.2	8.3	9.1
Married men, spouse present .....	4.5	4.3	4.2	4.2	4.1	4.1	3.9	4.0	3.8	3.7	3.6	3.7	3.5
Married women, spouse present .....	5.0	4.8	4.8	4.8	4.5	4.4	4.1	4.0	4.2	4.3	4.2	4.1	4.3
Women who maintain families .....	9.7	9.8	9.8	9.5	9.7	9.3	9.6	9.7	9.4	9.0	8.8	9.0	8.4
Full-time workers .....	6.6	6.3	6.4	6.3	6.2	5.9	5.9	5.9	5.7	5.6	5.4	5.5	5.5
Part-time workers .....	9.1	8.8	9.0	8.7	9.2	8.6	8.7	6.9	7.9	8.2	8.5	8.5	8.1
Unemployed 15 weeks and over <sup>1</sup> .....	1.9	1.8	1.8	1.8	1.7	1.7	1.8	1.7	1.6	1.6	1.6	1.5	1.5
Labor force time lost <sup>2</sup> .....	7.7	7.6	7.6	7.6	7.4	7.3	7.2	7.1	6.9	6.8	6.7	6.8	6.9
<b>INDUSTRY</b>													
Nonagricultural private wage and salary workers .....	7.0	6.8	6.7	6.6	6.5	6.2	6.3	6.2	6.1	5.9	5.9	5.9	5.8
Mining .....	14.5	14.1	14.0	12.4	9.3	11.1	12.9	10.8	7.8	8.9	7.0	8.5	6.3
Construction .....	15.1	13.7	12.2	11.6	12.5	11.9	12.1	11.6	10.7	11.2	12.1	11.4	10.5
Manufacturing .....	7.1	6.9	6.8	6.8	6.9	6.2	6.4	5.6	6.0	5.5	5.7	5.7	5.3
Durable goods .....	6.6	6.4	6.8	6.8	6.7	6.2	6.3	5.3	6.1	5.5	5.6	5.2	4.8
Nondurable goods .....	7.9	7.7	6.8	6.9	7.3	6.2	6.6	6.0	5.9	5.5	5.9	6.5	6.1
Transportation and public utilities .....	4.4	4.6	4.8	4.0	4.6	4.8	4.4	5.0	4.4	4.3	4.0	4.4	4.4
Wholesale and retail trade .....	7.2	7.2	7.5	7.2	7.3	7.0	6.9	7.2	6.8	7.0	6.4	6.4	6.9
Finance and service industries .....	5.4	5.1	5.2	5.4	4.9	4.7	4.8	4.8	5.1	4.6	4.9	4.7	4.8
Agricultural wage and salary workers .....	10.1	11.5	11.6	11.2	10.7	9.0	8.7	8.8	11.3	10.8	8.3	10.9	11.5

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

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

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

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Weeks of unemployment	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>DURATION</b>													
Less than 5 weeks .....	3,382	3,355	3,416	3,361	3,383	3,143	3,349	3,085	3,168	3,197	3,230	3,227	3,225
5 to 14 weeks .....	2,613	2,389	2,530	2,477	2,447	2,232	2,118	2,114	2,141	2,170	1,932	2,121	2,043
15 weeks and over .....	2,217	2,171	2,200	2,131	2,050	2,075	2,101	2,055	1,907	1,884	1,920	1,759	1,810
15 to 26 weeks .....	1,045	1,023	1,022	1,008	945	1,025	1,003	998	945	814	909	799	874
27 weeks and over .....	1,172	1,148	1,178	1,123	1,105	1,049	1,098	1,057	962	1,070	1,011	959	936
Average (mean) duration, in weeks .....	14.8	15.0	15.0	14.6	14.9	14.9	14.9	14.8	14.0	14.3	14.2	14.0	13.8
Median duration, in weeks .....	7.0	7.1	7.0	6.6	6.6	7.0	6.5	6.7	6.7	6.4	5.7	6.2	6.1
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks .....	41.2	42.4	41.9	42.2	42.9	42.2	44.3	42.5	43.9	44.1	45.6	45.4	45.6
5 to 14 weeks .....	31.8	30.2	31.1	31.1	31.1	30.0	28.0	29.1	29.7	29.9	27.3	29.8	28.9
15 weeks and over .....	27.0	27.4	27.0	26.7	26.0	27.9	27.8	28.3	26.4	26.0	27.1	24.7	25.6
15 to 26 weeks .....	12.7	12.9	12.5	12.7	12.0	13.8	13.2	13.8	13.1	11.2	12.8	11.2	12.4
27 weeks and over .....	14.3	14.5	14.5	14.1	14.0	14.1	14.5	14.6	13.3	14.8	14.3	13.5	13.2

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

(Numbers in thousands)

Reasons for unemployment	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
<b>NUMBER OF UNEMPLOYED</b>													
Job losers .....	3,947	3,890	3,971	3,839	3,822	3,732	3,611	3,565	3,522	3,339	3,321	3,447	3,334
On layoff .....	1,073	1,078	1,118	998	1,011	958	906	901	918	850	810	956	893
Other job losers .....	2,874	2,812	2,854	2,842	2,811	2,774	2,705	2,664	2,604	2,489	2,511	2,491	2,442
Job leavers .....	1,056	1,036	891	1,046	1,000	923	906	949	1,007	1,006	995	956	910
Reentrants .....	2,119	2,019	2,054	2,042	2,111	1,940	2,018	1,969	1,913	1,997	1,885	1,794	2,005
New entrants .....	1,076	1,015	1,084	1,040	956	911	1,018	798	801	829	883	961	851
<b>PERCENT DISTRIBUTION</b>													
Total unemployed .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers .....	48.1	48.9	49.6	48.2	48.4	49.7	47.8	49.0	48.6	46.6	46.9	48.2	47.0
On layoff .....	13.1	13.5	14.0	12.5	12.8	12.8	12.0	12.4	12.7	11.9	11.4	13.4	12.6
Other job losers .....	35.1	35.3	35.7	35.7	35.6	37.0	35.8	36.6	36.0	34.7	35.4	34.8	34.4
Job leavers .....	12.9	13.0	11.1	13.1	12.7	12.3	12.0	13.0	13.9	14.0	14.0	13.4	12.8
Reentrants .....	25.8	25.4	25.7	25.6	26.8	25.8	26.7	27.0	26.4	27.9	26.6	25.1	28.2
New entrants .....	13.1	12.8	13.6	13.1	12.1	12.1	13.5	11.0	11.1	11.6	12.5	13.4	12.0
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>													
Job losers .....	3.3	3.3	3.3	3.2	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.9	2.8
On layoff .....	.9	.9	.7	.9	.8	.8	.8	.8	.8	.8	.8	.8	.8
Job leavers .....	1.8	1.7	1.7	1.7	1.8	1.6	1.7	1.6	1.6	1.7	1.6	1.5	1.7
Reentrants .....	.9	.9	.9	.9	.8	.8	.8	.7	.7	.7	.7	.8	.7
New entrants .....	.9	.9	.9	.9	.8	.8	.8	.7	.7	.7	.7	.8	.7



**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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Total</b> .....		100,984	101,234	102,955	103,773	104,095	-	-	-	-	-
<b>Total private</b> .....		83,918	84,000	86,181	86,361	86,503	67,994	68,074	69,769	69,910	69,996
<b>Mining</b> .....		737	736	760	766	766	519	520	548	555	553
Metal mining .....	10	39.0	39.3	44.2	44.2	-	29.0	29.1	33.5	33.5	-
Iron ores .....	101	6.6	6.7	9.3	9.3	-	4.8	4.8	7.1	7.1	-
Copper ores .....	102	11.5	11.6	13.4	13.4	-	9.0	9.1	10.7	10.7	-
Coal mining .....	11,12	170.4	170.1	163.8	163.6	-	139.6	139.7	134.0	134.0	-
Bituminous coal and lignite mining .....	12	167.7	167.4	161.7	161.6	-	137.4	137.5	132.2	132.2	-
Oil and gas extraction .....	13	415.7	416.5	435.9	443.4	445.1	264.7	267.4	290.6	298.4	-
Crude petroleum, natural gas, and natural gas liquids .....	131,2	210.9	209.6	203.0	202.9	-	104.0	103.7	100.1	100.4	-
Oil and gas field services .....	138	204.8	206.9	232.9	240.5	-	160.7	163.7	190.5	198.0	-
Nonmetallic minerals, except fuels .....	14	111.6	109.7	116.2	115.1	-	86.1	84.2	90.3	89.3	-
Crushed and broken stone .....	142	40.4	39.5	42.3	42.4	-	32.7	31.8	34.0	34.0	-
Sand and gravel .....	144	34.4	33.1	35.7	34.7	-	-	-	-	-	-
Chemical and fertilizer minerals .....	147	17.6	18.1	18.4	18.3	-	-	-	-	-	-
<b>Construction</b> .....		5,204	5,078	5,303	5,311	5,210	4,132	4,008	4,180	4,188	4,084
General building contractors .....	15	1,345.7	1,322.8	1,321.6	1,329.0	1,316.2	1,005.8	983.8	975.7	980.4	-
Residential building construction .....	152	682.0	671.8	690.2	692.8	-	495.1	485.4	496.0	495.4	-
Operative builders .....	153	55.3	53.9	54.0	53.3	-	29.5	27.9	26.8	26.1	-
Nonresidential building construction .....	154	608.4	597.1	577.4	582.9	-	481.2	470.5	452.9	458.9	-
Heavy construction contractors .....	16	842.0	794.2	847.1	853.7	-	713.4	666.9	718.6	725.3	-
Highway and street construction .....	161	319.0	289.1	340.4	336.0	-	273.3	243.2	290.6	286.2	-
Heavy construction, except highway .....	162	523.0	505.1	506.7	517.7	-	440.1	423.7	428.0	439.1	-
Special trade contractors .....	17	3,016.6	2,961.2	3,134.3	3,128.0	-	2,413.1	2,357.1	2,485.8	2,482.4	-
Plumbing, heating, and air conditioning .....	171	652.1	646.5	678.0	679.1	-	486.4	480.8	504.2	505.7	-
Painting, paper hanging, and decorating .....	172	172.0	166.5	178.3	176.4	-	145.5	139.6	149.9	148.2	-
Electrical work .....	173	544.1	544.0	566.1	570.2	-	425.7	425.0	441.7	444.6	-
Masonry, stonework, and plastering .....	174	497.0	488.7	521.2	511.9	-	427.6	418.7	444.9	437.8	-
Carpentering and flooring .....	175	184.9	179.6	177.8	176.9	-	144.5	139.4	137.1	136.3	-
Roofing and sheet metal work .....	176	231.9	225.3	228.2	232.4	-	190.2	184.2	184.2	188.1	-
<b>Manufacturing</b> .....		19,041	19,014	19,348	19,352	19,382	12,954	12,940	13,241	13,231	13,255
<b>Durable goods</b> .....		11,209	11,204	11,338	11,361	11,391	7,410	7,415	7,555	7,569	7,599
Lumber and wood products .....	24	731.3	722.7	761.9	754.3	744.3	615.4	606.7	638.0	631.0	621.6
Logging camps and logging contractors .....	241	89.9	87.0	87.6	84.5	-	76.4	73.5	73.8	71.1	-
Sawmills and planing mills .....	242	198.3	196.6	206.7	205.8	-	175.9	174.1	182.4	181.5	-
Sawmills and planing mills, general .....	2421	161.7	160.0	167.8	166.7	-	143.7	142.0	148.2	147.0	-
Hardwood dimension and flooring .....	2426	33.6	33.6	36.0	36.1	-	29.6	29.5	31.6	31.8	-
Millwork, plywood, and structural members .....	243	252.9	251.0	270.1	265.9	-	209.9	208.0	223.2	219.8	-
Millwork .....	2431	96.7	95.3	106.2	103.4	-	78.7	77.4	86.1	83.9	-
Wood kitchen cabinets .....	2434	68.0	68.4	72.2	71.8	-	54.9	55.1	58.0	58.0	-
Hardwood veneer and plywood .....	2435	23.8	23.7	25.3	25.1	-	20.9	20.9	22.2	22.0	-
Softwood veneer and plywood .....	2436	38.1	38.4	39.3	38.9	-	34.9	35.2	35.7	35.3	-
Wood containers .....	244	40.0	39.6	40.7	40.9	-	33.8	33.4	34.6	34.7	-
Wood buildings and mobile homes .....	245	71.8	70.6	75.5	75.4	-	54.3	53.2	57.6	57.2	-
Mobile homes .....	2451	49.0	48.2	51.0	51.0	-	39.3	38.5	41.4	41.3	-
Miscellaneous wood products .....	249	78.4	77.9	81.3	81.8	-	65.1	64.5	66.4	66.7	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Durable goods—Continued</b>											
Furniture and fixtures .....	25	502.6	504.2	521.8	527.8	531.8	402.5	403.2	418.0	423.6	426.9
Household furniture .....	251	297.6	298.8	309.0	314.3	-	250.7	252.0	261.0	266.1	-
Wood household furniture .....	2511	132.8	133.4	136.6	138.6	-	116.2	116.6	119.5	121.1	-
Upholstered household furniture .....	2512	94.9	95.4	101.4	101.9	-	78.9	79.6	85.2	85.9	-
Metal household furniture .....	2514	26.0	26.6	24.9	27.7	-	21.2	21.7	20.1	22.8	-
Mattresses and bedspings .....	2515	30.0	29.8	31.9	31.7	-	22.9	22.6	24.5	24.2	-
Office furniture .....	252	66.2	66.6	69.0	69.0	-	50.8	51.0	52.2	52.2	-
Public building and related furniture .....	253	27.6	27.8	29.4	29.7	-	21.2	21.3	22.5	22.6	-
Partitions and fixtures .....	254	73.3	73.0	76.5	76.4	-	53.6	53.0	55.6	55.7	-
Miscellaneous furniture and fixtures .....	259	37.9	38.0	37.9	38.4	-	26.2	25.9	26.7	27.0	-
Stone, clay, and glass products .....	32	592.2	586.3	595.7	594.4	590.4	457.7	452.8	463.8	462.3	458.5
Flat glass .....	321	15.2	15.2	14.9	14.7	-	11.9	11.8	11.6	11.5	-
Glass and glassware, pressed or blown .....	322	89.0	89.3	88.1	87.6	-	75.9	76.1	75.6	75.3	-
Glass containers .....	3221	45.9	45.4	44.3	43.6	-	41.4	40.8	39.9	39.3	-
Pressed and blown glass, nec .....	3229	43.1	43.9	43.8	44.0	-	34.5	35.3	35.7	36.0	-
Products of purchased glass .....	323	51.0	50.5	51.7	52.2	-	36.2	35.6	37.0	37.4	-
Cement, hydraulic .....	324	22.5	22.3	21.8	21.4	-	17.6	17.4	16.8	16.4	-
Structural clay products .....	325	37.3	37.5	39.1	39.0	-	29.0	29.3	31.0	30.6	-
Pottery and related products .....	326	36.6	36.6	36.5	36.5	-	28.9	29.0	29.4	29.1	-
Concrete, gypsum, and plaster products .....	327	216.2	211.5	219.4	218.9	-	169.0	164.8	171.5	170.9	-
Concrete block and brick .....	3271	20.1	20.2	20.6	20.6	-	13.6	13.6	13.7	13.7	-
Concrete products, nec .....	3272	70.9	69.7	70.9	71.4	-	54.6	53.4	54.4	54.8	-
Ready-mixed concrete .....	3273	105.4	102.2	108.4	107.5	-	85.6	82.8	88.3	87.4	-
Misc. nonmetallic mineral products .....	329	111.7	110.7	110.9	110.8	-	79.1	78.9	80.5	80.7	-
Abrasive products .....	3291	20.6	20.8	20.4	20.5	-	13.7	13.9	13.8	14.0	-
Asbestos products .....	3292	8.9	8.9	9.4	9.3	-	6.8	6.8	7.3	7.2	-
Mineral wool .....	3296	27.5	26.4	24.6	24.0	-	-	-	-	-	-
Primary metal industries .....	33	726.8	727.5	763.0	762.5	767.9	541.9	542.3	578.2	577.8	582.0
Blast furnaces and basic steel products .....	331	257.4	255.9	281.6	281.6	283.5	193.3	191.0	214.2	214.3	215.9
Blast furnaces and steel mills .....	3312	192.3	191.0	214.4	214.1	-	145.5	143.4	164.4	164.4	-
Steel pipe and tubes .....	3317	22.3	22.2	23.8	24.0	-	15.9	15.9	17.6	17.7	-
Iron and steel foundries .....	332	128.7	128.2	133.8	133.1	-	101.1	100.9	105.9	105.3	-
Gray iron foundries .....	3321	80.5	80.6	83.6	83.0	-	65.4	65.5	68.0	67.3	-
Malleable iron foundries .....	3322	8.6	8.1	9.0	8.9	-	6.1	5.7	6.6	6.6	-
Steel foundries, nec .....	3325	26.4	26.2	27.0	27.1	-	19.5	19.4	20.3	20.5	-
Primary nonferrous metals .....	333	36.5	39.0	41.4	40.7	-	24.0	26.0	29.7	29.2	-
Primary aluminum .....	3334	18.9	21.4	23.3	22.8	-	11.9	14.0	16.9	16.5	-
Nonferrous rolling and drawing .....	335	179.4	179.0	177.8	177.6	-	126.4	126.4	127.9	127.6	-
Copper rolling and drawing .....	3351	22.9	22.9	23.2	23.1	-	17.9	17.8	18.2	17.9	-
Aluminum sheet, plate, and foil .....	3353	27.7	27.8	27.9	27.6	-	19.6	19.9	20.4	19.9	-
Nonferrous wire drawing and insulating .....	3357	76.4	76.3	75.1	75.2	-	53.3	53.3	53.4	53.8	-
Nonferrous foundries .....	336	84.7	85.5	86.4	87.1	-	67.7	68.6	69.5	70.0	-
Aluminum foundries .....	3361	51.7	52.4	52.9	53.1	-	42.0	42.7	43.2	43.5	-
Fabricated metal products .....	34	1,429.9	1,426.3	1,440.8	1,447.4	1,454.2	1,058.5	1,055.4	1,071.9	1,075.4	1,083.6
Metal cans and shipping containers .....	341	57.3	56.6	58.0	56.1	-	49.1	48.5	49.5	47.7	-
Metal cans .....	3411	46.1	45.7	46.5	44.7	-	40.3	40.0	40.2	38.6	-
Cutlery, hand tools, and hardware .....	342	136.4	136.8	133.8	135.1	-	100.0	100.7	98.8	99.8	-
Hand and edge tools, and hand saws and blades .....	3423,5	45.9	46.4	48.7	49.4	-	33.4	33.8	35.8	36.3	-
Hardware, nec .....	3429	78.0	77.9	74.3	74.8	-	58.3	58.5	55.5	56.2	-
Plumbing and heating, except electric .....	343	61.3	61.4	62.6	63.3	-	44.2	44.1	44.9	45.5	-
Plumbing fittings and brass goods .....	3432	23.7	23.8	24.5	24.8	-	17.2	17.2	18.0	18.1	-
Heating equipment, except electric .....	3433	27.5	27.2	27.4	27.5	-	19.3	18.9	18.8	19.0	-
Fabricated structural metal products .....	344	440.5	437.0	443.8	444.4	-	311.1	308.2	317.5	317.8	-
Fabricated structural metal .....	3441	78.1	78.1	78.1	77.9	-	55.2	55.1	56.2	55.8	-
Metal doors, sash, and trim .....	3442	93.1	92.0	99.5	98.5	-	69.5	68.5	74.2	73.3	-
Fabricated plate work (boiler shops) .....	3443	93.9	94.0	90.9	91.5	-	58.4	58.6	58.2	58.7	-
Sheet metal work .....	3444	111.1	110.0	112.2	112.9	-	83.2	82.2	84.9	85.6	-
Architectural metal work .....	3446	29.7	29.7	29.6	29.9	-	21.4	21.7	21.6	22.1	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Durable goods—Continued</b>											
Fabricated metal products—Continued											
Screw machine products, bolts, etc .....	345	93.2	93.3	95.1	95.8	-	70.9	71.2	73.0	73.7	-
Screw machine products .....	3451	44.3	44.2	45.7	46.2	-	35.9	35.9	37.5	38.0	-
Bolts, nuts, rivets, and washers .....	3452	48.9	49.1	49.4	49.6	-	35.0	35.3	35.5	35.7	-
Metal forgings and stampings .....	346	240.4	240.0	237.5	237.1	-	193.0	192.1	189.2	189.5	-
Iron and steel forgings .....	3462	30.3	30.6	30.2	30.1	-	23.2	23.4	23.2	23.0	-
Automotive stampings .....	3465	103.0	102.4	98.5	98.2	-	88.2	87.4	83.7	83.8	-
Metal stampings, nec .....	3469	96.2	95.9	98.2	98.0	-	73.6	73.2	74.7	74.9	-
Metal services, nec .....	347	111.4	111.7	117.1	117.7	-	89.3	89.5	93.8	94.4	-
Plating and polishing .....	3471	72.7	72.8	75.7	75.8	-	58.7	58.8	61.3	61.2	-
Metal coating and allied services .....	3479	38.7	38.9	41.4	41.9	-	30.6	30.7	32.5	33.2	-
Ordnance and accessories, nec .....	348	78.2	79.1	80.0	81.7	-	48.9	49.7	50.4	49.7	-
Ammunition, except for small arms, nec .....	3483	45.6	46.4	45.2	46.8	-	28.5	29.0	26.3	25.5	-
Misc. fabricated metal products .....	349	211.2	210.4	212.9	216.2	-	152.0	151.4	154.8	157.3	-
Valves and pipe fittings .....	3494	76.8	76.6	77.9	78.7	-	50.7	50.6	52.5	53.2	-
Misc. fabricated wire products .....	3496	52.0	51.0	50.6	51.9	-	39.4	38.5	38.4	39.2	-
Machinery, except electrical .....	35	2,017.7	2,013.0	2,050.5	2,058.2	2,068.1	1,191.5	1,187.7	1,227.7	1,233.9	1,243.3
Engines and turbines .....	351	100.3	100.1	98.5	100.1	-	62.2	62.2	62.7	65.0	-
Turbines and turbine generator sets .....	3511	32.2	31.9	28.8	28.4	-	17.5	17.3	15.1	15.4	-
Internal combustion engines, nec .....	3519	68.1	68.2	69.7	71.7	-	44.7	44.9	47.6	49.6	-
Farm and garden machinery .....	352	85.2	85.0	103.9	104.8	-	53.2	52.6	70.4	71.2	-
Farm machinery and equipment .....	3523	60.8	60.0	76.7	76.6	-	34.9	33.7	49.8	49.8	-
Construction and related machinery .....	353	215.2	213.2	223.0	224.0	-	128.6	126.4	133.9	134.9	-
Construction machinery .....	3531	76.2	75.9	81.0	80.9	-	45.6	44.8	48.9	48.9	-
Mining machinery .....	3532	18.7	18.4	19.7	19.7	-	11.6	11.1	12.1	12.1	-
Oil field machinery .....	3533	42.5	41.5	43.5	44.1	-	24.6	23.8	25.6	26.4	-
Conveyors and conveying equipment .....	3535	29.6	29.5	29.9	29.7	-	15.4	15.4	16.0	15.8	-
Industrial trucks and tractors .....	3537	25.3	25.4	25.7	26.1	-	17.9	18.0	17.9	18.1	-
Metalworking machinery .....	354	302.5	301.1	297.7	297.1	-	215.7	214.4	213.5	212.8	-
Machine tools, metal cutting types .....	3541	48.4	47.9	45.2	44.9	-	30.3	30.2	28.5	28.4	-
Machine tools, metal forming types .....	3542	19.5	19.3	18.9	19.0	-	12.0	11.8	12.1	12.1	-
Special dies, tools, jigs, and fixtures .....	3544	142.8	142.0	142.0	141.9	-	110.2	109.4	108.6	108.3	-
Machine tool accessories .....	3545	53.3	53.0	54.3	54.4	-	37.0	36.7	38.5	38.7	-
Power driven hand tools .....	3546	21.1	21.3	21.1	20.9	-	15.5	15.5	15.7	15.6	-
Special industry machinery .....	355	156.0	156.6	161.4	161.8	-	92.3	92.6	96.7	96.9	-
Food products machinery .....	3551	37.0	37.2	38.3	38.4	-	22.4	22.6	23.3	23.3	-
Textile machinery .....	3552	18.7	18.9	20.7	21.0	-	12.4	12.6	14.0	14.2	-
Printing trades machinery .....	3555	26.7	26.7	26.8	27.1	-	15.5	15.5	16.0	16.2	-
General industrial machinery .....	356	252.8	252.5	255.2	255.4	-	160.6	160.9	163.9	164.3	-
Pumps and pumping equipment .....	3561	43.0	43.3	44.9	44.8	-	24.9	25.0	25.8	25.9	-
Ball and roller bearings .....	3562	43.5	43.4	43.7	43.7	-	32.9	32.9	34.0	33.9	-
Air and gas compressors .....	3563	21.9	21.8	21.4	21.3	-	12.2	12.2	12.1	12.1	-
Blowers and fans .....	3564	30.9	30.7	31.0	31.3	-	19.7	19.6	20.0	20.3	-
Speed changers, drives, and gears .....	3566	19.7	19.5	20.2	20.1	-	13.4	13.3	13.7	13.7	-
Power transmission equipment, nec .....	3568	16.5	16.5	16.7	16.9	-	10.9	11.0	11.1	11.2	-
Office and computing machines .....	357	465.3	463.7	457.6	459.3	-	154.6	153.5	150.9	151.4	-
Electronic computing equipment .....	3573	409.9	408.1	402.0	403.3	-	131.3	130.1	126.7	127.0	-
Refrigeration and service machinery .....	358	168.9	170.0	177.8	177.9	-	118.4	119.8	127.9	127.9	-
Refrigeration and heating equipment .....	3585	120.7	121.6	128.5	128.0	-	86.7	87.9	94.7	94.3	-
Misc. machinery, except electrical .....	359	271.5	270.8	275.4	277.8	-	205.9	205.3	207.8	209.5	-
Carburetors, pistons, rings, and valves .....	3592	35.0	34.6	35.1	35.0	-	28.7	28.1	28.2	28.0	-
Machinery, except electrical, nec .....	3599	236.5	236.2	240.3	242.8	-	177.2	177.2	179.6	181.5	-
Electrical and electronic equipment .....	36	2,124.2	2,123.3	2,104.8	2,114.2	2,118.9	1,231.3	1,234.5	1,232.3	1,241.6	1,249.5
Electric distributing equipment .....	361	106.9	106.7	106.3	106.4	-	77.4	77.4	77.2	77.2	-
Transformers .....	3612	51.1	50.8	50.8	50.8	-	37.7	37.6	37.2	37.2	-
Switchgear and switchboard apparatus .....	3613	55.8	55.9	55.5	55.6	-	39.7	39.8	40.0	40.0	-
Electrical industrial apparatus .....	362	185.7	185.7	184.3	183.9	-	128.0	128.0	127.0	126.9	-
Motors and generators .....	3621	90.3	90.4	90.3	90.1	-	69.3	69.2	69.1	69.1	-
Industrial controls .....	3622	60.3	59.9	57.7	57.8	-	35.1	35.0	33.2	33.3	-
Household appliances .....	363	138.3	139.1	137.1	139.3	-	108.2	109.0	109.2	111.3	-
Household refrigerators and freezers .....	3632	26.9	26.9	28.0	28.7	-	21.4	21.5	22.7	23.3	-
Household laundry equipment .....	3633	22.7	23.1	22.8	22.4	-	17.5	17.7	18.1	17.9	-
Electric housewares and fans .....	3634	38.8	38.3	36.1	37.4	-	29.5	29.4	27.9	29.1	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Durable goods—Continued</b>											
Electrical and electronic equipment—Continued											
Electric lighting and wiring equipment .....	364	194.5	194.9	191.1	192.5	-	140.2	140.6	139.2	140.9	-
Electric lamps .....	3641	27.3	27.3	26.9	27.0	-	23.3	23.3	22.9	23.0	-
Current-carrying wiring devices .....	3643	75.2	75.2	73.0	73.5	-	48.2	48.4	48.6	49.1	-
Noncurrent-carrying wiring devices .....	3644	17.0	16.7	16.6	16.7	-	12.1	11.9	11.8	12.0	-
Residential lighting fixtures .....	3645	28.9	29.1	27.0	27.8	-	22.3	22.5	20.5	21.2	-
Radio and TV receiving equipment .....	365	83.0	83.6	82.0	82.5	-	56.0	56.5	56.4	57.0	-
Radio and TV receiving sets .....	3651	64.6	64.5	63.1	63.0	-	42.9	42.9	42.4	42.5	-
Communication equipment .....	366	630.1	628.9	610.9	609.5	-	263.7	264.1	254.5	254.7	-
Telephone and telegraph apparatus .....	3661	125.2	124.8	114.1	113.4	-	72.4	72.2	65.5	65.3	-
Radio and TV communication equipment .....	3662	504.9	504.1	496.8	496.1	-	191.3	191.9	189.0	189.4	-
Electronic components and accessories .....	367	631.3	629.5	641.1	647.6	-	350.6	351.0	361.5	365.9	-
Electronic tubes .....	3671-3	39.7	39.6	37.9	37.8	-	24.3	24.4	24.4	24.2	-
Semiconductors and related devices .....	3674	267.5	264.5	269.3	271.0	-	102.4	101.8	105.0	105.6	-
Electronic components, nec .....	3679	253.9	255.2	261.3	265.6	-	171.3	172.3	177.3	180.9	-
Misc. electrical equipment and supplies .....	369	154.4	154.9	152.0	152.5	-	107.2	107.9	107.3	107.7	-
Storage batteries .....	3691	30.2	30.5	32.2	32.5	-	23.6	23.8	25.2	25.5	-
Engine electrical equipment .....	3694	65.8	66.5	64.2	64.1	-	50.0	50.7	49.1	49.0	-
Transportation equipment .....	37	2,014.8	2,032.9	2,026.5	2,023.0	2,032.1	1,261.8	1,282.8	1,269.6	1,263.0	1,268.1
Motor vehicles and equipment .....	371	852.2	864.9	844.3	841.2	845.5	655.0	670.0	657.5	654.9	657.5
Motor vehicles and car bodies .....	3711	386.5	398.9	364.9	363.6	-	285.9	299.8	274.5	273.3	-
Truck and bus bodies .....	3713	39.6	39.7	45.3	44.9	-	30.8	31.0	35.7	35.4	-
Motor vehicle parts and accessories .....	3714	383.4	384.7	385.3	383.7	-	305.3	307.2	309.2	307.9	-
Truck trailers .....	3715	27.9	26.8	31.9	31.5	-	21.5	20.5	24.9	24.6	-
Aircraft and parts .....	372	685.9	689.1	696.7	696.7	-	339.1	343.2	346.2	344.3	-
Aircraft .....	3721	346.9	348.1	363.1	364.9	-	153.0	155.2	162.4	163.5	-
Aircraft engines and engine parts .....	3724	154.9	155.9	156.7	156.5	-	79.5	80.3	79.0	78.4	-
Aircraft equipment, nec .....	3728	184.1	185.1	176.9	175.3	-	106.6	107.7	104.8	102.4	-
Ship and boat building and repairing .....	373	185.1	185.9	187.0	186.1	-	140.8	141.6	140.8	139.7	-
Ship building and repairing .....	3731	131.3	131.3	127.3	125.2	-	97.5	97.5	92.6	90.3	-
Boat building and repairing .....	3732	53.8	54.6	59.7	60.9	-	43.3	44.1	48.2	49.4	-
Railroad equipment .....	374	26.5	26.4	23.3	22.9	-	18.3	18.3	16.1	16.0	-
Guided missiles, space vehicles, and parts .....	376	205.6	206.5	212.3	213.4	-	68.8	69.2	66.7	65.9	-
Guided missiles and space vehicles .....	3761	155.6	156.6	160.9	161.2	-	49.4	49.6	50.0	48.9	-
Miscellaneous transportation equipment .....	379	48.7	49.3	51.2	50.9	-	32.4	33.2	34.1	34.0	-
Travel trailers and campers .....	3792	18.4	18.9	21.1	21.0	-	14.2	14.7	16.0	16.0	-
Instruments and related products .....	38	700.8	699.8	695.0	696.1	700.4	378.8	379.8	378.5	379.8	384.1
Engineering and scientific instruments .....	381	82.8	82.7	82.8	83.2	-	36.7	36.8	37.4	37.8	-
Measuring and controlling devices .....	382	243.4	242.0	237.3	237.0	-	133.9	134.6	132.3	132.0	-
Environmental controls .....	3822	41.7	41.7	41.2	41.0	-	26.2	26.3	26.4	26.4	-
Process control instruments .....	3823	54.2	53.8	51.2	51.5	-	26.2	27.3	26.5	26.8	-
Instruments to measure electricity .....	3825	102.8	101.8	99.7	99.5	-	52.0	51.4	49.0	48.5	-
Optical instruments and lenses .....	383	32.5	32.7	32.1	32.1	-	15.9	15.8	15.3	15.6	-
Medical instruments and supplies .....	384	181.4	181.5	182.2	182.9	-	109.3	109.5	109.7	110.3	-
Surgical and medical instruments .....	3841	87.8	87.3	87.2	87.1	-	50.6	50.4	50.1	50.3	-
Surgical appliances and supplies .....	3842	79.4	80.0	80.7	81.3	-	50.8	51.2	51.6	51.9	-
Ophthalmic goods .....	385	38.5	39.2	42.6	42.9	-	25.6	26.1	29.4	29.6	-
Photographic equipment and supplies .....	386	111.0	110.5	106.7	106.9	-	49.4	48.9	46.2	46.2	-
Watches, clocks, and watchcases .....	387	11.2	11.2	11.3	11.1	-	8.0	8.1	8.2	8.3	-
Miscellaneous manufacturing .....	39	368.6	368.1	378.0	383.0	383.3	270.2	269.9	276.5	280.5	281.7
Jewelry, silverware, and plated ware .....	391	56.2	56.2	55.5	57.0	-	39.4	39.6	38.4	39.7	-
Jewelry, precious metal .....	3911	39.8	39.7	39.0	40.3	-	27.6	27.7	26.8	27.8	-
Musical instruments .....	393	12.2	12.4	13.3	13.3	-	9.9	10.1	11.2	11.2	-
Toys and sporting goods .....	394	95.2	95.6	104.2	106.3	-	71.5	72.1	78.9	80.6	-
Dolls, games, toys, and children's vehicles .....	3942,4	44.9	45.0	51.2	52.2	-	33.0	33.2	38.4	39.2	-
Sporting and athletic goods, nec .....	3949	50.3	50.6	53.0	54.1	-	38.5	38.9	40.5	41.4	-
Pens, pencils, office, and art supplies .....	395	32.5	32.6	33.4	33.5	-	22.1	22.3	23.3	23.1	-
Costume jewelry and notions .....	396	44.1	43.3	43.6	44.7	-	35.1	34.1	33.4	34.5	-
Costume jewelry .....	3961	24.5	24.1	24.5	25.5	-	19.4	18.8	18.8	19.8	-
Miscellaneous manufactures .....	399	128.4	128.0	128.0	128.2	-	92.2	91.7	91.3	91.4	-
Signs and advertising displays .....	3993	56.2	56.0	55.5	56.0	-	39.5	39.4	38.3	38.8	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Nondurable goods</b> .....		7,832	7,810	8,010	7,991	7,991	5,544	5,525	5,686	5,662	5,656
Food and kindred products .....	20	1,664.9	1,641.4	1,717.4	1,678.3	1,653.0	1,182.0	1,160.6	1,228.0	1,192.1	1,169.7
Meat products .....	201	379.0	382.4	389.3	391.2	-	321.9	324.9	330.7	333.2	-
Meat packing plants .....	2011	138.3	140.8	138.8	139.4	-	115.3	117.7	116.5	117.3	-
Sausages and other prepared meats .....	2013	76.9	77.3	76.8	76.7	-	57.1	57.2	56.7	57.0	-
Poultry dressing plants .....	2016	145.3	146.1	154.4	155.9	-	132.5	133.3	139.9	141.3	-
Dairy products .....	202	163.1	163.0	167.5	166.1	-	97.6	97.7	101.0	99.7	-
Cheese, natural and processed .....	2022	39.5	39.9	40.4	40.3	-	30.2	30.6	31.0	31.0	-
Fluid milk .....	2026	84.5	84.8	86.5	86.0	-	41.6	41.8	43.2	42.8	-
Preserved fruits and vegetables .....	203	258.5	236.4	298.5	252.5	-	216.6	194.9	252.4	208.2	-
Canned specialties .....	2032	26.1	25.0	28.6	26.7	-	19.4	18.2	20.9	19.0	-
Canned fruits and vegetables .....	2033	91.6	77.7	125.7	85.1	-	77.0	63.8	108.7	70.0	-
Frozen fruits and vegetables .....	2037	53.2	49.6	51.9	48.8	-	47.7	43.8	46.8	43.4	-
Grain mill products .....	204	121.8	121.4	123.1	123.0	-	83.9	83.7	85.1	85.0	-
Flour and other grain mill products .....	2041	22.0	22.3	23.1	23.1	-	15.1	15.1	15.8	15.8	-
Prepared feeds, nec .....	2048	42.7	42.5	42.5	42.4	-	26.9	26.9	27.0	26.9	-
Bakery products .....	205	212.5	212.7	213.6	214.3	-	129.7	129.8	130.0	131.4	-
Bread, cake, and related products .....	2051	166.9	167.0	167.4	167.3	-	92.3	92.4	92.9	93.7	-
Cookies and crackers .....	2052	45.6	45.7	46.2	47.0	-	37.4	37.4	37.1	37.7	-
Sugar and confectionery products .....	206	110.5	110.8	100.3	111.6	-	88.8	89.0	79.1	89.7	-
Cane and beet sugar .....	2061-3	30.1	29.2	24.4	32.1	-	24.4	23.4	19.1	25.8	-
Confectionery products .....	2065	60.8	62.0	55.3	59.3	-	51.2	52.4	46.0	50.1	-
Fats and oils .....	207	34.7	33.8	33.4	34.5	-	25.3	24.8	24.1	25.0	-
Beverages .....	208	212.3	211.5	213.9	209.5	-	89.4	89.7	91.8	88.5	-
Malt beverages .....	2082	40.8	40.9	40.2	39.2	-	25.6	25.7	25.7	24.7	-
Bottled and canned soft drinks .....	2086	125.3	124.8	126.0	124.2	-	39.6	39.7	41.4	40.2	-
Misc. food and kindred products .....	209	172.5	169.4	177.8	175.6	-	128.8	126.1	133.8	131.4	-
Tobacco manufactures .....	21	62.5	60.3	59.8	59.0	58.3	48.6	46.8	45.2	44.5	43.3
Cigarettes .....	211	41.7	41.7	40.0	38.8	-	31.7	31.8	29.1	28.0	-
Textile mill products .....	22	713.1	716.4	740.7	740.0	742.6	618.4	621.6	643.9	643.1	645.3
Weaving mills, cotton .....	221	101.1	102.3	110.2	110.1	-	91.1	92.1	99.8	99.7	-
Weaving mills, synthetics .....	222	84.1	84.4	89.3	89.2	-	75.1	75.3	79.6	79.6	-
Weaving and finishing mills, wool .....	223	17.5	17.7	18.4	18.4	-	14.6	14.7	15.0	15.0	-
Narrow fabric mills .....	224	22.6	22.7	23.2	23.4	-	19.5	19.6	20.2	20.5	-
Knitting mills .....	225	209.9	209.3	211.1	210.0	-	183.2	183.1	185.3	184.4	-
Women's hosiery, except socks .....	2251	35.1	35.4	34.1	33.8	-	31.2	31.5	30.5	30.2	-
Hosiery, nec .....	2252	36.5	36.6	36.8	36.7	-	32.8	32.9	33.1	32.9	-
Knit outerwear mills .....	2253	72.3	72.3	73.2	72.5	-	63.6	63.9	65.2	64.6	-
Knit underwear mills .....	2254	24.0	23.5	23.2	23.2	-	20.0	19.5	19.6	19.7	-
Circular knit fabric mills .....	2257	23.9	23.7	25.9	25.9	-	20.7	20.6	22.4	22.4	-
Textile finishing, except wool .....	226	60.1	60.4	61.6	61.3	-	50.2	50.6	51.8	51.6	-
Finishing plants, cotton .....	2261	23.5	23.9	24.1	24.1	-	19.9	20.2	20.5	20.5	-
Finishing plants, synthetics .....	2262	22.4	22.5	22.7	22.5	-	18.1	18.3	18.5	18.4	-
Floor covering mills .....	227	56.7	57.2	60.4	61.0	-	46.8	47.3	49.0	49.3	-
Yarn and thread mills .....	228	106.0	106.9	110.0	110.0	-	94.9	95.7	98.6	98.3	-
Yarn mills, except wool .....	2281	76.8	77.1	80.8	80.8	-	69.5	69.9	73.3	73.2	-
Throwing and winding mills .....	2282	16.1	16.5	15.6	15.7	-	14.2	14.6	13.8	13.9	-
Miscellaneous textile goods .....	229	55.1	55.5	56.5	56.6	-	43.0	43.2	44.6	44.7	-
Apparel and other textile products .....	23	1,114.1	1,106.8	1,125.1	1,132.0	1,132.5	938.8	932.8	945.4	952.3	951.7
Men's and boys' suits and coats .....	231	58.7	59.1	57.5	57.1	-	50.5	50.9	49.7	49.3	-
Men's and boys' furnishings .....	232	306.1	305.8	319.8	321.6	-	264.5	264.1	275.6	277.0	-
Men's and boys' shirts and nightwear .....	2321	85.7	85.5	87.3	86.7	-	73.7	73.2	74.5	74.1	-
Men's and boys' separate trousers .....	2327	54.6	55.3	54.5	55.1	-	47.8	48.8	47.5	48.1	-
Men's and boys' work clothing .....	2328	91.0	89.9	99.0	99.4	-	79.5	78.5	86.6	86.7	-
Women's and misses' outerwear .....	233	357.7	351.9	358.8	363.4	-	298.7	293.5	298.8	303.7	-
Women's and misses' blouses and waists .....	2331	50.4	49.8	49.9	49.0	-	42.1	41.4	41.5	40.8	-
Women's and misses' dresses .....	2335	85.4	82.0	84.1	85.0	-	71.7	68.7	69.7	70.7	-
Women's and misses' suits and coats .....	2337	46.3	44.4	47.3	46.7	-	37.8	36.3	38.7	38.2	-
Women's and misses' outerwear, nec .....	2339	175.6	175.7	177.5	182.7	-	147.1	147.1	148.9	154.0	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Apparel and other textile products—Continued											
Women's and children's undergarments .....	234	77.9	75.9	73.6	73.7	-	64.8	63.5	60.5	60.5	-
Women's and children's underwear .....	2341	63.3	61.6	60.3	60.4	-	53.9	52.8	51.4	51.5	-
Brassieres and allied garments .....	2342	14.6	14.3	13.3	13.3	-	10.9	10.7	9.1	9.0	-
Children's outerwear .....	236	60.5	60.7	58.3	58.1	-	51.3	51.4	48.6	48.7	-
Children's dresses and blouses .....	2361	25.4	25.7	23.9	24.1	-	22.3	22.5	20.9	21.3	-
Misc. apparel and accessories .....	238	42.9	42.3	42.0	41.9	-	35.8	35.5	35.1	35.0	-
Misc. fabricated textile products .....	239	191.2	192.3	196.5	197.7	-	158.2	159.1	162.4	163.6	-
Curtains and draperies .....	2391	26.4	26.6	27.2	27.5	-	21.6	21.7	22.2	22.5	-
House furnishings, nec .....	2392	52.8	52.9	55.2	56.0	-	45.1	45.1	47.0	48.0	-
Automotive and apparel trimmings .....	2396	40.5	41.5	40.0	40.1	-	34.3	35.2	33.7	33.7	-
Paper and allied products .....	26	678.2	678.8	682.1	680.3	682.1	514.3	515.6	518.6	516.1	519.9
Paper and pulp mills .....	261,2,6	194.8	195.4	192.8	192.3	-	148.7	149.3	146.1	145.4	-
Paper mills, except building paper .....	262	170.4	170.8	169.4	168.3	-	129.4	129.9	127.7	126.4	-
Paperboard mills .....	263	53.1	53.2	52.9	52.3	-	40.1	40.3	40.1	39.4	-
Misc. converted paper products .....	264	231.5	231.3	235.4	234.8	-	170.8	171.3	175.4	174.3	-
Paper coating and glazing .....	2641	58.1	57.9	59.0	58.8	-	36.2	36.4	37.8	37.0	-
Envelopes .....	2642	26.7	26.8	26.8	26.9	-	20.8	21.0	20.9	21.0	-
Bags, except textile bags .....	2643	52.0	52.2	53.6	53.5	-	41.0	41.4	42.5	42.4	-
Paperboard containers and boxes .....	265	198.8	198.9	201.0	200.9	-	154.7	154.7	157.0	157.0	-
Folding paperboard boxes .....	2651	42.7	42.8	43.2	43.3	-	34.1	34.0	34.3	34.4	-
Corrugated and solid fiber boxes .....	2653	105.7	105.9	105.4	105.2	-	79.9	80.2	80.1	80.0	-
Sanitary food containers .....	2654	22.4	22.3	24.1	23.7	-	19.1	19.1	20.8	20.4	-
Printing and publishing .....	27	1,468.8	1,477.7	1,504.6	1,512.9	1,527.6	826.0	831.8	843.1	846.7	852.2
Newspapers .....	271	460.8	462.8	464.6	466.5	-	171.6	172.4	172.2	173.0	-
Periodicals .....	272	116.2	116.6	123.1	123.5	-	43.0	43.2	45.3	45.5	-
Books .....	273	107.2	108.8	111.1	110.0	-	56.7	58.5	57.7	56.1	-
Book publishing .....	2731	79.6	80.5	82.3	81.9	-	35.1	36.2	35.2	34.5	-
Book printing .....	2732	27.6	28.3	28.8	28.1	-	21.6	22.3	22.5	21.6	-
Miscellaneous publishing .....	274	72.0	73.9	78.0	78.7	-	38.3	39.8	41.0	40.5	-
Commercial printing .....	275	514.3	516.9	531.1	535.5	-	374.9	375.8	385.7	388.9	-
Commercial printing, letterpress .....	2751	164.0	164.6	170.7	172.2	-	120.3	120.2	122.3	122.7	-
Commercial printing, lithographic .....	2752	323.6	325.1	332.3	334.9	-	233.4	233.9	240.9	243.5	-
Manifold business forms .....	276	49.6	49.4	48.6	49.0	-	34.9	34.8	33.8	34.0	-
Blankbooks and bookbinding .....	278	74.0	74.1	73.1	73.9	-	59.3	59.7	58.5	59.2	-
Printing trade services .....	279	51.9	52.4	53.3	53.9	-	38.9	39.3	39.5	40.0	-
Chemicals and allied products .....	28	1,018.5	1,017.1	1,033.1	1,032.0	1,034.2	566.1	565.9	581.2	579.6	580.9
Industrial inorganic chemicals .....	281	135.3	135.1	132.5	132.0	-	69.0	69.0	67.7	67.2	-
Industrial inorganic chemicals, nec .....	2819	90.1	89.9	87.3	87.1	-	49.5	49.7	48.4	48.1	-
Plastics materials and synthetics .....	282	165.6	166.0	167.3	166.9	-	111.2	111.6	109.5	109.5	-
Plastics materials and resins .....	2821	74.4	74.9	77.1	76.8	-	44.5	44.8	45.6	45.4	-
Organic fibers, noncellulosic .....	2824	61.8	61.8	60.8	60.7	-	44.8	44.9	41.9	42.1	-
Drugs .....	283	207.8	208.0	212.5	212.4	-	95.2	95.2	97.0	97.0	-
Pharmaceutical preparations .....	2834	165.8	165.9	169.0	169.1	-	75.2	75.1	75.7	76.0	-
Soap, cleaners, and toilet goods .....	284	147.9	146.9	156.4	157.1	-	93.9	93.2	100.5	99.7	-
Soap and other detergents .....	2841	41.9	42.3	41.9	42.1	-	26.6	26.8	26.4	26.4	-
Polishing, sanitation, and finishing preparations .....	2842,3	40.1	39.9	40.9	41.2	-	21.4	21.4	22.7	22.7	-
Toilet preparations .....	2844	65.9	64.7	73.6	73.8	-	45.9	45.0	51.4	50.6	-
Paints and allied products .....	285	62.8	62.6	63.2	63.0	-	30.3	30.0	31.0	30.9	-
Industrial organic chemicals .....	286	153.2	153.1	152.9	152.8	-	81.9	82.2	87.8	87.6	-
Cyclic crudes and intermediates .....	2865	30.1	30.1	29.8	29.7	-	19.7	19.7	19.6	19.3	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	123.1	123.0	123.1	123.1	-	62.2	62.5	68.2	68.3	-
Agricultural chemicals .....	287	53.7	53.3	53.8	53.1	-	32.8	32.7	34.1	33.6	-
Miscellaneous chemical products .....	289	92.2	92.1	94.5	94.7	-	51.8	52.0	53.6	54.1	-
Petroleum and coal products .....	29	166.1	164.5	166.8	166.6	165.8	106.2	105.1	110.1	109.3	108.4
Petroleum refining .....	291	127.0	126.2	125.7	125.9	-	78.2	77.9	80.7	80.7	-
Paving and roofing materials .....	295	27.9	27.2	29.5	29.2	-	21.6	21.0	22.8	22.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Rubber and misc. plastics products .....	30	796.2	796.7	826.4	834.3	839.3	620.3	621.0	641.3	648.7	654.2
Tires and inner tubes .....	301	87.4	87.5	86.3	85.8	-	64.1	64.4	60.9	60.4	-
Rubber and plastics footwear .....	302	10.4	10.7	10.9	11.1	-	8.8	9.0	9.0	9.2	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303.4	21.7	21.7	22.0	22.2	-	15.2	15.4	16.1	16.2	-
Fabricated rubber products, nec .....	306	102.7	103.1	105.7	105.6	-	78.6	79.1	81.4	81.4	-
Miscellaneous plastics products .....	307	574.0	573.7	601.5	609.6	-	453.6	453.1	473.9	481.5	-
Leather and leather products .....	31	149.6	149.8	154.0	155.1	155.2	123.0	123.3	129.4	129.9	130.0
Leather tanning and finishing .....	311	13.8	13.8	13.6	13.3	-	11.5	11.5	11.3	10.9	-
Footwear, except rubber .....	314	87.0	87.3	90.9	90.9	-	73.1	73.4	78.5	78.4	-
Men's footwear, except athletic .....	3143	38.5	38.6	40.3	40.6	-	30.8	30.9	33.0	33.2	-
Women's footwear, except athletic .....	3144	31.2	31.5	32.1	31.8	-	27.3	27.6	28.4	28.2	-
Luggage .....	316	11.0	10.8	11.6	12.0	-	7.8	7.7	8.4	8.9	-
Handbags and personal leather goods .....	317	19.9	19.7	18.8	19.3	-	16.2	16.0	15.5	15.7	-
<b>Transportation and public utilities .....</b>		<b>5,296</b>	<b>5,305</b>	<b>5,466</b>	<b>5,477</b>	<b>5,485</b>	<b>4,383</b>	<b>4,395</b>	<b>4,542</b>	<b>4,552</b>	<b>4,560</b>
Transportation .....		3,101	3,099	3,231	3,245	3,248	-	-	-	-	-
Railroad transportation .....	40	328.5	323.3	311.3	309.6	-	-	-	-	-	-
Class I railroads <sup>2</sup> .....	4011	292.1	286.5	274.3	272.5	-	-	-	-	-	-
Local and interurban passenger transit .....	41	289.3	288.2	289.2	297.5	-	268.2	267.6	267.4	275.4	-
Local and suburban transportation .....	411	99.1	99.3	101.5	101.2	-	91.0	91.3	92.7	92.3	-
Taxicabs .....	412	35.0	35.5	33.2	33.9	-	-	-	-	-	-
Intercity highway transportation .....	413	32.7	31.6	33.0	33.3	-	29.4	28.7	29.9	30.2	-
School buses .....	415	98.5	98.4	95.7	102.0	-	-	-	-	-	-
Trucking and warehousing .....	42	1,418.9	1,421.4	1,513.9	1,527.3	-	1,235.9	1,237.5	1,321.9	1,333.1	-
Trucking and trucking terminals .....	421.3	1,307.5	1,313.9	1,393.0	1,402.7	-	1,140.8	1,146.3	1,218.9	1,226.6	-
Public warehousing .....	422	111.4	107.5	120.9	124.6	-	95.1	91.2	103.0	106.5	-
Water transportation .....	44	170.2	170.6	186.8	173.7	-	-	-	-	-	-
Local water transportation .....	445	26.8	26.1	28.7	26.7	-	-	-	-	-	-
Water transportation services .....	446	90.9	92.2	104.6	92.7	-	-	-	-	-	-
Transportation by air .....	45	588.5	591.4	609.5	613.3	-	-	-	-	-	-
Air transportation .....	451.2	521.2	524.0	539.1	541.7	-	-	-	-	-	-
Air transportation services .....	458	67.3	67.4	70.4	71.6	-	-	-	-	-	-
Pipe lines, except natural gas .....	46	17.9	17.8	18.1	17.9	-	13.1	13.1	13.2	13.0	-
Transportation services .....	47	287.2	286.0	301.7	305.3	-	-	-	-	-	-
Freight forwarding .....	471	66.4	67.0	72.8	73.8	-	-	-	-	-	-
Communication and public utilities .....		2,195	2,206	2,235	2,232	2,237	-	-	-	-	-
Communication .....	48	1,272.2	1,281.7	1,301.1	1,301.5	-	969.7	978.6	990.1	991.7	-
Telephone communication .....	481	874.1	883.5	898.1	895.6	-	650.2	658.6	665.9	664.4	-
Radio and television broadcasting .....	483	238.7	237.9	232.7	233.1	-	195.2	194.6	191.6	192.1	-
Radio broadcasting .....	4832	112.6	112.9	112.2	112.6	-	-	-	-	-	-
Television broadcasting .....	4833	126.1	125.0	120.5	120.5	-	-	-	-	-	-
Electric, gas, and sanitary services .....	49	922.5	924.1	933.5	930.4	-	733.5	735.1	737.7	735.0	-
Electric services .....	491	452.2	452.4	453.9	452.6	-	348.2	348.2	345.1	344.3	-
Gas production and distribution .....	492	165.1	167.0	167.1	166.5	-	130.3	132.4	132.6	131.8	-
Combination utility services .....	493	205.9	205.6	202.7	201.6	-	170.1	169.6	166.8	165.7	-
Sanitary services .....	495	72.4	72.4	81.2	81.1	-	63.1	63.4	70.4	70.6	-
<b>Wholesale trade .....</b>		<b>5,759</b>	<b>5,745</b>	<b>5,837</b>	<b>5,865</b>	<b>5,874</b>	<b>4,621</b>	<b>4,603</b>	<b>4,667</b>	<b>4,688</b>	<b>4,694</b>
Durable goods .....	50	3,385	3,384	3,434	3,453	3,464	2,689	2,687	2,712	2,726	-
Motor vehicles and automotive equipment .....	501	431.3	431.3	435.3	435.2	-	346.6	346.2	348.2	348.9	-
Automobiles and other motor vehicles .....	5012	110.5	110.4	111.8	113.0	-	-	-	-	-	-
Automotive parts and supplies .....	5013	289.3	289.1	291.6	290.4	-	-	-	-	-	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Wholesale trade—Continued</b>											
Durable goods—Continued											
Furniture and home furnishings .....	502	133.9	135.6	139.7	141.5	-	107.1	108.8	113.6	115.0	-
Furniture .....	5021	57.9	58.5	60.1	60.7	-	-	-	-	-	-
Home furnishings .....	5023	76.0	77.1	79.6	80.8	-	-	-	-	-	-
Lumber and construction materials .....	503	228.5	227.6	230.5	231.2	-	188.3	187.6	189.6	190.5	-
Lumber, plywood, and millwork .....	5031	101.5	101.6	104.6	105.3	-	-	-	-	-	-
Construction materials, nec .....	5039	127.0	126.0	125.9	125.9	-	-	-	-	-	-
Sporting goods, toys, and hobby goods .....	504	80.5	81.2	81.4	81.9	-	65.9	66.7	67.0	67.3	-
Metals and minerals, except petroleum .....	505	131.8	131.4	134.7	136.4	-	103.8	103.0	105.5	106.8	-
Electrical goods .....	506	487.9	488.4	492.9	498.0	-	370.4	370.6	375.4	379.2	-
Electrical apparatus and equipment .....	5063	270.1	269.9	272.3	274.8	-	-	-	-	-	-
Electrical appliances, TV and radios .....	5064	71.2	71.0	73.4	74.0	-	-	-	-	-	-
Electronic parts and equipment .....	5065	146.6	147.5	147.2	149.2	-	-	-	-	-	-
Hardware, plumbing, and heating equipment .....	507	258.0	258.8	264.6	265.5	-	207.6	208.0	213.6	213.8	-
Hardware .....	5072	87.8	88.3	91.6	92.4	-	-	-	-	-	-
Plumbing and hydronic heating supplies .....	5074	107.3	107.2	109.1	109.8	-	-	-	-	-	-
Machinery, equipment, and supplies .....	508	1,442.1	1,437.4	1,457.0	1,462.7	-	1,145.7	1,141.6	1,140.3	1,143.9	-
Commercial machines and equipment .....	5081	531.4	529.7	536.3	540.2	-	-	-	-	-	-
Construction and mining machinery .....	5082	81.6	81.5	82.4	82.4	-	-	-	-	-	-
Farm machinery and equipment .....	5083	117.7	116.1	121.8	121.5	-	-	-	-	-	-
Industrial machinery and equipment .....	5084	298.6	297.5	297.4	297.8	-	-	-	-	-	-
Industrial supplies .....	5085	128.6	128.2	130.2	131.1	-	-	-	-	-	-
Professional equipment and supplies .....	5086	175.9	175.9	175.2	176.3	-	-	-	-	-	-
Miscellaneous durable goods .....	509	190.8	192.4	197.8	200.2	-	153.2	154.6	158.5	160.6	-
Scrap and waste materials .....	5093	87.5	88.4	90.6	92.0	-	-	-	-	-	-
Nondurable goods .....	51	2,374	2,361	2,403	2,412	2,410	1,932	1,916	1,955	1,962	-
Paper and paper products .....	511	190.8	189.7	192.5	195.2	-	155.3	154.2	155.8	158.0	-
Drugs, proprietaries, and sundries .....	512	169.3	170.9	177.4	179.9	-	140.9	141.9	146.8	149.0	-
Apparel, piece goods, and notions .....	513	193.9	192.6	194.6	195.1	-	146.0	144.0	146.0	146.9	-
Groceries and related products .....	514	763.0	760.0	772.2	773.0	-	646.1	642.4	653.0	652.6	-
Groceries, general line .....	5141	245.2	245.5	250.3	249.2	-	-	-	-	-	-
Meats and meat products .....	5147	64.2	64.5	63.8	63.9	-	-	-	-	-	-
Fresh fruits and vegetables .....	5148	88.2	85.9	91.0	88.1	-	-	-	-	-	-
Chemicals and allied products .....	516	129.3	128.8	134.5	134.4	-	94.2	93.3	99.6	99.8	-
Petroleum and petroleum products .....	517	197.8	196.3	196.4	196.1	-	153.1	151.6	153.4	153.6	-
Petroleum bulk stations and terminals .....	5171	80.4	79.4	79.9	79.8	-	-	-	-	-	-
Petroleum products, nec .....	5172	117.4	116.9	116.5	116.3	-	-	-	-	-	-
Beer, wine, and distilled beverages .....	518	150.5	151.4	154.5	153.9	-	124.1	124.8	127.4	126.3	-
Beer and ale .....	5181	94.1	94.2	97.9	96.5	-	-	-	-	-	-
Wines and distilled beverages .....	5182	56.4	57.2	56.6	57.4	-	-	-	-	-	-
Miscellaneous nondurable goods .....	519	437.7	434.4	447.7	447.9	-	355.3	351.9	363.4	362.8	-
Farm supplies .....	5191	145.9	141.8	149.3	148.1	-	-	-	-	-	-
<b>Retail trade .....</b>		<b>18,034</b>	<b>18,273</b>	<b>18,406</b>	<b>18,451</b>	<b>18,652</b>	<b>16,067</b>	<b>16,301</b>	<b>16,338</b>	<b>16,379</b>	<b>16,555</b>
Building materials and garden supplies .....	52	704.8	702.3	728.9	731.2	-	589.0	586.2	605.5	607.9	-
Lumber and other building materials .....	521	381.2	380.4	398.7	399.4	-	323.8	322.7	337.9	338.4	-
Hardware stores .....	525	158.7	158.4	161.6	162.3	-	132.8	132.5	133.8	134.8	-
General merchandise stores .....	53	2,402.8	2,536.5	2,378.3	2,471.6	2,579.0	2,261.1	2,393.9	2,216.8	2,306.3	-
Department stores .....	531	2,014.2	2,125.8	1,987.2	2,071.4	-	1,914.5	2,026.1	1,869.2	1,950.4	-
Variety stores .....	533	246.2	257.5	245.3	252.3	-	223.4	234.0	221.7	228.4	-
Misc. general merchandise stores .....	539	142.4	153.2	145.8	147.9	-	123.2	133.8	125.9	127.5	-
Food stores .....	54	2,912.5	2,941.9	2,961.0	2,980.5	3,008.0	2,691.4	2,717.2	2,722.6	2,740.8	-
Grocery stores .....	541	2,560.0	2,570.9	2,609.1	2,623.2	-	2,376.9	2,384.9	2,410.4	2,423.2	-
Meat markets and freezer provisioners .....	542	59.4	60.7	59.6	59.0	-	-	-	-	-	-
Dairy products stores .....	545	32.8	38.2	34.6	36.6	-	-	-	-	-	-
Retail bakeries .....	546	162.9	166.2	162.8	164.2	-	147.8	150.9	147.9	149.1	-
Automotive dealers and service stations .....	55	1,962.7	1,959.3	1,999.6	2,000.7	1,999.8	1,645.8	1,643.7	1,674.8	1,675.7	-
New and used car dealers .....	551,2	960.4	958.3	975.8	981.0	-	799.1	796.8	809.8	815.0	-
Auto and home supply stores .....	553	311.7	312.2	318.4	320.6	-	251.9	253.0	257.4	259.5	-
Gasoline service stations .....	554	601.2	601.3	609.2	605.6	-	523.6	524.1	530.7	526.8	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Retail trade—Continued</b>											
Apparel and accessory stores .....	56	1,073.6	1,119.1	1,080.3	1,094.6	-	907.7	952.2	910.6	925.8	-
Men's and boys' clothing and furnishings .....	561	106.6	113.4	102.5	103.8	-	88.4	95.1	83.5	85.0	-
Women's ready-to-wear stores .....	562	390.5	399.9	384.1	391.2	-	334.2	343.6	323.7	331.6	-
Family clothing stores .....	565	237.1	255.0	242.4	245.3	-	205.1	222.2	210.5	213.0	-
Shoe stores .....	566	203.8	207.5	214.2	213.6	-	163.8	167.3	176.0	175.8	-
Furniture and home furnishings stores .....	57	780.7	796.6	805.3	819.4	-	649.6	666.0	665.8	676.0	-
Furniture and home furnishings stores .....	571	439.5	445.6	455.4	461.6	-	362.5	368.4	373.7	379.6	-
Furniture stores .....	5712	271.9	275.1	286.0	289.4	-	-	-	-	-	-
Household appliance stores .....	572	85.1	86.8	85.8	85.8	-	72.4	74.1	73.3	73.4	-
Radio, television, and music stores .....	573	256.1	264.2	264.1	272.0	-	214.7	223.5	218.8	223.0	-
Radio and television stores .....	5732	189.4	195.3	197.0	203.6	-	-	-	-	-	-
Music stores .....	5733	66.7	68.9	67.1	68.4	-	-	-	-	-	-
Eating and drinking places .....	58	5,924.3	5,875.4	6,186.5	6,037.9	5,989.6	5,396.7	5,349.9	5,637.3	5,495.1	-
Miscellaneous retail .....	59	2,272.7	2,341.4	2,266.5	2,315.3	-	1,925.5	1,991.6	1,904.1	1,950.9	-
Drug stores and proprietary stores .....	591	571.1	576.9	588.2	596.1	-	487.0	492.4	499.6	507.9	-
Liquor stores .....	592	126.7	127.4	123.6	124.3	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	752.4	804.2	747.8	770.3	-	633.5	683.9	624.9	647.2	-
Sporting goods and bicycle shops .....	5941	132.3	136.9	133.5	135.5	-	-	-	-	-	-
Book stores .....	5942	75.9	76.6	79.5	77.9	-	-	-	-	-	-
Stationery stores .....	5943	75.3	75.6	75.0	75.1	-	-	-	-	-	-
Jewelry stores .....	5944	146.0	153.6	142.8	145.7	-	-	-	-	-	-
Gift, novelty, and souvenir shops .....	5947	140.4	145.9	140.4	145.6	-	-	-	-	-	-
Sewing, needlework, and piece goods .....	5949	62.4	64.4	62.4	64.5	-	-	-	-	-	-
Nonstore retailers .....	596	269.1	271.1	259.6	266.1	-	244.4	246.7	233.0	240.2	-
Mail order houses .....	5961	129.8	134.7	123.7	129.1	-	-	-	-	-	-
Merchandising machine operators .....	5962	79.7	79.2	82.5	83.2	-	-	-	-	-	-
Fuel and ice dealers .....	598	108.8	111.9	111.6	114.7	-	91.3	94.2	92.0	94.7	-
Retail stores, nec .....	599	364.0	369.7	351.2	357.6	-	297.2	302.6	285.8	290.4	-
<b>Finance, insurance, and real estate<sup>3</sup></b> .....		<b>6,383</b>	<b>6,397</b>	<b>6,645</b>	<b>6,630</b>	<b>6,635</b>	<b>4,717</b>	<b>4,727</b>	<b>4,876</b>	<b>4,852</b>	<b>4,850</b>
Finance .....		3,195	3,204	3,289	3,286	3,292	-	-	-	-	-
Banking .....	60	1,735.4	1,736.0	1,730.4	1,727.3	-	1,258.5	1,258.1	1,246.0	1,239.1	-
Commercial and stock savings banks .....	602	1,561.2	1,559.9	1,557.7	1,554.1	-	1,128.0	1,126.0	1,118.0	1,110.7	-
State banks, Federal Reserve .....	6022	341.9	342.5	345.7	344.5	-	-	-	-	-	-
State banks, not Federal Reserve .....	6023.4	372.4	372.4	375.7	375.4	-	-	-	-	-	-
Mutual savings banks .....	603	83.4	84.3	86.1	86.7	-	-	-	-	-	-
Credit agencies other than banks .....	61	855.2	860.5	899.6	895.8	-	642.4	647.8	670.6	667.7	-
Savings and loan associations .....	612	384.6	387.2	404.8	404.6	-	292.8	295.3	308.0	307.3	-
Federal savings and loan associations .....	6122	213.2	214.6	223.7	223.2	-	-	-	-	-	-
State associations, insured .....	6123	163.7	164.7	173.0	173.4	-	-	-	-	-	-
Personal credit institutions .....	614	229.2	229.7	235.1	236.0	-	177.2	177.6	180.9	181.8	-
Business credit institutions .....	615	51.6	51.9	55.9	56.4	-	-	-	-	-	-
Mortgage bankers and brokers .....	616	164.6	166.4	179.3	174.7	-	-	-	-	-	-
Security, commodity brokers, and services .....	62	407.9	409.2	447.5	450.8	-	-	-	-	-	-
Security brokers and dealers .....	621	323.9	327.0	357.1	359.7	-	-	-	-	-	-
Holding and other investment offices .....	67	196.5	198.3	211.8	212.4	-	-	-	-	-	-
Insurance .....		1,977	1,988	2,052	2,059	2,062	-	-	-	-	-
Insurance carriers .....	63	1,380.7	1,386.1	1,414.8	1,415.7	-	943.7	947.6	947.4	942.7	-
Life insurance .....	631	580.3	581.9	586.1	585.3	-	363.4	365.4	357.6	354.1	-
Medical service and health insurance .....	632	189.8	190.6	192.8	193.1	-	153.8	154.2	154.7	155.0	-
Fire, marine, and casualty insurance .....	633	510.2	512.5	536.2	539.0	-	349.2	350.3	359.1	358.9	-
Title insurance .....	636	59.9	60.2	57.0	55.7	-	-	-	-	-	-
Insurance agents, brokers, and service .....	64	596.1	601.8	637.3	643.0	-	-	-	-	-	-

