



EMPLOYMENT AND EARNINGS

August 1988

U.S. Department of Labor  
Bureau of Labor Statistics





## U.S. DEPARTMENT OF LABOR

Ann McLaughlin, Secretary

### BUREAU OF LABOR STATISTICS

Janet L. Norwood, *Commissioner*

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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.

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

### Establishment data

National annual averages:  
Industry divisions (preliminary) Jan.

Industry detail (final) Mar.

Women employees (final) Mar.

National data revised to reflect new benchmarks and new seasonal adjustment factors June

Revised historical national data Supplement<sup>1</sup>

State and area annual averages May

Area definitions May

### State and area labor force data

Annual averages May

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

# Employment and Earnings

Vol. 35 No. 8 August 1988

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Editors: Gloria Peterson Green, Rosalie K. Epstein

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# Employment and Unemployment Developments, July 1988

Payroll employment continued to increase in July and unemployment was little changed. Both the overall and the civilian worker jobless rates were 5.4 percent.

Nonagricultural payroll employment, as measured by the survey of business establishments, rose by 285,000 in July, seasonally adjusted. By contrast, total civilian employment, as measured by the household survey, was about unchanged, after increasing by an unusually large amount in June.

## Unemployment

The number of unemployed persons in July totaled 6.6 million, seasonally adjusted, and the unemployment rate for civilian workers was 5.4 percent. Both figures were little changed from June. Since July of last year, the number of unemployed persons has fallen by 630,000, and the jobless rate has declined six-tenths of a percentage point.

A large part of the over-the-year improvement in unemployment occurred among adult men. Their jobless rate for July (4.5 percent) and that for adult women (5.1 percent) were essentially unchanged, while the rate for teenagers rose by 1.6 percentage points to 15.2 percent, near its May level. The rates for whites (4.7 percent) and blacks (11.4 percent)—including black teenagers (31.1 percent)—were little changed from June. The rate for Hispanics fell to 8.0 percent. (See tables A-33 and A-34.)

## Civilian employment and the labor force

Civilian employment was essentially unchanged at 115.1 million in July, following large swings in recent months. The employment-population ratio held at a high of 62.3 percent. The civilian labor force edged upward by 210,000 in July to 121.7 million. This was 1.8 million above the July 1987 level. (See table A-33.)

## Industry payroll employment

Employment in nonagricultural establishments rose by 285,000 in July. This increase, coupled with a substantial upward revision of the preliminary June estimates, brought the number of payroll jobs to 106.3 million, seasonally adjusted. Strong gains occurred in manufacturing and several industries in the service-producing sector. (See table B-4.)

Manufacturing continued to display vigorous employment growth, as the number of factory jobs rose by 70,000 to reach

19.6 million. As in the previous month, most of this increase was in durable goods manufacturing, especially machinery. Elsewhere in the goods sector, employment in construction rose very slightly in July, after increasing by 70,000 in June. While jobs in general building contracting have shown little strength this summer, there have been strong gains in the special trades (plumbing, electrical, masonry, etc.).

Employment in the service-producing sector rose by about 200,000 in July. Retail trade gained 80,000 jobs, equaling June's strong growth; recent increases have been widespread throughout the industry, except for general merchandise stores. Employment in the fast-growing services division was up by a relatively modest 65,000 in July but has gained about 360,000 jobs since April. Wholesale trade continued to exhibit strong job growth with an increase of 25,000, entirely in durable goods distribution.

## Weekly hours

The average workweek for production or nonsupervisory workers on private nonagricultural payrolls rose by 0.2 hour to 34.9 hours in July, seasonally adjusted. While the factory workweek and overtime were unchanged at 41.1 and 3.9 hours, respectively, they remained very high by historical standards. (See table C-5.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls, at 126.3 (1977=100), rose by 0.7 percent, seasonally adjusted. The index for manufacturing rose by 0.6 percent to 96.7. (See table C-6.)

## Hourly and weekly earnings

Average hourly earnings of private production or nonsupervisory workers rose 0.4 percent in July to \$9.32, seasonally adjusted, and average weekly earnings rose by 1.0 percent, reflecting the increases in hourly earnings and in the length of the workweek. Prior to seasonal adjustment, average hourly earnings rose by 2 cents to \$9.25, and average weekly earnings increased by \$1.63 to \$324.68. (See tables C-1 and C-7.)

## The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 178.9 (1977=100) in July, seasonally adjusted, an increase of 0.5 percent from

June. For the 12 months ended in July, the increase was 3.6 percent. In dollars of constant purchasing power, the HEI decreased 0.5 percent during the 12-month period ending in June. The HEI is computed so as to exclude the effects of two types of changes unrelated to underlying wage rate movements—fluctuations in manufacturing overtime and interindustry employment shifts. (See table C-7.)

Beginning in 1989, the Hourly Earnings Index will no longer appear in this publication. For further information, see “Employment Cost Index Series to Replace Hourly Earnings Index,” *Monthly Labor Review*, July 1988, pp. 32–34. ECI data are currently published quarterly in a news release, in the *Monthly Labor Review*, and in *Current Wage Developments*.

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>
August	September 2	November	December 2
September	October 7	December	January 6
October	November 4	January	February 3

**HOUSEHOLD DATA  
HISTORICAL**

**A-1. Employment status of the noninstitutional population 16 years and over, 1954 to date**

(Numbers in thousands)

Year and month	Noninstitutional population	Labor force									Not in labor force	
		Number	Percent of population	Employed						Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force		
						Total	Agriculture	Nonagricultural industries				
<b>Annual averages</b>												
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>1</sup> .....	122,214	72,675	59.5	68,763	2,061	66,702	4,944	61,759	3,911	5.4	49,539	
1963 .....	124,422	73,839	59.3	69,768	2,006	67,762	4,687	63,076	4,070	5.5	50,583	
1964 .....	126,503	75,109	59.4	71,323	2,018	69,305	4,523	64,782	3,786	5.0	51,394	
1965 .....	128,459	76,401	59.5	73,034	1,946	71,088	4,361	66,726	3,366	4.4	52,058	
1966 .....	130,180	77,892	59.8	75,017	2,122	72,895	3,979	68,915	2,875	3.7	52,288	
1967 .....	132,092	79,565	60.2	76,590	2,218	74,372	3,844	70,527	2,975	3.7	52,527	
1968 .....	134,281	80,990	60.3	78,173	2,253	75,920	3,817	72,103	2,817	3.5	53,291	
1969 .....	136,573	82,972	60.8	80,140	2,238	77,902	3,606	74,296	2,832	3.4	53,602	
1970 .....	139,203	84,889	61.0	80,796	2,118	78,678	3,463	75,215	4,093	4.8	54,315	
1971 .....	142,189	86,355	60.7	81,340	1,973	79,367	3,394	75,972	5,016	5.8	55,834	
1972 <sup>1</sup> .....	145,939	88,847	60.9	83,966	1,813	82,153	3,484	78,669	4,882	5.5	57,091	
1973 <sup>1</sup> .....	148,870	91,203	61.3	86,838	1,774	85,064	3,470	81,594	4,365	4.8	57,667	
1974 .....	151,841	93,670	61.7	88,515	1,721	86,794	3,515	83,279	5,156	5.5	58,171	
1975 .....	154,831	95,453	61.6	87,524	1,678	85,846	3,408	82,438	7,929	8.3	59,377	
1976 .....	157,818	97,826	62.0	90,420	1,668	88,752	3,331	85,421	7,406	7.6	59,991	
1977 .....	160,689	100,665	62.6	93,673	1,656	92,017	3,283	88,734	6,991	6.9	60,025	
1978 <sup>1</sup> .....	163,541	103,882	63.5	97,679	1,631	96,048	3,387	92,661	6,202	6.0	59,659	
1979 .....	166,460	106,559	64.0	100,421	1,597	98,824	3,347	95,477	6,137	5.8	59,900	
1980 .....	169,349	108,544	64.1	100,907	1,604	99,303	3,364	95,938	7,637	7.0	60,806	
1981 .....	171,775	110,315	64.2	102,042	1,645	100,397	3,368	97,030	8,273	7.5	61,460	
1982 .....	173,939	111,872	64.3	101,194	1,668	99,526	3,401	96,125	10,678	9.5	62,067	
1983 .....	175,891	113,226	64.4	102,510	1,676	100,834	3,383	97,450	10,717	9.5	62,665	
1984 .....	178,080	115,241	64.7	106,702	1,697	105,005	3,321	101,685	8,539	7.4	62,839	
1985 .....	179,912	117,167	65.1	108,856	1,706	107,150	3,179	103,971	8,312	7.1	62,744	
1986 <sup>1</sup> .....	182,293	119,540	65.6	111,303	1,706	109,597	3,163	106,434	8,237	6.9	62,752	
1987 .....	184,490	121,602	65.9	114,177	1,737	112,440	3,208	109,232	7,425	6.1	62,888	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1987:</b>												
July .....	184,605	121,610	65.9	114,359	1,720	112,639	3,212	109,427	7,251	6.0	62,995	
August .....	184,738	122,042	66.1	114,786	1,736	113,050	3,143	109,907	7,256	5.9	62,696	
September .....	184,904	121,706	65.8	114,615	1,743	112,872	3,184	109,688	7,091	5.8	63,198	
October .....	185,052	122,128	66.0	114,951	1,741	113,210	3,249	109,961	7,177	5.9	62,924	
November .....	185,225	122,349	66.1	115,259	1,755	113,504	3,172	110,332	7,090	5.8	62,876	
December .....	185,370	122,472	66.1	115,494	1,750	113,744	3,215	110,529	6,978	5.7	62,898	
<b>1988:</b>												
January .....	185,571	122,924	66.2	115,878	1,749	114,129	3,293	110,836	7,046	5.7	62,647	
February .....	185,705	123,084	66.3	116,145	1,736	114,409	3,228	111,182	6,938	5.6	62,621	
March .....	185,847	122,639	66.0	115,839	1,736	114,103	3,204	110,899	6,801	5.5	63,208	
April .....	185,964	123,055	66.2	116,445	1,732	114,713	3,228	111,485	6,610	5.4	62,909	
May .....	186,088	122,692	65.9	115,909	1,714	114,195	3,035	111,160	6,783	5.5	63,396	
June .....	186,247	123,157	66.1	116,703	1,685	115,018	3,085	111,933	6,455	5.2	63,090	
July .....	186,402	123,357	66.2	116,732	1,673	115,059	3,046	112,014	6,625	5.4	63,045	

<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.



**A-2. Employment status of the noninstitutional population 16 years and over by sex, 1977 to date**

(Numbers in thousands)

Sex, year, and month	Noninstitutional population	Labor force									Not in labor force	
		Number	Percent of population	Employed						Unemployed		
				Total	Resident Armed Forces	Civilian			Number	Percent of labor force		
						Total	Agriculture	Nonagricultural industries				
<b>Annual averages</b>												
<b>MEN</b>												
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	
1987	88,476	67,784	76.6	63,684	1,577	62,107	2,543	59,564	4,101	6.1	20,692	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1987:</b>												
July	88,534	67,671	76.4	63,711	1,561	62,150	2,547	59,603	3,960	5.9	20,863	
August	88,598	67,937	76.7	63,916	1,575	62,341	2,489	59,852	4,021	5.9	20,661	
September	88,683	67,776	76.4	63,949	1,581	62,368	2,547	59,821	3,827	5.6	20,907	
October	88,756	67,947	76.6	64,048	1,580	62,468	2,569	59,899	3,899	5.7	20,809	
November	88,849	68,019	76.6	64,174	1,593	62,581	2,491	60,090	3,845	5.7	20,830	
December	88,924	68,030	76.5	64,245	1,589	62,656	2,523	60,133	3,785	5.6	20,894	
<b>1988:</b>												
January	89,033	68,243	76.6	64,396	1,588	62,808	2,593	60,216	3,847	5.6	20,790	
February	89,099	68,343	76.7	64,636	1,577	63,059	2,510	60,548	3,707	5.4	20,756	
March	89,168	68,148	76.4	64,332	1,573	62,759	2,474	60,285	3,816	5.6	21,020	
April	89,225	68,445	76.7	64,892	1,569	63,323	2,467	60,856	3,553	5.2	20,780	
May	89,287	68,318	76.5	64,583	1,553	63,030	2,391	60,639	3,736	5.5	20,969	
June	89,367	68,429	76.6	64,934	1,523	63,411	2,422	60,988	3,495	5.1	20,938	
July	89,445	68,521	76.6	65,002	1,512	63,490	2,471	61,019	3,519	5.1	20,924	
<b>Annual averages</b>												
<b>WOMEN</b>												
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	
1987	96,013	53,818	56.1	50,494	160	50,334	666	49,668	3,324	6.2	42,195	
<b>Monthly data, seasonally adjusted<sup>2</sup></b>												
<b>1987:</b>												
July	96,071	53,939	56.1	50,648	159	50,489	665	49,824	3,291	6.1	42,132	
August	96,140	54,105	56.3	50,870	161	50,709	654	50,055	3,235	6.0	42,035	
September	96,221	53,930	56.0	50,666	162	50,504	637	49,867	3,264	6.1	42,291	
October	96,295	54,181	56.3	50,903	161	50,742	680	50,062	3,278	6.1	42,114	
November	96,376	54,330	56.4	51,085	162	50,923	681	50,242	3,245	6.0	42,046	
December	96,446	54,442	56.4	51,249	161	51,088	692	50,396	3,193	5.9	42,004	
<b>1988:</b>												
January	96,538	54,681	56.6	51,482	161	51,321	700	50,621	3,200	5.9	41,857	
February	96,606	54,740	56.7	51,509	159	51,350	717	50,633	3,231	5.9	41,866	
March	96,679	54,491	56.4	51,507	163	51,344	730	50,614	2,985	5.5	42,188	
April	96,739	54,610	56.5	51,553	163	51,390	761	50,629	3,057	5.6	42,129	
May	96,801	54,374	56.2	51,327	161	51,166	645	50,521	3,047	5.6	42,427	
June	96,880	54,728	56.5	51,769	162	51,607	662	50,944	2,960	5.4	42,152	
July	96,957	54,836	56.6	51,730	161	51,569	575	50,994	3,106	5.7	42,121	

<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, 1954 to date**

(Numbers in thousands)

Year and month	Civilian noninstitutional population	Civilian labor force				Unemployment rates		
		Total	Percent of population	Employed	Unemployed	Total	Men	Women
<b>Annual averages</b>								
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>1</sup> .....	144,126	87,034	60.4	82,153	4,882	5.6	5.0	6.6
1973 <sup>1</sup> .....	147,096	89,429	60.8	85,064	4,365	4.9	4.2	6.0
1974 .....	150,120	91,949	61.3	86,794	5,156	5.6	4.9	6.7
1975 .....	153,153	93,775	61.2	85,846	7,929	8.5	7.9	9.3
1976 .....	156,150	96,158	61.6	88,752	7,406	7.7	7.1	8.6
1977 .....	159,033	99,009	62.3	92,017	6,991	7.1	6.3	8.2
1978 <sup>1</sup> .....	161,910	102,251	63.2	96,048	6,202	6.1	5.3	7.2
1979 .....	164,863	104,962	63.7	98,824	6,137	5.8	5.1	6.8
1980 .....	167,745	106,940	63.8	99,303	7,637	7.1	6.9	7.4
1981 .....	170,130	108,670	63.9	100,397	8,273	7.6	7.4	7.9
1982 .....	172,271	110,204	64.0	99,526	10,678	9.7	9.9	9.4
1983 .....	174,215	111,550	64.0	100,834	10,717	9.6	9.9	9.2
1984 .....	176,383	113,544	64.4	105,005	8,539	7.5	7.4	7.6
1985 .....	178,206	115,461	64.8	107,150	8,312	7.2	7.0	7.4
1986 <sup>1</sup> .....	180,587	117,834	65.3	109,597	8,237	7.0	6.9	7.1
1987 .....	182,753	119,865	65.6	112,440	7,425	6.2	6.2	6.2
<b>Monthly data, seasonally adjusted<sup>2</sup></b>								
<b>1987:</b>								
July .....	182,885	119,890	65.6	112,639	7,251	6.0	6.0	6.1
August .....	183,002	120,306	65.7	113,050	7,256	6.0	6.1	6.0
September .....	183,161	119,963	65.5	112,872	7,091	5.9	5.8	6.1
October .....	183,311	120,387	65.7	113,210	7,177	6.0	5.9	6.1
November .....	183,470	120,594	65.7	113,504	7,090	5.9	5.8	6.0
December .....	183,620	120,722	65.7	113,744	6,978	5.8	5.7	5.9
<b>1988:</b>								
January .....	183,822	121,175	65.9	114,129	7,046	5.8	5.8	5.9
February .....	183,969	121,348	66.0	114,409	6,938	5.7	5.6	5.9
March .....	184,111	120,903	65.7	114,103	6,801	5.6	5.7	5.5
April .....	184,232	121,323	65.9	114,713	6,610	5.4	5.3	5.6
May .....	184,374	120,978	65.6	114,195	6,783	5.6	5.6	5.6
June .....	184,562	121,472	65.8	115,018	6,455	5.3	5.2	5.4
July .....	184,729	121,684	65.9	115,059	6,625	5.4	5.3	5.7

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

**Explanatory Notes.**

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

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Age, sex, and race	July 1988										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>TOTAL</b>											
16 years and over .....	184,729	123,888	67.1	117,066	6,823	5.5	60,841	28,418	2,165	3,135	27,124
16 to 19 years .....	14,533	10,143	69.8	8,661	1,482	14.6	4,391	583	859	37	2,912
16 to 17 years .....	7,298	4,421	60.6	3,672	749	16.9	2,876	254	487	18	2,117
18 to 19 years .....	7,236	5,721	79.1	4,988	733	12.8	1,514	329	372	19	795
20 to 24 years .....	18,441	15,204	82.4	13,926	1,278	6.4	3,237	1,515	634	98	990
25 to 54 years .....	101,515	83,707	82.5	80,072	3,634	4.3	17,808	12,288	628	1,237	3,655
25 to 34 years .....	42,856	35,443	83.1	33,590	1,853	5.2	7,213	5,145	412	344	1,312
25 to 29 years .....	21,290	17,775	83.5	16,711	1,065	6.0	3,514	2,404	265	174	672
30 to 34 years .....	21,366	17,667	82.7	16,879	789	4.5	3,698	2,741	148	171	640
35 to 44 years .....	34,784	29,220	84.0	28,080	1,140	3.9	5,564	3,922	168	370	1,105
35 to 39 years .....	18,860	15,726	83.4	15,065	662	4.2	3,134	2,269	102	191	575
40 to 44 years .....	15,924	13,494	84.7	13,016	478	3.5	2,430	1,656	67	179	530
45 to 54 years .....	24,074	19,043	79.1	18,402	641	3.4	5,030	3,221	47	523	1,239
45 to 49 years .....	12,976	10,583	81.6	10,212	372	3.5	2,391	1,622	30	224	517
50 to 54 years .....	11,098	8,460	76.2	8,190	270	3.2	2,638	1,600	17	300	722
55 to 64 years .....	21,642	11,599	53.6	11,269	330	2.8	10,043	4,852	35	738	4,418
55 to 59 years .....	10,861	7,070	65.1	6,874	197	2.8	3,790	2,113	23	352	1,302
60 to 64 years .....	10,782	4,529	42.0	4,396	133	2.9	6,253	2,739	12	385	3,116
65 years and over .....	28,599	3,235	11.3	3,137	98	3.0	25,363	9,180	10	1,025	15,148
65 to 69 years .....	9,807	1,967	20.1	1,905	62	3.2	7,839	2,955	4	243	4,637
70 to 74 years .....	7,690	801	10.4	777	24	3.0	6,889	2,513	4	169	4,206
75 years and over .....	11,102	468	4.2	455	13	2.8	10,634	3,712	2	614	6,305
<b>Men</b>											
16 years and over .....	87,933	68,693	78.1	65,164	3,529	5.1	19,240	534	960	1,790	15,956
16 to 19 years .....	7,325	5,373	73.4	4,541	832	15.5	1,951	70	397	19	1,465
16 to 17 years .....	3,726	2,380	63.9	1,963	416	17.5	1,346	44	247	9	1,045
18 to 19 years .....	3,599	2,993	83.2	2,578	416	13.9	606	26	150	10	419
20 to 24 years .....	8,924	8,028	90.0	7,397	632	7.9	896	37	304	49	506
25 to 54 years .....	49,639	46,513	93.7	44,691	1,822	3.9	3,126	192	242	830	1,861
25 to 34 years .....	20,967	19,842	94.6	18,905	936	4.7	1,125	74	174	237	639
25 to 29 years .....	10,455	9,841	94.1	9,308	533	5.4	614	38	123	115	339
30 to 34 years .....	10,512	10,000	95.1	9,597	404	4.0	511	36	52	123	301
35 to 44 years .....	17,013	16,110	94.7	15,541	569	3.5	902	50	57	264	531
35 to 39 years .....	9,246	8,772	94.9	8,446	327	3.7	473	33	38	145	257
40 to 44 years .....	7,767	7,338	94.5	7,096	242	3.3	429	17	20	119	274
45 to 54 years .....	11,659	10,561	90.6	10,244	317	3.0	1,098	68	10	329	690
45 to 49 years .....	6,287	5,860	93.2	5,677	183	3.1	426	34	4	136	253
50 to 54 years .....	5,372	4,701	87.5	4,567	134	2.9	671	34	6	193	438
55 to 64 years .....	10,191	6,785	66.6	6,596	189	2.8	3,406	67	13	467	2,859
55 to 59 years .....	5,177	4,121	79.6	4,013	108	2.6	1,055	32	9	234	781
60 to 64 years .....	5,015	2,664	53.1	2,583	81	3.0	2,351	35	4	233	2,079
65 years and over .....	11,855	1,993	16.8	1,939	54	2.7	9,862	168	4	425	9,265
65 to 69 years .....	4,449	1,161	26.1	1,131	30	2.6	3,288	53	2	135	3,098
70 to 74 years .....	3,321	487	14.7	469	17	3.5	2,834	54	1	88	2,692
75 years and over .....	4,085	346	8.5	339	7	2.1	3,739	61	1	202	3,475
<b>Women</b>											
16 years and over .....	96,796	55,195	57.0	51,902	3,294	6.0	41,601	27,883	1,205	1,345	11,168
16 to 19 years .....	7,209	4,769	66.2	4,119	850	13.6	2,439	512	462	18	1,447
16 to 17 years .....	3,572	2,042	57.2	1,709	333	16.3	1,530	210	240	9	1,072
18 to 19 years .....	3,637	2,728	75.0	2,410	317	11.6	909	303	221	9	375
20 to 24 years .....	9,517	7,176	75.4	6,530	646	9.0	2,341	1,478	330	48	485
25 to 54 years .....	51,876	37,194	71.7	35,381	1,813	4.9	14,682	12,096	386	407	1,794
25 to 34 years .....	21,689	15,602	71.9	14,684	917	5.9	6,087	5,071	238	106	672
25 to 29 years .....	10,835	7,934	73.2	7,403	532	6.7	2,900	2,366	142	59	333
30 to 34 years .....	10,854	7,667	70.6	7,282	385	5.0	3,187	2,705	96	48	339
35 to 44 years .....	17,772	13,110	73.8	12,539	571	4.4	4,662	3,872	111	106	573
35 to 39 years .....	9,614	6,954	72.3	6,619	335	4.8	2,681	2,233	64	46	318
40 to 44 years .....	8,157	6,156	75.5	5,920	236	3.8	2,001	1,639	47	60	256
45 to 54 years .....	12,415	8,482	68.3	8,158	324	3.8	3,933	3,153	36	194	549
45 to 49 years .....	6,889	4,723	70.6	4,535	189	4.0	1,965	1,588	26	88	264
50 to 54 years .....	5,726	3,759	65.6	3,623	136	3.6	1,967	1,566	11	107	284
55 to 64 years .....	11,451	4,814	42.0	4,673	141	2.9	6,637	4,785	22	271	1,559
55 to 59 years .....	5,684	2,949	51.9	2,861	88	3.0	2,735	2,081	14	118	522
60 to 64 years .....	5,767	1,865	32.3	1,813	52	2.8	3,902	2,704	7	153	1,037
65 years and over .....	16,744	1,242	7.4	1,198	44	3.6	15,502	9,012	6	601	5,883
65 to 69 years .....	5,358	806	15.0	774	32	4.0	4,551	2,902	2	108	1,539
70 to 74 years .....	4,369	314	7.2	308	7	2.2	4,055	2,459	3	81	1,514
75 years and over .....	7,017	122	1.7	116	6	4.8	6,895	3,651	1	412	2,830

**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	July 1988										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>WHITE</b>											
16 years and over .....	158,279	106,381	67.2	101,432	4,949	4.7	51,898	24,760	1,432	2,418	23,288
16 to 19 years .....	11,861	8,617	72.6	7,579	1,038	12.0	3,244	407	560	32	2,246
16 to 17 years .....	5,903	3,771	63.9	3,240	530	14.1	2,133	173	311	14	1,634
18 to 19 years .....	5,958	4,846	81.3	4,339	508	10.5	1,112	234	248	18	612
20 to 24 years .....	15,250	12,897	84.6	12,018	879	6.8	2,353	1,198	415	51	690
25 to 54 years .....	86,427	71,661	82.9	68,991	2,889	3.7	14,788	10,528	431	936	2,872
25 to 34 years .....	35,908	30,081	83.8	28,765	1,318	4.4	5,827	4,324	272	255	976
25 to 29 years .....	17,872	15,072	84.3	14,334	737	4.9	2,801	2,010	180	123	487
30 to 34 years .....	18,036	15,009	83.2	14,431	579	3.9	3,026	2,315	92	132	488
35 to 44 years .....	29,823	25,077	84.1	24,255	822	3.3	4,746	3,469	118	294	865
35 to 39 years .....	16,033	13,403	83.6	12,935	488	5.5	2,630	2,020	68	144	428
40 to 44 years .....	13,790	11,674	84.7	11,320	354	3.0	2,116	1,501	51	151	437
45 to 54 years .....	20,697	16,502	79.7	15,971	531	3.2	4,195	2,735	41	387	1,032
45 to 49 years .....	11,158	9,174	82.2	8,866	309	3.4	1,983	1,364	25	167	429
50 to 54 years .....	9,540	7,327	76.8	7,105	222	4.2	2,213	1,405	16	219	603
55 to 64 years .....	18,990	10,294	54.2	10,015	279	2.7	8,696	4,274	20	570	3,832
55 to 59 years .....	9,424	6,208	65.9	6,052	155	2.5	3,216	1,831	13	264	1,108
60 to 64 years .....	9,567	4,086	42.7	3,963	124	3.0	5,481	2,443	7	306	2,724
65 years and over .....	25,749	2,913	11.3	2,829	84	2.9	22,836	8,354	7	829	13,647
65 to 69 years .....	8,768	1,784	20.3	1,733	51	2.9	6,984	2,642	2	199	4,139
70 to 74 years .....	6,934	698	10.0	678	19	2.7	6,237	2,298	3	134	3,803
75 years and over .....	10,047	432	4.3	418	13	3.0	9,615	3,413	1	496	5,705
<b>Men</b>											
16 years and over .....	75,911	59,725	78.7	57,125	2,800	4.4	16,186	388	607	1,387	13,804
16 to 19 years .....	5,983	4,529	75.7	3,943	586	12.9	1,454	47	248	16	1,144
16 to 17 years .....	3,021	2,016	66.8	1,726	291	14.4	1,004	28	148	7	823
18 to 19 years .....	2,963	2,512	84.8	2,217	295	11.7	450	19	102	8	321
20 to 24 years .....	7,465	6,872	92.1	6,419	454	6.6	593	19	198	23	354
25 to 54 years .....	42,772	40,430	94.5	39,077	1,353	3.3	2,343	139	157	651	1,396
25 to 34 years .....	17,887	17,099	95.6	16,426	673	3.9	789	45	117	174	452
25 to 29 years .....	8,876	8,461	95.3	8,089	371	4.4	415	23	81	82	229
30 to 34 years .....	9,012	8,638	95.9	8,337	302	3.5	373	23	36	92	223
35 to 44 years .....	14,748	14,066	95.4	13,648	418	3.0	682	44	34	210	393
35 to 39 years .....	7,957	7,613	95.7	7,387	226	3.0	344	28	21	112	183
40 to 44 years .....	6,791	6,453	95.0	6,261	192	3.0	338	16	13	99	210
45 to 54 years .....	10,137	9,264	91.4	9,003	261	2.8	873	49	6	267	551
45 to 49 years .....	5,481	5,147	93.9	4,996	151	2.9	334	24	1	105	204
50 to 54 years .....	4,656	4,117	88.4	4,007	110	2.7	539	26	5	161	347
55 to 64 years .....	8,999	6,058	67.3	5,899	159	2.6	2,941	56	2	368	2,515
55 to 59 years .....	4,521	3,643	80.6	3,558	85	2.3	878	25	2	180	671
60 to 64 years .....	4,478	2,415	53.9	2,341	74	3.0	2,063	32		188	1,844
65 years and over .....	10,691	1,836	17.2	1,786	50	2.7	8,855	127	2	331	8,395
65 to 69 years .....	4,001	1,085	27.1	1,058	27	2.5	2,916	38		107	2,770
70 to 74 years .....	2,997	433	14.4	419	15	3.5	2,564	37	1	71	2,456
75 years and over .....	3,693	318	8.6	310	7	2.3	3,375	52	1	153	3,169
<b>Women</b>											
16 years and over .....	82,367	46,656	56.6	44,307	2,348	5.0	35,712	24,372	826	1,030	9,483
16 to 19 years .....	5,878	4,088	69.6	3,636	452	11.1	1,790	360	312	16	1,102
16 to 17 years .....	2,882	1,754	60.9	1,515	239	13.6	1,128	145	165	7	811
18 to 19 years .....	2,995	2,334	77.9	2,121	213	9.1	661	215	146	9	291
20 to 24 years .....	7,785	6,025	77.4	5,599	426	7.1	1,760	1,179	217	28	336
25 to 54 years .....	43,655	31,231	71.5	29,914	1,316	4.2	12,425	10,389	274	285	1,476
25 to 34 years .....	18,020	12,982	72.0	12,339	643	5.0	5,039	4,279	155	82	524
25 to 29 years .....	8,996	6,611	73.5	6,245	366	5.5	2,386	1,987	99	41	258
30 to 34 years .....	9,024	6,371	70.6	6,094	277	4.3	2,653	2,292	56	40	265
35 to 44 years .....	15,075	11,011	73.0	10,607	404	3.7	4,064	3,424	85	84	471
35 to 39 years .....	8,076	5,790	71.7	5,548	242	4.2	2,286	1,963	47	32	245
40 to 44 years .....	6,999	5,221	74.6	5,059	162	3.1	1,778	1,461	38	52	227
45 to 54 years .....	10,560	7,238	68.5	6,968	270	3.7	3,323	2,686	35	120	481
45 to 49 years .....	5,677	4,027	70.9	3,870	158	3.9	1,649	1,338	24	62	225
50 to 54 years .....	4,884	3,210	65.7	3,098	112	3.5	1,674	1,348	11	58	256
55 to 64 years .....	9,991	4,236	42.4	4,116	120	2.8	5,755	4,218	18	202	1,317
55 to 59 years .....	4,902	2,564	52.3	2,494	70	2.7	2,338	1,807	11	84	437
60 to 64 years .....	5,089	1,672	32.8	1,621	50	3.0	3,417	2,411	7	119	880
65 years and over .....	15,058	1,077	7.1	1,042	34	3.2	13,981	8,227	5	498	5,252
65 to 69 years .....	4,767	699	14.7	675	24	3.4	4,068	2,604	2	92	1,369
70 to 74 years .....	3,937	263	6.7	259	4	1.5	3,673	2,261	2	63	1,347
75 years and over .....	6,354	114	1.8	108	6	5.2	6,240	3,361		343	2,536

**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	July 1988										
	Civilian noninstitutional population	Civilian labor force					Not in labor force				
		Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
<b>BLACK</b>											
16 years and over .....	20,715	13,700	66.1	12,031	1,669	12.2	7,015	2,777	465	652	3,123
16 to 19 years .....	2,184	1,254	57.4	846	409	32.6	929	163	220	5	541
16 to 17 years .....	1,137	539	47.4	344	194	36.1	599	74	129	4	391
18 to 19 years .....	1,047	716	68.4	502	214	29.9	331	89	91	2	149
20 to 24 years .....	2,527	1,842	72.9	1,467	375	20.3	685	261	137	46	241
25 to 54 years .....	11,489	9,312	81.1	8,474	839	9.0	2,178	1,227	101	263	588
25 to 34 years .....	5,243	4,254	81.1	3,758	497	11.7	989	565	76	84	264
25 to 29 years .....	2,674	2,147	80.3	1,848	300	14.0	526	291	50	49	138
30 to 34 years .....	2,569	2,107	82.0	1,910	197	9.3	462	274	26	35	126
35 to 44 years .....	3,719	3,153	84.8	2,898	254	8.1	567	314	22	64	168
35 to 39 years .....	2,125	1,791	84.3	1,629	162	9.0	335	181	14	40	99
40 to 44 years .....	1,594	1,362	85.4	1,269	93	6.8	232	132	8	24	68
45 to 54 years .....	2,527	1,905	75.4	1,817	88	4.6	622	348	3	115	156
45 to 49 years .....	1,345	1,045	77.7	1,002	43	4.1	300	186	1	48	65
50 to 54 years .....	1,182	860	72.8	816	44	5.1	322	162	2	67	92
55 to 64 years .....	2,111	1,025	48.6	990	35	3.4	1,086	442	4	149	491
55 to 59 years .....	1,101	664	60.4	638	26	3.9	436	205	3	72	156
60 to 64 years .....	1,010	361	35.7	352	9	2.5	650	238		77	335
65 years and over .....	2,404	266	11.1	255	11	4.3	2,138	684	3	189	1,262
65 to 69 years .....	880	150	17.0	140	9	6.0	731	251	2	43	436
70 years and over .....	1,523	116	7.6	114	2	1.7	1,407	434	1	146	826
<b>Men</b>											
16 years and over .....	9,305	6,840	73.5	6,029	812	11.9	2,464	128	200	361	1,778
16 to 19 years .....	1,078	679	62.9	460	219	32.3	399	22	103	3	270
16 to 17 years .....	573	300	52.3	192	108	35.9	273	15	66	2	190
18 to 19 years .....	505	379	75.1	267	111	29.4	126	7	37	2	80
20 to 24 years .....	1,152	927	80.5	757	170	18.4	225	19	55	26	125
25 to 54 years .....	5,152	4,548	88.3	4,149	401	8.8	605	46	37	160	362
25 to 34 years .....	2,373	2,117	89.2	1,872	245	11.6	256	28	23	60	145
25 to 29 years .....	1,210	1,062	87.8	912	150	14.1	148	15	20	33	81
30 to 34 years .....	1,163	1,055	90.7	960	95	9.0	108	12	3	28	64
35 to 44 years .....	1,657	1,492	90.0	1,378	115	7.7	165	3	12	43	108
35 to 39 years .....	948	853	90.0	767	86	10.1	95	2	9	27	56
40 to 44 years .....	709	639	90.1	610	29	4.5	70	-	3	16	51
45 to 54 years .....	1,122	940	83.7	898	41	4.4	183	15	2	57	109
45 to 49 years .....	598	522	87.3	501	21	4.1	76	9		29	38
50 to 54 years .....	525	418	79.6	398	20	4.8	107	6	2	28	71
55 to 64 years .....	952	564	59.3	543	20	3.6	388	6	3	82	298
55 to 59 years .....	498	361	72.5	347	14	3.8	137	2	3	38	95
60 to 64 years .....	453	203	44.7	196	7	3.3	250	5		44	203
65 years and over .....	971	122	12.6	121	1	.7	848	35	2	90	723
65 to 69 years .....	384	56	14.5	55	1	( <sup>1</sup> )	329	10	2	28	289
70 years and over .....	586	66	11.3	66		( <sup>1</sup> )	520	25		62	433
<b>Women</b>											
16 years and over .....	11,410	6,860	60.1	6,002	857	12.5	4,551	2,650	264	290	1,346
16 to 19 years .....	1,106	576	52.1	386	189	32.9	530	141	117	2	271
16 to 17 years .....	564	239	42.3	152	87	36.4	325	59	63	2	201
18 to 19 years .....	542	337	62.2	235	103	30.4	205	82	54		69
20 to 24 years .....	1,375	915	66.6	710	204	22.3	460	242	82	20	116
25 to 54 years .....	6,337	4,764	75.2	4,325	438	9.2	1,573	1,181	64	103	226
25 to 34 years .....	2,870	2,137	74.5	1,886	252	11.8	733	537	53	24	119
25 to 29 years .....	1,464	1,085	74.1	936	150	13.8	378	276	30	16	57
30 to 34 years .....	1,406	1,052	74.8	950	102	9.7	354	262	23	7	62
35 to 44 years .....	2,062	1,660	80.5	1,521	140	8.4	402	311	10	21	60
35 to 39 years .....	1,177	938	79.6	862	76	8.1	240	179	5	13	43
40 to 44 years .....	885	723	81.7	659	64	8.8	162	132	5	8	17
45 to 54 years .....	1,405	966	68.8	919	47	4.9	439	333	1	58	47
45 to 49 years .....	747	523	70.0	501	22	4.3	224	177	1	19	27
50 to 54 years .....	657	442	67.3	418	24	5.5	215	156		39	21
55 to 64 years .....	1,159	461	39.8	447	14	3.1	698	436	1	67	193
55 to 59 years .....	603	303	50.4	291	12	4.0	299	203	1	34	61
60 to 64 years .....	557	158	28.4	156	2	1.4	399	233		33	132
65 years and over .....	1,433	144	10.1	134	11	7.4	1,289	649	1	99	539
65 to 69 years .....	496	94	18.9	85	8	9.0	402	241		15	147
70 years and over .....	937	50	5.4	48	2	( <sup>1</sup> )	887	409	1	84	393