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Finance, insurance, and real estate—Continued</b>											
Real estate, and combined real estate, insurance, etc ....		1,211	1,205	1,304	1,285	1,281	-	-	-	-	-
Real estate .....	65	1,198.5	1,193.0	1,291.5	1,272.2	-	-	-	-	-	
Real estate operators and lessors .....	651	519.1	516.8	533.8	521.8	-	-	-	-	-	
Real estate agents and managers .....	653	489.0	490.3	541.5	537.4	-	-	-	-	-	
Subdividers and developers .....	655	158.7	153.9	179.1	176.6	-	-	-	-	-	
Combined real estate, insurance, etc .....	66	12.7	12.3	12.2	12.3	-	-	-	-	-	
<b>Services .....</b>		<b>23,464</b>	<b>23,452</b>	<b>24,416</b>	<b>24,509</b>	<b>24,499</b>	<b>20,601</b>	<b>20,580</b>	<b>21,377</b>	<b>21,465</b>	<b>21,445</b>
Hotels and other lodging places .....	70	1,388.6	1,361.0	1,509.2	1,449.4	-	-	-	-	-	
Hotels, motels, and tourist courts .....	701	1,351.3	1,326.6	1,470.9	1,415.8	-	1,208.5	1,183.3	1,316.7	1,266.7	
Personal services .....	72	1,109.6	1,108.6	1,143.6	1,163.7	-	-	-	-	-	
Laundry, cleaning, and garment services .....	721	391.8	393.1	409.2	415.7	-	348.8	350.4	363.9	369.1	
Photographic studios, portrait .....	722	67.1	65.8	63.7	68.4	-	-	-	-	-	
Beauty shops .....	723	350.4	350.6	351.1	352.9	-	317.3	317.8	316.7	316.4	
Funeral service and crematories .....	726	77.2	77.4	78.9	77.7	-	-	-	-	-	
Business services .....	73	4,911.2	4,915.8	5,198.2	5,246.6	5,252.7	4,222.6	4,224.6	4,465.2	4,509.9	
Advertising .....	731	201.2	201.6	200.8	202.6	-	150.0	150.0	149.7	151.5	
Advertising agencies .....	7311	148.4	149.2	148.2	149.8	-	-	-	-	-	
Credit reporting and collection .....	732	101.2	100.8	104.5	105.3	-	-	-	-	-	
Mailing, reproduction, and stenographic .....	733	201.9	202.6	212.5	217.4	-	-	-	-	-	
Services to buildings .....	734	691.8	684.9	696.3	694.2	-	626.4	620.6	632.2	628.9	
Personnel supply services .....	736	1,081.3	1,085.7	1,250.5	1,283.9	-	-	-	-	-	
Employment agencies .....	7361	167.8	169.5	192.9	197.6	-	-	-	-	-	
Temporary help supply services .....	7362	859.5	862.0	994.0	1,021.4	-	-	-	-	-	
Computer and data processing services .....	737	599.8	601.6	646.5	655.2	-	476.1	476.1	506.8	514.5	
Computer programming and software .....	7372	220.9	220.7	243.2	245.4	-	-	-	-	-	
Data processing services .....	7374	281.0	282.1	301.6	307.1	-	-	-	-	-	
Miscellaneous business services .....	739	2,025.0	2,029.6	2,078.1	2,078.8	-	-	-	-	-	
Research development laboratories, nec .....	7391	194.1	195.2	198.9	195.7	-	-	-	-	-	
Management and public relations .....	7392	558.5	561.9	571.5	574.5	-	-	-	-	-	
Detective and protective services .....	7393	453.4	454.0	457.1	454.6	-	-	-	-	-	
Equipment rental and leasing .....	7394	209.5	209.1	219.0	219.3	-	-	-	-	-	
Photofinishing laboratories .....	7395	83.2	82.6	84.1	84.6	-	-	-	-	-	
Auto repair, services, and garages .....	75	774.8	772.6	807.2	801.7	-	649.4	647.8	670.8	667.6	
Automotive rentals, without drivers .....	751	167.2	168.1	178.6	173.9	-	-	-	-	-	
Automotive repair shops .....	753	463.5	459.4	482.1	478.5	-	385.9	382.8	397.8	396.7	
Miscellaneous repair services .....	76	318.6	319.3	324.2	326.3	-	264.8	264.9	269.7	271.2	
Electrical repair shops .....	762	105.3	105.5	104.1	104.5	-	-	-	-	-	
Motion pictures .....	78	223.2	228.1	238.9	232.4	-	187.1	190.4	201.1	196.0	
Motion picture production and services .....	781	112.8	118.3	121.8	123.6	-	91.3	95.1	99.1	101.8	
Motion picture theaters .....	783	98.5	97.4	103.7	95.3	-	-	-	-	-	
Amusement and recreation services .....	79	903.1	874.0	1,068.0	919.8	-	795.7	767.6	939.7	797.9	
Health services .....	80	6,642.6	6,653.0	6,949.9	6,987.0	7,027.1	5,905.4	5,914.7	6,168.6	6,200.6	
Offices of physicians .....	801	1,012.9	1,014.8	1,093.3	1,102.0	-	838.1	838.8	895.3	902.6	
Offices of dentists .....	802	467.0	467.4	483.1	484.9	-	412.2	413.0	425.7	427.9	
Nursing and personal care facilities .....	805	1,267.5	1,273.1	1,303.4	1,304.4	-	1,144.2	1,149.4	1,177.9	1,177.2	
Skilled nursing care facilities .....	8051	847.0	850.8	870.1	871.2	-	-	-	-	-	
Nursing and personal care, nec .....	8059	420.5	422.3	433.3	433.2	-	-	-	-	-	
Hospitals .....	806	3,063.2	3,067.8	3,183.0	3,199.4	-	2,791.8	2,795.4	2,902.8	2,918.5	
General medical and surgical hospitals .....	8062	2,868.4	2,871.6	2,978.9	2,994.3	-	-	-	-	-	
Psychiatric hospitals .....	8063	65.0	65.7	68.0	68.5	-	-	-	-	-	
Specialty hospitals, excluding psychiatric .....	8069	129.8	130.5	136.1	136.6	-	-	-	-	-	
Medical and dental laboratories .....	807	132.8	133.7	143.0	144.8	-	-	-	-	-	
Outpatient care facilities .....	808	255.3	251.3	272.3	274.4	-	-	-	-	-	

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 <sup>1</sup>				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Services—Continued</b>											
Legal services .....	81	762.0	764.6	789.5	797.9	-	642.1	643.4	661.5	669.3	-
Educational services .....	82	1,529.2	1,549.2	1,371.2	1,523.2	-	-	-	-	-	-
Elementary and secondary schools .....	821	372.1	374.2	356.0	370.1	-	-	-	-	-	-
Colleges and universities .....	822	1,005.6	1,021.2	864.2	997.9	-	-	-	-	-	-
Correspondence and vocational schools .....	824	71.3	73.0	70.2	72.1	-	-	-	-	-	-
Social services .....	83	1,485.0	1,500.7	1,539.2	1,569.5	-	-	-	-	-	-
Individual and family services .....	832	293.6	299.9	313.5	318.5	-	-	-	-	-	-
Job training and related services .....	833	253.9	255.7	260.1	261.0	-	-	-	-	-	-
Residential care .....	836	322.6	324.6	338.8	339.5	-	-	-	-	-	-
Museums, botanical and zoological gardens .....	84	48.1	47.0	51.8	53.0	-	-	-	-	-	-
Membership organizations .....	86	1,522.6	1,523.2	1,523.9	1,533.7	-	-	-	-	-	-
Business associations .....	861	92.0	90.8	92.3	89.9	-	-	-	-	-	-
Labor organizations .....	863	133.6	133.4	128.2	133.8	-	-	-	-	-	-
Civic and social associations .....	864	344.4	346.4	340.5	349.1	-	-	-	-	-	-
Miscellaneous services .....	89	1,261.4	1,265.7	1,313.7	1,320.4	-	1,029.5	1,032.0	1,065.2	1,071.0	-
Engineering and architectural services .....	891	680.1	681.4	710.0	711.4	-	574.7	575.2	598.6	599.8	-
Noncommercial research organizations .....	892	126.4	127.8	128.8	130.6	-	-	-	-	-	-
Accounting, auditing, and bookkeeping .....	893	429.2	430.8	448.0	451.6	-	333.9	335.2	343.1	346.2	-
<b>Government .....</b>		17,066	17,234	16,774	17,412	17,592	-	-	-	-	-
Federal Government <sup>4</sup> .....		2,876	2,879	2,941	2,940	2,945	-	-	-	-	-
Executive, by agency <sup>4</sup> .....		2,821.0	2,824.3	2,882.8	-	-	-	-	-	-	-
Department of Defense .....		971.5	971.3	989.1	-	-	-	-	-	-	-
Postal Service <sup>5</sup> .....		791.3	796.8	794.6	-	-	-	-	-	-	-
Other executive agencies .....		1,058.2	1,056.2	1,099.1	-	-	-	-	-	-	-
Legislative .....		36.1	36.3	37.9	-	-	-	-	-	-	-
Judicial .....		18.7	18.7	20.0	-	-	-	-	-	-	-
Federal government, by industry:											
Manufacturing activities .....		123.3	122.8	126.1	126.0	-	-	-	-	-	-
Shipbuilding and repairing .....	3731	73.9	73.9	77.7	78.7	-	-	-	-	-	-
Transportation and public utilities, except Postal											
Service .....		38.9	38.7	40.3	40.8	-	-	-	-	-	-
Services .....		405.3	405.0	417.1	415.3	-	-	-	-	-	-
Hospitals .....	806	244.1	244.2	253.0	251.9	-	-	-	-	-	-
State government .....		4,001	4,030	3,886	4,064	4,108	-	-	-	-	-
Hospitals .....	806	442.5	443.6	449.8	451.5	-	-	-	-	-	-
Education .....	82	1,672.6	1,709.2	1,507.2	1,693.6	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions .....		1,324.1	1,317.7	1,354.4	1,347.0	-	-	-	-	-	-
Local government .....		10,189	10,325	9,947	10,408	10,539	-	-	-	-	-
Transportation and public utilities .....		489.2	488.5	496.7	494.7	-	-	-	-	-	-
Hospitals .....	806	610.7	611.2	627.0	629.3	-	-	-	-	-	-
Education .....	82	5,795.9	5,902.4	5,407.5	5,924.6	-	-	-	-	-	-
General administration, including executive, legislative, and judicial functions .....		2,973.9	3,007.0	3,067.9	3,029.9	-	-	-	-	-	-

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

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

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

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

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

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

- Data not available.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 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. 1986	Sept. 1986	July 1987	Aug. 1987	Sept. 1987
<b>Total</b> .....	45,052	45,948	46,569	46,677	47,494
<b>Total private</b> .....	37,428	37,606	38,609	38,798	38,951
<b>Goods-producing</b> .....	6,850	6,881	6,870	6,971	7,016
<b>Mining</b> .....	103	100	99	98	98
<b>Construction</b> .....	520	519	547	548	546
<b>Manufacturing</b> .....	6,227	6,262	6,224	6,325	6,372
<b>Durable goods</b> .....	2,973	2,991	2,963	3,000	3,028
Lumber and wood products .....	114	114	121	121	122
Furniture and fixtures .....	153	154	157	160	162
Stone, clay, and glass products .....	114	115	113	115	115
Primary metal industries .....	99	100	99	102	103
Fabricated metal products .....	319	322	318	323	327
Machinery, except electrical .....	441	440	445	446	449
Electrical and electronic equipment .....	885	888	862	872	879
Transportation equipment .....	378	385	384	387	394
Instruments and related products .....	303	303	299	300	302
Miscellaneous manufacturing .....	167	170	165	174	176
<b>Nondurable goods</b> .....	3,254	3,271	3,261	3,325	3,344
Food and kindred products .....	550	551	535	559	559
Tobacco manufactures .....	19	22	15	17	19
Textile mill products .....	346	348	349	355	357
Apparel and other textile products .....	882	887	867	883	896
Paper and allied products .....	165	165	166	168	167
Printing and publishing .....	619	622	642	645	646
Chemicals and allied products .....	289	289	298	300	298
Petroleum and coal products .....	26	25	24	24	24
Rubber and misc. plastics products .....	270	273	277	282	285
Leather and leather products .....	89	88	88	92	92
<b>Service-producing</b> .....	38,202	39,067	39,699	39,706	40,478
<b>Transportation and public utilities</b> .....	1,448	1,495	1,517	1,521	1,553
<b>Wholesale trade</b> .....	1,673	1,680	1,707	1,719	1,723
<b>Retail trade</b> .....	9,476	9,507	9,689	9,731	9,769
<b>Finance, insurance, and real estate</b> .....	3,974	3,957	4,163	4,165	4,131
<b>Services</b> .....	14,007	14,086	14,663	14,691	14,759
<b>Government</b> .....	7,624	8,342	7,960	7,879	8,543
Federal .....	1,035	1,026	1,064	1,058	1,049
State .....	1,729	1,814	1,787	1,790	1,870
Local .....	4,860	5,502	5,109	5,031	5,624

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are

introduced, all unadjusted data from April 1986 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	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. <sup>P</sup>	Nov. <sup>P</sup>
<b>Total</b> .....	100,415	100,567	100,919	101,150	101,329	101,598	101,708	101,818	102,126	102,275	102,434	102,970	103,244
<b>Total private</b> .....	83,515	83,643	83,983	84,215	84,352	84,560	84,677	84,787	85,106	85,229	85,386	85,766	85,998
<b>Goods-producing</b> .....	24,630	24,630	24,708	24,743	24,749	24,759	24,752	24,761	24,850	24,886	24,917	25,053	25,152
<b>Mining</b> .....	730	724	718	719	722	729	735	738	744	751	759	764	760
Oil and gas extraction .....	412	406	405	406	408	416	420	425	430	434	439	443	440
<b>Construction</b> .....	4,946	4,936	5,034	5,038	5,032	5,019	4,999	5,008	5,002	5,006	4,989	5,044	5,078
General building contractors .....	1,289	1,277	1,311	1,309	1,291	1,272	1,267	1,266	1,261	1,262	1,260	1,273	1,283
<b>Manufacturing</b> .....	18,954	18,970	18,956	18,986	18,995	19,011	19,018	19,015	19,104	19,129	19,169	19,245	19,314
<b>Durable goods</b> .....	11,174	11,175	11,157	11,179	11,176	11,175	11,175	11,176	11,195	11,248	11,268	11,320	11,356
Lumber and wood products .....	723	728	731	733	734	736	738	735	740	736	740	741	744
Furniture and fixtures .....	499	499	500	501	502	504	509	510	518	518	520	524	526
Stone, clay, and glass products .....	582	584	586	588	586	586	584	582	582	582	581	583	586
Primary metal industries .....	733	733	726	733	739	743	742	746	750	754	764	769	773
Blast furnaces and basic steel products .....	260	259	254	261	266	272	272	275	277	278	283	286	288
Fabricated metal products .....	1,419	1,422	1,422	1,419	1,419	1,423	1,420	1,424	1,424	1,425	1,429	1,439	1,447
Machinery, except electrical .....	2,015	2,011	2,007	2,018	2,015	2,022	2,025	2,028	2,033	2,044	2,053	2,062	2,070
Electrical and electronic equipment .....	2,119	2,118	2,111	2,106	2,099	2,092	2,087	2,080	2,088	2,095	2,096	2,110	2,115
Transportation equipment .....	2,023	2,018	2,014	2,022	2,022	2,011	2,011	2,010	1,995	2,028	2,018	2,021	2,020
Motor vehicles and equipment .....	858	853	851	859	854	847	843	842	814	848	837	839	839
Instruments and related products .....	700	698	697	695	694	694	693	693	695	695	695	697	700
Miscellaneous manufacturing .....	361	364	363	364	366	364	366	368	370	371	372	374	375
<b>Nondurable goods</b> .....	7,780	7,795	7,799	7,807	7,819	7,836	7,843	7,839	7,909	7,881	7,901	7,925	7,958
Food and kindred products .....	1,627	1,631	1,628	1,630	1,635	1,642	1,633	1,634	1,644	1,632	1,631	1,634	1,638
Tobacco manufactures .....	59	58	58	58	57	56	57	57	57	56	55	55	57
Textile mill products .....	714	715	718	722	725	724	727	729	736	732	735	736	740
Apparel and other textile products .....	1,101	1,110	1,106	1,101	1,103	1,104	1,107	1,108	1,130	1,110	1,117	1,122	1,127
Paper and allied products .....	678	679	678	679	678	677	677	676	678	677	681	679	681
Printing and publishing .....	1,472	1,474	1,479	1,483	1,485	1,493	1,497	1,498	1,504	1,508	1,509	1,513	1,522
Chemicals and allied products .....	1,020	1,017	1,018	1,018	1,017	1,018	1,022	1,014	1,026	1,031	1,031	1,033	1,036
Petroleum and coal products .....	165	163	164	164	164	164	164	164	164	164	166	167	166
Rubber and misc. plastics products .....	797	800	803	805	807	809	809	810	815	819	824	833	839
Leather and leather products .....	147	148	147	147	148	149	150	149	155	152	152	153	152
<b>Service-producing</b> .....	75,785	75,937	76,211	76,407	76,580	76,839	76,956	77,057	77,276	77,389	77,517	77,917	78,092
<b>Transportation and public utilities</b> .....	5,278	5,286	5,304	5,315	5,333	5,348	5,344	5,350	5,363	5,377	5,416	5,428	5,455
Transportation .....	3,071	3,078	3,089	3,097	3,112	3,124	3,120	3,128	3,133	3,147	3,183	3,194	3,216
Communication and public utilities .....	2,207	2,208	2,215	2,218	2,221	2,224	2,224	2,222	2,230	2,230	2,233	2,234	2,239
<b>Wholesale trade</b> .....	5,728	5,725	5,741	5,757	5,766	5,772	5,775	5,781	5,797	5,807	5,815	5,834	5,857
Durable goods .....	3,380	3,383	3,386	3,391	3,397	3,397	3,401	3,405	3,418	3,422	3,431	3,446	3,461
Nondurable goods .....	2,348	2,342	2,355	2,366	2,369	2,375	2,374	2,376	2,379	2,385	2,384	2,388	2,396
<b>Retail trade</b> .....	18,009	18,007	18,080	18,140	18,136	18,197	18,205	18,226	18,274	18,256	18,314	18,396	18,376
General merchandise stores .....	2,379	2,363	2,358	2,373	2,380	2,385	2,390	2,387	2,407	2,411	2,415	2,452	2,417
Food stores .....	2,906	2,916	2,929	2,940	2,944	2,953	2,956	2,960	2,959	2,962	2,958	2,969	2,972
Automotive dealers and service stations .....	1,963	1,970	1,978	1,979	1,979	1,978	1,978	1,983	1,985	1,985	1,988	1,999	2,004
Eating and drinking places .....	5,927	5,938	5,946	5,956	5,964	5,962	5,976	5,982	5,985	5,992	6,018	6,032	6,044
<b>Finance, insurance, and real estate</b> .....	6,418	6,451	6,480	6,501	6,526	6,558	6,576	6,586	6,608	6,624	6,629	6,644	6,659
Finance .....	3,212	3,227	3,235	3,243	3,256	3,272	3,276	3,280	3,291	3,293	3,292	3,296	3,302
Insurance .....	1,990	1,999	2,012	2,016	2,022	2,032	2,037	2,037	2,043	2,050	2,054	2,063	2,064
Real estate .....	1,216	1,225	1,233	1,242	1,248	1,254	1,263	1,269	1,274	1,281	1,283	1,285	1,293
<b>Services</b> .....	23,452	23,544	23,670	23,759	23,842	23,926	24,025	24,083	24,214	24,279	24,295	24,411	24,499
Business services .....	4,877	4,912	4,950	4,984	5,020	5,044	5,083	5,086	5,105	5,133	5,152	5,195	5,211
Health services .....	6,661	6,691	6,721	6,748	6,773	6,800	6,822	6,853	6,887	6,923	6,943	6,987	7,034
<b>Government</b> .....	16,900	16,924	16,936	16,935	16,977	17,038	17,031	17,031	17,020	17,046	17,048	17,204	17,246
Federal .....	2,900	2,904	2,912	2,916	2,922	2,933	2,935	2,935	2,936	2,940	2,962	2,961	2,966
State .....	3,915	3,927	3,929	3,927	3,930	3,943	3,947	3,932	3,952	3,964	3,957	3,969	3,988
Local .....	10,085	10,093	10,095	10,092	10,125	10,162	10,149	10,164	10,132	10,142	10,129	10,274	10,292

<sup>P</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986

benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 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	1986				1987								
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
<b>Total</b> .....	45,960	46,111	46,229	46,358	46,517	46,654	46,766	46,937	46,999	47,142	47,372	47,461	47,509
<b>Total private</b> .....	37,436	37,547	37,653	37,767	37,909	38,057	38,133	38,271	38,337	38,445	38,649	38,754	38,783
<b>Goods-producing</b> .....	6,800	6,813	6,826	6,842	6,838	6,843	6,846	6,863	6,869	6,876	6,923	6,915	6,936
<b>Mining</b> .....	101	100	99	98	97	97	96	97	97	98	98	98	99
<b>Construction</b> .....	511	513	516	519	522	524	526	530	533	534	536	536	537
<b>Manufacturing</b> .....	6,188	6,200	6,211	6,225	6,219	6,222	6,224	6,236	6,239	6,244	6,289	6,281	6,300
<b>Durable goods</b> .....	2,979	2,981	2,983	2,985	2,979	2,983	2,978	2,980	2,980	2,983	2,990	3,005	3,018
Lumber and wood products .....	112	113	113	115	115	117	117	117	118	118	119	118	119
Furniture and fixtures .....	155	155	155	155	156	156	157	157	159	160	163	162	163
Stone, clay, and glass products .....	113	112	112	113	114	113	113	114	114	114	113	114	113
Primary metal industries .....	100	100	100	99	99	100	100	100	99	100	100	102	103
Fabricated metal products .....	320	320	321	321	320	320	320	322	322	323	323	324	325
Machinery, except electrical .....	443	443	442	441	440	441	441	444	444	444	446	450	453
Electrical and electronic equipment .....	885	886	885	884	880	876	870	868	866	864	869	872	876
Transportation equipment .....	382	384	387	389	388	392	392	391	390	390	385	391	392
Instruments and related products .....	303	302	301	301	300	300	299	299	299	299	301	300	302
Miscellaneous manufacturing .....	166	166	167	167	167	168	169	168	169	171	171	172	172
<b>Nondurable goods</b> .....	3,209	3,219	3,228	3,240	3,240	3,239	3,246	3,256	3,259	3,261	3,299	3,276	3,282
Food and kindred products .....	505	508	513	514	514	514	517	518	515	515	521	513	513
Tobacco manufactures .....	20	19	20	19	19	19	19	18	19	18	17	17	17
Textile mill products .....	344	345	347	349	349	350	352	351	351	352	355	354	353
Apparel and other textile products .....	882	883	881	889	883	878	878	880	883	883	902	884	890
Paper and allied products .....	164	164	165	165	165	165	165	165	165	165	165	165	166
Printing and publishing .....	623	626	628	629	632	634	636	640	641	643	644	647	647
Chemicals and allied products .....	287	288	288	287	289	290	290	291	292	292	295	298	297
Petroleum and coal products .....	25	25	25	25	24	24	24	24	24	24	24	24	24
Rubber and misc. plastics products .....	272	275	275	276	278	278	278	281	280	280	282	283	284
Leather and leather products .....	87	86	86	87	87	87	87	88	89	89	94	91	91
<b>Service-producing</b> .....	39,160	39,298	39,403	39,516	39,679	39,811	39,920	40,074	40,130	40,266	40,449	40,546	40,573
<b>Transportation and public utilities</b> .....	1,486	1,487	1,496	1,501	1,507	1,510	1,517	1,520	1,524	1,531	1,531	1,539	1,544
<b>Wholesale trade</b> .....	1,675	1,673	1,673	1,675	1,682	1,691	1,695	1,695	1,693	1,703	1,712	1,721	1,718
<b>Retail trade</b> .....	9,456	9,484	9,501	9,504	9,547	9,607	9,603	9,636	9,629	9,642	9,679	9,712	9,720
<b>Finance, insurance, and real estate</b> .....	3,961	3,978	3,996	4,016	4,036	4,053	4,064	4,087	4,100	4,109	4,126	4,132	4,135
<b>Services</b> .....	14,058	14,112	14,161	14,229	14,299	14,353	14,408	14,470	14,522	14,584	14,678	14,735	14,730
<b>Government</b> .....	8,524	8,564	8,576	8,591	8,608	8,597	8,633	8,666	8,662	8,697	8,723	8,707	8,726
Federal .....	1,033	1,032	1,033	1,035	1,037	1,038	1,041	1,043	1,045	1,044	1,044	1,048	1,056
State .....	1,852	1,861	1,865	1,869	1,878	1,871	1,883	1,890	1,897	1,896	1,913	1,916	1,908
Local .....	5,639	5,671	5,678	5,687	5,693	5,688	5,709	5,733	5,720	5,757	5,766	5,743	5,762

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. <sup>p</sup>	Nov. <sup>p</sup>
<b>Total private</b> .....	67,570	67,665	67,939	68,149	68,263	68,419	68,488	68,598	68,843	68,951	69,028	69,326	69,46
<b>Goods-producing</b> .....	17,270	17,283	17,331	17,379	17,380	17,375	17,360	17,377	17,441	17,476	17,498	17,610	17,69
<b>Mining</b> .....	514	510	504	508	511	518	525	528	534	539	545	552	54
<b>Construction</b> .....	3,877	3,867	3,943	3,955	3,944	3,918	3,889	3,891	3,887	3,899	3,881	3,929	3,95
<b>Manufacturing</b> .....	12,879	12,906	12,884	12,916	12,925	12,939	12,946	12,958	13,020	13,038	13,072	13,129	13,19
<b>Durable goods</b> .....	7,385	7,393	7,370	7,398	7,399	7,406	7,409	7,421	7,425	7,475	7,494	7,530	7,56
Lumber and wood products .....	607	611	611	614	615	617	618	615	619	615	618	619	62
Furniture and fixtures .....	398	398	400	400	402	403	407	408	416	415	416	420	42
Stone, clay, and glass products .....	449	451	452	454	453	453	452	451	449	450	451	453	45
Primary metal industries .....	547	547	540	547	553	559	557	561	565	569	578	582	58
Blast furnaces and basic steel products .....	194	193	188	194	199	205	205	207	209	211	214	218	21
Fabricated metal products .....	1,049	1,052	1,051	1,051	1,051	1,053	1,050	1,054	1,055	1,057	1,061	1,067	1,07
Machinery, except electrical .....	1,190	1,187	1,183	1,190	1,190	1,198	1,203	1,210	1,212	1,222	1,230	1,238	1,24
Electrical and electronic equipment .....	1,230	1,234	1,226	1,223	1,218	1,216	1,215	1,212	1,221	1,226	1,226	1,237	1,24
Transportation equipment .....	1,273	1,267	1,265	1,276	1,273	1,265	1,265	1,265	1,241	1,275	1,265	1,262	1,25
Motor vehicles and equipment .....	663	658	659	668	663	657	655	655	629	664	652	653	65
Instruments and related products .....	379	379	377	377	376	376	375	376	378	377	379	381	38
Miscellaneous manufacturing .....	263	267	265	266	268	266	267	269	269	269	270	271	27
<b>Nondurable goods</b> .....	5,494	5,513	5,514	5,518	5,526	5,533	5,537	5,537	5,595	5,563	5,578	5,599	5,62
Food and kindred products .....	1,146	1,149	1,147	1,150	1,154	1,158	1,153	1,150	1,159	1,146	1,144	1,150	1,15
Tobacco manufactures .....	45	44	44	44	44	43	44	42	43	42	41	40	4
Textile mill products .....	619	621	624	627	630	628	631	633	640	636	638	639	64
Apparel and other textile products .....	927	937	931	925	926	929	927	930	950	930	938	942	94
Paper and allied products .....	515	517	515	516	515	514	513	513	515	514	517	516	51
Printing and publishing .....	828	830	833	833	832	832	836	839	841	845	846	848	84
Chemicals and allied products .....	568	566	568	569	570	569	572	568	576	579	579	581	58
Petroleum and coal products .....	105	105	106	106	106	106	107	108	107	108	108	108	10
Rubber and misc. plastics products .....	620	622	623	625	626	629	629	629	633	636	639	647	65
Leather and leather products .....	121	122	123	123	123	125	125	125	131	127	128	128	12
<b>Service-producing</b> .....	50,300	50,382	50,608	50,770	50,883	51,044	51,128	51,221	51,402	51,475	51,530	51,716	51,77
<b>Transportation and public utilities</b> .....	4,368	4,380	4,389	4,401	4,419	4,428	4,429	4,439	4,449	4,465	4,497	4,511	4,53
<b>Wholesale trade</b> .....	4,586	4,583	4,600	4,611	4,617	4,622	4,623	4,632	4,641	4,642	4,644	4,655	4,67
<b>Retail trade</b> .....	16,035	16,030	16,097	16,141	16,132	16,189	16,193	16,195	16,246	16,242	16,257	16,330	16,27
<b>Finance, insurance, and real estate</b> .....	4,743	4,767	4,786	4,806	4,823	4,840	4,844	4,851	4,853	4,861	4,861	4,862	4,86
<b>Services</b> .....	20,568	20,622	20,736	20,811	20,892	20,965	21,039	21,104	21,213	21,265	21,271	21,358	21,42

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

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
INDEXES OF DIFFUSION  
SEASONALLY ADJUSTED**

**B-7. Indexes of diffusion: Percent of industries in which employment<sup>1</sup> increased, seasonally adjusted**

Time span	Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span	1985.....	55.9	47.0	52.4	47.3	53.2	46.8	53.8	53.8	47.8	53.2	54.3	57.3
	1986.....	53.2	48.1	48.1	53.5	52.4	46.8	52.4	56.2	55.1	53.2	59.7	59.7
	1987.....	53.5	56.8	58.6	58.4	58.6	55.7	68.6	54.6	65.4	<sup>p</sup> 66.8	<sup>p</sup> 69.2	
Over 3-month span	1985.....	51.1	48.4	42.4	46.5	44.3	49.7	47.0	48.6	45.9	47.6	55.1	56.5
	1986.....	49.7	44.9	45.7	48.4	47.6	45.4	48.4	55.1	55.9	58.1	58.6	60.3
	1987.....	58.6	59.5	61.1	61.6	61.4	67.3	66.2	75.1	<sup>p</sup> 69.5	<sup>p</sup> 76.5		
Over 6-month span	1985.....	46.5	46.5	43.2	44.3	44.3	45.1	43.0	44.3	49.2	49.2	47.3	45.9
	1986.....	47.6	47.6	43.0	43.2	45.4	48.4	47.3	53.0	59.2	58.9	57.8	58.9
	1987.....	61.9	62.7	58.9	67.3	67.6	71.1	<sup>p</sup> 75.1	<sup>p</sup> 78.9				
Over 12-month span	1985.....	44.6	44.1	43.8	40.8	41.6	41.6	42.2	42.4	43.8	44.3	44.1	42.4
	1986.....	43.2	44.1	46.2	45.7	47.8	49.5	49.5	51.6	54.9	52.2	55.1	56.5
	1987.....	62.2	63.5	67.3	<sup>p</sup> 69.2	<sup>p</sup> 71.9							

<sup>1</sup> 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.

<sup>p</sup> = preliminary.

NOTE: Figures are the percent of industries with employment

rising. (Half of the unchanged components are counted as rising.) Data are centered within the spans. Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Alabama</b> .....	1,472.0	1,494.7	1,501.5	11.9	11.6	11.7	76.7	77.1	77.4
Birmingham .....	384.0	394.6	396.1	6.1	5.9	5.9	24.0	25.6	25.7
Huntsville .....	118.1	122.8	122.9	.1	.1	.1	5.0	5.2	5.3
Mobile .....	158.5	158.7	158.8	.4	.5	.4	10.0	8.8	9.0
Montgomery .....	122.4	123.2	123.7	.1	.2	.1	9.6	9.7	9.8
Tuscaloosa .....	58.0	58.6	59.4	2.7	2.4	2.5	3.0	3.4	3.4
<b>Alaska</b> .....	220.5	220.0	212.0	8.5	8.4	8.3	15.3	13.7	12.6
<b>Arizona</b> .....	1,364.3	1,370.5	1,384.7	10.9	11.2	11.2	113.4	102.7	101.4
Phoenix .....	896.1	903.1	913.8	.6	.6	.6	77.7	68.8	68.1
Tucson .....	242.9	241.9	244.4	1.6	1.7	1.7	22.2	20.6	20.3
<b>Arkansas</b> .....	829.3	853.5	856.2	4.2	4.1	4.0	37.6	37.0	36.5
Fayetteville-Springdale .....	45.3	48.1	48.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	2.0	2.0
Fort Smith .....	73.3	74.9	75.2	.9	1.0	1.0	3.1	2.8	2.8
Little Rock-North Little Rock .....	226.4	230.9	231.8	.4	.4	.4	11.6	12.3	12.1
Pine Bluff .....	33.9	32.2	32.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.7	1.4	1.4
<b>California</b> .....	11,442.0	11,765.8	11,824.7	41.0	39.6	39.7	548.7	590.3	589.4
Anaheim-Santa Ana .....	1,063.5	1,101.8	1,106.8	2.2	2.0	1.9	56.0	60.1	58.6
Bakersfield .....	156.9	159.0	161.5	12.7	12.3	12.6	9.8	10.5	10.7
Fresno .....	200.5	206.7	206.0	.7	.8	.8	12.8	11.8	11.8
Los Angeles-Long Beach .....	3,954.5	4,039.7	4,064.8	10.7	10.4	10.3	131.6	139.1	139.2
Modesto .....	100.6	107.9	105.7	.1	.1	.1	6.5	7.0	7.1
Oakland .....	803.8	824.4	829.3	2.5	2.5	2.5	48.0	50.7	50.9
Oxnard-Ventura .....	197.1	202.6	204.7	3.0	2.5	2.5	11.1	12.5	12.5
Riverside-San Bernardino .....	572.4	604.4	611.9	1.2	1.3	1.3	45.9	54.0	53.4
Sacramento .....	531.3	551.2	555.4	.8	.8	.8	33.2	35.8	35.9
Salinas-Seaside-Monterey .....	104.6	107.8	107.3	.5	.5	.5	4.5	4.6	4.7
San Diego .....	836.6	868.9	869.4	.8	.8	.8	54.9	59.9	58.9
San Francisco .....	931.6	939.0	947.3	1.1	1.0	1.0	35.5	35.7	36.6
San Jose .....	773.3	780.8	786.3	.2	.2	.2	31.8	32.9	33.3
Santa Barbara-Santa Maria-Lompoc .....	145.5	144.7	146.4	1.3	1.4	1.4	6.3	6.5	6.5
Santa Rosa-Petaluma .....	120.3	125.6	125.6	.7	.6	.6	8.6	9.4	9.2
Stockton .....	138.3	147.2	142.7	.1	.1	.1	8.7	9.6	9.6
Vallejo-Fairfield-Napa .....	123.7	130.2	130.6	.3	.3	.3	7.8	9.4	9.5
<b>Colorado</b> .....	1,401.8	1,393.8	1,399.8	25.4	23.8	23.7	77.8	72.5	72.0
Boulder-Longmont .....	105.2	105.4	107.1	.3	.3	.3	4.3	3.8	3.8
Denver .....	805.7	802.5	804.9	16.5	15.6	15.6	43.0	40.6	40.4
<b>Connecticut</b> .....	1,616.7	1,655.4	1,664.2	1.7	1.7	1.6	75.9	77.6	77.4
Bridgeport-Milford .....	195.1	199.8	201.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.3	9.2	9.3
Hartford .....	467.1	481.4	484.9	.3	.4	.4	20.0	21.1	21.3
New Britain .....	65.9	66.6	67.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	4.7	4.7
New Haven-Meriden .....	242.4	253.0	254.6	.3	.3	.3	12.9	14.1	14.1
Stamford .....	123.9	126.4	127.0	.6	.6	.6	5.4	5.6	5.4
Waterbury .....	85.2	86.7	87.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	4.7	4.9
<b>Delaware</b> .....	309.0	317.1	319.9	.1	.1	.1	19.6	19.7	20.1
Wilmington .....	268.4	273.3	276.8	.2	.2	.2	19.0	18.4	19.0
<b>District of Columbia</b> .....	641.1	648.0	647.9	.1	.1	.1	14.2	15.1	15.4
Washington MSA .....	2,015.7	2,047.8	2,061.5	1.0	.9	.9	126.1	127.0	127.5
<b>Florida</b> .....	4,634.9	4,799.7	4,838.9	9.3	10.0	9.9	344.4	344.0	346.1
Daytona Beach .....	107.5	110.3	110.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.2	8.2	8.1
Fort Lauderdale-Hollywood-Pompano Beach .....	440.9	452.3	458.0	.4	.4	.4	36.5	35.8	36.4
Fort Myers-Cape Coral .....	101.3	109.9	111.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.4	12.7	12.8
Gainesville .....	91.8	94.3	95.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	4.3	4.5
Jacksonville .....	378.6	392.6	394.3	.5	.4	.4	27.8	28.0	27.9
Lakeland-Winter Haven .....	134.5	140.0	140.6	4.2	4.9	4.8	8.5	9.4	9.4
Melbourne-Titusville-Palm Bay .....	136.2	141.5	142.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.9	8.2	8.2
Miami-Hialeah .....	800.1	813.7	814.3	.9	.9	.9	39.5	38.8	38.8
Orlando .....	453.1	477.4	478.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	34.4	34.1	34.4
Pensacola .....	121.8	124.4	124.8	.3	.2	.3	10.6	10.4	10.7
Sarasota .....	96.8	100.3	101.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.1	9.8	10.1
Tallahassee .....	104.8	107.6	109.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	6.1	6.1
Tampa-St. Petersburg-Clearwater .....	67.5	783.2	789.2	.7	.6	.7	62.8	64.5	65.0
West Palm Beach-Boca Raton-Delray Beach .....	305.1	320.0	324.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	29.5	31.2	31.6

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Alabama</b> .....	358.5	364.2	364.6	71.7	72.1	72.2	326.6	331.2	333.1
Birmingham .....	53.5	53.1	53.3	27.4	28.5	28.3	96.7	100.7	100.9
Huntsville .....	30.5	31.4	31.4	2.6	2.7	2.7	22.5	23.5	23.6
Mobile .....	26.6	26.5	26.2	9.5	9.1	9.0	43.5	44.3	44.1
Montgomery .....	17.8	17.6	17.5	4.7	4.7	4.7	27.8	28.1	28.1
Tuscaloosa .....	9.1	9.2	9.3	2.0	2.2	2.2	11.9	12.2	12.4
<b>Alaska</b> .....	10.3	15.2	12.1	18.2	18.9	17.8	43.9	43.6	41.6
<b>Arizona</b> .....	186.5	186.6	186.1	68.1	70.6	71.4	327.5	331.8	334.1
Phoenix .....	133.4	135.2	135.1	45.5	48.0	48.5	223.3	226.4	228.2
Tucson .....	31.3	30.5	30.3	9.8	9.8	9.9	54.4	54.6	54.8
<b>Arkansas</b> .....	214.3	224.1	224.2	50.1	52.2	52.7	186.6	195.0	195.6
Fayetteville-Springdale .....	10.0	11.5	11.4	3.9	4.3	4.3	10.8	11.2	11.2
Fort Smith .....	25.1	26.9	26.7	3.7	3.8	3.7	15.5	15.0	15.1
Little Rock-North Little Rock .....	31.9	32.4	32.7	14.7	15.1	15.2	55.0	56.2	56.3
Pine Bluff .....	6.0	6.7	6.7	2.8	2.8	2.8	6.6	6.2	6.3
<b>California</b> .....	2,077.8	2,116.1	2,099.9	585.9	595.1	592.4	2,758.7	2,857.0	2,874.7
Anaheim-Santa Ana .....	244.9	247.8	248.6	34.8	35.2	35.2	266.8	283.4	285.9
Bakersfield .....	10.5	10.5	10.5	8.3	8.4	8.3	40.9	40.5	40.7
Fresno .....	22.8	22.7	22.7	10.7	10.6	10.8	50.9	54.0	53.9
Los Angeles-Long Beach .....	889.3	901.6	901.6	204.4	207.8	205.4	937.9	963.5	968.6
Modesto .....	22.4	27.0	23.3	4.4	4.4	4.3	25.6	26.4	26.9
Oakland .....	102.2	104.8	103.8	56.4	56.0	56.0	201.3	207.8	208.1
Oxnard-Ventura .....	29.9	30.8	30.7	9.7	10.3	10.4	49.4	50.7	51.0
Riverside-San Bernardino .....	75.8	79.8	80.7	31.3	31.9	32.2	141.9	150.7	152.5
Sacramento .....	38.8	40.6	40.4	24.5	25.1	25.1	130.6	137.6	138.4
Salinas-Seaside-Monterey .....	9.8	10.4	9.8	4.9	5.1	5.1	27.8	28.2	28.1
San Diego .....	121.5	120.5	120.3	32.1	33.3	33.2	201.4	209.6	210.5
San Francisco .....	78.0	77.6	77.9	80.8	79.1	79.3	217.6	221.6	223.6
San Jose .....	264.2	265.7	262.9	21.4	21.5	21.5	153.4	155.0	157.1
Santa Barbara-Santa Maria-Lompoc .....	24.2	21.9	22.2	5.4	5.2	5.1	34.4	35.5	35.6
Santa Rosa-Petaluma .....	18.3	18.9	18.7	5.7	6.1	6.0	31.1	32.6	32.7
Stockton .....	21.6	27.1	22.7	8.8	9.3	8.7	33.5	33.6	33.9
Vallejo-Fairfield-Napa .....	12.4	14.0	12.8	4.5	4.5	4.5	30.0	31.6	32.0
<b>Colorado</b> .....	186.0	183.8	184.1	86.4	89.4	89.4	347.8	347.9	348.7
Boulder-Longmont .....	28.4	28.3	28.5	2.3	2.2	2.2	23.3	23.1	23.5
Denver .....	96.1	94.2	93.9	61.2	65.2	65.2	204.4	203.8	204.1
<b>Connecticut</b> .....	394.3	389.9	390.6	61.4	73.6	73.6	363.9	378.5	380.1
Bridgeport-Milford .....	60.3	60.7	60.8	7.7	7.7	7.7	45.3	46.2	46.7
Hartford .....	93.2	94.8	96.3	17.1	18.0	17.9	97.4	101.6	102.4
New Britain .....	21.8	20.3	20.4	3.2	3.2	3.3	13.3	13.9	13.8
New Haven-Meriden .....	47.5	46.7	46.4	13.0	18.3	18.3	58.0	59.7	60.2
Stamford .....	25.1	23.7	23.8	4.6	5.1	5.1	29.6	30.2	30.4
Waterbury .....	25.0	23.2	23.3	2.7	3.1	3.1	17.0	17.8	17.9
<b>Delaware</b> .....	69.5	69.3	69.5	12.7	13.2	13.2	68.6	72.0	72.6
Wilmington .....	59.0	59.1	59.0	13.7	14.4	14.6	56.9	58.1	59.4
<b>District of Columbia</b> .....	15.6	15.7	15.9	24.4	24.9	24.8	63.5	64.9	65.0
Washington MSA .....	85.7	85.6	85.9	95.4	100.1	100.1	407.8	415.9	419.7
<b>Florida</b> .....	516.6	524.8	526.6	246.4	250.4	252.9	1,250.4	1,305.5	1,318.6
Daytona Beach .....	12.1	13.0	13.0	3.3	3.4	3.4	31.0	32.2	32.0
Fort Lauderdale-Hollywood-Pompano Beach .....	43.1	45.0	45.1	21.0	22.3	22.2	130.1	133.5	135.9
Fort Myers-Cape Coral .....	5.2	5.7	5.7	4.7	5.1	5.2	29.3	32.5	33.1
Gainesville .....	5.3	5.8	5.7	1.7	1.7	1.8	21.0	21.2	21.2
Jacksonville .....	37.0	38.6	38.8	26.9	27.9	28.1	101.3	105.6	106.0
Lakeland-Winter Haven .....	21.4	20.9	21.4	5.9	6.1	6.1	37.4	38.3	38.2
Melbourne-Titusville-Palm Bay .....	26.6	27.5	27.4	5.6	5.3	5.4	31.4	32.8	33.1
Miami-Hialeah .....	92.5	92.6	93.1	68.0	66.5	66.7	212.4	219.4	219.8
Orlando .....	52.4	53.1	53.4	23.5	25.4	25.6	117.1	122.9	123.1
Pensacola .....	11.1	11.6	11.4	6.1	6.5	6.3	31.7	32.3	32.0
Sarasota .....	8.2	8.7	8.8	3.6	3.6	3.6	28.1	28.5	28.8
Tallahassee .....	4.6	4.8	4.8	2.8	2.9	2.9	22.1	22.4	22.7
Tampa-St. Petersburg-Clearwater .....	90.5	88.7	89.5	36.9	37.0	37.4	210.4	212.2	215.0
West Palm Beach-Boca Raton-Delray Beach .....	35.9	36.2	36.4	11.4	11.3	11.4	78.6	83.5	85.4

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Alabama</b> .....	69.7	70.8	70.3	261.0	272.0	271.4	295.9	295.7	300.8
Birmingham .....	28.5	29.2	29.0	87.8	92.5	92.3	60.0	59.1	60.7
Huntsville .....	3.4	3.5	3.5	25.3	27.1	26.8	28.7	29.3	29.5
Mobile .....	7.6	7.3	7.3	33.4	34.5	34.5	27.5	27.7	28.3
Montgomery .....	7.3	7.3	7.3	24.2	24.5	24.5	30.9	31.1	31.7
Tuscaloosa .....	2.0	2.1	2.1	7.9	8.2	8.2	19.4	18.9	19.3
<b>Alaska</b> .....	12.6	11.5	11.4	43.3	42.4	40.9	68.4	66.3	67.3
<b>Arizona</b> .....	90.5	91.3	91.5	330.7	338.7	342.7	236.7	237.6	246.3
Phoenix .....	71.5	71.9	72.2	221.9	228.6	231.6	122.2	123.6	129.5
Tucson .....	12.5	12.8	12.6	61.7	62.4	63.8	49.4	49.5	51.0
<b>Arkansas</b> .....	37.6	38.4	38.2	149.2	154.9	155.2	149.7	147.8	149.8
Fayetteville-Springdale .....	1.5	1.4	1.4	6.4	7.0	6.9	10.9	10.7	11.0
Fort Smith .....	2.7	2.7	2.7	15.0	15.5	15.8	7.3	7.2	7.4
Little Rock-North Little Rock .....	15.4	15.6	15.6	51.2	52.8	53.1	46.2	46.1	46.4
Pine Bluff .....	1.6	1.7	1.7	5.7	5.9	5.9	7.5	7.5	7.6
<b>California</b> .....	776.0	795.7	794.9	2,796.6	2,916.1	2,926.8	1,857.3	1,855.9	1,906.9
Anaheim-Santa Ana .....	84.4	84.6	84.2	259.6	276.2	275.7	114.8	112.5	116.7
Bakersfield .....	6.4	6.3	6.3	30.4	31.7	31.7	37.9	38.8	40.7
Fresno .....	13.9	13.8	13.8	45.2	49.3	47.4	43.5	43.7	44.8
Los Angeles-Long Beach .....	277.5	285.2	286.4	1,012.2	1,050.6	1,054.4	490.9	481.5	498.9
Modesto .....	4.6	4.8	5.0	20.8	22.2	22.3	16.2	16.0	16.7
Oakland .....	52.7	55.7	55.4	180.6	186.5	187.6	160.1	160.4	165.0
Oxnard-Ventura .....	10.3	10.8	10.8	43.5	46.0	46.6	40.2	39.2	40.4
Riverside-San Bernardino .....	24.1	25.5	25.4	132.4	139.1	141.9	119.8	122.1	124.5
Sacramento .....	31.2	32.8	32.4	110.0	116.0	116.7	182.2	182.7	185.7
Salinas-Seaside-Monterey .....	5.0	5.3	5.4	25.7	26.6	26.6	26.4	27.1	27.1
San Diego .....	57.3	59.3	59.1	215.4	229.0	228.5	153.2	156.5	158.1
San Francisco .....	113.7	112.4	112.7	270.6	277.0	279.3	134.3	134.6	138.9
San Jose .....	33.2	33.1	32.8	186.7	189.0	192.0	82.4	83.4	86.5
Santa Barbara-Santa Maria-Lompoc .....	8.0	8.3	8.3	38.8	39.8	40.1	27.1	28.1	27.2
Santa Rosa-Petaluma .....	8.1	8.3	8.2	26.0	27.9	27.7	21.8	21.8	22.5
Stockton .....	8.1	8.3	8.3	28.8	29.1	28.9	28.7	30.1	30.5
Vallejo-Fairfield-Napa .....	4.9	4.8	4.8	27.1	28.8	29.2	36.7	36.8	37.5
<b>Colorado</b> .....	96.9	97.0	96.7	319.6	323.6	321.3	261.9	255.8	263.9
Boulder-Longmont .....	3.9	4.0	3.9	21.1	22.2	22.3	21.6	21.5	22.6
Denver .....	65.8	64.9	64.7	194.3	194.3	194.2	124.4	123.9	126.8
<b>Connecticut</b> .....	141.5	147.4	147.2	378.5	389.6	391.1	199.5	197.1	202.8
Bridgeport-Milford .....	10.8	11.6	11.7	44.5	46.6	46.6	18.2	17.8	18.5
Hartford .....	76.3	79.6	79.6	103.8	107.8	108.0	59.0	58.3	59.0
New Britain .....	3.9	4.3	4.4	12.8	13.8	13.8	6.7	6.4	6.7
New Haven-Meriden .....	14.6	15.1	15.2	65.5	68.3	69.1	30.6	30.5	31.0
Stamford .....	11.3	12.1	12.3	37.0	39.0	39.2	10.3	10.1	10.2
Waterbury .....	4.1	4.2	4.2	20.2	21.8	21.7	12.0	11.9	12.4
<b>Delaware</b> .....	23.6	25.1	25.2	68.7	72.3	72.1	46.4	45.3	47.2
Wilmington .....	21.7	23.2	23.5	60.6	64.2	64.2	37.3	35.7	37.0
<b>District of Columbia</b> .....	36.8	36.6	36.3	225.8	230.9	233.6	260.9	259.7	256.9
Washington MSA .....	116.4	121.3	120.8	627.5	643.4	645.9	555.9	553.5	560.9
<b>Florida</b> .....	345.0	356.7	358.2	1,211.3	1,275.0	1,276.9	711.5	733.3	749.7
Daytona Beach .....	6.5	8.5	6.5	29.0	29.1	29.1	17.4	17.9	18.5
Fort Lauderdale-Hollywood-Pompano Beach .....	37.5	38.1	38.0	117.2	120.0	122.1	55.1	57.2	57.9
Fort Myers-Cape Coral .....	8.0	8.6	8.7	28.8	29.4	30.1	14.8	15.8	16.2
Gainesville .....	4.1	4.1	4.1	20.4	21.5	21.5	34.7	35.8	36.7
Jacksonville .....	35.9	37.4	37.7	92.0	96.0	96.7	57.2	58.7	58.7
Lakeland-Winter Haven .....	8.0	8.0	8.1	30.2	33.3	33.4	18.9	19.1	19.2
Melbourne-Titusville-Palm Bay .....	5.1	5.3	5.3	38.6	41.6	41.8	19.9	20.7	20.8
Miami-Hialeah .....	68.6	69.9	70.0	213.1	217.8	216.6	105.1	107.8	108.4
Orlando .....	31.0	32.9	33.0	141.7	153.8	153.4	52.9	55.3	55.5
Pensacola .....	5.6	5.6	5.6	28.7	30.2	30.2	27.7	27.8	28.3
Sarasota .....	8.2	8.1	8.2	26.6	29.4	29.8	12.0	12.2	12.4
Tallahassee .....	4.4	4.6	4.5	20.5	21.6	21.7	44.4	44.9	46.0
Tampa-St. Petersburg-Clearwater .....	62.0	64.1	64.3	205.0	214.6	215.0	99.2	101.5	102.3
West Palm Beach-Boca Raton-Delray Beach .....	26.0	27.4	27.6	85.9	90.7	92.4	37.8	39.7	40.1

See footnotes at end of table.



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

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

(In thousands)

State and area	Total			Mining			Construction		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Georgia</b> .....	2,727.9	2,762.0	2,774.5	8.8	8.9	8.8	165.0	158.8	160.8
Albany .....	48.3	49.0	49.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.4	2.3
Athens .....	62.5	61.8	64.4	.1	.2	.2	2.6	2.9	2.8
Atlanta .....	1,363.9	1,388.9	1,391.6	1.7	1.7	1.8	84.2	79.7	79.4
Augusta .....	151.7	151.8	152.3	.5	.5	.5	8.8	8.7	8.7
Columbus .....	90.1	90.9	90.8	.1	.1	.1	5.3	5.3	5.3
Macon-Warner Robins .....	117.0	118.3	118.2	.1	.1	.1	5.1	5.1	5.1
Savannah .....	101.6	101.3	101.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.2	7.3	7.4
<b>Hawaii</b> .....	438.3	446.6	454.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.8	21.4	21.0
Honolulu .....	351.8	356.8	364.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.1	17.4	17.2
<b>Idaho</b> .....	343.4	347.0	349.4	2.7	2.7	2.7	16.5	16.9	16.9
Boise City .....	87.9	89.4	89.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.3	5.3	5.3
<b>Illinois</b> .....	4,837.9	4,868.2	4,927.2	25.3	24.9	24.7	195.5	195.8	195.7
Aurora-Elgin .....	132.1	137.0	138.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.6	6.1	6.1
Bloomington-Normal .....	54.8	54.8	55.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.4	1.4
Champaign-Urbana-Rantoul .....	83.9	81.8	84.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.3	2.2	2.2
Chicago .....	2,975.4	2,984.4	3,028.0	3.3	3.4	3.5	122.6	128.6	129.3
Davenport-Rock Island-Moline .....	150.4	153.7	154.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.9	5.0	5.0
Decatur .....	50.3	49.5	49.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.7	1.7
Joliet .....	94.6	94.6	94.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	4.5	4.5
Kankakee .....	32.4	32.9	32.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.2	1.2	1.2
Lake County .....	176.7	184.5	184.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.6	7.1	7.2
Peoria .....	131.6	133.1	133.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	5.9	5.7
Rockford .....	124.5	124.0	123.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	4.1	4.0
Springfield .....	94.3	93.3	93.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.8	2.8	2.8
<b>Indiana</b> .....	2,274.9	2,348.0	2,358.5	9.0	8.6	8.5	108.7	123.7	124.4
Anderson .....	49.0	48.5	48.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.4	1.5	1.6
Bloomington .....	51.8	53.7	54.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.0	2.3	2.4
Elkhart-Goshen .....	92.6	98.1	98.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.6	3.0	3.0
Evansville .....	124.3	125.7	125.7	2.4	2.3	2.2	8.6	8.8	8.8
Fort Wayne .....	178.3	186.0	187.0	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	9.3	9.9	10.1
Gary-Hammond .....	208.4	219.4	219.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	12.3	12.5	12.7
Indianapolis .....	587.8	609.6	611.3	.8	.8	.8	31.0	34.5	34.6
Kokomo .....	44.8	48.0	46.0	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.3	1.3	1.4
Lafayette .....	63.3	64.9	65.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.3	3.0	3.1
Muncie .....	49.8	49.8	50.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.0	2.3	2.3
South Bend-Mishawaka .....	108.7	112.0	112.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.0	5.7	5.7
Terre Haute .....	53.1	52.9	53.0	.5	.4	.4	1.8	2.0	2.0
<b>Iowa</b> .....	1,097.8	1,116.4	1,128.6	2.1	2.1	2.0	42.2	43.5	43.8
Cedar Rapids .....	83.2	83.7	84.0	.2	.2	.2	3.3	3.6	3.5
Des Moines .....	200.1	206.1	207.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.3	8.1	8.1
Dubuque .....	37.4	43.2	43.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.4	1.3	1.3
Iowa City .....	50.3	49.4	51.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.9	2.0
Sioux City .....	49.1	50.2	50.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	1.9	1.9
Waterloo-Cedar Falls .....	57.3	63.0	63.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	1.9	1.9
<b>Kansas</b> .....	992.9	1,007.7	1,012.3	11.1	12.3	12.6	45.9	45.6	44.8
Lawrence .....	32.0	32.2	32.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.1	1.4	1.3
Topeka .....	84.4	85.5	85.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.1	3.9	3.8
Wichita .....	206.3	216.7	217.6	2.2	2.5	2.5	10.3	12.3	12.1
<b>Kentucky</b> .....	1,299.8	1,316.4	1,323.3	39.9	39.8	38.8	62.0	65.8	66.4
Lexington-Fayette .....	172.3	173.6	174.6	.9	1.1	1.1	11.8	13.3	13.1
Louisville .....	428.6	437.9	440.1	.7	.7	.7	22.9	24.9	25.5
Owensboro .....	33.5	33.6	34.0	1.0	1.1	1.1	1.9	2.1	2.2
<b>Louisiana</b> .....	1,514.9	1,498.8	1,508.0	58.9	60.6	60.7	89.6	85.6	85.6
Alexandria .....	45.7	46.1	46.4	.2	.2	.2	2.7	2.6	2.6
Baton Rouge .....	214.3	215.0	216.3	1.0	1.0	1.0	19.7	20.5	20.5
Houma-Thibodaux .....	53.6	52.5	52.5	5.9	6.2	6.0	1.7	1.4	1.4
Lafayette .....	85.0	82.7	83.8	11.1	11.1	11.1	3.7	3.2	3.1
Lake Charles .....	57.8	58.4	58.9	1.3	1.3	1.3	6.2	4.7	5.0
Monroe .....	55.4	55.2	55.5	.4	.5	.7	2.9	2.6	2.7
New Orleans .....	515.2	510.2	510.6	16.2	16.8	16.8	25.1	23.7	23.5
Shreveport .....	133.7	131.1	131.4	3.3	3.2	3.1	7.1	8.2	8.0
<b>Maine</b> .....	490.5	509.9	509.0	.1	.1	.1	29.9	31.4	31.4
Lewiston-Auburn .....	38.6	38.6	39.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.1	2.1
Portland .....	119.3	123.2	124.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.6	8.4	8.5

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Georgia</b> .....	567.8	571.9	572.7	168.5	172.6	172.3	686.4	697.0	699.5
Albany .....	8.6	8.5	8.4	2.1	2.1	2.1	12.4	12.5	12.6
Athens .....	15.3	16.0	16.0	1.7	1.7	1.7	12.8	12.8	12.9
Atlanta .....	194.2	191.3	192.0	110.3	113.3	113.7	378.3	387.5	388.7
Augusta .....	35.7	36.5	36.7	5.1	5.1	5.0	32.9	33.0	33.0
Columbus .....	19.7	19.9	19.5	3.5	3.4	3.3	19.8	20.5	20.5
Macon-Warner Robins .....	18.9	19.8	19.8	5.1	5.1	5.2	25.4	25.2	25.1
Savannah .....	16.7	17.2	17.2	9.9	9.8	9.2	23.8	23.7	23.5
<b>Hawaii</b> .....	21.5	22.1	22.1	33.9	34.5	34.9	116.7	120.0	120.9
Honolulu .....	15.9	16.4	16.4	27.7	28.2	28.5	91.9	94.9	95.8
<b>Idaho</b> .....	53.5	55.7	57.0	18.9	19.4	19.5	85.5	85.3	84.9
Boise City .....	10.2	10.8	10.9	5.6	6.0	6.0	22.5	22.5	22.4
<b>Illinois</b> .....	921.4	934.4	934.1	277.1	285.8	287.8	1,209.7	1,238.9	1,244.9
Aurora-Elgin .....	35.8	36.7	37.0	4.8	5.3	5.4	36.1	37.3	37.4
Bloomington-Normal .....	4.6	5.1	5.1	2.9	2.9	2.9	12.5	12.5	12.5
Champaign-Urbana-Rantoul .....	7.6	7.7	7.6	2.1	2.0	1.9	19.2	19.5	19.5
Chicago .....	546.4	541.9	542.0	190.1	194.5	194.8	736.9	747.8	751.7
Davenport-Rock Island-Moline .....	29.4	33.0	33.0	8.2	8.3	8.3	42.2	42.2	42.2
Decatur .....	14.0	13.2	13.0	4.5	4.5	4.6	11.7	11.4	11.7
Joliet .....	19.8	19.6	19.6	8.6	8.4	8.4	22.3	22.5	22.4
Kankakee .....	5.3	5.4	5.1	1.5	1.5	1.5	8.2	8.1	8.1
Lake County .....	39.3	40.4	40.4	6.4	8.6	6.7	45.7	46.5	47.3
Peoria .....	30.7	31.8	32.1	6.6	6.6	6.6	33.4	33.4	33.5
Rockford .....	45.7	44.5	44.2	4.4	4.5	4.3	28.4	28.5	28.5
Springfield .....	3.8	3.9	3.9	4.7	4.8	4.8	19.3	19.4	19.4
<b>Indiana</b> .....	602.3	616.6	614.9	114.4	118.4	118.5	537.8	560.0	558.7
Anderson .....	18.6	17.4	17.0	1.4	1.4	1.4	10.8	11.2	11.1
Bloomington .....	8.3	8.9	8.9	1.7	1.7	1.7	11.9	12.7	12.8
Elkhart-Goshen .....	49.0	52.2	52.3	2.8	2.8	2.8	17.8	18.7	18.7
Evansville .....	30.7	30.1	29.9	6.5	6.5	6.6	31.1	31.8	31.9
Fort Wayne .....	49.0	50.4	50.3	11.5	12.1	12.0	42.8	45.8	46.0
Gary-Hammond .....	49.5	55.5	55.9	13.5	14.0	13.8	50.2	52.1	51.8
Indianapolis .....	107.8	106.8	106.5	35.2	37.1	37.1	150.0	155.2	155.5
Kokomo .....	19.5	19.3	19.4	1.4	1.4	1.4	9.6	10.1	10.2
Lafayette .....	11.3	11.5	11.4	1.6	1.6	1.8	12.6	13.0	12.9
Muncie .....	10.7	10.3	10.2	2.2	2.3	2.4	12.1	12.3	12.3
South Bend-Mishawaka .....	24.0	23.9	24.0	4.8	5.0	5.0	28.2	29.2	29.4
Terre Haute .....	10.7	10.1	10.0	2.6	2.6	2.6	14.2	14.2	14.2
<b>Iowa</b> .....	198.6	216.6	216.8	52.8	53.6	53.9	282.6	281.0	281.7
Cedar Rapids .....	22.4	22.8	22.9	4.1	4.2	4.3	20.2	20.5	20.6
Des Moines .....	21.6	23.2	23.3	11.9	12.2	12.2	51.9	52.9	52.9
Dubuque .....	7.5	12.3	12.2	1.6	1.6	1.6	9.4	10.1	10.3
Iowa City .....	3.9	4.0	4.1	1.1	1.3	1.4	9.3	9.4	9.1
Sioux City .....	10.2	8.8	9.1	3.4	3.9	3.9	12.2	12.7	12.7
Waterloo-Cedar Falls .....	9.3	14.2	14.1	1.8	1.8	1.8	14.2	14.6	14.4
<b>Kansas</b> .....	175.0	179.8	180.1	62.2	63.4	63.5	250.3	253.9	253.8
Lawrence .....	4.5	4.5	4.3	1.3	1.3	1.3	7.1	7.2	7.3
Topeka .....	8.9	9.0	8.8	6.7	6.6	6.5	19.0	19.5	19.5
Wichita .....	55.3	59.5	59.5	9.9	9.9	9.9	49.3	50.7	50.7
<b>Kentucky</b> .....	252.8	260.2	259.9	68.5	70.4	71.3	308.2	303.6	306.1
Lexington-Fayette .....	27.2	27.9	27.8	7.7	7.2	7.3	40.6	39.7	39.8
Louisville .....	86.8	86.1	85.9	26.2	27.0	27.6	105.1	104.9	105.6
Owensboro .....	6.0	6.3	6.3	2.3	2.4	2.3	8.3	7.7	7.9
<b>Louisiana</b> .....	167.4	169.5	171.1	106.0	107.4	107.5	366.3	360.3	359.9
Alexandria .....	3.2	3.5	3.5	2.4	2.4	2.4	10.6	10.9	10.9
Baton Rouge .....	18.8	19.1	19.2	10.5	10.5	10.4	52.3	53.1	53.5
Houma-Thibodaux .....	5.2	4.3	4.5	5.9	6.0	5.9	13.4	13.7	13.5
Lafayette .....	5.7	5.8	5.8	6.4	6.4	6.4	22.8	22.0	21.9
Lake Charles .....	8.6	11.1	11.0	3.9	3.7	3.6	13.8	13.9	14.0
Monroe .....	7.6	7.2	7.2	2.7	2.6	2.6	14.8	15.0	14.8
New Orleans .....	43.8	42.2	42.6	42.0	42.8	42.8	135.4	133.6	132.9
Shreveport .....	18.7	18.0	18.0	8.4	7.9	7.9	31.4	29.8	30.0
<b>Maine</b> .....	105.5	104.2	104.6	20.0	20.0	19.8	117.6	129.0	126.7
Lewiston-Auburn .....	10.1	9.8	9.8	1.3	1.4	1.4	9.2	9.3	9.4
Portland .....	16.5	15.7	15.8	6.1	6.4	6.3	34.9	36.7	36.8

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	Finance, insurance, and real estate			Services			Government		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Georgia</b> .....	148.7	150.9	150.2	522.0	539.1	539.5	460.7	462.8	470.7
Albany .....	2.4	2.5	2.5	7.7	8.3	8.4	12.7	12.7	13.1
Athens .....	2.0	2.1	2.0	9.3	9.4	9.5	18.7	16.7	19.3
Atlanta .....	96.3	98.3	97.6	314.1	328.2	326.5	184.8	189.0	192.0
Augusta .....	5.8	6.0	5.9	29.6	28.6	28.6	33.3	33.3	33.7
Columbus .....	6.3	6.3	6.2	15.4	15.5	15.6	20.1	20.1	20.3
Macon-Warner Robins .....	7.4	7.7	7.7	21.0	21.2	21.3	34.0	34.0	33.9
Savannah .....	4.5	4.3	4.3	22.9	22.7	22.8	15.7	16.2	16.8
<b>Hawaii</b> .....	33.1	33.8	33.9	119.1	125.5	127.1	93.2	89.3	94.9
Honolulu .....	28.0	28.6	28.6	92.6	96.9	98.3	78.6	74.4	79.6
<b>Idaho</b> .....	24.0	24.5	24.6	68.2	69.5	69.0	74.1	73.0	74.8
Boise City .....	8.6	8.7	8.7	19.0	19.3	19.0	16.7	16.8	16.8
<b>Illinois</b> .....	349.0	355.3	354.5	1,135.3	1,150.7	1,159.6	724.6	682.4	725.9
Aurora-Elgin .....	6.8	6.8	6.9	28.3	30.0	30.3	14.6	14.7	15.3
Bloomington-Normal .....	9.2	9.4	9.4	11.5	11.2	11.3	12.6	12.3	12.7
Champaign-Urbana-Rantoul .....	3.3	3.2	3.2	14.4	14.7	14.7	35.0	32.5	35.1
Chicago .....	251.5	259.7	259.3	768.0	788.3	790.2	356.6	320.2	357.2
Davenport-Rock Island-Moline .....	8.0	8.1	8.1	30.5	29.8	30.1	27.2	27.3	27.4
Decatur .....	2.7	2.7	2.7	10.2	10.3	10.4	5.5	5.7	5.7
Joliet .....	3.9	3.9	3.9	19.1	19.1	19.1	16.2	16.4	16.5
Kankakee .....	1.6	1.6	1.6	8.1	8.2	8.2	6.5	6.9	7.0
Lake County .....	6.4	6.4	6.3	41.0	46.3	44.5	29.6	30.5	31.2
Peoria .....	7.0	7.1	7.1	32.1	32.4	32.5	16.1	15.9	15.9
Rockford .....	5.3	5.6	5.6	24.4	24.4	24.2	12.3	12.4	12.4
Springfield .....	7.8	7.8	7.8	23.9	22.7	22.8	31.9	31.8	32.1
<b>Indiana</b> .....	111.6	115.9	115.3	435.5	453.4	455.0	355.7	351.5	363.3
Anderson .....	1.6	1.6	1.6	9.4	9.6	9.6	5.8	5.8	5.8
Bloomington .....	1.6	1.8	1.8	7.7	8.1	8.2	18.6	18.0	18.4
Elkhart-Goshen .....	2.4	2.4	2.4	12.6	13.2	13.3	5.4	5.6	5.7
Evansville .....	4.9	5.1	5.1	28.3	29.8	29.3	11.8	11.3	12.0
Fort Wayne .....	11.8	12.0	12.0	36.1	38.0	38.4	17.8	17.9	18.2
Gary-Hammond .....	8.1	8.2	8.2	44.4	46.1	46.2	30.4	31.0	31.2
Indianapolis .....	43.5	45.4	45.4	130.5	139.3	139.7	89.0	90.5	90.8
Kokomo .....	1.4	1.4	1.4	6.0	6.7	6.5	5.6	5.7	5.8
Lafayette .....	3.0	3.0	3.0	11.2	11.4	11.5	21.3	21.4	21.5
Muncie .....	1.6	1.6	1.6	10.0	10.5	10.6	11.2	10.5	11.5
South Bend-Mishawaka .....	5.6	5.8	5.8	29.7	30.9	31.1	11.4	11.4	11.6
Terre Haute .....	1.8	1.9	1.9	10.9	11.1	11.1	10.6	10.5	10.8
<b>Iowa</b> .....	63.0	64.8	64.6	243.5	245.9	247.5	213.0	208.9	218.3
Cedar Rapids .....	4.7	4.5	4.4	18.0	18.3	18.3	10.3	9.6	9.8
Des Moines .....	25.8	27.3	27.6	50.7	53.4	53.1	29.8	28.9	30.4
Dubuque .....	1.4	1.5	1.5	12.5	13.0	12.9	3.6	3.4	3.6
Iowa City .....	1.5	1.7	1.8	7.7	7.6	7.8	25.2	23.4	25.1
Sioux City .....	2.5	2.6	2.6	12.6	14.1	14.1	6.3	6.2	6.4
Waterloo-Cedar Falls .....	3.2	3.3	3.3	14.2	14.9	14.5	12.5	12.3	13.0
<b>Kansas</b> .....	54.0	55.5	55.4	196.3	200.6	201.6	198.1	196.6	200.5
Lawrence .....	1.1	1.1	1.1	5.4	5.6	5.6	11.5	11.1	11.4
Topeka .....	5.9	6.4	6.3	19.0	19.8	19.7	20.7	20.2	20.5
Wichita .....	10.8	11.1	11.3	43.1	45.0	45.4	25.4	25.7	26.2
<b>Kentucky</b> .....	60.6	62.4	62.5	264.2	273.9	275.1	243.6	240.3	243.2
Lexington-Fayette .....	9.0	9.0	9.0	40.0	40.1	40.9	35.1	35.3	35.6
Louisville .....	27.8	29.2	29.1	98.9	104.3	104.1	60.2	60.8	61.6
Owensboro .....	1.4	1.4	1.4	7.4	7.7	7.9	5.2	4.9	4.9
<b>Louisiana</b> .....	85.1	84.1	83.7	319.0	318.9	321.8	322.6	312.4	317.7
Alexandria .....	2.6	2.7	2.7	11.1	11.2	11.3	12.9	12.6	12.8
Baton Rouge .....	13.5	13.4	13.4	41.7	42.3	42.6	56.8	55.1	55.7
Houma-Thibodaux .....	2.5	2.4	2.3	8.2	8.4	8.2	10.8	10.1	10.7
Lafayette .....	4.0	3.9	3.9	17.9	18.3	18.6	13.4	12.0	13.0
Lake Charles .....	2.7	2.8	2.8	10.8	10.4	10.6	10.5	10.5	10.6
Monroe .....	4.6	4.6	4.6	11.1	11.5	11.5	11.3	11.2	11.4
New Orleans .....	33.9	33.4	33.4	133.4	133.7	133.9	85.4	84.0	84.7
Shreveport .....	7.8	7.5	7.4	31.9	31.7	31.8	25.1	24.8	25.2
<b>Maine</b> .....	23.1	24.2	24.1	103.6	111.0	109.5	90.7	90.0	92.8
Lewiston-Auburn .....	2.1	2.2	2.2	10.0	9.9	10.1	4.0	3.9	4.0
Portland .....	11.2	12.2	12.2	27.9	29.9	29.8	15.1	13.9	15.2

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Maryland</b> .....	1,985.2	1,993.1	1,997.8	1.7	1.8	1.7	147.5	148.7	147.8
Baltimore MSA .....	1,067.0	1,070.1	1,073.2	.2	.3	.3	69.6	71.1	70.5
Baltimore City .....	455.8	460.5	460.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	18.8	18.7	18.7
Suburban Maryland-D.C. ....	706.3	712.2	718.2	.4	.4	.4	62.7	62.6	63.3
<b>Massachusetts</b> .....	3,015.2	3,055.5	3,078.2	2.0	2.1	2.2	127.3	136.8	134.4
Boston .....	1,698.1	1,723.1	1,742.5	.8	1.0	1.0	66.9	71.8	71.1
Brockton .....	71.8	73.7	74.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	5.5	5.8
Fall River .....	56.3	57.3	58.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.4	3.1	3.2
Fitchburg-Leominster .....	40.2	40.7	41.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.3	2.3
Lawrence-Haverhill .....	159.5	162.4	162.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.8	9.7	9.6
Lowell .....	104.5	105.3	106.4	.3	.1	.1	5.4	5.9	5.9
New Bedford .....	65.4	67.3	67.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.1	4.1	3.8
Pittsfield .....	43.3	44.3	44.2	.1	.1	.1	2.0	2.4	2.4
Springfield .....	233.8	242.8	243.3	.2	.2	.2	9.1	10.2	10.3
Worcester .....	193.2	197.8	200.0	.2	.2	.2	9.2	9.7	9.8
<b>Michigan</b> .....	3,697.2	3,708.1	3,743.7	10.1	11.2	11.2	127.5	149.3	151.0
Ann Arbor .....	163.5	164.9	169.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.5	5.8	5.7
Battle Creek .....	56.0	56.7	56.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.9	1.9
Benton Harbor .....	62.7	63.3	64.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.7	1.7
Detroit .....	1,876.8	1,875.0	1,892.7	.9	1.0	.9	67.9	75.9	76.6
Flint .....	178.9	176.3	173.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.9	5.7	5.8
Grand Rapids .....	305.2	309.6	312.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	15.2	16.6	17.0
Jackson .....	50.0	50.3	50.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.4	1.6	1.7
Kalamazoo .....	104.1	105.6	106.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.5	3.4
Lansing-East Lansing .....	203.1	195.3	203.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.0	5.7	5.7
Muskegon .....	56.5	57.2	56.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.3	2.1	2.1
Saginaw-Bay City-Midland .....	155.1	157.2	160.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.8	6.9	7.3
<b>Minnesota</b> .....	1,930.7	1,982.1	1,998.6	6.1	7.1	7.1	86.1	94.7	93.0
Duluth .....	83.9	85.2	84.7	3.0	4.3	4.3	3.9	4.4	3.8
Minneapolis-St. Paul .....	1,252.8	1,267.6	1,283.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	55.9	57.2	57.2
Rochester .....	55.7	57.5	57.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	2.5	2.5
St. Cloud .....	67.4	69.0	71.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.9	5.4	5.5
<b>Mississippi</b> .....	860.2	874.5	877.8	8.2	6.4	6.6	37.1	36.7	36.4
Jackson .....	173.2	178.2	177.6	1.0	1.2	1.3	9.5	9.0	9.1
<b>Missouri</b> .....	2,160.3	2,185.6	2,188.9	5.5	5.6	5.5	103.7	104.7	103.8
Kansas City .....	722.1	720.5	722.3	.5	.6	.6	37.6	36.7	38.8
St. Joseph .....	36.0	35.1	35.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.8	1.7
St. Louis .....	1,097.4	1,111.8	1,111.1	3.4	3.5	3.5	58.0	56.6	55.5
Springfield .....	104.5	106.7	107.4	.1	.1	.1	4.3	4.6	4.5
<b>Montana</b> .....	281.0	276.6	279.4	5.9	6.6	6.4	11.7	10.6	10.8
<b>Nebraska</b> .....	864.7	873.7	876.0	2.0	2.0	1.9	27.3	25.0	24.5
Lincoln .....	109.4	111.2	111.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.2	4.0	3.9
Omaha .....	295.2	299.3	301.5	.2	.2	.2	13.3	13.6	13.6
<b>Nevada</b> .....	480.5	511.3	508.9	6.5	7.3	7.5	29.0	33.0	33.1
Las Vegas .....	268.8	289.7	291.7	.3	.3	.3	17.0	19.8	19.9
Reno .....	130.0	135.5	134.5	.8	.8	.8	7.5	8.4	8.1
<b>New Hampshire</b> .....	497.7	518.5	517.4	.6	.6	.6	35.0	37.7	37.0
Nashua .....	86.1	91.8	92.3	.1	.1	.1	4.8	5.2	5.3
Portsmouth-Dover-Rochester,NH-ME .....	105.2	111.1	110.9	.1	.1	.1	5.7	5.4	5.2
<b>New Jersey</b> .....	3,538.7	3,587.1	3,618.6	2.3	2.4	2.4	186.8	179.3	181.4
Atlantic City .....	157.3	173.4	166.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.0	11.5	11.8
Bergen-Passaic .....	654.2	658.0	664.4	.1	.1	.1	31.0	32.3	32.6
Camden .....	415.0	421.2	428.2	.1	.1	.1	21.9	24.8	25.3
Jersey City .....	241.4	245.9	247.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.9	7.1	7.6
Middlesex-Somerset-Hunterdon .....	500.3	504.9	511.7	.6	.6	.6	23.2	23.0	23.3
Monmouth-Ocean .....	311.4	320.2	319.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.4	21.5	21.8
Newark .....	953.6	954.5	966.2	.7	.7	.7	38.4	40.4	41.3
Trenton .....	191.6	194.2	196.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.1	5.5	5.7
Vineland-Millville-Bridgeton .....	55.3	57.0	57.4	.3	.4	.4	2.5	2.7	2.7

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Maryland</b> .....	209.2	209.3	208.2	92.0	94.1	94.0	504.6	513.0	512.1
Baltimore MSA .....	133.3	132.3	130.9	55.0	55.7	54.9	262.3	263.2	263.2
Baltimore City .....	46.6	45.8	45.4	27.6	27.2	27.0	97.2	97.8	97.9
Suburban Maryland-D.C. ....	35.0	35.4	35.6	24.3	25.9	25.9	189.1	192.4	194.3
<b>Massachusetts</b> .....	614.8	601.2	604.8	126.5	130.3	129.9	709.7	724.0	724.4
Boston .....	294.4	287.9	289.6	73.5	75.0	75.0	380.0	389.5	393.8
Brockton .....	11.2	11.0	11.1	5.0	4.8	5.0	21.4	22.0	22.1
Fall River .....	17.6	16.4	16.4	1.9	2.0	2.0	14.5	15.7	15.9
Fitchburg-Leominster .....	13.3	13.1	13.1	1.5	1.5	1.5	10.2	10.4	10.7
Lawrence-Haverhill .....	52.6	50.7	50.7	6.6	6.9	6.9	35.5	38.0	38.1
Lowell .....	36.8	36.8	36.8	3.3	3.1	3.2	22.0	21.7	21.9
New Bedford .....	20.3	20.7	20.5	3.2	3.4	3.5	15.2	15.3	15.4
Pittsfield .....	12.1	11.6	11.3	1.1	1.1	1.2	11.3	11.3	11.4
Springfield .....	52.4	53.2	53.3	9.0	9.3	9.3	54.6	57.6	57.6
Worcester .....	45.5	45.4	45.7	8.4	8.2	8.2	47.6	50.6	50.6
<b>Michigan</b> .....	993.3	967.6	961.7	150.8	149.0	148.3	828.5	853.2	857.9
Ann Arbor .....	38.8	37.8	37.9	4.7	5.0	4.8	26.8	28.6	29.2
Battle Creek .....	15.2	16.0	15.7	1.8	1.8	1.8	10.7	10.7	10.7
Benton Harbor .....	21.3	21.3	21.3	2.5	2.5	2.5	12.0	12.7	12.8
Detroit .....	490.6	471.4	468.3	85.4	85.5	86.6	433.0	442.5	447.3
Flint .....	63.1	55.7	53.4	4.6	4.5	4.3	43.4	44.5	44.6
Grand Rapids .....	93.3	94.8	94.8	10.8	10.9	10.8	76.5	77.7	78.5
Jackson .....	12.7	13.1	12.9	4.1	4.0	4.0	11.2	11.1	11.1
Kalamazoo .....	29.1	29.0	29.1	3.3	3.5	3.4	23.4	23.9	24.3
Lansing-East Lansing .....	38.3	32.8	32.8	5.3	5.0	5.0	39.7	39.5	40.4
Muskegon .....	17.8	18.0	17.7	2.7	2.5	2.5	12.1	12.5	12.4
Saginaw-Bay City-Midland .....	45.7	45.1	45.9	7.1	7.1	7.0	35.0	35.6	36.6
<b>Minnesota</b> .....	372.8	382.5	377.0	98.7	100.6	100.9	475.5	492.8	490.4
Duluth .....	7.3	7.4	7.4	5.7	5.4	5.5	22.1	22.3	22.0
Minneapolis-St. Paul .....	253.1	254.1	253.5	66.8	67.9	68.3	307.9	314.8	315.7
Rochester .....	10.8	10.7	10.7	1.6	1.6	1.6	11.2	11.6	11.6
St. Cloud .....	11.5	11.7	11.8	3.7	3.6	3.6	20.1	21.2	21.6
<b>Mississippi</b> .....	224.1	227.0	227.2	40.6	40.5	40.9	184.4	188.7	188.4
Jackson .....	20.5	20.9	21.0	11.1	11.3	11.5	41.8	42.6	42.6
<b>Missouri</b> .....	416.3	418.4	417.2	141.7	145.3	144.2	512.0	514.1	513.2
Kansas City .....	117.4	111.0	110.9	54.8	55.4	55.5	180.3	181.3	180.5
St. Joseph .....	9.1	8.9	8.7	2.1	2.1	2.0	8.7	8.5	8.6
St. Louis .....	215.7	218.7	218.6	73.2	75.2	75.0	261.5	261.8	261.5
Springfield .....	19.7	20.3	20.4	6.7	6.9	6.9	28.4	28.8	29.1
<b>Montana</b> .....	22.1	21.9	21.8	20.8	20.1	20.2	72.8	73.1	72.6
<b>Nebraska</b> .....	87.1	86.2	85.6	43.0	45.7	46.0	170.8	175.4	176.5
Lincoln .....	12.9	13.5	13.5	6.0	6.0	6.0	25.3	25.6	25.9
Omaha .....	32.5	32.6	33.3	22.6	24.6	24.9	75.6	78.8	79.2
<b>Nevada</b> .....	22.6	23.7	23.8	27.1	27.8	27.9	97.1	102.6	102.3
Las Vegas .....	8.2	8.7	8.8	15.3	15.8	15.9	55.9	59.2	59.4
Reno .....	8.5	8.5	8.3	8.8	8.9	8.9	29.4	30.5	30.3
<b>New Hampshire</b> .....	117.3	119.9	120.4	17.4	17.8	17.8	124.9	129.4	129.0
Nashua .....	35.4	36.8	36.9	2.2	2.3	2.2	20.1	20.5	20.8
Portsmouth-Dover-Rochester,NH-ME .....	20.2	19.7	19.7	2.8	3.0	3.1	27.7	30.6	31.0
<b>New Jersey</b> .....	696.8	680.9	681.7	232.1	234.2	234.9	847.5	864.2	871.9
Atlantic City .....	8.3	8.6	8.7	6.0	6.0	6.1	32.9	38.9	33.9
Bergen-Passaic .....	162.8	159.8	158.8	28.9	29.5	29.6	187.7	186.4	189.5
Camden .....	75.9	72.9	73.1	17.7	17.4	17.7	109.8	110.3	112.8
Jersey City .....	53.5	52.7	53.2	31.1	30.6	30.7	58.5	59.9	61.0
Middlesex-Somerset-Hunterdon .....	112.7	115.3	115.2	40.3	40.8	41.0	120.7	120.4	122.9
Monmouth-Ocean .....	30.5	29.7	29.7	15.7	16.2	16.3	87.1	87.5	87.1
Newark .....	188.3	185.3	185.4	81.1	79.6	79.8	195.1	197.9	201.1
Trenton .....	32.0	31.8	32.1	6.3	6.5	6.7	31.2	31.5	32.2
Vineland-Millville-Bridgeton .....	15.6	15.7	15.6	2.1	2.1	2.0	10.8	11.8	11.9

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Maryland</b> .....	119.6	121.8	121.2	515.8	527.4	524.3	394.8	379.1	388.5
Baltimore MSA .....	73.0	74.7	73.6	267.9	273.2	274.3	205.7	199.8	205.6
Baltimore City .....	45.5	45.9	45.5	134.0	138.6	138.4	85.9	86.6	87.2
Suburban Maryland-D.C. ....	38.9	40.6	40.1	199.3	204.3	204.1	156.6	150.6	154.5
<b>Massachusetts</b> .....	206.6	216.7	214.4	838.5	861.5	876.0	389.8	382.9	392.1
Boston .....	142.0	148.5	147.9	543.8	552.5	564.9	196.7	196.9	199.2
Brockton .....	3.0	3.2	3.2	14.9	15.0	15.3	12.1	12.2	12.3
Fall River .....	2.8	3.0	3.0	10.6	11.0	11.0	6.5	6.1	6.5
Fitchburg-Leominster .....	1.6	1.7	1.6	7.0	7.4	7.5	4.4	4.3	4.4
Lawrence-Haverhill .....	6.0	6.5	6.5	31.2	32.0	31.8	18.8	18.6	19.3
Lowell .....	4.1	4.4	4.3	19.7	20.8	21.2	12.9	12.5	12.9
New Bedford .....	2.6	2.6	2.7	12.0	12.3	12.3	9.0	8.9	9.2
Pittsfield .....	2.1	2.3	2.2	9.9	10.9	10.9	4.7	4.6	4.7
Springfield .....	15.5	16.9	16.6	55.4	57.5	57.8	37.6	37.9	38.2
Worcester .....	12.5	13.3	13.1	46.4	46.8	48.0	23.4	23.6	24.4
<b>Michigan</b> .....	172.9	179.0	178.2	800.5	807.5	808.2	613.5	591.4	627.3
Ann Arbor .....	4.4	4.8	4.7	32.2	34.4	34.7	50.9	48.3	52.1
Battle Creek .....	3.7	3.2	3.1	11.2	11.6	11.8	11.5	11.5	11.7
Benton Harbor .....	2.4	2.6	2.6	14.4	14.2	14.9	8.6	8.2	8.7
Detroit .....	100.0	100.9	100.4	455.8	465.3	464.6	243.2	232.5	248.0
Flint .....	6.2	6.7	6.7	32.0	33.3	33.6	23.7	26.0	25.6
Grand Rapids .....	13.5	13.6	13.5	63.9	64.0	65.1	31.5	31.7	32.1
Jackson .....	1.6	1.5	1.5	9.5	9.3	9.3	9.3	9.4	9.7
Kalamazoo .....	4.6	4.9	5.1	22.8	23.3	23.4	17.5	17.3	18.0
Lansing-East Lansing .....	11.1	11.8	11.9	36.5	37.4	38.0	65.9	62.7	68.9
Muskegon .....	1.4	1.4	1.3	11.4	11.8	12.0	8.7	8.9	8.9
Saginaw-Bay City-Midland .....	6.0	6.2	6.2	31.8	33.2	33.9	22.3	22.8	23.8
<b>Minnesota</b> .....	118.7	122.2	122.3	455.5	478.0	479.1	317.3	304.1	326.8
Duluth .....	3.2	3.1	3.0	19.9	20.4	20.3	18.7	17.9	18.4
Minneapolis-St. Paul .....	91.6	94.4	94.9	306.9	318.9	319.5	169.6	159.4	173.1
Rochester .....	1.6	1.6	1.6	22.7	23.6	23.6	6.0	5.9	5.9
St. Cloud .....	2.4	2.5	2.5	13.6	13.6	13.6	12.2	11.0	12.4
<b>Mississippi</b> .....	37.7	39.0	38.9	135.9	139.1	141.1	194.2	196.9	198.5
Jackson .....	13.7	14.2	14.1	37.0	37.8	38.5	38.5	39.3	39.4
<b>Missouri</b> .....	131.6	135.7	135.5	501.5	515.3	516.8	348.0	346.5	352.7
Kansas City .....	58.8	57.1	57.2	163.5	166.9	167.3	111.2	111.5	113.5
St. Joseph .....	1.9	1.8	1.9	6.9	6.5	6.6	5.8	5.5	5.8
St. Louis .....	71.5	72.7	72.6	277.6	285.6	286.0	136.5	137.5	138.4
Springfield .....	5.1	5.2	5.1	26.6	27.2	27.4	13.6	13.6	13.9
<b>Montana</b> .....	12.9	13.1	13.1	62.3	64.3	64.5	72.5	66.9	70.2
<b>Nebraska</b> .....	47.6	48.5	48.4	148.8	150.6	149.5	138.1	140.3	143.6
Lincoln .....	7.8	7.9	7.9	22.6	24.3	24.4	30.6	29.9	30.1
Omaha .....	29.0	30.2	30.2	78.2	76.3	75.8	43.8	43.0	44.3
<b>Nevada</b> .....	23.1	24.6	24.5	211.3	227.4	223.7	63.8	64.9	66.1
Las Vegas .....	13.8	14.8	14.7	125.9	138.9	139.6	32.4	32.4	33.1
Reno .....	6.9	7.3	7.2	52.1	54.8	54.1	16.0	16.5	16.8
<b>New Hampshire</b> .....	29.2	31.3	31.3	110.0	117.8	116.7	63.3	64.0	64.6
Nashua .....	3.3	3.7	3.7	16.1	16.7	16.7	6.1	6.5	6.6
Portsmouth-Dover-Rochester,NH-ME .....	5.8	6.5	6.5	18.5	21.1	20.0	24.4	24.7	25.3
<b>New Jersey</b> .....	211.0	221.6	222.4	844.0	880.3	880.5	538.3	524.2	541.4
Atlantic City .....	6.8	7.3	7.0	67.9	75.9	73.9	25.5	25.1	24.9
Bergen-Passaic .....	34.8	37.3	37.7	142.7	147.9	148.8	66.2	64.7	67.3
Camden .....	22.0	24.0	24.1	95.1	99.4	99.3	72.5	72.3	75.8
Jersey City .....	9.9	11.1	11.1	41.2	44.6	44.0	40.2	39.9	40.2
Middlesex-Somerset-Hunterdon .....	33.2	33.8	33.4	97.8	101.9	102.2	71.8	69.1	73.1
Monmouth-Ocean .....	16.9	17.8	17.5	80.9	87.5	85.8	59.8	59.9	61.4
Newark .....	73.8	76.2	76.4	242.3	246.0	247.3	134.0	128.4	134.2
Trenton .....	8.8	9.2	9.3	55.0	54.7	57.3	53.3	55.0	54.8
Vineland-Millville-Bridgeton .....	2.8	2.9	2.9	9.8	10.3	10.4	11.4	11.1	11.5

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	Total			Mining			Construction		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>New Mexico</b> .....	531.8	539.3	540.9	15.2	15.3	15.6	35.9	35.0	34.8
Albuquerque .....	228.2	234.1	233.6	.2	.2	.2	17.3	17.0	16.8
Las Cruces .....	42.0	40.0	40.5	.1	.1	.1	2.6	2.8	2.7
Santa Fe .....	53.6	54.8	54.7	.1	.1	.1	3.4	3.3	3.3
<b>New York</b> .....	8,010.4	8,148.8	8,216.0	6.3	6.4	6.3	333.5	364.8	365.7
Albany-Schenectady-Troy .....	396.7	404.4	406.8	.3	.3	.3	19.2	22.3	22.2
Binghamton .....	118.5	120.6	121.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.5	6.1	6.2
Buffalo .....	429.2	437.7	440.3	.4	.4	.3	17.2	18.9	18.6
Elmira .....	36.6	38.6	39.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.9	2.0
Glens Falls .....	45.4	47.2	46.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.6	2.7
Nassau-Suffolk .....	1,118.9	1,128.6	1,138.7	.2	.2	.2	58.8	60.6	61.0
New York PMSA .....	4,083.8	4,117.1	4,151.9	1.3	1.2	1.2	150.9	159.4	159.2
New York City .....	3,560.4	3,589.4	3,620.2	.8	.6	.6	116.7	122.2	122.2
Niagara Falls .....	79.9	79.9	80.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.4	3.5
Orange County .....	98.1	99.7	100.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.6	5.5	5.4
Poughkeepsie .....	116.1	118.6	119.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.3	6.8	6.7
Rochester .....	461.4	462.5	468.5	.9	.8	.8	18.3	19.3	19.4
Rockland County .....	96.5	97.3	98.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.1	5.5	5.6
Syracuse .....	298.6	295.9	301.7	.2	.2	.2	16.2	16.6	16.8
Utica-Rome .....	120.7	122.4	122.9	.2	.2	.2	4.2	4.6	4.5
Westchester County .....	409.5	412.5	415.3	.3	.3	.3	27.6	30.0	29.7
<b>North Carolina</b> .....	2,782.3	2,858.3	2,878.6	4.8	4.9	4.9	162.4	170.2	170.4
Asheville .....	76.6	77.3	77.8	.1	.1	.1	4.1	3.9	3.8
Charlotte-Gastonia-Rock Hill .....	552.1	569.2	573.0	.3	.3	.3	32.2	34.5	34.3
Greensboro-Winston-Salem-High Point .....	452.2	458.7	461.2	.3	.3	.3	24.5	24.9	24.7
Raleigh-Durham .....	376.1	379.4	384.4	.3	.4	.4	24.5	25.0	24.8
<b>North Dakota</b> .....	252.5	256.4	257.8	4.4	4.5	4.4	12.9	13.2	13.0
Bismarck .....	36.3	37.1	36.9	.2	.2	.2	1.7	1.8	1.7
Fargo-Moorhead .....	70.1	70.4	72.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	4.0	4.1
Grand Forks .....	29.5	29.3	30.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.0	1.9
<b>Ohio</b> .....	4,546.2	4,644.3	4,658.7	22.0	20.9	20.7	180.3	194.4	196.0
Akron .....	263.9	270.1	270.7	.7	.7	.7	9.8	11.2	11.4
Canton .....	149.7	156.8	157.6	1.0	1.1	1.1	6.3	7.3	7.5
Cincinnati .....	665.5	688.8	687.8	.4	.5	.5	29.4	31.6	32.1
Cleveland .....	890.6	909.4	912.8	1.1	1.0	1.0	28.0	29.2	29.5
Columbus .....	645.0	663.2	671.1	.9	1.0	1.0	26.8	29.9	30.1
Dayton-Springfield .....	429.7	437.6	440.2	.4	.5	.5	17.0	20.1	20.3
Toledo .....	280.0	288.7	291.1	.2	.2	.2	11.1	12.0	12.2
Youngstown-Warren .....	191.7	195.6	196.4	.6	.6	.6	7.9	9.2	9.4
<b>Oklahoma</b> .....	1,139.3	1,130.3	1,135.2	53.0	54.5	53.8	39.9	40.4	40.0
Enid .....	21.8	21.9	21.6	1.2	1.2	1.2	.8	.8	.8
Lawton .....	33.4	32.7	32.8	.3	.1	.1	1.3	1.3	1.2
Oklahoma City .....	410.0	403.0	403.1	12.2	11.7	11.7	14.5	14.9	14.7
Tulsa .....	301.4	299.9	301.9	17.4	17.1	17.1	12.4	12.2	12.0
<b>Oregon</b> .....	1,082.4	1,115.1	1,120.4	1.5	1.5	1.4	36.0	39.5	38.5
Eugene-Springfield .....	102.2	103.7	105.9	.2	.2	.2	3.3	3.9	3.9
Portland .....	533.8	558.9	561.3	.6	.6	.5	19.9	21.2	20.7
Salem .....	95.2	98.7	97.8	.1	.1	.1	3.1	3.0	3.0
<b>Pennsylvania</b> .....	4,863.0	4,968.2	5,013.8	33.3	31.9	31.8	223.8	245.3	243.8
Allentown-Bethlehem .....	266.9	272.6	273.5	.5	.6	.5	12.4	13.3	13.6
Altoona .....	49.9	51.9	51.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	3.0	3.1	3.1
Beaver County .....	50.5	50.4	50.5	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	4.0	4.2	4.1
Erie .....	111.2	111.6	112.3	.3	.3	.3	3.8	4.1	4.0
Harrisburg-Lebanon-Carlisle .....	287.6	297.3	298.0	.4	.4	.4	11.9	12.7	12.7
Johnstown .....	77.1	80.0	79.4	3.9	3.9	3.8	3.1	3.7	3.5
Lancaster .....	177.1	181.3	182.6	.4	.4	.4	9.7	11.0	11.0
Philadelphia PMSA .....	2,129.8	2,162.6	2,199.3	1.2	1.3	1.3	102.1	109.4	111.7
Philadelphia City .....	772.6	777.4	788.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	20.0	19.5	19.9
Pittsburgh .....	847.3	856.1	870.3	6.7	7.3	7.3	45.0	45.8	45.6