<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	July 1988								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 .....	26,451	17,508	66.2	15,633	228	15,405	1,874	10.7	8,943
16 to 19 years .....	2,672	1,526	57.1	1,081	16	1,065	444	29.1	1,146
16 to 17 years .....	1,395	651	46.7	432	12	420	219	33.6	744
18 to 19 years .....	1,277	875	68.5	650	5	645	225	25.8	403
20 to 24 years .....	3,191	2,307	72.3	1,909	28	1,880	398	17.3	884
25 to 54 years .....	15,087	12,046	79.8	11,081	134	10,947	967	8.0	3,040
25 to 34 years .....	6,748	5,363	79.5	4,825	68	4,757	538	10.0	1,385
25 to 29 years .....	3,417	2,704	79.1	2,377	36	2,341	327	12.1	714
30 to 34 years .....	3,330	1,433	43.0	2,448	33	2,416	210	14.7	672
35 to 44 years .....	4,961	4,143	83.5	3,825	38	3,787	317	7.7	819
35 to 39 years .....	2,827	2,323	82.2	2,129	22	2,107	194	8.4	503
40 to 44 years .....	2,134	1,820	85.3	1,696	16	1,680	124	6.8	315
45 to 54 years .....	3,376	2,541	75.3	2,431	28	2,403	111	4.3	835
45 to 49 years .....	1,818	1,409	77.5	1,346	7	1,339	63	4.5	409
50 to 54 years .....	1,559	1,132	72.6	1,085	21	1,064	48	4.2	426
55 to 64 years .....	2,652	1,305	49.2	1,254	32	1,222	51	3.9	1,347
55 to 59 years .....	1,437	863	60.0	821	19	802	42	4.8	575
60 to 64 years .....	1,215	443	36.4	433	13	420	10	2.2	772
65 years and over .....	2,850	323	11.3	308	17	292	15	4.5	2,527
65 to 69 years .....	1,038	182	17.5	172	4	168	10	5.5	855
70 to 74 years .....	755	104	13.8	100	9	90	4	3.8	652
75 years and over .....	1,057	37	3.5	37	4	34		(1)	1,019
<b>Men</b>									
16 years and over .....	12,022	8,968	74.6	8,039	199	7,840	929	10.4	3,054
16 to 19 years .....	1,341	844	63.0	599	17	582	246	29.1	497
16 to 17 years .....	705	363	51.5	238	12	226	126	34.5	342
18 to 19 years .....	636	481	75.6	361	5	356	120	25.0	155
20 to 24 years .....	1,459	1,156	79.2	978	18	959	178	15.4	303
25 to 54 years .....	6,866	6,083	88.6	5,613	118	5,496	470	7.7	783
25 to 34 years .....	3,079	2,743	89.1	2,479	61	2,419	263	9.6	337
25 to 29 years .....	1,579	1,380	87.4	1,219	30	1,189	161	11.7	199
30 to 34 years .....	1,500	1,362	90.8	1,260	31	1,230	102	7.5	138
35 to 44 years .....	2,265	2,044	90.3	1,893	31	1,862	151	7.4	221
35 to 39 years .....	1,289	1,159	90.0	1,058	18	1,041	101	8.7	129
40 to 44 years .....	976	885	90.6	835	13	822	50	5.6	91
45 to 54 years .....	1,522	1,296	85.2	1,241	26	1,215	56	4.3	225
45 to 49 years .....	806	713	88.5	681	5	676	32	4.5	93
50 to 54 years .....	716	583	81.5	560	21	539	24	4.0	132
55 to 64 years .....	1,192	727	61.0	697	31	666	31	4.2	465
55 to 59 years .....	656	478	72.9	455	18	437	23	4.9	177
60 to 64 years .....	536	249	46.4	242	13	229	7	3.0	287
65 years and over .....	1,164	157	13.5	153	16	137	4	2.8	1,007
65 to 69 years .....	448	75	16.8	73	3	70	2	2.9	372
70 to 74 years .....	323	54	16.7	52	9	42	2	(1)	270
75 years and over .....	393	28	7.1	28	4	25		(1)	364
<b>Women</b>									
16 years and over .....	14,429	8,540	59.2	7,594	29	7,566	945	11.1	5,889
16 to 19 years .....	1,331	681	51.2	483	-	484	198	29.1	649
16 to 17 years .....	690	288	41.7	194	-	194	93	32.5	402
18 to 19 years .....	641	394	61.4	289	-	289	105	26.6	247
20 to 24 years .....	1,732	1,151	66.5	931	10	921	220	19.1	581
25 to 54 years .....	8,221	5,963	72.5	5,468	16	5,451	497	8.3	2,257
25 to 34 years .....	3,669	2,620	71.4	2,345	7	2,338	274	10.5	1,049
25 to 29 years .....	1,838	1,324	72.0	1,158	6	1,152	166	12.5	515
30 to 34 years .....	1,830	1,296	70.8	1,188	2	1,186	108	8.4	534
35 to 44 years .....	2,697	2,099	77.8	1,932	7	1,925	167	7.9	598
35 to 39 years .....	1,538	1,164	75.7	1,071	4	1,066	93	8.0	374
40 to 44 years .....	1,158	935	80.7	861	3	858	74	7.9	224
45 to 54 years .....	1,855	1,245	67.1	1,190	2	1,188	55	4.4	610
45 to 49 years .....	1,012	696	68.8	665	2	663	31	4.4	316
50 to 54 years .....	843	549	65.1	525	-	525	24	4.4	294
55 to 64 years .....	1,460	578	39.6	558	2	556	21	3.6	882
55 to 59 years .....	782	385	49.2	366	2	364	18	4.8	397
60 to 64 years .....	679	193	28.5	191	-	191	2	1.1	485
65 years and over .....	1,686	166	9.8	156	1	154	10	6.2	1,520
65 to 69 years .....	590	107	18.1	99	1	98	8	7.4	483
70 to 74 years .....	432	50	11.6	48		48	2	(1)	382
75 years and over .....	664	9	1.4	9		9		(1)	655

<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	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
<b>TOTAL</b>								
Civilian noninstitutional population .....	182,885	184,729	79,625	80,608	88,632	89,588	14,628	14,533
Civilian labor force .....	122,105	123,888	62,645	63,320	49,564	50,426	9,896	10,143
Percent of population .....	66.8	67.1	78.7	78.6	55.9	56.3	67.6	69.8
Employed .....	114,652	117,066	59,458	60,622	46,811	47,783	8,383	8,661
Agriculture .....	3,754	3,541	2,556	2,454	749	650	448	438
Nonagricultural industries .....	110,898	113,524	56,902	58,168	46,062	47,133	7,934	8,223
Unemployed .....	7,453	6,823	3,187	2,697	2,753	2,643	1,513	1,482
Unemployment rate .....	6.1	5.5	5.1	4.3	5.6	5.2	15.3	14.6
Not in labor force .....	60,779	60,841	16,979	17,289	39,067	39,162	4,732	4,391
<b>White</b>								
Civilian noninstitutional population .....	157,058	158,279	69,212	69,928	75,878	76,489	11,968	11,861
Civilian labor force .....	104,987	106,381	54,625	55,196	41,927	42,568	8,436	8,617
Percent of population .....	66.8	67.2	78.9	78.9	55.3	55.7	70.5	72.6
Employed .....	99,609	101,432	52,250	53,182	39,975	40,671	7,384	7,579
Agriculture .....	3,448	3,313	2,335	2,272	700	621	412	421
Nonagricultural industries .....	96,162	98,119	49,915	50,910	39,275	40,050	6,972	7,158
Unemployed .....	5,378	4,949	2,375	2,014	1,951	1,897	1,051	1,038
Unemployment rate .....	5.1	4.7	4.3	3.6	4.7	4.5	12.5	12.0
Not in labor force .....	52,071	51,898	14,587	14,732	33,951	33,922	3,533	3,244
<b>Black</b>								
Civilian noninstitutional population .....	20,373	20,715	8,072	8,227	10,133	10,304	2,168	2,184
Civilian labor force .....	13,468	13,700	6,159	6,161	6,104	6,284	1,205	1,254
Percent of population .....	66.1	66.1	76.3	74.9	60.2	61.0	55.6	57.4
Employed .....	11,645	12,031	5,463	5,569	5,388	5,616	794	846
Agriculture .....	229	165	166	130	32	22	30	13
Nonagricultural industries .....	11,416	11,866	5,297	5,439	5,355	5,594	764	833
Unemployed .....	1,823	1,669	696	592	716	668	411	409
Unemployment rate .....	13.5	12.2	11.3	9.6	11.7	10.6	34.1	32.6
Not in labor force .....	6,905	7,015	1,912	2,065	4,030	4,020	963	929

**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	July 1988									
	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 .....	3,862	2,329	60.3	2,116	904	1,212	213	59	153	9.1
16 to 19 years .....	1,895	1,013	53.5	868	265	603	145	24	122	14.3
20 to 24 years .....	1,967	1,315	66.9	1,248	640	608	67	36	31	5.1
High school .....	1,134	520	45.8	427	121	306	93	13	80	17.8
College .....	2,727	1,809	66.3	1,689	783	906	120	47	73	6.6
Full-time students .....	1,564	847	54.1	790	307	482	57	25	32	6.7
Part-time students .....	1,163	962	82.8	899	476	423	63	22	41	6.5
Men, 16 to 24 years .....	1,907	1,163	61.0	1,046	514	532	117	29	89	10.1
16 to 19 years .....	914	496	54.2	404	147	257	91	16	76	18.5
20 to 24 years .....	993	668	67.2	642	367	274	26	13	13	3.9
High school .....	608	291	47.9	227	83	145	64	9	56	22.0
College .....	1,299	872	67.1	819	432	387	53	20	33	6.1
Full-time students .....	749	405	54.1	389	174	215	17	7	10	4.1
Part-time students .....	550	466	84.8	430	258	172	36	13	23	7.8
Women, 16 to 24 years .....	1,954	1,166	59.6	1,070	390	680	95	31	65	8.2
16 to 19 years .....	981	518	52.8	464	118	346	54	8	46	10.4
20 to 24 years .....	973	648	66.5	606	272	334	42	23	18	6.4
High school .....	526	229	43.4	200	38	161	29	4	24	12.5
College .....	1,428	937	65.6	870	351	519	67	26	40	7.1
Full-time students .....	815	441	54.1	401	133	268	40	18	23	9.1
Part-time students .....	613	496	80.9	469	218	251	27	9	18	5.4
<b>White</b>										
Total, 16 to 24 years .....	2,880	1,876	65.1	1,736	755	981	140	47	94	7.5
16 to 19 years .....	1,368	794	58.0	708	222	486	86	14	72	10.8
20 to 24 years .....	1,511	1,082	71.6	1,028	534	494	54	32	22	5.0
Men .....	1,420	934	65.8	855	426	429	78	23	55	8.4
Women .....	1,460	942	64.6	881	329	551	62	24	38	6.6
High school .....	756	396	52.4	343	99	244	53	2	51	13.3
College .....	2,124	1,480	69.7	1,393	656	737	87	45	43	5.9
Full-time students .....	1,197	699	58.4	649	255	395	50	26	24	7.1
Part-time students .....	927	781	84.3	744	402	342	38	18	19	4.8
<b>Black</b>										
Total, 16 to 24 years .....	693	324	46.7	256	104	153	68	14	53	20.9
16 to 19 years .....	419	188	44.8	133	39	94	55	10	44	29.2
20 to 24 years .....	274	136	49.7	123	64	59	13	4	9	9.3
Men .....	327	163	49.7	128	62	67	34	7	27	21.2
Women .....	366	161	44.1	128	42	86	33	7	26	20.6
High school .....	312	114	36.7	76	22	54	38	11	27	33.4
College .....	382	210	54.9	180	82	99	29	3	26	14.0
Full-time students .....	233	94	40.5	86	25	60	9	-	9	9.1
Part-time students .....	149	115	77.6	95	56	38	21	4	17	18.0
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	331	194	58.6	178	78	100	16	10	6	8.1
16 to 19 years .....	178	76	42.8	73	33	40	3	-	6	3.6
20 to 24 years .....	153	118	76.9	105	45	60	13	13	1	11.1
Men .....	172	100	58.0	89	51	38	11	5	6	10.7
Women .....	159	94	59.1	89	27	62	5	5	-	5.4
High school .....	142	64	44.9	62	36	25	2	-	5	( <sup>2</sup> )
College .....	189	130	68.8	116	41	75	14	12	1	10.6
Full-time students .....	97	54	55.9	46	5	42	8	8	-	( <sup>2</sup> )
Part-time students .....	92	76	82.2	70	37	33	6	5	1	7.7

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	July 1988									
	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 .....	29,113	23,018	79.1	20,471	14,853	5,618	2,547	1,898	649	11.1
16 to 19 years .....	12,639	9,129	72.2	7,793	4,039	3,754	1,337	829	508	14.6
20 to 24 years .....	16,474	13,889	84.3	12,678	10,815	1,864	1,210	1,069	141	8.7
Less than 4 years of high school .....	9,966	6,437	64.6	5,230	2,758	2,472	1,207	796	411	18.8
4 years of high school .....	11,278	9,433	83.6	8,497	6,654	1,843	936	761	175	9.9
1 to 3 years of college .....	5,961	5,376	90.2	5,077	3,979	1,098	299	245	55	5.6
4 years of college or more .....	1,908	1,772	92.9	1,667	1,462	206	105	97	8	5.9
<b>Men, 16 to 24 years .....</b>	<b>14,342</b>	<b>12,239</b>	<b>85.3</b>	<b>10,892</b>	<b>8,311</b>	<b>2,581</b>	<b>1,347</b>	<b>1,043</b>	<b>304</b>	<b>11.0</b>
16 to 19 years .....	6,411	4,878	76.1	4,137	2,304	1,834	740	475	266	15.2
20 to 24 years .....	7,931	7,361	92.8	6,755	6,008	747	606	568	38	8.2
Less than 4 years of high school .....	5,333	3,947	74.0	3,215	1,911	1,304	732	517	215	18.5
4 years of high school .....	5,326	4,895	91.9	4,455	3,765	690	440	371	69	9.0
1 to 3 years of college .....	2,807	2,558	91.2	2,424	1,927	497	134	118	16	5.2
4 years of college or more .....	876	839	95.8	798	708	90	40	37	4	4.8
<b>Women, 16 to 24 years .....</b>	<b>14,771</b>	<b>10,780</b>	<b>73.0</b>	<b>9,579</b>	<b>6,542</b>	<b>3,037</b>	<b>1,201</b>	<b>856</b>	<b>345</b>	<b>11.1</b>
16 to 19 years .....	6,228	4,252	68.3	3,655	1,735	1,920	596	354	242	14.0
20 to 24 years .....	8,543	6,528	76.4	5,924	4,807	1,117	604	502	103	9.3
Less than 4 years of high school .....	4,632	2,490	53.7	2,015	847	1,168	475	279	196	19.1
4 years of high school .....	5,952	4,538	76.2	4,043	2,890	1,153	496	390	105	10.9
1 to 3 years of college .....	3,154	2,818	89.3	2,653	2,052	601	165	126	39	5.9
4 years of college or more .....	1,032	934	90.5	869	754	115	65	60	4	6.9
<b>White</b>										
Total, 16 to 24 years .....	24,231	19,638	81.0	17,861	13,053	4,808	1,777	1,298	479	9.0
16 to 19 years .....	10,493	7,823	74.6	6,871	3,596	3,275	952	571	381	12.2
20 to 24 years .....	13,738	11,815	86.0	10,990	9,456	1,534	825	727	98	7.0
Men .....	12,028	10,468	87.0	9,506	7,313	2,194	961	726	235	9.2
Women .....	12,203	9,170	75.1	8,355	5,740	2,615	816	572	244	8.9
Less than 4 years of high school .....	7,992	5,366	67.1	4,505	2,394	2,112	860	554	306	16.0
4 years of high school .....	9,428	8,032	85.2	7,416	5,841	1,576	615	489	126	7.7
1 to 3 years of college .....	5,087	4,630	91.0	4,423	3,475	948	207	167	40	4.5
4 years of college or more .....	1,724	1,611	93.4	1,517	1,344	173	94	87	7	5.9
<b>Black</b>										
Total, 16 to 24 years .....	4,017	2,773	69.0	2,057	1,431	626	716	561	154	25.8
16 to 19 years .....	1,764	1,067	60.5	713	339	374	354	238	116	33.2
20 to 24 years .....	2,253	1,706	75.7	1,344	1,092	252	362	324	38	21.2
Men .....	1,903	1,443	75.9	1,088	797	291	355	293	62	24.6
Women .....	2,115	1,329	62.9	969	634	334	361	268	93	27.1
Less than 4 years of high school .....	1,672	904	54.1	581	287	294	323	226	97	35.7
4 years of high school .....	1,575	1,200	76.2	897	689	208	303	258	45	25.3
1 to 3 years of college .....	677	578	85.4	492	380	112	87	74	12	15.0
4 years of college or more .....	93	90	97.0	87	75	12	3	3	-	3.6
<b>Hispanic origin</b>										
Total, 16 to 24 years .....	3,035	2,150	70.8	1,848	1,407	441	302	232	70	14.1
16 to 19 years .....	1,175	726	61.8	580	313	268	146	90	56	20.1
20 to 24 years .....	1,860	1,424	76.5	1,267	1,094	173	157	142	15	11.0
Men .....	1,524	1,274	83.6	1,091	866	225	182	144	38	14.3
Women .....	1,511	877	58.0	756	540	216	120	88	32	13.7
Less than 4 years of high school .....	1,569	972	62.0	788	560	229	184	138	46	18.9
4 years of high school .....	1,021	803	78.7	714	574	139	89	67	23	11.1
1 to 3 years of college .....	389	320	82.3	295	227	68	25	24	1	7.9
4 years of college or more .....	57	55	( <sup>2</sup> )	51	46	5	4	4	( <sup>2</sup> )	( <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							
	July 1987	July 1988	Total		Employed		Unemployed			
			July 1987	July 1988	July 1987	July 1988	Number		Percent of labor force	
							July 1987	July 1988	July 1987	July 1988
<b>VIETNAM-ERA VETERANS</b>										
Total, 30 years and over .....	7,843	7,905	7,260	7,281	6,877	7,044	383	237	5.3	3.3
30 to 44 years .....	6,210	5,910	5,956	5,653	5,623	5,455	333	198	5.6	3.5
30 to 34 years .....	915	685	871	646	786	621	85	25	9.8	3.9
35 to 39 years .....	2,589	2,142	2,484	2,034	2,348	1,957	136	77	5.5	3.8
40 to 44 years .....	2,706	3,083	2,601	2,973	2,489	2,877	112	96	4.3	3.2
45 years and over .....	1,633	1,995	1,304	1,628	1,254	1,589	50	39	3.8	2.4
<b>NONVETERANS</b>										
Total, 30 to 44 years .....	19,510	20,450	18,474	19,358	17,665	18,630	809	728	4.4	3.8
30 to 34 years .....	8,869	9,159	8,494	8,735	8,103	8,385	391	350	4.6	4.0
35 to 39 years .....	6,231	6,810	5,882	6,451	5,643	6,210	239	241	4.1	3.7
40 to 44 years .....	4,410	4,481	4,098	4,172	3,919	4,035	179	137	4.4	3.3

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	July 1988							
	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, 18 years and over .....	98,233	96,344	1,889	18,833	14,581	4,252	5,582	1,241
16 to 19 years .....	4,303	4,107	198	4,357	2,852	1,505	852	630
18 to 17 years .....	1,232	1,174	56	2,440	1,867	773	308	443
18 to 19 years .....	3,072	2,933	139	1,917	1,185	732	547	186
20 years and over .....	93,929	92,237	1,692	14,476	11,729	2,747	4,729	611
20 to 24 years .....	11,454	11,139	315	2,472	1,696	776	1,105	172
25 years and over .....	82,474	81,097	1,377	12,003	10,032	1,971	3,624	439
25 to 54 years .....	71,534	70,319	1,215	8,538	6,920	1,618	3,303	331
55 years and over .....	10,942	10,779	163	3,486	3,113	353	321	108
<b>Men, 16 years and over</b> .....	<b>58,849</b>	<b>57,806</b>	<b>1,043</b>	<b>6,315</b>	<b>4,334</b>	<b>1,981</b>	<b>3,041</b>	<b>488</b>
16 to 19 years .....	2,451	2,349	102	2,091	1,304	787	491	341
20 years and over .....	58,398	55,457	941	4,224	3,030	1,194	2,550	147
20 to 24 years .....	6,375	6,202	173	1,022	824	398	581	51
25 years and over .....	50,023	49,256	767	3,202	2,406	796	1,969	96
25 to 54 years .....	42,999	42,330	669	1,693	1,060	633	1,765	58
55 years and over .....	7,025	6,928	99	1,510	1,347	163	205	39
<b>Women, 16 years and over</b> .....	<b>39,384</b>	<b>38,538</b>	<b>846</b>	<b>12,518</b>	<b>10,247</b>	<b>2,271</b>	<b>2,541</b>	<b>752</b>
16 to 19 years .....	1,854	1,759	95	2,266	1,548	718	362	288
20 years and over .....	37,531	36,780	751	10,251	8,698	1,553	2,179	464
20 to 24 years .....	5,079	4,937	142	1,451	1,073	378	525	121
25 years and over .....	32,452	31,842	610	8,800	7,626	1,174	1,655	343
25 to 54 years .....	28,536	27,990	546	6,845	5,860	985	1,539	273
55 years and over .....	3,916	3,852	64	1,955	1,766	189	115	69
<b>White</b>								
<b>Men, 16 years and over</b> .....	<b>51,735</b>	<b>50,862</b>	<b>873</b>	<b>5,391</b>	<b>3,789</b>	<b>1,602</b>	<b>2,233</b>	<b>368</b>
16 to 19 years .....	2,168	2,080	88	1,776	1,138	636	342	244
20 years and over .....	49,567	48,782	785	3,615	2,651	964	1,891	124
20 to 24 years .....	5,571	5,423	148	848	521	327	407	46
25 years and over .....	43,996	43,359	637	2,767	2,130	637	1,483	77
25 to 54 years .....	37,692	37,143	549	1,384	885	499	1,309	44
55 years and over .....	6,303	6,215	88	1,382	1,245	137	175	33
<b>Women, 16 years and over</b> .....	<b>33,279</b>	<b>32,582</b>	<b>697</b>	<b>11,028</b>	<b>9,183</b>	<b>1,845</b>	<b>1,788</b>	<b>560</b>
16 to 19 years .....	1,650	1,574	76	1,986	1,345	641	243	209
20 years and over .....	31,629	31,008	621	9,042	7,838	1,204	1,545	352
20 to 24 years .....	4,419	4,320	99	1,180	891	289	352	74
25 years and over .....	27,209	26,687	522	7,862	6,947	915	1,192	279
25 to 54 years .....	23,796	23,331	465	6,117	5,345	772	1,094	222
55 years and over .....	3,413	3,356	57	1,745	1,602	143	98	56
<b>Black</b>								
<b>Men, 16 years and over</b> .....	<b>5,338</b>	<b>5,193</b>	<b>145</b>	<b>691</b>	<b>378</b>	<b>313</b>	<b>707</b>	<b>105</b>
16 to 19 years .....	217	206	11	243	122	121	134	85
20 years and over .....	5,120	4,987	133	448	256	192	572	20
20 to 24 years .....	642	620	22	115	59	56	166	4
25 years and over .....	4,479	4,367	112	334	198	136	406	17
25 to 54 years .....	3,918	3,813	105	229	117	112	388	13
55 years and over .....	560	554	6	104	81	23	18	4
<b>Women, 16 years and over</b> .....	<b>4,842</b>	<b>4,723</b>	<b>119</b>	<b>1,160</b>	<b>811</b>	<b>349</b>	<b>686</b>	<b>171</b>
16 to 19 years .....	161	147	14	225	163	62	114	75
20 years and over .....	4,681	4,575	106	935	648	287	572	96
20 to 24 years .....	515	483	32	195	127	68	161	43
25 years and over .....	4,164	4,091	73	739	521	218	412	52
25 to 54 years .....	3,773	3,706	67	550	373	177	399	40
55 years and over .....	391	385	6	189	148	41	13	12

<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	July 1988									
	Civilian labor force					Not in labor force				
	Total	Percent of population	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
				Number	Percent of labor force					
Total, 16 years and over <sup>1</sup> .....	101,016	67.8	95,318	5,698	5.6	47,923	23,127	1,877	2,258	20,661
Husbands .....	40,053	78.5	38,954	1,099	2.7	10,988	172	125	835	9,856
With employed wife .....	25,128	92.4	24,524	604	2.4	2,074	58	63	280	1,673
With unemployed wife .....	1,036	90.4	938	98	9.5	110	6	4	16	84
With wife not in labor force .....	13,889	61.2	13,493	397	2.9	8,804	108	58	539	8,099
Wives .....	28,348	55.5	27,202	1,146	4.0	22,693	18,164	228	337	3,964
With employed husband .....	25,462	65.4	24,524	938	3.7	13,493	11,811	170	121	1,391
With unemployed husband .....	702	63.9	604	98	13.9	397	330	16	9	41
With husband not in labor force .....	2,184	19.9	2,074	110	5.1	8,804	6,023	43	207	2,531
Relatives in married-couple families .....	16,034	74.9	14,440	1,594	9.9	5,362	831	920	342	3,269
16 to 19 years .....	6,892	72.0	6,070	822	11.9	2,676	186	525	19	1,945
20 to 24 years .....	5,609	85.9	5,155	455	8.1	921	143	334	31	414
25 years and over .....	3,532	66.7	3,215	317	9.0	1,765	502	61	292	910
Women who maintain families .....	6,572	62.3	6,019	553	8.4	3,982	2,721	107	212	942
Relatives in families maintained by women .....	5,856	64.4	4,911	945	16.1	3,240	811	401	338	1,690
16 to 19 years .....	1,837	61.5	1,426	412	22.4	1,149	167	245	16	720
20 to 24 years .....	1,620	76.9	1,340	280	17.3	488	133	110	42	202
25 years and over .....	2,398	59.9	2,145	253	10.6	1,603	511	46	280	768
Men who maintain families .....	2,217	75.9	2,087	130	5.9	703	47	9	86	562
Relatives in families maintained by men .....	1,936	67.0	1,705	232	12.0	955	381	87	108	378
16 to 19 years .....	451	73.1	349	102	22.6	166	24	44	1	97
20 to 24 years .....	491	81.6	440	51	10.5	110	27	28	6	50
25 years and over .....	995	59.4	916	79	7.9	679	330	15	101	231

<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.

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	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	3,963	3,529	5.8	5.1	3,490	3,294	6.4	6.0
Married, spouse present .....	1,513	1,192	3.6	2.8	1,285	1,252	4.4	4.3
Widowed, divorced, or separated ..	445	400	6.8	5.8	735	703	7.2	6.7
Single (never married) .....	2,005	1,937	10.4	9.7	1,471	1,339	9.8	8.8
White, 16 years and over .....	2,906	2,600	4.9	4.4	2,472	2,348	5.4	5.0
Married, spouse present .....	1,229	975	3.3	2.6	1,074	1,024	4.2	3.9
Widowed, divorced, or separated ..	311	296	5.7	5.2	502	504	6.2	5.9
Single (never married) .....	1,365	1,329	8.5	8.0	896	820	7.4	6.7
Black, 16 years and over .....	912	812	13.4	11.9	911	857	13.6	12.5
Married, spouse present .....	220	162	6.8	5.1	172	181	7.3	7.4
Widowed, divorced, or separated ..	125	96	13.0	9.9	209	183	11.4	9.9
Single (never married) .....	567	554	21.6	20.5	529	492	21.5	19.1
Total, 25 years and over .....	2,411	2,065	4.4	3.7	2,036	1,998	4.8	4.6
Married, spouse present .....	1,406	1,107	3.5	2.8	1,045	1,043	3.9	3.8
Widowed, divorced, or separated ..	411	369	6.5	5.6	649	629	6.7	6.2
Single (never married) .....	595	589	7.5	6.9	343	326	6.0	5.4
White, 25 years and over .....	1,808	1,561	3.8	3.2	1,446	1,471	4.1	4.0
Married, spouse present .....	1,132	899	3.2	2.5	870	853	3.7	3.6
Widowed, divorced, or separated ..	294	267	5.7	4.8	432	444	5.6	5.5
Single (never married) .....	382	395	5.9	5.7	143	174	3.3	3.8
Black, 25 years and over .....	515	422	9.9	8.1	521	463	10.1	8.6
Married, spouse present .....	210	154	6.8	5.1	136	150	6.2	6.6
Widowed, divorced, or separated ..	110	94	11.8	9.9	195	171	10.9	9.5
Single (never married) .....	194	174	16.4	14.0	190	142	16.0	10.9

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

Occupation	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	7,453	6,823	6.1	5.5	5.8	5.1	6.4	6.0
Managerial and professional specialty .....	698	677	2.5	2.3	2.1	1.9	2.9	2.7
Executive, administrative, and managerial .....	310	316	2.2	2.1	1.8	1.9	2.8	2.5
Professional specialty .....	388	361	2.7	2.4	2.5	1.9	2.9	2.9
Technical, sales, and administrative support .....	1,589	1,537	4.3	4.1	3.4	3.4	4.8	4.5
Technicians and related support .....	67	89	1.9	2.4	2.3	2.0	1.4	2.8
Sales occupations .....	681	626	4.8	4.3	2.9	2.9	6.6	5.8
Administrative support, including clerical .....	840	822	4.4	4.3	4.8	5.1	4.3	4.1
Service occupations .....	1,250	1,173	7.5	7.0	7.3	6.7	7.7	7.1
Private household .....	62	60	5.8	5.7	( <sup>1</sup> )	( <sup>1</sup> )	6.0	5.8
Protective service .....	85	79	4.2	3.7	4.0	3.5	5.2	4.7
Service, except private household and protective .....	1,103	1,034	8.2	7.6	8.6	7.9	8.0	7.4
Precision production, craft, and repair .....	788	676	5.4	4.6	5.3	4.5	6.1	5.4
Mechanics and repairers .....	208	141	4.4	3.0	4.3	2.9	9.0	4.8
Construction trades .....	387	338	6.9	5.9	6.9	5.9	5.0	5.9
Other precision production, craft, and repair .....	194	198	4.5	4.6	4.1	4.3	5.7	5.5
Operators, fabricators, and laborers .....	1,760	1,445	8.9	7.3	8.6	6.7	9.7	8.9
Machine operators, assemblers, and inspectors .....	774	640	8.5	7.2	8.0	6.0	9.3	9.0
Transportation and material moving occupations .....	335	277	6.6	5.4	6.4	5.1	8.0	7.8
Handlers, equipment cleaners, helpers, and laborers .....	651	527	11.4	9.0	11.3	9.0	12.0	8.9
Construction laborers .....	161	124	15.7	11.4	15.8	11.0	( <sup>1</sup> )	( <sup>1</sup> )
Other handlers, equipment cleaners, helpers, and laborers .....	490	403	10.5	8.5	10.1	8.5	11.9	8.3
Farming, forestry, and fishing .....	258	255	5.6	6.0	5.6	5.1	5.8	10.4
No previous work experience .....	1,090	1,014						
16 to 19 years .....	789	757						
20 to 24 years .....	192	150						
25 years and over .....	109	107						