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>New Mexico</b> .....	38.6	40.2	40.4	29.6	29.1	29.0	128.4	131.9	131.2
Albuquerque .....	19.8	19.9	19.9	12.5	12.6	12.6	58.5	61.3	60.9
Las Cruces .....	4.1	4.1	4.0	1.3	1.3	1.3	7.9	8.0	7.9
Santa Fe .....	1.6	1.6	1.6	1.2	1.1	1.1	10.4	11.2	11.1
<b>New York</b> .....	1,248.5	1,225.3	1,225.1	406.9	412.1	413.1	1,697.3	1,727.6	1,733.9
Albany-Schenectady-Troy .....	48.9	47.7	47.1	16.6	16.6	16.6	85.7	87.5	88.5
Binghamton .....	37.1	37.4	37.4	4.1	4.2	4.2	25.0	26.5	26.7
Buffalo .....	76.8	76.1	76.1	21.8	22.3	22.3	106.9	109.8	110.2
Elmira .....	6.8	8.0	8.0	1.3	1.2	1.2	10.3	10.7	10.7
Glens Falls .....	10.2	10.2	10.4	1.4	1.5	1.4	10.7	11.4	11.1
Nassau-Suffolk .....	180.7	175.0	176.5	47.3	49.8	49.8	303.3	307.4	307.5
New York PMSA .....	477.9	470.4	471.7	242.9	242.9	243.8	767.5	768.0	773.5
New York City .....	392.7	384.7	385.8	217.4	217.1	218.0	641.1	641.1	646.2
Niagara Falls .....	24.7	23.9	23.9	3.8	3.9	3.9	17.6	18.7	18.7
Orange County .....	15.3	14.9	15.0	5.9	5.7	5.8	26.0	26.7	26.9
Poughkeepsie .....	31.6	30.0	30.0	3.3	3.4	3.4	21.3	24.2	24.4
Rochester .....	137.7	133.9	133.4	14.1	14.2	14.2	97.3	100.5	100.1
Rockland County .....	15.9	15.4	15.5	4.2	4.2	4.3	23.1	23.6	23.7
Syracuse .....	53.9	52.0	52.2	17.0	17.0	17.1	70.8	72.7	73.1
Utica-Rome .....	24.4	24.2	24.3	4.8	4.9	5.0	26.6	26.9	26.8
Westchester County .....	67.6	68.3	68.4	20.6	20.9	21.0	99.0	98.9	99.1
<b>North Carolina</b> .....	839.1	860.0	861.8	135.4	136.5	137.0	617.2	638.1	643.0
Asheville .....	19.8	20.1	20.0	3.6	3.7	3.7	17.4	17.4	17.5
Charlotte-Gastonia-Rock Hill .....	148.6	152.7	152.9	46.9	49.2	49.5	131.4	133.4	134.7
Greensboro-Winston-Salem-High Point .....	151.8	153.0	151.5	25.4	25.7	26.0	100.6	104.3	105.2
Raleigh-Durham .....	58.9	57.8	58.1	18.0	18.4	18.3	77.0	78.3	79.3
<b>North Dakota</b> .....	16.1	16.5	16.1	15.9	16.4	16.5	86.9	88.2	88.3
Bismarck .....	1.9	2.0	1.9	2.7	2.7	2.7	9.7	9.9	9.9
Fargo-Moorhead .....	5.1	5.2	5.0	4.3	4.3	4.4	20.6	21.0	21.1
Grand Forks .....	1.5	1.6	1.6	1.4	1.5	1.5	8.1	8.3	8.3
<b>Ohio</b> .....	1,098.4	1,102.8	1,094.8	211.4	212.8	212.5	1,087.7	1,116.3	1,118.6
Akron .....	66.5	65.3	65.0	13.1	13.6	13.6	64.5	66.6	66.9
Canton .....	38.7	42.5	42.4	5.9	6.0	6.0	39.0	40.5	40.5
Cincinnati .....	149.2	147.0	145.4	34.9	35.5	35.6	169.7	176.6	177.6
Cleveland .....	203.8	204.6	205.4	41.9	41.9	41.9	216.3	219.5	220.7
Columbus .....	105.2	102.6	102.6	28.2	29.7	29.8	160.3	165.2	166.6
Dayton-Springfield .....	106.4	105.2	104.3	15.1	15.2	15.2	96.9	98.7	99.5
Toledo .....	63.4	63.1	61.9	14.5	14.9	14.9	68.0	70.1	70.9
Youngstown-Warren .....	52.3	52.3	52.1	8.1	8.3	8.3	46.7	48.1	48.5
<b>Oklahoma</b> .....	160.1	158.7	159.8	63.3	62.4	62.0	279.0	274.4	273.5
Enid .....	1.5	1.7	1.6	2.2	2.1	2.1	6.2	6.2	6.0
Lawton .....	3.4	3.4	3.3	1.4	1.1	1.1	8.6	8.6	8.5
Oklahoma City .....	49.4	48.8	48.7	20.2	20.0	19.6	101.7	97.6	96.9
Tulsa .....	50.7	49.6	49.9	22.9	22.9	22.9	73.3	73.7	74.5
<b>Oregon</b> .....	201.6	211.3	205.5	58.0	58.5	57.9	273.7	285.4	284.4
Eugene-Springfield .....	18.6	20.0	19.4	4.1	4.2	4.0	26.1	26.7	26.8
Portland .....	89.6	95.5	93.9	33.1	34.6	34.3	141.1	149.0	148.6
Salem .....	15.7	17.5	15.5	2.6	2.6	2.5	21.3	22.3	22.0
<b>Pennsylvania</b> .....	1,040.1	1,045.3	1,046.8	244.4	245.3	248.3	1,114.6	1,154.1	1,162.2
Allentown-Bethlehem .....	78.1	76.8	76.5	14.4	14.4	14.6	59.6	61.2	61.7
Altoona .....	11.0	11.2	11.2	4.8	4.9	4.9	12.5	13.0	13.0
Beaver County .....	9.8	9.6	9.7	5.3	5.1	5.2	11.1	11.4	11.2
Erie .....	35.0	34.6	34.6	4.0	3.9	4.0	23.8	24.0	24.2
Harrisburg-Lebanon-Carlisle .....	50.1	52.5	52.3	18.2	18.4	18.5	65.2	67.7	68.6
Johnstown .....	12.7	13.0	13.0	5.1	5.0	5.0	16.4	16.7	16.5
Lancaster .....	59.6	60.2	59.5	7.4	7.6	7.5	42.4	44.2	44.6
Philadelphia PMSA .....	381.2	379.3	381.5	97.8	98.1	98.2	497.0	506.9	517.5
Philadelphia City .....	100.0	98.5	98.4	45.6	46.0	46.6	151.0	150.8	153.7
Pittsburgh .....	125.0	125.8	127.4	44.9	43.0	43.6	215.3	217.9	220.3

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	Finance, insurance, and real estate			Services			Government		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>
<b>New Mexico</b> .....	26.9	27.4	27.3	117.4	123.2	122.4	139.8	137.2	140.2
Albuquerque .....	14.4	14.9	15.0	60.8	64.1	63.9	44.7	44.1	44.3
Las Cruces .....	1.5	1.7	1.6	5.9	6.2	6.3	18.6	15.8	16.6
Santa Fe .....	2.1	2.2	2.2	13.4	14.2	14.0	21.4	21.1	21.3
<b>New York</b> .....	761.5	792.7	792.8	2,165.5	2,236.9	2,253.9	1,391.0	1,383.0	1,425.3
Albany-Schenectady-Troy .....	21.4	22.5	22.5	95.6	99.5	99.2	109.0	108.1	110.4
Binghamton .....	3.9	3.8	3.8	21.3	22.3	22.2	21.4	20.3	21.3
Buffalo .....	24.8	25.7	25.7	108.9	112.4	112.8	72.4	72.2	74.3
Elmira .....	1.2	1.2	1.2	8.9	9.5	9.6	6.4	6.1	6.4
Glens Falls .....	1.9	1.9	1.9	9.7	10.7	10.0	9.1	8.7	9.0
Nassau-Suffolk .....	72.6	75.7	75.9	276.9	286.3	287.4	179.2	173.8	180.6
New York PMSA .....	560.2	578.6	577.8	1,230.0	1,250.9	1,263.0	653.0	645.7	661.7
New York City .....	529.9	547.3	546.5	1,088.8	1,108.8	1,120.4	573.0	567.7	580.5
Niagara Falls .....	1.8	1.8	1.8	16.6	16.1	16.6	12.0	12.1	12.4
Orange County .....	4.0	4.1	4.1	20.5	21.1	21.0	21.8	21.6	22.4
Poughkeepsie .....	4.2	4.5	4.5	25.4	26.0	26.1	24.0	23.7	24.3
Rochester .....	21.1	21.6	21.5	108.0	110.7	113.4	64.0	61.5	65.7
Rockland County .....	3.8	4.2	4.2	23.2	23.6	23.6	21.1	20.7	21.7
Syracuse .....	19.0	19.1	19.1	70.8	70.2	72.4	50.5	48.0	50.8
Utica-Rome .....	6.4	6.8	6.8	25.0	25.8	25.8	29.1	29.0	29.4
Westchester County .....	25.9	26.5	26.5	113.4	113.8	114.5	55.1	53.7	55.7
<b>North Carolina</b> .....	121.2	128.7	128.4	463.2	482.0	485.8	439.0	437.0	447.3
Asheville .....	2.6	2.7	2.7	16.4	16.8	17.1	12.6	12.6	12.8
Charlotte-Gastonia-Rock Hill .....	33.0	34.9	34.7	98.3	103.0	104.9	61.2	61.1	61.7
Greensboro-Winston-Salem-High Point .....	22.1	22.3	22.3	75.6	77.2	78.2	52.0	51.0	52.8
Raleigh-Durham .....	22.2	23.6	23.8	88.5	90.5	91.5	86.7	85.5	88.1
<b>North Dakota</b> .....	12.4	12.5	12.5	59.6	61.9	61.7	64.3	63.2	85.3
Bismarck .....	1.7	1.6	1.6	10.3	10.5	10.5	8.1	8.4	8.4
Fargo-Moorhead .....	4.3	4.5	4.5	18.5	18.2	19.2	13.3	13.2	14.0
Grand Forks .....	1.2	1.2	1.2	6.3	6.5	6.6	9.1	8.2	9.2
<b>Ohio</b> .....	235.4	245.7	245.0	1,019.1	1,078.2	1,074.1	691.8	673.2	697.2
Akron .....	10.1	10.5	10.5	55.6	59.7	59.2	43.4	42.6	43.4
Canton .....	6.5	6.8	6.5	34.0	34.9	35.1	18.3	17.9	18.4
Cincinnati .....	38.6	40.7	40.6	156.4	170.3	167.9	86.9	86.6	88.2
Cleveland .....	52.9	55.8	55.3	229.7	242.2	242.3	116.8	115.4	116.7
Columbus .....	54.6	57.3	57.4	149.8	161.9	162.2	119.0	115.7	121.4
Dayton-Springfield .....	17.5	18.0	17.9	103.0	108.5	109.1	73.4	71.5	73.5
Toledo .....	11.3	11.6	11.6	68.5	75.8	76.1	42.9	41.0	43.3
Youngstown-Warren .....	8.1	8.4	8.4	43.7	45.9	45.2	24.2	22.9	24.0
<b>Oklahoma</b> .....	62.1	61.2	60.4	225.5	230.2	228.1	256.4	248.5	257.6
Enid .....	1.1	1.0	1.0	5.1	5.5	5.4	3.7	3.4	3.5
Lawton .....	1.5	1.5	1.5	5.3	5.8	5.8	11.4	10.9	11.3
Oklahoma City .....	28.0	25.7	25.5	87.1	68.8	68.5	98.9	95.5	97.5
Tulsa .....	17.4	17.6	17.5	89.6	71.7	71.4	37.7	35.1	36.6
<b>Oregon</b> .....	70.6	73.5	73.2	236.2	247.7	250.2	204.8	197.7	209.3
Eugene-Springfield .....	4.6	4.8	4.7	22.4	23.6	23.7	22.9	20.3	23.2
Portland .....	43.7	45.6	45.3	129.3	137.3	136.6	76.5	75.1	79.2
Salem .....	5.3	5.5	5.5	18.4	18.9	19.1	28.7	26.6	30.1
<b>Pennsylvania</b> .....	261.0	269.3	269.0	1,240.6	1,287.3	1,298.7	885.2	689.7	693.2
Allentown-Bethlehem .....	10.5	11.1	11.0	61.9	66.0	65.4	29.5	29.2	30.2
Altoona .....	1.5	1.6	1.6	9.9	10.5	10.2	7.2	7.6	7.1
Beaver County .....	1.8	1.8	1.8	10.8	11.0	10.9	7.7	7.3	7.6
Erie .....	5.1	5.3	5.3	25.4	26.5	26.8	13.8	12.9	13.3
Harrisburg-Lebanon-Carlisle .....	16.1	16.7	16.8	59.7	63.0	61.8	66.0	65.9	68.9
Johnstown .....	4.9	5.2	5.2	18.8	19.3	19.5	12.4	13.2	12.9
Lancaster .....	6.5	7.0	6.9	35.5	36.9	37.3	15.6	14.0	15.4
Philadelphia PMSA .....	155.0	157.7	158.0	599.0	618.0	630.6	296.5	291.9	300.5
Philadelphia City .....	70.2	71.8	72.1	247.5	250.8	257.7	136.3	140.0	139.8
Pittsburgh .....	51.8	53.3	52.9	256.5	263.0	268.4	102.1	100.0	106.8

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	Total			Mining			Construction		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	147.4	149.5	152.6	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.4	7.0	7.1
Scranton-Wilkes-Barre .....	288.6	287.4	291.0	0.8	0.7	0.7	12.7	12.8	12.7
Sharon .....	40.5	41.9	42.7	.2	.2	.2	1.4	1.8	1.8
State College .....	53.0	53.6	54.4	.3	.2	.2	2.1	2.6	2.4
Williamsport .....	48.3	50.8	50.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.0	2.2	2.2
York .....	167.0	171.7	173.0	.4	.4	.4	9.0	10.0	10.0
<b>Rhode Island</b> .....	451.9	452.1	455.4	.2	.2	.2	18.2	19.4	19.5
Pawtucket-Woonsocket-Attleboro .....	133.1	134.7	135.8	.1	.1	.1	4.5	4.9	4.8
Providence .....	318.9	319.4	321.8	.1	.1	.1	15.4	16.6	16.7
<b>South Carolina</b> .....	1,354.5	1,401.7	1,406.0	1.7	1.7	1.6	88.4	91.4	90.8
Charleston .....	183.5	187.8	189.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.3	14.8	14.8
Columbia .....	214.6	216.4	219.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.4	14.7	14.7
Greenville-Spartanburg .....	302.5	307.5	308.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	23.0	22.2	22.1
<b>South Dakota</b> .....	256.6	257.0	259.1	2.6	2.6	2.5	11.7	11.4	11.3
Rapid City .....	34.4	34.6	34.4	.3	.3	.3	2.8	2.4	2.4
Sioux Falls .....	63.5	63.8	64.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.7	2.7
<b>Tennessee</b> .....	1,969.7	2,035.1	2,048.7	7.6	6.8	6.8	96.1	102.5	102.4
Chattanooga .....	161.6	188.7	185.6	1.0	1.0	1.0	7.6	7.6	7.5
Johnson City-Kingsport-Bristol .....	154.4	158.0	160.1	.2	.1	.1	5.6	6.1	6.3
Knoxville .....	243.6	241.7	245.4	2.2	1.7	1.7	12.4	11.8	12.0
Memphis .....	412.3	421.0	422.0	.1	.1	.1	19.5	19.9	19.9
Nashville .....	458.0	455.4	456.2	.8	1.0	1.0	29.7	28.7	28.1
<b>Texas</b> .....	6,533.7	6,524.7	6,565.6	190.8	192.4	194.3	399.2	370.4	366.5
Abilene .....	49.9	50.3	50.5	2.2	2.2	2.2	2.4	2.3	2.3
Amarillo .....	78.2	78.7	78.5	1.3	1.2	1.2	4.2	4.4	4.3
Austin .....	362.8	358.7	359.5	1.0	.9	.9	22.7	19.3	19.1
Beaumont-Port Arthur .....	129.6	127.7	127.9	1.5	1.6	1.7	7.4	7.3	7.4
Brazoria .....	57.2	57.0	57.6	1.3	1.3	1.3	5.8	5.7	5.6
Brownsville-Harlingen .....	65.2	65.1	64.8	.1	.1	.1	2.7	2.7	2.5
Bryan-College Station .....	48.6	47.1	49.2	.8	.9	.9	2.1	2.1	2.2
Corpus Christi .....	128.7	128.8	127.1	6.4	5.4	5.3	8.4	7.3	7.3
Dallas .....	1,339.0	1,305.9	1,308.1	19.4	18.8	18.8	77.3	61.5	60.4
El Paso .....	165.1	167.4	185.7	.2	.1	.1	10.1	9.7	9.5
Ft. Worth-Arlington .....	511.7	519.2	520.7	3.4	3.4	3.3	29.3	29.6	28.7
Galveston-Texas City .....	69.8	70.6	69.3	.5	.4	.4	3.9	3.2	3.3
Houston .....	1,364.6	1,375.9	1,385.8	66.0	63.8	64.4	89.5	84.8	83.7
Killeen-Temple .....	68.5	68.9	68.8	.1	.1	.1	3.6	3.7	3.7
Laredo .....	34.9	35.1	35.5	1.7	2.2	2.3	1.4	1.2	1.2
Longview-Marshall .....	65.6	64.4	64.5	3.6	3.6	3.7	3.1	2.9	2.8
Lubbock .....	92.1	91.5	91.6	.3	.3	.3	3.5	2.7	2.7
McAllen-Edinburg-Mission .....	87.7	89.5	91.4	1.2	.9	.9	4.5	4.4	4.4
Midland .....	44.5	44.1	44.4	9.0	9.0	9.2	1.7	1.6	1.6
Odessa .....	43.7	44.4	44.6	6.0	6.7	6.8	2.5	2.3	2.3
San Angelo .....	36.8	36.7	36.6	.6	.6	.6	2.0	1.7	1.7
San Antonio .....	495.5	495.2	497.3	2.7	2.5	2.5	33.8	31.9	31.1
Sherman-Denison .....	38.2	38.0	38.4	.2	.1	.1	1.9	1.7	1.7
Texarkana .....	45.3	45.1	45.1	.1	.1	.1	1.7	1.6	1.5
Tyler .....	61.4	59.4	59.6	1.8	1.9	1.9	2.9	2.6	2.5
Victoria .....	28.3	28.3	28.2	1.7	1.9	1.8	2.0	1.9	2.0
Waco .....	78.7	78.2	79.1	.1	.1	.1	3.9	3.9	3.8
Wichita Falls .....	49.7	50.4	50.2	2.0	2.0	2.0	2.0	2.0	2.0
<b>Utah</b> .....	642.5	650.0	648.5	7.9	8.0	8.2	34.1	28.8	27.4
Provo-Orem .....	74.5	76.2	76.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.0	2.7	2.6
Salt Lake City-Ogden .....	448.7	453.2	452.9	2.1	2.6	2.6	24.7	21.1	20.4
<b>Vermont</b> .....	239.1	240.7	242.1	.6	.6	.6	16.1	16.0	15.7
Barre-Montpelier .....	32.0	33.5	33.5	.2	.2	.2	2.2	2.3	2.2
Burlington .....	73.2	74.3	75.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.4	4.5	4.5

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1988	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	49.1	49.4	50.2	8.7	6.9	7.0	32.2	32.4	32.8
Scranton-Wilkes-Barre .....	73.1	72.0	71.7	15.2	15.5	15.7	63.4	64.6	65.5
Sharon .....	8.9	9.6	9.5	2.0	1.8	1.9	10.8	11.4	11.4
State College .....	7.1	7.3	7.1	1.3	1.3	1.3	9.6	9.9	9.8
Williamsport .....	15.4	18.9	16.8	1.9	1.9	1.8	10.8	11.3	11.3
York .....	58.3	58.9	59.8	7.1	7.3	7.3	39.7	39.8	40.0
<b>Rhode Island</b>									
Pawtucket-Woonsocket-Attleboro .....	121.5	121.1	121.3	14.9	15.3	15.3	100.7	102.3	102.0
Providence .....	56.0	56.4	56.4	3.5	3.9	3.9	31.5	31.7	31.9
Providence .....	75.8	75.4	75.6	11.5	11.8	11.8	69.5	71.3	71.1
<b>South Carolina</b>									
Charleston .....	363.8	370.8	370.2	56.5	58.8	58.8	296.7	314.1	312.5
Columbia .....	20.4	21.2	21.1	9.2	9.2	9.4	45.1	46.4	46.7
Columbia .....	28.2	29.4	29.4	10.1	10.5	10.6	46.9	46.9	47.2
Greenville-Spartanburg .....	98.7	99.5	99.0	10.6	11.4	11.4	68.6	70.9	70.9
<b>South Dakota</b>									
Rapid City .....	29.4	29.6	30.0	12.8	12.7	12.7	66.1	67.7	66.9
Rapid City .....	3.1	3.2	3.2	1.8	1.9	1.9	10.0	10.4	10.1
Sioux Falls .....	8.6	8.5	8.6	4.7	4.7	4.7	16.4	16.6	16.7
<b>Tennessee</b>									
Chattanooga .....	494.3	500.9	504.8	99.1	100.4	100.1	458.9	482.4	483.9
Chattanooga .....	43.7	44.2	44.7	8.7	8.4	8.4	42.3	43.5	43.7
Johnson City-Kingsport-Bristol .....	52.0	52.4	52.6	6.3	6.3	6.3	33.9	34.8	35.5
Knoxville .....	50.8	48.6	50.8	9.1	9.8	9.8	60.9	60.6	60.9
Memphis .....	52.4	54.2	53.9	36.5	37.8	37.8	113.8	116.5	116.7
Nashville .....	89.8	88.1	87.9	21.9	23.1	23.1	109.4	110.4	110.4
<b>Texas</b>									
Abilene .....	952.2	970.5	974.1	374.8	382.7	382.6	1,679.2	1,663.5	1,669.6
Abilene .....	4.9	4.8	4.8	2.5	2.5	2.6	13.9	14.2	14.2
Amarillo .....	9.6	9.8	9.6	6.0	5.6	5.6	23.2	23.6	23.6
Austin .....	40.2	39.8	39.8	11.1	11.1	11.0	81.5	79.8	79.6
Beaumont-Port Arthur .....	25.2	23.9	24.0	9.8	9.5	9.3	32.0	31.5	31.5
Brazoria .....	15.6	15.1	15.1	2.2	2.2	2.2	11.1	11.1	11.0
Brownsville-Harlingen .....	9.3	9.9	9.7	3.2	3.0	3.0	17.8	17.4	17.3
Bryan-College Station .....	2.9	3.0	3.0	1.6	1.6	1.5	11.3	10.8	10.9
Corpus Christi .....	12.0	11.4	11.5	7.1	7.1	7.1	33.9	34.0	33.9
Dallas .....	226.0	223.3	222.9	86.6	87.2	87.4	358.3	350.3	351.6
El Paso .....	35.8	37.1	35.9	10.1	10.2	10.0	45.4	45.7	45.8
Ft. Worth-Arlington .....	114.5	116.5	117.9	26.9	28.2	28.3	136.1	133.8	134.2
Galveston-Texas City .....	8.9	9.0	9.0	4.7	4.4	4.3	13.8	14.1	13.5
Houston .....	149.5	151.2	153.0	92.8	90.3	90.5	357.7	347.9	349.6
Killeen-Temple .....	8.7	6.7	8.6	2.8	2.6	2.6	16.5	16.4	16.2
Laredo .....	1.8	1.9	1.8	3.8	4.1	4.1	10.4	9.8	9.9
Longview-Marshall .....	14.9	15.0	15.0	3.1	3.1	3.1	17.5	16.9	17.0
Lubbock .....	7.7	7.5	7.5	4.5	4.5	4.5	28.3	28.3	28.4
McAllen-Edinburg-Mission .....	12.3	12.2	13.2	2.8	2.9	2.9	25.6	25.9	26.1
Midland .....	3.1	2.9	2.9	2.2	2.1	2.1	10.6	10.8	10.8
Odessa .....	3.7	3.7	3.7	2.1	2.1	2.1	13.1	13.2	13.2
San Angelo .....	5.8	6.0	6.0	3.2	3.1	3.1	9.3	9.2	9.2
San Antonio .....	48.4	46.2	48.5	18.3	18.1	18.1	129.3	131.6	132.3
Sherman-Denison .....	11.0	11.2	11.3	2.1	2.1	2.1	8.9	8.7	8.7
Texarkana .....	7.3	7.3	7.3	1.8	1.7	1.7	11.0	11.3	11.2
Tyler .....	11.1	10.8	10.8	2.7	2.6	2.7	16.8	15.9	15.9
Victoria .....	3.1	3.2	3.2	1.5	1.4	1.4	7.9	8.0	7.9
Waco .....	14.8	15.0	15.0	3.5	3.4	3.4	19.2	19.2	19.4
Wichita Falls .....	8.0	8.2	8.0	2.6	2.8	2.8	12.2	12.5	12.5
<b>Utah</b>									
Provo-Orem .....	91.4	94.4	94.4	37.5	38.1	38.1	155.3	156.8	156.0
Provo-Orem .....	10.5	10.4	10.5	2.5	2.7	2.7	15.9	16.2	16.1
Salt Lake City-Ogden .....	61.9	62.4	61.8	28.8	29.1	29.3	114.2	115.5	114.9
<b>Vermont</b>									
Barre-Montpelier .....	50.2	49.5	49.7	9.8	10.3	10.3	54.2	55.7	55.7
Barre-Montpelier .....	4.5	4.8	4.6	.8	.8	.8	6.8	7.1	7.3
Burlington .....	16.8	16.9	17.0	3.1	3.1	3.2	16.5	16.4	16.5

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	7.4	7.9	7.9	29.0	29.9	30.6	18.6	18.0	17.0
Scranton-Wilkes-Barre .....	12.1	12.8	12.8	87.7	89.5	70.4	41.8	39.5	41.5
Sharon .....	1.3	1.3	1.3	10.6	11.1	11.5	5.3	4.7	5.1
State College .....	1.6	1.7	1.7	9.0	9.8	9.6	22.0	21.0	22.3
Williamsport .....	2.2	2.3	2.3	9.4	9.8	9.8	8.8	6.4	6.6
York .....	4.8	5.1	5.2	29.6	32.5	32.1	16.1	17.7	18.2
<b>Rhode Island</b>									
Pawtucket-Woonsocket-Attleboro .....	25.0	25.5	25.4	112.8	111.5	113.7	58.6	58.8	58.0
Providence .....	3.5	3.9	3.9	24.2	24.4	24.9	9.8	9.4	9.9
Providence .....	21.4	21.7	21.8	81.6	80.2	81.7	43.8	42.3	43.2
<b>South Carolina</b>									
Charleston .....	61.9	65.7	65.1	226.4	241.4	241.0	259.1	258.0	266.0
Charleston .....	8.5	8.6	8.6	36.4	36.1	38.7	49.5	49.4	50.3
Columbia .....	17.3	18.0	18.0	39.0	39.1	39.8	58.4	57.4	59.7
Greenville-Spartanburg .....	11.5	11.7	11.5	49.3	50.3	50.9	40.5	41.2	42.2
<b>South Dakota</b>									
Rapid City .....	14.2	14.4	14.2	60.7	61.7	61.9	59.2	57.1	59.7
Rapid City .....	1.7	1.7	1.7	8.2	8.2	8.3	6.5	6.5	6.8
Sioux Falls .....	5.9	5.9	5.8	17.7	18.2	18.3	7.4	7.2	7.4
<b>Tennessee</b>									
Chattanooga .....	94.1	97.5	97.8	397.1	416.3	416.9	322.6	328.3	336.2
Chattanooga .....	11.4	12.1	12.0	34.4	39.0	34.7	32.4	32.9	33.6
Johnson City-Kingsport-Bristol .....	4.8	4.9	4.9	26.6	28.2	28.4	25.0	25.2	26.0
Knoxville .....	8.7	8.7	8.7	48.3	51.3	51.8	51.3	49.2	49.7
Memphis .....	23.2	23.6	23.6	98.9	99.8	99.6	69.9	69.1	70.4
Nashville .....	30.6	30.6	30.7	109.4	106.5	107.1	66.5	67.0	67.9
<b>Texas</b>									
Ablene .....	443.8	436.9	435.3	1,370.9	1,377.8	1,382.1	1,122.8	1,130.5	1,159.3
Ablene .....	2.6	2.6	2.5	13.2	13.4	13.4	8.2	8.3	8.5
Amarillo .....	4.3	4.3	4.2	16.4	16.5	16.3	13.2	13.3	13.7
Austin .....	25.7	25.0	25.0	83.5	84.5	84.3	97.1	98.3	99.8
Beaumont-Port Arthur .....	5.7	5.5	5.5	27.9	28.4	28.3	20.1	20.0	20.2
Brazoria .....	2.0	2.1	2.1	7.8	8.1	8.3	11.4	11.4	11.8
Brownsville-Harlingen .....	3.3	3.4	3.3	13.4	13.8	14.0	15.4	14.8	15.0
Bryan-College Station .....	1.7	1.7	1.7	7.9	7.9	7.9	20.3	19.1	21.1
Corpus Christi .....	6.8	6.6	6.7	26.8	27.5	27.4	27.3	27.2	27.9
Dallas .....	133.8	129.7	129.5	289.7	289.6	290.1	148.1	145.5	147.4
El Paso .....	9.7	10.0	9.9	35.4	36.1	35.9	38.4	38.6	38.7
Ft. Worth-Arlington .....	28.6	29.0	29.1	110.5	114.6	114.3	62.4	64.1	64.9
Galveston-Texas City .....	4.6	4.4	4.4	12.8	13.7	13.4	20.8	21.4	21.0
Houston .....	101.1	97.1	95.8	339.4	353.6	356.2	188.6	187.2	192.6
Killeen-Temple .....	3.1	2.9	2.9	13.9	14.4	14.4	19.8	20.1	20.3
Laredo .....	1.6	1.6	1.6	6.0	6.0	6.1	8.2	8.3	8.5
Longview-Marshall .....	3.4	3.0	3.0	11.6	11.6	11.5	8.4	8.3	8.4
Lubbock .....	5.6	5.3	5.4	20.7	21.0	20.8	21.5	21.9	22.0
McAllen-Edinburg-Mission .....	3.9	3.7	3.7	13.8	13.9	14.1	23.6	25.6	26.1
Midland .....	2.9	2.7	2.7	8.7	8.8	8.8	6.3	6.2	6.3
Odessa .....	1.7	1.6	1.7	7.2	7.3	7.3	7.4	7.5	7.5
San Angelo .....	1.7	1.8	1.8	7.6	7.9	7.8	6.6	6.4	6.4
San Antonio .....	38.6	39.3	39.1	115.9	117.6	117.9	108.5	108.0	109.8
Sherman-Denison .....	1.5	1.4	1.5	7.5	7.8	7.9	5.1	5.0	5.1
Texarkana .....	1.9	1.9	1.9	8.9	9.0	9.0	12.6	12.2	12.4
Tyler .....	3.7	3.5	3.6	13.6	13.3	13.2	8.8	8.8	9.0
Victoria .....	1.6	1.5	1.5	6.0	5.9	5.8	4.5	4.5	4.6
Waco .....	4.8	4.7	4.8	19.9	19.7	20.0	12.5	12.2	12.6
Wichita Falls .....	2.4	2.4	2.4	11.1	11.2	11.2	9.4	9.5	9.5
<b>Utah</b>									
Provo-Orem .....	33.3	33.9	33.5	140.2	148.6	148.8	142.8	141.3	142.2
Provo-Orem .....	2.3	2.4	2.4	26.8	28.0	28.5	13.5	13.8	14.0
Salt Lake City-Ogden .....	27.5	28.0	27.8	95.0	100.4	100.2	94.5	94.2	95.8
<b>Vermont</b>									
Barre-Montpelier .....	11.3	12.1	12.0	57.5	56.6	57.4	39.4	39.9	40.7
Barre-Montpelier .....	2.9	2.9	2.9	6.6	7.4	7.4	8.0	8.2	8.1
Burlington .....	3.3	3.6	3.5	18.0	18.6	18.6	11.3	11.1	11.9

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	Total			Mining			Construction		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Virginia</b> .....	2,607.5	2,652.8	2,669.1	16.0	15.5	15.7	175.3	177.5	176.4
Bristol .....	30.3	31.2	31.6	.1	.1	.1	.9	.8	.8
Charlottesville .....	63.8	63.0	64.6	.1	.1	.1	3.5	3.8	3.7
Danville .....	39.8	39.9	39.8	.1	.1	.1	1.4	1.3	1.3
Lynchburg .....	71.0	72.0	72.1	.1	.1	.1	3.3	3.4	3.4
Norfolk-Virginia Beach-Newport News .....	537.4	548.2	550.0	.1	.1	.1	37.8	37.4	37.2
Northern Virginia .....	668.4	687.5	695.4	.5	.4	.4	49.1	49.3	48.8
Richmond-Petersburg .....	421.3	429.8	431.3	.4	.4	.4	25.4	26.9	26.9
Roanoke .....	119.0	121.5	121.7	.2	.2	.1	7.1	7.4	7.5
<b>Washington</b> .....	1,803.5	1,870.0	1,877.5	2.9	3.1	3.1	91.4	98.0	97.0
Seattle .....	904.3	937.9	943.9	.6	.6	.6	47.3	48.3	48.9
<b>West Virginia</b> .....	600.1	603.6	609.2	38.1	36.7	36.9	25.4	25.9	25.9
Charleston .....	108.2	107.7	108.1	2.1	2.3	2.3	5.2	5.0	5.0
Huntington-Ashland .....	101.8	101.6	101.7	1.0	1.0	1.0	4.0	4.0	4.0
Parkersburg-Marietta .....	59.1	59.3	60.0	.8	.7	.8	3.0	2.9	2.9
Wheeling .....	56.6	57.5	58.0	2.4	2.5	2.4	1.7	1.9	2.0
<b>Wisconsin</b> .....	2,047.1	2,095.0	2,095.4	2.3	2.5	2.4	70.3	70.8	70.7
Appleton-Oshkosh-Neenah .....	141.6	147.3	147.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	6.9	6.5
Eau Claire .....	56.2	55.4	56.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	1.5	1.4
Green Bay .....	92.3	93.7	94.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.4	2.6	3.0
Janesville-Beloit .....	50.5	53.6	54.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.1	1.2
Kenosha .....	37.8	42.5	42.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.0	.9	.8
La Crosse .....	48.9	50.7	51.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.3	1.3
Madison .....	193.7	199.0	201.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.2	6.3	6.6
Milwaukee .....	685.4	696.1	703.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.1	21.5	21.8
Racine .....	68.5	69.7	69.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.2	2.8	2.8
Sheboygan .....	45.1	46.7	46.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.0	1.0
Wausau .....	45.1	47.3	47.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.7	1.5
<b>Wyoming</b> .....	197.6	196.4	194.7	18.2	19.3	19.4	16.0	14.5	13.8
<b>Puerto Rico</b> .....	717.4	738.8	744.4	.7	.7	.8	31.1	33.9	34.2
Caguas .....	43.4	45.5	46.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Mayaguez .....	51.2	52.5	53.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Ponce .....	45.9	46.9	46.9	.1	.1	.1	3.3	3.8	3.7
San Juan .....	442.7	453.7	457.9	.4	.4	.5	24.1	25.8	26.1
<b>Virgin Islands</b> .....	36.5	37.4	37.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.0	2.2

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	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Virginia</b> .....	427.8	427.3	427.2	139.9	142.4	142.2	594.6	608.6	613.6
Bristol .....	9.3	9.9	9.9	1.2	1.2	1.2	8.2	8.7	8.7
Charlottesville .....	8.8	8.7	8.7	2.1	2.3	2.3	12.1	12.1	12.3
Danville .....	17.0	17.3	17.1	1.0	1.0	1.0	8.2	8.4	8.4
Lynchburg .....	24.1	24.0	24.0	2.9	2.9	2.9	13.4	13.4	13.6
Norfolk-Virginia Beach-Newport News .....	68.9	66.6	67.0	25.5	25.9	25.8	132.8	138.8	139.6
Northern Virginia .....	35.1	34.5	34.3	46.7	49.3	49.4	155.2	158.5	160.3
Richmond-Petersburg .....	62.9	63.7	63.5	22.1	23.1	22.9	101.1	101.4	103.1
Roanoke .....	20.5	20.6	20.7	9.0	8.7	8.7	32.0	33.2	33.0
<b>Washington</b> .....	309.1	325.3	324.1	96.7	101.7	100.6	441.4	468.7	466.6
Seattle .....	174.9	186.0	186.6	56.6	60.1	59.5	223.1	236.0	235.7
<b>West Virginia</b> .....	87.6	87.0	87.1	36.7	36.3	36.3	137.8	141.4	142.2
Charleston .....	12.5	11.4	11.4	6.3	6.6	6.7	28.1	28.5	28.5
Huntington-Ashland .....	19.9	19.7	19.3	7.6	7.2	7.2	25.9	26.1	26.0
Parkersburg-Marietta .....	14.0	14.3	14.4	2.0	2.0	1.9	14.4	14.7	14.7
Wheeling .....	6.4	7.2	7.2	3.0	3.1	3.1	15.6	15.9	15.9
<b>Wisconsin</b> .....	512.9	536.3	527.8	94.8	94.8	95.3	487.2	506.3	506.5
Appleton-Oshkosh-Neenah .....	49.1	51.2	50.8	5.4	5.6	5.6	30.9	31.3	31.5
Eau Claire .....	10.5	10.1	10.0	2.9	3.2	3.3	16.0	16.9	16.8
Green Bay .....	24.7	25.0	24.6	6.6	6.7	6.8	23.8	24.6	24.8
Janesville-Beloit .....	13.9	16.8	17.0	1.8	1.8	1.8	13.6	14.1	14.0
Kenosha .....	11.2	15.3	15.3	1.4	1.4	1.4	8.5	8.9	8.7
La Crosse .....	10.2	10.4	10.4	2.3	2.4	2.4	13.4	14.7	14.7
Madison .....	21.8	22.7	22.9	6.6	6.8	6.9	43.5	45.0	45.8
Milwaukee .....	167.3	167.6	168.5	35.1	35.6	35.7	158.5	165.2	166.2
Racine .....	24.4	24.0	24.1	2.4	2.4	2.5	16.1	16.8	16.9
Sheboygan .....	19.0	19.9	19.8	1.5	1.5	1.5	8.5	9.0	8.9
Wausau .....	12.1	13.4	13.4	2.7	2.8	2.9	11.5	11.9	12.0
<b>Wyoming</b> .....	8.6	8.6	8.9	14.0	14.0	14.1	45.7	45.6	45.4
<b>Puerto Rico</b> .....	148.6	155.3	156.5	15.8	14.8	14.4	125.7	127.7	129.2
Caguas .....	14.7	16.4	18.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.4	8.2	8.2
Mayaguez .....	20.1	20.4	20.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.9	6.8	7.0
Ponce .....	8.9	8.5	8.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.4	7.5	7.5
San Juan .....	64.3	65.8	66.2	12.0	11.7	11.6	86.5	89.0	90.4
<b>Virgin Islands</b> .....	1.8	1.9	2.0	2.4	2.5	2.5	8.1	8.5	8.5

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Virginia</b> .....	133.0	139.0	138.4	592.3	612.2	610.8	528.7	530.3	544.8
Bristol .....	.9	.9	.9	4.4	4.7	4.8	5.3	5.0	5.2
Charlottesville .....	3.0	3.2	3.2	11.1	11.1	11.3	23.2	21.7	23.1
Danville .....	1.1	1.1	1.1	5.8	5.6	5.6	5.3	5.2	5.3
Lynchburg .....	3.3	3.4	3.4	14.2	14.9	14.9	9.7	10.0	9.8
Norfolk-Virginia Beach-Newport News .....	24.6	25.4	25.1	122.3	129.9	128.9	125.5	124.2	126.3
Northern Virginia .....	40.9	44.1	44.4	202.5	208.2	208.2	138.4	143.2	149.5
Richmond-Petersburg .....	33.5	34.9	34.8	85.6	90.5	89.3	90.4	88.9	90.4
Roanoke .....	8.1	8.4	8.5	26.8	27.2	27.3	15.3	15.9	15.9
<b>Washington</b> .....	106.2	108.3	107.3	400.9	418.8	419.8	354.9	346.1	359.0
Seattle .....	66.9	67.3	67.0	202.5	216.0	217.6	130.4	123.6	128.0
<b>West Virginia</b> .....	24.0	24.4	24.4	122.3	127.5	127.8	128.2	124.4	128.6
Charleston .....	6.0	6.0	6.0	24.7	25.1	25.1	21.3	20.8	21.1
Huntington-Ashland .....	4.3	4.3	4.3	20.1	20.7	20.3	19.0	18.6	19.6
Parkersburg-Marietta .....	2.2	2.2	2.2	13.0	13.3	13.5	9.7	9.2	9.6
Wheeling .....	2.6	2.6	2.6	15.6	15.3	15.4	9.3	9.0	9.4
<b>Wisconsin</b> .....	109.1	112.1	111.9	439.2	455.6	455.3	331.4	316.5	325.5
Appleton-Oshkosh-Neenah .....	7.1	7.3	7.3	26.5	28.9	28.7	16.9	15.9	16.9
Eau Claire .....	1.9	1.9	1.9	11.8	12.6	12.7	11.1	9.3	10.0
Green Bay .....	3.2	3.4	3.4	19.9	20.9	21.3	10.7	10.4	10.8
Janesville-Beloit .....	1.6	1.7	1.7	11.4	11.5	11.5	6.9	6.6	6.9
Kenosha .....	1.1	1.2	1.2	8.2	8.4	8.4	6.3	6.4	6.6
La Crosse .....	1.5	1.5	1.5	13.1	13.8	13.9	7.2	6.6	7.1
Madison .....	17.0	17.7	17.9	39.9	41.9	42.2	58.4	58.4	59.3
Milwaukee .....	47.0	48.3	48.4	173.9	178.9	181.4	82.1	78.7	81.4
Racine .....	2.2	2.2	2.0	12.9	13.4	13.4	8.3	8.0	8.2
Sheboygan .....	2.1	2.1	2.1	7.3	7.9	7.6	5.5	5.3	5.4
Wausau .....	3.4	3.4	3.4	7.9	8.2	8.2	5.9	5.7	5.9
<b>Wyoming</b> .....	8.1	7.8	7.8	33.0	34.9	32.3	54.0	51.7	53.0
<b>Puerto Rico</b> .....	32.8	34.1	34.5	99.2	104.6	105.7	263.4	267.6	269.1
Caguas .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.9	14.9	15.2
Mayaguez .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	16.2	16.4	16.4
Ponce .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.0	8.0	8.0	15.3	15.7	15.8
San Juan .....	26.7	27.6	28.0	72.2	73.9	74.7	156.5	159.5	160.4
<b>Virgin Islands</b> .....	1.5	1.5	1.5	7.4	8.5	8.6	12.6	12.6	12.6

<sup>1</sup> Not available.  
<sup>2</sup> 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 1986 benchmarks.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

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

Year and month	Total private <sup>1</sup>			Mining			Construction		
	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings	Weekly hours	Hourly earnings	Weekly earnings
<b>Annual averages</b>									
1964 .....	38.7	\$2.36	\$91.33	41.9	\$2.81	\$117.74	37.2	\$3.55	\$132.06
1965 .....	38.8	2.46	95.45	42.3	2.92	123.52	37.4	3.70	138.38
1966 .....	38.6	2.56	98.82	42.7	3.05	130.24	37.6	3.89	146.26
1967 .....	38.0	2.68	101.84	42.6	3.19	135.89	37.7	4.11	154.95
1968 .....	37.8	2.85	107.73	42.6	3.35	142.71	37.3	4.41	164.49
1969 .....	37.7	3.04	114.61	43.0	3.60	154.80	37.9	4.79	181.54
1970 .....	37.1	3.23	119.83	42.7	3.85	164.40	37.3	5.24	195.45
1971 .....	36.9	3.45	127.31	42.4	4.06	172.14	37.2	5.69	211.67
1972 .....	37.0	3.70	136.90	42.6	4.44	189.14	36.5	6.06	221.19
1973 .....	36.9	3.94	145.39	42.4	4.75	201.40	36.8	6.41	235.89
1974 .....	36.5	4.24	154.76	41.9	5.23	219.14	36.6	6.81	249.25
1975 .....	36.1	4.53	163.53	41.9	5.95	249.31	36.4	7.31	266.08
1976 .....	36.1	4.86	175.45	42.4	6.46	273.90	36.8	7.71	283.73
1977 .....	36.0	5.25	189.00	43.4	6.94	301.20	36.5	8.10	295.65
1978 .....	35.8	5.69	203.70	43.4	7.67	332.88	36.8	8.66	318.69
1979 .....	35.7	6.16	219.91	43.0	8.49	365.07	37.0	9.27	342.99
1980 .....	35.3	6.66	235.10	43.3	9.17	397.06	37.0	9.94	367.78
1981 .....	35.2	7.25	255.20	43.7	10.04	438.75	36.9	10.82	399.26
1982 .....	34.8	7.68	267.26	42.7	10.77	459.88	36.7	11.63	426.82
1983 .....	35.0	8.02	280.70	42.5	11.28	479.40	37.1	11.94	442.97
1984 .....	35.2	8.32	292.86	43.3	11.63	503.58	37.8	12.13	458.51
1985 .....	34.9	8.57	299.09	43.4	11.98	519.93	37.7	12.32	464.46
1986 .....	34.8	8.76	304.85	42.2	12.44	524.97	37.4	12.47	466.38
<b>Monthly data, not seasonally adjusted</b>									
<b>1986:</b>									
November .....	34.7	\$8.88	\$308.14	41.4	\$12.57	\$520.40	36.5	\$12.66	\$462.09
December .....	34.8	8.86	308.33	42.4	12.63	535.51	36.8	12.77	469.94
<b>1987:</b>									
January .....	34.4	8.90	306.16	42.5	12.66	538.05	37.2	12.58	467.98
February .....	34.5	8.92	307.74	42.0	12.56	527.52	36.8	12.51	460.37
March .....	34.6	8.92	308.63	41.8	12.51	522.92	37.4	12.59	470.87
April .....	34.6	8.91	308.29	41.8	12.43	519.57	37.4	12.55	469.37
May .....	34.8	8.93	310.76	42.4	12.42	526.61	38.5	12.60	485.10
June .....	35.0	8.92	312.20	42.4	12.44	527.46	38.1	12.61	480.44
July .....	35.1	8.91	312.74	42.1	12.31	518.25	38.6	12.57	485.20
August .....	35.3	8.94	315.58	42.4	12.32	522.37	38.6	12.67	489.06
September .....	34.7	9.06	314.38	42.1	12.43	523.30	36.4	12.77	464.83
October <sup>a</sup> .....	34.9	9.09	317.24	42.7	12.36	527.77	38.8	12.79	496.25
November <sup>a</sup> .....	34.8	9.14	318.07	42.3	12.48	527.90	37.0	12.79	473.23

See footnotes at end of table.



**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private 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	38.4	9.35	359.04
Monthly data, not seasonally adjusted										
<b>1986:</b>										
November .....	41.0	\$9.78	\$9.37	\$400.98	39.3	\$11.90	\$467.67	38.4	\$9.47	\$363.65
December .....	41.5	9.85	9.42	408.78	39.1	11.90	465.29	38.4	9.47	363.65
<b>1987:</b>										
January .....	40.8	9.84	9.44	401.47	38.5	11.89	457.77	38.1	9.49	361.57
February .....	40.8	9.84	9.44	401.47	39.0	11.93	465.27	37.9	9.55	361.95
March .....	40.9	9.85	9.44	402.87	38.9	11.90	462.91	37.9	9.53	361.19
April .....	40.4	9.87	9.48	398.75	38.8	11.94	463.27	38.1	9.53	363.09
May .....	40.9	9.87	9.45	403.68	39.0	11.95	466.05	38.3	9.57	366.53
June .....	41.1	9.87	9.44	405.66	39.1	11.91	465.68	38.4	9.57	367.49
July .....	40.6	9.87	9.46	400.72	39.4	12.00	472.80	38.3	9.57	366.53
August .....	40.9	9.86	9.42	403.27	39.6	11.97	474.01	38.4	9.62	369.41
September .....	40.8	10.00	9.53	408.00	39.2	12.03	471.58	38.1	9.67	368.43
October <sup>a</sup> .....	41.3	9.95	9.49	410.94	39.3	12.01	471.99	38.4	9.67	371.33
November <sup>b</sup> .....	41.4	10.01	9.55	414.41	39.3	12.12	476.32	38.3	9.75	373.43

See footnotes at end of table.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory workers<sup>1</sup> on private 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 <sup>a</sup>	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	8.35	303.94	32.5	8.16	265.20
Monthly data, not seasonally adjusted									
<b>1986:</b>									
November .....	29.0	\$6.08	\$176.32	36.5	\$8.57	\$312.81	32.4	\$8.33	\$269.89
December .....	29.4	6.07	178.46	36.5	8.48	309.52	32.4	8.32	269.57
<b>1987:</b>									
January .....	28.3	6.09	172.35	36.3	8.60	312.18	32.2	8.37	269.51
February .....	28.7	6.09	174.78	36.4	8.75	318.50	32.4	8.43	273.13
March .....	28.9	6.08	175.71	36.3	8.72	316.54	32.4	8.41	272.48
April .....	29.2	6.09	177.83	36.3	8.71	316.17	32.3	8.40	271.32
May .....	29.3	6.09	178.44	36.3	8.72	316.54	32.4	8.38	271.51
June .....	29.6	6.08	179.97	36.4	8.68	315.95	32.6	8.35	272.21
July .....	30.0	6.07	182.10	36.2	8.69	314.58	32.8	8.33	273.22
August .....	30.3	6.06	183.62	36.4	8.81	320.68	32.9	8.40	276.36
September .....	29.6	6.20	183.52	36.0	8.79	316.44	32.4	8.55	277.02
October <sup>p</sup> .....	29.2	6.15	179.58	36.2	8.80	318.56	32.5	8.61	279.83
November <sup>p</sup> .....	29.1	6.18	179.84	36.3	8.94	324.52	32.6	8.71	283.95

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

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>
<b>Total private</b> .....		34.7	34.7	34.7	34.9	34.8	-	-	-	-	-
<b>Mining</b> .....		42.1	41.4	42.1	42.7	42.3	-	-	-	-	-
Metal mining .....	10	41.1	41.0	42.0	42.1	-	-	-	-	-	-
Iron ores .....	101	39.8	40.4	41.4	41.3	-	-	-	-	-	-
Copper ores .....	102	41.7	41.9	42.9	42.7	-	-	-	-	-	-
Coal mining .....	11,12	40.7	39.7	41.4	42.1	-	-	-	-	-	-
Bituminous coal and lignite mining .....	12	40.8	39.8	41.5	42.2	-	-	-	-	-	-
Oil and gas extraction .....	13	41.7	41.4	41.5	41.9	-	-	-	-	-	-
Crude petroleum, natural gas, and natural gas liquids .....	131,2	41.1	41.7	41.2	40.9	-	-	-	-	-	-
Oil and gas field services .....	138	42.1	41.3	41.6	42.3	-	-	-	-	-	-
Nonmetallic minerals, except fuels .....	14	45.4	44.2	44.9	46.5	-	-	-	-	-	-
Crushed and broken stone .....	142	46.6	45.4	45.7	48.3	-	-	-	-	-	-
<b>Construction</b> .....		37.9	36.5	36.4	38.8	37.0	-	-	-	-	-
General building contractors .....	15	37.4	36.5	36.3	38.2	-	-	-	-	-	-
Residential building construction .....	152	36.6	35.6	36.1	37.5	-	-	-	-	-	-
Operative builders .....	153	38.7	38.2	37.7	38.4	-	-	-	-	-	-
Nonresidential building construction .....	154	38.1	37.2	36.4	38.9	-	-	-	-	-	-
Heavy construction contractors .....	16	41.5	38.7	39.1	43.3	-	-	-	-	-	-
Highway and street construction .....	161	42.9	37.5	39.6	44.4	-	-	-	-	-	-
Heavy construction, except highway .....	162	40.7	39.4	38.7	42.6	-	-	-	-	-	-
Special trade contractors .....	17	37.1	35.8	35.7	37.7	-	-	-	-	-	-
Plumbing, heating, and air conditioning .....	171	38.5	37.8	37.0	38.4	-	-	-	-	-	-
Painting, paper hanging, and decorating .....	172	35.6	34.2	35.5	36.8	-	-	-	-	-	-
Electrical work .....	173	39.0	38.4	37.3	39.3	-	-	-	-	-	-
Masonry, stonework, and plastering .....	174	35.1	33.5	33.6	35.8	-	-	-	-	-	-
Carpentering and flooring .....	175	34.7	34.6	34.3	35.7	-	-	-	-	-	-
Roofing and sheet metal work .....	176	34.4	31.9	33.1	35.9	-	-	-	-	-	-
<b>Manufacturing</b> .....		40.7	41.0	40.8	41.3	41.4	3.5	3.6	3.9	4.1	4.1
<b>Durable goods</b> .....		41.3	41.6	41.1	41.8	41.9	3.6	3.7	3.9	4.2	4.2
Lumber and wood products .....	24	40.6	40.4	39.9	40.6	40.1	3.7	3.6	3.6	3.9	-
Logging camps and logging contractors .....	241	41.0	39.5	36.5	37.6	-	4.3	3.6	3.8	4.4	-
Sawmills and planing mills .....	242	41.4	41.3	41.4	41.9	-	4.3	4.4	4.4	4.6	-
Sawmills and planing mills, general .....	2421	41.4	41.4	41.5	42.1	-	4.5	4.6	4.6	4.9	-
Hardwood dimension and flooring .....	2426	41.4	41.1	41.0	41.4	-	3.4	3.7	3.6	3.7	-
Millwork, plywood, and structural members .....	243	40.5	40.7	40.5	40.8	-	3.4	3.6	3.6	3.5	-
Millwork .....	2431	40.6	40.2	40.5	40.6	-	2.9	2.7	3.1	2.8	-
Wood kitchen cabinets .....	2434	39.8	40.4	39.5	40.4	-	3.0	3.6	3.1	3.3	-
Hardwood veneer and plywood .....	2435	40.5	40.5	40.5	41.5	-	3.4	3.3	3.5	4.1	-
Softwood veneer and plywood .....	2436	41.8	42.9	41.8	41.7	-	4.6	5.4	5.0	4.5	-
Wood containers .....	244	38.8	38.5	38.3	39.2	-	2.6	2.5	2.5	3.1	-
Wood buildings and mobile homes .....	245	39.4	38.4	38.4	39.6	-	2.9	2.5	2.5	3.0	-
Mobile homes .....	2451	39.7	38.5	38.1	39.1	-	2.8	2.2	2.4	2.5	-
Miscellaneous wood products .....	249	40.3	40.4	40.1	40.8	-	3.3	3.3	3.3	3.5	-
Furniture and fixtures .....	25	40.5	40.2	39.8	40.7	40.2	2.9	2.7	3.2	3.3	-
Household furniture .....	251	40.1	39.9	39.6	40.4	-	2.7	2.6	3.0	3.1	-
Wood household furniture .....	2511	40.5	40.8	39.8	41.3	-	2.9	2.9	2.8	3.3	-
Upholstered household furniture .....	2512	39.8	39.4	38.9	39.1	-	2.7	2.3	2.5	2.4	-
Metal household furniture .....	2514	39.8	39.9	39.8	41.4	-	2.4	2.2	4.2	3.4	-
Mattresses and bedsprings .....	2515	38.9	37.6	39.9	38.9	-	2.6	1.9	4.6	3.0	-
Office furniture .....	252	41.2	41.1	40.4	41.5	-	3.1	2.7	3.0	3.2	-
Public building and related furniture .....	253	40.3	40.6	39.7	41.4	-	3.0	3.3	3.3	4.3	-
Partitions and fixtures .....	254	41.6	40.6	40.3	41.2	-	3.8	3.2	4.2	4.3	-
Miscellaneous furniture and fixtures .....	259	40.8	40.5	40.3	40.2	-	2.9	2.2	3.3	2.9	-
Stone, clay, and glass products .....	32	42.6	41.8	42.5	42.9	42.3	5.1	4.6	5.2	5.7	-
Flat glass .....	321	45.3	45.4	48.4	46.6	-	6.1	6.5	8.6	7.2	-
Glass and glassware, pressed or blown .....	322	41.8	41.6	41.3	41.0	-	4.7	4.8	5.5	4.6	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>
<b>Total private</b> .....		\$8.82	\$8.88	\$9.06	\$9.09	\$9.14	\$306.05	\$308.14	\$314.38	\$317.24	\$318.07
<b>Mining</b> .....		12.50	12.57	12.43	12.36	12.48	526.25	520.40	523.30	527.77	527.90
Metal mining .....	10	12.85	12.75	13.19	12.94	-	528.14	522.75	553.98	544.77	-
Iron ores .....	101	14.13	13.89	14.47	13.91	-	562.37	561.16	599.06	574.48	-
Copper ores .....	102	11.44	11.30	11.89	11.44	-	477.05	473.47	510.08	488.49	-
Coal mining .....	11, 12	15.49	15.81	15.77	15.83	-	630.44	627.66	652.88	666.44	-
Bituminous coal and lignite mining .....	12	15.56	15.88	15.83	15.88	-	634.85	632.02	656.95	670.14	-
Oil and gas extraction .....	13	11.62	11.61	11.37	11.27	-	484.55	480.65	471.86	472.21	-
Crude petroleum, natural gas, and natural gas liquids .....	131, 2	13.71	13.75	14.06	14.09	-	563.48	573.38	579.27	576.28	-
Oil and gas field services .....	138	10.31	10.24	9.97	9.88	-	434.05	422.91	414.75	417.92	-
Nonmetallic minerals, except fuels .....	14	10.53	10.54	10.75	10.73	-	478.06	465.87	482.68	498.95	-
Crushed and broken stone .....	142	9.91	9.86	10.15	10.26	-	461.81	447.64	463.86	495.56	-
<b>Construction</b> .....		12.68	12.66	12.77	12.79	12.79	480.57	462.09	464.83	496.25	473.23
General building contractors .....	15	11.61	11.61	11.97	11.98	-	434.21	423.77	434.51	457.64	-
Residential building construction .....	152	10.93	10.93	11.32	11.28	-	400.04	389.11	408.65	423.00	-
Operative builders .....	153	9.87	9.91	10.63	10.87	-	381.97	378.56	400.75	417.41	-
Nonresidential building construction .....	154	12.39	12.38	12.77	12.77	-	472.06	460.54	464.83	496.75	-
Heavy construction contractors .....	16	12.32	12.11	12.07	12.16	-	511.28	468.66	471.94	526.53	-
Highway and street construction .....	161	12.34	11.97	12.25	12.32	-	529.39	448.88	485.10	547.01	-
Heavy construction, except highway .....	162	12.30	12.19	11.95	12.05	-	500.61	480.29	462.47	513.33	-
Special trade contractors .....	17	13.24	13.27	13.31	13.33	-	491.20	475.07	475.17	502.54	-
Plumbing, heating, and air conditioning .....	171	13.37	13.36	13.48	13.54	-	514.75	505.01	498.76	519.94	-
Painting, paper hanging, and decorating .....	172	12.58	12.54	12.67	12.61	-	447.85	428.87	449.79	464.05	-
Electrical work .....	173	14.60	14.67	14.82	14.71	-	569.40	563.33	552.79	578.10	-
Masonry, stonework, and plastering .....	174	13.47	13.40	13.52	13.44	-	472.80	448.90	454.27	481.15	-
Carpentering and flooring .....	175	12.69	12.48	12.69	12.95	-	440.34	431.81	435.27	462.32	-
Roofing and sheet metal work .....	176	11.78	11.87	11.65	11.77	-	405.23	378.65	385.62	422.54	-
<b>Manufacturing</b> .....		9.72	9.78	10.00	9.95	10.01	395.60	400.98	408.00	410.94	414.41
<b>Durable goods</b> .....		10.27	10.33	10.53	10.51	10.57	424.15	429.73	432.78	439.32	442.88
Lumber and wood products .....	24	8.32	8.35	8.48	8.42	8.42	337.79	337.34	338.35	341.85	337.64
Logging camps and logging contractors .....	241	10.80	10.82	10.94	10.92	-	442.80	427.39	399.31	410.59	-
Sawmills and planing mills .....	242	8.43	8.50	8.65	8.55	-	349.00	351.05	358.11	358.25	-
Sawmills and planing mills, general .....	2421	8.83	8.90	9.01	8.90	-	365.56	368.46	373.92	374.69	-
Hardwood dimension and flooring .....	2426	6.49	6.55	6.91	6.84	-	268.69	269.21	283.31	283.18	-
Millwork, plywood, and structural members .....	243	8.17	8.23	8.42	8.37	-	330.89	334.96	341.01	341.50	-
Millwork .....	2431	8.41	8.39	8.71	8.71	-	341.45	337.28	352.76	353.63	-
Wood kitchen cabinets .....	2434	7.59	7.69	7.65	7.64	-	302.08	310.68	302.18	308.66	-
Hardwood veneer and plywood .....	2435	6.77	6.74	6.89	6.91	-	274.19	272.97	279.05	286.77	-
Softwood veneer and plywood .....	2436	9.52	9.62	9.93	9.77	-	397.94	412.70	415.07	407.41	-
Wood containers .....	244	6.00	6.00	6.21	6.22	-	232.80	231.00	237.84	243.82	-
Wood buildings and mobile homes .....	245	7.72	7.69	7.87	7.97	-	304.17	295.30	302.21	315.61	-
Mobile homes .....	2451	7.80	7.79	7.98	8.04	-	309.66	299.92	304.04	314.36	-
Miscellaneous wood products .....	249	7.16	7.24	7.36	7.28	-	288.55	292.50	295.14	297.02	-
Furniture and fixtures .....	25	7.53	7.55	7.75	7.72	7.74	304.97	303.51	308.45	314.20	311.15
Household furniture .....	251	6.94	6.94	7.17	7.14	-	278.29	276.91	283.93	288.46	-
Wood household furniture .....	2511	6.40	6.41	6.59	6.65	-	259.20	261.53	262.28	274.65	-
Upholstered household furniture .....	2512	7.64	7.62	7.83	7.79	-	304.07	300.23	304.59	304.59	-
Metal household furniture .....	2514	7.03	7.03	7.43	7.09	-	279.79	280.50	295.71	293.53	-
Mattresses and bedsprings .....	2515	7.28	7.32	7.74	7.67	-	283.19	275.23	308.83	298.36	-
Office furniture .....	252	8.41	8.41	8.64	8.78	-	346.49	345.65	349.06	364.37	-
Public building and related furniture .....	253	7.89	7.99	8.04	8.02	-	317.97	324.39	319.19	332.03	-
Partitions and fixtures .....	254	9.07	9.23	9.26	9.20	-	377.31	374.74	373.18	379.04	-
Miscellaneous furniture and fixtures .....	259	7.85	7.82	8.20	8.05	-	320.28	316.71	330.46	323.61	-
Stone, clay, and glass products .....	32	10.10	10.14	10.40	10.33	10.35	430.26	423.85	442.00	443.16	437.81
Flat glass .....	321	13.94	14.03	14.85	14.42	-	631.48	636.96	718.74	671.97	-
Glass and glassware, pressed or blown .....	322	11.07	11.12	11.69	11.42	-	462.73	462.59	482.80	468.22	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Nov. 1987 <sup>a</sup>
<b>Durable goods—Continued</b>											
Stone, clay, and glass products—Continued											
Glass containers .....	3221	41.8	41.8	40.6	40.7	-	5.7	5.7	6.8	5.6	-
Pressed and blown glass, nec .....	3229	41.8	41.4	42.1	41.3	-	3.4	3.7	4.0	3.5	-
Products of purchased glass .....	323	41.5	41.3	41.6	42.5	-	3.6	3.2	3.5	4.0	-
Cement, hydraulic .....	324	41.1	41.1	43.4	42.4	-	3.0	3.1	3.9	3.7	-
Structural clay products .....	325	41.9	42.0	41.6	42.0	-	4.0	4.2	4.2	4.6	-
Pottery and related products .....	326	40.6	40.1	39.9	40.3	-	2.8	2.8	3.7	3.8	-
Concrete, gypsum, and plaster products .....	327	44.7	42.4	43.7	44.9	-	7.1	5.7	6.0	7.6	-
Concrete block and brick .....	3271	45.9	43.8	44.1	46.4	-	8.2	7.0	6.6	8.5	-
Concrete products, nec .....	3272	44.5	43.1	42.9	44.2	-	6.4	5.5	5.7	7.0	-
Ready-mixed concrete .....	3273	44.0	40.6	43.1	44.5	-	7.0	5.0	5.5	7.6	-
Misc. nonmetallic mineral products .....	329	40.8	41.4	42.0	41.8	-	3.7	3.9	4.9	5.1	-
Abrasive products .....	3291	38.2	40.1	40.7	41.2	-	2.5	2.7	3.3	4.1	-
Asbestos products .....	3292	43.1	44.5	42.1	42.0	-	4.0	5.4	5.4	5.3	-
Primary metal industries											
Blast furnaces and basic steel products .....	331	41.8	42.4	45.1	43.7	43.9	4.0	4.0	5.9	5.7	-
Blast furnaces and steel mills .....	3312	41.8	42.5	45.7	43.8	-	4.0	4.1	6.0	5.8	-
Steel pipe and tubes .....	3317	42.5	42.9	41.8	42.4	-	4.2	4.0	5.0	5.5	-
Iron and steel foundries .....	332	41.6	42.2	41.8	43.7	-	4.3	4.4	5.1	5.4	-
Gray iron foundries .....	3321	42.0	42.6	42.4	43.7	-	5.0	5.0	5.6	5.8	-
Malleable iron foundries .....	3322	39.7	41.4	38.3	41.9	-	2.8	3.5	3.6	4.2	-
Steel foundries, nec .....	3325	40.1	40.2	41.9	43.5	-	3.1	2.7	3.8	4.4	-
Primary nonferrous metals .....	333	43.3	43.4	44.5	43.6	-	4.2	4.0	5.8	4.9	-
Primary aluminum .....	3334	44.7	43.8	45.7	44.7	-	4.0	3.6	6.1	4.7	-
Nonferrous rolling and drawing .....	335	42.5	43.1	43.1	43.6	-	5.2	5.4	6.3	5.9	-
Copper rolling and drawing .....	3351	41.9	42.2	43.0	44.0	-	4.5	4.3	6.4	5.6	-
Aluminum sheet, plate, and foil .....	3353	43.4	44.3	43.6	45.4	-	6.3	7.1	8.5	7.9	-
Nonferrous wire drawing and insulating .....	3357	42.4	43.1	43.1	42.4	-	5.1	5.3	5.9	5.4	-
Nonferrous foundries .....	336	41.8	41.5	41.0	42.4	-	3.4	3.7	3.9	4.2	-
Aluminum foundries .....	3361	42.3	41.9	41.5	43.1	-	3.7	4.0	4.2	4.7	-
Fabricated metal products											
Metal cans and shipping containers .....	341	41.3	41.6	40.9	42.0	42.2	3.6	3.8	3.9	4.3	-
Metal cans .....	3411	43.3	43.4	44.3	44.4	-	5.4	5.4	5.9	6.0	-
Cutlery, hand tools, and hardware .....	342	40.8	41.6	40.0	41.5	-	3.0	3.4	3.3	4.1	-
Hand and edge tools, and hand saws and blades .....	3423,5	41.1	42.1	40.1	41.5	-	2.8	3.2	3.1	4.0	-
Hardware, nec .....	3429	40.7	41.5	39.9	41.2	-	3.2	3.6	3.5	4.3	-
Plumbing and heating, except electric .....	343	40.6	40.9	40.6	42.3	-	3.0	3.2	3.5	4.5	-
Plumbing fittings and brass goods .....	3432	40.5	40.4	41.2	42.3	-	2.3	2.2	3.0	3.9	-
Heating equipment, except electric .....	3433	40.4	40.8	39.7	41.9	-	3.0	3.3	3.8	4.6	-
Fabricated structural metal products .....	344	41.1	41.1	40.5	41.2	-	3.6	3.5	3.6	3.8	-
Fabricated structural metal .....	3441	42.0	41.7	41.8	42.3	-	4.1	3.8	4.3	4.3	-
Metal doors, sash, and trim .....	3442	40.6	40.7	39.5	39.8	-	3.4	3.3	3.2	3.1	-
Fabricated plate work (boiler shops) .....	3443	41.3	41.4	41.6	42.4	-	3.1	3.3	4.1	4.1	-
Sheet metal work .....	3444	40.4	40.4	39.3	40.5	-	3.3	3.1	3.1	3.7	-
Architectural metal work .....	3446	40.4	40.4	40.0	40.7	-	3.7	3.7	3.1	3.6	-
Screw machine products, bolts, etc .....	345	42.2	42.4	41.3	42.9	-	4.3	4.5	4.2	5.1	-
Screw machine products .....	3451	40.4	40.4	40.7	41.6	-	3.2	3.2	3.3	4.0	-
Bolts, nuts, rivets, and washers .....	3452	43.9	44.4	41.9	44.4	-	5.5	5.8	5.0	6.3	-
Metal forgings and stampings .....	346	42.4	42.9	41.4	43.0	-	4.4	4.8	4.5	5.1	-
Iron and steel forgings .....	3462	40.4	41.0	41.0	42.2	-	2.9	3.3	4.2	4.3	-
Automotive stampings .....	3465	43.7	44.9	42.6	44.4	-	5.4	6.0	5.3	6.1	-
Metal stampings, nec .....	3469	41.6	41.1	40.1	41.6	-	3.7	3.7	3.5	4.2	-
Metal services, nec .....	347	41.0	41.2	40.2	41.4	-	3.5	3.7	3.2	3.9	-
Plating and polishing .....	3471	40.6	41.0	39.9	41.2	-	3.4	3.6	3.1	3.9	-
Metal coating and allied services .....	3479	41.7	41.6	40.9	41.8	-	3.7	3.9	3.5	3.8	-
Ordnance and accessories, nec .....	348	40.8	40.5	41.3	41.4	-	2.8	2.7	3.5	3.2	-
Ammunition, except for small arms, nec .....	3483	39.9	40.1	40.1	40.3	-	2.2	2.4	2.5	2.4	-
Misc. fabricated metal products .....	349	40.5	40.9	41.3	42.0	-	2.7	3.0	3.9	4.2	-
Valves and pipe fittings .....	3494	39.6	40.6	41.1	42.6	-	2.2	2.7	4.2	4.6	-
Misc. fabricated wire products .....	3496	40.5	41.2	40.9	40.8	-	2.7	3.1	2.9	3.6	-
Machinery, except electrical											
Engines and turbines .....	35	41.5	41.9	41.6	42.4	42.9	3.4	3.6	3.9	4.3	-
Turbines and turbine generator sets .....	3511	40.7	41.3	39.1	41.3	-	4.5	5.0	4.3	5.1	-
Internal combustion engines, nec .....	3519	42.7	43.4	43.6	44.3	-	4.4	5.0	4.7	5.4	-
Farm and garden machinery .....	352	40.0	40.2	41.5	41.8	-	2.2	2.3	3.7	4.1	-
Farm machinery and equipment .....	3523	40.5	40.2	41.9	42.7	-	2.7	2.7	4.6	5.2	-

See footnotes at end of table.



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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Durable goods—Continued</b>											
Machinery, except electrical—Continued											
Construction and related machinery .....	353	41.3	41.6	42.5	43.2	-	2.6	2.7	4.2	4.5	-
Construction machinery .....	3531	42.0	42.4	43.7	44.3	-	2.1	2.0	4.2	4.1	-
Mining machinery .....	3532	40.7	41.1	42.7	43.1	-	2.3	2.2	4.4	4.9	-
Oil field machinery .....	3533	40.2	39.8	42.3	43.0	-	3.0	3.4	6.0	6.0	-
Conveyors and conveying equipment .....	3535	41.4	42.5	41.9	42.2	-	3.3	3.9	3.6	4.2	-
Industrial trucks and tractors .....	3537	40.9	41.2	40.8	41.4	-	2.9	2.9	3.1	3.6	-
Metalworking machinery .....	354	42.2	42.3	41.7	42.8	-	4.4	4.6	4.3	5.0	-
Machine tools, metal cutting types .....	3541	41.7	41.9	41.1	42.3	-	3.5	3.7	3.7	4.1	-
Machine tools, metal forming types .....	3542	41.9	42.5	43.2	43.4	-	5.1	4.8	5.6	5.9	-
Special dies, tools, jigs, and fixtures .....	3544	43.2	43.1	42.3	43.6	-	5.4	5.5	4.8	5.9	-
Machine tool accessories .....	3545	40.3	40.8	40.7	41.7	-	3.2	3.6	3.8	4.2	-
Power driven hand tools .....	3546	41.3	41.2	40.7	40.9	-	2.4	2.3	2.8	2.6	-
Special industry machinery .....	355	41.6	42.4	41.4	42.1	-	3.4	3.8	4.0	4.4	-
Food products machinery .....	3551	42.3	42.5	41.4	42.3	-	3.3	3.7	3.7	4.2	-
Textile machinery .....	3552	42.9	43.7	42.6	42.3	-	4.2	4.7	3.2	3.6	-
Printing trades machinery .....	3555	40.6	41.5	39.4	39.6	-	3.5	4.2	5.0	4.7	-
General industrial machinery .....	356	41.4	41.8	41.4	42.1	-	3.3	3.5	4.0	4.3	-
Pumps and pumping equipment .....	3561	40.9	41.1	42.5	44.0	-	2.3	2.6	4.0	4.7	-
Ball and roller bearings .....	3562	43.0	43.5	42.6	43.3	-	4.8	5.1	4.8	5.3	-
Air and gas compressors .....	3563	41.3	42.7	41.4	40.8	-	2.9	3.4	4.5	4.4	-
Blowers and fans .....	3564	40.7	40.7	40.9	40.8	-	2.6	2.5	3.3	3.2	-
Speed changers, drives, and gears .....	3566	42.7	43.1	40.9	42.3	-	4.3	4.4	4.1	4.8	-
Power transmission equipment, nec .....	3568	41.4	42.1	41.1	41.4	-	4.0	4.0	4.7	4.2	-
Office and computing machines .....	357	41.9	42.8	42.1	42.5	-	3.1	3.7	3.7	3.5	-
Electronic computing equipment .....	3573	41.8	42.8	42.0	42.4	-	2.9	3.5	3.7	3.4	-
Refrigeration and service machinery .....	358	41.0	41.2	40.6	41.7	-	3.0	3.0	3.3	3.5	-
Refrigeration and heating equipment .....	3585	41.3	41.5	41.0	42.2	-	3.3	3.1	3.5	3.7	-
Misc. machinery, except electrical .....	359	41.2	41.3	41.1	41.9	-	3.5	3.6	3.7	4.3	-
Carburetors, pistons, rings, and valves .....	3592	41.6	42.8	41.1	41.8	-	3.9	4.1	3.1	3.9	-
Machinery, except electrical, nec .....	3599	41.1	41.0	41.1	41.9	-	3.4	3.5	3.8	4.4	-
Electrical and electronic equipment .....	36	41.0	41.4	40.5	41.0	41.4	2.9	3.1	3.0	3.3	-
Electric distributing equipment .....	361	41.0	41.1	40.8	41.4	-	2.7	2.8	3.3	3.6	-
Transformers .....	3612	41.9	42.1	41.8	42.0	-	2.8	3.1	3.6	3.7	-
Switchgear and switchboard apparatus .....	3613	40.1	40.3	39.8	40.9	-	2.7	2.6	3.0	3.6	-
Electrical industrial apparatus .....	362	40.1	41.1	40.4	41.3	-	2.3	2.6	3.2	3.5	-
Motors and generators .....	3621	40.2	41.5	39.9	41.3	-	2.5	3.0	3.2	3.7	-
Industrial controls .....	3622	39.6	40.0	40.0	39.7	-	1.7	1.7	2.3	2.0	-
Household appliances .....	363	41.1	41.6	39.7	40.1	-	3.4	3.6	2.8	2.7	-
Household refrigerators and freezers .....	3632	39.6	39.9	40.1	40.0	-	3.2	3.4	3.5	2.8	-
Household laundry equipment .....	3633	41.4	42.3	40.6	40.6	-	2.7	2.9	3.6	2.4	-
Electric housewares and fans .....	3634	42.5	42.7	40.4	41.8	-	4.5	4.1	2.8	3.5	-
Electric lighting and wiring equipment .....	364	40.1	40.4	39.2	40.3	-	2.5	2.6	2.7	3.2	-
Electric lamps .....	3641	40.5	40.5	38.9	39.6	-	3.0	2.9	2.5	3.7	-
Current-carrying wiring devices .....	3643	40.1	40.2	38.8	40.0	-	1.9	2.3	2.8	2.9	-
Noncurrent-carrying wiring devices .....	3644	41.1	41.5	40.2	41.5	-	3.0	2.7	2.8	2.8	-
Residential lighting fixtures .....	3645	38.7	39.5	38.4	39.9	-	1.6	1.9	1.7	2.4	-
Radio and TV receiving equipment .....	365	42.3	41.9	40.0	40.8	-	2.7	3.0	3.2	3.1	-
Radio and TV receiving sets .....	3651	41.9	42.4	39.6	40.5	-	1.7	2.6	2.5	2.4	-
Communication equipment .....	366	41.3	41.5	41.4	41.2	-	2.7	2.8	2.7	2.9	-
Telephone and telegraph apparatus .....	3661	40.9	40.7	42.6	42.6	-	2.0	2.3	3.1	3.3	-
Radio and TV communication equipment .....	3662	41.5	41.8	41.0	40.8	-	2.9	3.0	2.6	2.8	-
Electronic components and accessories .....	367	40.8	41.4	40.4	40.8	-	3.1	3.3	3.2	3.3	-
Electronic tubes .....	3671-3	44.0	43.2	41.9	42.1	-	3.6	3.1	2.1	1.8	-
Semiconductors and related devices .....	3674	40.1	41.1	40.2	40.4	-	3.1	3.5	3.6	3.5	-
Electronic components, nec .....	3679	41.2	41.7	40.8	41.0	-	3.3	3.5	3.4	3.5	-
Misc. electrical equipment and supplies .....	369	42.0	42.3	41.1	42.6	-	3.5	3.6	3.4	4.2	-
Storage batteries .....	3691	44.8	44.7	40.8	44.6	-	4.7	4.7	4.3	6.1	-
Engine electrical equipment .....	3694	41.7	42.0	42.0	42.6	-	3.6	3.8	4.0	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 workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Durable goods—Continued</b>											
Machinery, except electrical—Continued											
Construction and related machinery .....	353	\$11.02	\$11.00	\$11.31	\$11.28	-	\$455.13	\$457.60	\$480.68	\$487.30	-
Construction machinery .....	3531	12.21	12.14	12.81	12.71	-	512.82	514.74	559.80	563.05	-
Mining machinery .....	3532	11.28	11.30	11.39	11.61	-	459.10	464.43	486.35	500.39	-
Oil field machinery .....	3533	11.06	11.09	11.10	11.00	-	444.61	441.38	469.53	473.00	-
Conveyors and conveying equipment .....	3535	9.83	9.83	9.76	9.75	-	406.96	417.78	408.94	411.45	-
Industrial trucks and tractors .....	3537	9.73	9.78	9.77	9.86	-	397.96	402.94	398.62	408.20	-
Metalworking machinery .....	354	11.05	11.05	11.12	11.17	-	466.31	467.42	463.70	478.08	-
Machine tools, metal cutting types .....	3541	11.04	11.09	11.16	11.14	-	460.37	464.67	458.68	471.22	-
Machine tools, metal forming types .....	3542	11.53	11.51	11.39	11.45	-	483.11	489.18	492.05	496.93	-
Special dies, tools, jigs, and fixtures .....	3544	11.75	11.77	11.88	11.96	-	507.60	507.29	502.52	521.46	-
Machine tool accessories .....	3545	9.94	9.95	10.01	10.00	-	400.58	405.96	407.41	417.00	-
Power driven hand tools .....	3546	8.44	8.39	8.50	8.59	-	348.57	345.67	345.95	351.33	-
Special industry machinery .....	355	10.42	10.52	10.72	10.79	-	433.47	446.05	443.81	454.26	-
Food products machinery .....	3551	10.60	10.76	10.78	10.84	-	448.38	457.30	446.29	458.53	-
Textile machinery .....	3552	8.47	8.54	8.75	8.86	-	363.36	373.20	372.75	374.78	-
Printing trades machinery .....	3555	11.09	11.30	11.62	11.49	-	450.25	468.95	457.83	455.00	-
General industrial machinery .....	356	10.27	10.29	10.43	10.47	-	425.18	430.12	431.80	440.79	-
Pumps and pumping equipment .....	3561	10.91	10.96	11.05	11.14	-	446.22	450.46	469.63	490.16	-
Ball and roller bearings .....	3562	10.71	10.77	10.98	10.94	-	460.53	468.50	467.75	473.70	-
Air and gas compressors .....	3563	10.12	10.20	10.12	10.19	-	417.96	435.54	418.97	415.75	-
Blowers and fans .....	3564	9.07	9.18	9.30	9.31	-	369.15	373.63	380.37	379.85	-
Speed changers, drives, and gears .....	3566	10.35	10.23	10.17	10.16	-	441.95	440.91	415.95	429.77	-
Power transmission equipment, nec .....	3568	10.35	10.40	10.43	10.55	-	428.49	437.84	428.67	436.77	-
Office and computing machines .....	357	10.05	10.10	10.44	10.43	-	421.10	432.28	439.52	443.28	-
Electronic computing equipment .....	3573	10.09	10.13	10.46	10.43	-	421.76	433.56	439.32	442.23	-
Refrigeration and service machinery .....	358	10.32	10.39	10.43	10.48	-	423.12	428.07	423.46	437.02	-
Refrigeration and heating equipment .....	3585	10.55	10.62	10.63	10.66	-	435.72	440.73	435.83	449.85	-
Misc. machinery, except electrical .....	359	10.21	10.29	10.44	10.46	-	420.65	424.98	429.08	438.27	-
Carburetors, pistons, rings, and valves .....	3592	12.56	12.66	12.68	12.79	-	522.50	541.85	521.15	534.62	-
Machinery, except electrical, nec .....	3599	9.83	9.90	10.09	10.10	-	404.01	405.90	414.70	423.19	-
Electrical and electronic equipment .....	36	9.67	9.73	9.98	9.94	\$9.98	396.47	402.82	404.19	407.54	\$413.17
Electric distributing equipment .....	361	9.09	9.12	9.37	9.38	-	372.69	374.83	382.30	388.33	-
Transformers .....	3612	8.97	9.06	9.28	9.26	-	375.84	381.43	387.90	388.92	-
Switchgear and switchboard apparatus .....	3613	9.21	9.18	9.45	9.48	-	369.32	369.95	376.11	387.73	-
Electrical industrial apparatus .....	362	9.66	9.74	9.84	9.89	-	387.37	400.31	397.54	408.46	-
Motors and generators .....	3621	9.59	9.65	9.66	9.79	-	385.52	400.48	385.43	404.33	-
Industrial controls .....	3622	9.52	9.67	9.74	9.69	-	376.99	386.80	389.60	384.69	-
Household appliances .....	363	9.47	9.54	9.95	9.84	-	389.22	396.86	395.02	394.58	-
Household refrigerators and freezers .....	3632	11.05	11.29	11.55	11.38	-	437.58	450.47	463.16	455.20	-
Household laundry equipment .....	3633	11.37	11.36	12.03	11.82	-	470.72	480.53	488.42	479.89	-
Electric housewares and fans .....	3634	7.17	7.24	7.22	7.34	-	304.73	309.15	291.69	306.81	-
Electric lighting and wiring equipment .....	364	8.88	8.95	9.18	9.14	-	356.09	361.58	359.86	368.34	-
Electric lamps .....	3641	9.85	10.01	10.60	10.73	-	398.93	405.41	412.34	424.91	-
Current-carrying wiring devices .....	3643	8.39	8.41	8.57	8.51	-	336.44	338.08	332.52	340.40	-
Noncurrent-carrying wiring devices .....	3644	9.34	9.37	9.44	9.44	-	383.87	388.86	379.49	391.76	-
Residential lighting fixtures .....	3645	6.40	6.45	6.79	6.68	-	247.68	254.78	260.74	266.53	-
Radio and TV receiving equipment .....	365	9.19	9.36	9.14	9.25	-	388.74	392.18	365.60	377.40	-
Radio and TV receiving sets .....	3651	9.53	9.74	9.34	9.49	-	399.31	412.98	369.86	384.35	-
Communication equipment .....	366	11.37	11.43	11.92	11.86	-	469.58	474.35	493.49	488.63	-
Telephone and telegraph apparatus .....	3661	11.17	11.25	11.19	11.16	-	456.85	457.88	476.69	475.42	-
Radio and TV communication equipment .....	3662	11.45	11.50	12.18	12.11	-	475.18	480.70	499.38	494.09	-
Electronic components and accessories .....	367	8.71	8.79	9.02	8.99	-	355.37	363.91	364.41	366.79	-
Electronic tubes .....	3671-3	10.76	10.89	11.14	11.13	-	473.44	470.45	466.77	468.57	-
Semiconductors and related devices .....	3674	10.31	10.54	10.80	10.86	-	413.43	433.19	434.16	438.74	-
Electronic components, nec .....	3679	7.89	7.92	8.12	8.09	-	325.07	330.26	331.30	331.69	-
Misc. electrical equipment and supplies .....	369	10.47	10.38	10.56	10.56	-	439.74	439.07	434.02	449.86	-
Storage batteries .....	3691	11.06	10.98	11.33	11.59	-	495.49	490.81	462.26	516.91	-
Engine electrical equipment .....	3694	10.93	10.77	11.10	10.95	-	455.78	452.34	466.20	466.47	-

See footnotes at end of table.



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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .....	37	41.9	42.4	41.2	42.3	42.5	4.2	4.3	4.2	4.5	-
Motor vehicles and equipment .....	371	41.9	42.3	41.1	42.6	43.0	4.0	4.1	4.3	4.7	-
Motor vehicles and car bodies .....	3711	41.3	41.8	40.6	42.3	-	3.8	3.7	4.1	4.4	-
Truck and bus bodies .....	3713	40.3	40.9	41.5	41.8	-	2.8	3.1	4.5	3.7	-
Motor vehicle parts and accessories .....	3714	42.8	43.2	41.7	43.2	-	4.5	4.7	4.7	5.3	-
Truck trailers .....	3715	39.5	40.7	40.4	40.4	-	2.2	2.9	3.3	2.9	-
Aircraft and parts .....	372	42.6	43.3	42.0	42.6	-	5.1	5.4	4.7	5.0	-
Aircraft .....	3721	41.9	42.4	42.1	42.4	-	4.6	4.5	4.4	4.3	-
Aircraft engines and engine parts .....	3724	43.0	44.0	41.9	42.4	-	5.6	6.5	4.7	5.0	-
Aircraft equipment, nec .....	3728	43.5	44.2	41.8	43.0	-	5.5	5.8	5.3	6.1	-
Ship and boat building and repairing .....	373	40.4	40.5	39.4	40.5	-	2.8	3.0	2.8	2.9	-
Ship building and repairing .....	3731	40.4	40.5	39.9	40.6	-	2.9	3.3	3.1	2.9	-
Boat building and repairing .....	3732	40.3	40.4	38.4	40.2	-	2.5	2.5	2.2	2.9	-
Railroad equipment .....	374	40.8	40.2	40.4	40.0	-	3.3	3.8	1.6	2.1	-
Guided missiles, space vehicles, and parts .....	376	41.8	42.5	42.3	42.3	-	4.1	4.5	4.2	4.1	-
Guided missiles and space vehicles .....	3761	41.9	42.6	42.2	42.5	-	4.3	4.6	4.2	4.2	-
Miscellaneous transportation equipment .....	379	41.6	41.8	39.2	40.4	-	4.3	4.5	3.0	3.6	-
Travel trailers and campers .....	3792	36.2	39.0	36.8	39.5	-	2.3	2.9	1.4	3.0	-
Instruments and related products .....	38	40.7	41.4	41.1	41.6	41.8	2.6	2.9	3.1	3.3	-
Engineering and scientific instruments .....	381	41.4	42.3	41.2	41.9	-	2.9	3.3	3.2	3.8	-
Measuring and controlling devices .....	382	40.3	41.5	40.6	41.2	-	2.3	2.5	2.7	2.8	-
Environmental controls .....	3822	39.5	40.0	39.3	39.5	-	2.1	2.2	2.8	2.8	-
Process control instruments .....	3823	40.7	41.4	42.2	42.9	-	2.3	2.3	3.4	3.4	-
Instruments to measure electricity .....	3825	39.9	41.6	40.1	40.5	-	2.0	2.5	2.1	2.4	-
Optical instruments and lenses .....	383	41.9	41.8	43.6	43.8	-	2.9	2.9	3.3	3.6	-
Medical instruments and supplies .....	384	40.3	41.0	40.6	41.4	-	2.6	3.0	3.1	3.5	-
Surgical and medical instruments .....	3841	40.4	41.1	40.8	41.7	-	2.7	3.1	3.1	3.1	-
Surgical appliances and supplies .....	3842	40.4	40.9	40.3	41.0	-	2.6	2.9	3.1	3.9	-
Ophthalmic goods .....	385	40.2	40.2	40.9	40.4	-	2.5	3.1	2.9	2.6	-
Photographic equipment and supplies .....	386	42.3	42.3	43.7	43.6	-	3.6	3.6	4.3	4.3	-
Watches, clocks, and watchcases .....	387	39.6	40.7	37.8	40.4	-	2.0	2.6	2.9	2.9	-
Miscellaneous manufacturing .....	39	39.8	40.1	39.0	40.0	39.3	2.9	3.0	2.7	3.3	-
Jewelry, silverware, and plated ware .....	391	40.5	40.5	38.2	40.1	-	3.8	4.0	2.4	3.9	-
Jewelry, precious metal .....	3911	39.6	40.1	37.6	39.9	-	3.8	4.4	2.3	4.0	-
Musical instruments .....	393	40.7	42.1	40.1	41.2	-	2.6	3.5	2.5	3.3	-
Toys and sporting goods .....	394	39.2	39.5	39.2	39.9	-	2.2	2.3	2.3	2.9	-
Dolls, games, toys, and children's vehicles .....	3942.4	39.0	39.6	38.5	39.8	-	2.0	2.4	2.8	3.1	-
Sporting and athletic goods, nec .....	3949	39.5	39.5	39.8	40.1	-	2.3	2.1	2.0	2.6	-
Pens, pencils, office, and art supplies .....	395	40.2	40.8	39.8	40.7	-	2.3	2.7	2.0	2.3	-
Costume jewelry and notions .....	396	39.1	40.2	37.1	37.7	-	3.5	4.6	3.5	4.0	-
Costume jewelry .....	3961	37.1	38.3	35.4	35.4	-	3.3	5.2	3.1	3.5	-
Miscellaneous manufactures .....	399	40.1	39.9	39.5	40.5	-	3.0	2.6	3.0	3.5	-
Signs and advertising displays .....	3993	40.8	40.7	39.1	40.0	-	3.2	3.0	2.9	3.3	-
<b>Nondurable goods</b>											
Food and kindred products .....	20	40.0	40.3	40.4	40.6	40.6	3.5	3.6	4.0	3.9	3.9
Food and kindred products .....	20	40.0	40.2	40.8	40.7	40.5	4.0	4.0	4.8	4.4	-
Meat products .....	201	39.3	39.8	40.7	40.9	-	3.6	3.9	4.2	4.5	-
Meat packing plants .....	2011	40.6	41.0	41.7	43.7	-	4.1	4.1	5.2	6.2	-
Sausages and other prepared meats .....	2013	39.6	40.9	41.4	40.8	-	3.3	3.8	4.3	4.2	-
Poultry dressing plants .....	2016	36.0	38.5	39.7	38.7	-	3.1	3.7	3.4	3.3	-
Dairy products .....	202	40.6	41.5	42.3	40.6	-	4.1	4.4	5.4	4.1	-
Cheese, natural and processed .....	2022	38.6	39.6	40.4	38.7	-	3.4	4.0	4.5	3.6	-
Fluid milk .....	2026	42.2	43.0	44.0	41.7	-	5.0	5.1	6.4	4.6	-
Preserved fruits and vegetables .....	203	39.3	38.4	40.2	39.6	-	4.2	3.1	5.8	4.2	-
Canned specialties .....	2032	41.8	39.2	41.0	39.5	-	6.3	3.7	7.6	4.1	-
Canned fruits and vegetables .....	2033	39.5	38.3	40.9	39.5	-	4.5	3.1	6.9	4.7	-
Frozen fruits and vegetables .....	2037	37.7	35.9	39.0	38.1	-	3.5	2.8	6.1	4.0	-
Grain mill products .....	204	44.2	44.9	45.0	44.4	-	6.1	6.2	7.0	6.3	-
Flour and other grain mill products .....	2041	48.1	48.8	49.1	48.4	-	7.3	7.7	9.3	8.5	-
Prepared feeds, nec .....	2048	42.9	43.4	44.4	43.9	-	5.8	5.8	6.9	6.0	-
Bakery products .....	205	39.8	39.8	40.1	40.1	-	3.7	4.0	4.4	4.1	-
Bread, cake, and related products .....	2051	39.1	39.2	39.4	39.2	-	3.7	4.1	4.8	4.2	-
Cookies and crackers .....	2052	41.5	41.3	41.7	42.3	-	3.5	3.9	3.5	3.8	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .....	37	\$12.82	\$12.88	\$13.07	\$13.10	\$13.18	\$537.16	\$546.11	\$538.48	\$554.13	\$560.15
Motor vehicles and equipment .....	371	13.42	13.44	13.69	13.75	13.83	562.30	568.51	562.66	585.75	594.69
Motor vehicles and car bodies .....	3711	15.06	14.99	15.61	15.63	-	621.98	626.58	633.77	661.15	-
Truck and bus bodies .....	3713	11.09	11.28	11.54	11.45	-	446.93	461.35	478.91	478.61	-
Motor vehicle parts and accessories .....	3714	12.61	12.62	12.85	12.93	-	539.71	545.18	535.85	558.58	-
Truck trailers .....	3715	9.44	9.51	9.17	9.20	-	372.88	387.06	370.47	371.68	-
Aircraft and parts .....	372	12.95	13.11	13.27	13.30	-	551.67	567.66	557.34	566.58	-
Aircraft .....	3721	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	-	-	-	-	-	-
Aircraft engines and engine parts .....	3724	\$13.12	\$13.44	\$13.42	\$13.49	-	564.16	591.36	562.30	571.98	-
Aircraft equipment, nec .....	3728	12.05	12.09	12.41	12.41	-	524.18	534.38	518.74	533.63	-
Ship and boat building and repairing .....	373	10.51	10.45	10.42	10.28	-	424.60	423.23	410.55	416.34	-
Ship building and repairing .....	3731	11.63	11.58	11.66	11.51	-	469.85	468.99	465.23	467.31	-
Boat building and repairing .....	3732	7.97	7.94	7.94	8.01	-	321.19	320.78	304.90	322.00	-
Railroad equipment .....	374	12.53	12.57	12.09	12.14	-	511.22	505.31	488.44	485.60	-
Guided missiles, space vehicles, and parts .....	376	12.22	12.34	13.05	13.06	-	510.80	524.45	552.02	552.44	-
Guided missiles and space vehicles .....	3761	12.60	12.68	13.36	13.43	-	527.94	540.17	563.79	570.78	-
Miscellaneous transportation equipment .....	379	10.86	10.78	10.30	10.35	-	451.78	450.60	403.76	418.14	-
Travel trailers and campers .....	3792	9.11	9.24	8.23	8.42	-	348.00	360.36	302.86	332.59	-
Instruments and related products .....	38	9.56	9.63	9.80	9.81	9.88	389.09	398.68	402.78	408.10	412.98
Engineering and scientific instruments .....	381	10.33	10.38	10.76	10.89	-	427.66	439.07	443.31	456.29	-
Measuring and controlling devices .....	382	9.34	9.46	9.64	9.62	-	376.40	392.59	391.38	396.34	-
Environmental controls .....	3822	8.78	8.83	9.14	9.09	-	346.81	353.20	359.20	359.06	-
Process control instruments .....	3823	9.41	9.43	9.46	9.48	-	382.99	390.40	399.21	406.69	-
Instruments to measure electricity .....	3825	9.49	9.77	9.81	9.80	-	378.65	406.43	393.38	396.90	-
Optical instruments and lenses .....	383	10.41	10.44	10.36	10.42	-	436.18	436.39	451.70	456.40	-
Medical instruments and supplies .....	384	8.54	8.57	8.71	8.77	-	344.16	351.37	353.63	363.08	-
Surgical and medical instruments .....	3841	8.68	8.76	8.81	8.88	-	350.67	360.04	359.45	370.30	-
Surgical appliances and supplies .....	3842	8.44	8.42	8.61	8.66	-	340.98	344.38	346.98	355.06	-
Ophthalmic goods .....	385	7.28	7.30	7.51	7.44	-	292.66	293.46	307.16	300.58	-
Photographic equipment and supplies .....	386	12.98	13.12	13.53	13.46	-	549.05	554.98	591.26	586.86	-
Watches, clocks, and watchcases .....	387	6.97	7.02	7.13	7.21	-	276.01	285.71	269.51	291.28	-
Miscellaneous manufacturing .....	39	7.57	7.62	7.76	7.75	7.76	301.29	305.56	302.64	310.00	304.97
Jewelry, silverware, and plated ware .....	391	8.28	8.27	8.39	8.44	-	335.34	334.94	320.50	338.44	-
Jewelry, precious metal .....	3911	8.28	8.27	8.48	8.54	-	327.89	331.63	318.85	340.75	-
Musical instruments .....	393	7.21	7.23	7.55	7.59	-	293.45	304.38	302.76	312.71	-
Toys and sporting goods .....	394	6.97	6.95	7.19	7.10	-	273.22	274.53	281.85	283.29	-
Dolls, games, toys, and children's vehicles .....	3942,4	6.80	6.81	6.93	6.78	-	265.20	269.68	266.81	269.84	-
Sporting and athletic goods, nec .....	3949	7.12	7.07	7.42	7.39	-	281.24	279.27	295.32	296.34	-
Pens, pencils, office, and art supplies .....	395	7.80	7.94	7.66	7.67	-	313.56	323.95	304.87	312.17	-
Costume jewelry and notions .....	396	5.91	6.05	6.25	6.21	-	231.08	243.21	231.88	234.12	-
Costume jewelry .....	3961	5.53	5.66	5.85	5.89	-	205.16	216.78	207.09	208.51	-
Miscellaneous manufactures .....	399	8.33	8.41	8.57	8.61	-	334.03	335.56	338.52	348.71	-
Signs and advertising displays .....	3993	8.80	8.72	8.98	8.98	-	359.04	354.90	351.12	359.20	-
<b>Nondurable goods</b> .....		8.96	9.02	9.28	9.18	9.24	358.40	363.51	374.91	372.71	375.14
Food and kindred products .....	20	8.69	8.79	8.92	8.86	8.94	347.60	353.36	363.94	360.60	362.07
Meat products .....	201	7.30	7.33	7.48	7.50	-	286.89	291.73	304.44	306.75	-
Meat packing plants .....	2011	8.29	8.27	8.42	8.49	-	336.57	339.07	351.11	371.01	-
Sausages and other prepared meats .....	2013	8.69	8.69	8.86	8.80	-	344.12	355.42	366.80	359.04	-
Poultry dressing plants .....	2016	5.95	5.99	6.23	6.17	-	226.10	230.62	247.33	238.78	-
Dairy products .....	202	9.49	9.62	9.83	9.65	-	385.29	399.23	415.81	391.79	-
Cheese, natural and processed .....	2022	8.79	8.96	9.19	8.94	-	339.29	354.82	371.28	345.98	-
Fluid milk .....	2026	9.95	10.06	10.30	10.10	-	419.89	432.58	453.20	421.17	-
Preserved fruits and vegetables .....	203	7.90	8.10	8.10	8.04	-	310.47	311.04	325.62	318.38	-
Canned specialties .....	2032	9.84	10.11	9.87	10.10	-	411.31	396.31	404.67	398.95	-
Canned fruits and vegetables .....	2033	7.63	7.74	7.89	7.77	-	301.39	296.44	322.70	306.92	-
Frozen fruits and vegetables .....	2037	7.21	7.48	7.60	7.48	-	271.82	268.53	296.40	284.99	-
Grain mill products .....	204	10.59	10.61	10.98	10.76	-	468.08	476.39	494.10	477.74	-
Flour and other grain mill products .....	2041	10.30	10.38	11.02	10.89	-	495.43	506.54	541.08	527.08	-
Prepared feeds, nec .....	2048	8.20	8.22	8.49	8.37	-	351.78	356.75	376.96	367.44	-
Bakery products .....	205	9.93	9.95	10.17	10.00	-	395.21	396.01	407.82	401.00	-
Bread, cake, and related products .....	2051	9.85	9.89	10.21	9.98	-	385.14	387.69	402.27	391.22	-
Cookies and crackers .....	2052	10.13	10.09	10.08	10.05	-	420.40	416.72	420.34	425.12	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Food and kindred products—Continued											
Sugar and confectionery products .....	206	41.2	42.0	40.0	41.4	-	3.9	4.1	3.4	4.2	-
Cane and beet sugar .....	2061-3	41.6	45.7	42.3	43.6	-	6.2	7.7	5.3	6.5	-
Confectionery products .....	2065	40.9	40.3	38.9	40.1	-	2.9	2.6	2.5	3.2	-
Fats and oils .....	207	43.8	43.3	43.1	43.3	-	5.7	5.4	5.9	5.8	-
Beverages .....	208	40.2	40.5	40.9	40.1	-	3.5	3.8	4.2	3.4	-
Malt beverages .....	2082	41.5	43.1	41.7	43.2	-	4.9	6.3	5.6	5.6	-
Bottled and canned soft drinks .....	2086	39.3	39.1	40.4	38.8	-	3.0	2.9	3.4	2.5	-
Misc. food and kindred products .....	209	38.0	37.8	39.1	39.4	-	3.6	3.4	4.1	4.1	-
Tobacco manufactures .....	21	39.0	38.0	38.9	40.8	41.1	2.1	1.6	2.2	3.1	-
Cigarettes .....	211	36.9	37.4	37.5	39.6	-	1.4	1.5	1.9	2.9	-
Textile mill products .....	22	41.6	41.8	41.7	42.2	42.3	4.3	4.4	4.5	4.6	-
Weaving mills, cotton .....	221	43.2	43.2	43.2	43.0	-	6.0	6.0	6.4	5.7	-
Weaving mills, synthetics .....	222	42.1	42.2	42.4	42.3	-	4.4	4.5	4.8	4.7	-
Weaving and finishing mills, wool .....	223	41.7	41.8	39.8	41.5	-	4.0	4.3	1.0	1.9	-
Narrow fabric mills .....	224	40.6	41.2	40.1	41.4	-	3.0	3.3	3.4	3.7	-
Knitting mills .....	225	39.5	39.8	40.0	40.7	-	3.2	3.2	3.4	3.7	-
Women's hosiery, except socks .....	2251	38.0	39.4	37.3	38.8	-	2.2	2.5	2.6	2.7	-
Hosiery, nec .....	2252	39.3	39.9	38.6	40.2	-	3.0	3.0	2.4	3.2	-
Knit outerwear mills .....	2253	38.7	38.5	40.5	40.3	-	3.0	3.1	3.8	3.9	-
Knit underwear mills .....	2254	40.3	39.4	39.7	40.4	-	2.9	2.8	2.1	2.7	-
Circular knit fabric mills .....	2257	41.9	42.6	41.7	42.7	-	5.0	5.1	4.5	5.2	-
Textile finishing, except wool .....	226	42.5	42.9	42.5	42.7	-	4.9	5.2	4.8	5.4	-
Finishing plants, cotton .....	2261	42.3	42.7	42.7	43.5	-	5.2	5.6	4.1	5.7	-
Finishing plants, synthetics .....	2262	42.0	42.8	42.3	42.5	-	5.2	5.3	4.9	5.3	-
Floor covering mills .....	227	42.4	42.6	42.3	44.5	-	4.3	4.7	3.8	4.5	-
Yarn and thread mills .....	228	42.5	42.7	42.6	42.6	-	4.9	4.9	5.4	5.0	-
Yarn mills, except wool .....	2281	43.5	43.9	43.3	43.4	-	5.4	5.5	6.1	5.4	-
Throwing and winding mills .....	2282	38.4	38.1	39.3	37.6	-	3.4	3.2	2.6	2.3	-
Miscellaneous textile goods .....	229	42.8	43.2	42.2	43.0	-	4.5	4.5	4.4	4.8	-
Apparel and other textile products .....	23	36.9	37.2	36.3	37.6	37.5	1.7	1.8	1.8	2.1	-
Men's and boys' suits and coats .....	231	35.7	36.1	35.8	35.8	-	.9	.9	1.3	1.2	-
Men's and boys' furnishings .....	232	37.1	37.5	36.6	38.0	-	1.3	1.5	1.5	1.9	-
Men's and boys' shirts and nightwear .....	2321	37.3	37.7	36.7	37.9	-	1.3	1.5	1.4	1.5	-
Men's and boys' separate trousers .....	2327	37.4	37.8	35.8	37.9	-	1.1	1.5	1.2	1.9	-
Men's and boys' work clothing .....	2328	36.0	35.8	36.2	37.9	-	1.1	1.3	1.8	2.0	-
Women's and misses' outerwear .....	233	35.0	35.6	34.3	35.5	-	1.4	1.5	1.4	1.7	-
Women's and misses' blouses and waists .....	2331	35.9	36.2	34.7	35.6	-	1.4	1.5	1.2	1.5	-
Women's and misses' dresses .....	2335	33.9	34.3	33.9	34.8	-	1.2	1.3	1.2	1.5	-
Women's and misses' suits and coats .....	2337	34.6	35.2	34.0	35.5	-	1.6	1.3	2.0	2.3	-
Women's and misses' outerwear, nec .....	2339	35.3	36.1	34.5	35.7	-	1.5	1.7	1.5	1.8	-
Women's and children's undergarments .....	234	37.8	37.5	38.0	39.1	-	1.6	1.6	1.8	2.1	-
Women's and children's underwear .....	2341	38.2	37.9	38.5	39.4	-	1.7	1.7	1.8	2.1	-
Brassieres and allied garments .....	2342	35.7	35.7	35.4	37.3	-	1.3	1.1	1.6	2.4	-
Children's outerwear .....	236	37.3	36.9	36.6	38.1	-	1.5	1.7	1.4	2.1	-
Children's dresses and blouses .....	2361	36.5	35.9	35.4	36.9	-	1.3	1.4	1.1	2.0	-
Misc. apparel and accessories .....	238	38.3	38.7	37.9	39.1	-	2.0	2.0	1.9	2.4	-
Misc. fabricated textile products .....	239	39.9	40.0	38.6	40.2	-	3.1	3.3	3.2	3.6	-
Curtains and draperies .....	2391	38.2	38.5	36.2	38.2	-	2.0	2.3	1.6	2.1	-
House furnishings, nec .....	2392	40.2	40.2	39.7	40.9	-	3.5	3.4	4.1	4.2	-
Automotive and apparel trimmings .....	2396	41.3	41.9	40.8	42.4	-	4.8	5.6	5.5	5.9	-
Paper and allied products .....	26	43.1	43.4	44.1	43.6	43.8	4.9	5.0	6.2	5.4	-
Paper and pulp mills .....	261,2,6	45.3	45.1	47.9	45.7	-	6.6	6.6	9.0	6.8	-
Paper mills, except building paper .....	262	45.5	45.4	48.5	45.7	-	6.7	6.8	9.4	6.8	-
Paperboard mills .....	263	43.9	44.1	45.4	44.9	-	7.0	6.6	8.6	7.6	-
Misc. converted paper products .....	264	41.6	42.3	41.9	42.2	-	3.4	3.7	4.4	4.2	-
Paper coating and glazing .....	2641	42.2	42.9	44.2	44.2	-	3.0	3.4	4.6	4.3	-
Envelopes .....	2642	41.8	42.5	40.9	41.6	-	3.3	3.4	3.3	3.5	-
Bags, except textile bags .....	2643	42.2	42.4	42.1	41.8	-	4.2	4.3	5.1	4.6	-
Paperboard containers and boxes .....	265	42.4	42.7	42.5	42.9	-	4.3	4.4	5.1	4.8	-
Folding paperboard boxes .....	2651	42.8	42.8	42.3	42.6	-	4.2	4.3	4.7	4.7	-
Corrugated and solid fiber boxes .....	2653	43.3	43.4	43.1	43.6	-	4.8	4.6	5.8	5.2	-
Sanitary food containers .....	2654	39.5	40.9	42.2	41.7	-	3.9	4.2	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 workers<sup>1</sup> on private nonagricultural payrolls by detailed industry—Continued**