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

A-13. Unemployed persons by industry and sex

Industry	Thousands of persons		Unemployment rates					
	Total		Total		Men		Women	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	7,453	6,823	6.1	5.5	5.8	5.1	6.4	6.0
Nonagricultural private wage and salary workers .....	5,368	4,886	5.9	5.2	5.8	5.0	6.0	5.5
Mining .....	71	43	7.9	5.3	8.2	5.7	6.3	3.0
Construction .....	561	523	8.5	8.1	9.1	8.2	2.9	6.5
Manufacturing .....	1,273	1,131	5.8	5.0	5.2	4.5	7.0	6.1
Durable goods .....	778	653	5.9	4.9	5.9	4.7	6.1	5.4
Lumber and wood products .....	48	72	6.0	9.7	6.0	9.6	5.9	10.7
Furniture and fixtures .....	43	35	6.3	4.3	4.7	2.9	9.7	7.6
Stone, clay, and glass products .....	35	28	5.8	4.4	7.0	2.9	1.4	9.4
Primary metal industries .....	73	37	8.5	4.3	8.6	4.6	8.0	2.2
Fabricated metal products .....	87	73	6.5	5.4	7.2	6.3	4.2	2.5
Machinery, except electrical .....	134	117	5.2	4.2	4.8	3.4	6.5	6.9
Electrical machinery, equipment, and supplies .....	90	99	4.0	4.8	4.0	5.0	4.1	4.5
Transportation equipment .....	212	147	7.8	5.3	7.2	4.8	10.1	7.1
Automobiles .....	148	91	11.7	7.1	10.2	6.5	16.8	9.6
Other transportation equipment .....	64	56	4.4	3.8	4.6	3.3	4.1	5.3
Professional and photographic equipment .....	15	23	2.0	3.1	2.1	4.7	1.9	.9
Other durable goods industries .....	39	23	6.9	4.5	5.9	4.1	8.1	4.6
Nondurable goods .....	496	478	5.5	5.2	3.8	4.0	7.8	6.8
Food and kindred products .....	130	140	7.2	7.4	5.4	5.6	10.5	10.9
Textile mill products .....	35	32	4.6	4.3	3.2	3.7	6.1	4.9
Apparel and other textile products .....	128	97	10.1	7.1	2.5	5.1	12.2	7.8
Paper and allied products .....	20	24	2.6	3.1	1.9	1.4	4.6	7.7
Printing and publishing .....	60	77	3.2	4.0	3.5	3.8	2.9	4.2
Chemicals and allied products .....	43	36	3.2	2.8	2.9	2.3	4.1	4.1
Rubber and miscellaneous plastics products .....	45	52	6.2	5.9	4.8	5.6	8.2	6.6
Other nondurable goods industries .....	32	20	7.5	4.7	6.8	3.9	9.9	5.6
Transportation and public utilities .....	284	233	4.5	3.6	4.2	3.3	5.0	4.4
Transportation .....	210	174	5.7	4.7	5.6	4.1	6.1	6.4
Communications and other public utilities .....	75	59	2.8	2.1	2.1	1.9	4.1	2.4
Wholesale and retail trade .....	1,546	1,414	6.7	6.0	5.7	5.3	7.7	6.8
Wholesale trade .....	185	171	4.1	3.9	4.0	3.2	4.4	5.7
Retail trade .....	1,361	1,243	7.3	6.5	6.3	6.0	8.1	6.9
Finance, insurance, and real estate .....	226	235	3.1	3.2	3.6	2.9	2.8	3.3
Service industries .....	1,406	1,307	5.6	5.1	6.1	5.1	5.4	5.0
Professional services .....	521	505	3.9	3.6	3.5	3.2	4.0	3.8
Other service industries .....	885	802	7.7	6.7	8.0	6.5	7.4	6.9
Agricultural wage and salary workers .....	197	182	9.1	8.9	8.7	7.8	10.4	13.6
Government, self-employed, and unpaid family workers .....	800	740	2.9	2.7	2.6	2.1	3.3	3.4
No previous work experience .....	1,090	1,014	-	-	-	-	-	-

**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	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
<b>NUMBER OF UNEMPLOYED</b>												
Total unemployed .....	7,453	6,823	3,187	2,697	2,753	2,643	1,513	1,482	5,378	4,949	1,823	1,669
Job losers .....	3,385	2,957	2,138	1,727	1,046	1,021	201	209	2,506	2,231	790	651
On layoff .....	839	781	512	440	290	288	38	52	651	653	167	114
Other job losers .....	2,546	2,176	1,626	1,287	756	733	163	157	1,855	1,578	623	537
Job leavers .....	1,068	975	443	397	450	393	175	184	851	807	173	145
Reentrants .....	1,911	1,880	482	487	1,081	1,059	348	334	1,317	1,284	529	532
New entrants .....	1,089	1,011	125	86	176	170	789	755	704	626	331	340
<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 .....	45.5	43.3	67.1	64.0	38.0	38.6	13.3	14.0	46.6	45.1	43.3	39.0
On layoff .....	11.3	11.4	16.1	16.3	10.5	10.9	2.5	3.5	12.1	13.2	9.1	6.8
Other job losers .....	34.2	31.9	51.0	47.7	27.5	27.7	10.8	10.5	34.5	31.9	34.2	32.2
Job leavers .....	14.3	14.3	13.9	14.7	16.3	14.9	11.6	12.4	15.8	16.3	9.5	8.7
Reentrants .....	25.6	27.5	15.1	18.0	39.3	40.1	23.0	22.5	24.5	25.9	29.0	31.9
New entrants .....	14.6	14.8	3.9	3.2	6.4	6.4	52.1	50.9	13.1	12.7	18.1	20.4
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>												
Job losers .....	2.8	2.4	3.4	2.7	2.1	2.1	2.0	2.0	2.4	2.1	5.9	4.8
Job leavers .....	.9	.8	.7	.6	.9	.8	1.8	1.8	.8	.8	1.3	1.1
Reentrants .....	1.6	1.5	.8	.8	2.2	2.1	3.5	3.3	1.3	1.2	3.9	3.9
New entrants .....	.9	.8	.2	.1	.4	.3	8.0	7.4	.7	.6	2.5	2.5



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

(Percent distribution)

Reason, sex, and age	July 1988						
	Total unemployed		Duration of unemployment				
	Thousands of persons	Percent	Less than 5 weeks	5 to 14 weeks	15 weeks and over		
					Total	15 to 26 weeks	27 weeks and over
Total, 16 years and over .....	6,823	100.0	46.4	32.0	21.6	10.0	11.5
Job losers .....	2,957	100.0	37.7	30.4	31.9	14.1	17.8
On layoff .....	781	100.0	53.8	29.2	17.0	11.3	5.7
Other job losers .....	2,176	100.0	31.9	30.8	37.3	15.1	22.2
Job leavers .....	975	100.0	55.3	30.5	14.2	6.9	7.3
Reentrants .....	1,880	100.0	52.0	31.6	16.4	8.3	8.1
New entrants .....	1,011	100.0	52.6	39.2	8.2	4.3	3.8
Men, 20 years and over .....	2,697	100.0	35.6	32.6	31.8	13.8	18.0
Job losers .....	1,727	100.0	31.8	31.0	37.3	15.5	21.7
On layoff .....	440	100.0	54.1	28.5	17.4	12.0	5.4
Other job losers .....	1,287	100.0	24.1	31.8	44.0	16.7	27.4
Job leavers .....	397	100.0	49.1	34.6	16.3	6.5	9.8
Reentrants .....	487	100.0	38.9	33.9	27.3	14.4	12.9
New entrants .....	86	100.0	32.2	49.2	18.6	8.9	9.7
Women, 20 years and over .....	2,643	100.0	49.6	29.9	20.5	10.1	10.4
Job losers .....	1,021	100.0	41.1	31.0	27.9	14.3	13.6
On layoff .....	288	100.0	50.2	30.4	19.4	12.0	7.4
Other job losers .....	733	100.0	37.6	31.2	31.2	15.1	16.0
Job leavers .....	393	100.0	53.8	28.5	17.7	9.6	8.0
Reentrants .....	1,059	100.0	55.4	29.2	15.4	7.3	8.1
New entrants .....	170	100.0	54.2	31.1	14.7	4.4	10.2
Both sexes, 16 to 19 years .....	1,482	100.0	60.2	34.8	5.0	3.0	1.9
Job losers .....	209	100.0	69.9	22.2	7.9	1.8	6.1
On layoff .....	52	100.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other job losers .....	157	100.0	69.8	19.8	10.3	2.1	8.2
Job leavers .....	184	100.0	71.8	25.9	2.2	2.0	.2
Reentrants .....	334	100.0	60.5	36.1	3.4	2.7	.7
New entrants .....	755	100.0	54.6	39.9	5.5	3.8	1.7

<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	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	7,453	6,823	100.0	100.0	6,262	5,582	100.0	100.0
Less than 5 weeks .....	3,415	3,164	45.8	46.4	2,695	2,387	43.0	42.8
5 to 14 weeks .....	2,276	2,186	30.5	32.0	1,913	1,791	30.5	32.1
5 to 10 weeks .....	1,797	1,771	24.1	26.0	1,483	1,422	23.7	25.5
11 to 14 weeks .....	479	415	6.4	6.1	429	369	6.9	6.6
15 weeks and over .....	1,762	1,473	23.6	21.6	1,655	1,404	26.4	25.2
15 to 26 weeks .....	787	685	10.6	10.0	737	643	11.8	11.5
27 weeks and over .....	975	788	13.1	11.5	918	762	14.7	13.7
27 to 51 weeks .....	466	339	6.3	5.0	438	328	7.0	5.9
52 weeks and over .....	510	450	6.8	6.6	480	434	7.7	7.8
Average (mean) duration, in weeks .....	13.4	12.7			14.5	14.2		
Median duration, in weeks .....	5.9	5.6			6.6	6.3		

**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	
								July 1987	July 1988	July 1987	July 1988
	July 1988							July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	6,823	3,164	2,186	685	788	12.7	5.6	45.8	46.4	23.6	21.6
16 to 19 years .....	1,482	893	516	45	28	5.9	4.2	57.0	60.2	5.7	5.0
20 to 24 years .....	1,278	658	385	123	111	10.0	4.9	52.0	51.5	17.6	18.3
25 to 34 years .....	1,853	803	594	225	232	13.5	6.3	42.2	43.3	28.6	24.6
35 to 44 years .....	1,140	421	379	144	196	16.3	7.7	40.5	36.9	29.2	29.8
45 to 54 years .....	641	251	182	83	125	17.6	7.1	36.4	39.2	38.7	32.4
55 to 64 years .....	330	85	99	56	90	27.1	12.5	29.0	25.9	46.0	44.2
65 years and over .....	98	52	31	8	6	10.5	4.7	( <sup>1</sup> )	53.3	( <sup>1</sup> )	14.9
Men, 16 years and over .....	3,529	1,451	1,167	399	512	15.1	6.5	40.9	41.1	29.1	25.8
16 to 19 years .....	832	490	288	28	26	6.6	4.2	54.1	59.0	8.0	6.5
20 to 24 years .....	632	278	232	70	51	10.6	5.9	45.5	44.1	22.2	19.2
25 to 34 years .....	936	348	296	130	162	16.8	7.9	38.5	37.2	32.9	31.1
35 to 44 years .....	569	180	190	78	121	19.2	9.0	35.0	31.6	38.0	35.0
45 to 54 years .....	317	100	82	52	84	24.0	11.7	29.3	31.4	44.8	42.8
55 to 64 years .....	189	29	58	37	65	33.0	17.4	23.9	15.2	54.0	54.0
65 years and over .....	54	25	21	4	3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Women, 16 years and over .....	3,294	1,713	1,019	286	277	10.1	4.8	51.4	52.0	17.4	17.1
16 to 19 years .....	650	402	228	17	2	5.2	4.0	60.0	61.9	3.2	3.0
20 to 24 years .....	646	380	153	54	60	9.4	4.3	59.0	58.8	12.5	17.5
25 to 34 years .....	917	455	297	95	70	10.1	5.1	46.3	49.6	23.9	18.0
35 to 44 years .....	571	241	189	66	75	13.5	6.4	47.0	42.2	19.0	24.7
45 to 54 years .....	324	152	101	31	41	11.3	5.6	45.4	46.7	31.0	22.3
55 to 64 years .....	141	57	40	19	25	19.2	7.1	37.4	40.2	32.9	31.1
65 years and over .....	44	27	10	4	3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
White, 16 years and over .....	4,949	2,304	1,646	491	508	12.0	5.6	46.9	46.6	23.6	20.2
Men .....	2,600	1,086	891	289	335	14.3	6.4	41.7	41.7	29.7	24.0
Women .....	2,348	1,218	755	202	173	9.5	4.8	53.1	51.9	16.3	16.0
Black, 16 years and over .....	1,669	752	487	180	249	14.7	6.0	42.5	45.1	23.9	25.7
Men .....	812	312	246	104	149	17.6	7.2	37.8	38.5	28.4	31.2
Women .....	857	440	242	75	100	11.9	4.9	47.1	51.4	19.5	20.4
Men, 16 years and over:											
Married, spouse present .....	1,192	377	399	174	241	19.8	9.3	34.1	31.7	39.0	34.8
Widowed, divorced, or separated .....	400	162	96	59	84	18.3	8.6	37.4	40.4	36.5	35.6
Single (never married) .....	1,937	912	672	167	187	11.5	5.4	46.8	47.1	20.0	18.2
Women, 16 years and over:											
Married, spouse present .....	1,252	644	392	117	98	10.2	4.9	51.4	51.5	16.7	17.2
Widowed, divorced, or separated .....	703	320	220	85	77	12.2	5.8	44.7	45.6	28.9	23.1
Single (never married) .....	1,339	748	406	83	102	8.9	4.5	54.7	55.9	12.3	13.8

<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	
	July 1988							July 1987	July 1988	July 1987	July 1988
<b>OCCUPATION</b>											
Managerial and professional specialty .....	677	268	244	88	77	13.6	7.1	37.9	39.6	31.2	24.3
Technical, sales, and administrative support .....	1,537	672	499	183	183	13.4	6.2	48.6	43.7	19.7	23.8
Service occupations .....	1,173	628	322	85	137	11.8	4.7	48.6	53.5	22.9	19.0
Precision production, craft, and repair .....	676	263	234	84	94	14.5	7.6	40.3	38.9	33.1	26.4
Operators, fabricators, and laborers .....	1,445	645	391	174	235	15.5	6.1	41.6	44.6	30.3	28.3
Farming, forestry, and fishing .....	255	129	81	23	21	9.5	4.9	57.3	50.7	16.0	17.4
<b>INDUSTRY<sup>1</sup></b>											
Agriculture .....	182	106	50	8	17	8.3	4.3	62.8	58.4	12.9	13.9
Construction .....	539	245	156	65	73	14.1	6.2	40.0	45.4	31.7	25.6
Manufacturing .....	1,134	483	304	132	214	16.2	6.6	37.4	42.6	33.4	30.6
Durable goods .....	656	266	179	69	141	18.0	7.2	36.3	40.6	35.6	32.1
Nondurable goods .....	478	217	126	63	73	13.8	5.9	39.0	45.3	29.9	28.4
Transportation and public utilities .....	265	72	105	53	35	16.5	8.6	43.4	27.4	30.2	33.0
Wholesale and retail trade .....	1,423	714	446	104	158	12.0	5.0	50.5	50.2	22.8	18.4
Finance and service industries .....	1,871	857	603	218	193	12.4	5.9	46.6	45.8	20.8	22.0
Public administration .....	193	83	62	20	28	14.1	6.0	36.7	43.2	36.2	24.8
No previous work experience .....	1,014	533	399	44	39	7.7	4.8	52.2	52.6	9.1	8.1

<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	July 1988								Average number of methods used
	Thousands of persons		Methods used as a percent of total jobseekers						
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives		
Total, 16 years and over .....	6,823	5,885	22.0	7.3	74.6	34.1	18.3	4.7	1.61
16 to 19 years .....	1,482	1,405	10.7	2.6	81.3	26.8	18.3	3.3	1.43
20 to 24 years .....	1,278	1,127	23.2	8.9	70.8	36.4	18.7	4.7	1.63
25 to 34 years .....	1,853	1,581	23.8	6.5	75.2	37.8	17.1	4.6	1.65
35 to 44 years .....	1,140	923	27.8	9.6	71.8	33.2	21.0	4.8	1.68
45 to 54 years .....	641	501	31.5	14.8	74.3	36.5	15.0	8.6	1.81
55 to 64 years .....	330	272	27.9	9.2	62.9	44.5	21.0	4.8	1.70
65 years and over .....	98	76	21.1	5.3	72.4	15.8	18.4	6.6	1.39
Men, 16 years and over .....	3,529	2,972	23.7	6.8	76.0	31.2	21.8	4.9	1.64
16 to 19 years .....	832	780	11.3	2.6	83.3	19.7	20.6	2.9	1.41
20 to 24 years .....	632	533	23.5	7.5	76.0	32.6	22.5	4.7	1.67
25 to 34 years .....	936	781	23.4	7.0	74.9	32.8	20.1	5.0	1.63
35 to 44 years .....	569	429	34.5	10.0	73.7	34.5	24.7	5.6	1.83
45 to 54 years .....	317	262	36.6	10.3	74.8	42.0	21.0	10.3	1.95
55 to 64 years .....	189	152	36.2	9.9	52.6	51.3	25.7	3.9	1.80
65 years and over .....	54	37	( <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 .....	3,294	2,913	20.3	7.9	73.2	37.0	14.8	4.5	1.58
16 to 19 years .....	650	626	10.1	2.7	78.6	35.5	15.3	3.8	1.46
20 to 24 years .....	646	595	22.9	9.9	66.1	39.7	15.5	4.7	1.59
25 to 34 years .....	917	799	24.3	5.9	75.5	42.8	14.1	4.1	1.67
35 to 44 years .....	571	494	22.1	9.3	70.2	32.0	17.8	4.0	1.55
45 to 54 years .....	324	239	25.5	19.7	73.6	30.5	8.4	6.7	1.64
55 to 64 years .....	141	120	17.5	8.3	75.8	35.8	14.2	5.8	1.57
65 years and over .....	44	39	( <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 .....	4,949	4,163	21.5	8.3	73.4	36.9	18.4	4.7	1.63
Men .....	2,600	2,147	23.6	7.5	75.2	33.8	22.5	4.7	1.67
Women .....	2,348	2,016	19.3	9.2	71.5	40.2	14.1	4.6	1.59
Black, 16 years and over .....	1,669	1,539	23.6	4.4	78.0	26.5	17.7	4.6	1.55
Men .....	812	729	25.5	4.4	79.6	23.2	19.1	4.5	1.56
Women .....	857	810	21.9	4.4	76.7	29.6	16.5	4.6	1.54

<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	July 1988								Average number of methods used
	Thousands of persons		Methods used as a percent of total jobseekers						
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives		
Total, 16 years and over .....	6,823	5,885	22.0	7.3	74.6	34.1	18.3	4.7	1.61
Job losers <sup>1</sup> .....	2,957	2,168	28.9	6.9	75.2	36.9	21.1	4.8	1.74
Job leavers .....	975	947	20.8	9.5	74.1	40.0	15.7	3.9	1.64
Reentrants .....	1,880	1,767	19.5	8.9	70.9	32.4	17.6	5.8	1.55
New entrants .....	1,011	1,002	12.7	3.5	80.3	25.4	16.1	3.5	1.42
Men, 16 years and over .....	3,529	2,972	23.7	6.8	76.0	31.2	21.8	4.9	1.64
Job losers <sup>1</sup> .....	1,871	1,384	29.3	5.4	76.8	33.7	22.5	4.4	1.72
Job leavers .....	492	474	21.9	10.3	79.5	34.4	17.3	4.0	1.68
Reentrants .....	668	617	22.0	9.6	65.8	32.7	27.2	6.6	1.64
New entrants .....	498	497	11.9	3.6	82.9	19.3	17.5	5.2	1.40
Women, 16 years and over .....	3,294	2,913	20.3	7.9	73.2	37.0	14.8	4.5	1.58
Job losers <sup>1</sup> .....	1,086	784	28.2	9.4	72.3	42.5	18.8	5.5	1.77
Job leavers .....	482	473	19.7	8.7	68.7	45.9	14.2	3.8	1.61
Reentrants .....	1,212	1,150	18.2	8.4	73.4	32.3	12.3	5.3	1.50
New entrants .....	514	505	13.5	3.4	78.0	31.3	14.7	1.8	1.43

<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.

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

(In thousands)

Industry and age	Total		Men		Women	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
All industries .....	114,652	117,066	63,814	65,164	50,839	51,902
16 to 19 years .....	8,383	8,661	4,356	4,541	4,027	4,119
16 to 17 years .....	3,737	3,672	1,990	1,963	1,747	1,709
18 to 19 years .....	4,646	4,988	2,365	2,578	2,280	2,410
20 to 24 years .....	14,226	13,926	7,563	7,397	6,663	6,530
25 to 54 years .....	77,607	80,072	43,363	44,691	34,243	35,381
25 to 34 years .....	33,224	33,590	18,690	18,905	14,534	14,684
35 to 44 years .....	26,997	28,080	14,923	15,541	12,074	12,539
45 to 54 years .....	17,386	18,402	9,751	10,244	7,634	8,158
55 to 64 years .....	11,327	11,269	6,659	6,596	4,668	4,673
55 to 59 years .....	6,915	6,874	4,053	4,013	2,863	2,861
60 to 64 years .....	4,412	4,396	2,607	2,583	1,805	1,813
65 years and over .....	3,109	3,137	1,872	1,939	1,237	1,198
Agriculture .....	3,754	3,541	2,915	2,827	839	714
16 to 19 years .....	448	438	359	373	90	64
16 to 17 years .....	264	236	211	205	54	31
18 to 19 years .....	184	202	148	168	36	33
20 to 24 years .....	441	394	362	336	79	58
25 to 54 years .....	1,993	1,935	1,502	1,475	493	460
25 to 34 years .....	889	849	693	683	196	166
35 to 44 years .....	619	637	467	472	153	166
45 to 54 years .....	485	448	342	320	143	128
55 to 64 years .....	535	428	414	345	121	84
55 to 59 years .....	292	236	222	186	69	50
60 to 64 years .....	243	192	191	159	52	34
65 years and over .....	336	347	279	298	57	48
Nonagricultural industries .....	110,898	113,524	60,899	62,336	49,999	51,188
16 to 19 years .....	7,934	8,223	3,997	4,168	3,937	4,055
16 to 17 years .....	3,473	3,437	1,780	1,759	1,693	1,678
18 to 19 years .....	4,462	4,786	2,217	2,410	2,244	2,377
20 to 24 years .....	13,785	13,532	7,201	7,061	6,584	6,472
25 to 54 years .....	75,613	78,137	41,863	43,216	33,750	34,922
25 to 34 years .....	32,335	32,741	17,997	18,222	14,338	14,519
35 to 44 years .....	26,377	27,443	14,456	15,070	11,922	12,373
45 to 54 years .....	16,900	17,954	9,409	9,924	7,491	8,030
55 to 64 years .....	10,792	10,841	6,245	6,251	4,547	4,590
55 to 59 years .....	6,624	6,638	3,830	3,827	2,794	2,810
60 to 64 years .....	4,169	4,203	2,415	2,424	1,753	1,779
65 years and over .....	2,773	2,790	1,593	1,641	1,181	1,150

**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	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
Total .....	114,652	117,066	63,814	65,164	59,458	60,622	50,839	51,902	46,811	47,783
Managerial and professional specialty .....	27,692	29,006	15,529	16,181	15,379	16,023	12,163	12,824	12,002	12,675
Executive, administrative, and managerial .....	13,696	14,541	8,563	8,837	8,506	8,768	5,132	5,704	5,083	5,655
Officials and administrators, public administration .....	574	555	358	328	356	329	216	227	216	228
Other executive, administrative, and managerial .....	9,452	10,134	6,274	6,602	6,222	6,540	3,178	3,532	3,141	3,489
Management-related occupations .....	3,669	3,851	1,931	1,907	1,928	1,899	1,738	1,944	1,725	1,938
Professional specialty .....	13,997	14,465	6,966	7,344	6,873	7,255	7,031	7,121	6,919	7,021
Engineers .....	1,744	1,850	1,625	1,723	1,622	1,717	119	127	118	126
Mathematical and computer scientists .....	648	793	430	517	428	514	218	276	217	276
Natural scientists .....	413	410	301	315	299	315	112	96	112	96
Health diagnosing occupations .....	807	797	675	651	675	651	131	146	131	144
Health assessment and treating occupations .....	2,148	2,210	273	349	273	344	1,876	1,861	1,876	1,858
Teachers, college and university .....	511	594	302	347	303	345	209	247	209	247
Teachers, except college and university .....	3,047	3,034	752	752	728	724	2,295	2,282	2,260	2,239
Lawyers and judges .....	719	720	574	594	573	593	145	126	143	124
Other professional specialty occupations .....	3,960	4,056	2,034	2,096	1,973	2,053	1,926	1,960	1,854	1,910
Technical, sales, and administrative support .....	35,308	35,880	12,488	12,632	11,760	11,876	22,820	23,248	20,813	21,153
Technicians and related support .....	3,525	3,659	1,804	1,960	1,765	1,917	1,721	1,699	1,693	1,673
Health technologists and technicians .....	1,212	1,246	182	225	178	225	1,030	1,022	1,021	1,010
Engineering and science technicians .....	1,194	1,173	973	930	954	903	221	243	213	234
Technicians, except health, engineering, and science .....	1,119	1,240	649	805	633	790	470	435	459	429
Sales occupations .....	13,602	13,926	7,002	7,070	6,605	6,605	6,599	6,856	5,510	5,711
Supervisors and proprietors .....	3,582	3,680	2,433	2,369	2,413	2,326	1,149	1,311	1,137	1,274
Sales representatives, finance and business services .....	2,412	2,407	1,426	1,423	1,413	1,396	986	984	937	951
Sales representatives, commodities, except retail .....	1,534	1,580	1,252	1,273	1,244	1,262	283	307	275	294
Sales workers, retail and personal services .....	6,012	6,195	1,868	1,985	1,512	1,601	4,144	4,210	3,127	3,152
Sales-related occupations .....	61	65	23	20	22	20	38	45	35	40
Administrative support, including clerical .....	18,181	18,295	3,681	3,602	3,390	3,354	14,500	14,693	13,610	13,770
Supervisors .....	689	832	309	369	308	365	380	463	378	462
Computer equipment operators .....	969	849	366	300	353	284	604	549	585	507
Secretaries, stenographers, and typists .....	4,974	4,916	103	95	89	87	4,871	4,822	4,576	4,561
Financial records processing .....	2,447	2,464	234	220	226	211	2,213	2,244	2,166	2,194
Mail and message distributing .....	974	893	641	564	603	524	332	328	319	308
Other administrative support, including clerical .....	8,128	8,341	2,028	2,054	1,811	1,883	6,100	6,287	5,586	5,739
Service occupations .....	15,330	15,635	6,025	6,230	4,942	5,121	9,305	9,405	7,842	7,918
Private household .....	1,004	992	44	39	26	32	961	953	693	719
Protective service .....	1,972	2,028	1,667	1,672	1,595	1,588	305	356	249	272
Service, except private household and protective .....	12,354	12,615	4,314	4,519	3,321	3,502	8,040	8,096	6,899	6,928
Food service .....	5,209	5,269	1,958	2,007	1,268	1,287	3,251	3,262	2,484	2,464
Health service .....	1,905	1,987	171	192	161	179	1,734	1,795	1,657	1,699
Cleaning and building service .....	2,994	3,189	1,729	1,840	1,536	1,643	1,264	1,348	1,166	1,248
Personal service .....	2,246	2,170	456	480	355	393	1,790	1,690	1,592	1,517
Precision production, craft, and repair .....	13,892	14,134	12,697	12,899	12,285	12,472	1,195	1,235	1,165	1,190
Mechanics and repairers .....	4,478	4,623	4,334	4,505	4,221	4,376	144	119	143	117
Construction trades .....	5,251	5,364	5,126	5,235	4,893	5,000	125	129	119	120
Other precision production, craft, and repair .....	4,163	4,146	3,237	3,159	3,170	3,096	926	987	903	953
Operators, fabricators, and laborers .....	18,102	18,432	13,477	13,869	12,074	12,310	4,625	4,563	4,357	4,281
Machine operators, assemblers, and inspectors .....	8,289	8,211	4,852	4,942	4,651	4,703	3,438	3,269	3,295	3,141
Manufacturing industries .....	6,912	6,920	3,957	4,106	3,807	3,932	2,955	2,814	2,839	2,720
Durable goods .....	3,770	3,787	2,552	2,635	2,476	2,550	1,218	1,152	1,171	1,116
Nondurable goods .....	3,142	3,133	1,405	1,471	1,331	1,382	1,738	1,662	1,668	1,604
Nonmanufacturing industries .....	1,377	1,291	895	836	844	771	482	455	456	421
Transportation and material moving occupations .....	4,766	4,900	4,418	4,505	4,250	4,298	348	395	329	383
Motor vehicle operators .....	3,465	3,661	3,167	3,306	3,029	3,123	298	354	280	347
Other transportation and material moving occupations .....	1,301	1,239	1,251	1,199	1,221	1,175	51	40	49	36
Handlers, equipment cleaners, helpers, and laborers .....	5,047	5,321	4,208	4,422	3,173	3,308	839	899	733	757
Construction laborers .....	867	971	832	929	663	738	35	42	30	34
Other handlers, equipment cleaners, helpers, and laborers .....	4,180	4,350	3,376	3,492	2,510	2,571	804	857	702	723
Farming, forestry, and fishing .....	4,328	3,979	3,598	3,352	3,019	2,819	730	627	632	564
Farm operators and managers .....	1,385	1,360	1,156	1,146	1,151	1,129	229	214	224	212
Other farming, forestry, and fishing occupations .....	2,943	2,619	2,442	2,206	1,868	1,691	501	413	408	352

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

(Percent distribution)

Occupation and race	Total		Men		Women	
	July 1987	July 1988	July 1987	July 1988	July 1987	July 1988
<b>TOTAL</b>						
Total, 16 years and over (thousands) .....	114,652	117,066	63,814	65,164	50,839	51,902
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	24.2	24.8	24.3	24.8	23.9	24.7
Executive, administrative, and managerial .....	11.9	12.4	13.4	13.6	10.1	11.0
Professional specialty .....	12.2	12.4	10.9	11.3	13.8	13.7
Technical, sales, and administrative support .....	30.8	30.6	19.6	19.4	44.9	44.8
Technicians and related support .....	3.1	3.1	2.8	3.0	3.4	3.3
Sales occupations .....	11.9	11.9	11.0	10.8	13.0	13.2
Administrative support, including clerical ..	15.9	15.6	5.8	5.5	28.5	28.3
Service occupations .....	13.4	13.4	9.4	9.6	18.3	18.1
Private household .....	.9	.8	.1	.1	1.9	1.8
Protective service .....	1.7	1.7	2.6	2.6	.6	.7
Service, except private household and protective .....	10.8	10.8	6.8	6.9	15.8	15.6
Precision production, craft, and repair .....	12.1	12.1	19.9	19.8	2.4	2.4
Operators, fabricators, and laborers .....	15.8	15.7	21.1	21.3	9.1	8.8
Machine operators, assemblers, and inspectors .....	7.2	7.0	7.6	7.6	6.8	6.3
Transportation and material moving occupations .....	4.2	4.2	6.9	6.9	.7	.8
Handlers, equipment cleaners, helpers, and laborers .....	4.4	4.5	6.6	6.8	1.7	1.7
Farming, forestry, and fishing .....	3.8	3.4	5.6	5.1	1.4	1.2
<b>White</b>						
Total, 16 years and over (thousands) .....	99,609	101,432	56,089	57,125	43,521	44,307
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	25.1	25.8	25.4	25.8	24.9	25.7
Executive, administrative, and managerial .....	12.6	13.1	14.2	14.3	10.6	11.5
Professional specialty .....	12.5	12.7	11.2	11.5	14.3	14.2
Technical, sales, and administrative support ..	31.2	31.0	19.9	19.6	45.9	45.7
Technicians and related support .....	3.0	3.0	2.8	3.0	3.3	3.1
Sales occupations .....	12.5	12.5	11.6	11.5	13.5	13.8
Administrative support, including clerical ..	15.7	15.5	5.4	5.2	29.0	28.8
Service occupations .....	12.2	12.2	8.5	8.6	17.0	16.8
Private household .....	.7	.7	.1	.1	1.6	1.6
Protective service .....	1.6	1.6	2.4	2.4	.5	.6
Service, except private household and protective .....	9.9	9.8	6.0	6.1	14.9	14.6
Precision production, craft, and repair .....	12.6	12.5	20.5	20.4	2.3	2.3
Operators, fabricators, and laborers .....	14.9	15.0	20.0	20.3	8.4	8.2
Machine operators, assemblers, and inspectors .....	6.8	6.6	7.3	7.3	6.1	5.8
Transportation and material moving occupations .....	4.0	4.0	6.5	6.6	.7	.7
Handlers, equipment cleaners, helpers, and laborers .....	4.2	4.4	6.1	6.4	1.6	1.7
Farming, forestry, and fishing .....	4.0	3.6	5.8	5.3	1.6	1.3
<b>Black</b>						
Total, 16 years and over (thousands) .....	11,645	12,031	5,884	6,029	5,761	6,002
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managerial and professional specialty .....	14.9	15.9	13.3	13.8	16.5	18.1
Executive, administrative, and managerial .....	6.6	7.4	6.7	7.0	6.5	7.8
Professional specialty .....	8.3	8.5	6.6	6.8	10.0	10.2
Technical, sales, and administrative support .....	27.0	27.0	15.5	16.4	38.7	37.6
Technicians and related support .....	2.9	3.1	2.1	2.9	3.6	3.3
Sales occupations .....	6.9	6.8	4.8	5.1	9.0	8.4
Administrative support, including clerical .....	17.3	17.1	8.6	8.3	26.1	25.8
Service occupations .....	22.8	23.0	17.6	17.9	28.2	28.1
Private household .....	2.1	2.0	.1	.1	4.1	3.9
Protective service .....	2.9	2.8	4.7	4.2	1.2	1.2
Service, except private household and protective .....	17.8	18.2	12.9	13.6	22.8	22.9
Precision production, craft, and repair .....	9.2	8.9	16.1	15.4	2.2	2.4
Operators, fabricators, and laborers .....	23.6	23.1	33.2	32.8	13.8	13.2
Machine operators, assemblers, and inspectors .....	10.5	10.4	10.3	11.0	10.7	9.9
Transportation and material moving occupations .....	6.2	6.1	11.4	11.1	.9	1.1
Handlers, equipment cleaners, helpers, and laborers .....	6.8	6.5	11.4	10.8	2.2	2.2
Farming, forestry, and fishing .....	2.5	2.2	4.3	3.8	.6	.6

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Age and sex	July 1988								
	Nonagricultural industries					Agriculture			
	Wage and salary workers				Self-employed workers	Unpaid family workers	Wage and salary workers	Self-employed workers	Unpaid family workers
	Total	Private household workers	Government	Other					
Total, 16 years and over .....	104,659	1,251	16,433	86,975	8,605	259	1,853	1,482	207
16 to 19 years .....	8,146	315	592	7,239	73	4	341	47	49
16 to 17 years .....	3,406	222	257	2,927	30	1	179	30	27
18 to 19 years .....	4,740	93	335	4,312	43	4	162	18	22
20 to 24 years .....	13,186	138	1,126	11,922	317	30	309	72	13
25 to 34 years .....	30,672	196	4,114	26,362	2,011	58	541	269	38
35 to 44 years .....	24,836	187	4,865	19,784	2,538	69	326	285	26
45 to 54 years .....	16,120	179	3,435	12,507	1,782	52	155	270	24
55 to 64 years .....	9,487	140	1,943	7,404	1,318	36	114	282	33
55 to 59 years .....	5,862	78	1,258	4,526	753	22	57	159	19
60 to 64 years .....	3,625	62	685	2,878	565	14	56	122	13
65 years and over .....	2,211	97	359	1,756	568	11	67	256	24
Men, 16 years and over .....	56,599	189	8,041	48,369	5,695	43	1,495	1,253	79
16 to 19 years .....	4,124	72	316	3,736	41	3	291	45	37
16 to 17 years .....	1,741	58	138	1,545	17	1	157	29	18
18 to 19 years .....	2,383	14	178	2,191	24	3	134	15	19
20 to 24 years .....	6,792	30	534	6,228	248	20	260	65	10
25 to 34 years .....	16,945	31	2,010	14,903	1,269	9	432	240	10
35 to 44 years .....	13,400	25	2,322	11,053	1,667	2	234	235	2
45 to 54 years .....	8,750	8	1,708	7,034	1,172	2	120	199	2
55 to 64 years .....	5,367	16	981	4,371	882	2	98	240	7
55 to 59 years .....	3,341	10	620	2,711	485	1	50	132	4
60 to 64 years .....	2,026	6	361	1,659	397	1	47	108	3
65 years and over .....	1,221	6	171	1,044	415	5	60	228	11
Women, 16 years and over .....	48,060	1,063	8,392	38,606	2,911	217	357	229	128
16 to 19 years .....	4,022	243	276	3,503	32	1	49	3	12
16 to 17 years .....	1,665	164	119	1,382	13	-	22	-	9
18 to 19 years .....	2,357	79	157	2,121	19	1	28	2	3
20 to 24 years .....	6,394	107	592	5,694	69	9	48	7	3
25 to 34 years .....	13,728	164	2,104	11,459	742	49	109	29	28
35 to 44 years .....	11,436	162	2,543	8,732	870	67	92	49	24
45 to 54 years .....	7,370	171	1,726	5,473	610	50	35	71	22
55 to 64 years .....	4,120	124	962	3,033	436	34	16	41	26
55 to 59 years .....	2,521	68	638	1,815	268	22	7	28	16
60 to 64 years .....	1,599	57	324	1,218	168	13	9	14	10
65 years and over .....	991	91	188	712	153	6	7	27	13