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Nondurable goods—Continued</b>											
Food and kindred products—Continued											
Sugar and confectionery products .....	206	\$8.73	\$8.66	\$9.27	\$8.93	-	\$359.68	\$363.72	\$370.80	\$369.70	-
Cane and beet sugar .....	2061-3	9.86	9.88	10.78	9.57	-	410.18	451.52	455.99	417.25	-
Confectionery products .....	2065	7.59	7.44	8.04	7.96	-	310.43	299.83	312.76	319.20	-
Fats and oils .....	207	8.83	8.98	9.32	9.21	-	386.75	388.83	401.69	398.79	-
Beverages .....	208	11.78	11.97	11.92	11.98	-	473.56	484.79	487.53	480.40	-
Malt beverages .....	2082	16.47	16.70	16.66	16.54	-	683.51	719.77	694.72	714.53	-
Bottled and canned soft drinks .....	2086	9.16	9.24	9.47	9.47	-	359.99	361.28	382.59	367.44	-
Misc. food and kindred products .....	209	7.95	8.11	8.27	8.30	-	302.10	306.56	323.36	327.02	-
Tobacco manufactures .....	21	12.14	12.67	12.89	12.75	\$13.54	473.46	481.46	501.42	520.20	\$556.49
Cigarettes .....	211	15.79	15.79	16.76	16.89	-	582.65	590.55	628.50	668.84	-
Textile mill products .....	22	7.02	7.05	7.23	7.24	7.32	292.03	294.69	301.49	305.53	309.64
Weaving mills, cotton .....	221	7.45	7.43	7.59	7.60	-	321.84	320.98	327.89	326.80	-
Weaving mills, synthetics .....	222	7.53	7.53	7.74	7.81	-	317.01	317.77	328.18	330.36	-
Weaving and finishing mills, wool .....	223	7.42	7.52	7.75	7.71	-	309.41	314.34	308.45	319.97	-
Narrow fabric mills .....	224	6.53	6.61	6.85	6.70	-	265.12	272.33	274.69	277.38	-
Knitting mills .....	225	6.41	6.44	6.58	6.59	-	253.20	256.31	263.20	268.21	-
Women's hosiery, except socks .....	2251	6.23	6.24	6.51	6.48	-	236.74	245.86	242.82	251.42	-
Hosiery, nec .....	2252	6.07	6.06	6.31	6.34	-	238.55	241.79	243.57	254.87	-
Knit outerwear mills .....	2253	6.45	6.51	6.48	6.49	-	249.62	250.64	262.44	261.55	-
Knit underwear mills .....	2254	5.93	5.99	6.19	6.16	-	238.98	236.01	245.74	248.86	-
Circular knit fabric mills .....	2257	7.01	7.05	7.21	7.24	-	293.72	300.33	300.66	309.15	-
Textile finishing, except wool .....	226	7.26	7.35	7.47	7.57	-	308.55	315.32	317.48	323.24	-
Finishing plants, cotton .....	2261	7.29	7.42	7.42	7.52	-	308.37	316.83	316.83	327.12	-
Finishing plants, synthetics .....	2262	7.65	7.71	7.72	7.82	-	321.30	329.99	326.56	332.35	-
Floor covering mills .....	227	7.36	7.47	7.52	7.55	-	312.06	318.22	318.10	335.98	-
Yarn and thread mills .....	228	6.61	6.60	6.89	6.88	-	280.93	281.82	293.51	293.09	-
Yarn mills, except wool .....	2281	6.60	6.61	6.92	6.88	-	287.10	290.18	299.64	298.59	-
Throwing and winding mills .....	2282	6.68	6.62	6.85	6.83	-	256.51	252.22	269.21	256.81	-
Miscellaneous textile goods .....	229	7.93	7.99	8.22	8.15	-	339.40	345.17	346.88	350.45	-
Apparel and other textile products .....	23	5.87	5.87	6.01	5.98	6.00	216.60	218.36	218.16	224.85	225.00
Men's and boys' suits and coats .....	231	6.61	6.61	6.70	6.86	-	235.98	238.62	239.86	245.59	-
Men's and boys' furnishings .....	232	5.39	5.38	5.51	5.47	-	199.97	201.75	201.67	207.86	-
Men's and boys' shirts and nightwear .....	2321	5.15	5.20	5.37	5.30	-	192.10	196.04	197.08	200.87	-
Men's and boys' separate trousers .....	2327	5.26	5.26	5.30	5.37	-	196.72	198.83	189.74	203.52	-
Men's and boys' work clothing .....	2328	5.48	5.45	5.58	5.47	-	197.28	195.11	202.00	207.31	-
Women's and misses' outerwear .....	233	5.67	5.60	5.85	5.80	-	198.45	199.36	200.66	205.90	-
Women's and misses' blouses and waists .....	2331	5.04	5.03	5.09	5.08	-	180.94	182.09	176.62	180.85	-
Women's and misses' dresses .....	2335	5.98	5.89	6.18	6.17	-	202.72	202.03	209.50	214.72	-
Women's and misses' suits and coats .....	2337	6.45	6.49	6.72	6.67	-	223.17	228.45	228.48	236.79	-
Women's and misses' outerwear, nec .....	2339	5.51	5.42	5.69	5.62	-	194.50	195.66	196.31	200.63	-
Women's and children's undergarments .....	234	5.37	5.40	5.57	5.56	-	202.99	202.50	211.66	217.40	-
Women's and children's underwear .....	2341	5.21	5.24	5.40	5.39	-	199.02	198.60	207.90	212.37	-
Brassieres and allied garments .....	2342	6.22	6.23	6.61	6.60	-	222.05	222.41	233.99	246.18	-
Children's outerwear .....	236	5.15	5.20	5.39	5.35	-	192.10	191.88	197.27	203.84	-
Children's dresses and blouses .....	2361	4.98	5.02	5.28	5.29	-	181.77	180.22	186.91	195.20	-
Misc. apparel and accessories .....	238	5.57	5.59	5.86	5.87	-	213.33	216.33	222.09	229.52	-
Misc. fabricated textile products .....	239	7.13	7.22	7.20	7.18	-	284.49	288.80	277.92	288.64	-
Curtains and draperies .....	2391	5.66	5.67	5.85	5.82	-	216.21	218.30	211.77	222.32	-
House furnishings, nec .....	2392	5.97	5.94	6.21	6.10	-	239.99	238.79	246.54	249.49	-
Automotive and apparel trimmings .....	2396	11.15	11.43	10.89	11.13	-	460.50	478.92	444.31	471.91	-
Paper and allied products .....	26	11.25	11.27	11.67	11.45	11.44	484.88	489.12	514.65	499.22	501.07
Paper and pulp mills .....	261,2,6	13.80	13.89	14.46	14.10	-	625.14	626.44	692.63	644.37	-
Paper mills, except building paper .....	262	13.86	13.97	14.53	14.13	-	630.63	634.24	704.71	645.74	-
Paperboard mills .....	263	14.17	14.01	14.42	14.39	-	622.06	617.84	654.67	646.11	-
Misc. converted paper products .....	264	9.66	9.69	10.05	9.93	-	401.86	409.89	421.10	419.05	-
Paper coating and glazing .....	2641	11.17	11.14	11.10	11.11	-	471.37	477.91	490.62	491.06	-
Envelopes .....	2642	8.85	8.90	9.34	9.42	-	369.93	378.25	382.01	391.87	-
Bags, except textile bags .....	2643	8.95	8.98	9.41	9.31	-	377.69	380.75	396.16	389.16	-
Paperboard containers and boxes .....	265	9.56	9.61	9.80	9.72	-	405.34	410.35	416.50	416.99	-
Folding paperboard boxes .....	2651	9.80	9.87	10.04	10.09	-	419.44	422.44	424.69	429.83	-
Corrugated and solid fiber boxes .....	2653	9.85	9.88	10.07	9.93	-	426.51	428.79	434.02	432.95	-
Sanitary food containers .....	2654	9.27	9.38	9.51	9.51	-	366.17	383.64	401.32	396.57	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing .....	27	38.1	38.3	38.5	38.2	38.3	3.1	3.1	3.5	3.4	-
Newspapers .....	271	33.7	34.2	34.6	33.9	-	1.9	1.9	2.0	1.8	-
Periodicals .....	272	38.5	38.6	39.8	39.1	-	3.2	3.1	4.4	4.0	-
Books .....	273	39.5	39.4	38.0	38.5	-	4.0	3.6	3.4	3.5	-
Book publishing .....	2731	38.4	39.2	37.8	38.3	-	2.6	2.9	2.6	3.0	-
Book printing .....	2732	41.3	39.6	38.4	38.9	-	6.1	4.6	4.6	4.5	-
Miscellaneous publishing .....	274	36.3	36.6	36.5	36.5	-	2.1	2.5	2.7	2.9	-
Commercial printing .....	275	39.7	39.9	40.1	39.6	-	3.7	3.7	4.2	4.0	-
Commercial printing, letterpress .....	2751	39.1	39.4	39.6	39.3	-	3.1	3.2	3.4	3.3	-
Commercial printing, lithographic .....	2752	39.9	39.9	40.1	39.4	-	4.0	3.7	4.4	4.1	-
Manifold business forms .....	276	40.8	41.8	41.2	41.5	-	3.1	3.7	4.3	4.3	-
Blankbooks and bookbinding .....	278	37.9	38.1	38.9	39.3	-	2.1	2.3	3.2	3.5	-
Printing trade services .....	279	38.6	38.8	38.4	38.6	-	3.8	3.7	3.7	4.2	-
Chemicals and allied products .....	28	41.8	42.4	42.8	42.4	42.8	3.6	3.8	4.3	4.2	-
Industrial inorganic chemicals .....	281	42.2	42.9	43.1	42.9	-	3.7	3.8	4.6	4.4	-
Industrial inorganic chemicals, nec .....	2819	42.7	43.6	43.2	42.9	-	3.6	3.9	4.6	4.3	-
Plastics materials and synthetics .....	282	41.8	42.7	44.5	42.9	-	3.8	4.0	5.1	4.6	-
Plastics materials and resins .....	2821	43.0	43.9	44.8	43.4	-	4.6	4.7	5.8	5.0	-
Organic fibers, noncellulosic .....	2824	41.0	42.1	44.4	42.5	-	3.1	3.5	4.6	4.0	-
Drugs .....	283	41.6	42.6	41.1	41.1	-	3.0	3.0	3.0	3.1	-
Pharmaceutical preparations .....	2834	41.5	42.1	40.8	40.8	-	3.1	3.1	3.1	3.1	-
Soap, cleaners, and toilet goods .....	284	40.8	41.3	40.7	41.1	-	3.1	3.4	3.7	3.5	-
Soap and other detergents .....	2841	43.5	45.2	43.6	44.3	-	4.7	5.9	5.6	5.8	-
Polishing, sanitation, and finishing preparations .....	2842,3	40.6	41.0	41.7	42.0	-	2.5	2.5	3.3	3.6	-
Toilet preparations .....	2844	39.3	39.1	38.7	39.1	-	2.4	2.4	2.9	2.2	-
Paints and allied products .....	285	41.5	41.2	41.4	41.6	-	3.2	2.7	3.8	3.6	-
Industrial organic chemicals .....	286	43.3	43.7	45.2	44.8	-	4.8	5.2	5.8	5.8	-
Cyclic crudes and intermediates .....	2865	42.7	43.6	44.2	43.2	-	4.6	4.7	5.8	5.8	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	43.5	43.7	45.5	45.2	-	4.8	5.4	5.8	5.8	-
Agricultural chemicals .....	287	41.6	42.0	43.2	43.2	-	4.4	4.2	4.3	4.6	-
Miscellaneous chemical products .....	289	41.1	42.0	42.3	41.3	-	3.6	4.0	3.6	3.7	-
Petroleum and coal products .....	29	43.9	44.0	43.8	43.7	43.0	5.1	4.9	5.4	5.3	-
Petroleum refining .....	291	43.8	44.3	43.6	43.1	-	4.5	4.5	4.9	4.6	-
Paving and roofing materials .....	295	45.6	43.9	45.4	46.4	-	7.7	7.0	8.0	8.5	-
Rubber and misc. plastics products .....	30	41.5	41.7	41.4	42.0	42.2	3.8	3.9	4.3	4.4	-
Tires and inner tubes .....	301	43.7	43.8	44.5	44.9	-	4.9	5.3	6.7	6.0	-
Rubber and plastics footwear .....	302	39.9	40.0	39.6	41.8	-	2.6	2.7	1.8	2.3	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	42.6	42.4	42.0	44.9	-	3.9	3.3	4.3	6.0	-
Fabricated rubber products, nec .....	306	41.2	41.3	40.9	41.8	-	3.4	3.3	3.7	3.9	-
Miscellaneous plastics products .....	307	41.2	41.5	41.1	41.6	-	3.8	3.8	4.1	4.2	-
Leather and leather products .....	31	36.8	37.1	37.7	38.7	38.7	1.8	2.1	2.1	2.3	-
Leather tanning and finishing .....	311	39.9	40.9	41.3	41.5	-	3.0	3.4	4.2	4.3	-
Footwear, except rubber .....	314	35.7	36.1	37.0	38.3	-	1.4	1.7	1.8	1.8	-
Men's footwear, except athletic .....	3143	35.7	35.4	37.3	38.5	-	1.4	1.3	2.1	2.0	-
Women's footwear, except athletic .....	3144	35.5	36.6	37.0	38.5	-	1.6	2.1	1.6	1.8	-
Luggage .....	316	38.8	39.5	39.6	40.2	-	1.5	1.7	2.9	3.4	-
Handbags and personal leather goods .....	317	37.4	37.8	36.5	38.2	-	3.0	3.2	2.3	3.2	-
<b>Transportation and public utilities</b> .....		39.1	39.3	39.2	39.3	39.3	-	-	-	-	-
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	43.3	46.1	43.2	41.2	-	-	-	-	-	-
Local and interurban passenger transit .....	41	34.3	33.7	33.5	34.1	-	-	-	-	-	-
Local and suburban transportation .....	411	38.0	38.2	38.8	38.8	-	-	-	-	-	-
Intercity highway transportation .....	413	40.7	41.1	39.7	40.7	-	-	-	-	-	-
Trucking and warehousing .....	42	38.3	38.0	38.4	38.9	-	-	-	-	-	-
Trucking and trucking terminals .....	421,3	38.3	37.9	38.3	38.7	-	-	-	-	-	-
Public warehousing .....	422	39.2	39.2	40.1	40.7	-	-	-	-	-	-
Pipe lines, except natural gas .....	46	41.5	41.7	41.7	42.2	-	-	-	-	-	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing .....	27	\$10.09	\$10.11	\$10.48	\$10.43	\$10.44	\$384.43	\$387.21	\$403.48	\$398.43	\$399.85
Newspapers .....	271	10.08	10.02	10.38	10.20	-	339.70	342.68	359.15	345.78	-
Periodicals .....	272	10.70	10.79	11.02	10.92	-	411.95	416.49	438.60	426.97	-
Books .....	273	9.40	9.34	9.54	9.62	-	371.30	368.00	362.52	370.37	-
Book publishing .....	2731	8.89	8.81	9.08	9.12	-	341.38	345.35	343.22	349.30	-
Book printing .....	2732	10.18	10.19	10.23	10.42	-	420.43	403.52	392.83	405.34	-
Miscellaneous publishing .....	274	9.17	9.29	9.74	9.89	-	332.87	340.01	355.51	360.99	-
Commercial printing .....	275	10.34	10.38	10.80	10.73	-	410.50	414.16	433.08	424.91	-
Commercial printing, letterpress .....	2751	9.96	10.00	10.39	10.30	-	389.44	394.00	411.44	404.79	-
Commercial printing, lithographic .....	2752	10.47	10.49	10.93	10.87	-	417.75	418.55	438.29	428.28	-
Manifold business forms .....	276	10.35	10.51	10.89	10.88	-	422.28	439.32	448.67	451.52	-
Blankbooks and bookbinding .....	278	7.89	7.99	8.31	8.33	-	299.03	304.42	323.26	327.37	-
Printing trade services .....	279	12.29	12.14	12.59	12.63	-	474.39	471.03	483.46	487.52	-
Chemicals and allied products .....	28	12.08	12.17	12.56	12.53	12.58	504.94	516.01	537.57	531.27	538.42
Industrial inorganic chemicals .....	281	13.19	13.33	13.97	13.81	-	556.62	571.86	602.11	592.45	-
Industrial inorganic chemicals, nec .....	2819	13.33	13.46	14.08	13.92	-	569.19	586.86	608.26	597.17	-
Plastics materials and synthetics .....	282	12.26	12.29	12.72	12.56	-	512.47	524.78	566.04	538.82	-
Plastics materials and resins .....	2821	13.30	13.26	13.77	13.64	-	571.90	582.11	616.90	591.98	-
Organic fibers, noncellulosic .....	2824	11.82	11.82	12.20	11.93	-	484.62	497.62	541.68	507.03	-
Drugs .....	283	11.22	11.20	11.78	11.88	-	466.75	477.12	484.16	488.27	-
Pharmaceutical preparations .....	2834	11.00	10.98	11.42	11.52	-	456.50	462.26	465.94	470.02	-
Soap, cleaners, and toilet goods .....	284	10.77	10.94	10.78	10.86	-	439.42	451.82	438.75	446.35	-
Soap and other detergents .....	2841	13.95	13.94	14.20	14.33	-	606.83	630.09	619.12	634.82	-
Polishing, sanitation, and finishing preparations .....	2842,3	10.08	10.14	9.93	9.92	-	409.25	415.74	414.08	416.64	-
Toilet preparations .....	2844	9.07	9.27	9.20	9.27	-	356.45	362.46	356.04	362.46	-
Paints and allied products .....	285	10.49	10.57	10.98	10.92	-	435.34	435.48	454.57	454.27	-
Industrial organic chemicals .....	286	14.56	14.72	15.14	15.16	-	630.45	643.26	684.33	679.17	-
Cyclic crudes and intermediates .....	2865	14.35	14.42	14.79	15.15	-	612.75	628.71	653.72	654.48	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	14.63	14.81	15.24	15.16	-	636.41	647.20	693.42	685.23	-
Agricultural chemicals .....	287	11.81	11.86	12.32	12.26	-	491.30	498.12	532.22	529.63	-
Miscellaneous chemical products .....	289	11.15	11.18	11.56	11.48	-	458.27	469.56	488.99	474.12	-
Petroleum and coal products .....	29	14.19	14.32	14.71	14.64	14.75	622.94	630.08	644.30	639.77	634.25
Petroleum refining .....	291	15.37	15.40	15.90	15.79	-	673.21	682.22	693.24	680.55	-
Paving and roofing materials .....	295	11.10	11.29	11.68	11.75	-	506.16	495.63	530.27	545.20	-
Rubber and misc. plastics products .....	30	8.73	8.77	8.98	8.91	8.99	362.30	365.71	371.77	374.22	379.38
Tires and inner tubes .....	301	13.74	13.82	14.33	14.13	-	600.44	605.32	637.69	634.44	-
Rubber and plastics footwear .....	302	5.95	5.92	6.08	6.07	-	237.41	236.80	240.77	253.73	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	8.82	8.77	8.94	9.03	-	375.73	371.85	375.48	405.45	-
Fabricated rubber products, nec .....	306	8.38	8.44	8.68	8.67	-	345.26	348.57	355.01	362.41	-
Miscellaneous plastics products .....	307	8.08	8.12	8.35	8.30	-	332.90	336.98	343.19	345.28	-
Leather and leather products .....	31	5.95	5.98	6.09	6.08	6.11	218.96	221.86	229.59	235.30	236.46
Leather tanning and finishing .....	311	7.69	7.83	8.25	8.26	-	306.83	320.25	340.73	342.79	-
Footwear, except rubber .....	314	5.63	5.67	5.79	5.81	-	200.99	204.69	214.23	222.52	-
Men's footwear, except athletic .....	3143	6.04	6.05	6.18	6.19	-	215.63	214.17	230.51	238.32	-
Women's footwear, except athletic .....	3144	5.31	5.38	5.41	5.50	-	188.51	196.91	200.17	211.75	-
Luggage .....	316	6.22	6.22	6.53	6.37	-	241.34	245.69	258.59	256.07	-
Handbags and personal leather goods .....	317	5.83	5.86	5.83	5.81	-	218.04	221.51	212.80	221.94	-
<b>Transportation and public utilities</b> .....		11.77	11.90	12.03	12.01	12.12	460.21	467.67	471.58	471.99	476.32
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	13.77	14.24	14.26	14.13	-	596.24	656.46	616.03	582.16	-
Local and interurban passenger transit .....	41	8.14	8.23	8.40	8.38	-	279.20	277.35	281.40	285.76	-
Local and suburban transportation .....	411	8.63	8.66	9.06	8.98	-	327.94	330.81	351.53	348.42	-
Intercity highway transportation .....	413	11.84	12.00	11.83	11.79	-	481.89	493.20	469.65	479.85	-
Trucking and warehousing .....	42	10.71	10.74	10.76	10.83	-	410.19	408.12	413.18	421.29	-
Trucking and trucking terminals .....	421,3	10.95	10.95	11.01	11.09	-	419.39	415.01	421.68	429.18	-
Public warehousing .....	422	7.95	8.19	8.02	7.92	-	311.64	321.05	321.60	322.34	-
Pipe lines, except natural gas .....	46	15.07	15.35	15.47	15.50	-	625.41	640.10	645.10	654.10	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Transportation and public utilities—Continued</b>											
Communication .....	48	40.1	40.4	40.9	40.3	-	-	-	-	-	-
Telephone communication .....	481	41.6	41.8	42.6	41.8	-	-	-	-	-	-
Radio and television broadcasting .....	483	36.3	36.6	36.3	35.6	-	-	-	-	-	-
Electric, gas, and sanitary services .....	49	41.8	42.1	41.4	42.1	-	-	-	-	-	-
Electric services .....	491	41.8	42.0	41.2	41.6	-	-	-	-	-	-
Gas production and distribution .....	492	41.8	41.7	40.6	42.0	-	-	-	-	-	-
Combination utility services .....	493	41.9	42.5	41.8	43.3	-	-	-	-	-	-
Sanitary services .....	495	42.9	43.1	43.1	42.6	-	-	-	-	-	-
<b>Wholesale trade .....</b>		<b>38.4</b>	<b>38.4</b>	<b>38.1</b>	<b>38.4</b>	<b>38.3</b>	-	-	-	-	-
Durable goods .....	50	38.8	38.7	38.6	38.8	-	-	-	-	-	-
Motor vehicles and automotive equipment .....	501	38.0	37.9	38.1	38.1	-	-	-	-	-	-
Furniture and home furnishings .....	502	36.8	37.2	37.4	37.5	-	-	-	-	-	-
Lumber and construction materials .....	503	39.7	39.3	39.4	39.7	-	-	-	-	-	-
Sporting goods, toys, and hobby goods .....	504	36.8	36.6	36.3	36.6	-	-	-	-	-	-
Metals and minerals, except petroleum .....	505	40.5	40.6	40.1	41.0	-	-	-	-	-	-
Electrical goods .....	506	38.6	38.5	38.1	38.5	-	-	-	-	-	-
Hardware, plumbing, and heating equipment .....	507	38.5	38.5	38.3	38.5	-	-	-	-	-	-
Machinery, equipment, and supplies .....	508	39.2	39.2	39.0	39.1	-	-	-	-	-	-
Miscellaneous durable goods .....	509	37.5	37.7	37.8	37.9	-	-	-	-	-	-
Nondurable goods .....	51	37.9	37.9	37.5	37.8	-	-	-	-	-	-
Paper and paper products .....	511	37.4	37.3	36.9	37.3	-	-	-	-	-	-
Drugs, proprietaries, and sundries .....	512	37.7	37.0	37.3	37.9	-	-	-	-	-	-
Apparel, piece goods, and notions .....	513	36.5	37.0	37.1	37.3	-	-	-	-	-	-
Groceries and related products .....	514	38.1	38.4	38.3	37.9	-	-	-	-	-	-
Chemicals and allied products .....	516	39.3	39.3	38.9	39.2	-	-	-	-	-	-
Petroleum and petroleum products .....	517	38.9	39.1	38.8	39.0	-	-	-	-	-	-
Beer, wine, and distilled beverages .....	518	36.4	36.5	35.5	35.3	-	-	-	-	-	-
Miscellaneous nondurable goods .....	519	37.6	37.1	36.5	37.0	-	-	-	-	-	-
<b>Retail trade .....</b>		<b>29.0</b>	<b>29.0</b>	<b>29.6</b>	<b>29.2</b>	<b>29.1</b>	-	-	-	-	-
Building materials and garden supplies .....	52	36.5	36.2	36.6	36.9	-	-	-	-	-	-
Lumber and other building materials .....	521	38.5	38.1	38.6	38.9	-	-	-	-	-	-
Hardware stores .....	525	32.5	32.6	32.8	33.2	-	-	-	-	-	-
General merchandise stores .....	53	28.1	28.3	29.4	27.5	-	-	-	-	-	-
Department stores .....	531	28.0	28.1	29.3	27.2	-	-	-	-	-	-
Variety stores .....	533	29.0	29.4	29.3	28.6	-	-	-	-	-	-
Misc. general merchandise stores .....	539	29.4	29.3	30.5	30.2	-	-	-	-	-	-
Food stores .....	54	29.7	29.7	31.0	30.0	-	-	-	-	-	-
Grocery stores .....	541	29.9	30.0	31.3	30.2	-	-	-	-	-	-
Retail bakeries .....	546	27.8	27.4	27.6	28.0	-	-	-	-	-	-
Automotive dealers and service stations .....	55	36.6	36.4	36.5	36.7	-	-	-	-	-	-
New and used car dealers .....	551.2	37.5	37.2	37.1	37.3	-	-	-	-	-	-
Auto and home supply stores .....	553	39.3	39.3	39.1	39.2	-	-	-	-	-	-
Gasoline service stations .....	554	34.0	33.9	34.2	34.6	-	-	-	-	-	-
Apparel and accessory stores .....	56	26.4	26.4	27.3	26.9	-	-	-	-	-	-
Men's and boys' clothing and furnishings .....	561	29.7	28.6	29.7	29.2	-	-	-	-	-	-
Women's ready-to-wear stores .....	562	25.3	25.3	26.0	25.4	-	-	-	-	-	-
Family clothing stores .....	565	26.6	26.9	27.6	27.2	-	-	-	-	-	-
Shoe stores .....	566	27.3	27.4	27.9	27.6	-	-	-	-	-	-
Furniture and home furnishings stores .....	57	33.0	33.1	33.1	33.0	-	-	-	-	-	-
Furniture and home furnishings stores .....	571	32.8	32.9	33.3	33.3	-	-	-	-	-	-
Household appliance stores .....	572	34.6	34.4	34.0	34.0	-	-	-	-	-	-
Radio, television, and music stores .....	573	32.8	33.0	32.4	32.2	-	-	-	-	-	-
Eating and drinking places <sup>4</sup> .....	58	25.4	25.5	25.9	25.9	-	-	-	-	-	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Transportation and public utilities—Continued</b>											
Communication .....	48	\$12.26	\$12.34	\$12.67	\$12.53	-	\$491.63	\$498.54	\$518.20	\$504.96	-
Telephone communication .....	481	13.05	13.11	13.46	13.35	-	542.88	548.00	573.40	558.03	-
Radio and television broadcasting .....	483	10.68	10.82	11.15	10.91	-	387.68	396.01	404.75	388.40	-
Electric, gas, and sanitary services .....	49	13.56	13.70	13.49	13.63	-	566.81	576.77	558.49	573.82	-
Electric services .....	491	13.64	13.76	13.92	13.98	-	570.15	577.92	573.50	581.57	-
Gas production and distribution .....	492	12.73	12.90	13.13	13.18	-	532.11	537.93	533.08	553.56	-
Combination utility services .....	493	15.77	15.99	14.63	15.09	-	660.76	679.58	611.53	653.40	-
Sanitary services .....	495	9.95	9.97	10.37	10.23	-	426.86	429.71	446.95	435.80	-
<b>Wholesale trade .....</b>		<b>9.36</b>	<b>9.47</b>	<b>9.67</b>	<b>9.67</b>	<b>\$9.75</b>	<b>359.42</b>	<b>363.65</b>	<b>368.43</b>	<b>371.33</b>	<b>\$373.43</b>
Durable goods .....	50	9.49	9.58	9.82	9.86	-	368.21	370.75	379.05	382.57	-
Motor vehicles and automotive equipment .....	501	8.49	8.54	8.83	8.85	-	322.62	323.67	336.42	337.19	-
Furniture and home furnishings .....	502	8.78	8.74	8.93	8.98	-	323.10	325.13	333.98	336.75	-
Lumber and construction materials .....	503	9.12	9.19	9.38	9.42	-	362.06	361.17	369.57	373.97	-
Sporting goods, toys, and hobby goods .....	504	9.75	9.72	9.87	9.73	-	358.80	355.75	358.28	356.12	-
Metals and minerals, except petroleum .....	505	10.08	10.21	10.40	10.38	-	408.24	414.53	417.04	425.58	-
Electrical goods .....	506	9.74	9.98	10.16	10.23	-	375.96	384.23	387.10	393.86	-
Hardware, plumbing, and heating equipment .....	507	9.01	9.10	9.28	9.32	-	346.89	350.35	355.42	358.82	-
Machinery, equipment, and supplies .....	508	10.08	10.19	10.48	10.53	-	395.14	399.45	408.72	411.72	-
Miscellaneous durable goods .....	509	7.56	7.62	7.77	7.79	-	283.50	287.27	293.71	295.24	-
Nondurable goods .....	51	9.17	9.30	9.46	9.40	-	347.54	352.47	354.75	355.32	-
Paper and paper products .....	511	9.93	10.05	10.30	10.24	-	371.38	374.87	380.07	381.95	-
Drugs, proprietaries, and sundries .....	512	10.42	10.77	10.90	10.74	-	392.83	398.49	406.57	407.05	-
Apparel, piece goods, and notions .....	513	8.79	8.93	9.17	9.16	-	320.84	330.41	340.21	341.67	-
Groceries and related products .....	514	9.35	9.45	9.61	9.53	-	356.24	362.88	368.06	361.19	-
Chemicals and allied products .....	516	11.43	11.75	12.11	12.11	-	449.20	461.78	471.08	474.71	-
Petroleum and petroleum products .....	517	9.73	9.74	9.63	9.61	-	378.50	380.83	373.64	374.79	-
Beer, wine, and distilled beverages .....	518	10.81	10.90	11.09	11.12	-	393.48	397.85	393.70	392.54	-
Miscellaneous nondurable goods .....	519	7.57	7.65	7.72	7.72	-	284.63	283.82	281.78	285.64	-
<b>Retail trade .....</b>		<b>6.06</b>	<b>6.08</b>	<b>6.20</b>	<b>6.15</b>	<b>6.18</b>	<b>175.74</b>	<b>176.32</b>	<b>183.52</b>	<b>179.58</b>	<b>179.84</b>
Building materials and garden supplies .....	52	6.92	6.93	7.09	7.11	-	252.58	250.87	259.49	262.36	-
Lumber and other building materials .....	521	7.24	7.24	7.41	7.46	-	278.74	275.84	286.03	290.19	-
Hardware stores .....	525	5.79	5.82	6.03	6.00	-	188.18	189.73	197.78	199.20	-
General merchandise stores .....	53	6.44	6.37	6.61	6.58	-	180.96	180.27	194.33	180.95	-
Department stores .....	531	6.75	6.67	6.92	6.92	-	189.00	187.43	202.76	188.22	-
Variety stores .....	533	4.74	4.70	4.88	4.80	-	137.46	138.18	142.98	137.28	-
Misc. general merchandise stores .....	539	4.91	4.86	5.08	5.02	-	144.35	142.40	154.94	151.60	-
Food stores .....	54	6.95	7.12	7.15	6.92	-	206.42	211.46	221.65	207.60	-
Grocery stores .....	541	7.11	7.30	7.31	7.07	-	212.59	219.00	228.80	213.51	-
Retail bakeries .....	546	5.49	5.49	5.71	5.63	-	152.62	150.43	157.60	157.64	-
Automotive dealers and service stations .....	55	7.75	7.66	7.86	7.77	-	283.65	278.82	286.89	285.16	-
New and used car dealers .....	551,2	9.49	9.29	9.64	9.38	-	355.88	345.59	357.64	349.87	-
Auto and home supply stores .....	553	6.56	6.61	6.71	6.74	-	257.81	259.77	262.36	264.21	-
Gasoline service stations .....	554	5.47	5.49	5.53	5.58	-	185.98	186.11	189.13	193.07	-
Apparel and accessory stores .....	56	5.38	5.41	5.69	5.65	-	142.03	142.82	155.34	151.99	-
Men's and boys' clothing and furnishings .....	561	6.25	6.25	6.66	6.73	-	185.63	178.75	197.80	196.52	-
Women's ready-to-wear stores .....	562	5.14	5.13	5.32	5.29	-	130.04	129.79	138.32	134.37	-
Family clothing stores .....	565	5.31	5.40	5.60	5.51	-	141.25	145.26	154.56	149.87	-
Shoe stores .....	566	5.29	5.36	5.87	5.73	-	144.42	146.86	163.77	158.15	-
Furniture and home furnishings stores .....	57	7.30	7.37	7.60	7.57	-	240.90	243.95	251.56	249.81	-
Furniture and home furnishings stores .....	571	7.35	7.44	7.63	7.63	-	241.08	244.78	254.08	254.08	-
Household appliance stores .....	572	7.24	7.18	7.59	7.57	-	250.50	246.99	258.06	257.38	-
Radio, television, and music stores .....	573	7.22	7.31	7.57	7.48	-	236.82	241.23	245.27	240.86	-
Eating and drinking places <sup>4</sup> .....	58	4.36	4.37	4.43	4.44	-	110.74	111.44	114.74	115.00	-

See footnotes at end of table.



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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	30.0	30.0	30.1	30.1	-	-	-	-	-	-
Drug stores and proprietary stores .....	591	28.2	28.1	28.3	28.0	-	-	-	-	-	-
Miscellaneous shopping goods stores .....	594	28.2	28.1	28.7	28.4	-	-	-	-	-	-
Nonstore retailers .....	596	32.5	33.0	32.8	33.0	-	-	-	-	-	-
Fuel and ice dealers .....	598	38.6	39.7	38.2	39.7	-	-	-	-	-	-
Retail stores, nec .....	599	32.0	31.6	31.4	32.0	-	-	-	-	-	-
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		36.4	36.5	36.0	36.2	36.3	-	-	-	-	-
Banking .....	60	36.5	36.6	35.8	36.1	-	-	-	-	-	-
Commercial and stock savings banks .....	602	36.5	36.7	35.8	36.1	-	-	-	-	-	-
Credit agencies other than banks .....	61	36.7	37.2	36.4	36.6	-	-	-	-	-	-
Savings and loan associations .....	612	35.9	36.2	35.7	35.9	-	-	-	-	-	-
Personal credit institutions .....	614	36.4	36.5	36.9	37.1	-	-	-	-	-	-
Insurance carriers .....	63	37.3	37.5	37.1	37.1	-	-	-	-	-	-
Life insurance .....	631	36.8	37.0	36.7	36.9	-	-	-	-	-	-
Medical service and health insurance .....	632	37.7	38.1	37.6	37.9	-	-	-	-	-	-
Fire, marine, and casualty insurance .....	633	37.3	37.4	37.0	36.9	-	-	-	-	-	-
<b>Services</b> .....		32.4	32.4	32.4	32.5	32.6	-	-	-	-	-
Hotels and other lodging places:											
Hotels, motels, and tourist courts <sup>4</sup> .....	701	30.9	31.0	30.9	31.1	-	-	-	-	-	-
Personal services:											
Laundry, cleaning, and garment services .....	721	34.5	34.3	33.9	34.4	-	-	-	-	-	-
Beauty shops <sup>4</sup> .....	723	29.5	29.7	28.8	29.4	-	-	-	-	-	-
Business services .....	73	33.4	33.4	33.0	33.5	-	-	-	-	-	-
Advertising .....	731	36.2	36.4	36.7	36.6	-	-	-	-	-	-
Services to buildings .....	734	28.6	28.6	28.2	28.6	-	-	-	-	-	-
Computer and data processing services .....	737	37.7	38.1	37.6	37.3	-	-	-	-	-	-
Auto repair, services, and garages .....	75	37.4	37.3	36.6	36.8	-	-	-	-	-	-
Automotive repair shops .....	753	38.6	38.4	38.1	38.5	-	-	-	-	-	-
Miscellaneous repair services .....	76	38.0	37.6	37.7	38.0	-	-	-	-	-	-
Motion pictures .....	78	28.5	28.5	29.7	30.0	-	-	-	-	-	-
Motion picture production and services .....	781	36.5	36.2	37.8	37.2	-	-	-	-	-	-
Amusement and recreation services .....	79	27.9	28.3	28.5	28.0	-	-	-	-	-	-
Health services .....	80	32.2	32.3	32.5	32.3	-	-	-	-	-	-
Offices of physicians .....	801	30.9	30.9	30.9	30.9	-	-	-	-	-	-
Offices of dentists .....	802	27.9	27.7	28.3	28.3	-	-	-	-	-	-
Nursing and personal care facilities .....	805	31.2	31.5	32.1	31.4	-	-	-	-	-	-
Hospitals .....	806	34.0	34.1	34.3	34.0	-	-	-	-	-	-
Legal services .....	81	34.6	34.7	34.4	34.5	-	-	-	-	-	-
Miscellaneous services .....	89	38.5	38.3	38.2	38.3	-	-	-	-	-	-
Engineering and architectural services .....	891	39.9	39.8	39.3	39.6	-	-	-	-	-	-
Accounting, auditing, and bookkeeping .....	893	37.0	36.7	36.5	36.7	-	-	-	-	-	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Nov. 1987 <sup>P</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	\$6.19	\$6.19	\$6.39	\$6.37	-	\$185.70	\$185.70	\$192.34	\$191.74	-
Drug stores and proprietary stores .....	591	5.71	5.71	5.94	5.87	-	161.02	160.45	168.10	164.36	-
Miscellaneous shopping goods stores .....	594	5.77	5.70	5.95	5.91	-	162.71	160.17	170.77	167.84	-
Nonstore retailers .....	596	6.99	7.01	7.28	7.15	-	227.18	231.33	238.78	235.95	-
Fuel and ice dealers .....	598	8.90	8.98	8.96	9.19	-	343.54	356.51	342.27	364.84	-
Retail stores, nec .....	599	6.40	6.42	6.57	6.56	-	204.80	202.87	206.30	209.92	-
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		8.39	8.57	8.79	8.80	\$8.94	305.40	312.81	316.44	318.56	\$324.52
Banking .....	60	7.22	7.37	7.51	7.55	-	263.53	269.74	268.86	272.56	-
Commercial and stock savings banks .....	602	7.01	7.15	7.26	7.31	-	255.87	262.41	259.91	263.89	-
Credit agencies other than banks .....	61	7.69	7.83	8.02	8.02	-	282.22	291.28	291.93	293.53	-
Savings and loan associations .....	612	7.11	7.22	7.47	7.47	-	255.25	261.36	266.68	268.17	-
Personal credit institutions .....	614	7.22	7.36	7.54	7.53	-	262.81	268.64	278.23	279.36	-
Insurance carriers .....	63	9.19	9.28	9.66	9.69	-	342.79	348.00	358.39	359.50	-
Life insurance .....	631	8.72	8.81	9.23	9.24	-	320.90	325.97	338.74	340.96	-
Medical service and health insurance .....	632	9.17	9.27	9.41	9.41	-	345.71	353.19	353.82	356.64	-
Fire, marine, and casualty insurance .....	633	9.53	9.61	10.06	10.12	-	355.47	359.41	372.22	373.43	-
<b>Services</b> .....		8.23	8.33	8.55	8.61	8.71	266.65	269.89	277.02	279.83	283.95
Hotels and other lodging places: Hotels, motels, and tourist courts <sup>4</sup> .....	701	6.00	6.07	6.15	6.22	-	185.40	188.17	190.04	193.44	-
Personal services: Laundry, cleaning, and garment services .....	721	6.00	6.01	6.22	6.17	-	207.00	206.14	210.86	212.25	-
Beauty shops <sup>4</sup> .....	723	6.09	6.14	6.48	6.40	-	179.66	182.36	186.62	188.16	-
Business services .....	73	8.42	8.53	8.79	8.79	-	281.23	284.90	290.07	294.47	-
Advertising .....	731	11.41	11.63	12.08	12.10	-	413.04	423.33	443.34	442.86	-
Services to buildings .....	734	6.53	6.59	6.84	6.80	-	186.76	188.47	192.89	194.48	-
Computer and data processing services .....	737	11.71	11.81	12.28	12.33	-	441.47	449.96	461.73	459.91	-
Auto repair, services, and garages .....	75	7.62	7.65	7.89	7.93	-	284.99	285.35	288.77	291.82	-
Automotive repair shops .....	753	8.21	8.24	8.45	8.52	-	316.91	316.42	321.95	328.02	-
Miscellaneous repair services .....	76	8.83	8.89	9.26	9.34	-	335.54	334.26	349.10	354.92	-
Motion pictures .....	78	12.40	12.83	12.25	13.13	-	353.40	365.66	363.83	393.90	-
Motion picture production and services .....	781	16.40	16.94	16.22	17.27	-	598.60	613.23	613.12	642.44	-
Amusement and recreation services .....	79	6.98	7.33	6.92	7.34	-	194.74	207.44	197.22	205.52	-
Health services .....	80	8.42	8.46	8.82	8.84	-	271.12	273.26	286.65	285.53	-
Offices of physicians .....	801	8.19	8.31	8.47	8.47	-	253.07	256.78	261.72	261.72	-
Offices of dentists .....	802	8.24	8.31	8.53	8.53	-	229.90	230.19	241.40	241.40	-
Nursing and personal care facilities .....	805	5.82	5.82	6.09	6.08	-	181.58	183.33	195.49	190.91	-
Hospitals .....	806	9.50	9.52	10.02	10.03	-	323.00	324.63	343.69	341.02	-
Legal services .....	81	11.33	11.70	11.96	12.07	-	392.02	405.99	411.42	416.42	-
Miscellaneous services .....	89	11.79	11.99	12.21	12.28	-	453.92	459.22	466.42	470.32	-
Engineering and architectural services .....	891	12.69	12.83	13.00	13.06	-	506.33	510.63	510.90	517.18	-
Accounting, auditing, and bookkeeping .....	893	9.92	10.23	10.54	10.57	-	367.04	375.44	384.71	387.92	-

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

<sup>2</sup> See table C-2a for average hourly earnings in the aircraft industry (SIC 3721).

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

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

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

- Data not available.

<sup>P</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

## A Note on Average Hourly Earnings in Aircraft Manufacturing

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

As a service to aircraft companies and other interested parties, BLS has calculated an average hourly earnings series for SIC 3721 which includes lump-sum payments. This series is presented in table C-2a along with the average hourly earnings series produced as part of the Current Employment Statistics program. The series begins in October 1983, the effective date of the first aircraft bargaining agreement using lump-sum payments.

The general practice in the industry has been to make this payment at the beginning of the contract year "in lieu of a wage increase" and to base the amount of the payment on the workers' earnings during the preceding year. As a result, the Bureau considered three approaches to the method for calculating an average hourly earnings series which includes lump-sum payments:

1. The entire payment could be included in the month in which the payment was made.
2. The payments could be prorated backward to payroll periods used to determine the amount of the lump-sum payment.
3. The payments could be prorated forward as an advance

payment for payroll periods in the year following the payment.

The first approach, attractive because it includes the payment in the month in which it is received by the worker, creates 1-month "spikes" and a series which would not be useful for escalation purposes. The second approach, which prorates the payments backward, places emphasis on the determination of the amount of the payment from workers' earnings in the previous year. This approach generally relates the payments to the workers who receive them. However, the Bureau has received statements from both union and company officials who negotiated the agreements covering a majority of the workers in the industry. These statements make clear that the intent of the bargainers was to make an advance payment for the upcoming contract year in lieu of an increase in wage rates for that following year.

Because BLS has a longstanding policy of leaving the interpretation of collective bargaining agreements to the parties involved, the Bureau calculated the inclusion of lump-sum payments using the third method, prorating the payments forward through the years covered by the contract. Because the payments prorated forward under this approach may include payments to workers no longer on the payroll, data provided by the aircraft companies have been used to adjust for this difference.