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

(In thousands)

Industry	July 1988												
	Total employed	Managerial and professional specialty		Technical, sales, and administrative support			Service occupations		Precision production, craft, and repair	Operators, fabricators, and laborers			Farming, forestry, and fishing
		Executive, administrative, and managerial	Professional specialty	Technicians and related support	Sales	Administrative support, including clerical	Private household	Other service <sup>1</sup>		Machine operators, assemblers, and inspectors	Transportation and material moving	Handlers, equipment cleaners, helpers, and laborers	
Agriculture .....	3,541	88	67	21	10	102		11	41	10	54	25	3,113
Mining .....	794	91	100	35	15	92		7	270	29	118	31	6
Construction .....	8,132	1,031	156	54	87	477		24	4,521	79	568	1,108	27
Manufacturing .....	21,927	2,586	1,894	714	777	2,427		362	4,222	6,920	727	1,198	100
Durable goods .....	12,946	1,578	1,263	466	332	1,385		218	2,909	3,787	379	545	85
Nondurable goods .....	8,980	1,007	631	248	446	1,042		143	1,313	3,133	348	653	15
Transportation and public utilities .....	8,201	954	488	252	371	2,115		231	1,244	126	1,868	531	21
Wholesale and retail trade .....	24,152	2,075	425	145	9,872	2,412		4,435	1,472	293	1,087	1,907	30
Wholesale trade .....	4,594	525	99	61	1,736	806		25	262	132	540	399	8
Retail trade .....	19,558	1,549	326	84	8,135	1,606		4,409	1,210	161	547	1,509	22
Finance, insurance, and real estate .....	8,015	2,063	178	169	1,845	3,169	-	290	178	18	8	27	71
Services .....	36,845	4,510	10,435	2,022	919	5,992	992	7,937	1,936	718	407	436	541
Private households .....	1,271	1	4	14	2	16	992	71	10	5	7	38	112
Other service industries .....	35,574	4,509	10,431	2,009	917	5,975	-	7,866	1,927	713	400	398	430
Professional services .....	22,680	2,460	9,022	1,646	120	4,227		4,149	431	203	212	102	108
Public administration .....	5,458	1,143	721	248	31	1,509		1,348	252	17	63	58	68

<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					
	July 1987	July 1988	Total		Wage and salary workers <sup>1</sup>			
			July 1987	July 1988	Paid absences		Unpaid absences	
					July 1987	July 1988	July 1987	July 1988
Total, 16 years and over .....	11,125	11,661	10,956	11,510	6,381	6,896	3,839	3,891
Vacation .....	8,802	9,021	8,720	8,949	5,701	6,056	2,549	2,475
Illness .....	1,237	1,336	1,196	1,312	444	523	650	691
Bad weather .....	31	42	15	22	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Industrial dispute .....	42	49	42	46	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
All other reasons .....	1,013	1,212	983	1,181	236	316	640	726
Men, 16 years and over .....	4,846	5,139	4,725	5,021	3,075	3,414	1,271	1,224
Vacation .....	3,712	3,845	3,652	3,797	2,715	2,981	702	609
Illness .....	693	717	661	697	265	296	344	349
All other reasons <sup>3</sup> .....	442	578	412	527	96	137	226	266
Women, 16 years and over .....	6,279	6,522	6,230	6,489	3,306	3,484	2,567	2,666
Vacation .....	5,091	5,177	5,069	5,152	2,986	3,076	1,847	1,865
Illness .....	545	619	534	615	180	228	306	341
All other reasons <sup>3</sup> .....	644	726	627	722	140	180	414	460

<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	July 1988					
	Thousands of persons			Percent distribution		
	All industries	Agriculture	Nonagricultural industries	All industries	Agriculture	Nonagricultural industries
Total, 16 years and over .....	105,405	3,391	102,014	100.0	100.0	100.0
1 to 34 hours .....	23,554	909	22,647	22.3	26.8	22.2
1 to 4 hours .....	687	41	647	.7	1.2	.6
5 to 14 hours .....	3,501	207	3,295	3.3	6.1	3.2
15 to 29 hours .....	11,883	399	11,484	11.3	11.8	11.3
30 to 34 hours .....	7,483	262	7,221	7.1	7.7	7.1
35 hours and over .....	81,850	2,483	79,367	77.7	73.2	77.8
35 to 39 hours .....	7,005	182	6,823	6.6	5.4	6.7
40 hours .....	43,456	695	42,761	41.2	20.5	41.9
41 hours and over .....	31,389	1,606	29,783	29.8	47.3	29.2
41 to 48 hours .....	10,965	272	10,693	10.4	8.0	10.5
49 to 59 hours .....	11,663	477	11,186	11.1	14.1	11.0
60 hours and over .....	8,761	857	7,904	8.3	25.3	7.7
Average hours, total at work .....	39.9	44.9	39.7			
Average hours, workers on full-time schedules .....	43.8	51.8	43.6			

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

(Numbers in thousands)

Reason for working less than 35 hours	July 1988					
	All industries			Nonagricultural industries		
	Total	Usually work full time	Usually work part time	Total	Usually work full time	Usually work part time
Total, 16 years and over .....	23,554	6,945	16,609	22,647	6,645	16,001
Economic reasons .....	6,141	1,889	4,252	5,869	1,779	4,090
Slack work .....	2,450	1,507	943	2,292	1,416	876
Material shortages or repairs to plant and equipment .....	56	56	-	56	56	-
New job started during week .....	226	226	-	209	209	-
Job terminated during week .....	100	100	-	98	98	-
Could find only part-time work .....	3,309	-	3,309	3,214	-	3,214
Other reasons .....	17,412	5,055	12,357	16,778	4,867	11,911
Does not want, or unavailable for, full-time work .....	9,804	-	9,804	9,475	-	9,475
Vacation .....	2,181	2,181	-	2,157	2,157	-
Illness .....	1,144	999	145	1,106	972	134
Bad weather .....	266	266	-	179	179	-
Industrial dispute .....	5	5	-	5	5	-
Legal or religious holiday .....	60	60	-	60	60	-
Full time for this job .....	1,731	-	1,731	1,689	-	1,689
All other reasons .....	2,223	1,545	678	2,105	1,492	613
Average hours:						
Economic reasons .....	22.1	24.3	21.1	22.2	24.4	21.2
Other reasons .....	22.1	25.3	20.8	22.1	25.4	20.8
Worked 30 to 34 hours:						
Economic reasons .....	1,986	867	1,119	1,902	816	1,086
Other reasons .....	5,497	2,398	3,099	5,319	2,322	2,997

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

(Numbers in thousands)

Industry	July 1988								
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules	
				Total	40 hours or less	41 to 48 hours			49 hours or more
Total, 16 years and over .....	102,014	5,869	11,911	84,234	54,451	10,693	19,090	39.7	43.6
Wage and salary workers .....	93,809	5,228	10,557	78,024	51,768	10,087	16,169	39.5	43.2
Mining .....	701	10	11	680	409	80	191	44.2	44.9
Construction .....	6,238	400	248	5,590	3,718	680	1,192	41.1	43.4
Manufacturing .....	19,276	515	512	18,249	11,726	2,736	3,787	42.3	43.4
Durable goods .....	11,381	228	194	10,959	6,928	1,741	2,290	42.6	43.3
Nondurable goods .....	7,895	287	318	7,290	4,799	995	1,496	41.9	43.4
Transportation and public utilities .....	7,118	259	354	6,505	4,162	885	1,458	42.3	44.1
Wholesale and retail trade .....	20,737	2,041	4,001	14,695	8,913	2,191	3,591	37.7	44.0
Finance, insurance, and real estate .....	6,862	151	592	6,119	4,316	678	1,125	40.0	42.3
Service industries .....	27,873	1,769	4,637	21,467	15,006	2,408	4,053	37.4	42.6
Private households .....	1,195	267	458	470	312	43	115	26.9	45.2
All other industries .....	26,678	1,502	4,179	20,997	14,694	2,365	3,938	37.9	42.5
Public administration .....	5,005	82	203	4,720	3,519	430	771	40.9	42.1
Self-employed workers .....	7,945	632	1,269	6,044	2,613	587	2,844	41.5	48.6
Unpaid family workers .....	259	10	84	165	69	19	77	38.8	47.0

**HOUSEHOLD DATA  
NOT SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Sex, age, race, and marital status	July 1988							
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 hours or more		
<b>TOTAL</b>								
Total, 16 years and over .....	102,014	5,869	11,911	84,234	54,451	29,783	39.7	43.6
16 to 19 years .....	7,874	1,637	2,480	3,757	2,938	819	30.6	40.9
16 to 17 years .....	3,268	801	1,443	1,024	856	168	26.3	40.1
18 to 19 years .....	4,606	837	1,037	2,732	2,082	650	33.7	41.2
20 years and over .....	94,140	4,232	9,430	80,478	51,513	28,985	40.4	43.7
20 to 24 years .....	12,820	1,026	1,544	10,250	7,194	3,056	38.4	42.4
25 years and over .....	81,320	3,206	7,887	70,227	44,319	25,908	40.8	43.9
25 to 44 years .....	53,819	2,139	4,242	47,438	29,240	18,198	41.4	44.1
45 to 64 years .....	24,986	958	2,484	21,546	14,207	7,339	40.4	43.5
65 years and over .....	2,514	112	1,161	1,241	871	370	29.9	42.3
Men, 16 years and over .....	57,315	2,803	3,521	50,991	29,573	21,418	42.4	45.0
16 to 19 years .....	4,015	827	1,111	2,077	1,576	501	31.8	41.5
16 to 17 years .....	1,891	443	681	567	474	93	26.9	40.4
18 to 19 years .....	2,324	385	430	1,509	1,100	409	35.3	42.0
20 years and over .....	53,300	1,977	2,410	48,913	27,997	20,916	43.2	45.1
20 to 24 years .....	6,752	515	562	5,875	3,684	2,011	40.2	43.5
25 years and over .....	46,547	1,460	1,849	43,238	24,333	18,905	43.7	45.4
25 to 44 years .....	30,571	1,014	634	28,923	15,656	13,267	44.5	45.7
45 to 64 years .....	14,473	382	583	13,508	8,142	5,366	43.2	44.8
65 years and over .....	1,503	65	632	806	534	272	31.5	42.9
Women, 16 years and over .....	44,699	3,066	8,389	33,244	24,878	8,366	36.2	41.4
16 to 19 years .....	3,859	810	1,369	1,680	1,363	317	29.5	40.1
16 to 17 years .....	1,577	358	762	457	381	76	25.7	39.8
18 to 19 years .....	2,282	453	607	1,222	980	242	32.1	40.3
20 years and over .....	40,840	2,256	7,020	31,564	23,516	8,048	36.8	41.4
20 to 24 years .....	6,068	510	983	4,575	3,529	1,046	36.4	41.0
25 years and over .....	34,773	1,746	6,037	26,990	19,987	7,003	36.9	41.6
25 to 44 years .....	23,249	1,125	3,608	18,516	13,585	4,931	37.4	41.6
45 to 64 years .....	10,513	574	1,901	8,038	6,066	1,972	36.6	41.5
65 years and over .....	1,011	47	528	436	338	98	27.4	41.1
<b>RACE</b>								
White, 16 years and over .....	88,190	4,789	10,585	72,816	45,793	27,023	39.8	43.8
Men .....	50,130	2,289	3,083	44,758	25,159	19,599	42.7	45.2
Women .....	38,060	2,500	7,501	28,059	20,634	7,425	36.1	41.5
Black, 16 years and over .....	10,548	892	959	8,697	6,733	1,964	38.4	41.9
Men .....	5,352	431	293	4,628	3,349	1,279	40.2	43.0
Women .....	5,196	460	667	4,069	3,384	685	36.4	40.7
<b>MARITAL STATUS</b>								
Men, 16 years and over:								
Married, spouse present .....	35,424	932	1,331	33,161	18,173	14,988	44.0	45.6
Widowed, divorced, or separated .....	5,599	260	235	5,104	2,949	2,155	43.1	45.2
Single (never married) .....	16,292	1,611	1,955	12,726	8,451	4,275	38.7	43.4
Women, 16 years and over:								
Married, spouse present .....	23,220	1,136	4,977	17,107	13,083	4,024	35.7	41.1
Widowed, divorced, or separated .....	8,642	539	1,055	7,048	5,035	2,013	38.0	42.0
Single (never married) .....	12,837	1,391	2,357	9,089	6,760	2,329	35.7	41.5

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

(Numbers in thousands)

Occupation and sex	July 1988								
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules				Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 to 48 hours	49 hours or more		
Total, 16 years and over <sup>1</sup> .....	101,608	5,782	11,855	83,971	54,226	10,672	19,074	39.7	43.6
Managerial and professional specialty .....	24,758	519	2,002	22,236	12,420	2,780	7,037	42.6	45.1
Executive, administrative, and managerial .....	13,452	182	647	12,624	6,517	1,612	4,494	44.7	46.2
Professional specialty .....	11,306	337	1,356	9,613	5,902	1,167	2,543	40.0	43.6
Technical, sales, and administrative support .....	32,998	1,588	4,935	26,475	18,337	3,264	4,874	38.4	42.5
Technicians and related support .....	3,411	52	279	3,080	2,130	410	540	40.5	42.5
Sales occupations .....	12,935	934	2,303	9,699	5,313	1,259	3,128	39.4	45.3
Administrative support, including clerical .....	16,652	603	2,354	13,696	10,894	1,595	1,206	37.1	40.6
Service occupations .....	14,256	1,789	3,335	9,131	6,568	969	1,594	34.8	42.7
Private household .....	945	180	379	387	259	41	87	27.3	44.2
Protective service .....	1,810	58	140	1,613	941	229	444	42.8	45.6
Service, except private household and protective .....	11,500	1,552	2,817	7,131	5,368	700	1,063	34.2	42.0
Precision production, craft, and repair .....	13,041	608	428	12,005	7,438	1,699	2,868	42.3	44.0
Operators, fabricators, and laborers .....	16,554	1,277	1,153	14,123	9,462	1,959	2,702	40.3	43.3
Machine operators, assemblers, and inspectors .....	7,186	340	264	6,581	4,664	1,000	917	40.7	42.2
Transportation and material moving occupations .....	4,409	264	228	3,917	2,119	515	1,283	43.6	46.3
Handlers, equipment cleaners, helpers, and laborers .....	4,959	673	661	3,625	2,679	445	501	36.9	42.2
Men, 16 years and over <sup>1</sup> .....	56,830	2,720	3,445	50,664	29,316	6,666	14,681	42.5	45.0
Managerial and professional specialty .....	14,597	224	606	13,768	6,753	1,637	5,378	45.2	46.7
Executive, administrative, and managerial .....	8,219	90	238	7,891	3,527	943	3,421	46.6	47.6
Professional specialty .....	6,378	134	367	5,877	3,226	694	1,957	43.4	45.4
Technical, sales, and administrative support .....	11,825	426	821	10,578	5,900	1,444	3,234	42.7	45.2
Technicians and related support .....	1,837	31	64	1,742	1,085	237	419	42.5	43.8
Sales occupations .....	6,651	270	533	5,848	2,706	759	2,383	44.2	47.2
Administrative support, including clerical .....	3,337	125	224	2,988	2,109	448	431	39.9	42.0
Service occupations .....	5,819	590	922	4,306	2,931	482	893	38.0	43.8
Private household .....	39	5	15	19	15	-	4	( <sup>2</sup> )	( <sup>2</sup> )
Protective service .....	1,511	35	106	1,369	774	210	386	43.6	46.0
Service, except private household and protective .....	4,269	551	801	2,918	2,142	272	504	36.1	42.8
Precision production, craft, and repair .....	11,968	525	323	11,120	6,801	1,582	2,737	42.6	44.1
Operators, fabricators, and laborers .....	12,621	955	773	10,893	6,931	1,523	2,439	41.1	44.1
Machine operators, assemblers, and inspectors .....	4,331	156	100	4,075	2,683	645	747	42.0	43.2
Transportation and material moving occupations .....	4,124	225	176	3,723	1,987	492	1,245	44.1	46.5
Handlers, equipment cleaners, helpers, and laborers .....	4,165	573	497	3,095	2,261	386	447	37.3	42.4
Women, 16 years and over <sup>1</sup> .....	44,779	3,062	8,410	33,307	24,910	4,005	4,392	36.2	41.4
Managerial and professional specialty .....	10,161	296	1,397	8,469	5,667	1,143	1,659	38.8	42.5
Executive, administrative, and managerial .....	5,233	92	408	4,733	2,990	670	1,074	41.7	43.7
Professional specialty .....	4,928	204	989	3,736	2,677	474	585	35.7	40.8
Technical, sales, and administrative support .....	21,173	1,162	4,114	15,897	12,437	1,820	1,640	35.9	40.8
Technicians and related support .....	1,574	21	215	1,338	1,045	173	120	38.1	40.9
Sales occupations .....	6,284	663	1,770	3,851	2,606	500	744	34.3	42.4
Administrative support, including clerical .....	13,316	478	2,129	10,708	8,786	1,148	775	36.5	40.2
Service occupations .....	8,437	1,199	2,413	4,825	3,637	488	700	32.6	41.8
Private household .....	907	175	364	368	244	41	83	27.2	44.3
Protective service .....	299	22	33	244	167	19	58	39.0	43.2
Service, except private household and protective .....	7,231	1,002	2,017	4,213	3,226	428	559	33.0	41.5
Precision production, craft, and repair .....	1,073	83	105	885	638	117	131	38.5	42.0
Operators, fabricators, and laborers .....	3,933	323	380	3,231	2,531	437	263	37.7	40.8
Machine operators, assemblers, and inspectors .....	2,854	184	164	2,506	1,980	355	171	38.6	40.6
Transportation and material moving occupations .....	285	39	52	194	133	23	38	35.9	42.7
Handlers, equipment cleaners, helpers, and laborers .....	794	100	164	530	418	58	54	35.1	41.2

<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	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>TOTAL</b>													
Noninstitutional population <sup>1</sup> .....	184,605	184,738	184,904	185,052	185,225	185,370	185,571	185,705	185,847	185,964	186,088	186,247	186,402
Labor force <sup>1</sup> .....	121,610	122,042	121,706	122,128	122,349	122,472	122,924	123,084	122,639	123,055	122,692	123,157	123,357
Percent of population <sup>2</sup> .....	65.9	66.1	65.8	66.0	66.1	66.1	66.2	66.3	66.0	66.2	65.9	66.1	66.2
Total employed <sup>1</sup> .....	114,359	114,786	114,615	114,951	115,259	115,494	115,878	116,145	115,839	116,445	115,909	116,703	116,732
Employment-population ratio <sup>3</sup> .....	61.9	62.1	62.0	62.1	62.2	62.3	62.4	62.5	62.3	62.6	62.3	62.7	62.6
Resident Armed Forces .....	1,720	1,736	1,743	1,741	1,755	1,750	1,749	1,736	1,736	1,732	1,714	1,685	1,673
Civilian employed .....	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059
Agriculture .....	3,212	3,143	3,184	3,249	3,172	3,215	3,293	3,228	3,204	3,228	3,035	3,085	3,046
Nonagricultural industries .....	109,427	109,907	109,688	109,961	110,332	110,529	110,836	111,182	110,899	111,485	111,160	111,933	112,014
Unemployed .....	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625
Unemployment rate <sup>4</sup> .....	6.0	5.9	5.8	5.9	5.8	5.7	5.7	5.6	5.5	5.4	5.5	5.2	5.4
Not in labor force .....	62,995	62,696	63,198	62,924	62,876	62,898	62,647	62,621	63,208	62,909	63,396	63,090	63,045
<b>Men</b>													
Noninstitutional population <sup>1</sup> .....	88,534	88,598	88,683	88,756	88,849	88,924	89,033	89,099	89,168	89,225	89,287	89,367	89,445
Labor force <sup>1</sup> .....	67,671	67,937	67,776	67,947	68,019	68,030	68,243	68,343	68,148	68,445	68,318	68,429	68,521
Percent of population <sup>2</sup> .....	76.4	76.7	76.4	76.6	76.6	76.5	76.6	76.7	76.4	76.7	76.5	76.6	76.6
Total employed <sup>1</sup> .....	63,711	63,916	63,949	64,048	64,174	64,245	64,396	64,636	64,332	64,892	64,583	64,934	65,002
Employment-population ratio <sup>3</sup> .....	72.0	72.1	72.1	72.2	72.2	72.2	72.3	72.5	72.1	72.7	72.3	72.7	72.7
Resident Armed Forces .....	1,561	1,575	1,581	1,580	1,593	1,589	1,588	1,577	1,573	1,569	1,553	1,523	1,512
Civilian employed .....	62,150	62,341	62,368	62,468	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490
Unemployed .....	3,960	4,021	3,827	3,899	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519
Unemployment rate <sup>4</sup> .....	5.9	5.9	5.6	5.7	5.7	5.6	5.6	5.4	5.6	5.2	5.5	5.1	5.1
Not in labor force .....	20,863	20,661	20,907	20,809	20,830	20,894	20,790	20,756	21,020	20,780	20,969	20,938	20,924
<b>Women</b>													
Noninstitutional population <sup>1</sup> .....	96,071	96,140	96,221	96,295	96,376	96,446	96,538	96,606	96,679	96,739	96,801	96,880	96,957
Labor force <sup>1</sup> .....	53,939	54,105	53,930	54,181	54,330	54,442	54,681	54,740	54,491	54,610	54,374	54,728	54,836
Percent of population <sup>2</sup> .....	56.1	56.3	56.0	56.3	56.4	56.4	56.6	56.7	56.4	56.5	56.2	56.5	56.6
Total employed <sup>1</sup> .....	50,648	50,870	50,666	50,903	51,085	51,249	51,482	51,509	51,507	51,553	51,327	51,769	51,730
Employment-population ratio <sup>3</sup> .....	52.7	52.9	52.7	52.9	53.0	53.1	53.3	53.3	53.3	53.3	53.0	53.4	53.4
Resident Armed Forces .....	159	161	162	161	162	161	161	159	163	163	161	162	161
Civilian employed .....	50,489	50,709	50,504	50,742	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569
Unemployed .....	3,291	3,235	3,264	3,278	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106
Unemployment rate <sup>4</sup> .....	6.1	6.0	6.1	6.1	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7
Not in labor force .....	42,132	42,035	42,291	42,114	42,046	42,004	41,857	41,866	42,188	42,129	42,427	42,152	42,121

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

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

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

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

Armed Forces).

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

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

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

(Numbers in thousands)

Employment status, sex, and age	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>TOTAL</b>													
Civilian noninstitutional population <sup>1</sup> .....	182,885	183,002	183,161	183,311	183,470	183,620	183,822	183,969	184,111	184,232	184,374	184,562	184,729
Civilian labor force .....	119,890	120,306	119,963	120,387	120,594	120,722	121,175	121,348	120,903	121,323	120,978	121,472	121,684
Percent of population .....	65.6	65.7	65.5	65.7	65.7	65.7	65.9	66.0	65.7	65.9	65.6	65.8	65.9
Employed .....	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059
Employment-population ratio <sup>2</sup> .....	61.6	61.8	61.6	61.8	61.9	62.1	62.2	62.2	62.3	62.3	61.9	62.3	62.3
Unemployed .....	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625
Unemployment rate .....	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4
<b>Men, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	79,625	79,668	79,740	79,807	79,885	80,002	80,120	80,203	80,260	80,326	80,402	80,526	80,608
Civilian labor force .....	62,106	62,083	62,085	62,211	62,299	62,248	62,440	62,696	62,497	62,791	62,662	62,667	62,769
Percent of population .....	78.0	77.9	77.9	78.0	78.0	77.8	77.9	78.2	77.9	78.2	77.9	77.8	77.9
Employed .....	58,783	58,825	58,967	59,037	59,164	59,185	59,287	59,625	59,407	59,883	59,590	59,797	59,954
Employment-population ratio <sup>2</sup> .....	73.8	73.8	73.9	74.0	74.1	74.0	74.0	74.3	74.0	74.5	74.1	74.3	74.4
Agriculture .....	2,333	2,289	2,345	2,343	2,297	2,298	2,323	2,280	2,253	2,255	2,181	2,208	2,247
Nonagricultural industries .....	56,450	56,536	56,622	56,694	56,867	56,887	56,964	57,344	57,154	57,627	57,409	57,588	57,706
Unemployed .....	3,323	3,258	3,118	3,174	3,135	3,063	3,154	3,071	3,089	2,909	3,072	2,870	2,815
Unemployment rate .....	5.4	5.2	5.0	5.1	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.5
Not in labor force .....	17,519	17,585	17,655	17,596	17,586	17,754	17,680	17,507	17,763	17,535	17,740	17,859	17,839
<b>Women, 20 years and over</b>													
Civilian noninstitutional population <sup>1</sup> .....	88,632	88,685	88,785	88,843	88,923	89,010	89,110	89,178	89,261	89,307	89,382	89,502	89,588
Civilian labor force .....	49,886	49,969	49,922	50,095	50,254	50,361	50,558	50,640	50,542	50,612	50,441	50,642	50,775
Percent of population .....	56.3	56.3	56.2	56.4	56.5	56.6	56.7	56.8	56.6	56.7	56.4	56.6	56.7
Employed .....	47,206	47,308	47,251	47,480	47,634	47,750	47,977	48,005	48,132	48,170	47,960	48,169	48,199
Employment-population ratio <sup>2</sup> .....	53.3	53.3	53.2	53.4	53.6	53.6	53.8	53.8	53.9	53.9	53.7	53.8	53.8
Agriculture .....	620	609	600	636	636	643	646	654	656	692	587	616	542
Nonagricultural industries .....	46,586	46,699	46,651	46,844	46,998	47,107	47,331	47,351	47,476	47,478	47,373	47,553	47,657
Unemployed .....	2,680	2,661	2,671	2,615	2,620	2,611	2,581	2,635	2,411	2,442	2,481	2,473	2,576
Unemployment rate .....	5.4	5.3	5.4	5.2	5.2	5.2	5.1	5.2	4.8	4.8	4.9	4.9	5.1
Not in labor force .....	38,746	38,716	38,863	38,748	38,669	38,649	38,552	38,538	38,719	38,695	38,941	38,860	38,813
<b>Both sexes, 16 to 19 years</b>													
Civilian noninstitutional population <sup>1</sup> .....	14,628	14,649	14,637	14,661	14,663	14,609	14,592	14,588	14,591	14,598	14,590	14,534	14,533
Civilian labor force .....	7,898	8,254	7,956	8,081	8,041	8,113	8,177	8,011	7,865	7,919	7,875	8,163	8,141
Percent of population .....	54.0	56.3	54.4	55.1	54.8	55.5	56.0	54.9	53.9	54.2	54.0	56.2	56.0
Employed .....	6,650	6,917	6,654	6,693	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907
Employment-population ratio <sup>2</sup> .....	45.5	47.2	45.5	45.7	45.7	46.6	47.0	46.5	45.0	45.6	45.5	48.5	47.5
Agriculture .....	259	245	239	270	239	274	323	293	295	280	267	260	257
Nonagricultural industries .....	6,391	6,672	6,415	6,423	6,467	6,535	6,542	6,486	6,269	6,380	6,378	6,791	6,650
Unemployed .....	1,248	1,337	1,302	1,388	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234
Unemployment rate .....	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2
Not in labor force .....	6,730	6,395	6,681	6,580	6,622	6,496	6,415	6,577	6,726	6,679	6,715	6,371	6,392

<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	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>WHITE</b>													
Civilian noninstitutional population <sup>1</sup> .....	157,058	157,134	157,242	157,342	157,449	157,552	157,676	157,773	157,868	157,943	158,034	158,166	158,279
Civilian labor force .....	103,248	103,516	103,357	103,669	103,731	103,907	104,252	104,530	104,171	104,574	104,209	104,691	104,603
Percent of population ..	65.7	65.9	65.7	65.9	65.9	66.0	66.1	66.3	66.0	66.2	65.9	66.2	66.1
Employed .....	97,917	98,181	98,069	98,317	98,492	98,779	99,044	99,474	99,274	99,751	99,297	99,932	99,725
Employment-population ratio <sup>2</sup> ..	62.3	62.5	62.4	62.5	62.6	62.7	62.8	63.0	62.9	63.2	62.8	63.2	63.0
Unemployed .....	5,331	5,335	5,288	5,352	5,239	5,128	5,208	5,056	4,897	4,824	4,913	4,759	4,878
Unemployment rate ..	5.2	5.2	5.1	5.2	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7
<b>Men, 20 years and over</b>													
Civilian labor force .....	54,198	54,183	54,213	54,375	54,381	54,368	54,455	54,650	54,522	54,699	54,618	54,662	54,732
Percent of population ..	78.3	78.2	78.2	78.4	78.3	78.2	78.3	78.5	78.2	78.5	78.3	78.2	78.3
Employed .....	51,670	51,715	51,803	51,864	51,969	52,046	52,053	52,389	52,245	52,538	52,314	52,491	52,603
Employment-population ratio <sup>2</sup> ..	74.7	74.7	74.7	74.8	74.9	74.9	74.8	75.2	75.0	75.4	75.0	75.1	75.2
Unemployed .....	2,528	2,468	2,410	2,511	2,412	2,322	2,402	2,260	2,277	2,161	2,304	2,171	2,129
Unemployment rate ..	4.7	4.6	4.4	4.6	4.4	4.3	4.4	4.1	4.2	4.0	4.2	4.0	3.9
<b>Women, 20 years and over</b>													
Civilian labor force .....	42,241	42,332	42,308	42,379	42,464	42,569	42,710	42,915	42,841	42,986	42,827	42,921	42,887
Percent of population ..	55.7	55.8	55.7	55.7	55.8	55.9	56.1	56.3	56.2	56.3	56.1	56.2	56.1
Employed .....	40,343	40,449	40,409	40,538	40,606	40,712	40,896	40,985	41,183	41,297	41,104	41,183	41,040
Employment-population ratio <sup>2</sup> ..	53.2	53.3	53.2	53.3	53.4	53.5	53.7	53.8	54.0	54.1	53.8	53.9	53.7
Unemployed .....	1,898	1,883	1,899	1,841	1,858	1,857	1,813	1,930	1,658	1,689	1,723	1,738	1,847
Unemployment rate ..	4.5	4.4	4.5	4.3	4.4	4.4	4.2	4.5	3.9	3.9	4.0	4.0	4.3
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	6,809	7,001	6,836	6,915	6,886	6,970	7,087	6,965	6,807	6,889	6,764	7,108	6,983
Percent of population ..	56.9	58.5	57.2	57.9	57.7	58.6	59.6	58.6	57.2	58.0	57.0	59.9	58.9
Employed .....	5,904	6,017	5,857	5,915	5,917	6,021	6,095	6,100	5,845	5,916	5,879	6,258	6,081
Employment-population ratio <sup>2</sup> ..	49.3	50.3	49.0	49.5	49.6	50.6	51.2	51.3	49.1	49.8	49.5	52.7	51.3
Unemployed .....	905	984	979	1,000	969	949	992	865	962	973	885	850	902
Unemployment rate ..	13.3	14.1	14.3	14.5	14.1	13.6	14.0	12.4	14.1	14.1	13.1	12.0	12.9
Men .....	13.5	15.2	15.1	15.1	14.8	14.9	14.4	12.2	15.7	14.5	13.8	12.8	14.6
Women ..	13.1	12.9	13.4	13.8	13.3	12.3	13.6	12.7	12.4	13.7	12.4	11.1	11.1
<b>BLACK</b>													
Civilian noninstitutional population <sup>1</sup> .....	20,373	20,396	20,426	20,453	20,482	20,508	20,539	20,569	20,596	20,622	20,650	20,683	20,715
Civilian labor force .....	13,039	13,150	13,028	13,152	13,193	13,215	13,222	13,168	13,098	13,078	13,069	12,989	13,293
Percent of population ..	64.0	64.5	63.8	64.3	64.4	64.4	64.4	64.0	63.6	63.4	63.3	62.8	64.2
Employed .....	11,381	11,513	11,421	11,556	11,589	11,605	11,608	11,504	11,420	11,482	11,452	11,489	11,774
Employment-population ratio <sup>2</sup> ..	55.9	56.4	55.9	56.5	56.6	56.6	56.5	55.9	55.4	55.7	55.5	55.5	56.8
Unemployed .....	1,658	1,637	1,607	1,596	1,604	1,610	1,614	1,663	1,678	1,597	1,617	1,500	1,519
Unemployment rate ..	12.7	12.4	12.3	12.1	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4
<b>Men, 20 years and over</b>													
Civilian labor force .....	6,061	6,054	6,032	6,023	6,045	6,043	6,115	6,166	6,127	6,163	6,107	6,064	6,070
Percent of population ..	75.1	74.9	74.5	74.3	74.5	74.3	75.0	75.6	75.0	75.3	74.5	73.8	73.8
Employed .....	5,384	5,407	5,421	5,431	5,430	5,430	5,497	5,472	5,429	5,511	5,449	5,458	5,492
Employment-population ratio <sup>2</sup> ..	66.7	66.9	67.0	67.0	66.9	66.8	67.5	67.1	66.4	67.3	66.5	66.5	66.8
Unemployed .....	677	647	611	592	615	613	618	694	699	652	658	606	578
Unemployment rate ..	11.2	10.7	10.1	9.8	10.2	10.1	10.1	11.3	11.4	10.6	10.8	10.0	9.5
<b>Women, 20 years and over</b>													
Civilian labor force .....	6,116	6,122	6,067	6,177	6,207	6,224	6,244	6,131	6,136	6,093	6,059	6,074	6,307
Percent of population ..	60.4	60.3	59.7	60.7	60.9	61.0	61.1	59.9	59.9	59.4	59.0	59.0	61.2
Employed .....	5,417	5,430	5,357	5,495	5,537	5,544	5,550	5,495	5,465	5,407	5,414	5,421	5,650
Employment-population ratio <sup>2</sup> ..	53.5	53.5	52.7	54.0	54.3	54.3	54.3	53.7	53.3	52.7	52.7	52.7	54.8
Unemployed .....	699	692	710	682	670	680	694	636	671	686	645	652	657
Unemployment rate ..	11.4	11.3	11.7	11.0	10.8	10.9	11.1	10.4	10.9	11.3	10.6	10.7	10.4

See footnotes at end of table.



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

(Numbers in thousands)

Employment status, race, sex, age, and Hispanic origin	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>BLACK—Continued</b>													
<b>Both sexes, 16 to 19 years</b>													
Civilian labor force .....	862	974	929	952	941	948	863	870	834	822	903	852	917
Percent of population .....	39.8	44.9	42.8	43.8	43.3	43.7	39.8	40.0	38.3	37.7	41.4	39.0	42.0
Employed .....	580	676	643	630	622	631	561	537	526	564	589	610	632
Employment-population ratio <sup>2</sup> .....	26.8	31.2	29.6	29.0	28.6	29.1	25.8	24.7	24.2	25.9	27.0	28.0	28.9
Unemployed .....	282	298	286	322	319	317	302	333	308	258	314	242	285
Unemployment rate .....	32.7	30.6	30.8	33.8	33.9	33.4	35.0	38.3	36.9	31.4	34.8	28.4	31.1
Men .....	32.4	33.7	31.5	32.5	32.2	33.5	35.1	42.0	39.0	27.6	33.3	30.4	30.4
Women .....	33.1	27.1	30.0	35.2	35.8	33.4	34.9	34.7	35.0	35.5	36.6	25.9	31.8
<b>HISPANIC ORIGIN</b>													
Civilian noninstitutional population <sup>1</sup> .....	12,887	12,925	12,965	13,003	13,043	13,082	13,115	13,153	13,192	13,230	13,268	13,306	13,344
Civilian labor force .....	8,447	8,549	8,581	8,654	8,763	8,772	8,879	9,017	8,803	8,828	8,859	9,027	8,984
Percent of population .....	65.5	66.1	66.2	66.6	67.2	67.1	67.7	68.6	66.7	66.7	66.8	67.8	67.3
Employed .....	7,762	7,856	7,877	7,935	7,978	8,058	8,238	8,268	8,079	8,010	8,058	8,219	8,264
Employment-population ratio <sup>2</sup> .....	60.2	60.8	60.8	61.0	61.2	61.6	62.8	62.9	61.2	60.5	60.7	61.8	61.9
Unemployed .....	685	693	704	719	785	714	642	749	724	818	801	809	720
Unemployment rate .....	8.1	8.1	8.2	8.3	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0

<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	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>CHARACTERISTIC</b>													
Total .....	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059
Married men, spouse present .....	40,262	40,308	40,404	40,556	40,645	40,711	40,404	40,475	40,481	40,459	40,267	40,485	40,535
Married women, spouse present .....	28,283	28,189	28,069	28,099	28,175	28,249	28,441	28,707	28,805	28,859	28,567	28,713	28,654
Women who maintain families .....	6,033	6,107	6,151	6,178	6,237	6,227	6,168	6,157	6,160	6,055	5,957	6,085	6,145
<b>MAJOR INDUSTRY AND CLASS OF WORKER</b>													
<b>Agriculture:</b>													
Wage and salary workers .....	1,625	1,591	1,624	1,705	1,595	1,599	1,666	1,677	1,648	1,678	1,526	1,562	1,539
Self-employed workers .....	1,424	1,393	1,415	1,430	1,407	1,450	1,454	1,414	1,423	1,385	1,346	1,359	1,346
Unpaid family workers .....	153	155	139	140	155	156	138	114	142	155	159	167	148
<b>Nonagricultural industries:</b>													
Wage and salary workers .....	100,825	101,241	101,282	101,522	101,943	101,997	102,507	102,683	102,279	102,538	101,927	103,000	103,133
Government .....	16,876	16,794	16,928	17,033	17,118	17,064	17,197	16,948	16,908	17,015	16,887	17,064	16,959
Private industries .....	83,949	84,447	84,354	84,489	84,825	84,933	85,310	85,735	85,371	85,523	85,040	85,935	86,174
Private households .....	1,212	1,175	1,100	1,222	1,286	1,200	1,147	1,170	1,175	1,092	1,156	1,150	1,123
Other industries .....	82,737	83,272	83,254	83,267	83,539	83,733	84,163	84,565	84,196	84,431	83,884	84,786	85,051
Self-employed workers .....	8,216	8,214	8,204	8,274	8,222	8,280	8,150	8,312	8,366	8,637	8,917	8,577	8,528
Unpaid family workers .....	266	248	297	242	235	248	237	228	248	281	307	301	255
<b>PERSONS AT WORK PART TIME<sup>1</sup></b>													
<b>All industries:</b>													
Part time for economic reasons .....	5,428	5,283	5,261	5,353	5,534	5,262	5,367	5,566	5,343	5,194	4,844	5,317	5,382
Slack work .....	2,429	2,468	2,213	2,377	2,408	2,284	2,396	2,478	2,520	2,236	2,227	2,364	2,490
Could only find part-time work .....	2,683	2,526	2,683	2,655	2,696	2,638	2,640	2,598	2,535	2,502	2,315	2,637	2,581
Voluntary part time .....	14,437	14,573	14,415	14,488	14,523	14,711	14,571	14,572	14,603	15,016	14,790	14,507	15,070
<b>Nonagricultural industries:</b>													
Part time for economic reasons .....	5,154	5,016	4,986	5,067	5,241	5,004	5,145	5,254	5,106	4,924	4,623	5,076	5,185
Slack work .....	2,261	2,265	2,034	2,196	2,209	2,111	2,260	2,327	2,325	2,121	2,120	2,199	2,351
Could only find part-time work .....	2,599	2,463	2,603	2,557	2,597	2,552	2,566	2,457	2,475	2,397	2,236	2,566	2,545
Voluntary part time .....	13,953	14,099	13,987	14,011	14,064	14,222	14,096	14,123	14,141	14,592	14,338	14,083	14,669

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

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

**HOUSEHOLD DATA  
SEASONALLY ADJUSTED**

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

(In thousands)

Sex and age	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and over .....	112,639	113,050	112,872	113,210	113,504	113,744	114,129	114,409	114,103	114,713	114,195	115,018	115,059
16 to 24 years .....	20,184	20,475	20,116	20,096	20,065	20,112	20,312	20,271	19,916	19,990	19,773	20,404	20,159
16 to 19 years .....	6,650	6,917	6,654	6,693	6,706	6,809	6,865	6,779	6,564	6,660	6,645	7,051	6,907
16 to 17 years .....	2,760	2,849	2,754	2,768	2,734	2,826	2,776	2,752	2,657	2,682	2,649	2,820	2,691
18 to 19 years .....	3,875	3,996	3,911	3,936	3,985	3,994	4,061	4,045	3,906	3,967	3,995	4,227	4,210
20 to 24 years .....	13,534	13,558	13,462	13,403	13,359	13,303	13,447	13,491	13,353	13,330	13,128	13,353	13,253
25 years and over .....	92,551	92,606	92,735	93,071	93,424	93,625	93,778	94,118	94,239	94,686	94,359	94,592	95,016
25 to 54 years .....	78,015	78,202	78,307	78,477	78,731	78,916	79,170	79,351	79,588	79,946	79,920	80,088	80,481
55 years and over .....	14,497	14,498	14,491	14,641	14,663	14,716	14,581	14,673	14,566	14,712	14,438	14,542	14,469
Men, 16 years and over .....	62,150	62,341	62,368	62,468	62,581	62,656	62,808	63,059	62,759	63,323	63,030	63,411	63,490
16 to 24 years .....	10,441	10,586	10,448	10,403	10,370	10,369	10,456	10,444	10,349	10,427	10,351	10,591	10,446
16 to 19 years .....	3,367	3,516	3,401	3,431	3,417	3,471	3,521	3,434	3,352	3,440	3,439	3,614	3,537
16 to 17 years .....	1,417	1,410	1,391	1,409	1,390	1,451	1,444	1,406	1,376	1,397	1,369	1,418	1,388
18 to 19 years .....	1,938	2,046	2,021	2,034	2,040	2,035	2,046	2,046	1,982	2,042	2,068	2,184	2,150
20 to 24 years .....	7,074	7,070	7,047	6,972	6,953	6,898	6,935	7,010	6,998	6,987	6,912	6,977	6,910
25 years and over .....	51,733	51,781	51,900	52,047	52,210	52,299	52,338	52,623	52,469	52,862	52,654	52,793	53,064
25 to 54 years .....	43,203	43,289	43,408	43,488	43,592	43,690	43,848	43,992	43,975	44,336	44,175	44,278	44,541
55 years and over .....	8,524	8,503	8,514	8,580	8,605	8,629	8,470	8,567	8,467	8,530	8,466	8,542	8,534
Women, 16 years and over .....	50,489	50,709	50,504	50,742	50,923	51,088	51,321	51,350	51,344	51,390	51,166	51,607	51,569
16 to 24 years .....	9,743	9,889	9,668	9,693	9,695	9,743	9,857	9,826	9,567	9,563	9,422	9,814	9,713
16 to 19 years .....	3,283	3,401	3,253	3,262	3,289	3,338	3,344	3,345	3,212	3,220	3,206	3,438	3,370
16 to 17 years .....	1,343	1,439	1,363	1,359	1,344	1,375	1,332	1,346	1,281	1,285	1,280	1,402	1,303
18 to 19 years .....	1,937	1,950	1,890	1,902	1,945	1,959	2,008	1,999	1,924	1,925	1,927	2,043	2,060
20 to 24 years .....	6,460	6,488	6,415	6,431	6,406	6,405	6,513	6,481	6,355	6,343	6,216	6,376	6,343
25 years and over .....	40,818	40,825	40,835	41,024	41,214	41,326	41,440	41,495	41,770	41,824	41,705	41,798	41,953
25 to 54 years .....	34,812	34,913	34,899	34,989	35,139	35,226	35,322	35,359	35,613	35,610	35,745	35,809	35,939
55 years and over .....	5,973	5,995	5,977	6,061	6,058	6,087	6,111	6,106	6,099	6,182	5,972	5,999	5,935

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

(In thousands)

Sex and age	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and over .....	7,251	7,256	7,091	7,177	7,090	6,978	7,046	6,938	6,801	6,610	6,783	6,455	6,625
16 to 24 years .....	2,701	2,736	2,692	2,689	2,641	2,547	2,659	2,525	2,637	2,532	2,519	2,341	2,468
16 to 19 years .....	1,248	1,337	1,302	1,388	1,335	1,304	1,312	1,232	1,301	1,259	1,230	1,112	1,234
16 to 17 years .....	586	638	618	710	649	613	638	580	568	580	509	512	569
18 to 19 years .....	624	688	701	679	691	688	689	655	732	658	720	627	630
20 to 24 years .....	1,453	1,399	1,390	1,301	1,306	1,243	1,347	1,293	1,336	1,273	1,289	1,229	1,234
25 years and over .....	4,538	4,544	4,445	4,482	4,442	4,412	4,393	4,416	4,161	4,082	4,251	4,077	4,150
25 to 54 years .....	4,078	4,050	3,931	3,993	3,909	3,939	3,896	3,926	3,730	3,625	3,744	3,654	3,691
55 years and over .....	462	483	499	474	513	488	527	499	441	446	520	442	461
Men, 16 years and over .....	3,960	4,021	3,827	3,899	3,845	3,785	3,847	3,707	3,816	3,553	3,736	3,495	3,519
16 to 24 years .....	1,415	1,518	1,435	1,432	1,414	1,378	1,456	1,333	1,423	1,315	1,354	1,247	1,334
16 to 19 years .....	637	763	709	725	710	722	693	636	727	644	664	625	704
16 to 17 years .....	292	363	341	372	356	347	348	285	313	291	275	290	302
18 to 19 years .....	307	387	382	354	355	367	360	354	414	352	388	360	370
20 to 24 years .....	778	755	726	707	704	656	763	697	696	671	690	622	630
25 years and over .....	2,535	2,528	2,427	2,462	2,419	2,390	2,391	2,390	2,385	2,243	2,363	2,235	2,174
25 to 54 years .....	2,238	2,215	2,139	2,182	2,109	2,112	2,070	2,095	2,089	1,951	2,051	1,940	1,906
55 years and over .....	300	302	283	277	313	282	351	305	299	276	323	279	275
Women, 16 years and over .....	3,291	3,235	3,264	3,278	3,245	3,193	3,200	3,231	2,985	3,057	3,047	2,960	3,106
16 to 24 years .....	1,286	1,218	1,257	1,257	1,227	1,169	1,203	1,192	1,214	1,217	1,166	1,094	1,134
16 to 19 years .....	611	574	593	663	625	582	619	596	574	615	566	487	530
16 to 17 years .....	294	275	277	338	293	266	290	295	255	289	234	222	267
18 to 19 years .....	317	301	319	325	336	321	329	301	318	300	332	267	260
20 to 24 years .....	675	644	664	594	602	587	584	596	640	602	600	607	604
25 years and over .....	2,003	2,016	2,018	2,020	2,023	2,022	2,002	2,026	1,776	1,838	1,888	1,842	1,976
25 to 54 years .....	1,840	1,835	1,792	1,811	1,800	1,827	1,826	1,831	1,641	1,674	1,693	1,714	1,785
55 years and over .....	162	181	216	197	200	206	175	194	142	170	197	163	186

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

(Civilian workers)

Sex and age	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
Total, 16 years and over .....	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4
16 to 24 years .....	11.8	11.8	11.8	11.8	11.6	11.2	11.6	11.1	11.7	11.2	11.3	10.3	10.9
16 to 19 years .....	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2
16 to 17 years .....	17.5	18.3	18.3	20.4	19.2	17.8	18.7	17.4	17.6	17.8	16.1	15.4	17.5
18 to 19 years .....	13.9	14.7	15.2	14.7	14.8	14.7	14.5	13.9	15.8	14.2	15.3	12.9	13.0
20 to 24 years .....	9.7	9.4	9.4	8.8	8.9	8.5	9.1	8.7	9.1	8.7	8.9	8.4	8.5
25 years and over .....	4.7	4.7	4.6	4.6	4.5	4.5	4.5	4.5	4.2	4.1	4.3	4.1	4.2
25 to 54 years .....	5.0	4.9	4.8	4.8	4.7	4.8	4.7	4.7	4.5	4.3	4.5	4.4	4.4
55 years and over .....	3.1	3.2	3.3	3.1	3.4	3.2	3.5	3.3	2.9	2.9	3.5	2.9	3.1
Men, 16 years and over .....	6.0	6.1	5.8	5.9	5.8	5.7	5.8	5.6	5.7	5.3	5.6	5.2	5.3
16 to 24 years .....	11.9	12.5	12.1	12.1	12.0	11.7	12.2	11.3	12.1	11.2	11.6	10.5	11.3
16 to 19 years .....	15.9	17.8	17.3	17.4	17.2	17.2	16.4	15.6	17.8	15.8	16.2	14.7	16.6
16 to 17 years .....	17.1	20.5	19.7	20.9	20.4	19.3	19.4	16.9	18.5	17.2	16.7	17.0	17.9
18 to 19 years .....	13.7	15.9	15.9	14.8	14.8	15.3	14.9	14.7	17.3	14.7	15.6	14.2	14.7
20 to 24 years .....	9.9	9.6	9.3	9.2	9.2	8.7	9.9	9.0	9.1	8.8	9.1	8.2	8.4
25 years and over .....	4.7	4.7	4.5	4.5	4.4	4.4	4.4	4.3	4.3	4.1	4.3	4.1	3.9
25 to 54 years .....	4.9	4.9	4.7	4.8	4.6	4.6	4.5	4.5	4.5	4.2	4.4	4.2	4.1
55 years and over .....	3.4	3.4	3.2	3.1	3.5	3.2	4.0	3.4	3.4	3.1	3.7	3.2	3.1
Women, 16 years and over .....	6.1	6.0	6.1	6.1	6.0	5.9	5.9	5.9	5.5	5.6	5.6	5.4	5.7
16 to 24 years .....	11.7	11.0	11.5	11.5	11.2	10.7	10.9	10.8	11.3	11.3	11.0	10.0	10.5
16 to 19 years .....	15.7	14.4	15.4	16.9	16.0	14.8	15.6	15.1	15.2	16.0	15.0	12.4	13.6
16 to 17 years .....	18.0	16.0	16.9	19.9	17.9	16.2	17.9	18.0	16.6	18.4	15.5	13.7	17.0
18 to 19 years .....	14.1	13.4	14.4	14.6	14.7	14.1	14.1	13.1	14.2	13.7	14.7	11.6	11.2
20 to 24 years .....	9.5	9.0	9.4	8.5	8.6	8.4	8.2	8.4	9.1	8.7	8.8	8.7	8.7
25 years and over .....	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.7	4.1	4.2	4.3	4.2	4.5
25 to 54 years .....	5.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9	4.4	4.5	4.5	4.6	4.7
55 years and over .....	2.6	2.9	3.5	3.1	3.2	3.3	2.8	3.1	2.3	2.7	3.2	2.6	3.0

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

(Unemployment rates)

Category	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>CHARACTERISTIC</b>													
Total (all civilian workers) .....	6.0	6.0	5.9	6.0	5.9	5.8	5.8	5.7	5.6	5.4	5.6	5.3	5.4
Men, 20 years and over .....	5.4	5.2	5.0	5.1	5.0	4.9	5.1	4.9	4.9	4.6	4.9	4.6	4.5
Women, 20 years and over .....	5.4	5.3	5.4	5.2	5.2	5.1	5.2	5.1	5.2	4.8	4.8	4.9	5.1
Both sexes, 16 to 19 years .....	15.8	16.2	16.4	17.2	16.6	16.1	16.0	15.4	16.5	15.9	15.6	13.6	15.2
White .....	5.2	5.2	5.1	5.2	5.1	4.9	5.0	4.8	4.7	4.6	4.7	4.5	4.7
Black and other .....	11.4	11.3	10.9	10.8	11.0	10.9	10.9	11.3	11.5	10.7	11.3	10.3	10.0
Black .....	12.7	12.4	12.3	12.1	12.2	12.2	12.2	12.6	12.8	12.2	12.4	11.5	11.4
Hispanic origin .....	8.1	8.1	8.2	8.3	9.0	8.1	7.2	8.3	8.2	9.3	9.0	9.0	8.0
Married men, spouse present .....	3.8	3.7	3.7	3.7	3.5	3.4	3.6	3.4	3.4	3.0	3.3	3.1	3.0
Married women, spouse present .....	4.2	4.3	4.2	4.2	4.2	4.3	4.2	4.1	4.0	3.8	3.9	3.7	4.1
Women who maintain families .....	9.3	9.0	8.8	8.9	8.5	8.4	8.9	8.3	7.5	8.7	8.4	7.8	8.6
Full-time workers .....	5.7	5.6	5.5	5.6	5.5	5.4	5.4	5.3	5.3	5.1	5.2	4.9	5.0
Part-time workers .....	8.1	8.2	8.4	8.3	8.2	8.0	8.3	7.9	7.7	7.4	7.7	7.8	8.1
Unemployed 15 weeks and over <sup>1</sup> .....	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.3
Labor force time lost <sup>2</sup> .....	6.9	6.9	6.8	6.8	6.8	6.6	6.6	6.6	6.5	6.2	6.4	6.3	6.4
<b>INDUSTRY</b>													
Nonagricultural private wage and salary workers .....	6.1	6.0	5.9	5.9	5.8	5.7	5.8	5.7	5.6	5.3	5.7	5.4	5.4
Goods-producing industries .....	7.1	6.9	7.0	7.0	6.5	6.4	7.1	6.9	6.5	6.5	6.6	6.0	6.3
Mining .....	7.9	8.6	7.4	8.3	7.0	8.0	7.7	7.8	7.9	8.4	10.4	6.7	5.3
Construction .....	10.8	11.3	11.9	11.2	10.6	10.6	12.2	11.0	10.7	10.6	10.5	10.2	10.2
Manufacturing .....	6.0	5.6	5.6	5.7	5.3	5.1	5.6	5.6	5.2	5.3	5.4	4.8	5.2
Durable goods .....	6.0	5.5	5.4	5.2	4.8	4.8	5.5	5.9	5.2	4.8	4.9	4.4	5.0
Nondurable goods .....	5.9	5.8	5.9	6.5	5.9	5.6	5.8	5.3	5.3	6.0	6.0	5.4	5.6
Service-producing industries .....	5.6	5.6	5.3	5.4	5.5	5.3	5.3	5.1	5.2	4.7	5.2	5.1	5.0
Transportation and public utilities .....	4.4	4.4	4.1	4.4	4.5	4.6	3.6	3.6	4.2	3.8	4.4	4.1	3.5
Wholesale and retail trade .....	6.8	7.0	6.4	6.5	6.8	6.2	6.1	6.4	6.8	5.9	6.3	5.9	6.2
Finance and service industries .....	5.1	4.7	4.8	4.7	4.8	4.8	4.9	4.5	4.2	4.1	4.6	4.6	4.5
Government workers .....	3.4	3.7	3.4	3.3	3.4	3.2	3.0	2.8	2.8	3.0	2.9	2.8	3.1
Agricultural wage and salary workers .....	10.9	10.6	8.6	10.6	11.1	10.9	11.5	10.2	11.0	10.6	13.9	9.7	10.8

<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	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>DURATION</b>													
Less than 5 weeks .....	3,186	3,203	3,220	3,223	3,218	3,229	3,089	3,084	3,009	3,125	3,075	3,066	2,965
5 to 14 weeks .....	2,144	2,142	1,949	2,093	2,029	1,968	2,263	2,145	2,101	1,956	2,110	1,890	2,078
15 weeks and over .....	1,920	1,896	1,904	1,801	1,834	1,791	1,733	1,740	1,722	1,540	1,609	1,512	1,629
15 to 26 weeks .....	945	834	917	844	899	892	839	841	887	725	784	727	838
27 weeks and over .....	975	1,062	987	957	935	899	894	899	835	816	825	785	791
Average (mean) duration, in weeks .....	14.2	14.3	14.2	14.1	14.0	14.2	14.4	14.4	13.7	13.4	13.8	12.9	13.6
Median duration, in weeks .....	6.6	6.4	5.8	6.2	6.1	6.0	6.4	6.4	6.6	5.6	5.9	6.0	6.3
<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 .....	43.9	44.2	45.5	45.3	45.4	46.2	43.6	44.3	44.0	47.2	45.3	47.4	44.4
5 to 14 weeks .....	29.6	29.6	27.6	29.4	28.7	28.2	31.9	30.8	30.8	29.5	31.1	29.2	31.1
15 weeks and over .....	26.5	26.2	26.9	25.3	25.9	25.6	24.5	25.0	25.2	23.3	23.7	23.4	24.4
15 to 26 weeks .....	13.0	11.5	13.0	11.9	12.7	12.8	11.8	12.1	13.0	10.9	11.5	11.2	12.6
27 weeks and over .....	13.4	14.7	14.0	13.4	13.2	12.9	12.6	12.9	12.2	12.3	12.1	12.1	11.9

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

(Numbers in thousands)

Reasons for unemployment	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
<b>NUMBER OF UNEMPLOYED</b>													
Job losers .....	3,529	3,389	3,313	3,388	3,307	3,200	3,209	3,207	3,139	2,916	3,236	3,059	3,087
On layoff .....	916	874	820	944	878	856	888	884	899	821	793	863	852
Other job losers .....	2,613	2,515	2,493	2,444	2,429	2,344	2,320	2,323	2,240	2,095	2,443	2,196	2,235
Job leavers .....	989	992	981	960	926	946	1,082	961	1,075	993	926	944	904
Reentrants .....	1,930	1,969	1,908	1,845	1,974	1,945	1,917	1,951	1,756	1,784	1,789	1,723	1,901
New entrants .....	844	855	882	914	855	909	885	864	887	915	807	777	776
<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 .....	48.4	47.0	46.8	47.7	46.8	45.7	45.2	45.9	45.8	44.1	47.9	47.0	46.3
On layoff .....	12.6	12.1	11.6	13.3	12.4	12.2	12.5	12.7	13.1	12.4	11.7	13.3	12.8
Other job losers .....	35.8	34.9	35.2	34.4	34.4	33.5	32.7	33.3	32.7	31.7	36.2	33.8	33.5
Job leavers .....	13.6	13.8	13.8	13.5	13.1	13.5	15.3	13.8	15.7	15.0	13.7	14.5	13.6
Reentrants .....	26.5	27.3	26.9	26.0	28.0	27.8	27.0	27.9	25.6	27.0	26.5	26.5	28.5
New entrants .....	11.6	11.9	12.5	12.9	12.1	13.0	12.5	12.4	12.9	13.8	11.9	11.9	11.6
<b>UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE</b>													
Job losers .....	2.9	2.8	2.8	2.8	2.7	2.7	2.6	2.6	2.6	2.4	2.7	2.5	2.5
Job leavers .....	.8	.8	.8	.8	.8	.8	.9	.8	.9	.8	.8	.8	.7
Reentrants .....	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.6
New entrants .....	.7	.7	.7	.8	.7	.8	.7	.7	.7	.8	.7	.6	.6

**ESTABLISHMENT DATA  
HISTORICAL EMPLOYMENT**

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

(In thousands)

Year and month	Total	Total private	Goods-producing						Service-producing					Government		
			Total	Mining	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government			
													Federal	State	Local	
<b>Annual averages</b>																
1936	29,068	25,400	11,933	946	1,160	9,827	17,135	2,973	(1)	(1)	1,373	3,312	(1)	(1)	(1)	
1937	31,011	27,255	12,936	1,015	1,127	10,794	18,075	3,134	(1)	(1)	1,417	3,503	(1)	(1)	(1)	
1938	29,194	25,311	11,401	891	1,070	9,440	17,793	2,863	(1)	(1)	1,410	3,458	(1)	(1)	(1)	
1939	30,603	26,608	12,297	854	1,165	10,278	18,306	2,936	1,762	4,664	1,447	3,502	905	(1)	(1)	
1940	32,361	28,159	13,221	925	1,311	10,985	19,140	3,038	1,835	4,914	1,485	3,665	996	(1)	(1)	
1941	36,539	31,877	15,963	957	1,814	13,192	20,574	3,274	1,960	5,251	1,525	3,905	1,340	(1)	(1)	
1942	40,106	34,624	18,470	992	2,198	15,280	21,636	3,460	1,906	5,212	1,509	4,066	2,213	(1)	(1)	
1943	42,434	36,356	20,114	925	1,587	17,602	22,320	3,647	1,822	5,160	1,481	4,130	2,905	(1)	(1)	
1944	41,864	35,822	19,328	892	1,108	17,328	22,536	3,829	1,845	5,214	1,461	4,145	2,928	(1)	(1)	
1945	40,374	34,431	17,507	836	1,147	15,524	22,867	3,906	1,949	5,365	1,481	4,222	2,808	(1)	(1)	
1946	41,652	36,056	17,248	862	1,683	14,703	24,404	4,061	2,291	6,084	1,675	4,697	2,254	(1)	(1)	
1947	43,857	38,382	18,509	955	2,009	15,545	25,348	4,166	2,471	6,485	1,728	5,025	1,892	(1)	(1)	
1948	44,866	39,216	18,774	994	2,198	15,582	26,092	4,189	2,605	6,667	1,800	5,181	1,863	(1)	(1)	
1949	43,754	37,897	17,565	930	2,194	14,441	26,189	4,001	2,602	6,662	1,828	5,240	1,908	(1)	(1)	
1950	45,197	39,170	18,506	901	2,364	15,241	26,691	4,034	2,635	6,751	1,888	5,357	1,928	(1)	(1)	
1951	47,819	41,430	19,959	929	2,637	16,393	27,860	4,226	2,727	7,015	1,956	5,547	2,302	(1)	(1)	
1952	48,793	42,185	20,198	898	2,668	16,632	28,595	4,248	2,812	7,192	2,035	5,699	2,420	(1)	(1)	
1953	50,202	43,556	21,074	866	2,659	17,549	29,128	4,290	2,854	7,393	2,111	5,835	2,305	(1)	(1)	
1954	48,990	42,238	19,751	791	2,646	16,314	29,239	4,084	2,867	7,368	2,200	5,969	2,188	(1)	(1)	
1955	50,641	43,727	20,513	792	2,839	16,882	30,128	4,141	2,926	7,610	2,298	6,240	2,187	1,168	3,558	
1956	52,389	45,091	21,104	822	3,039	17,243	31,266	4,244	3,018	7,840	2,389	6,497	2,209	1,250	3,819	
1957	52,653	45,239	20,964	828	2,982	17,174	31,889	4,241	3,028	7,858	2,436	6,706	2,217	1,326	4,071	
1958	51,324	43,483	19,513	751	2,817	15,945	31,811	3,978	2,980	7,770	2,481	6,765	2,191	1,415	4,232	
1959 <sup>1</sup>	53,288	45,186	20,411	732	3,004	16,875	32,857	4,011	3,082	8,045	2,549	7,087	2,233	1,484	4,366	
1960	54,189	45,836	20,434	712	2,926	16,796	33,755	4,004	3,143	8,248	2,629	7,378	2,270	1,536	4,547	
1961	53,999	45,404	19,857	672	2,859	16,326	34,142	3,903	3,133	8,204	2,688	7,620	2,279	1,607	4,708	
1962	55,549	46,660	20,451	650	2,948	16,653	35,098	3,906	3,198	8,368	2,754	7,982	2,340	1,668	4,881	
1963	56,653	47,429	20,640	635	3,010	16,995	36,013	3,903	3,248	8,530	2,830	8,277	2,358	1,747	5,121	
1964	58,283	48,686	21,005	634	3,097	17,274	37,278	3,951	3,337	8,823	2,911	8,660	2,348	1,856	5,392	
1965	60,765	50,689	21,926	632	3,232	18,062	38,839	4,036	3,466	9,250	2,977	9,036	2,378	1,996	5,700	
1966	63,901	53,116	23,158	627	3,317	19,214	40,743	4,158	3,597	9,648	3,058	9,498	2,564	2,141	6,080	
1967	65,803	54,413	23,308	613	3,248	19,447	42,495	4,268	3,689	9,917	3,185	10,045	2,719	2,302	6,371	
1968	67,897	56,058	23,737	606	3,350	19,781	44,160	4,318	3,779	10,320	3,337	10,567	2,737	2,442	6,660	
1969	70,384	58,189	24,361	619	3,575	20,167	46,023	4,442	3,907	10,798	3,512	11,169	2,758	2,533	6,904	
1970	70,880	58,325	23,578	623	3,588	19,367	47,302	4,515	3,993	11,047	3,645	11,548	2,731	2,664	7,158	
1971	71,214	58,331	22,935	609	3,704	18,623	48,278	4,476	4,001	11,351	3,772	11,797	2,896	2,747	7,437	
1972	73,675	60,341	23,668	628	3,889	19,151	50,007	4,541	4,113	11,836	3,908	12,276	2,884	2,859	7,790	
1973	76,790	63,058	24,893	642	4,097	20,154	51,897	4,656	4,277	12,329	4,046	12,857	2,663	2,923	8,146	
1974	78,265	64,095	24,794	697	4,020	20,077	53,471	4,725	4,433	12,554	4,148	13,441	2,724	3,039	8,407	
1975	76,945	62,259	22,600	752	3,525	18,323	54,345	4,542	4,415	12,645	4,165	13,892	2,748	3,179	8,758	
1976	79,382	64,511	23,352	779	3,576	18,997	56,030	4,582	4,546	13,209	4,271	14,551	2,733	3,273	8,865	
1977	82,471	67,344	24,346	813	3,851	19,682	58,125	4,713	4,708	13,808	4,467	15,303	2,727	3,377	9,023	
1978	86,697	71,026	25,585	851	4,229	20,505	61,113	4,923	4,969	14,573	4,724	16,252	2,753	3,474	9,446	
1979	89,823	73,876	26,461	958	4,463	21,040	63,363	5,136	5,204	14,989	4,975	17,112	2,773	3,541	9,633	
1980	90,406	74,166	25,658	1,027	4,346	20,285	64,748	5,146	5,275	15,035	5,160	17,890	2,866	3,610	9,765	
1981	91,156	75,126	25,497	1,139	4,188	20,170	65,659	5,165	5,358	15,189	5,298	18,619	2,772	3,640	9,619	
1982	89,566	73,729	23,813	1,128	3,905	18,781	65,753	5,082	5,278	15,179	5,341	19,036	2,739	3,640	9,458	
1983	90,200	74,330	23,334	952	3,948	18,434	66,866	4,954	5,268	15,613	5,468	19,694	2,774	3,662	9,434	
1984	94,496	78,472	24,727	966	4,383	19,378	69,769	5,159	5,555	16,545	5,689	20,797	2,807	3,734	9,482	
1985	97,519	81,125	24,859	927	4,673	19,260	72,660	5,238	5,717	17,356	5,955	22,000	2,875	3,832	9,687	
1986	99,525	82,832	24,558	777	4,816	18,965	74,967	5,255	5,753	17,930	6,283	23,053	2,899	3,893	9,901	
1987	102,310	85,295	24,784	721	4,998	19,065	77,525	5,385	5,872	18,509	6,549	24,196	2,943	3,963	10,109	
<b>Monthly data, seasonally adjusted</b>																
<b>1987:</b>																
July	102,430	85,421	24,788	722	4,997	19,069	77,642	5,373	5,874	18,543	6,570	24,273	2,941	3,965	10,103	
August	102,672	85,656	24,851	728	5,012	19,111	77,821	5,394	5,892	18,569	6,581	24,369	2,943	3,971	10,102	
September	102,906	85,851	24,902	734	5,012	19,156	78,004	5,427	5,914	18,605	6,588	24,415	2,962	3,973	10,120	
October	103,371	86,241	25,025	740	5,060	19,225	78,346	5,448	5,935	18,705	6,604	24,524	2,966	3,985	10,179	
November	103,678	86,520	25,123	736	5,090	19,297	78,555	5,466	5,958	18,761	6,608	24,604	2,974	3,988	10,196	
December	104,001	86,794	25,201	735	5,118	19,348	78,800	5,481	5,984	18,784	6,619	24,725	2,980	4,001	10,226	
<b>1988:</b>																
January	104,262	87,044	25,180	728	5,083	19,369	79,082	5,499	6,010	18,927	6,633	24,795	2,973	4,006	10,239	
February	104,729	87,475	25,271	731	5,150	19,390	79,458	5,513	6,035	19,045	6,636	24,975	2,972	4,014	10,268	
March	105,020	87,700	25,330	733	5,192	19,405	79,690	5,530	6,061	19,050	6,651	25,078	2,970	4,031	10,319	
April	105,281	87,973	25,435	737	5,238	19,460	79,846	5,543	6,089	19,093	6,650	25,163	2,963	4,041	10,304	
May	105,489	88,139	25,466	739	5,237	19,490	80,023	5,556	6,115	19,130	6,656	25,216	2,957	4,050	10,343	
June <sup>p</sup>	106,021	88,661	25,590	740	5,305	19,545	80,431	5,578	6,145	19,213	6,676	25,459	2,951	4,030	10,379	
July																