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 plans to conduct 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 manufacturing (SIC 3721)**

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average hourly earnings, excluding lump-sum payments													
1983 .....											\$12.76	\$12.83	\$12.93
1984 .....	\$12.91	\$12.82	\$12.88	\$12.85	\$12.81	\$12.78	\$12.87	\$12.89	\$12.87	\$12.97	13.04	13.05	13.13
1985 .....	13.18	13.01	13.12	13.11	13.04	13.06	13.11	13.05	13.16	13.26	13.35	13.37	13.48
1986 .....	13.48	13.38	13.44	13.46	13.45	13.38	13.42	13.41	13.44	13.48	13.52	13.67	13.65
1987 .....		13.61	13.61	13.66	13.63	13.73	13.72	13.68	13.76	13.76	<sup>P</sup> 13.78		
Average hourly earnings, including lump-sum payments													
1983 .....											\$12.83	\$12.92	\$13.03
1984 .....	\$13.11	\$12.95	\$13.02	\$13.02	\$12.98	\$12.97	\$13.06	\$13.11	\$13.09	\$13.19	13.26	13.28	13.37
1985 .....	13.40	13.26	13.36	13.33	13.26	13.27	13.33	13.29	13.39	13.48	13.54	13.57	13.68
1986 .....	13.80	13.58	13.64	13.66	13.68	13.60	13.64	13.61	13.63	13.67	14.19	14.31	14.26
1987 .....		14.21	14.25	14.29	14.36	14.42	14.39	14.37	14.43	14.39	<sup>P</sup> 14.09		

<sup>P</sup> = preliminary.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

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

Industry	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Manufacturing</b> .....	<b>\$9.32</b>	<b>\$9.37</b>	<b>\$9.53</b>	<b>\$9.49</b>	<b>\$9.55</b>
<b>Durable goods</b> .....	9.84	9.90	10.05	10.01	10.07
Lumber and wood products .....	7.96	7.99	8.11	8.04	(2)
Furniture and fixtures .....	7.27	7.31	7.45	7.42	(2)
Stone, clay, and glass products .....	9.53	9.61	9.81	9.68	(2)
Primary metal industries .....	11.19	11.23	11.51	11.34	(2)
Fabricated metal products .....	9.46	9.51	9.59	9.61	(2)
Machinery, except electrical .....	10.16	10.18	10.33	10.33	(2)
Electrical and electronic equipment .....	9.34	9.38	9.62	9.56	(2)
Transportation equipment .....	12.21	12.25	12.44	12.44	(2)
Instruments and related products .....	9.26	9.30	9.45	9.43	(2)
Miscellaneous manufacturing .....	7.31	7.34	7.50	7.45	(2)
<b>Nondurable goods</b> .....	8.59	8.64	8.83	8.76	\$8.82
Food and kindred products .....	8.28	8.38	8.42	8.41	(2)
Tobacco manufactures .....	11.83	12.42	12.54	12.28	(2)
Textile mill products .....	6.67	6.69	6.86	6.87	(2)
Apparel and other textile products .....	5.73	5.73	5.86	5.82	(2)
Paper and allied products .....	10.64	10.66	10.90	10.78	(2)
Printing and publishing .....	9.69	9.71	10.02	9.98	(2)
Chemicals and allied products .....	11.58	11.64	11.96	11.94	(2)
Petroleum and coal products .....	13.42	13.55	13.85	13.81	(2)
Rubber and misc. plastics products .....	8.34	8.38	8.54	8.47	(2)
Leather and leather products .....	5.81	5.82	5.92	5.91	(2)

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

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

**C-4. Average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls by major industry, in current and constant (1977) dollars.**

Industry	Average hourly earnings					Average weekly earnings				
	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>	Oct. 1986	Nov. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Nov. 1987 <sup>p</sup>
<b>Total private:</b>										
Current dollars .....	\$8.82	\$8.88	\$9.06	\$9.09	\$9.14	\$306.05	\$308.14	\$314.38	\$317.24	\$318.07
Constant (1977) dollars .....	4.92	4.95	4.85	4.85	( <sup>2</sup> )	170.88	171.86	168.30	169.38	( <sup>2</sup> )
<b>Mining:</b>										
Current dollars .....	12.50	12.57	12.43	12.36	\$12.48	526.25	520.40	523.30	527.77	\$527.90
Constant (1977) dollars .....	6.98	7.01	6.65	6.60	( <sup>2</sup> )	293.83	290.24	280.14	281.78	( <sup>2</sup> )
<b>Construction:</b>										
Current dollars .....	12.68	12.66	12.77	12.79	\$12.79	480.57	462.09	464.83	496.25	\$473.23
Constant (1977) dollars .....	7.08	7.06	6.84	6.83	( <sup>2</sup> )	268.32	257.72	248.84	264.95	( <sup>2</sup> )
<b>Manufacturing:</b>										
Current dollars .....	9.72	9.78	10.00	9.95	\$10.01	395.60	400.98	408.00	410.94	\$414.41
Constant (1977) dollars .....	5.43	5.45	5.35	5.31	( <sup>2</sup> )	220.88	223.64	218.42	219.40	( <sup>2</sup> )
<b>Transportation and public utilities:</b>										
Current dollars .....	11.77	11.90	12.03	12.01	\$12.12	460.21	467.67	471.58	471.99	\$476.32
Constant (1977) dollars .....	6.57	6.64	6.44	6.41	( <sup>2</sup> )	256.96	260.83	252.45	252.00	( <sup>2</sup> )
<b>Wholesale trade:</b>										
Current dollars .....	9.36	9.47	9.67	9.67	\$9.75	359.42	363.65	368.43	371.33	\$373.43
Constant (1977) dollars .....	5.23	5.28	5.18	5.16	( <sup>2</sup> )	200.68	202.82	197.23	198.25	( <sup>2</sup> )
<b>Retail trade:</b>										
Current dollars .....	6.06	6.08	6.20	6.15	\$6.18	175.74	176.32	183.52	179.58	\$179.84
Constant (1977) dollars .....	3.38	3.39	3.32	3.28	( <sup>2</sup> )	98.12	98.34	98.24	95.88	( <sup>2</sup> )
<b>Finance, insurance, and real estate:</b>										
Current dollars .....	8.39	8.57	8.79	8.80	\$8.94	305.40	312.81	316.44	318.56	\$324.52
Constant (1977) dollars .....	4.68	4.78	4.71	4.70	( <sup>2</sup> )	170.52	174.46	169.40	170.08	( <sup>2</sup> )
<b>Services:</b>										
Current dollars .....	8.23	8.33	8.55	8.61	\$8.71	266.65	269.89	277.02	279.83	\$283.95
Constant (1977) dollars .....	4.60	4.65	4.58	4.60	( <sup>2</sup> )	148.88	150.52	148.30	149.40	( <sup>2</sup> )

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

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate the earnings series. Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced all unadjusted data from April 1986 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

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

Industry	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. <sup>p</sup>	Nov. <sup>p</sup>
<b>Total private</b> .....	34.8	34.6	34.7	34.9	34.8	34.7	34.9	34.8	34.8	34.9	34.6	34.9	34.9
<b>Mining</b> .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Construction</b> .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Manufacturing</b> .....	40.8	40.8	40.9	41.1	40.9	40.6	41.0	41.0	41.0	41.0	40.6	41.3	41.2
<i>Overtime hours</i> .....	3.5	3.6	3.6	3.6	3.6	3.5	3.8	3.7	3.8	3.8	3.6	4.0	3.9
<b>Durable goods</b> .....	41.4	41.4	41.6	41.7	41.5	41.2	41.6	41.5	41.6	41.6	41.0	41.9	41.8
<i>Overtime hours</i> .....	3.5	3.6	3.7	3.7	3.7	3.6	3.9	3.8	3.8	4.0	3.7	4.1	4.0
Lumber and wood products .....	40.8	40.6	40.8	41.3	40.9	40.6	41.0	40.6	40.6	40.4	39.4	40.4	40.5
Furniture and fixtures .....	39.8	39.9	40.2	40.2	40.0	39.1	39.9	40.0	40.0	40.1	39.3	40.1	39.8
Stone, clay, and glass products .....	41.9	42.2	42.5	42.8	42.5	41.9	42.3	42.0	42.2	42.1	41.9	42.5	42.4
Primary metal industries .....	42.4	42.5	42.6	42.6	42.6	42.3	43.1	43.1	43.4	43.5	43.4	43.8	43.8
Blast furnaces and basic steel products ..	42.5	42.6	42.7	42.3	42.3	42.4	43.3	43.5	44.1	44.0	45.2	44.3	44.1
Fabricated metal products .....	41.4	41.2	41.6	41.6	41.5	41.2	41.6	41.5	41.4	41.5	40.8	42.0	42.0
Machinery, except electrical .....	41.7	41.7	42.0	42.2	42.0	41.8	42.2	42.2	42.4	42.2	41.6	42.6	42.7
Electrical and electronic equipment .....	41.0	41.0	41.0	41.1	40.9	40.6	40.8	41.1	41.1	41.0	40.4	41.0	41.0
Transportation equipment .....	42.2	42.1	42.3	42.5	42.3	41.9	42.2	41.9	41.7	41.9	41.3	42.5	42.3
Motor vehicles and equipment .....	42.4	42.4	42.9	43.0	42.9	42.1	42.5	42.0	41.9	41.9	41.3	42.9	43.1
Instruments and related products .....	41.1	41.1	41.2	41.3	41.3	41.0	41.5	41.5	41.6	41.7	41.1	41.9	41.5
Miscellaneous manufacturing .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Nondurable goods</b> .....	40.0	40.0	40.1	40.3	40.1	39.7	40.2	40.2	40.3	40.3	40.1	40.5	40.4
<i>Overtime hours</i> .....	3.5	3.5	3.5	3.5	3.5	3.3	3.7	3.6	3.7	3.7	3.6	3.8	3.8
Food and kindred products .....	40.0	39.8	40.0	40.1	40.0	39.8	40.1	40.1	39.9	40.3	40.2	40.5	40.3
Tobacco manufactures .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Textile mill products .....	41.4	41.6	41.6	42.0	42.1	41.4	42.0	42.1	42.4	42.1	41.3	41.9	41.9
Apparel and other textile products .....	36.9	37.0	37.0	37.4	37.0	36.1	37.2	37.1	37.3	37.4	36.3	37.5	37.2
Paper and allied products .....	43.2	43.2	43.4	43.3	43.0	43.0	43.5	43.3	43.5	43.4	43.8	43.6	43.6
Printing and publishing .....	38.0	38.0	37.9	38.1	37.9	37.7	37.9	38.1	38.1	37.9	38.2	38.1	38.0
Chemicals and allied products .....	42.3	42.1	42.2	42.2	42.0	42.2	42.1	42.0	42.2	42.4	42.8	42.7	42.7
Petroleum and coal products .....	43.8	43.6	44.6	44.0	44.1	43.9	44.3	43.3	44.4	43.3	43.2	43.4	42.8
Rubber and misc. plastics products .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Leather and leather products .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Transportation and public utilities</b> .....	39.2	38.9	39.0	39.2	39.0	39.0	39.2	38.8	39.2	39.3	39.1	39.3	39.2
<b>Wholesale trade</b> .....	38.3	38.2	38.3	38.3	38.1	38.2	38.3	38.2	38.1	38.3	38.0	38.4	38.3
<b>Retail trade</b> .....	29.2	28.9	29.0	29.3	29.3	29.5	29.4	29.2	29.3	29.6	29.6	29.3	29.3
<b>Finance, insurance, and real estate</b> .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Services</b> .....	32.5	32.4	32.4	32.6	32.5	32.4	32.5	32.5	32.5	32.5	32.5	32.5	32.7

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

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

components and consequently cannot be separated with sufficient precision.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

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

(1977=100)

Industry	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. <sup>p</sup>	Nov. <sup>p</sup>
<b>Total private</b> .....	118.2	117.9	118.7	119.7	119.6	119.6	120.2	120.0	120.6	121.2	120.4	121.9	122.2
<b>Goods-producing</b> .....	97.8	97.8	98.8	99.3	98.9	98.0	99.2	98.9	99.5	99.7	97.7	101.2	101.3
<b>Mining</b> .....	79.5	79.5	78.9	79.9	80.0	81.3	83.4	83.5	85.0	85.2	84.9	87.9	86.1
<b>Construction</b> .....	131.1	130.7	136.2	136.2	135.5	132.8	134.3	132.6	133.2	133.6	124.9	136.4	135.8
<b>Manufacturing</b> .....	92.2	92.3	92.5	93.1	92.8	92.1	93.1	93.1	93.6	93.8	93.1	95.0	95.3
<b>Durable goods</b> .....	89.8	89.8	90.0	90.6	90.2	89.6	90.5	90.5	90.6	91.2	90.1	92.5	92.8
Lumber and wood products .....	100.9	101.0	101.5	103.3	102.5	102.0	103.2	101.7	102.4	101.2	99.2	101.9	102.6
Furniture and fixtures .....	106.3	106.5	107.9	107.9	107.9	105.7	109.0	109.5	111.6	111.7	109.7	113.0	112.7
Stone, clay, and glass products .....	85.5	86.5	87.3	88.3	87.5	86.3	86.9	86.1	86.1	86.1	85.9	87.5	87.7
Primary metal industries .....	60.9	61.1	60.4	61.2	61.9	62.1	63.1	63.5	64.4	65.0	65.9	67.0	67.6
Blast furnaces and basic steel products .....	47.1	46.9	46.1	46.8	47.7	49.6	50.7	51.4	52.6	53.0	55.2	55.1	55.1
Fabricated metal products .....	88.5	88.3	89.1	89.1	88.9	88.4	89.0	89.1	89.0	89.4	88.2	91.3	92.1
Machinery, except electrical .....	84.1	83.8	84.2	85.1	84.7	84.8	86.0	86.5	87.0	87.4	86.7	89.3	90.1
Electrical and electronic equipment .....	101.1	101.5	100.8	100.8	99.9	99.0	99.4	99.9	100.6	100.8	99.3	101.7	102.2
Transportation equipment .....	97.9	97.2	97.5	98.9	98.2	96.6	97.3	96.6	94.3	97.4	95.2	97.8	97.0
Motor vehicles and equipment .....	87.0	86.3	87.5	89.0	88.0	85.6	86.1	85.1	81.5	86.1	83.3	86.7	86.7
Instruments and related products .....	102.1	102.1	101.8	102.0	101.7	101.0	102.0	102.2	103.0	103.0	102.1	104.6	104.4
Miscellaneous manufacturing .....	80.2	81.0	81.0	81.1	81.1	79.9	81.0	81.4	81.9	82.3	80.7	82.7	81.9
<b>Nondurable goods</b> .....	95.8	96.0	96.3	96.7	96.5	95.7	97.0	97.0	98.1	97.7	97.4	98.7	98.9
Food and kindred products .....	98.7	98.5	98.8	99.3	99.4	99.3	99.6	99.3	99.6	99.5	99.1	100.3	100.3
Tobacco manufactures .....	76.7	75.9	76.3	76.0	77.7	77.3	80.1	76.3	73.1	71.0	72.4	73.0	77.5
Textile mill products .....	80.1	80.8	81.2	82.3	82.9	81.3	82.9	83.3	84.8	83.7	82.4	83.7	84.2
Apparel and other textile products .....	85.2	86.3	85.8	86.1	85.3	83.5	85.8	85.9	88.2	86.6	84.8	87.9	87.6
Paper and allied products .....	100.1	100.5	100.6	100.6	99.7	99.5	100.5	100.0	100.8	100.4	101.9	101.3	101.9
Printing and publishing .....	129.1	129.4	129.5	130.2	129.4	128.7	130.0	131.1	131.4	131.4	132.6	132.5	132.3
Chemicals and allied products .....	93.4	92.7	93.2	93.4	93.1	93.4	93.7	92.8	94.5	95.5	96.4	96.5	96.8
Petroleum and coal products .....	82.0	81.6	84.3	83.1	83.3	82.9	84.5	83.4	84.7	83.4	83.2	83.5	82.4
Rubber and misc. plastics products .....	112.4	112.7	112.9	113.5	113.5	112.6	114.5	114.8	115.0	115.5	115.5	118.7	119.8
Leather and leather products .....	55.5	56.7	57.4	57.8	57.8	57.4	59.5	59.7	62.2	61.4	60.0	61.6	60.8
<b>Service-producing</b> .....	129.6	129.0	129.8	131.0	131.0	131.5	131.9	131.7	132.3	133.1	132.9	133.3	133.8
<b>Transportation and public utilities</b> .....	107.0	106.5	107.0	107.8	107.7	107.9	108.5	107.6	109.0	109.7	109.9	110.8	111.0
<b>Wholesale trade</b> .....	116.8	116.4	117.1	117.4	116.9	117.4	117.7	117.6	117.5	118.2	117.3	118.8	119.0
<b>Retail trade</b> .....	119.2	118.0	118.9	120.4	120.3	121.6	121.2	120.4	121.2	122.4	122.5	121.8	121.4
<b>Finance, insurance, and real estate</b> .....	140.3	139.8	140.4	141.0	141.5	142.0	142.5	142.7	142.0	143.0	141.4	142.2	143.1
<b>Services</b> .....	147.9	147.8	148.6	150.1	150.2	150.3	151.2	151.7	152.5	152.9	152.9	153.5	155.0

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

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 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 workers<sup>1</sup> on private nonagricultural payrolls, seasonally adjusted**

Industry	1986		1987										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. <sup>P</sup>	Nov. <sup>P</sup>
Hourly Earnings Index <sup>2</sup> (1977 = 100)													
<b>Total private</b> (in current dollars) .....	171.2	171.1	171.2	171.8	172.2	172.6	172.9	172.9	173.2	174.1	174.6	174.8	175.7
<b>Mining</b> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
<b>Construction</b> .....	154.7	154.3	152.8	152.4	153.8	153.7	154.1	155.0	154.3	154.7	154.0	154.7	156.4
<b>Manufacturing</b> .....	173.2	173.4	173.4	173.7	174.3	175.0	174.4	174.7	174.7	175.5	176.7	176.3	176.6
<b>Transportation and public utilities</b> .....	172.9	173.5	173.6	174.3	174.6	175.2	176.2	175.6	176.4	176.0	175.9	175.9	176.5
<b>Wholesale trade</b> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
<b>Retail trade</b> .....	159.3	159.3	158.9	158.9	159.0	159.8	160.2	160.3	160.9	161.5	162.7	162.0	162.2
<b>Finance, insurance, and real estate</b> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
<b>Services</b> .....	177.1	176.6	177.5	178.4	179.0	179.4	179.9	179.9	180.5	182.4	182.3	183.8	185.2
<b>Total private</b> (in constant dollars) <sup>4</sup> .....	95.5	95.3	94.7	94.6	94.4	94.2	94.0	93.8	93.7	93.7	93.8	93.6	( <sup>3</sup> )
Average hourly earnings													
<b>Total private</b> .....	\$8.86	\$8.84	\$8.86	\$8.88	\$8.91	\$8.91	\$8.95	\$8.94	\$8.96	\$9.02	\$9.02	\$9.07	\$9.12
<b>Mining</b> .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
<b>Construction</b> .....	\$12.70	\$12.65	\$12.51	\$12.48	\$12.62	\$12.61	\$12.65	\$12.72	\$12.67	\$12.71	\$12.67	\$12.68	\$12.83
<b>Manufacturing</b> .....	9.78	9.79	9.79	9.81	9.83	9.86	9.88	9.88	9.87	9.93	10.02	10.00	10.01
<b>Transportation and public utilities</b> .....	11.82	11.83	11.86	11.89	11.92	11.96	12.05	11.97	12.04	12.01	11.98	12.01	12.04
<b>Wholesale trade</b> .....	9.48	9.42	9.47	9.50	9.53	9.52	9.59	9.58	9.59	9.68	9.65	9.72	9.76
<b>Retail trade</b> .....	6.07	6.09	6.05	6.04	6.05	6.08	6.09	6.10	6.11	6.13	6.19	6.15	6.16
<b>Finance, insurance, and real estate</b> .....	8.59	8.46	8.59	8.66	8.67	8.69	8.74	8.68	8.74	8.88	8.79	8.84	8.97
<b>Services</b> .....	8.29	8.25	8.30	8.35	8.38	8.39	8.41	8.40	8.44	8.54	8.53	8.60	8.67
Average weekly earnings													
<b>Total private:</b>													
In current dollars .....	308.33	305.86	307.44	309.91	310.07	309.18	312.36	311.11	311.81	314.80	312.09	316.54	318.29
In constant (1977) dollars <sup>4</sup> .....	171.96	170.40	170.04	170.75	170.09	168.77	169.95	168.71	168.73	169.52	167.70	169.45	( <sup>3</sup> )

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

<sup>2</sup> 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.

<sup>3</sup> These series are not published seasonally adjusted because the seasonal components are small relative to the trend-cycle and/or irregular

components and consequently cannot be separated with sufficient precision.

<sup>4</sup> The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to deflate these series.

<sup>5</sup> Not available.

<sup>P</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1986 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1983 forward are subject to revision.



**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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Alabama</b> .....	41.0	41.8	41.7	\$8.63	\$8.87	\$8.80	\$353.83	\$370.77	\$366.96
Birmingham .....	41.0	40.7	41.1	8.61	9.10	8.98	353.01	370.37	369.08
Mobile .....	40.7	43.0	41.9	10.25	10.37	10.18	417.18	445.91	426.54
<b>Alaska</b> .....	39.8	40.2	40.0	12.76	12.33	12.96	507.85	495.67	518.40
<b>Arizona</b> .....	41.2	40.2	40.6	9.98	10.01	10.05	411.18	402.40	408.03
<b>Arkansas</b> .....	40.8	41.3	41.1	7.78	7.98	7.92	317.42	328.75	325.51
Fayetteville-Springdale .....	40.9	40.9	42.3	7.00	7.19	7.31	286.30	294.07	309.21
Fort Smith .....	40.1	39.6	39.7	8.06	8.24	8.34	323.21	328.30	331.10
Little Rock-North Little Rock .....	41.1	41.2	41.9	8.27	8.41	8.34	339.90	346.49	349.45
Pine Bluff .....	43.9	43.3	43.7	10.36	10.82	10.26	454.80	468.51	448.36
<b>California</b> .....	40.3	39.9	40.2	10.38	10.88	10.84	418.31	434.11	435.77
<b>Colorado</b> .....	40.0	39.9	39.8	9.95	10.12	9.97	396.00	403.79	396.81
Denver .....	40.5	40.5	40.1	11.10	10.76	10.80	449.55	435.78	433.08
<b>Connecticut</b> .....	41.9	42.0	42.4	10.16	10.45	10.49	425.70	438.90	444.78
Bridgeport-Milford .....	41.0	41.4	41.9	10.31	10.90	10.99	422.71	451.26	460.48
Hartford .....	41.7	41.9	41.9	10.40	10.69	10.69	433.88	447.91	447.91
New Britain .....	42.4	42.9	43.7	10.54	10.78	10.90	446.90	462.46	476.33
New Haven-Meriden .....	41.3	40.1	40.2	9.78	10.10	10.14	403.91	405.01	407.63
Stamford .....	41.4	42.2	40.3	11.01	11.19	11.41	455.81	472.22	459.82
Waterbury .....	42.9	41.6	42.9	8.66	9.08	9.05	371.51	377.73	388.25
<b>Delaware</b> .....	41.0	39.9	40.0	10.31	10.67	11.42	422.71	425.73	456.80
Wilmington .....	41.5	40.1	41.1	12.26	12.89	12.96	508.79	516.89	532.66
<b>District of Columbia:</b>									
Washington MSA .....	38.8	38.5	38.6	10.26	10.95	10.84	398.09	421.58	418.42
<b>Florida</b> .....	40.7	40.1	40.2	8.05	8.24	8.14	327.64	330.42	327.23
Fort Lauderdale-Hollywood-Pompano Beach .....	41.3	41.5	41.4	7.97	8.13	8.06	329.16	337.40	333.68
Jacksonville .....	40.7	41.1	41.1	8.86	9.00	8.92	360.60	369.90	366.61
Lakeland-Winter Haven .....	41.2	40.8	41.7	7.84	8.22	8.11	323.01	335.38	338.19
Miami-Hialeah .....	39.0	37.5	38.2	7.12	7.14	7.19	277.68	267.75	274.66
Orlando .....	41.3	40.5	39.7	8.43	8.41	8.63	348.16	340.61	342.61
Pensacola .....	42.6	42.4	40.2	9.87	10.03	9.87	420.46	425.27	396.77
Tampa-St. Petersburg-Clearwater .....	40.2	40.1	40.5	7.53	7.77	7.71	302.71	311.58	312.26
West Palm Beach-Boca Raton-Delray Beach .....	41.4	40.3	40.4	8.75	9.02	9.18	362.25	363.51	370.87
<b>Georgia</b> .....	41.0	41.3	42.6	8.33	8.58	8.48	341.53	354.35	361.25
Atlanta .....	40.6	41.8	42.4	10.02	10.27	10.17	406.81	429.29	431.21
Savannah .....	43.7	46.6	45.3	10.76	11.15	11.02	470.21	519.59	499.21
<b>Hawaii</b> .....	40.2	39.7	40.1	9.22	9.46	9.47	370.64	375.56	379.75
Honolulu .....	40.0	39.4	39.1	9.39	9.68	9.69	375.80	381.39	378.88
<b>Idaho</b> .....	38.4	38.8	38.1	9.91	9.57	9.55	380.54	371.32	363.86
<b>Illinois</b> .....	41.4	41.6	41.5	10.71	10.85	10.81	443.39	451.36	448.62
Aurora-Elgin .....	42.2	42.4	43.0	10.08	10.78	10.74	425.38	457.07	461.82
Bloomington-Normal .....	38.9	40.6	41.6	10.81	11.09	11.01	420.51	450.25	458.02
Champaign-Urbana-Rantoul .....	40.0	40.4	40.0	9.34	9.13	8.96	373.60	368.85	358.40
Chicago .....	42.2	42.0	42.5	10.50	10.65	10.65	443.10	447.30	452.63
Davenport-Rock Island-Moline .....	40.7	40.4	40.0	12.13	12.52	12.88	493.89	505.81	507.20
Decatur .....	40.2	42.1	41.7	13.75	13.96	14.08	552.75	587.72	587.14
Joliet .....	41.7	40.8	41.4	11.87	11.95	11.91	494.98	487.56	493.07
Kankakee .....	39.8	38.9	39.8	9.96	9.92	9.63	396.41	385.89	383.27
Lake County .....	39.9	40.3	40.9	10.73	11.04	11.10	428.13	444.91	453.99
Peoria .....	42.0	45.8	46.2	12.84	13.16	13.22	539.28	602.73	610.76
Rockford .....	41.7	40.8	41.8	10.93	11.25	11.25	455.78	459.00	470.25
Springfield .....	43.3	41.8	42.5	11.92	11.89	12.16	516.14	497.00	516.80

See footnotes at end of table.

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

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

State and area	Average weekly hours			Average hourly earnings			Average weekly earnings		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Indiana</b> .....	41.4	41.5	42.5	\$10.74	\$11.07	\$11.09	\$444.64	\$459.41	\$471.33
<b>Iowa</b> .....	40.9	41.2	42.5	10.10	10.88	10.64	413.09	448.26	452.20
Cedar Rapids .....	40.4	41.8	41.0	11.42	12.22	11.83	461.37	510.80	485.03
Des Moines .....	41.4	42.4	42.6	11.45	12.22	11.58	474.03	518.13	493.31
Dubuque .....	39.8	40.5	42.3	8.97	12.32	12.08	357.01	498.96	510.98
Sioux City .....	42.2	42.9	48.9	8.54	8.06	8.05	360.39	345.77	393.65
<b>Kansas</b> .....	40.4	40.3	41.0	9.79	10.07	10.05	395.52	405.82	412.05
Topeka .....	41.8	43.3	42.3	11.00	11.50	11.61	459.80	497.95	491.10
Wichita .....	40.4	40.8	41.0	10.84	11.06	10.91	437.94	451.25	447.31
<b>Kentucky</b> .....	39.3	40.9	41.2	9.96	10.15	10.13	391.43	415.14	417.36
Lexington-Fayette .....	36.5	38.5	40.2	10.23	10.26	10.35	393.86	395.01	416.07
Louisville .....	40.8	43.2	42.4	10.94	11.78	11.64	446.35	508.90	493.54
<b>Louisiana</b> .....	42.1	41.8	42.2	10.51	11.13	10.75	442.47	465.23	453.65
Baton Rouge .....	42.2	42.8	43.1	12.46	13.10	12.39	525.81	560.68	534.01
New Orleans .....	40.6	40.6	40.4	10.46	10.70	10.50	424.68	434.42	424.20
Shreveport .....	40.1	38.9	38.0	11.17	11.89	11.41	447.92	462.52	433.58
<b>Maine</b> .....	40.6	40.1	41.9	8.75	9.33	8.84	355.25	374.13	370.40
Lewiston-Auburn .....	39.0	38.9	39.9	7.15	7.63	7.43	278.85	296.81	296.46
Portland .....	38.3	41.6	42.0	9.13	9.10	9.18	349.68	378.56	385.56
<b>Maryland</b> .....	40.4	41.0	41.1	9.83	10.32	10.17	397.13	423.12	417.99
Baltimore MSA .....	40.6	42.4	42.3	10.25	10.98	10.87	418.15	465.55	459.80
<b>Massachusetts</b> .....	41.1	40.8	41.1	9.38	9.97	10.02	385.52	406.78	411.82
Boston .....	40.4	40.4	41.0	10.33	10.84	10.85	417.33	437.94	444.85
Springfield .....	42.4	42.1	42.0	8.97	9.31	9.37	380.33	391.95	393.54
Worcester .....	40.6	40.5	40.5	9.47	9.81	9.80	384.48	397.31	396.90
<b>Michigan</b> .....	42.5	40.8	42.7	12.75	13.07	12.92	541.86	533.26	551.68
Ann Arbor .....	44.5	45.0	45.5	13.97	13.97	14.21	621.66	628.65	648.55
Battle Creek .....	41.5	43.2	43.4	13.16	13.93	13.75	546.14	601.78	596.75
Detroit .....	43.4	42.3	43.5	13.78	13.99	14.04	598.05	591.78	610.74
Flint .....	43.1	38.1	41.7	14.44	15.62	15.42	622.36	595.12	643.01
Grand Rapids .....	41.3	39.4	40.9	10.64	11.20	11.14	439.43	441.28	455.63
Jackson .....	40.9	40.0	42.3	10.10	10.14	10.06	413.09	405.60	425.54
Kalamazoo .....	43.6	41.5	43.7	11.98	11.91	12.43	522.33	494.26	543.19
Lansing-East Lansing .....	42.9	41.6	42.1	14.11	13.23	13.31	605.32	550.37	560.35
Muskegon .....	40.0	40.4	41.7	11.61	12.22	11.82	464.40	493.69	492.89
Saginaw-Bay City-Midland .....	43.1	40.9	43.0	13.80	14.46	14.07	594.78	591.41	605.01
<b>Minnesota</b> .....	40.8	40.8	41.2	10.24	10.44	10.48	417.79	425.95	431.78
Duluth .....	37.0	37.9	38.0	10.82	11.00	10.90	400.34	416.90	414.20
Minneapolis-St. Paul .....	40.8	41.1	41.5	11.06	11.20	11.15	451.25	460.32	462.73
St. Cloud .....	36.7	38.5	39.1	9.48	9.85	9.44	366.88	379.23	369.10
<b>Mississippi</b> .....	40.4	40.7	40.6	7.48	7.67	7.57	302.19	312.17	307.34
Jackson .....	39.6	40.5	40.6	8.30	8.54	8.61	328.88	345.87	349.57
<b>Missouri</b> .....	40.4	41.0	41.2	9.68	9.89	9.80	391.07	405.49	403.76
Kansas City .....	41.1	40.5	41.5	11.16	11.03	11.12	458.68	446.72	461.48
St. Joseph .....	40.6	42.8	41.9	9.46	10.16	9.96	384.89	434.85	417.32
St. Louis .....	40.7	41.0	41.3	11.18	11.89	11.60	455.03	479.29	479.08
Springfield .....	41.1	39.2	39.4	8.47	8.52	8.48	348.12	333.96	334.11
<b>Montana</b> .....	40.1	38.8	39.4	10.58	10.63	10.28	424.26	412.44	405.03
<b>Nebraska</b> .....	40.9	41.2	41.5	9.26	9.42	9.35	378.73	388.10	388.03
Lincoln .....	41.0	41.1	41.0	9.89	10.36	10.32	405.49	425.80	423.12
Omaha .....	39.9	40.1	40.1	9.88	10.07	10.07	394.21	403.81	403.81
<b>Nevada</b> .....	39.8	39.7	39.9	9.78	10.09	9.98	389.24	400.57	398.20
Las Vegas .....	36.6	39.8	39.4	12.30	12.90	12.83	474.78	513.42	505.50

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>New Hampshire</b> .....	41.2	40.5	41.2	\$8.90	\$9.43	\$9.47	\$366.68	\$381.92	\$390.16
Nashua .....	41.6	41.0	42.2	10.82	11.73	11.92	450.11	480.93	503.02
<b>New Jersey</b> .....	41.1	40.8	41.2	10.14	10.55	10.56	416.75	430.44	435.07
<b>New Mexico</b> .....	40.3	38.7	40.4	8.82	9.09	8.46	355.45	351.78	341.78
Albuquerque .....	40.9	40.6	39.3	9.00	9.31	9.25	368.10	377.99	363.53
<b>New York</b> .....	40.0	39.4	39.7	9.89	10.18	10.13	395.60	401.09	402.16
Albany-Schenectady-Troy .....	40.4	39.2	39.8	10.31	10.75	10.72	416.52	421.40	426.66
Binghamton .....	40.8	41.0	40.7	8.83	9.25	9.23	360.26	379.25	375.66
Buffalo .....	41.9	41.1	40.7	11.71	12.03	11.44	490.85	494.43	465.61
Elmira .....	41.0	40.8	41.0	9.47	9.51	9.54	388.27	388.01	391.14
Glens Falls .....	41.9	( <sup>1</sup> )	( <sup>1</sup> )	9.43	( <sup>1</sup> )	( <sup>1</sup> )	395.12	( <sup>1</sup> )	( <sup>1</sup> )
Nassau-Suffolk .....	41.1	39.5	39.2	10.21	10.90	10.74	419.63	430.55	421.01
New York PMSA .....	37.1	38.8	37.2	9.26	9.65	9.61	343.55	355.12	357.49
New York City .....	36.7	36.5	36.8	9.13	9.45	9.41	335.07	344.93	346.29
Niagara Falls .....	41.5	41.2	40.8	12.62	12.96	13.51	523.73	533.95	551.21
Orange County .....	38.8	37.6	38.2	8.08	8.09	8.01	313.50	304.18	305.98
Poughkeepsie .....	41.8	40.6	39.8	9.10	9.89	9.72	380.38	393.41	386.86
Rochester .....	41.3	41.1	42.5	11.82	12.07	12.12	488.17	496.08	515.10
Rockland County .....	40.5	38.7	39.1	9.63	10.00	10.41	390.02	410.22	407.03
Syracuse .....	41.6	40.9	42.0	11.33	11.52	11.32	471.33	471.17	475.44
Utica-Rome .....	42.1	41.0	41.8	9.33	9.55	9.46	392.79	391.55	395.43
Westchester County .....	38.8	38.7	39.9	10.19	10.89	10.95	395.37	421.44	436.91
<b>North Carolina</b> .....	41.0	41.1	41.6	7.58	7.87	7.86	310.78	323.46	326.98
Asheville .....	41.7	42.3	43.0	7.62	7.87	7.89	317.75	332.90	339.27
Charlotte-Gastonia-Rock Hill .....	41.8	42.0	42.6	7.83	8.13	8.12	327.29	341.46	345.91
Greensboro-Winston-Salem-High Point .....	40.7	40.7	41.4	8.45	8.98	8.62	343.92	353.28	356.87
Raleigh-Durham .....	41.0	42.0	42.6	8.57	8.97	8.99	351.37	376.74	382.97
<b>North Dakota</b> .....	39.1	36.6	39.0	8.17	8.54	8.52	319.45	329.64	332.28
Fargo-Moorhead .....	37.8	38.2	38.8	8.49	8.76	8.58	320.92	334.63	331.19
<b>Ohio</b> .....	41.9	42.6	42.9	11.54	11.74	11.79	483.53	500.12	505.79
Akron .....	43.0	43.3	43.0	11.37	11.28	11.29	488.91	488.42	485.47
Canton .....	40.4	41.5	41.9	11.03	11.30	11.41	445.61	468.95	478.08
Cincinnati .....	42.5	43.0	43.1	10.80	10.97	10.89	459.00	471.71	469.38
Cleveland .....	42.1	42.5	43.1	11.41	11.46	11.81	480.36	487.05	500.39
Columbus .....	40.8	41.7	42.5	11.27	11.46	11.49	459.82	477.68	488.33
Dayton-Springfield .....	42.0	41.4	42.5	11.97	11.78	11.91	502.74	487.69	506.18
Toledo .....	42.8	42.4	42.0	12.48	12.72	12.70	531.85	539.33	533.40
Youngstown-Warren .....	41.3	43.3	42.7	13.19	13.43	13.26	544.75	581.52	567.06
<b>Oklahoma</b> .....	41.9	41.0	40.8	9.65	10.26	10.00	404.34	420.88	408.00
Oklahoma City .....	40.2	40.8	39.8	10.87	11.26	11.02	438.97	459.41	438.60
Tulsa .....	39.9	42.1	41.7	10.34	11.02	10.69	412.57	483.94	445.77
<b>Oregon</b> .....	38.0	38.2	38.9	10.38	10.85	10.47	404.82	406.83	407.28
Eugene-Springfield .....	39.8	37.2	37.8	10.43	10.83	10.83	413.03	402.88	401.81
Portland .....	39.6	38.8	39.4	10.92	10.96	10.83	432.43	425.25	426.70
Salem .....	37.2	36.9	37.8	8.36	8.48	8.57	310.99	312.91	323.95

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. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>a</sup>
<b>Pennsylvania</b> .....	40.3	40.8	41.1	\$9.75	\$10.11	\$10.08	\$392.93	\$412.49	\$414.29
Allentown-Bethlehem .....	38.9	39.9	40.0	10.16	10.46	10.44	395.22	417.35	417.60
Altoona .....	38.6	39.7	38.4	8.63	8.63	8.58	333.12	342.61	329.47
Beaver County .....	39.4	40.5	41.1	11.34	11.09	11.16	446.80	449.15	458.68
Erie .....	41.8	41.9	41.9	10.13	10.34	10.33	423.43	433.25	432.83
Harrisburg-Lebanon-Carlisle .....	40.2	39.9	39.7	9.26	9.52	9.41	372.25	379.85	373.58
Johnstown .....	38.1	39.2	39.8	8.31	8.37	8.39	318.61	328.10	333.92
Lancaster .....	40.5	39.8	40.6	9.42	9.73	9.74	381.51	387.25	395.44
Philadelphia PMSA .....	40.4	40.5	40.5	10.46	11.04	10.95	422.58	447.12	443.48
Pittsburgh .....	41.0	41.9	42.2	10.98	11.37	11.34	449.36	476.40	478.55
Reading .....	40.8	40.9	42.0	9.88	10.28	10.36	403.10	420.45	435.12
Scranton-Wilkes-Barre .....	38.2	39.3	38.8	8.66	8.93	8.82	330.81	350.95	342.22
Sharon .....	41.4	43.2	42.2	11.57	11.37	11.35	479.00	491.18	478.97
State College .....	40.9	38.9	38.9	7.83	8.34	8.34	320.25	324.43	324.43
Williamsport .....	39.1	41.3	42.3	8.56	8.49	8.50	334.70	350.64	359.55
York .....	41.1	42.0	42.3	9.20	9.52	9.41	378.12	399.84	398.04
<b>Rhode Island</b> .....	40.5	40.0	40.0	7.99	8.30	8.32	323.60	332.00	332.80
Pawtucket-Woonsocket-Attleboro .....	40.3	40.1	40.2	7.48	7.78	7.84	301.44	311.98	315.17
Providence .....	39.4	40.0	40.1	7.97	8.24	8.25	314.02	329.60	330.83
<b>South Carolina</b> .....	41.3	41.5	41.8	7.97	8.12	8.14	329.16	336.98	340.25
Charleston .....	41.8	40.9	41.5	9.21	8.96	8.99	384.98	366.48	373.08
Columbia .....	40.3	40.5	40.8	7.78	7.89	7.95	313.53	319.54	324.36
Greenville-Spartanburg .....	41.6	41.4	41.5	7.84	8.03	8.04	326.14	332.44	333.66
<b>South Dakota</b> .....	43.2	41.9	42.4	7.85	7.88	7.87	339.12	330.17	333.69
Sioux Falls .....	48.0	44.2	45.4	8.07	7.90	7.95	387.36	349.18	360.93
<b>Tennessee</b> .....	41.3	40.6	41.8	8.70	8.83	8.71	359.31	358.50	364.08
Chattanooga .....	42.0	39.7	42.2	7.75	8.23	7.88	325.50	326.73	332.54
Johnson City-Kingsport-Bristol .....	42.4	41.3	41.5	9.22	9.51	9.30	390.93	392.76	385.95
Knoxville .....	39.4	39.9	40.9	9.13	9.00	9.19	359.72	359.10	375.87
Memphis .....	41.9	41.1	41.8	8.88	8.88	8.80	372.07	364.97	367.84
Nashville .....	40.8	40.6	41.6	9.81	10.37	10.29	398.29	421.02	428.06
<b>Texas</b> .....	41.1	41.6	41.9	9.64	9.99	9.88	396.20	415.58	413.97
Dallas .....	41.3	41.5	42.1	9.47	9.85	9.73	391.11	408.78	409.63
Ft. Worth-Arlington .....	41.6	40.3	41.0	9.76	9.95	10.05	406.02	400.99	412.05
Houston .....	42.4	44.0	43.8	11.07	11.21	11.26	469.37	493.24	493.19
San Antonio .....	40.3	40.1	40.2	7.36	7.63	7.68	296.61	305.96	308.74
<b>Utah</b> .....	39.8	40.9	40.4	9.95	9.95	9.86	396.01	406.96	398.34
Salt Lake City-Ogden .....	40.2	41.2	40.6	9.84	9.73	9.80	395.57	400.88	397.88
<b>Vermont</b> .....	40.1	39.8	40.5	8.88	9.35	9.28	356.09	372.13	375.84
Burlington .....	43.9	40.6	41.2	9.60	10.02	10.15	421.44	406.81	418.18
<b>Virginia</b> .....	40.4	41.8	41.5	8.91	9.23	9.10	359.96	385.81	377.65
Bristol .....	39.1	41.7	42.4	7.48	7.67	7.74	292.47	319.84	328.18
Charlottesville .....	41.4	41.6	42.9	7.40	7.50	7.53	306.36	312.00	323.04
Danville .....	41.1	44.1	41.5	8.37	8.60	8.48	344.01	379.26	351.92
Lynchburg .....	40.8	42.5	41.4	8.40	8.64	8.67	342.72	367.20	358.94
Northern Virginia .....	41.5	39.5	40.3	9.45	9.96	10.20	392.18	393.42	411.06
Richmond-Petersburg .....	40.8	42.7	41.9	11.35	12.02	11.70	463.08	513.25	490.23
Roanoke .....	41.4	42.9	41.7	8.22	9.00	8.76	340.31	386.10	365.29

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. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>p</sup>
<b>Washington</b> .....	39.5	39.2	39.9	\$11.59	\$11.72	\$11.66	\$457.81	\$459.42	\$465.23
<b>West Virginia</b> .....	40.2	40.1	41.1	10.45	10.97	10.73	420.09	439.90	441.00
Charleston .....	41.3	42.3	43.8	13.28	13.59	13.48	548.46	574.86	590.42
Huntington-Ashland .....	39.8	38.0	40.5	11.71	12.95	12.19	466.06	492.10	493.70
Parkersburg-Manetta .....	41.8	41.9	42.1	12.41	12.50	11.99	518.74	523.75	504.78
Wheeling .....	39.6	40.8	43.0	11.73	12.62	12.81	464.51	514.90	550.83
<b>Wisconsin</b> .....	41.3	41.3	41.9	10.29	10.56	10.66	424.98	436.13	446.65
Appleton-Oshkosh .....	42.0	42.7	42.4	10.39	10.88	10.87	436.36	464.58	460.89
Eau Claire .....	40.8	41.9	41.0	10.41	10.75	10.85	424.73	450.43	444.85
Green Bay .....	42.5	40.8	42.2	11.12	11.43	11.89	472.60	466.34	501.76
Janesville-Beloit .....	41.2	36.1	40.3	11.38	12.06	11.99	468.86	435.37	483.20
Kenosha .....	40.2	41.6	41.6	11.23	12.96	12.73	451.45	539.14	529.57
La Crosse .....	39.3	39.8	41.1	9.04	9.13	9.06	355.27	363.37	372.37
Madison .....	41.0	41.6	41.1	9.69	9.76	9.74	397.29	406.02	400.31
Milwaukee .....	41.1	41.0	41.9	11.56	11.73	11.74	475.12	480.93	491.91
Racine .....	39.6	39.6	41.3	10.79	11.01	11.16	427.28	436.00	460.91
Sheboygan .....	41.5	41.9	42.8	9.39	9.45	9.40	389.69	395.96	402.32
Wausau .....	42.7	43.1	43.1	9.69	10.12	10.12	413.76	436.17	436.17
<b>Wyoming</b> .....	40.0	38.5	41.5	9.47	9.88	9.20	378.80	380.38	381.80
<b>Puerto Rico</b> .....	39.3	39.7	40.1	5.34	5.37	5.41	209.86	213.19	216.94
<b>Virgin Islands</b> .....	41.7	42.4	41.4	9.25	10.26	9.83	385.72	435.02	406.96

<sup>1</sup> Not available.

<sup>p</sup> = preliminary.

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

publication. All State and area data have been adjusted to March 1986 benchmarks.

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

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

Industry	Millions of hours (annual rate) <sup>1</sup>			Percent change		
	Sept. 1987 <sup>r</sup>	Oct. 1987 <sup>r</sup>	Nov. 1987 <sup>p</sup>	Nov. 1986 to Nov. 1987 <sup>p</sup>	Sept. 1987 to Oct. 1987 <sup>r</sup>	Oct. 1987 to Nov. 1987 <sup>p</sup>
Total .....	187,566	192,180	192,373	2.9	2.5	0.1
Private sector .....	156,280	157,799	158,147	3.3	1.0	.2
Mining .....	1,644	1,683	1,659	6.3	2.4	-1.4
Construction .....	9,220	10,065	9,971	4.1	9.2	-.9
Manufacturing .....	40,723	41,072	41,180	2.6	.9	.3
Durable goods .....	24,233	24,420	24,487	2.3	.8	.3
Nondurable goods .....	16,491	16,652	16,693	2.9	1.0	.2
Transportation and public utilities .....	11,008	11,108	11,161	3.4	.9	.5
Wholesale trade .....	11,551	11,640	11,643	2.0	.8	.0
Retail trade .....	28,140	28,032	27,967	2.4	-.4	-.2
Finance, insurance, and real estate .....	12,528	12,501	12,585	3.1	-.2	.7
Services .....	41,464	41,697	41,981	4.8	.6	.7
Government .....	31,286	34,381	34,226	1.3	9.9	-.5

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

<sup>p</sup> = preliminary.

<sup>r</sup> = revised.

NOTE: Data refer to hours of all employees—production workers,

nonsupervisory workers, and salaried workers—and are based largely on establishment data. See *BLS Handbook of Methods*, BLS Bulletin 2134-1, chapter 13, Productivity Measures: Business Economy and Major Sectors.

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										
	1985	1986	1985				1986				1987		
			I	II	III	IV	I	II	III	IV	I	II	III
<b>Business sector</b>													
Output per hour of all persons .....	107.5	109.5	106.5	107.2	108.2	107.9	109.5	109.7	109.6	109.6	109.7	110.1	111.1
Output .....	123.9	128.0	122.2	123.3	124.7	125.3	127.3	127.5	128.1	129.0	130.2	131.1	132.9
Hours .....	115.2	116.9	114.7	115.0	115.2	116.1	116.3	116.3	116.9	117.8	118.7	119.1	119.5
Compensation per hour .....	175.9	182.8	172.4	174.6	177.0	179.3	180.7	182.2	183.6	185.2	185.8	187.3	189.2
Real compensation per hour .....	99.1	101.0	98.5	98.6	99.4	99.7	100.1	101.3	101.4	101.6	100.7	100.3	100.3
Unit labor costs .....	163.6	166.9	161.9	162.8	163.6	166.1	165.0	166.2	167.5	169.0	169.4	170.2	170.2
Unit nonlabor payments .....	160.3	163.8	158.7	160.4	161.8	160.2	163.1	163.9	165.7	162.4	166.0	168.6	171.3
Implicit price deflator .....	162.4	165.8	160.8	162.0	163.0	164.0	164.3	165.4	166.9	166.7	168.2	169.6	170.6
<b>Nonfarm business sector</b>													
Output per hour of all persons .....	105.8	107.5	105.2	105.7	106.4	105.9	107.7	107.7	107.5	107.5	107.6	108.0	108.9
Output .....	123.6	127.5	122.0	123.1	124.3	124.9	126.9	127.1	127.6	128.5	129.7	130.7	132.5
Hours .....	116.8	118.6	115.9	116.4	116.9	117.9	117.9	118.0	118.7	119.6	120.6	121.1	121.6
Compensation per hour .....	175.2	182.0	172.2	174.1	176.2	178.3	180.0	181.3	182.6	184.4	184.9	186.3	188.0
Real compensation per hour .....	98.7	100.6	98.4	98.3	98.9	99.2	99.7	100.8	100.9	101.2	100.2	99.7	99.7
Unit labor costs .....	165.6	169.3	163.6	164.7	165.7	168.3	167.2	168.4	169.8	171.5	171.8	172.5	172.6
Unit nonlabor payments .....	161.3	165.2	159.5	161.5	163.4	160.8	164.7	165.2	167.0	163.9	167.4	169.2	172.2
Implicit price deflator .....	164.1	167.8	162.2	163.6	164.9	165.7	166.4	167.3	168.8	168.8	170.3	171.4	172.5
<b>Manufacturing</b>													
Output per hour of all persons .....	124.2	128.8	121.3	124.1	125.3	126.1	127.6	128.4	129.3	129.8	130.8	132.9	134.1
Output .....	122.5	125.9	120.6	122.2	123.2	124.1	125.2	125.3	126.0	127.1	128.4	129.9	132.2
Hours .....	98.7	97.8	99.4	98.5	98.3	98.4	98.1	97.5	97.5	97.9	98.1	97.7	98.6
Compensation per hour .....	176.9	182.7	173.3	176.1	178.0	180.2	181.0	182.1	183.1	184.3	183.9	184.8	185.4
Real compensation per hour .....	99.6	100.9	99.0	99.5	99.9	100.2	100.3	101.2	101.2	101.2	99.6	98.9	98.3
Unit labor costs .....	142.4	141.8	142.9	142.0	142.1	142.9	141.9	141.8	141.7	142.0	140.5	139.0	138.2
<b>Durable goods</b>													
Output per hour of all persons .....	130.1	136.8	126.1	129.6	131.6	133.1	135.3	136.0	137.5	138.4	139.9	141.7	142.9
Output .....	129.9	134.1	127.0	129.3	130.8	132.2	133.6	133.2	134.1	135.3	136.9	137.8	140.1
Hours .....	99.8	98.0	100.7	99.8	99.4	99.4	98.8	98.0	97.5	97.8	97.8	97.2	98.0
Compensation per hour .....	175.4	181.4	171.4	174.4	176.6	179.4	179.9	180.8	181.6	183.1	182.2	182.9	183.4
Real compensation per hour .....	98.8	100.2	97.9	98.5	99.2	99.8	99.7	100.5	100.3	100.5	98.7	97.9	97.3
Unit labor costs .....	134.9	132.6	135.9	134.6	134.2	134.8	133.0	132.9	132.1	132.3	130.2	129.1	128.3
<b>Nondurable goods</b>													
Output per hour of all persons .....	115.1	116.8	113.9	115.4	115.6	115.4	116.0	117.0	117.0	117.1	117.4	119.9	121.2
Output .....	111.6	113.7	110.9	111.5	111.8	112.1	112.7	113.4	113.9	114.9	115.8	118.1	120.5
Hours .....	97.0	97.4	97.4	96.6	96.8	97.1	97.2	96.9	97.3	98.1	98.6	98.5	99.5
Compensation per hour .....	178.9	184.8	176.1	178.6	180.0	181.2	182.7	184.3	185.8	186.5	186.9	188.2	189.1
Real compensation per hour .....	100.8	102.1	100.5	100.8	101.0	100.8	101.2	102.4	102.7	102.4	101.2	100.7	100.3
Unit labor costs .....	155.5	158.3	154.6	154.7	155.7	157.0	157.5	157.5	158.8	159.3	159.1	156.9	156.1
<b>Nonfinancial corporations</b>													
Output per all-employee hour .....	108.2	109.9	107.0	107.7	109.2	108.9	109.8	109.7	109.9	110.5	109.7	109.9	110.6
Output .....	126.1	129.4	124.0	125.4	127.4	127.7	129.1	128.8	129.3	130.4	130.9	131.6	133.4
Hours .....	116.5	117.7	115.9	116.4	116.6	117.3	117.6	117.4	117.6	118.0	119.3	119.8	120.6
Compensation per hour .....	172.8	178.9	169.9	171.8	173.8	175.7	177.2	178.4	179.5	181.0	180.8	182.0	183.4
Real compensation per hour .....	97.4	98.9	97.0	97.0	97.6	97.7	98.2	99.1	99.2	99.3	98.0	97.4	97.2
Total unit costs .....	164.4	167.7	163.6	164.3	163.7	166.0	166.3	167.2	168.5	168.7	169.7	170.9	171.2
Unit labor costs .....	159.7	162.8	158.9	159.5	159.1	161.4	161.5	162.6	163.2	163.8	164.8	165.6	165.8
Unit nonlabor costs .....	178.3	182.2	177.5	178.7	177.5	179.4	180.7	180.6	184.2	183.2	184.1	186.6	187.2
Unit profits .....	133.9	129.3	132.0	132.2	142.5	128.7	129.7	129.5	130.6	127.7	132.2	132.9	140.5
Implicit price deflator .....	160.7	163.1	159.8	160.5	161.2	161.5	161.9	162.7	164.0	163.8	165.2	166.3	167.5

<sup>r</sup> = 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 1986	III 1986	IV 1986	I 1987	II 1987	III 1987 <sup>r</sup>	II 1986	III 1986	IV 1986	I 1987	II 1987	III 1987 <sup>r</sup>
<b>Business sector</b>												
Output per hour of all persons .....	0.6	-0.3	-0.1	0.5	1.4	4.0	2.3	1.3	1.5	0.2	0.4	1.4
Output .....	.7	1.8	3.0	3.5	3.0	5.4	3.4	2.7	2.9	2.3	2.8	3.7
Hours .....	.1	2.1	3.1	3.0	1.6	1.4	1.1	1.5	1.4	2.1	2.5	2.3
Compensation per hour .....	3.5	3.0	3.6	1.4	3.3	4.0	4.4	3.7	3.3	2.8	2.8	3.1
Real compensation per hour .....	4.8	.5	.9	-3.7	-1.6	.2	2.7	2.0	1.9	.6	-1.0	-1.1
Unit labor costs .....	2.8	3.3	3.7	.9	1.8	.1	2.1	2.4	1.8	2.7	2.4	1.6
Unit nonlabor payments .....	2.1	4.5	-7.7	9.0	6.4	6.8	2.2	2.4	1.4	1.8	2.8	3.4
Implicit price deflator .....	2.6	3.7	-.5	3.7	3.4	2.4	2.1	2.4	1.7	2.3	2.6	2.2
<b>Nonfarm business sector</b>												
Output per hour of all persons .....	.1	-6	.0	.4	1.4	3.6	1.9	1.1	1.5	-.1	.3	1.3
Output .....	.6	1.7	2.9	3.8	3.2	5.5	3.3	2.6	2.9	2.2	2.9	3.8
Hours .....	.6	2.3	2.9	3.4	1.7	1.8	1.4	1.6	1.4	2.3	2.6	2.5
Compensation per hour .....	2.9	2.8	4.0	1.1	3.0	3.8	4.1	3.6	3.4	2.7	2.7	3.0
Real compensation per hour .....	4.2	.4	1.3	-3.9	-1.8	-.1	2.5	1.9	2.0	.5	-1.0	-1.2
Unit labor costs .....	2.8	3.5	4.0	.8	1.5	.2	2.2	2.5	1.9	2.8	2.4	1.6
Unit nonlabor payments .....	1.3	4.2	-7.2	8.8	4.6	7.2	2.3	2.2	1.9	1.6	2.4	3.2
Implicit price deflator .....	2.3	3.7	.0	3.4	2.6	2.8	2.3	2.4	1.9	2.4	2.4	2.1
<b>Manufacturing</b>												
Output per hour of all persons .....	2.6	2.7	1.7	3.2	6.4	3.8	3.5	3.2	2.9	2.5	3.5	3.8
Output .....	.2	2.3	3.7	4.0	4.7	7.4	2.5	2.3	2.4	2.5	3.7	4.9
Hours .....	-2.3	-.4	2.0	.8	-1.6	3.5	-.9	-.9	-.5	.0	.2	1.1
Compensation per hour .....	2.5	2.2	2.7	-1.0	2.0	1.4	3.4	2.9	2.3	1.6	1.5	1.3
Real compensation per hour .....	3.8	-.2	.0	-6.0	-2.8	-2.3	1.8	1.2	.9	-.7	-2.3	-2.8
Unit labor costs .....	-.1	-.5	.9	-4.1	-4.2	-2.3	-.1	-.3	-.6	-1.0	-2.0	-2.4
<b>Durable goods</b>												
Output per hour of all persons .....	2.1	4.4	2.6	4.5	5.3	3.5	4.9	4.5	4.0	3.4	4.2	4.0
Output .....	-1.1	2.7	3.8	4.5	2.8	6.8	3.0	2.5	2.4	2.4	3.4	4.4
Hours .....	-3.2	-1.7	1.1	.0	-2.4	3.1	-1.8	-1.9	-1.5	-.9	-.7	.4
Compensation per hour .....	1.9	1.7	3.4	-1.9	1.6	1.1	3.6	2.8	2.1	1.3	1.2	1.0
Real compensation per hour .....	3.3	-.7	.7	-6.8	-3.1	-2.7	2.0	1.1	.7	-.9	-2.5	-3.0
Unit labor costs .....	-.2	-2.6	.8	-6.1	-3.5	-2.4	-1.2	-1.6	-1.8	-2.1	-2.9	-2.8
<b>Nondurable goods</b>												
Output per hour of all persons .....	3.6	.1	.4	1.1	8.7	4.2	1.3	1.3	1.4	1.3	2.5	3.6
Output .....	2.5	1.7	3.6	3.1	8.2	8.6	1.7	1.8	2.5	2.7	4.1	5.8
Hours .....	-1.0	1.6	3.3	1.9	-.5	4.2	.4	.6	1.1	1.4	1.6	2.2
Compensation per hour .....	3.6	3.4	1.5	.7	2.8	2.0	3.2	3.3	2.9	2.3	2.1	1.8
Real compensation per hour .....	5.0	.9	-1.1	-4.4	-2.0	-1.8	1.6	1.6	1.6	.1	-1.6	-2.3
Unit labor costs .....	.0	3.3	1.2	-.5	-5.4	-2.1	1.8	2.0	1.5	1.0	-.4	-1.7
<b>Nonfinancial corporations</b>												
Output per all-employee hour .....	-.2	.9	2.1	-2.9	.7	2.6	1.8	.7	1.5	.0	.2	.6
Output .....	-.9	1.6	3.4	1.5	2.2	5.5	2.7	1.5	2.1	1.4	2.2	3.2
Hours .....	-.6	.7	1.3	4.6	1.6	2.8	.8	.8	.6	1.5	2.0	2.6
Compensation per hour .....	2.6	2.5	3.5	-.5	2.6	3.0	3.9	3.3	3.0	2.0	2.0	2.2
Real compensation per hour .....	4.0	.0	.8	-5.5	-2.2	-.8	2.2	1.6	1.6	-.2	-1.7	-1.9
Total unit costs .....	2.0	3.3	.3	2.4	2.9	.6	1.7	2.9	1.6	2.0	2.2	1.6
Unit labor costs .....	2.9	1.5	1.3	2.5	2.0	.4	2.0	2.6	1.5	2.1	1.8	1.6
Unit nonlabor costs .....	-.2	8.2	-2.3	2.2	5.4	1.2	1.0	3.8	2.1	1.9	3.3	1.6
Unit profits .....	-.5	3.3	-8.5	14.7	2.1	25.0	-2.1	-8.4	-.8	1.9	2.6	7.6
Implicit price deflator .....	1.8	3.3	-.5	3.5	2.8	2.8	1.4	1.7	1.4	2.0	2.3	2.1