**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>				
		June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>	June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>
<b>Total</b> .....		102,910	102,212	105,956	106,882	106,098					
<b>Total private</b> .....		85,861	86,057	88,268	89,459	89,607	69,593	69,706	71,379	72,421	72,512
<b>Mining</b> .....		721	727	735	742	744	514	520	531	537	538
Metal mining .....	10	44.0	44.3	48.8	49.6		33.3	33.5	37.6	38.2	
Iron ores .....	101	6.7	6.5	7.1	7.3		5.0	4.9	5.7	5.9	
Copper ores .....	102	13.3	13.4	14.6	14.1		10.6	10.7	11.4	10.9	
Coal mining .....	11,12	162.3	161.2	153.2	154.4		132.2	131.4	124.7	125.4	
Bituminous coal and lignite mining .....	12	160.2	159.1	151.2	152.4		130.5	129.6	123.0	123.7	
Oil and gas extraction .....	13	400.5	406.7	418.2	421.4	422.6	260.5	265.7	280.9	284.1	
Crude petroleum, natural gas, and natural gas liquids .....	131,2	204.3	205.6	199.6	200.4	-	101.0	101.6	100.6	101.4	
Oil and gas field services .....	138	196.2	201.1	218.6	221.0		159.5	164.1	180.3	182.7	
Nonmetallic minerals, except fuels .....	14	113.9	114.8	114.4	116.7		88.0	88.9	87.8	89.7	
Crushed and broken stone .....	142	41.3	41.9	42.3	43.2		33.0	33.6	33.5	34.2	
Sand and gravel .....	144	36.3	36.4	35.6	36.6		-	-	-	-	
Chemical and fertilizer minerals .....	147	16.6	16.8	17.1	17.2						
<b>Construction</b> .....		5,176	5,288	5,289	5,507	5,628	4,064	4,168	4,137	4,339	4,450
General building contractors .....	15	1,358.6	1,392.9	1,388.9	1,452.3	1,464.5	996.3	1,029.2	1,013.4	1,074.2	
Residential building construction .....	152	721.9	738.5	752.4	789.8	-	515.6	532.2	537.6	573.6	
Operative builders .....	153	57.8	58.1	52.8	54.9		29.6	29.4	24.8	26.3	
Nonresidential building construction .....	154	578.9	596.3	583.7	607.6		451.1	467.6	451.0	474.3	
Heavy construction contractors .....	16	821.2	829.8	808.5	834.5		694.1	702.0	683.0	706.9	
Highway and street construction .....	161	312.1	320.6	304.2	321.8		265.3	273.4	255.2	272.0	
Heavy construction, except highway .....	162	509.1	509.2	504.3	512.7		428.8	428.6	427.8	434.9	
Special trade contractors .....	17	2,996.3	3,064.9	3,091.2	3,220.4		2,373.2	2,437.2	2,440.7	2,557.9	
Plumbing, heating, and air conditioning .....	171	643.5	655.0	653.1	674.4		477.3	487.4	481.7	499.4	
Painting, paper hanging, and decorating .....	172	184.4	191.0	179.8	191.7		156.5	163.2	151.3	162.9	
Electrical work .....	173	527.3	542.6	556.4	575.5		406.7	421.0	430.2	446.5	
Masonry, stonework, and plastering .....	174	496.6	507.2	512.5	537.6		425.2	435.1	441.2	465.4	
Carpentering and flooring .....	175	192.3	198.4	188.9	195.0		149.6	155.6	146.0	152.9	
Roofing and sheet metal work .....	176	213.2	222.2	209.8	218.6		171.2	180.1	166.1	173.8	
<b>Manufacturing</b> .....		19,091	18,982	19,446	19,651	19,524	13,024	12,893	13,271	13,425	13,289
<b>Durable goods</b> .....		11,234	11,127	11,476	11,581	11,505	7,472	7,352	7,655	7,730	7,654
Lumber and wood products .....	24	753.9	759.5	756.0	775.9	774.4	631.4	637.4	630.6	648.6	645.9
Logging camps and logging contractors .....	241	87.0	90.9	84.6	93.6	-	72.4	76.5	70.2	78.3	-
Sawmills and planing mills .....	242	203.1	203.6	204.8	204.7		179.4	180.1	180.6	180.2	
Sawmills and planing mills, general .....	2421	165.7	166.9	167.3	167.1		146.3	147.6	147.5	147.0	
Hardwood dimension and flooring .....	2426	33.8	33.2	34.1	34.2		29.8	29.3	30.1	30.2	
Millwork, plywood, and structural members .....	243	266.9	268.3	265.5	271.6		221.2	222.2	218.7	224.1	
Millwork .....	2431	103.9	104.7	102.8	107.9		84.9	85.8	83.0	87.5	
Wood kitchen cabinets .....	2434	71.2	71.4	70.3	71.3		57.3	57.3	56.3	57.1	
Hardwood veneer and plywood .....	2435	23.8	23.9	24.4	24.7		21.0	20.8	21.3	21.7	
Softwood veneer and plywood .....	2436	38.3	38.5	38.5	37.3		34.9	35.1	34.9	33.7	
Wood containers .....	244	43.2	42.8	44.2	45.1		36.9	36.5	37.6	38.6	
Wood buildings and mobile homes .....	245	71.3	72.3	72.5	75.1		53.8	55.0	54.6	57.3	
Mobile homes .....	2451	47.2	48.0	48.7	50.5		38.1	39.0	39.4	41.3	
Miscellaneous wood products .....	249	82.4	81.6	84.4	85.8		67.7	67.1	68.9	70.1	

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>	June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>
<b>Durable goods—Continued</b>											
Furniture and fixtures .....	25	514.8	510.0	534.4	535.8	529.0	411.4	406.9	425.6	427.3	421.1
Household furniture .....	251	305.5	300.2	317.9	316.3	-	258.1	253.3	268.5	267.0	-
Wood household furniture .....	2511	137.8	135.7	144.3	144.2	-	120.6	118.6	125.9	125.8	-
Upholstered household furniture .....	2512	98.4	97.5	101.3	102.9	-	82.0	81.5	84.8	86.1	-
Metal household furniture .....	2514	26.5	23.6	28.2	26.3	-	21.7	18.9	23.1	20.9	-
Mattresses and bedsprings .....	2515	28.6	28.1	29.8	29.9	-	21.8	21.3	22.8	23.2	-
Office furniture .....	252	66.9	66.4	67.1	68.0	-	50.3	50.0	50.4	51.3	-
Public building and related furniture .....	253	28.4	28.8	30.2	30.7	-	21.7	22.0	23.3	23.8	-
Partitions and fixtures .....	254	74.8	75.6	77.3	78.0	-	54.0	54.4	55.6	56.2	-
Miscellaneous furniture and fixtures .....	259	39.2	39.0	41.9	42.8	-	27.3	27.2	27.8	29.0	-
Stone, clay, and glass products .....	32	592.4	589.2	591.3	599.8	598.1	459.8	456.1	461.2	469.0	466.8
Flat glass .....	321	15.2	15.2	14.6	15.0	-	11.9	11.9	11.4	11.8	-
Glass and glassware, pressed or blown .....	322	88.3	86.2	86.0	87.0	-	75.9	73.9	74.3	75.3	-
Glass containers .....	3221	45.7	45.2	43.7	44.5	-	41.1	40.7	39.6	40.5	-
Pressed and blown glass, nec .....	3229	42.6	41.0	42.3	42.5	-	34.8	33.2	34.7	34.8	-
Products of purchased glass .....	323	50.5	50.5	51.5	52.3	-	35.7	35.6	38.3	39.1	-
Cement, hydraulic .....	324	21.4	21.4	20.3	20.7	-	16.7	16.7	15.6	15.9	-
Structural clay products .....	325	38.3	37.9	38.8	39.3	-	30.1	29.6	30.6	30.8	-
Pottery and related products .....	326	36.5	36.1	37.8	38.5	-	29.2	28.7	30.3	31.0	-
Concrete, gypsum, and plaster products .....	327	218.0	218.7	216.2	219.4	-	170.2	170.6	167.7	170.2	-
Concrete block and brick .....	3271	20.5	20.7	20.6	21.0	-	13.8	14.0	13.6	13.8	-
Concrete products, nec .....	3272	72.1	71.7	72.8	73.9	-	55.4	55.0	55.4	56.2	-
Ready-mixed concrete .....	3273	105.8	106.7	103.9	105.5	-	86.0	86.6	84.1	85.4	-
Misc. nonmetallic mineral products .....	329	111.3	110.8	112.7	114.2	-	80.0	79.6	82.4	84.3	-
Abrasive products .....	3291	21.8	21.5	21.8	22.1	-	14.7	14.6	15.0	15.4	-
Asbestos products .....	3292	8.9	8.7	8.7	8.9	-	6.9	6.7	6.5	6.7	-
Mineral wool .....	3296	25.1	25.0	24.1	24.4	-	-	-	-	-	-
Primary metal industries .....	33	750.8	741.5	778.4	785.8	779.3	564.7	555.5	595.7	602.5	595.7
Blast furnaces and basic steel products .....	331	272.3	272.3	281.0	283.0	283.3	206.0	205.8	217.7	220.0	220.0
Blast furnaces and steel mills .....	3312	206.3	206.7	212.1	213.1	-	157.2	157.6	165.7	166.9	-
Steel pipe and tubes .....	3317	23.4	23.4	25.1	25.5	-	17.0	16.9	19.0	19.4	-
Iron and steel foundries .....	332	130.1	128.2	138.1	140.2	-	102.4	100.2	110.8	112.8	-
Gray iron foundries .....	3321	80.9	78.7	84.6	85.6	-	65.8	63.4	69.3	70.4	-
Malleable iron foundries .....	3322	8.8	8.7	9.2	9.4	-	6.3	6.1	6.9	7.1	-
Steel foundries, nec .....	3325	26.6	27.0	30.3	30.9	-	19.8	20.2	23.6	24.1	-
Primary nonferrous metals .....	333	39.3	39.8	41.4	41.6	-	27.8	28.2	30.6	30.8	-
Primary aluminum .....	3334	20.8	21.1	22.2	22.3	-	14.7	14.9	16.7	16.8	-
Nonferrous rolling and drawing .....	335	181.0	178.5	184.6	186.0	-	128.9	126.6	132.5	133.6	-
Copper rolling and drawing .....	3351	23.4	23.1	24.5	24.6	-	18.2	17.9	18.8	18.8	-
Aluminum sheet, plate, and foil .....	3353	28.3	28.2	27.8	27.7	-	20.7	20.5	19.4	19.3	-
Nonferrous wire drawing and insulating .....	3357	77.5	75.7	80.0	81.0	-	54.1	52.5	57.6	58.6	-
Nonferrous foundries .....	336	85.9	81.1	88.9	90.1	-	68.8	64.2	71.3	72.4	-
Aluminum foundries .....	3361	53.2	50.0	54.7	55.6	-	43.3	40.2	44.6	45.4	-
Fabricated metal products .....	34	1,406.6	1,387.9	1,447.8	1,462.0	1,447.4	1,044.2	1,025.8	1,078.5	1,091.3	1,078.6
Metal cans and shipping containers .....	341	56.5	56.3	55.3	55.4	-	48.4	48.1	47.1	47.5	-
Metal cans .....	3411	45.7	45.5	44.2	44.4	-	39.8	39.5	38.1	38.5	-
Cutlery, hand tools, and hardware .....	342	133.2	130.2	134.9	134.5	-	98.1	95.1	100.2	99.8	-
Hand and edge tools, and hand saws and blades .....	3423.5	45.4	44.9	46.8	46.5	-	33.3	32.8	34.2	33.9	-
Hardware, nec .....	3429	76.9	74.7	77.0	76.9	-	57.5	55.3	58.4	58.3	-
Plumbing and heating, except electric .....	343	60.3	59.9	62.1	63.4	-	43.2	42.6	44.3	45.8	-
Plumbing fittings and brass goods .....	3432	24.7	24.7	25.9	26.3	-	18.0	17.9	18.8	19.2	-
Heating equipment, except electric .....	3433	24.6	24.3	24.3	25.0	-	16.7	16.4	16.4	17.2	-
Fabricated structural metal products .....	344	428.1	428.3	435.9	443.3	-	304.8	305.9	313.1	319.4	-
Fabricated structural metal .....	3441	77.5	77.1	78.2	79.2	-	55.2	55.0	56.1	57.1	-
Metal doors, sash, and trim .....	3442	93.1	94.2	92.9	96.0	-	69.7	70.7	68.4	71.2	-
Fabricated plate work (boiler shops) .....	3443	85.5	84.6	90.2	91.6	-	54.5	53.7	60.2	61.3	-
Sheet metal work .....	3444	109.5	109.6	112.5	113.2	-	82.0	82.5	84.9	85.3	-
Architectural metal work .....	3446	30.4	30.4	30.5	31.2	-	22.1	22.3	22.7	23.2	-

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>P</sup>	July 1988 <sup>P</sup>	June 1987	July 1987	May 1988	June 1988 <sup>P</sup>	July 1988 <sup>P</sup>
<b>Durable goods—Continued</b>											
Fabricated metal products—Continued											
Screw machine products, bolts, etc .....	345	92.3	90.7	97.4	98.1		70.5	68.8	74.6	75.7	
Screw machine products .....	3451	46.1	45.5	50.3	50.7		37.5	37.0	41.2	41.9	
Bolts, nuts, rivets, and washers .....	3452	46.2	45.2	47.1	47.4		33.0	31.8	33.4	33.8	
Metal forgings and stampings .....	346	232.5	223.3	235.8	238.3		185.0	176.1	187.5	190.0	
Iron and steel forgings .....	3462	29.7	29.0	30.2	30.5		22.8	22.1	23.2	23.5	
Automotive stampings .....	3465	96.9	90.2	96.2	96.5		82.4	76.2	81.8	82.4	
Metal stampings, nec .....	3469	94.8	93.2	98.0	99.8		71.8	70.0	74.1	75.6	
Metal services, nec .....	347	112.0	110.3	117.7	118.9		89.3	87.9	94.6	95.6	
Plating and polishing .....	3471	72.7	71.1	76.3	77.1		58.4	57.0	61.7	62.4	
Metal coating and allied services .....	3479	39.3	39.2	41.4	41.8		30.9	30.9	32.9	33.2	
Ordnance and accessories, nec .....	348	77.7	76.3	78.6	78.7		49.1	47.5	49.2	49.1	
Ammunition, except for small arms, nec .....	3483	43.7	42.0	43.2	43.2		26.2	24.3	24.2	24.0	
Misc. fabricated metal products .....	349	214.0	212.6	230.1	231.4		155.8	153.8	167.9	168.4	
Valves and pipe fittings .....	3494	78.7	78.6	86.1	86.8		53.0	52.5	58.5	58.6	
Misc. fabricated wire products .....	3496	52.0	51.5	55.4	55.4		39.6	39.1	42.7	42.6	
Machinery, except electrical .....	35	2,022.8	2,011.9	2,125.1	2,145.9	2,150.1	1,199.0	1,185.5	1,273.0	1,282.2	1,283.4
Engines and turbines .....	351	87.9	87.3	86.7	87.5	-	55.9	55.2	57.8	58.3	-
Turbines and turbine generator sets .....	3511	25.7	24.6	22.2	22.3		13.9	12.7	12.7	13.0	
Internal combustion engines, nec .....	3519	62.2	62.7	64.5	65.2		42.0	42.5	45.1	45.3	
Farm and garden machinery .....	352	94.1	92.3	106.0	104.8		63.1	61.3	75.3	74.2	
Farm machinery and equipment .....	3523	69.2	69.4	75.3	76.2		44.3	44.4	51.2	51.9	
Construction and related machinery .....	353	212.4	212.5	231.6	235.5		126.8	126.2	141.9	143.4	
Construction machinery .....	3531	78.1	78.7	83.2	85.8		46.8	47.2	52.3	52.6	
Mining machinery .....	3532	17.1	17.0	18.2	18.4		10.3	10.3	11.1	11.2	
Oil field machinery .....	3533	36.8	36.4	44.4	44.4		21.8	21.4	27.0	26.9	
Conveyors and conveying equipment .....	3535	32.5	32.5	33.3	33.6		17.0	16.9	17.7	18.1	
Industrial trucks and tractors .....	3537	24.5	24.4	26.6	26.9		17.2	16.9	18.3	18.6	
Metalworking machinery .....	354	288.2	284.7	297.0	299.1		206.2	203.0	212.4	214.4	
Machine tools, metal cutting types .....	3541	45.1	44.8	45.9	46.1		28.2	27.9	29.0	29.2	
Machine tools, metal forming types .....	3542	17.0	16.6	17.3	17.5		10.6	10.3	11.1	11.2	
Special dies, tools, jigs, and fixtures .....	3544	136.9	135.0	140.7	141.0		104.9	103.2	107.6	107.9	
Machine tool accessories .....	3545	51.4	51.1	54.9	55.7		36.5	36.1	38.9	39.7	
Power driven hand tools .....	3546	20.5	20.2	20.5	20.6		15.2	14.8	14.9	15.0	
Special industry machinery .....	355	161.4	160.8	171.1	172.3		95.9	95.2	102.6	103.7	
Food products machinery .....	3551	37.6	37.7	40.2	40.3		22.7	22.7	24.3	24.4	
Textile machinery .....	3552	19.8	19.4	21.0	21.1		13.4	12.8	14.0	14.1	
Printing trades machinery .....	3555	26.5	26.8	28.5	28.7		15.4	15.7	17.1	17.5	
General industrial machinery .....	356	247.3	245.6	255.4	258.0		158.0	156.0	165.1	166.6	
Pumps and pumping equipment .....	3561	43.6	43.4	45.2	45.5		25.0	25.0	26.4	26.6	
Ball and roller bearings .....	3562	41.6	40.9	42.4	42.9		31.9	31.3	33.0	33.3	
Air and gas compressors .....	3563	20.8	20.5	20.8	21.2		11.3	11.5	12.2	12.4	
Blowers and fans .....	3564	29.7	29.7	30.4	30.4		19.2	19.1	19.6	19.5	
Speed changers, drives, and gears .....	3566	19.4	19.2	20.1	20.2		13.4	13.0	14.0	13.9	
Power transmission equipment, nec .....	3568	15.7	16.1	17.4	17.7		10.3	10.4	11.8	11.9	
Office and computing machines .....	357	483.8	484.9	507.2	514.8		161.8	162.2	167.9	168.8	
Electronic computing equipment .....	3573	430.8	431.9	452.9	459.7		136.4	137.1	141.3	142.5	
Refrigeration and service machinery .....	358	177.2	175.1	182.1	183.1		126.9	124.6	131.5	132.2	
Refrigeration and heating equipment .....	3585	126.4	125.0	130.5	131.3		92.8	91.3	96.7	97.4	
Misc. machinery, except electrical .....	359	270.5	268.7	288.0	290.8		204.4	201.8	218.5	220.6	
Carburetors, pistons, rings, and valves .....	3592	31.4	30.2	32.2	32.3		25.5	24.1	25.7	25.8	
Machinery, except electrical, nec .....	3599	239.1	238.5	255.8	258.5		178.9	177.7	192.8	194.8	
Electrical and electronic equipment .....	36	2,071.9	2,064.3	2,106.6	2,125.9	2,115.1	1,212.7	1,204.4	1,239.2	1,250.7	1,245.4
Electric distributing equipment .....	361	107.4	106.9	108.9	109.9	-	77.7	77.2	78.1	78.5	-
Transformers .....	3612	48.4	48.4	49.6	49.6		35.3	35.3	35.7	35.6	
Switchgear and switchboard apparatus .....	3613	59.0	58.5	59.3	60.3		42.4	41.9	42.4	42.9	
Electrical industrial apparatus .....	362	181.2	180.1	186.0	188.3		123.8	122.9	129.4	131.2	
Motors and generators .....	3621	86.8	86.0	89.3	90.5		66.1	65.7	69.9	70.9	
Industrial controls .....	3622	60.1	59.8	61.4	62.2		34.3	33.8	35.8	36.3	
Household appliances .....	363	135.6	134.5	134.3	135.9		107.3	106.8	107.1	108.8	
Household refrigerators and freezers .....	3632	28.8	28.8	29.5	29.7		23.4	23.4	23.9	24.5	
Household laundry equipment .....	3633	22.6	22.5	22.6	22.7		17.8	17.7	18.3	18.3	
Electric housewares and fans .....	3634	34.9	34.4	35.3	35.8		26.8	26.3	27.7	28.1	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
<b>Electrical and electronic equipment—Continued</b>											
Electric lighting and wiring equipment .....	364	191.2	188.1	192.3	193.1		139.0	136.0	139.7	140.3	
Electric lamps .....	3641	25.4	25.6	25.6	25.6		21.8	21.9	21.9	22.0	
Current-carrying wiring devices .....	3643	76.8	75.1	75.7	75.8		51.1	49.6	50.1	50.0	
Noncurrent-carrying wiring devices .....	3644	15.2	14.6	15.5	15.8		11.2	10.5	11.4	11.7	
Residential lighting fixtures .....	3645	26.0	25.6	26.7	27.0		19.5	19.1	20.0	20.2	
Radio and TV receiving equipment .....	365	80.6	79.0	80.3	81.4		54.4	52.8	55.1	55.5	
Radio and TV receiving sets .....	3651	60.6	58.9	60.4	61.1		39.9	38.2	40.0	40.1	
Communication equipment .....	366	605.4	605.1	598.5	600.2		254.0	253.3	251.7	252.6	
Telephone and telegraph apparatus .....	3661	117.1	116.8	117.8	118.2		67.9	67.3	70.0	70.6	
Radio and TV communication equipment .....	3662	488.3	488.3	480.7	482.0		186.1	186.0	181.7	182.0	
Electronic components and accessories .....	367	623.0	624.3	655.7	664.9		354.2	353.7	372.2	376.5	
Electronic tubes .....	3671-3	38.4	37.7	38.4	39.2		24.4	23.8	24.9	25.0	
Semiconductors and related devices .....	3674	245.5	246.7	261.5	265.7		94.5	94.8	102.9	104.6	
Electronic components, nec .....	3679	267.5	268.1	278.8	281.7		181.5	181.2	187.5	188.9	
Misc. electrical equipment and supplies .....	369	147.5	146.3	150.6	152.2		102.3	101.7	105.9	107.3	
Storage batteries .....	3691	26.8	26.3	28.5	29.1		20.9	20.4	21.4	22.1	
Engine electrical equipment .....	3694	65.0	64.7	66.6	67.1		48.9	48.9	50.9	51.3	
Transportation equipment .....	37	2,052.5	2,006.6	2,048.1	2,050.5	2,023.0	1,298.4	1,242.7	1,282.8	1,282.2	1,249.6
Motor vehicles and equipment .....	371	875.4	826.0	853.1	856.6	838.6	682.9	633.0	664.9	667.6	647.3
Motor vehicles and car bodies .....	3711	389.5	350.3	360.6	359.8	-	294.7	254.9	270.8	269.7	-
Truck and bus bodies .....	3713	43.9	43.9	43.5	44.0	-	34.8	34.7	33.9	34.5	-
Motor vehicle parts and accessories .....	3714	392.7	382.4	397.1	399.9	-	315.1	304.6	319.3	321.5	-
Truck trailers .....	3715	31.2	31.6	32.3	32.8	-	24.2	24.7	25.4	26.0	-
Aircraft and parts .....	372	697.0	702.4	695.6	698.6	-	348.1	346.7	339.2	340.6	-
Aircraft .....	3721	351.7	359.3	365.8	368.6	-	156.3	157.9	160.6	162.2	-
Aircraft engines and engine parts .....	3724	157.3	156.5	150.4	150.1	-	80.4	78.7	74.0	73.9	-
Aircraft equipment, nec .....	3728	188.0	186.6	179.4	179.9	-	111.4	110.1	104.6	104.5	-
Ship and boat building and repairing .....	373	185.8	184.3	199.9	196.5	-	138.5	137.1	152.2	148.5	-
Ship building and repairing .....	3731	122.8	122.1	131.3	128.4	-	87.3	86.8	96.0	92.8	-
Boat building and repairing .....	3732	63.0	62.2	68.6	68.1	-	51.2	50.3	56.2	55.7	-
Railroad equipment .....	374	26.6	26.7	30.5	31.0	-	18.0	18.2	22.2	22.6	-
Guided missiles, space vehicles, and parts .....	376	203.1	204.1	204.7	205.0	-	66.8	65.0	60.4	60.5	-
Guided missiles and space vehicles .....	3761	153.1	154.9	152.9	153.1	-	48.1	47.7	42.6	42.6	-
Miscellaneous transportation equipment .....	379	52.5	51.5	52.0	51.9	-	35.5	34.6	35.3	35.0	-
Travel trailers and campers .....	3792	20.4	19.9	20.6	20.6	-	15.9	15.4	16.2	16.2	-
Instruments and related products .....	38	696.9	694.4	707.6	714.5	712.4	378.8	375.4	390.6	395.2	393.4
Engineering and scientific instruments .....	381	83.2	82.8	85.4	86.0	-	37.6	37.3	39.7	40.0	-
Measuring and controlling devices .....	382	238.4	236.9	235.0	235.9	-	133.0	131.8	133.3	134.3	-
Environmental controls .....	3822	41.4	40.8	41.5	41.3	-	26.7	26.0	27.3	27.2	-
Process control instruments .....	3823	52.9	52.9	52.6	53.5	-	27.5	27.4	28.1	29.0	-
Instruments to measure electricity .....	3825	103.1	102.3	100.9	101.0	-	51.4	50.6	50.7	50.8	-
Optical instruments and lenses .....	383	33.7	33.7	34.3	34.8	-	16.6	16.7	17.3	17.7	-
Medical instruments and supplies .....	384	185.6	185.5	196.9	199.9	-	111.1	110.0	120.1	121.9	-
Surgical and medical instruments .....	3841	92.8	92.0	96.3	97.6	-	53.3	52.3	56.0	56.7	-
Surgical appliances and supplies .....	3842	79.0	79.6	86.0	87.3	-	50.0	49.8	55.8	56.6	-
Ophthalmic goods .....	385	37.3	36.6	38.4	38.8	-	25.5	25.0	26.3	26.6	-
Photographic equipment and supplies .....	386	107.3	107.7	107.0	108.4	-	46.7	46.6	46.1	46.8	-
Watches, clocks, and watchcases .....	387	11.4	11.2	10.6	10.7	-	8.3	8.0	7.8	7.9	-
Miscellaneous manufacturing .....	39	371.0	361.2	361.1	365.1	376.4	271.2	262.6	278.2	281.3	273.9
Jewelry, silverware, and plated ware .....	391	53.5	50.5	55.0	55.4	-	37.1	34.8	38.2	39.0	-
Jewelry, precious metal .....	3911	37.6	35.0	38.8	39.1	-	25.9	23.9	26.9	27.4	-
Musical instruments .....	393	12.2	11.8	12.5	12.5	-	10.1	9.7	10.5	10.4	-
Toys and sporting goods .....	394	97.0	95.4	104.5	105.6	-	73.1	71.5	78.9	79.1	-
Dolls, games, toys, and children's vehicles .....	3942,4	44.2	43.1	46.5	47.0	-	32.7	31.7	34.1	34.2	-
Sporting and athletic goods, nec .....	3949	52.8	52.3	58.0	58.6	-	40.4	39.8	44.8	44.9	-
Pens, pencils, office, and art supplies .....	395	33.2	32.4	33.8	34.1	-	23.1	22.6	23.8	24.3	-
Costume jewelry and notions .....	396	41.5	38.7	39.2	39.8	-	32.6	29.7	30.1	30.8	-
Costume jewelry .....	3961	22.1	19.6	20.4	20.8	-	17.3	14.9	15.7	16.0	-
Miscellaneous manufactures .....	399	133.6	132.4	136.1	137.7	-	95.2	94.3	96.7	97.7	-
Signs and advertising displays .....	3993	57.7	57.6	59.5	60.0	-	39.6	39.9	40.9	41.3	-

See footnotes at end of table.

**ESTABLISHMENT DATA  
EMPLOYMENT  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1972 SIC Code	All employees					Production workers <sup>1</sup>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Nondurable goods</b> .....		7,857	7,855	7,970	8,070	8,019	5,552	5,541	5,616	5,695	5,635
Food and kindred products .....	20	1,624.2	1,667.4	1,603.3	1,650.9	1,684.6	1,146.8	1,166.8	1,125.8	1,168.1	1,197.9
Meat products .....	201	382.7	387.2	391.4	397.3	-	323.6	327.5	330.8	336.7	-
Meat packing plants .....	2011	133.3	134.2	140.9	142.1	-	111.2	112.2	118.0	118.9	-
Sausages and other prepared meats .....	2013	79.8	80.5	79.3	80.5	-	58.8	59.0	58.1	59.4	-
Poultry dressing plants .....	2016	148.4	151.3	151.7	154.0	-	134.4	137.0	137.4	140.0	-
Dairy products .....	202	166.3	167.2	164.6	169.5	-	102.6	103.0	99.7	103.6	-
Cheese, natural and processed .....	2022	42.5	42.7	42.4	43.9	-	32.6	32.8	32.3	33.7	-
Fluid milk .....	2026	81.4	81.8	80.9	82.1	-	41.3	41.3	40.0	41.0	-
Preserved fruits and vegetables .....	203	242.1	273.7	222.9	241.6	-	198.3	229.2	178.7	196.7	-
Canned specialties .....	2032	22.5	23.7	23.1	23.3	-	15.4	16.5	16.1	16.3	-
Canned fruits and vegetables .....	2033	77.2	102.1	67.9	75.6	-	63.4	87.2	53.8	61.1	-
Frozen fruits and vegetables .....	2037	53.4	54.4	45.1	50.1	-	46.9	48.5	39.2	44.3	-
Grain mill products .....	204	125.3	124.7	130.0	132.1	-	85.8	85.4	89.8	91.5	-
Flour and other grain mill products .....	2041	22.7	22.7	23.5	24.0	-	15.2	15.2	16.0	16.5	-
Prepared feeds, nec .....	2048	42.2	42.0	43.8	44.4	-	26.6	26.5	27.4	28.0	-
Bakery products .....	205	208.9	210.1	205.5	207.8	-	126.9	128.1	124.6	126.7	-
Bread, cake, and related products .....	2051	164.1	164.3	160.7	162.2	-	90.7	91.2	90.1	91.6	-
Cookies and crackers .....	2052	44.8	45.8	44.8	45.6	-	36.2	36.9	34.5	35.1	-
Sugar and confectionery products .....	206	86.9	85.3	88.9	91.3	-	67.1	65.6	69.0	71.0	-
Cane and beet sugar .....	2061-3	18.5	17.1	19.6	19.4	-	14.0	12.8	15.0	14.8	-
Confectionery products .....	2065	48.8	48.3	50.7	52.4	-	39.8	39.4	41.6	43.1	-
Fats and oils .....	207	33.6	33.5	34.1	34.0	-	23.6	23.6	25.2	25.0	-
Beverages .....	208	207.8	208.9	199.1	202.8	-	90.6	90.6	84.0	86.2	-
Malt beverages .....	2082	41.0	41.3	40.0	39.9	-	26.0	26.1	24.5	24.3	-
Bottled and canned soft drinks .....	2086	122.7	123.4	118.2	120.8	-	41.0	41.1	39.3	41.0	-
Misc. food and kindred products .....	209	170.6	176.8	166.8	174.5	-	128.1	133.8	124.0	130.7	-
Tobacco manufactures .....	21	51.4	51.4	49.2	49.7	49.5	37.9	38.2	36.2	36.6	36.3
Cigarettes .....	211	40.0	40.4	37.6	38.5	-	29.7	30.3	28.2	29.0	-
Textile mill products .....	22	727.7	717.1	728.6	730.6	715.8	631.9	622.6	631.6	633.4	619.3
Weaving mills, cotton .....	221	100.2	100.2	100.6	99.6	-	90.5	90.6	91.2	90.3	-
Weaving mills, synthetics .....	222	87.1	86.8	91.6	92.5	-	77.5	77.4	81.1	81.9	-
Weaving and finishing mills, wool .....	223	18.5	16.4	19.5	19.6	-	15.2	13.3	16.0	16.1	-
Narrow fabric mills .....	224	23.2	22.3	24.7	24.7	-	20.1	19.2	21.1	21.1	-
Knitting mills .....	225	216.2	213.2	208.9	209.7	-	189.9	187.1	184.7	185.2	-
Women's hosiery, except socks .....	2251	36.1	35.7	33.4	33.6	-	32.3	31.9	30.6	30.9	-
Hosiery, nec .....	2252	35.7	35.6	35.2	35.3	-	32.0	32.0	31.7	31.8	-
Knit outerwear mills .....	2253	73.0	71.7	70.0	70.0	-	65.0	63.9	62.4	62.3	-
Knit underwear mills .....	2254	26.3	25.6	25.6	25.7	-	22.3	21.6	21.7	21.7	-
Circular knit fabric mills .....	2257	26.0	25.8	25.5	25.7	-	22.7	22.5	22.4	22.4	-
Textile finishing, except wool .....	226	60.4	58.7	58.8	58.8	-	50.6	49.2	48.7	48.7	-
Finishing plants, cotton .....	2261	24.0	23.0	24.1	24.1	-	20.3	19.4	19.9	19.9	-
Finishing plants, synthetics .....	2262	22.5	21.8	21.2	21.1	-	18.2	17.7	17.1	17.0	-
Floor covering mills .....	227	57.8	57.7	58.3	58.8	-	46.7	46.8	46.5	47.4	-
Yarn and thread mills .....	228	111.1	109.3	111.4	112.0	-	99.6	98.1	99.6	100.0	-
Yarn mills, except wool .....	2281	81.8	81.1	82.6	83.1	-	74.2	73.5	74.7	75.1	-
Throwing and winding mills .....	2282	15.5	15.4	15.0	15.1	-	13.8	13.7	13.2	13.2	-
Miscellaneous textile goods .....	229	53.2	52.5	54.8	54.9	-	41.8	40.9	42.7	42.7	-
Apparel and other textile products .....	23	1,109.0	1,081.0	1,103.0	1,106.9	1,055.6	932.9	906.2	928.0	931.6	880.7
Men's and boys' suits and coats .....	231	58.4	57.6	58.4	58.7	-	49.8	49.4	50.4	50.6	-
Men's and boys' furnishings .....	232	308.4	305.6	312.4	314.8	-	266.3	263.6	269.4	271.6	-
Men's and boys' shirts and nightwear .....	2321	87.0	85.7	85.2	85.8	-	74.7	73.6	72.9	73.6	-
Men's and boys' separate trousers .....	2327	49.1	48.0	49.9	50.0	-	42.9	42.0	43.5	43.6	-
Men's and boys' work clothing .....	2328	95.2	94.8	96.2	97.4	-	83.3	82.8	84.2	85.0	-
Women's and misses' outerwear .....	233	358.3	341.7	350.7	350.5	-	299.8	284.0	293.5	292.7	-
Women's and misses' blouses and waists .....	2331	46.9	46.4	44.6	45.3	-	38.9	38.5	36.9	37.3	-
Women's and misses' dresses .....	2335	84.4	77.6	82.3	83.0	-	71.1	64.5	68.5	69.2	-
Women's and misses' suits and coats .....	2337	43.0	42.0	41.2	42.2	-	35.5	34.7	33.6	34.5	-
Women's and misses' outerwear, nec .....	2339	184.0	175.7	182.6	180.0	-	154.3	146.3	154.5	151.7	-