<sup>r</sup> =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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Alabama</b> .....	1,906.7	1,920.1	1,931.9	180.1	134.2	133.8	9.4	7.0	6.9
Birmingham .....	445.7	455.0	456.2	37.1	28.0	27.0	8.3	6.2	5.9
Huntsville .....	128.8	131.7	132.3	9.7	6.0	6.3	7.5	4.6	4.7
Mobile .....	211.9	214.3	214.3	21.9	19.3	20.1	10.3	9.0	9.4
Montgomery .....	137.3	138.0	139.1	10.7	8.5	8.5	7.8	6.2	6.1
Tuscaloosa .....	70.0	71.4	72.3	5.0	3.9	3.8	7.1	5.4	5.2
<b>Alaska</b> .....	253.7	253.3	246.3	25.3	21.9	22.6	10.0	8.6	9.1
<b>Arizona</b> .....	1,610.8	1,633.7	1,658.4	109.0	92.4	91.2	6.8	5.7	5.5
Phoenix .....	996.8	1,016.8	1,034.7	56.6	47.8	48.2	5.7	4.7	4.7
Tucson .....	312.8	313.1	317.9	18.0	14.3	14.5	5.8	4.6	4.6
<b>Arkansas</b> .....	1,094.6	1,112.5	1,122.5	89.0	79.3	81.3	8.1	7.1	7.2
Fayetteville-Springdale .....	56.3	59.0	59.8	2.6	2.2	2.3	4.6	3.8	3.8
Fort Smith .....	89.0	89.7	90.8	6.5	5.1	5.3	7.3	5.7	5.6
Little Rock-North Little Rock .....	255.5	260.7	263.1	18.1	17.5	17.3	7.1	6.7	6.6
Pine Bluff .....	38.9	37.2	37.6	3.1	3.1	3.1	8.0	8.3	8.1
<b>California</b> <sup>1</sup> .....	13,527.9	13,804.3	13,835.7	834.4	764.8	770.6	6.2	5.5	5.6
Anaheim-Santa Ana .....	1,271.3	1,319.5	1,301.5	50.7	43.8	43.2	4.0	3.3	3.3
Bakersfield .....	221.7	224.2	229.5	27.3	22.3	23.9	12.3	10.0	10.4
Fresno .....	287.9	320.5	284.3	33.5	25.9	30.2	11.6	8.1	10.6
Los Angeles-Long Beach <sup>1</sup> .....	4,133.0	4,237.0	4,275.0	244.0	254.0	253.0	5.9	6.0	5.9
Modesto .....	146.4	152.6	149.1	18.1	13.7	15.8	12.4	9.0	10.8
Oakland .....	1,032.1	1,035.1	1,044.7	59.2	51.4	48.2	5.7	5.0	4.8
Oxnard-Ventura .....	329.2	331.2	334.8	23.3	19.8	19.0	7.1	6.0	5.7
Riverside-San Bernardino .....	863.1	903.3	912.3	55.5	55.3	54.3	6.4	6.1	5.9
Sacramento .....	858.2	870.6	878.8	37.4	34.7	36.4	5.7	5.2	5.4
Salinas-Seaside-Monterey .....	153.7	153.1	154.7	12.5	9.5	10.3	8.1	8.2	6.7
San Diego .....	1,037.0	1,056.2	1,066.2	52.3	49.3	49.9	5.0	4.7	4.7
San Francisco .....	877.3	886.1	879.4	37.6	32.5	30.9	4.3	3.8	3.5
San Jose .....	801.9	788.7	796.4	44.0	33.9	33.0	5.5	4.3	4.1
Santa Barbara-Santa Maria-Lompoc .....	178.2	175.1	177.6	8.2	7.7	7.5	4.6	4.4	4.2
Santa Rosa-Petaluma .....	183.8	189.0	188.4	9.3	8.2	7.8	5.0	4.3	4.2
Stockton .....	185.0	197.3	186.8	19.3	15.3	17.3	10.4	7.8	9.3
Vallejo-Fairfield-Napa .....	184.3	190.8	191.8	11.5	10.0	10.5	6.2	5.2	5.5
<b>Colorado</b> .....	1,704.9	1,669.6	1,692.7	125.2	100.2	102.2	7.3	6.0	6.0
Boulder-Longmont .....	132.1	130.3	133.5	7.5	5.7	5.7	5.7	4.4	4.3
Denver .....	906.4	888.9	900.9	63.0	50.6	51.1	7.0	5.7	5.7
<b>Connecticut</b> .....	1,759.4	1,795.5	1,795.8	56.6	50.7	52.1	3.2	2.8	2.9
Bridgeport-Milford .....	232.8	235.0	235.7	9.3	7.9	8.2	4.0	3.4	3.5
Hartford .....	423.5	435.3	435.9	12.3	11.0	11.3	2.9	2.5	2.6
New Britain .....	75.0	75.6	75.7	2.5	2.2	2.2	3.3	3.0	2.9
New Haven-Meriden .....	272.9	279.5	279.5	8.4	7.8	7.8	3.1	2.7	2.8
Stamford .....	118.4	120.1	120.3	2.8	2.5	2.6	2.4	2.1	2.2
Waterbury .....	102.6	103.5	103.6	4.5	3.9	3.9	4.4	3.7	3.8
<b>Delaware</b> .....	328.4	328.5	330.0	10.9	8.1	9.3	3.3	2.5	2.8
Wilmington .....	285.1	280.8	286.2	11.1	8.2	8.8	3.9	2.9	3.1
<b>District of Columbia</b> .....	324.5	339.7	340.3	23.9	21.6	21.9	7.4	6.4	6.4
Washington .....	2,069.9	2,122.7	2,137.5	69.2	68.6	67.8	3.3	3.2	3.2
<b>Florida</b> <sup>1</sup> .....	5,679.5	5,902.0	5,961.6	331.7	310.5	295.9	5.8	5.3	5.0
Daytona Beach .....	142.0	146.2	147.8	7.5	6.2	6.4	5.3	4.2	4.3
Fort Lauderdale-Hollywood-Pompano Beach .....	586.1	607.8	618.8	26.8	25.2	24.4	4.6	4.1	3.9
Fort Myers-Cape Coral .....	125.4	135.8	140.3	5.3	4.9	5.1	4.2	3.6	3.6
Gainesville .....	102.9	107.4	109.1	3.2	3.3	3.3	3.1	3.1	3.0
Jacksonville .....	428.6	449.7	453.9	23.3	22.6	22.7	5.4	5.0	5.0
Lakeland-Winter Haven .....	171.2	176.0	177.4	16.3	17.8	15.3	10.7	10.1	8.6
Melbourne-Titusville-Palm Bay .....	171.5	176.6	177.9	12.6	9.0	8.2	7.4	5.1	4.6
Miami-Hialeah .....	901.5	920.1	924.1	61.2	51.7	50.0	6.8	5.6	5.4
Orlando .....	537.2	573.1	574.2	25.1	25.6	24.1	4.7	4.5	4.2
Pensacola .....	146.8	152.1	153.1	6.8	8.8	8.5	6.0	5.8	5.6
Sarasota .....	109.6	114.3	116.7	4.2	4.2	3.8	3.8	3.7	3.3
Tallahassee .....	120.3	125.2	127.4	4.6	4.5	4.7	3.8	3.6	3.7
Tampa-St. Petersburg-Clearwater .....	933.5	960.9	971.3	47.5	45.1	43.9	5.1	4.7	4.5
West Palm Beach-Boca Raton-DeLray Beach .....	376.0	398.8	402.2	23.8	23.8	20.6	6.3	6.0	5.1

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Georgia</b> .....	3,082.1	3,067.3	3,082.5	171.0	154.2	155.9	5.5	5.0	5.1
Albany .....	57.2	55.7	55.9	8.7	4.6	4.8	11.7	8.3	8.3
Athens .....	73.8	72.0	74.6	3.3	3.0	3.0	4.5	4.1	4.0
Atlanta .....	1,438.9	1,447.3	1,451.5	64.0	63.6	64.6	4.4	4.4	4.4
Augusta .....	174.4	174.9	174.8	9.7	9.0	8.9	5.6	5.1	5.1
Columbus .....	99.3	98.5	98.2	7.2	5.7	5.7	7.3	5.8	5.8
Macon-Warner Robins .....	128.5	127.6	127.2	7.3	6.0	6.0	5.7	4.7	4.7
Savannah .....	110.3	108.1	108.2	8.8	6.0	6.1	6.2	5.6	5.6
<b>Hawaii</b> .....	489.8	493.3	503.1	22.1	18.6	19.1	4.5	3.8	3.8
Honolulu .....	367.7	368.4	377.2	15.2	12.8	13.1	4.1	3.5	3.5
<b>Idaho</b> .....	479.3	474.7	471.1	33.5	26.3	24.9	7.0	5.5	5.3
Boise City .....	103.6	102.8	103.3	5.3	4.5	4.3	5.2	4.4	4.1
<b>Illinois</b> <sup>1</sup> .....	5,892.5	5,803.6	5,851.3	413.4	355.3	368.4	7.3	6.1	6.3
Aurora-Elgin .....	170.5	177.8	180.5	9.9	7.4	8.2	5.8	4.2	4.5
Bloomington-Normal .....	64.2	64.9	66.1	2.8	2.3	2.6	4.4	3.5	3.9
Champaign-Urbana-Rantoul .....	86.8	86.5	89.0	3.3	3.1	3.3	3.8	3.6	3.7
Chicago .....	3,125.9	3,199.4	3,210.3	214.6	164.4	189.9	6.9	5.8	5.9
Davenport-Rock Island-Moline .....	181.5	177.3	179.8	14.9	12.1	12.7	8.2	6.8	7.0
Decatur .....	60.0	58.0	60.3	5.8	4.6	5.5	9.7	7.9	9.1
Joliet .....	189.7	191.9	194.4	12.4	11.7	11.9	6.6	6.1	6.1
Kankakee .....	43.9	44.9	48.8	3.7	3.5	3.8	8.4	7.7	8.1
Lake County .....	255.0	267.1	268.3	12.0	9.8	9.9	4.7	3.7	3.7
Peoria .....	152.4	153.8	154.8	11.5	9.8	10.2	7.8	6.3	6.8
Rockford .....	147.3	148.2	148.0	12.2	11.7	12.0	8.3	7.9	8.1
Springfield .....	105.1	105.5	106.7	5.1	4.7	5.1	4.8	4.5	4.7
<b>Indiana</b> .....	2,794.5	2,775.9	2,779.6	167.2	154.8	157.4	6.0	5.6	5.7
Anderson .....	61.8	59.4	58.8	3.3	3.4	3.5	5.3	5.8	5.9
Bloomington .....	60.9	60.9	61.4	1.8	2.0	2.0	3.0	3.3	3.2
Elkhart-Goshen .....	91.0	93.2	93.6	4.0	4.2	4.3	4.4	4.5	4.6
Evansville .....	145.0	141.7	141.1	9.1	9.2	8.9	6.3	6.5	6.3
Fort Wayne .....	193.1	195.3	195.1	8.9	10.2	9.6	4.8	5.2	4.9
Gary-Hammond .....	263.2	250.9	249.8	32.6	20.1	19.4	12.4	8.0	7.8
Indianapolis .....	859.3	863.1	863.4	29.4	32.6	33.4	4.5	4.9	5.0
Kokomo .....	50.3	49.4	49.6	3.8	3.1	3.4	7.5	6.3	6.9
Lafayette .....	66.8	66.6	66.4	1.9	2.2	2.1	2.9	3.4	3.2
Muncie .....	60.6	58.8	60.1	3.7	3.8	4.1	6.1	6.1	6.8
South Bend-Mishawaka .....	128.2	128.0	128.7	6.0	6.5	7.0	4.7	5.0	5.4
Terre Haute .....	60.9	58.7	58.7	3.5	3.3	3.4	5.7	5.6	5.8
<b>Iowa</b> .....	1,451.9	1,414.2	1,425.1	76.9	68.8	68.4	5.3	4.9	4.8
Cedar Rapids .....	89.2	87.1	87.4	4.3	4.5	4.1	4.8	5.2	4.7
Des Moines .....	216.3	214.8	218.2	9.8	9.1	9.0	4.5	4.2	4.2
Dubuque .....	43.6	43.5	43.7	2.3	2.2	2.3	5.4	5.2	5.2
Iowa City .....	58.3	55.3	57.7	1.1	1.1	1.1	1.9	2.2	1.9
Sioux City .....	57.9	57.4	57.6	3.8	3.1	3.3	6.6	5.4	5.8
Waterloo-Cedar Falls .....	70.0	68.5	68.1	6.9	4.8	4.6	9.8	7.0	6.8
<b>Kansas</b> .....	1,228.9	1,241.8	1,244.6	61.6	49.3	53.7	5.0	4.0	4.3
Lawrence .....	38.8	39.1	39.3	1.2	1.2	1.3	3.2	3.0	3.3
Topeka .....	86.7	87.6	88.1	4.1	3.6	4.0	4.7	4.1	4.5
Wichita LMA .....	222.4	231.1	233.0	12.8	9.4	10.3	5.8	4.1	4.4
<b>Kentucky</b> .....	1,715.3	1,676.2	1,690.5	132.5	114.7	119.2	7.7	6.8	7.1
Lexington-Fayette .....	185.0	179.4	180.9	8.4	7.4	7.3	4.5	4.1	4.0
Louisville .....	499.3	488.4	490.8	29.8	27.9	28.2	6.0	5.7	5.7
Owensboro .....	45.5	44.3	44.5	4.0	3.8	3.5	8.7	8.5	7.9
<b>Louisiana</b> .....	1,996.7	1,991.0	1,993.6	265.6	198.6	202.1	13.3	10.0	10.1
Alexandria .....	61.2	62.7	63.1	6.2	5.1	5.2	10.2	8.2	8.3
Baton Rouge .....	264.3	269.6	270.7	28.2	22.9	23.2	10.7	8.5	8.6
Houma-Thibodaux .....	77.4	72.6	72.9	14.8	8.9	8.8	19.2	12.2	12.1
Lafayette .....	107.0	101.5	103.2	16.8	10.5	10.6	15.7	10.4	10.3
Lake Charles .....	75.8	77.3	78.3	10.4	8.7	9.2	13.7	11.3	11.7
Monroe .....	70.3	71.7	71.6	7.2	6.0	6.2	10.3	8.4	8.8
New Orleans .....	805.4	609.0	609.6	67.8	54.5	55.4	11.2	8.9	9.1
Shreveport .....	167.8	167.2	167.3	19.8	15.5	16.2	11.8	9.3	9.7
<b>Maine</b> .....	568.9	612.0	610.3	22.3	17.8	17.8	3.9	2.9	2.9
Lewiston-Auburn .....	40.4	41.3	41.8	2.1	1.5	1.5	5.3	3.8	3.5
Portland .....	119.6	127.2	129.6	2.4	2.1	2.3	2.0	1.7	1.8

See footnotes at end of table.

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

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

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Maryland</b> .....	2,388.6	2,392.0	2,399.9	95.6	93.0	97.0	4.0	3.9	4.0
Baltimore .....	1,160.4	1,153.6	1,156.8	53.8	49.1	51.6	4.6	4.3	4.5
<b>Massachusetts</b> <sup>1</sup> .....	3,037.7	3,053.2	3,097.1	102.6	84.2	83.6	3.4	2.8	2.7
Boston .....	1,508.4	1,506.0	1,536.0	43.9	37.8	36.0	2.9	2.5	2.3
Brockton .....	95.6	96.1	98.4	3.7	3.0	3.0	3.8	3.1	3.1
Fall River .....	76.4	76.3	78.3	3.7	3.0	3.3	4.9	3.9	4.2
Fitchburg-Leominster .....	45.7	44.5	45.8	2.1	1.7	1.6	4.6	3.8	3.5
Lawrence-Haverhill .....	180.3	180.8	183.3	8.0	7.1	7.5	4.4	3.9	4.1
Lowell .....	147.5	146.3	148.5	5.9	4.4	4.6	4.0	3.0	3.1
New Bedford .....	84.4	82.2	83.5	4.4	3.1	3.1	5.2	3.8	3.7
Pittsfield .....	41.2	41.5	41.8	1.4	1.4	1.4	3.3	3.4	3.3
Springfield .....	246.1	249.0	252.9	9.0	6.7	6.9	3.7	2.7	2.7
Worcester .....	207.4	208.8	212.6	6.7	5.3	5.3	3.2	2.6	2.5
<b>Michigan</b> <sup>1</sup> .....	4,424.1	4,575.7	4,518.2	359.9	333.5	310.1	8.1	7.3	6.9
Ann Arbor .....	152.2	159.2	160.5	5.9	6.0	5.6	3.9	3.8	3.5
Battle Creek .....	61.6	64.4	63.2	4.9	5.0	4.6	7.9	7.8	7.2
Benton Harbor .....	75.4	77.0	77.0	6.4	4.9	4.5	8.5	6.3	5.8
Detroit .....	2,153.6	2,233.1	2,201.8	169.0	166.5	154.1	7.8	7.5	7.0
Flint .....	204.0	205.3	202.9	24.6	23.4	24.7	12.1	11.4	12.2
Grand Rapids .....	334.1	345.2	341.8	23.0	19.0	17.2	6.9	5.5	5.0
Jackson .....	61.5	63.2	62.1	5.0	4.5	4.0	8.1	7.2	6.5
Kalamazoo .....	112.1	116.9	116.3	6.2	5.9	5.4	5.5	5.1	4.7
Lansing-East Lansing .....	232.7	232.5	234.9	14.8	14.8	13.3	6.4	6.4	5.6
Muskegon .....	67.3	69.1	67.6	7.2	6.2	5.7	10.6	9.0	8.5
Saginaw-Bay City-Midland .....	184.5	189.0	189.6	17.1	13.8	12.8	9.3	7.3	8.7
<b>Minnesota</b> .....	2,243.3	2,240.6	2,253.8	92.1	103.5	111.4	4.1	4.6	4.9
Duluth .....	102.7	102.1	102.2	7.4	7.9	8.3	7.2	7.8	8.1
Minneapolis-St.Paul .....	1,324.0	1,327.2	1,337.5	47.9	55.7	58.6	3.6	4.2	4.4
Rochester .....	56.6	57.7	58.1	1.7	1.9	2.4	3.1	3.3	4.2
St. Cloud .....	90.3	90.0	93.2	3.6	4.4	4.8	4.0	4.9	5.2
<b>Mississippi</b> .....	1,178.7	1,176.8	1,179.9	127.7	105.3	108.3	10.8	9.0	9.2
Jackson .....	198.7	200.8	201.6	15.7	12.9	13.1	7.9	6.4	6.5
<b>Missouri</b> .....	2,582.8	2,598.3	2,599.2	149.0	141.7	142.0	5.8	5.5	5.5
Kansas City .....	805.8	810.4	812.9	34.4	41.1	40.7	4.3	5.1	5.0
St. Joseph .....	41.7	41.3	41.4	2.8	2.8	2.8	6.7	6.7	8.8
St. Louis .....	1,251.9	1,255.8	1,254.4	89.0	77.6	75.9	7.1	6.2	6.1
Springfield .....	118.9	120.8	120.9	5.2	5.0	5.4	4.4	4.1	4.5
<b>Montana</b> .....	404.1	393.2	396.0	25.7	21.7	24.4	6.4	5.5	6.2
<b>Nebraska</b> .....	807.3	793.1	794.1	33.0	31.2	31.2	4.1	3.9	3.9
Lincoln .....	119.0	118.5	118.5	3.3	3.8	3.8	2.7	3.2	3.0
Omaha .....	313.6	308.3	309.9	14.6	14.0	14.3	4.6	4.6	4.6
<b>Nevada</b> .....	549.4	565.6	566.1	26.6	30.2	32.6	5.2	5.3	5.8
Las Vegas .....	315.9	327.7	329.7	17.5	18.9	20.4	5.5	5.8	6.2
Reno .....	138.8	139.7	138.7	6.2	6.3	6.6	4.4	4.5	4.9
<b>New Hampshire</b> .....	570.0	600.6	597.9	12.9	12.4	12.5	2.3	2.1	2.1
Nashua .....	92.9	98.1	98.0	2.3	2.4	2.3	2.5	2.4	2.3
Portsmouth-Dover-Rochester .....	126.5	135.6	134.5	3.0	2.4	2.1	2.3	1.7	1.6
<b>New Jersey</b> <sup>1</sup> .....	3,660.4	3,884.1	3,951.9	186.1	152.5	144.1	4.8	3.9	3.6
Atlantic City .....	166.3	180.7	177.1	12.6	8.4	10.3	7.6	4.6	5.8
Bergen-Passaic .....	697.6	695.3	709.3	30.6	23.9	22.4	4.4	3.4	3.2
Jersey City .....	266.5	268.6	271.7	20.1	16.3	15.8	7.5	6.1	5.8
Middlesex-Somerset-Hunterdon .....	530.9	533.1	544.2	19.4	15.7	14.3	3.7	2.9	2.6
Monmouth-Ocean .....	446.5	458.9	462.5	17.2	14.6	14.0	3.8	3.2	3.0
Newark .....	951.9	947.1	964.8	47.3	41.5	38.3	5.2	4.4	4.0
Trenton .....	167.2	166.4	173.1	6.6	5.6	5.0	3.9	3.3	2.9
Vineland-Millville-Bridgeton .....	55.9	57.0	57.7	4.5	3.7	3.7	8.0	6.4	6.4
<b>New Mexico</b> .....	684.7	671.0	677.4	62.3	55.4	55.3	9.1	8.3	8.2
Albuquerque .....	258.6	256.2	258.3	17.5	16.6	16.6	6.8	6.5	6.4
Las Cruces .....	56.6	55.2	57.2	4.1	4.1	4.4	7.0	7.4	7.7
Santa Fe .....	65.0	65.1	65.6	3.4	3.5	3.5	5.3	5.4	5.3

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>New York</b> <sup>1</sup> .....	8,440.8	8,395.3	8,534.2	468.4	368.7	416.1	5.5	4.4	4.9
Albany-Schenectady-Troy .....	411.8	414.4	419.0	18.6	16.6	16.7	4.5	4.0	4.0
Binghamton .....	125.2	124.9	127.0	5.9	4.8	4.9	4.7	3.9	3.8
Buffalo .....	440.9	439.3	447.3	26.6	24.5	24.8	6.0	5.6	5.5
Elmira .....	39.7	41.2	41.7	2.1	1.7	1.7	5.4	4.0	4.2
Glens Falls .....	52.4	53.9	53.4	3.1	2.4	2.8	5.9	4.5	5.2
Nassau-Suffolk .....	1,412.6	1,407.3	1,430.7	53.6	51.5	50.2	3.8	3.7	3.5
New York .....	3,890.7	3,851.6	3,921.1	245.4	166.4	209.4	6.3	4.3	5.3
New York City <sup>1</sup> .....	3,218.0	3,178.0	3,240.0	223.0	142.0	189.0	6.9	4.5	5.8
Orange County .....	127.2	126.6	128.8	5.5	5.1	4.7	4.3	4.0	3.7
Poughkeepsie .....	126.2	128.7	128.9	3.9	3.5	3.7	3.1	2.8	2.9
Rochester .....	498.9	488.4	498.7	24.6	22.1	21.7	4.9	4.5	4.4
Syracuse .....	320.2	314.4	322.3	21.1	20.1	20.9	6.6	6.4	6.5
Utica-Rome .....	135.5	135.3	136.4	7.7	6.4	6.7	5.7	4.7	4.9
<b>North Carolina</b> <sup>1</sup> .....	3,211.8	3,303.1	3,354.2	163.1	116.4	129.2	5.1	3.5	3.9
Asheville .....	85.7	87.1	88.6	4.6	3.0	3.3	5.4	3.4	3.7
Charlotte-Gastonia-Rock Hill .....	598.2	626.9	635.0	25.8	20.1	21.1	4.3	3.2	3.3
Greensboro-Winston-Salem-High Point .....	499.3	512.4	521.1	22.6	15.3	17.4	4.5	3.0	3.3
Raleigh-Durham .....	386.2	397.7	406.1	12.8	10.5	11.7	3.3	2.6	2.9
Fargo-Moorhead .....	82.7	82.7	83.7	2.2	2.2	2.5	2.8	2.7	3.0
<b>North Dakota</b> .....	328.8	332.0	323.0	14.9	11.3	11.9	4.5	3.4	3.7
Bismarck .....	43.3	44.2	43.4	2.2	1.5	1.6	5.0	3.5	3.6
Grand Forks .....	35.2	34.9	35.5	1.0	.9	1.1	2.8	2.7	3.1
<b>Ohio</b> <sup>1</sup> .....	5,263.0	5,171.2	5,221.3	408.3	286.8	301.2	7.8	5.5	5.8
Akron .....	320.4	316.3	318.8	24.3	18.2	18.7	7.6	5.7	5.9
Canton .....	190.2	183.7	186.1	17.7	11.6	12.4	9.3	6.3	6.7
Cincinnati .....	733.0	738.5	743.7	43.7	36.5	40.8	8.0	4.9	5.5
Cleveland .....	939.0	918.1	926.2	70.8	46.9	48.0	7.5	5.1	5.2
Columbus .....	687.8	682.8	695.0	40.7	31.5	33.0	5.9	4.6	4.7
Dayton-Springfield .....	467.0	459.1	464.5	29.2	20.9	21.8	6.3	4.5	4.7
Toledo .....	311.5	309.4	314.2	24.3	18.3	19.5	7.8	5.9	6.2
Youngstown-Warren .....	226.4	219.3	221.5	22.7	15.0	15.6	10.0	6.9	7.0
<b>Oklahoma</b> .....	1,588.2	1,539.7	1,541.7	130.1	92.0	92.7	8.2	6.0	6.0
Enid .....	30.3	29.2	29.3	2.4	1.6	1.5	7.8	5.4	5.2
Lawton .....	48.2	47.3	47.7	2.5	2.2	2.0	5.2	4.7	4.3
Oklahoma City .....	513.6	500.3	500.7	34.6	25.8	26.1	6.7	5.2	5.2
Tulsa .....	359.3	352.8	353.4	31.0	23.4	23.6	8.6	6.6	6.7
<b>Oregon</b> .....	1,367.1	1,365.5	1,375.3	98.2	73.7	76.8	7.2	5.4	5.6
Eugene-Springfield .....	136.0	132.9	137.0	9.8	7.2	7.9	7.2	5.4	5.8
Portland .....	615.6	617.2	625.8	41.2	29.7	30.8	6.7	4.8	4.9
Salem .....	127.0	128.4	128.0	8.6	6.3	6.8	6.8	4.9	5.3
<b>Pennsylvania</b> <sup>1</sup> .....	5,649.8	5,707.5	5,787.4	324.7	296.7	307.1	5.7	5.2	5.3
Allentown-Bethlehem .....	316.0	317.0	318.5	17.6	12.2	11.9	5.6	3.8	3.7
Altoona .....	57.9	59.6	59.4	3.9	3.6	4.1	6.8	6.1	7.0
Beaver County .....	65.0	63.7	63.7	7.3	7.6	7.2	11.3	11.9	11.3
Erie .....	129.5	129.1	131.0	9.9	8.5	9.3	7.7	6.6	7.1
Harrisburg-Lebanon-Carlisle .....	302.8	315.0	317.4	11.2	9.0	10.1	3.7	2.9	3.2
Johnstown .....	92.6	95.8	95.6	7.2	6.8	7.3	7.8	7.1	7.6
Lancaster .....	211.4	217.4	219.2	5.5	5.5	6.3	2.6	2.5	2.9
Philadelphia .....	2,380.3	2,408.2	2,460.8	111.3	108.1	111.0	4.7	4.5	4.5
Pittsburgh .....	955.5	955.7	973.9	68.2	62.8	63.6	7.1	6.6	6.5
Reading .....	189.4	170.9	174.3	7.4	6.3	6.4	4.4	3.7	3.6
Scranton-Wilkes-Barre .....	345.2	345.5	348.7	23.5	22.3	21.0	6.8	6.5	6.0
Sharon .....	49.4	50.8	52.1	3.9	2.9	3.2	8.0	5.7	6.1
State College .....	59.1	60.0	60.9	3.1	2.8	3.1	5.2	4.6	5.1
Williamsport .....	56.0	58.7	58.9	3.1	2.6	2.8	5.6	4.5	4.7
York .....	207.9	212.7	214.8	8.1	7.0	7.4	3.9	3.3	3.5
<b>Rhode Island</b> .....	518.5	522.6	524.7	16.8	16.0	15.5	3.2	3.1	2.9
Pawtucket-Woonsocket-Attleboro .....	166.7	187.4	189.4	6.4	6.0	5.7	3.8	3.8	3.4
Providence .....	338.3	338.4	341.0	10.8	10.2	9.8	3.2	3.0	2.9
<b>South Carolina</b> .....	1,613.6	1,664.2	1,661.4	92.7	74.1	71.3	5.7	4.5	4.3
Charleston .....	220.0	230.8	231.4	10.2	8.7	8.1	4.7	3.8	3.5
Columbia .....	220.2	229.4	231.5	8.3	7.8	7.4	3.8	3.4	3.2
Greenville-Spartanburg .....	322.9	335.0	334.0	15.5	12.3	11.4	4.8	3.7	3.4
<b>South Dakota</b> .....	349.9	352.4	349.1	13.1	13.9	13.6	3.8	3.9	3.9
Rapid City .....	39.1	38.4	38.7	1.7	1.7	1.9	4.3	4.5	4.8
Sioux Falls .....	69.2	69.2	69.3	2.2	2.7	2.1	3.2	3.9	3.1

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. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>	Oct. 1986	Sept. 1987	Oct. 1987 <sup>P</sup>
<b>Tennessee</b> .....	2,338.2	2,357.4	2,377.2	163.7	147.8	138.1	7.0	6.3	5.8
Chattanooga .....	202.3	204.7	205.5	12.5	11.1	10.3	6.2	5.4	5.0
Johnson City-Kingsport-Bristol .....	209.7	215.8	219.0	13.4	14.3	13.3	8.4	6.6	6.1
Knoxville .....	281.6	279.5	281.4	18.9	16.0	14.2	6.7	5.7	5.0
Memphis LMA .....	441.3	447.9	449.7	28.0	25.7	24.5	6.3	5.7	5.4
Nashville .....	512.8	510.2	513.5	22.8	23.1	22.5	4.4	4.5	4.4
<b>Texas<sup>1</sup></b> .....	8,294.8	8,430.0	8,409.4	739.6	717.3	618.2	6.9	8.5	7.4
Abilene .....	55.8	56.9	57.0	5.4	4.5	4.0	9.6	8.0	7.0
Amarillo .....	100.0	104.2	103.6	6.3	6.7	5.9	6.3	6.5	5.7
Austin .....	434.1	443.4	443.5	25.1	29.5	26.1	5.8	6.6	5.9
Beaumont-Port Arthur .....	164.3	164.3	163.0	21.6	20.2	17.1	13.1	12.3	10.5
Brazoria .....	81.7	84.2	84.0	8.6	8.3	7.0	10.5	9.9	8.3
Brownsville-Harlingen .....	94.3	96.9	96.2	13.7	14.0	12.7	14.5	14.5	13.2
Bryan-College Station .....	58.2	58.0	60.2	3.6	3.2	2.8	6.2	5.5	4.6
Corpus Christi .....	167.1	167.1	165.6	21.3	19.5	16.2	12.8	11.7	9.8
Dallas .....	1,435.7	1,454.4	1,453.9	83.0	98.3	84.9	5.8	6.8	5.8
El Paso .....	232.6	241.3	237.1	26.7	27.5	23.5	11.5	11.4	9.9
Fort Worth-Arlington .....	663.6	694.3	693.6	43.8	48.1	41.9	6.6	6.9	6.0
Galveston-Texas City .....	107.6	111.0	108.0	12.3	12.3	10.5	11.4	11.1	9.7
Houston .....	1,620.5	1,630.1	1,627.1	170.7	147.2	123.2	10.5	9.0	7.6
Killeen-Temple .....	90.3	95.7	95.1	7.0	8.2	7.0	7.7	8.6	7.4
Laredo .....	44.6	45.8	45.6	7.1	6.7	5.8	15.9	14.6	12.8
Longview-Marshall .....	80.9	80.9	80.4	9.4	8.6	7.3	11.7	10.6	9.1
Lubbock .....	112.9	115.0	114.6	7.5	7.4	6.2	6.8	6.4	5.4
McAllen-Edinburg-Mission .....	146.3	149.2	151.4	28.6	28.0	25.3	19.8	18.7	16.7
Midland .....	52.2	51.9	51.8	6.1	4.3	3.6	11.8	8.4	7.0
Odessa .....	59.3	57.2	56.7	9.9	5.5	4.5	16.7	9.5	7.9
San Angelo .....	46.1	46.4	46.3	3.3	2.9	2.6	7.2	8.2	5.6
San Antonio .....	592.2	613.7	614.5	44.4	50.6	45.0	7.5	8.2	7.3
Sherman-Denison .....	49.5	50.7	50.7	4.0	4.1	3.5	8.0	8.1	6.9
Texarkana .....	57.2	58.2	58.2	4.6	4.7	4.4	8.1	8.1	7.5
Tyler .....	77.3	77.3	76.9	7.1	7.0	5.8	9.2	9.1	7.6
Victoria .....	38.6	39.1	38.5	3.9	3.4	2.9	10.2	8.6	7.4
Waco .....	93.0	95.4	96.4	7.5	7.9	7.3	8.0	8.3	7.6
Wichita Falls .....	57.2	58.8	58.3	4.7	4.6	3.9	8.3	7.8	6.7
<b>Utah</b> .....	762.6	757.4	756.3	41.4	41.9	39.2	5.4	5.5	5.2
Provo-Orem .....	98.7	99.7	100.7	5.9	5.8	5.1	6.0	5.9	5.0
Salt Lake City-Ogden .....	504.7	499.6	501.5	25.1	25.9	24.5	5.0	5.2	4.9
<b>Vermont</b> .....	298.3	296.1	301.7	12.2	8.5	10.6	4.1	2.9	3.5
Burlington .....	74.1	75.4	76.7	2.2	1.8	2.1	2.9	2.4	2.7
<b>Virginia</b> .....	2,912.4	3,000.6	3,011.6	134.7	121.5	118.2	4.8	4.1	3.9
Charlottesville .....	64.1	64.5	65.7	1.9	1.8	1.5	2.9	2.8	2.2
Danville .....	51.1	50.9	51.1	4.3	3.0	3.3	8.4	5.8	6.5
Lynchburg .....	69.9	71.4	71.5	4.2	3.4	3.5	6.0	4.7	4.9
Norfolk-Virginia Beach-Newport News .....	576.7	598.5	598.8	27.3	27.1	26.1	4.7	4.5	4.4
Richmond-Petersburg .....	413.2	429.6	428.8	17.0	16.6	16.1	4.1	3.9	3.7
Roanoke .....	118.2	121.6	122.1	5.8	4.6	4.8	4.9	3.8	3.9
<b>Washington</b> .....	2,221.3	2,241.7	2,270.2	165.6	140.3	147.2	7.5	6.3	6.5
Seattle .....	975.3	992.2	1,006.0	60.7	53.5	54.6	6.2	5.4	5.4
<b>West Virginia</b> .....	733.3	740.7	743.3	75.3	67.4	70.1	10.3	9.1	9.4
Charleston .....	114.6	118.0	118.0	9.2	9.7	10.0	8.0	8.2	8.5
Huntington-Ashland .....	125.3	124.1	124.2	11.7	10.4	11.0	9.3	8.4	8.8
Parkersburg-Marietta .....	71.4	70.7	71.4	6.8	5.0	5.1	9.5	7.1	7.1
Wheeling .....	70.9	69.9	70.5	7.2	5.0	5.5	10.2	7.2	7.8
<b>Wisconsin</b> .....	2,426.5	2,492.4	2,512.1	144.7	109.4	124.4	6.0	4.4	5.0
Appleton-Oshkosh-Neenah .....	157.4	166.5	166.5	8.5	7.2	7.9	5.4	4.3	4.8
Eau Claire .....	70.9	70.8	71.8	3.6	3.0	3.4	5.1	4.3	4.7
Green Bay .....	101.1	104.6	106.3	5.1	4.9	5.5	5.0	4.6	5.1
Janesville-Beloit .....	70.4	69.6	70.5	9.5	4.1	4.5	13.5	5.9	6.4
Kenosha .....	51.5	56.4	56.0	4.7	2.9	3.0	9.2	5.1	5.3
La Crosse .....	50.6	52.3	53.1	2.6	1.8	2.1	5.1	3.5	4.0
Madison .....	207.4	214.1	217.1	8.2	6.2	7.0	3.9	2.9	3.2
Milwaukee .....	716.3	734.4	739.7	37.8	31.5	33.3	5.3	4.3	4.5
Racine .....	84.0	85.7	85.4	5.9	4.7	4.6	7.0	5.5	5.4
Sheboygan .....	52.2	54.6	54.1	2.5	2.2	2.3	4.9	3.9	4.3
Wausau .....	57.4	60.0	60.4	3.4	2.6	2.8	5.9	4.4	4.7
<b>Wyoming</b> .....	247.5	245.8	240.1	20.8	15.4	15.7	8.4	6.3	6.5

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

<sup>2</sup> Not available.

<sup>P</sup> = preliminary.

NOTE: Data refer to place of residence. Estimates for 1986 have been

benchmarked to 1986 Current Population Survey annual averages. Except in the 11 States and 2 areas designated by footnote 1, estimates for 1987 are provisional and will be revised when new benchmark information becomes available. Area definitions are published annually in the May issue of this publication.

# Explanatory Notes

## Introduction

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

*Data based on household interviews* are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the Bureau of Labor Statistics and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of about 59,500 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 290,000 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 14 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 59,500 occupied units are eligible for interview. About 2,500 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 59,500 occupied units, there are 11,000 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 sometime 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 untracted 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-

bile 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. The reliability of national estimates is unaffected. 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.)

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	21,000	68	500-1,000	3,000-3,500
Feb. 1954 to Apr. 1956	21,000	230	500-1,000	3,000-3,500
May 1956 to Dec. 1959	33,500	1,330	1,500	6,000
Jan. 1960 to Feb. 1963	33,500	2,333	1,500	6,000
Mar. 1963 to Dec. 1966	33,500	357	1,500	6,000
Jan. 1967 to July 1971	48,000	449	2,000	8,500
Aug. 1971 to July 1972	45,000	449	2,000	8,000
Aug. 1972 to Dec. 1977	45,000	461	2,000	8,000
Jan. 1978 to Dec. 1979	53,500	614	2,500	10,000
Jan. 1980 to Apr. 1981	62,200	629	2,800	12,000
May 1981 to Dec. 1984	57,800	629	2,500	11,000
Jan. 1985 to present	57,000	729	2,500	11,000

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

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

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 from the April 1, 1980, census through the latest available July 1 estimate, 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 640 of that series. A description of the age estimates methodology is available on request from the Chief of the Population Division, U.S. Bureau of the Census, Washington, D.C. 20233.

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 . . . . .	244	187
Employed . . . . .	263	200
Unemployed . . . . .	131	134
Men, 20 years and over:		
Civilian labor force . . . . .	148	127
Employed . . . . .	162	141
Unemployed . . . . .	89	91
Women, 20 years and over:		
Civilian labor force . . . . .	189	140
Employed . . . . .	190	144
Unemployed . . . . .	82	85
Both sexes, 16 to 19 years:		
Civilian labor force . . . . .	83	91
Employed . . . . .	86	97
Unemployed . . . . .	57	63
Black, 16 years and over:		
Civilian labor force . . . . .	82	63
Employed . . . . .	92	70
Unemployed . . . . .	65	67
Men, 20 years and over:		
Civilian labor force . . . . .	49	43
Employed . . . . .	56	50
Unemployed . . . . .	43	46
Women, 20 years and over:		
Civilian labor force . . . . .	67	44
Employed . . . . .	67	48
Unemployed . . . . .	43	46
Both sexes, 16 to 19 years:		
Civilian labor force . . . . .	33	37
Employed . . . . .	30	34
Unemployed . . . . .	30	32

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 159,000. The 68-percent confidence interval as shown by these data is from 11,841,000 to 12,159,000. 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 118,000.

*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	<b>Occupation—Continued</b>		
Men, 20 years and over . . . . .	.15	.15	Precision production, craft, and repair . . . . .	0.32	0.35
Women, 20 years and over . . . . .	.17	.18	Machine operators, assemblers, and inspectors . . . . .	.50	.57
Both sexes, 16 to 19 years . . . . .	.65	.77	Transportation and material moving . . . . .	.57	.64
White workers . . . . .	.11	.12	Handlers, equipment cleaners, helpers, and laborers . . . . .	.70	.80
Black workers . . . . .	.52	.54	Farming, forestry, and fishing . . . . .	.65	.73
Married men, spouse present . . . . .	.15	.16	<b>Industry</b>		
Married women, spouse present . . . . .	.21	.23	Nonagricultural private wage and salary workers . . . . .	.13	.14
Full-time workers . . . . .	.12	.12	Mining . . . . .	1.37	1.56
Part-time workers . . . . .	.34	.42	Construction . . . . .	.65	.74
Unemployed 15 weeks and over . . . . .	.06	.08	Manufacturing . . . . .	.27	.30
<b>Occupation</b>			Durable goods . . . . .	.34	.38
Executive, administrative, and managerial . . . . .	.21	.24	Nondurable goods . . . . .	.42	.48
Professional specialty . . . . .	.18	.20	Transportation, communications, and public utilities . . . . .	.41	.46
Technicians and related support . . . . .	.49	.55	Wholesale and retail trade . . . . .	.26	.29
Sales . . . . .	.29	.32	Finance and services . . . . .	.20	.22
Administrative support, including clerical . . . . .	.24	.26	Government workers . . . . .	.18	.19
Private household . . . . .	1.07	1.20	Agricultural wage and salary workers . . . . .	1.22	1.40
Protective service . . . . .	.67	.76			
Service, except private household and protective . . . . .	.38	.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 3.6 percent of a total of 90,771,000 employed persons are employed in agriculture. The standard error on an estimate of 3.6 percent with a base of 90,771,000 is obtained from table H (0.09 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 3.6 percent is then approximately  $0.09 \times 1.26 = 0.1$  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 6.9 percent, based on a total of 95,676,000 in the civilian labor force, and that

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

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>								
	Agricultural employment	Unemployment		Labor force data other than agricultural employment and unemployment					
		Total or white	Black	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years	Total or white men only, or women only	Black men only, or women only
50	14	11	11	11	11	11	11	10	10
100	19	15	16	15	15	15	15	14	14
500	43	33	35	34	34	33	29	32	31
1,000	61	47	49	48	47	46	33	45	42
2,000	85	66	67	68	64	63	33	63	55
4,000	120	93	88	95	84	80	-	87	65
6,000	146	113	99	116	94	86	-	106	58
8,000	-	129	-	133	97	83	-	120	24
10,000	-	143	-	147	94	70	-	133	24
15,000	-	172	-	177	49	70	-	157	-
20,000	-	195	-	201	49	-	-	174	-
30,000	-	-	-	236	-	-	-	195	-
40,000	-	-	-	261	-	-	-	202	-
50,000	-	-	-	278	-	-	-	196	-
60,000	-	-	-	288	-	-	-	176	-
70,000	-	-	-	293	-	-	-	137	-
80,000	-	-	-	293	-	-	-	137	-
100,000	-	-	-	275	-	-	-	-	-
140,000	-	-	-	231	-	-	-	-	-

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

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

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

(in thousands)

Estimated monthly level	Characteristic <sup>1</sup>							
	Unemployment				Labor force data other than unemployment and agricultural employment			
	Total or white	Both sexes 16 to 19 years, or part-time labor force <sup>2</sup>	Black	Black, 16 to 19 years	Total or white	Black	Total or white, 16 to 19 years	Black, 16 to 19 years
50	12	13	12	13	8	8	13	13
100	16	18	17	18	11	11	18	18
500	37	40	38	35	25	25	40	34
1,000	51	54	52	38	36	35	55	36
2,000	72	70	69	-	50	47	74	36
4,000	99	78	85	-	70	62	93	-
6,000	118	60	87	-	86	70	97	-
8,000	132	-	-	-	98	73	90	-
10,000	143	-	-	-	109	71	90	-
15,000	160	-	-	-	131	42	90	-
20,000	165	-	-	-	149	42	-	-
30,000	-	-	-	-	175	-	-	-
40,000	-	-	-	-	194	-	-	-
50,000	-	-	-	-	207	-	-	-
60,000	-	-	-	-	215	-	-	-
70,000	-	-	-	-	219	-	-	-
80,000	-	-	-	-	219	-	-	-
100,000	-	-	-	-	208	-	-	-
140,000	-	-	-	-	179	-	-	-

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

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

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

a year prior to this the unemployment rate was 6.1 percent, based on a total of 94,254,000 in the civilian labor force for the month. First, the standard error on the average of the two estimates, 6.5 percent with a base of 94,965,000, is obtained from table F (0.12 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  $0.12 \times 1.40 \approx 0.17$  percentage point.

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

Standard error of year-to-year change =

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

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:

$$\sqrt{(216,000)^2 + (221,000)^2 - 2(.30) (216,000) (221,000)}$$

or about 259,000.

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

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.09	2.94	4.57	6.28	7.46	8.34	9.01	9.51	9.87	10.21
100	1.48	2.08	3.23	4.44	5.28	5.90	6.37	6.73	6.98	7.22
500	.66	.93	1.45	1.99	2.36	2.64	2.85	3.01	3.12	3.27
1,000	.47	.66	1.02	1.40	1.67	1.87	2.01	2.13	2.21	2.28
2,000	.33	.46	.72	.99	1.18	1.32	1.42	1.50	1.56	1.61
4,000	.23	.33	.51	.70	.83	.93	1.01	1.06	1.10	1.14
6,000	.19	.27	.42	.57	.68	.76	.82	.87	.90	.93
10,000	.15	.21	.32	.44	.53	.59	.64	.67	.70	.72
20,000	.10	.15	.23	.31	.37	.42	.45	.47	.49	.51
60,000	.06	.08	.13	.18	.21	.24	.26	.27	.27	.29
100,000	.05	.07	.10	.14	.17	.19	.20	.21	.22	.22
140,000	.04	.06	.09	.12	.14	.16	.17	.18	.19	.20

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

Monthly base of unemployment rate (in thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.32	3.28	5.14	7.18	8.69	9.90	10.93	11.81	12.58	14.38
100	1.64	2.32	3.64	5.08	6.14	7.00	7.12	8.35	8.89	10.17
500	.73	1.04	1.63	2.27	2.74	3.13	3.45	3.73	3.97	4.53
1,000	.52	.73	1.15	1.60	1.94	2.21	2.44	2.63	2.80	3.19
2,000	.37	.52	.81	1.13	1.37	1.56	1.72	1.85	1.97	2.24
4,000	.26	.37	.57	.80	.96	1.10	1.20	1.30	1.38	1.56
6,000	.21	.30	.47	.65	.78	.89	.98	1.05	1.11	1.26
10,000	.16	.23	.36	.50	.60	.68	.75	.80	.85	.94
20,000	.12	.16	.25	.35	.42	.47	.51	.54	.57	-
60,000	.07	.09	.14	.19	.22	.23	.24	-	-	-
100,000	.05	.07	.11	.14	.15	.15	-	-	-	-
140,000	.04	.06	.09	-	-	-	-	-	-	-

**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	2.14	3.01	4.69	6.46	7.68	8.61	9.32	9.86	10.27	10.76
100	1.51	2.13	3.32	4.57	5.43	6.09	6.59	6.97	7.26	7.61
500	.68	.95	1.48	2.04	2.43	2.72	2.95	3.12	3.25	3.40
1,000	.48	.67	1.05	1.44	1.72	1.92	2.08	2.21	2.30	2.41
2,000	.34	.48	.74	1.02	1.22	1.36	1.47	1.56	1.62	1.70
4,000	.24	.34	.52	.72	.86	.96	1.04	1.10	1.15	1.20
6,000	.20	.28	.43	.59	.70	.79	.85	.90	.94	.98
10,000	.15	.21	.33	.46	.54	.61	.66	.70	.73	.76
20,000	.11	.15	.23	.32	.38	.43	.47	.49	.51	.54
40,000	.08	.11	.17	.23	.27	.30	.33	.35	.36	.38
60,000	.06	.09	.14	.19	.22	.25	.27	.28	.30	.31
80,000	.05	.08	.12	.16	.19	.22	.23	.25	.26	.27
100,000	.05	.07	.10	.14	.17	.19	.21	.22	.23	.24
160,000	.04	.05	.08	.11	.13	.15	.16	.17	.18	.19

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 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.* This series is compiled only for aircraft manufactur-



ing , SIC 3721. The same concepts and estimation methods apply to this series as apply to the average hourly earnings series described above; the one difference between the two 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 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 1986 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)
<b>Monthly data</b>		
All employees . . . . .	All-employee estimate for previous month multiplied by ratio of all employees in current month to all employees in previous month, for sample establishments which reported for both months. <sup>1</sup>	Sum of all-employee estimates for component cells.
Production or nonsupervisory workers, women employees . . . . .	All-employee estimate for current month multiplied by (1) ratio of production or nonsupervisory workers to all employees in sample establishments for current month, (2) estimated ratio of women to all employees. <sup>2</sup>	Sum of production or nonsupervisory worker estimates, or estimates of women employees, for component cells.
Average weekly hours . . . . .	Production or nonsupervisory worker hours divided by number of production or nonsupervisory workers. <sup>2</sup>	Average, weighted by production or nonsupervisory worker employment, of the average weekly hours for component cells.
Average weekly overtime hours . . . . .	Production worker overtime hours divided by number of production workers. <sup>2</sup>	Average, weighted by production worker employment, of the average weekly overtime hours for component cells.
Average hourly earnings . . . . .	Total production or nonsupervisory worker payroll divided by total production or nonsupervisory worker hours. <sup>2</sup>	Average, weighted by aggregate hours, of the average hourly earnings for component cells.
Average weekly earnings . . . . .	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.
<b>Annual average data</b>		
All employees, women employees, and production or nonsupervisory workers . . . . .	Sum of monthly estimates divided by 12.	Sum of monthly estimates divided by 12.
Average weekly hours . . . . .	Annual total of aggregate hours (production or nonsupervisory worker employment multiplied by average weekly hours) divided by annual sum of employment	Annual total of aggregate hours for production or nonsupervisory workers divided by annual sum of employment for these workers.
Average weekly overtime hours . . . . .	Annual total of aggregate overtime hours (production worker employment multiplied by average weekly overtime hours) divided by annual sum of employment.	Annual total of aggregate overtime hours for production workers divided by annual sum of employment for these workers.
Average hourly earnings . . . . .	Annual total of aggregate payrolls (product of production or nonsupervisory worker employment by weekly hours and hourly earnings) divided by annual aggregate hours.	Annual total of aggregate payrolls divided by annual aggregate hours.
Average weekly earnings . . . . .	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.

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

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

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

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 1986 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 1986**

Industry	Benchmark	Estimate	Percent difference
Total	98,150	98,617	-0.5
Mining	832	842	-1.2
Construction	4,415	4,441	-.6
Manufacturing	18,945	19,148	-1.1
Transportation and public utilities	5,200	5,215	-.3
Wholesale trade	5,695	5,803	-1.9
Retail trade	17,327	17,418	-.5
Finance, insurance, and real estate	6,140	6,144	-.1
Services	22,650	22,593	.3
Government	16,946	17,013	-.4

<sup>1</sup>Less 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 1986<sup>1</sup>**

Industry	Number of establishments in sample	Employees	
		Number reported	Percent of total
Total	249,800	37,762,000	38
Mining	3,700	319,000	38
Construction	23,100	840,000	19
Manufacturing	51,100	10,018,000	53
Transportation and public utilities	11,600	2,380,000	46
Wholesale trade	21,900	978,000	17
Retail trade	42,900	3,352,000	19
Finance, insurance, and real estate	17,700	2,135,000	35
Services	53,300	5,362,000	24
Government:			
Federal <sup>2</sup>	5,000	2,908,000	100
State	4,800	3,194,000	80
Local	14,700	6,276,000	62

<sup>1</sup> Since a few establishments do not report payroll and hours information, hours and earnings estimates may be based on a slightly smaller sample than employment estimates.

<sup>2</sup> National estimates of Federal employment by agency are provided to BLS by the Office of Personnel Management. Detailed industry estimates for the Executive Branch, as well as State and area estimates of Federal employment, are based on a sample of 5,000 reports covering about 62 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 <sup>1</sup>	Relative error <sup>2</sup>	
		Average weekly hours	Average hourly earnings
Total .....	0.2	—	—
Total private .....	.3	0.1	0.2
Mining .....	2.7	1.0	1.3
Construction .....	1.2	.2	.5
Manufacturing .....	.7	.1	.2
Durable goods .....	.8	.1	.3
Nondurable goods .....	.7	.1	.2
Transportation and public utilities .....	.4	.7	.6
Wholesale trade .....	.7	.2	.4
Retail trade .....	1.0	.2	.4
Finance, insurance, and real estate .....	.2	.2	.4
Services .....	.2	.4	.6
Government <sup>3</sup> .....	.4	—	—

<sup>1</sup> The average percent revision in employment for the 1982-86 benchmarks.

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

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

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

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

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 at 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 .....	110,800	104,900	Nondurable goods—Continued		
Total private <sup>1</sup> .....	67,400	61,600	Chemicals and allied products ..	2,400	2,300
Goods producing .....	29,300	24,100	Petroleum and coal products ..	1,300	1,300
Mining .....	5,300	5,100	Rubber and misc. plastics products .....	2,100	2,000
Oil and gas extraction .....	4,200	4,100	Leather and leather products ..	2,300	2,200
Construction .....	18,100	14,000	Service-producing industries .....	100,500	98,400
General building contractors .....	6,500	4,900	Transportation and public utilities ..	15,700	13,800
Manufacturing .....	22,800	22,800	Transportation .....	18,200	17,400
Durable goods .....	18,500	17,500	Communication and public utilities .....	6,600	6,200
Lumber and wood products .....	3,100	2,600	Wholesale trade .....	9,000	8,000
Furniture and fixtures .....	2,000	1,800	Durable goods .....	5,800	5,100
Stone, clay, and glass products ..	2,200	2,100	Nondurable goods .....	5,300	4,500
Primary metal industries .....	6,100	5,900	Retail trade .....	37,500	34,600
Blast furnaces and basic steel products .....	4,900	4,600	General merchandise stores .....	20,700	18,700
Fabricated metal products .....	3,300	2,900	Food stores .....	6,400	5,800
Machinery, except electrical .....	7,200	6,400	Automotive dealers and service stations .....	3,200	3,000
Electrical and electronic equipment .....	5,600	6,000	Eating and drinking places .....	17,600	15,200
Transportation equipment .....	9,200	8,800	Finance, insurance, and real estate	8,400	7,400
Motor vehicles and equipment .....	8,100	8,600	Finance .....	4,500	3,800
Instruments and related products .....	2,100	2,200	Insurance .....	3,000	2,300
Miscellaneous manufacturing .....	2,000	2,000	Real estate .....	4,800	4,100
Nondurable goods .....	9,900	9,500	Services .....	33,200	30,500
Food and kindred products .....	6,300	6,400	Business services .....	12,200	10,800
Tobacco manufactures .....	1,700	1,600	Health services .....	10,600	10,400
Textile mill products .....	2,200	2,300	Government .....	73,700	68,400
Apparel and other textile products .....	6,300	5,600	Federal .....	17,400	11,300
Paper and allied products .....	1,500	1,300	State .....	24,600	23,000
Printing and publishing .....	2,200	2,100	Local .....	35,200	32,800

NOTE: Data are based on differences from December 1981 through December 1986.

## 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; and two areas: Los Angeles—Long Beach metropolitan area and New York City, 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. In California and New York, which also have sub-State areas taken directly from the CPS, the additivity adjustment for the remaining areas is applied to the State total minus the direct CPS area.

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 1987 and projected data through March 1988. 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 1987. Seasonal adjustment factors to be used for current adjustment appear in the June 1987 issue of *Employment and Earnings*.

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IX ARIZONA	-Department of Economic Security, 733-A, P.O. Box 6123, Phoenix 85005
VI ARKANSAS	-Employment Security Division, Department of Labor, State Capitol Mall, P.O. Box 2981, Little Rock 72203
IX CALIFORNIA	-Employment Data and Research Div., Employment Development Department, P.O. Box 1679, Sacramento 95808.
VIII COLORADO	-Division of Employment and Training, 1330 Fox Street, Denver 80204
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