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Apparel and other textile products—Continued											
Women's and children's undergarments .....	234	73.2	71.8	71.1	71.2		60.1	58.6	58.7	59.0	
Women's and children's underwear .....	2341	59.6	58.7	57.9	58.2		50.6	49.6	49.6	50.0	
Brassieres and allied garments .....	2342	13.6	13.1	13.2	13.0		9.5	9.0	9.1	9.0	
Children's outerwear .....	236	60.1	59.3	56.2	57.1		50.4	49.5	47.3	48.3	
Children's dresses and blouses .....	2361	25.1	25.1	23.6	23.7		22.0	22.0	20.5	20.7	
Misc. apparel and accessories .....	238	42.3	40.7	42.4	42.7		35.5	34.0	35.2	35.3	
Misc. fabricated textile products .....	239	190.0	186.3	194.0	193.9		156.5	152.8	159.4	159.9	
Curtains and draperies .....	2391	25.4	25.1	25.1	25.2		20.6	20.4	20.6	20.6	
House furnishings, nec .....	2392	51.4	51.8	53.2	53.2		43.6	43.8	45.1	45.2	
Automotive and apparel trimmings .....	2396	39.9	37.8	39.5	39.4		33.6	31.5	32.6	32.8	
Paper and allied products .....	26	683.5	679.1	687.0	697.0	691.5	519.6	515.6	519.3	528.1	523.3
Paper and pulp mills .....	261,2,6	192.5	190.5	191.9	195.7	-	146.4	144.9	145.9	149.7	-
Paper mills, except building paper .....	262	168.6	167.1	168.1	171.9		127.6	126.5	127.2	130.8	
Paperboard mills .....	263	54.6	54.5	53.4	54.3		41.0	40.9	40.5	41.2	
Misc. converted paper products .....	264	233.0	232.4	234.0	237.1		173.8	172.8	171.5	174.1	
Paper coating and glazing .....	2641	59.1	58.9	58.4	59.0		38.2	38.2	36.0	36.3	
Envelopes .....	2642	27.0	26.5	27.2	27.5		20.9	20.3	20.8	21.0	
Bags, except textile bags .....	2643	51.8	51.7	53.0	53.5		41.0	40.8	41.4	41.9	
Paperboard containers and boxes .....	265	203.4	201.7	207.7	209.9		158.4	157.0	161.4	163.1	
Folding paperboard boxes .....	2651	45.0	44.0	45.6	46.0		35.7	34.7	36.3	36.6	
Corrugated and solid fiber boxes .....	2653	110.1	109.5	112.3	113.4		83.6	83.3	84.5	85.4	
Sanitary food containers .....	2654	22.8	23.0	23.5	24.0		19.7	19.8	20.1	20.5	
Printing and publishing .....	27	1,506.6	1,506.3	1,557.1	1,565.6	1,564.6	840.8	837.7	873.9	875.9	871.0
Newspapers .....	271	469.2	469.8	476.1	479.5	-	171.6	170.3	171.7	172.0	-
Periodicals .....	272	120.6	122.0	126.5	127.0		45.0	45.3	46.1	45.7	
Books .....	273	111.9	110.4	113.4	114.1		60.3	58.6	61.6	61.6	
Book publishing .....	2731	83.2	82.1	84.6	85.1		37.8	36.4	38.4	38.2	
Book printing .....	2732	28.7	28.3	28.8	29.0		22.5	22.2	23.2	23.4	
Miscellaneous publishing .....	274	78.3	78.5	81.6	82.6		42.4	42.0	42.4	42.6	
Commercial printing .....	275	526.9	526.0	551.7	552.5		380.0	380.4	402.9	403.2	
Commercial printing, letterpress .....	2751	163.3	163.1	170.5	170.4		117.3	117.1	121.8	122.0	
Commercial printing, lithographic .....	2752	336.0	335.5	351.1	352.5		240.7	241.4	257.0	257.4	
Manifold business forms .....	276	49.4	49.2	51.1	51.5		34.2	33.9	35.1	35.2	
Blankbooks and bookbinding .....	278	73.3	73.2	77.9	78.8		58.8	58.8	61.9	62.7	
Printing trade services .....	279	53.1	53.1	55.4	55.8		39.8	39.7	40.8	41.1	
Chemicals and allied products .....	28	1,020.7	1,031.6	1,057.9	1,072.1	1,077.1	573.5	578.7	595.3	604.2	604.4
Industrial inorganic chemicals .....	281	130.0	129.7	132.5	133.9		67.5	67.0	67.2	67.6	-
Industrial inorganic chemicals, nec .....	2819	86.4	86.0	89.1	89.8		48.4	47.8	48.4	48.7	
Plastics materials and synthetics .....	282	158.0	168.0	168.6	171.1		104.0	110.3	110.8	112.3	
Plastics materials and resins .....	2821	76.4	76.7	77.7	79.4		45.2	45.2	45.9	46.8	
Organic fibers, noncellulosic .....	2824	54.3	64.0	63.6	64.4		38.7	45.0	44.9	45.6	
Drugs .....	283	215.8	216.7	226.5	230.7		99.7	99.5	102.1	103.3	
Pharmaceutical preparations .....	2834	171.1	171.3	180.3	183.1		77.4	77.0	79.6	79.9	
Soap, cleaners, and toilet goods .....	284	154.0	153.9	161.9	165.0		98.7	98.1	104.3	107.6	
Soap and other detergents .....	2841	44.2	44.6	44.7	45.4		27.9	28.1	27.7	28.2	
Polishing, sanitation, and finishing preparations .....	2842,3	41.0	41.1	43.0	43.1		22.9	22.9	24.8	25.0	
Toilet preparations .....	2844	68.8	68.2	74.2	76.5		47.9	47.1	51.8	54.4	
Paints and allied products .....	285	63.2	63.5	61.9	62.8		31.4	31.6	30.3	31.3	
Industrial organic chemicals .....	286	151.1	151.7	154.8	156.4		84.7	85.4	89.5	90.6	
Cyclic crudes and intermediates .....	2865	28.8	28.9	29.6	30.0		18.7	18.7	18.3	18.6	
Gum, wood, and industrial organic chemicals, nec .....	2861,9	122.3	122.8	125.2	126.4		66.0	66.7	71.2	72.0	
Agricultural chemicals .....	287	51.8	50.9	53.7	53.3		32.4	31.7	34.6	34.3	
Miscellaneous chemical products .....	289	96.8	97.2	98.0	98.9		55.1	55.1	56.5	57.2	
Petroleum and coal products .....	29	167.8	168.1	167.2	169.4	170.7	110.4	110.4	108.9	110.5	112.5
Petroleum refining .....	291	127.3	127.8	127.4	128.6	-	81.3	81.7	81.1	82.2	-
Paving and roofing materials .....	295	28.2	27.9	27.1	27.6		22.0	21.6	20.7	21.2	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>o</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>o</sup>	July 1988 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Rubber and misc. plastics products .....	30	821.2	812.6	870.1	879.8	871.7	636.7	627.5	676.2	684.6	677.2
Tires and inner tubes .....	301	85.6	85.8	86.1	87.3	-	61.4	61.2	61.7	62.5	-
Rubber and plastics footwear .....	302	10.9	10.9	13.1	12.7	-	8.9	8.9	10.9	10.5	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	22.2	22.1	24.0	24.6	-	15.8	15.8	17.8	18.3	-
Fabricated rubber products, nec .....	306	103.4	101.8	108.5	109.3	-	78.9	77.4	83.3	84.2	-
Miscellaneous plastics products .....	307	599.1	592.0	638.4	645.9	-	471.7	464.2	502.5	509.1	-
Leather and leather products .....	31	144.4	139.9	146.3	147.9	137.4	121.5	117.4	120.8	122.0	112.7
Leather tanning and finishing .....	311	14.5	13.7	14.3	14.5	-	12.0	11.3	11.9	12.0	-
Footwear, except rubber .....	314	85.9	83.7	86.7	88.1	-	74.1	72.4	74.1	74.9	-
Men's footwear, except athletic .....	3143	36.9	36.8	38.5	39.2	-	30.0	30.2	31.1	31.5	-
Women's footwear, except athletic .....	3144	31.8	30.4	29.7	30.4	-	28.1	26.8	26.3	26.8	-
Luggage .....	316	10.5	10.3	11.5	11.7	-	7.6	7.2	7.9	8.2	-
Handbags and personal leather goods .....	317	15.8	15.4	15.9	15.5	-	13.2	12.7	12.2	12.0	-
<b>Transportation and public utilities .....</b>		<b>5,398</b>	<b>5,377</b>	<b>5,559</b>	<b>5,611</b>	<b>5,593</b>	<b>4,481</b>	<b>4,456</b>	<b>4,611</b>	<b>4,656</b>	<b>4,640</b>
Transportation .....		3,175	3,134	3,315	3,348	3,322					
Railroad transportation .....	40	313.8	314.5	303.1	306.3						
Class I railroads <sup>2</sup> .....	4011	275.9	276.2	262.1	264.4						
Local and interurban passenger transit .....	41	294.7	243.9	321.0	306.6		272.7	221.4	296.3	282.2	
Local and suburban transportation .....	411	109.1	108.2	114.5	115.5		99.5	98.7	104.4	105.3	
Taxicabs .....	412	33.7	33.2	33.3	32.6		-	-	-	-	
Intercity highway transportation .....	413	31.3	31.5	31.2	31.1		28.4	28.6	28.3	28.0	
School buses .....	415	98.0	49.3	117.1	102.6		-	-	-	-	
Trucking and warehousing .....	42	1,459.6	1,468.5	1,521.7	1,550.2		1,270.4	1,278.8	1,323.6	1,351.5	
Trucking and trucking terminals .....	421,3	1,356.0	1,364.7	1,411.7	1,439.6		1,183.9	1,192.1	1,231.8	1,259.0	
Public warehousing .....	422	103.6	103.8	110.0	110.6		86.5	86.7	91.8	92.5	
Water transportation .....	44	183.9	180.6	180.6	188.1						
Local water transportation .....	445	28.2	28.6	26.7	28.4						
Water transportation services .....	446	101.5	98.4	101.1	106.6						
Transportation by air .....	45	602.9	607.6	643.8	648.7						
Air transportation .....	451,2	530.5	534.1	564.9	569.4						
Air transportation services .....	458	72.4	73.5	78.9	79.3						
Pipe lines, except natural gas .....	46	18.5	18.7	16.1	16.7		13.5	13.7	11.1	11.6	
Transportation services .....	47	301.2	300.5	328.4	331.5						
Freight forwarding .....	471	63.3	63.1	67.2	68.0						
Communication and public utilities .....		2,223	2,243	2,244	2,263	2,271	-	-	-	-	
Communication .....	48	1,290.4	1,303.7	1,310.5	1,316.9	-	980.3	990.1	990.0	994.2	
Telephone communication .....	481	903.3	916.5	907.6	912.5		667.7	678.6	666.8	668.8	
Radio and television broadcasting .....	483	236.6	234.0	244.4	245.2		194.9	192.3	200.8	201.8	
Radio broadcasting .....	4832	116.5	116.0	116.6	117.4		-	-	-	-	
Television broadcasting .....	4833	120.1	118.0	127.8	127.8		-	-	-	-	
Electric, gas, and sanitary services .....	49	933.0	938.8	933.4	946.3		741.2	745.5	738.7	751.1	
Electric services .....	491	449.3	450.6	445.7	450.1		343.9	344.6	340.4	344.1	
Gas production and distribution .....	492	167.8	168.9	166.2	169.7		133.4	134.2	131.3	134.7	
Combination utility services .....	493	206.3	207.6	202.2	204.5		170.1	171.5	165.9	168.5	
Sanitary services .....	495	82.4	84.1	91.7	93.8		71.8	72.9	79.3	81.5	
<b>Wholesale trade .....</b>		<b>5,889</b>	<b>5,908</b>	<b>6,110</b>	<b>6,178</b>	<b>6,204</b>	<b>4,724</b>	<b>4,739</b>	<b>4,919</b>	<b>4,984</b>	<b>5,004</b>
Durable goods .....	50	3,450	3,467	3,635	3,676	3,700	2,738	2,751	2,901	2,940	
Motor vehicles and automotive equipment .....	501	436.9	438.6	449.8	455.1	-	350.1	352.1	360.6	365.5	
Automobiles and other motor vehicles .....	5012	111.9	113.0	118.4	119.6		-	-	-	-	
Automotive parts and supplies .....	5013	294.5	295.0	300.6	304.7		-	-	-	-	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Wholesale trade—Continued</b>											
<b>Durable goods—Continued</b>											
Furniture and home furnishings .....	502	141.7	143.0	143.6	144.9		114.5	115.6	115.3	116.8	
Furniture .....	5021	62.7	63.0	64.8	65.4		-	-	-	-	
Home furnishings .....	5023	79.0	80.0	78.8	79.5		-	-	-	-	
Lumber and construction materials .....	503	236.8	240.9	266.8	274.3		195.7	199.1	218.4	225.0	
Lumber, plywood, and millwork .....	5031	108.0	109.9	121.4	124.7		-	-	-	-	
Construction materials, nec .....	5039	128.8	131.0	145.4	149.6		-	-	-	-	
Sporting goods, toys, and hobby goods .....	504	84.9	84.3	87.8	89.2		70.5	69.9	72.3	73.4	
Metals and minerals, except petroleum .....	505	134.5	135.0	143.9	145.9		105.4	105.4	114.1	115.8	
Electrical goods .....	506	494.2	496.5	517.5	523.0		376.2	377.4	396.4	402.4	
Electrical apparatus and equipment .....	5063	271.5	273.1	286.5	290.1		-	-	-	-	
Electrical appliances, TV and radios .....	5064	67.8	68.3	68.3	68.9		-	-	-	-	
Electronic parts and equipment .....	5065	154.9	155.1	162.7	164.0		-	-	-	-	
Hardware, plumbing, and heating equipment .....	507	264.7	267.1	270.2	273.5		213.6	215.5	218.3	221.2	
Hardware .....	5072	91.4	91.8	92.9	93.9		-	-	-	-	
Plumbing and hydronic heating supplies .....	5074	108.5	109.5	111.5	112.2		-	-	-	-	
Machinery, equipment, and supplies .....	508	1,458.2	1,463.2	1,544.1	1,556.5		1,153.1	1,157.1	1,235.1	1,246.9	
Commercial machines and equipment .....	5081	542.6	544.8	577.5	577.7		-	-	-	-	
Construction and mining machinery .....	5082	78.3	79.4	81.0	82.0		-	-	-	-	
Farm machinery and equipment .....	5083	116.8	117.2	123.0	125.2		-	-	-	-	
Industrial machinery and equipment .....	5084	302.8	303.7	321.9	325.3		-	-	-	-	
Industrial supplies .....	5085	128.9	130.1	136.3	137.3		-	-	-	-	
Professional equipment and supplies .....	5086	177.2	175.8	187.6	189.8		-	-	-	-	
Miscellaneous durable goods .....	509	198.3	198.2	211.3	213.5		158.7	158.8	170.6	173.0	
Scrap and waste materials .....	5093	89.2	89.6	97.5	99.5		-	-	-	-	
<b>Nondurable goods .....</b>	<b>51</b>	<b>2,439</b>	<b>2,441</b>	<b>2,475</b>	<b>2,502</b>	<b>2,504</b>	<b>1,986</b>	<b>1,988</b>	<b>2,018</b>	<b>2,044</b>	
Paper and paper products .....	511	202.3	203.8	210.0	212.3	-	165.1	166.2	170.1	171.7	
Drugs, proprietaries, and sundries .....	512	166.2	167.5	172.6	174.4		138.5	139.7	144.8	146.6	
Apparel, piece goods, and notions .....	513	200.1	199.6	199.8	202.5		150.1	150.5	153.2	155.7	
Groceries and related products .....	514	797.0	796.1	793.0	807.2		675.1	674.1	670.6	686.1	
Groceries, general line .....	5141	251.3	251.2	254.5	255.5		-	-	-	-	
Meats and meat products .....	5147	65.6	66.0	63.9	64.6		-	-	-	-	
Fresh fruits and vegetables .....	5148	103.2	102.0	101.0	105.5		-	-	-	-	
Chemicals and allied products .....	516	130.8	130.8	131.7	134.1		95.7	96.2	97.8	100.1	
Petroleum and petroleum products .....	517	198.6	199.6	202.6	204.3		154.7	155.8	158.2	159.8	
Petroleum bulk stations and terminals .....	5171	83.6	84.1	86.4	87.7		-	-	-	-	
Petroleum products, nec .....	5172	115.0	115.5	116.2	116.6		-	-	-	-	
Beer, wine, and distilled beverages .....	518	153.4	154.3	154.5	157.3		126.6	127.1	126.9	129.7	
Beer and ale .....	5181	97.0	98.0	97.1	100.0		-	-	-	-	
Wines and distilled beverages .....	5182	56.4	56.3	57.4	57.3		-	-	-	-	
Miscellaneous nondurable goods .....	519	465.6	465.9	486.5	486.3		377.9	377.6	396.0	394.5	
Farm supplies .....	5191	153.6	153.1	165.4	163.2		-	-	-	-	
<b>Retail trade .....</b>		<b>18,629</b>	<b>18,636</b>	<b>19,130</b>	<b>19,367</b>	<b>19,391</b>	<b>16,572</b>	<b>16,570</b>	<b>16,949</b>	<b>17,169</b>	<b>17,182</b>
Building materials and garden supplies .....	52	770.6	768.4	790.9	799.5		642.2	641.3	657.0	666.4	
Lumber and other building materials .....	521	425.1	426.7	423.3	433.8		360.6	363.3	356.2	366.7	
Hardware stores .....	525	158.7	158.9	165.3	167.8		132.5	132.1	136.9	139.8	
General merchandise stores .....	53	2,358.3	2,379.7	2,462.6	2,482.7	2,488.2	2,211.3	2,228.8	2,280.8	2,295.3	
Department stores .....	531	1,965.3	1,986.6	2,049.7	2,067.0	-	1,859.7	1,876.6	1,911.9	1,923.2	
Variety stores .....	533	236.6	235.7	242.7	242.6		215.8	215.3	221.3	221.7	
Misc. general merchandise stores .....	539	156.4	157.4	170.2	173.1		135.8	136.9	147.6	150.4	
Food stores .....	54	2,968.7	2,973.8	3,040.8	3,089.0	3,112.5	2,736.4	2,740.0	2,793.8	2,840.9	
Grocery stores .....	541	2,613.3	2,621.1	2,682.6	2,725.4	-	2,419.2	2,425.9	2,478.3	2,520.3	
Meat markets and freezer provisioners .....	542	58.0	57.7	58.6	58.5		-	-	-	-	
Dairy products stores .....	545	29.8	30.1	24.4	26.0		-	-	-	-	
Retail bakeries .....	546	172.6	171.1	178.2	179.2		157.2	155.2	161.4	161.9	
Automotive dealers and service stations .....	55	2,022.9	2,031.8	2,076.4	2,099.3	2,117.6	1,699.5	1,708.7	1,735.5	1,755.5	
New and used car dealers .....	551,2	982.2	984.0	1,006.7	1,014.8		817.2	819.0	833.8	840.9	
Auto and home supply stores .....	553	320.9	324.6	328.3	333.2		260.1	263.6	266.5	270.2	
Gasoline service stations .....	554	614.8	618.2	630.6	636.8		536.7	540.5	546.0	552.0	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Retail trade—Continued</b>											
Apparel and accessory stores .....	56	1,100.9	1,094.2	1,084.2	1,094.7		931.6	925.1	915.4	925.8	
Men's and boys' clothing and furnishings .....	561	106.2	105.9	104.1	104.2		87.1	87.1	84.8	85.0	
Women's ready-to-wear stores .....	562	386.7	381.7	381.1	383.0		329.4	323.2	321.2	323.5	
Family clothing stores .....	565	256.7	256.4	250.8	257.8		222.9	222.7	217.4	224.3	
Shoe stores .....	566	218.4	220.1	217.6	217.4		178.2	180.6	181.4	181.1	
Furniture and home furnishings stores .....	57	792.8	795.0	817.7	818.4		657.9	658.2	669.3	670.3	
Furniture and home furnishings stores .....	571	444.7	445.8	455.6	457.4		367.0	367.2	370.1	372.5	
Furniture stores .....	5712	275.7	275.4	283.0	284.0		-	-	-	-	
Household appliance stores .....	572	87.6	87.0	92.0	91.7		74.4	73.8	78.6	78.1	
Radio, television, and music stores .....	573	260.5	262.2	270.1	269.3		216.5	217.2	220.6	219.7	
Radio and television stores .....	5732	190.3	191.3	193.2	192.6		-	-	-	-	
Music stores .....	5733	70.2	70.9	76.9	76.7		-	-	-	-	
Eating and drinking places .....	58	6,311.6	6,296.7	6,450.2	6,566.5	6,550.4	5,754.0	5,734.6	5,876.5	5,990.4	
Miscellaneous retail .....	59	2,303.1	2,296.8	2,406.8	2,416.5		1,939.1	1,933.3	2,020.9	2,024.8	
Drug stores and proprietary stores .....	591	579.5	577.1	590.3	591.4		494.0	492.4	502.7	503.8	
Liquor stores .....	592	122.8	124.0	123.5	125.6		-	-	-	-	
Miscellaneous shopping goods stores .....	594	756.8	759.1	785.6	797.5		631.2	634.3	655.1	664.3	
Sporting goods and bicycle shops .....	5941	129.3	130.7	138.0	139.9		-	-	-	-	
Book stores .....	5942	73.4	71.5	78.0	75.9		-	-	-	-	
Stationery stores .....	5943	75.1	74.8	76.8	77.3		-	-	-	-	
Jewelry stores .....	5944	146.4	146.1	151.9	151.8		-	-	-	-	
Gift, novelty, and souvenir shops .....	5947	157.9	160.6	160.3	171.5		-	-	-	-	
Sewing, needlework, and piece goods .....	5949	61.3	60.0	60.6	60.5		-	-	-	-	
Nonstore retailers .....	596	272.0	270.2	276.9	276.0		244.8	242.7	246.9	246.6	
Mail order houses .....	5961	126.0	126.8	126.9	126.5		-	-	-	-	
Merchandising machine operators .....	5962	86.8	86.4	90.2	90.4		-	-	-	-	
Fuel and ice dealers .....	598	105.2	104.4	110.3	110.6		87.1	86.3	91.7	91.7	
Retail stores, nec .....	599	381.9	375.8	430.7	424.5		312.6	306.0	350.4	341.7	
<b>Finance, insurance, and real estate<sup>3</sup></b> .....		6,616	6,660	6,657	6,740	6,771	4,874	4,904	4,828	4,897	4,932
Finance .....		3,301	3,321	3,292	3,325	3,335					
Banking .....	60	1,744.3	1,751.7	1,726.3	1,746.5		1,259.0	1,266.7	1,235.5	1,251.4	
Commercial and stock savings banks .....	602	1,573.9	1,580.4	1,552.1	1,570.4		1,132.1	1,138.9	1,107.6	1,121.8	
State banks, Federal Reserve .....	6022	344.2	346.6	341.9	346.9		-	-	-	-	
State banks, not Federal Reserve .....	6023,4	375.3	375.9	373.2	377.9		-	-	-	-	
Mutual savings banks .....	603	85.6	85.7	84.7	86.6		-	-	-	-	
Credit agencies other than banks .....	61	903.2	902.9	891.5	897.3		678.0	676.6	662.2	668.0	
Savings and loan associations .....	612	398.8	399.8	393.5	394.7		305.0	305.8	298.3	299.5	
Federal savings and loan associations .....	6122	221.5	221.9	222.0	222.6		-	-	-	-	
State associations, insured .....	6123	172.2	172.9	166.8	167.3		-	-	-	-	
Personal credit institutions .....	614	238.0	238.3	245.6	248.8		183.7	183.8	189.7	193.0	
Business credit institutions .....	615	55.5	56.1	63.5	64.8		-	-	-	-	
Mortgage bankers and brokers .....	616	185.8	183.7	166.0	166.1		-	-	-	-	
Security, commodity brokers, and services .....	62	448.6	457.1	459.8	463.6		-	-	-	-	
Security brokers and dealers .....	621	352.0	358.0	355.4	357.7		-	-	-	-	
Holding and other investment offices .....	67	205.0	209.1	214.2	217.6		-	-	-	-	
Insurance .....		2,025	2,034	2,067	2,078	2,081					
Insurance carriers .....	63	1,420.3	1,428.0	1,446.8	1,453.5		962.9	967.8	964.7	971.7	
Life insurance .....	631	582.4	584.7	593.1	594.1		360.5	362.2	355.8	359.7	
Medical service and health insurance .....	632	198.4	199.1	201.7	203.0		159.7	160.4	163.4	163.9	
Fire, marine, and casualty insurance .....	633	529.2	534.0	548.7	552.5		357.3	360.4	367.5	369.3	
Title insurance .....	636	63.4	62.9	56.5	56.8		-	-	-	-	
Insurance agents, brokers, and service .....	64	604.4	606.0	620.6	624.1		-	-	-	-	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Finance, insurance, and real estate—Continued</b>											
Real estate, and combined real estate, insurance, etc ....		1,290	1,305	1,298	1,337	1,355					
Real estate .....	65	1,279.1	1,294.7	1,287.4	1,327.0						
Real estate operators and lessors .....	651	543.0	549.7	542.9	559.7						
Real estate agents and managers .....	653	536.4	543.6	547.0	565.1						
Subdividers and developers .....	655	164.8	166.8	164.7	169.1						
Combined real estate, insurance, etc .....	66	10.4	10.3	10.2	10.0						
<b>Services</b> .....		24,341	24,479	25,342	25,663	25,752	21,340	21,456	22,133	22,414	22,477
Hotels and other lodging places .....	70	1,556.1	1,602.3	1,569.3	1,681.2		-	-	-	-	
Hotels, motels, and tourist courts .....	701	1,493.8	1,527.4	1,523.3	1,616.1		1,338.5	1,369.6	1,358.0	1,447.8	
Personal services .....	72	1,132.8	1,127.5	1,192.7	1,195.7		-	-	-	-	
Laundry, cleaning, and garment services .....	721	407.5	405.8	414.9	419.1		362.8	361.8	369.4	373.3	
Photographic studios, portrait .....	722	52.6	52.2	54.2	55.3		-	-	-	-	
Beauty shops .....	723	353.9	353.1	359.4	358.6		318.9	317.5	320.5	319.5	
Funeral service and crematories .....	726	77.7	77.6	77.6	78.9		-	-	-	-	
Business services .....	73	5,188.8	5,214.8	5,432.2	5,504.7	5,530.0	4,443.2	4,464.7	4,643.9	4,707.5	
Advertising .....	731	211.0	212.0	213.1	213.9	-	157.7	158.4	158.4	158.9	
Advertising agencies .....	7311	155.6	156.3	157.2	157.8		-	-	-	-	
Credit reporting and collection .....	732	100.0	100.2	95.3	96.1		-	-	-	-	
Mailing, reproduction, and stenographic .....	733	208.3	210.4	232.5	234.6		-	-	-	-	
Services to buildings .....	734	721.4	719.3	719.9	725.8		651.9	650.7	651.6	657.3	
Personnel supply services .....	736	1,198.3	1,213.5	1,286.0	1,312.4		-	-	-	-	
Employment agencies .....	7361	182.3	180.5	188.4	189.6		-	-	-	-	
Temporary help supply services .....	7362	940.7	955.3	1,015.8	1,038.9		-	-	-	-	
Computer and data processing services .....	737	644.9	652.6	712.7	725.4		506.0	512.1	557.3	567.7	
Computer programming and software .....	7372	241.0	244.2	274.4	280.4		-	-	-	-	
Data processing services .....	7374	297.9	301.2	320.6	326.5		-	-	-	-	
Miscellaneous business services .....	739	2,095.7	2,097.7	2,162.9	2,186.7		-	-	-	-	
Research development laboratories, nec .....	7391	196.6	197.1	198.2	201.6		-	-	-	-	
Management and public relations .....	7392	587.6	589.2	613.5	617.9		-	-	-	-	
Detective and protective services .....	7393	454.6	453.9	469.4	467.1		-	-	-	-	
Equipment rental and leasing .....	7394	248.7	247.7	255.8	262.1		-	-	-	-	
Photofinishing laboratories .....	7395	81.1	81.7	78.2	79.7		-	-	-	-	
Auto repair, services, and garages .....	75	804.2	804.2	829.5	837.5		670.9	670.7	686.5	693.3	
Automotive rentals, without drivers .....	751	165.2	163.7	168.9	169.7		-	-	-	-	
Automotive repair shops .....	753	478.0	481.6	497.1	504.5		394.4	397.8	410.1	416.5	
Miscellaneous repair services .....	76	319.0	322.4	337.1	340.9		264.9	268.5	277.8	279.1	
Electrical repair shops .....	762	102.8	103.9	109.6	111.9		-	-	-	-	
Motion pictures .....	78	234.8	235.4	231.8	246.2		196.7	197.4	191.3	204.9	
Motion picture production and services .....	781	107.2	107.7	106.9	113.7		84.2	84.8	81.7	87.5	
Motion picture theaters .....	783	114.0	114.3	109.3	116.2		-	-	-	-	
Amusement and recreation services .....	79	1,021.5	1,053.1	963.7	1,054.0		912.9	942.5	818.1	900.0	
Health services .....	80	6,831.3	6,870.9	7,146.0	7,235.2	7,287.8	6,077.9	6,114.4	6,348.5	6,429.4	
Offices of physicians .....	801	1,046.7	1,055.4	1,123.7	1,138.1	-	864.4	870.2	920.8	935.4	
Offices of dentists .....	802	472.6	471.3	488.2	494.6		416.1	415.3	430.0	432.7	
Nursing and personal care facilities .....	805	1,292.4	1,297.9	1,313.3	1,329.2		1,167.7	1,173.7	1,185.4	1,200.5	
Skilled nursing care facilities .....	8051	866.4	869.9	879.3	889.3		-	-	-	-	
Nursing and personal care, nec .....	8059	426.0	428.0	434.0	439.9		-	-	-	-	
Hospitals .....	806	3,153.2	3,176.0	3,302.5	3,340.8		2,876.3	2,898.1	3,016.7	3,053.0	
General medical and surgical hospitals .....	8062	2,940.5	2,960.2	3,077.3	3,112.9		-	-	-	-	
Psychiatric hospitals .....	8063	75.6	76.0	81.9	82.5		-	-	-	-	
Specialty hospitals, excluding psychiatric .....	8069	137.1	139.8	143.3	145.4		-	-	-	-	
Medical and dental laboratories .....	807	135.1	135.5	146.1	148.0		-	-	-	-	
Outpatient care facilities .....	808	265.1	266.7	282.8	288.0		-	-	-	-	

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>				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Services—Continued</b>											
Legal services .....	81	812.7	815.9	810.2	844.4		684.1	686.3	677.7	709.0	
Educational services .....	82	1,296.9	1,224.1	1,504.0	1,355.7						
Elementary and secondary schools .....	821	358.1	323.7	385.9	367.5						
Colleges and universities .....	822	776.8	735.2	944.6	813.2						
Correspondence and vocational schools .....	824	76.5	74.1	80.3	80.1						
Social services .....	83	1,468.1	1,494.3	1,594.1	1,579.3						
Individual and family services .....	832	299.0	307.7	305.8	307.4						
Job training and related services .....	833	227.0	249.9	232.8	242.0						
Residential care .....	836	351.4	352.9	369.4	377.0						
Museums, botanical and zoological gardens .....	84	50.2	50.9	51.2	52.0						
Membership organizations .....	86	1,602.1	1,630.6	1,601.0	1,625.1						
Business associations .....	861	93.7	93.5	92.8	95.5						
Labor organizations .....	863	134.8	129.0	135.5	133.8						
Civic and social associations .....	864	380.1	413.3	378.0	397.1						
Miscellaneous services .....	89	1,324.2	1,333.0	1,377.6	1,394.8		1,078.2	1,083.5	1,110.2	1,126.4	
Engineering and architectural services .....	891	724.9	730.8	748.9	766.2		611.1	616.2	624.7	640.6	
Noncommercial research organizations .....	892	122.7	125.1	125.7	128.4		-	-	-	-	
Accounting, auditing, and bookkeeping .....	893	448.0	451.0	474.9	471.7		347.4	347.9	364.4	362.2	
<b>Government .....</b>		17,051	16,156	17,688	17,423	16,491					
<b>Federal Government<sup>4</sup> .....</b>		2,976	2,983	2,969	2,986	2,988					
Executive, by agency <sup>5</sup> .....		2,917.5	2,923.3	2,909.9							
Department of Defense .....		993.6	1,001.2	966.9							
Postal Service <sup>6</sup> .....		816.3	810.0	827.3							
Other executive agencies .....		1,107.6	1,112.1	1,115.7							
Legislative .....		39.2	39.5	38.1							
Judicial .....		19.6	19.7	20.7							
<b>Federal government, by industry:</b>											
Manufacturing activities .....		124.5	125.9	121.6	121.6						
Shipbuilding and repairing .....	3731	75.7	76.4	73.9	74.0						
Transportation and public utilities, except Postal Service .....		42.9	42.9	43.3	42.8						
Services .....		432.7	435.2	424.2	426.0						
Hospitals .....	806	252.8	254.2	247.2	248.1						
<b>State government .....</b>		3,832	3,752	4,107	3,913	3,830					
Hospitals .....	806	439.9	442.0	444.4	444.1	-					
Education .....	82	1,439.9	1,326.5	1,681.9	1,455.1						
General administration, including executive, legislative, and judicial functions .....		1,408.1	1,428.5	1,431.4	1,458.0						
<b>Local government .....</b>		10,243	9,421	10,612	10,524	9,673					
Transportation and public utilities .....		491.6	497.2	491.5	497.1	-					
Hospitals .....	806	611.3	614.0	631.8	637.5						
Education .....	82	5,641.2	4,625.5	6,044.8	5,769.1						
General administration, including executive, legislative, and judicial functions .....		3,147.7	3,303.0	3,101.5	3,255.5						

<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 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision. Data for Federal Government by industry have been revised to reflect corrected March 1987 benchmark levels.



**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
NOT SEASONALLY ADJUSTED**

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

(In thousands)

Industry	Apr. 1987	May 1987	Mar. 1988	Apr. 1988	May 1988
<b>Total</b> .....	47,069	47,304	48,704	48,985	49,245
<b>Total private</b> .....	38,181	38,429	39,531	39,822	40,068
<b>Goods-producing</b> .....	6,796	6,823	6,991	7,021	7,057
<b>Mining</b> .....	95	95	96	97	97
<b>Construction</b> .....	516	523	542	553	564
<b>Manufacturing</b> .....	6,185	6,205	6,353	6,371	6,396
<b>Durable goods</b> .....	2,975	2,981	3,060	3,073	3,084
Lumber and wood products .....	115	117	120	121	123
Furniture and fixtures .....	160	161	166	167	167
Stone, clay, and glass products .....	113	114	115	116	117
Primary metal industries .....	101	101	105	106	106
Fabricated metal products .....	317	318	325	327	330
Machinery, except electrical .....	448	448	470	473	475
Electrical and electronic equipment .....	860	861	881	882	883
Transportation equipment .....	396	396	393	395	396
Instruments and related products .....	299	300	308	308	309
Miscellaneous manufacturing .....	166	167	176	177	177
<b>Nondurable goods</b> .....	3,210	3,224	3,293	3,298	3,312
Food and kindred products .....	486	492	498	499	504
Tobacco manufactures .....	16	17	17	16	16
Textile mill products .....	349	350	351	350	351
Apparel and other textile products .....	875	877	881	879	880
Paper and allied products .....	162	163	165	166	167
Printing and publishing .....	642	643	670	674	673
Chemicals and allied products .....	289	291	304	306	307
Petroleum and coal products .....	24	24	24	24	25
Rubber and misc. plastics products .....	282	282	298	300	303
Leather and leather products .....	84	85	86	85	86
<b>Service-producing</b> .....	40,273	40,481	41,713	41,964	42,188
<b>Transportation and public utilities</b> .....	1,525	1,537	1,594	1,604	1,615
<b>Wholesale trade</b> .....	1,711	1,717	1,802	1,806	1,819
<b>Retail trade</b> .....	9,583	9,708	9,840	9,968	10,120
<b>Finance, insurance, and real estate</b> .....	4,058	4,077	4,130	4,137	4,147
<b>Services</b> .....	14,508	14,567	15,174	15,286	15,310
<b>Government</b> .....	8,888	8,875	9,173	9,163	9,177
Federal .....	1,043	1,050	1,057	1,057	1,059
State .....	1,962	1,936	2,023	2,029	2,001
Local .....	5,883	5,889	6,093	6,077	6,117

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

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

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>Total</b> .....	102,430	102,672	102,906	103,371	103,678	104,001	104,262	104,729	105,020	105,281	105,489	106,021	106,304
<b>Total private</b> .....	85,421	85,656	85,851	86,241	86,520	86,794	87,044	87,475	87,700	87,973	88,139	88,661	88,929
<b>Goods-producing</b> .....	24,788	24,851	24,902	25,025	25,123	25,201	25,180	25,271	25,330	25,435	25,466	25,590	25,672
<b>Mining</b> .....	722	728	734	740	736	735	728	731	733	737	739	740	740
Oil and gas extraction .....	408	412	417	421	418	417	414	415	419	421	425	425	423
<b>Construction</b> .....	4,997	5,012	5,012	5,060	5,090	5,118	5,083	5,150	5,192	5,238	5,237	5,305	5,319
General building contractors .....	1,320	1,326	1,328	1,340	1,348	1,352	1,365	1,377	1,383	1,400	1,394	1,411	1,389
<b>Manufacturing</b> .....	19,069	19,111	19,156	19,225	19,297	19,348	19,369	19,390	19,405	19,460	19,490	19,545	19,613
<b>Durable goods</b> .....	11,190	11,246	11,269	11,315	11,355	11,390	11,393	11,404	11,411	11,459	11,477	11,514	11,573
Lumber and wood products .....	740	739	744	744	750	754	754	756	755	758	757	758	755
Furniture and fixtures .....	524	524	526	529	531	533	536	535	534	535	537	537	543
Stone, clay, and glass products .....	579	580	580	583	585	588	583	584	585	587	585	587	588
Primary metal industries .....	751	755	761	766	768	769	768	770	772	773	776	781	790
Blast furnaces and basic steel products .....	272	274	276	278	279	279	279	280	281	281	281	282	283
Fabricated metal products .....	1,404	1,405	1,412	1,421	1,429	1,433	1,435	1,438	1,439	1,444	1,448	1,456	1,463
Machinery, except electrical .....	2,020	2,031	2,039	2,049	2,062	2,074	2,085	2,091	2,099	2,111	2,121	2,135	2,159
Electrical and electronic equipment .....	2,075	2,081	2,085	2,094	2,100	2,110	2,112	2,112	2,115	2,117	2,115	2,120	2,126
Transportation equipment .....	2,032	2,063	2,052	2,052	2,047	2,046	2,036	2,031	2,025	2,045	2,048	2,046	2,050
Motor vehicles and equipment .....	842	874	860	859	854	851	839	837	835	848	851	849	856
Instruments and related products .....	695	696	696	700	704	704	704	705	705	706	709	712	713
Miscellaneous manufacturing .....	370	372	374	377	379	379	380	382	382	383	381	382	386
<b>Nondurable goods</b> .....	7,879	7,865	7,887	7,910	7,942	7,958	7,976	7,986	7,994	8,001	8,013	8,031	8,040
Food and kindred products .....	1,629	1,625	1,627	1,630	1,636	1,638	1,647	1,649	1,647	1,648	1,643	1,648	1,645
Tobacco manufactures .....	55	54	53	52	54	54	55	54	54	54	52	53	53
Textile mill products .....	730	728	730	731	733	733	732	732	729	727	728	727	728
Apparel and other textile products .....	1,116	1,098	1,104	1,106	1,110	1,106	1,105	1,104	1,106	1,100	1,100	1,096	1,089
Paper and allied products .....	678	680	682	682	683	684	685	686	687	687	689	691	691
Printing and publishing .....	1,510	1,514	1,518	1,522	1,528	1,532	1,538	1,544	1,548	1,554	1,559	1,564	1,568
Chemicals and allied products .....	1,025	1,029	1,032	1,036	1,041	1,047	1,047	1,049	1,052	1,056	1,060	1,066	1,071
Petroleum and coal products .....	165	165	166	167	167	167	166	165	164	165	166	166	167
Rubber and misc. plastics products .....	824	827	830	839	845	851	854	856	860	864	870	874	884
Leather and leather products .....	147	145	145	145	145	146	147	147	147	146	146	146	144
<b>Service-producing</b> .....	77,642	77,821	78,004	78,346	78,555	78,800	79,082	79,458	79,690	79,846	80,023	80,431	80,632
<b>Transportation and public utilities</b> .....	5,373	5,394	5,427	5,448	5,466	5,481	5,499	5,513	5,530	5,543	5,556	5,578	5,593
Transportation .....	3,151	3,171	3,201	3,214	3,231	3,244	3,261	3,272	3,285	3,298	3,308	3,328	3,342
Communication and public utilities .....	2,222	2,223	2,226	2,234	2,235	2,237	2,238	2,241	2,245	2,245	2,248	2,250	2,251
<b>Wholesale trade</b> .....	5,874	5,892	5,914	5,935	5,958	5,984	6,010	6,035	6,061	6,089	6,115	6,145	6,169
Durable goods .....	3,450	3,463	3,478	3,498	3,514	3,536	3,555	3,573	3,591	3,610	3,635	3,658	3,682
Nondurable goods .....	2,424	2,429	2,436	2,437	2,444	2,448	2,455	2,462	2,470	2,479	2,480	2,487	2,487
<b>Retail trade</b> .....	18,543	18,569	18,605	18,705	18,761	18,784	18,927	19,045	19,050	19,093	19,130	19,213	19,295
General merchandise stores .....	2,437	2,449	2,457	2,489	2,495	2,494	2,526	2,561	2,543	2,546	2,541	2,546	2,549
Food stores .....	2,962	2,961	2,958	2,971	2,979	2,988	3,014	3,029	3,044	3,049	3,053	3,080	3,100
Automotive dealers and service stations .....	2,007	2,010	2,015	2,026	2,026	2,033	2,038	2,047	2,055	2,064	2,070	2,076	2,092
Eating and drinking places .....	6,128	6,143	6,152	6,191	6,216	6,232	6,260	6,291	6,319	6,326	6,336	6,357	6,378
<b>Finance, insurance, and real estate</b> .....	6,570	6,581	6,588	6,604	6,608	6,619	6,633	6,636	6,651	6,650	6,656	6,676	6,678
Finance .....	3,288	3,289	3,292	3,295	3,299	3,301	3,308	3,305	3,306	3,302	3,299	3,305	3,302
Insurance .....	2,024	2,029	2,032	2,043	2,042	2,049	2,052	2,053	2,060	2,065	2,067	2,072	2,071
Real estate .....	1,258	1,263	1,264	1,266	1,267	1,269	1,273	1,278	1,285	1,283	1,290	1,299	1,305
<b>Services</b> .....	24,273	24,369	24,415	24,524	24,604	24,725	24,795	24,975	25,078	25,163	25,216	25,459	25,522
Business services .....	5,179	5,212	5,233	5,282	5,287	5,306	5,321	5,385	5,405	5,420	5,443	5,477	5,492
Health services .....	6,836	6,875	6,894	6,928	6,962	6,995	7,019	7,056	7,088	7,126	7,153	7,206	7,252
<b>Government</b> .....	17,009	17,016	17,055	17,130	17,158	17,207	17,218	17,254	17,320	17,308	17,350	17,360	17,375
Federal .....	2,941	2,943	2,962	2,966	2,974	2,980	2,973	2,972	2,970	2,963	2,957	2,951	2,947
State .....	3,965	3,971	3,973	3,985	3,988	4,001	4,006	4,014	4,031	4,041	4,050	4,030	4,049
Local .....	10,103	10,102	10,120	10,179	10,196	10,226	10,239	10,268	10,319	10,304	10,343	10,379	10,379

<sup>P</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987

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

**ESTABLISHMENT DATA  
WOMEN EMPLOYEES  
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1987								1988				
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
<b>Total</b> .....	47,076	47,254	47,458	47,582	47,700	47,941	48,072	48,240	48,396	48,615	48,772	48,865	48,999
<b>Total private</b> .....	38,443	38,581	38,776	38,893	38,985	39,170	39,295	39,425	39,573	39,767	39,881	39,969	40,075
<b>Goods-producing</b> .....	6,846	6,859	6,909	6,905	6,931	6,963	6,990	7,007	7,022	7,028	7,040	7,058	7,082
<b>Mining</b> .....	95	95	96	96	96	96	96	96	96	96	96	97	97
<b>Construction</b> .....	525	528	531	533	536	538	542	543	546	549	552	558	566
<b>Manufacturing</b> .....	6,226	6,236	6,282	6,276	6,299	6,329	6,352	6,368	6,380	6,383	6,392	6,403	6,419
<b>Durable goods</b> .....	2,982	2,987	2,997	3,011	3,024	3,038	3,045	3,056	3,059	3,062	3,067	3,077	3,085
Lumber and wood products .....	117	117	119	118	119	120	120	121	122	122	122	123	123
Furniture and fixtures .....	161	162	165	164	165	166	166	166	167	166	166	166	167
Stone, clay, and glass products .....	114	114	114	114	114	115	115	116	116	116	116	117	118
Primary metal industries .....	100	101	101	103	103	104	104	105	104	105	104	105	106
Fabricated metal products .....	317	318	319	320	321	322	323	324	325	325	326	327	329
Machinery, except electrical .....	446	447	450	454	456	458	460	463	466	467	469	471	473
Electrical and electronic equipment .....	863	863	867	870	873	877	878	881	882	882	885	886	885
Transportation equipment .....	396	396	391	396	398	398	398	399	399	396	393	396	397
Instruments and related products .....	300	300	301	301	303	304	306	306	306	308	308	308	309
Miscellaneous manufacturing .....	168	169	170	171	172	174	175	175	175	178	178	178	178
<b>Nondurable goods</b> .....	3,244	3,249	3,285	3,265	3,275	3,291	3,307	3,312	3,321	3,321	3,325	3,326	3,334
Food and kindred products .....	513	514	520	514	515	518	521	521	528	528	526	528	526
Tobacco manufactures .....	18	18	17	16	17	17	17	18	18	18	17	17	17
Textile mill products .....	350	351	354	353	353	353	354	354	353	353	352	350	351
Apparel and other textile products .....	873	876	892	876	880	883	886	883	881	879	880	875	877
Paper and allied products .....	164	163	163	164	165	165	166	167	167	167	167	167	167
Printing and publishing .....	643	645	647	650	651	654	658	660	664	666	669	672	673
Chemicals and allied products .....	292	291	295	296	297	299	301	303	303	304	305	307	309
Petroleum and coal products .....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rubber and misc. plastics products .....	282	282	285	286	287	291	293	296	296	296	298	300	303
Leather and leather products .....	85	85	88	86	86	87	87	86	87	86	87	86	86
<b>Service-producing</b> .....	40,230	40,395	40,549	40,677	40,769	40,978	41,082	41,233	41,374	41,587	41,732	41,807	41,917
<b>Transportation and public utilities</b> .....	1,532	1,540	1,542	1,551	1,559	1,568	1,572	1,576	1,580	1,588	1,599	1,602	1,610
<b>Wholesale trade</b> .....	1,724	1,731	1,739	1,749	1,756	1,762	1,774	1,785	1,795	1,802	1,813	1,813	1,826
<b>Retail trade</b> .....	9,751	9,789	9,827	9,856	9,876	9,925	9,955	9,972	10,056	10,127	10,123	10,130	10,161
<b>Finance, insurance, and real estate</b> .....	4,076	4,088	4,101	4,105	4,108	4,120	4,126	4,131	4,139	4,139	4,147	4,141	4,147
<b>Services</b> .....	14,514	14,574	14,658	14,727	14,755	14,832	14,878	14,954	14,981	15,083	15,159	15,225	15,249
<b>Government</b> .....	8,633	8,673	8,682	8,689	8,715	8,771	8,777	8,815	8,823	8,848	8,891	8,896	8,924
Federal .....	1,045	1,045	1,045	1,049	1,056	1,057	1,060	1,062	1,060	1,061	1,061	1,057	1,054
State .....	1,908	1,913	1,925	1,929	1,927	1,935	1,937	1,945	1,947	1,952	1,960	1,968	1,971
Local .....	5,680	5,715	5,712	5,711	5,732	5,779	5,780	5,808	5,816	5,835	5,870	5,871	5,899

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

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

**ESTABLISHMENT DATA  
EMPLOYMENT  
SEASONALLY ADJUSTED**

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

(In thousands)

Industry	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>P</sup>	July <sup>P</sup>
<b>Total private</b> .....	69,155	69,343	69,463	69,766	69,988	70,234	70,405	70,787	70,961	71,170	71,260	71,710	71,932
<b>Goods-producing</b> .....	17,417	17,468	17,506	17,601	17,678	17,743	17,698	17,798	17,839	17,909	17,925	18,024	18,099
<b>Mining</b> .....	517	522	528	534	531	530	524	527	529	533	535	535	534
<b>Construction</b> .....	3,894	3,908	3,903	3,949	3,972	3,998	3,949	4,022	4,059	4,096	4,088	4,148	4,159
<b>Manufacturing</b> .....	13,006	13,038	13,075	13,118	13,175	13,215	13,225	13,249	13,251	13,280	13,302	13,341	13,406
<b>Durable goods</b> .....	7,432	7,483	7,499	7,532	7,564	7,590	7,582	7,599	7,598	7,632	7,649	7,677	7,740
Lumber and wood products .....	619	617	621	621	627	630	629	631	631	633	632	633	627
Furniture and fixtures .....	420	419	420	424	425	427	428	427	426	427	429	429	435
Stone, clay, and glass products .....	448	448	449	451	453	457	453	454	455	457	455	457	459
Primary metal industries .....	585	571	577	580	584	584	583	586	588	591	594	600	607
Blast furnaces and basic steel products .....	206	207	210	212	213	213	214	216	217	219	218	219	220
Fabricated metal products .....	1,040	1,043	1,050	1,055	1,063	1,068	1,068	1,071	1,071	1,073	1,079	1,085	1,094
Machinery, except electrical .....	1,197	1,207	1,213	1,221	1,230	1,238	1,244	1,250	1,256	1,262	1,269	1,275	1,295
Electrical and electronic equipment .....	1,221	1,224	1,225	1,233	1,235	1,241	1,240	1,241	1,242	1,244	1,244	1,249	1,263
Transportation equipment .....	1,274	1,305	1,292	1,290	1,285	1,283	1,273	1,271	1,261	1,276	1,278	1,277	1,282
Motor vehicles and equipment .....	652	684	670	669	665	661	651	649	648	658	660	660	667
Instruments and related products .....	378	378	380	383	385	385	387	388	388	389	391	393	396
Miscellaneous manufacturing .....	270	271	272	274	277	277	277	280	280	280	278	279	282
<b>Nondurable goods</b> .....	5,574	5,555	5,576	5,586	5,611	5,625	5,643	5,650	5,653	5,648	5,653	5,664	5,666
Food and kindred products .....	1,153	1,149	1,151	1,153	1,159	1,161	1,169	1,172	1,168	1,169	1,164	1,169	1,163
Tobacco manufactures .....	42	41	39	39	40	41	42	41	41	40	39	40	40
Textile mill products .....	635	632	634	634	636	636	636	636	634	632	632	630	632
Apparel and other textile products .....	939	922	927	929	932	930	929	928	930	926	925	922	913
Paper and allied products .....	516	516	520	518	518	519	520	521	521	520	521	522	523
Printing and publishing .....	842	846	849	851	856	858	863	867	870	871	872	875	875
Chemicals and allied products .....	576	579	582	582	585	589	589	589	592	593	596	599	601
Petroleum and coal products .....	108	108	109	109	109	109	109	108	107	107	108	108	110
Rubber and misc. plastics products .....	639	641	644	650	655	661	664	666	669	670	676	679	690
Leather and leather products .....	124	121	121	121	121	121	122	122	121	120	120	120	119
<b>Service-producing</b> .....	51,738	51,875	51,957	52,165	52,310	52,491	52,707	52,989	53,122	53,261	53,335	53,686	53,833
<b>Transportation and public utilities</b> .....	4,460	4,477	4,502	4,517	4,533	4,545	4,560	4,574	4,587	4,600	4,611	4,624	4,645
<b>Wholesale trade</b> .....	4,706	4,720	4,736	4,752	4,777	4,802	4,825	4,848	4,881	4,902	4,924	4,954	4,969
<b>Retail trade</b> .....	16,486	16,508	16,520	16,610	16,651	16,671	16,795	16,902	16,897	16,949	16,949	17,033	17,097
<b>Finance, insurance, and real estate</b> .....	4,819	4,822	4,821	4,822	4,818	4,824	4,831	4,827	4,825	4,823	4,828	4,839	4,845
<b>Services</b> .....	21,267	21,348	21,378	21,464	21,531	21,649	21,696	21,838	21,932	21,987	22,023	22,236	22,277

<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 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA  
INDEXES OF DIFFUSION  
SEASONALLY ADJUSTED**

**B-7. Indexes of diffusion: Percent of industries in which 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	1986.....	57.0	47.3	49.5	50.8	51.9	46.8	51.9	54.1	51.4	53.0	58.9	58.9
	1987.....	50.8	59.2	61.1	62.4	62.4	61.6	70.8	62.2	68.1	67.3	67.8	68.4
	1988.....	61.6	61.6	62.2	63.8	58.1	<sup>p</sup> 69.7	<sup>p</sup> 63.8					
Over 3-month span	1986.....	50.0	47.6	45.7	46.2	46.2	46.2	48.1	51.9	50.5	55.9	59.7	59.2
	1987.....	57.6	57.0	65.1	69.2	68.1	71.9	73.8	76.8	74.1	76.5	78.1	73.0
	1988.....	71.6	66.8	67.0	66.8	<sup>p</sup> 71.6	<sup>p</sup> 70.8						
Over 6-month span	1986.....	48.1	47.3	43.8	42.7	43.2	47.0	46.5	50.0	55.9	53.2	55.9	58.4
	1987.....	64.6	64.3	63.0	70.3	72.4	77.3	78.4	79.7	82.7	77.8	77.0	76.5
	1988.....	73.5	70.3	<sup>p</sup> 70.5	<sup>p</sup> 73.8								
Over 12-month span	1986.....	42.2	41.6	43.8	44.9	45.7	48.6	46.8	48.6	51.6	53.8	56.5	57.8
	1987.....	63.8	67.3	69.5	73.5	76.8	76.8	78.9	78.9	79.7	78.4	77.8	<sup>p</sup> 81.9
	1988.....	<sup>p</sup> 78.6											

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 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Alabama</b> .....	1,506.6	1,527.2	1,542.2	11.3	11.3	11.4	76.4	74.9	76.6
Birmingham .....	391.6	403.8	408.5	5.7	5.8	5.8	24.0	26.1	27.0
Huntsville .....	123.5	127.4	128.4	.1	.1	.1	5.5	5.5	5.7
Mobile .....	162.2	163.2	163.7	.5	.5	.6	9.4	9.4	9.2
Montgomery .....	125.9	126.7	127.3	.2	.2	.2	7.8	8.3	8.7
Tuscaloosa .....	56.4	59.7	58.3	2.4	2.5	2.5	3.1	3.1	3.2
<b>Alaska</b> .....	219.1	209.6	216.4	9.0	9.1	9.1	11.9	9.3	10.4
<b>Arizona</b> .....	1,370.3	1,420.2	1,394.5	11.5	12.0	12.1	105.2	94.6	96.0
Phoenix .....	906.4	934.9	921.6	.7	.6	.6	70.7	63.4	64.6
Tucson .....	242.8	250.3	243.4	1.6	1.8	1.8	20.1	18.5	18.5
<b>Arkansas</b> .....	837.7	860.7	861.9	4.1	4.2	4.3	36.2	34.7	35.4
Fayetteville-Springdale .....	47.1	50.0	49.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	1.9	1.9
Fort Smith .....	78.0	78.7	78.7	.9	1.0	1.0	3.2	2.8	2.8
Little Rock-North Little Rock .....	229.5	235.5	236.4	.4	.4	.4	11.1	11.4	11.8
Pine Bluff .....	32.5	32.8	32.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.7	1.6	1.6
<b>California</b> .....	11,687.3	12,050.1	12,121.0	40.3	41.4	41.6	589.0	626.1	639.8
Anaheim-Santa Ana .....	1,093.8	1,111.2	1,120.5	1.8	1.4	1.3	63.7	64.6	65.6
Bakersfield .....	158.6	160.7	160.2	12.6	13.5	13.7	9.6	9.0	9.1
Fresno .....	203.0	209.7	208.1	.6	.7	.7	13.1	12.6	12.6
Los Angeles-Long Beach .....	4,015.1	4,090.5	4,100.2	9.4	9.7	9.4	147.9	155.1	156.9
Modesto .....	103.4	108.0	109.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.9	6.8	6.9
Oakland .....	812.5	830.5	835.8	3.2	3.3	3.3	48.1	50.8	51.8
Oxnard-Ventura .....	204.6	211.9	214.0	2.6	2.8	2.8	12.6	13.1	13.4
Riverside-San Bernardino .....	607.9	637.3	637.6	1.2	1.3	1.3	52.0	54.8	55.2
Sacramento .....	549.6	574.3	578.0	.8	.8	.8	33.7	35.5	36.8
San Diego .....	864.3	901.4	905.7	.8	.8	.8	56.6	59.0	60.3
San Francisco .....	930.0	947.0	950.7	1.0	.9	.9	34.6	34.7	35.5
San Jose .....	784.0	799.1	803.7	.2	.2	.2	32.4	32.0	32.1
Santa Barbara-Santa Maria-Lompoc .....	146.6	148.7	148.7	1.2	1.3	1.3	6.1	6.5	6.5
Santa Rosa-Petaluma .....	125.8	129.1	130.4	.7	.7	.8	8.6	8.8	9.1
Stockton .....	142.7	144.5	144.2	.1	.1	.1	8.5	8.1	8.4
Vallejo-Fairfield-Napa .....	125.6	130.4	132.1	.3	.3	.3	9.0	9.9	10.3
<b>Colorado</b> .....	1,405.4	1,394.3	1,399.2	21.4	20.4	20.8	71.2	61.8	62.6
Boulder-Longmont .....	103.9	105.8	104.7	.3	.3	.3	3.7	3.2	3.2
Denver .....	798.2	793.1	795.8	14.1	13.5	13.6	39.1	35.7	35.8
<b>Connecticut</b> .....	1,663.3	1,670.9	1,686.9	1.7	1.7	1.7	80.9	80.3	83.2
Bridgeport-Milford .....	200.0	201.6	202.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.0	9.6	9.8
Hartford .....	478.6	487.5	491.3	.3	.3	.4	20.5	21.3	21.9
New Haven-Meriden .....	252.1	256.7	258.6	.3	.4	.4	13.2	13.5	13.9
Stamford .....	127.8	129.1	130.9	.6	.5	.5	5.6	5.7	5.8
Waterbury .....	88.0	87.6	89.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.5	4.5	4.9
<b>Delaware</b> .....	326.0	332.0	338.3	.1	.1	.1	20.5	21.6	22.2
Wilmington .....	276.8	282.0	284.7	.2	.1	.1	17.0	17.3	17.9
<b>District of Columbia</b> .....	658.5	668.2	673.4	.1	.1	.1	15.4	15.6	15.9
Washington MSA .....	2,096.9	2,139.3	2,151.4	1.2	1.2	1.2	134.3	135.4	137.2
<b>Florida</b> .....	4,841.3	5,093.8	5,082.3	8.7	8.8	8.8	342.1	349.0	350.1
Daytona Beach .....	112.1	117.3	117.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.3	8.3	8.4
Fort Lauderdale-Hollywood-Pompano Beach .....	464.4	485.1	486.6	.4	.4	.3	35.8	35.4	35.6
Fort Myers-Cape Coral .....	106.2	115.1	115.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	12.0	12.7	12.8
Jacksonville .....	395.0	414.1	415.6	.4	.4	.4	28.1	27.6	27.6
Melbourne-Titusville-Palm Bay .....	143.3	149.2	149.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.0	8.3	8.3
Miami-Hialeah .....	828.1	838.0	836.4	.9	.9	.9	42.3	40.8	41.1
Orlando .....	479.6	498.9	502.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	33.9	35.3	35.8
Pensacola .....	125.6	126.7	126.6	.3	.3	.3	9.3	9.3	9.2
Sarasota .....	103.9	109.5	109.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.4	10.5	10.6
Tallahassee .....	107.7	112.8	111.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.8	6.0	6.0
Tampa-St. Petersburg-Clearwater .....	797.3	819.9	817.4	.7	.6	.6	59.6	59.2	59.2
West Palm Beach-Boca Raton-Delray Beach .....	320.6	343.3	339.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	27.6	28.2	27.9

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Alabama</b> .....	369.7	373.8	377.9	73.3	72.8	73.2	333.5	337.0	339.4
Birmingham .....	54.8	56.7	56.8	27.8	28.1	28.2	98.2	100.3	100.8
Huntsville .....	30.9	31.8	32.0	2.9	3.0	2.9	23.3	23.9	24.0
Mobile .....	26.3	26.0	26.5	9.4	9.4	9.3	44.0	44.0	44.2
Montgomery .....	19.0	19.2	19.4	5.0	5.0	5.0	28.3	28.5	29.1
Tuscaloosa .....	9.5	9.9	9.9	1.9	1.9	1.9	12.0	12.3	12.3
<b>Alaska</b> .....	15.4	13.9	16.6	19.3	17.6	18.7	43.4	41.2	43.0
<b>Arizona</b> .....	187.0	188.8	189.3	71.9	73.4	73.3	337.8	346.2	344.3
Phoenix .....	135.3	138.2	138.4	48.9	50.4	50.3	230.1	233.8	232.4
Tucson .....	31.3	30.3	30.2	9.5	9.6	9.5	54.6	57.0	56.9
<b>Arkansas</b> .....	219.6	225.3	228.5	50.7	51.2	51.7	191.0	194.7	196.5
Fayetteville-Springdale .....	11.7	12.3	12.3	4.4	5.1	5.2	10.9	11.6	11.5
Fort Smith .....	26.4	27.3	27.8	3.8	4.1	4.1	15.9	15.8	16.0
Little Rock-North Little Rock .....	32.3	33.2	33.7	16.5	16.9	16.9	55.6	56.4	56.7
Pine Bluff .....	6.3	6.4	6.5	2.5	2.4	2.4	7.0	6.9	7.0
<b>California</b> .....	2,103.5	2,134.7	2,145.5	582.6	579.9	583.4	2,748.6	2,857.9	2,884.0
Anaheim-Santa Ana .....	248.6	253.9	256.1	34.8	34.5	34.6	270.0	278.2	280.1
Bakersfield .....	11.1	11.1	11.1	8.1	8.1	8.1	37.6	38.3	38.3
Fresno .....	20.9	23.1	23.3	10.9	11.2	11.3	53.2	53.4	52.9
Los Angeles-Long Beach .....	906.5	910.2	911.6	205.8	209.0	208.8	912.6	927.1	928.9
Modesto .....	22.7	23.3	24.6	4.3	4.3	4.4	26.5	28.4	28.6
Oakland .....	103.6	104.3	106.0	56.3	56.1	56.8	200.3	202.0	204.1
Oxnard-Ventura .....	29.1	30.1	30.7	10.7	9.9	10.1	50.7	52.7	53.4
Riverside-San Bernardino .....	80.9	84.7	85.5	31.1	31.8	31.9	151.5	160.3	160.6
Sacramento .....	40.8	42.5	43.1	24.6	25.9	26.1	132.8	138.4	139.4
San Diego .....	122.5	123.4	123.2	33.6	34.4	34.6	203.9	217.5	218.6
San Francisco .....	79.1	79.9	79.9	77.0	76.1	76.4	209.3	211.8	213.3
San Jose .....	259.1	262.9	265.6	21.4	21.7	21.6	149.4	153.5	154.5
Santa Barbara-Santa Maria-Lompoc .....	22.5	22.5	22.5	5.2	5.0	5.0	35.1	35.8	36.0
Santa Rosa-Petaluma .....	18.3	18.6	18.7	6.3	6.2	6.1	32.2	34.0	34.3
Stockton .....	22.4	23.2	23.3	8.6	8.4	8.5	33.2	33.6	33.9
Vallejo-Fairfield-Napa .....	12.1	12.1	12.4	4.6	4.5	4.6	29.7	31.3	32.0
<b>Colorado</b> .....	184.7	185.1	186.8	83.2	82.3	82.3	351.1	349.6	352.7
Boulder-Longmont .....	28.2	28.2	28.5	2.3	2.3	2.3	23.0	22.8	23.0
Denver .....	95.3	95.3	95.9	59.9	59.7	59.9	199.5	199.0	200.7
<b>Connecticut</b> .....	388.2	377.4	378.1	73.1	73.2	74.1	370.8	380.8	385.4
Bridgeport-Milford .....	59.0	57.2	55.3	8.7	9.5	9.6	45.3	46.7	47.1
Hartford .....	92.0	92.8	93.2	18.0	18.3	18.3	101.1	103.1	103.9
New Haven-Meriden .....	46.8	46.0	46.3	18.3	18.5	18.6	57.7	59.0	59.7
Stamford .....	24.0	23.9	24.2	5.3	5.4	5.5	30.8	31.1	31.4
Waterbury .....	25.0	23.5	23.9	3.2	3.2	3.3	17.2	17.3	17.5
<b>Delaware</b> .....	70.2	68.2	69.4	13.6	14.1	14.4	72.4	72.6	73.8
Wilmington .....	59.9	57.6	58.1	14.5	14.9	15.2	58.0	59.9	59.4
<b>District of Columbia</b> .....	16.0	16.4	16.4	24.8	24.8	25.1	63.4	64.4	65.0
Washington MSA .....	85.8	87.3	88.0	101.4	104.1	106.2	414.8	426.7	428.0
<b>Florida</b> .....	530.0	541.1	539.8	256.3	262.1	262.5	1,308.6	1,388.8	1,386.4
Daytona Beach .....	11.7	11.9	11.8	3.4	3.6	3.6	32.7	35.3	35.0
Fort Lauderdale-Hollywood-Pompano Beach .....	45.4	46.6	46.8	22.5	23.4	23.4	138.4	145.4	145.0
Fort Myers-Cape Coral .....	5.4	5.5	5.6	4.8	5.0	5.1	31.2	34.6	34.0
Jacksonville .....	38.0	39.6	39.7	28.5	28.4	28.7	106.0	111.1	111.8
Melbourne-Titusville-Palm Bay .....	27.8	29.7	29.9	5.8	6.0	6.0	32.8	34.8	34.9
Miami-Hialeah .....	95.9	96.5	95.9	68.9	68.0	68.2	220.9	223.0	221.8
Orlando .....	54.3	54.7	54.7	24.5	26.1	26.1	124.7	130.6	131.2
Pensacola .....	11.5	11.4	11.3	6.3	6.0	6.2	32.8	33.7	33.6
Sarasota .....	8.8	9.3	9.3	3.5	3.6	3.6	30.2	32.5	32.1
Tallahassee .....	4.6	4.7	4.8	3.2	3.2	3.1	23.2	23.2	23.3
Tampa-St. Petersburg-Clearwater .....	92.0	94.4	94.4	36.4	39.2	39.2	221.0	229.3	228.0
West Palm Beach-Boca Raton-Delray Beach .....	35.5	35.8	35.6	12.1	12.3	12.3	84.8	93.5	91.8

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Alabama</b> .....	71.3	70.2	70.9	276.6	282.3	283.0	294.5	304.9	309.8
Birmingham .....	29.3	29.2	29.6	93.9	95.7	96.5	57.9	61.9	63.8
Huntsville .....	3.6	3.7	3.8	28.0	29.6	30.0	29.2	29.8	29.9
Mobile .....	8.2	7.9	7.8	36.8	37.1	37.2	27.6	28.9	28.9
Montgomery .....	7.6	7.7	7.7	25.9	26.2	25.4	32.1	31.6	31.8
Tuscaloosa .....	2.0	2.1	2.1	8.0	8.3	8.1	17.5	19.6	18.3
<b>Alaska</b> .....	11.4	10.7	10.9	44.1	41.1	43.5	64.6	66.7	64.2
<b>Arizona</b> .....	95.6	93.3	93.0	344.3	359.5	358.1	217.0	252.4	228.4
Phoenix .....	76.0	74.0	73.9	231.5	242.6	241.7	113.2	131.9	119.7
Tucson .....	12.8	12.5	12.4	64.3	67.1	66.4	48.6	53.5	47.7
<b>Arkansas</b> .....	38.3	37.9	38.3	156.0	160.5	162.4	141.8	152.2	144.8
Fayetteville-Springdale .....	1.5	1.5	1.5	7.0	7.5	7.4	9.5	10.1	9.4
Fort Smith .....	2.8	2.6	2.7	17.9	16.9	16.8	7.1	8.2	7.5
Little Rock-North Little Rock .....	15.8	16.1	16.2	53.2	54.5	55.3	44.6	46.6	45.4
Pine Bluff .....	1.5	1.5	1.5	6.3	6.3	6.4	7.2	7.7	7.5
<b>California</b> .....	804.7	816.9	821.5	2,902.8	3,001.9	3,010.5	1,915.8	1,991.3	1,994.7
Anaheim-Santa Ana .....	91.6	90.1	90.7	266.4	268.0	272.0	116.9	120.5	120.1
Bakersfield .....	6.3	6.2	6.3	32.4	33.2	32.9	40.9	41.3	40.7
Fresno .....	13.6	12.6	12.7	46.5	48.4	48.4	44.2	47.7	46.2
Los Angeles-Long Beach .....	285.7	291.5	292.6	1,039.0	1,071.4	1,071.8	508.2	516.5	520.2
Modesto .....	4.4	4.6	4.5	21.1	22.1	22.3	17.5	18.5	18.6
Oakland .....	54.4	56.4	56.4	187.0	192.3	193.3	159.6	165.3	164.1
Oxnard-Ventura .....	10.4	10.9	11.0	48.0	51.0	51.0	40.5	41.4	41.6
Riverside-San Bernardino .....	26.5	27.3	27.5	142.3	149.1	148.7	122.4	128.0	126.9
Sacramento .....	33.6	34.3	34.5	117.0	124.5	125.6	166.3	172.4	171.7
San Diego .....	61.0	62.5	62.6	227.3	239.2	240.3	158.6	164.6	165.3
San Francisco .....	113.0	113.4	113.9	280.9	292.0	293.2	135.1	138.2	137.6
San Jose .....	34.9	34.5	34.8	198.1	205.0	205.7	88.5	89.3	89.2
Santa Barbara-Santa Maria-Lompoc .....	8.8	8.7	8.7	39.9	40.6	40.6	27.8	28.3	28.1
Santa Rosa-Petaluma .....	8.5	8.5	8.6	28.5	29.0	29.6	22.7	23.3	23.2
Stockton .....	8.8	8.5	8.5	29.7	30.5	29.7	31.4	32.1	31.8
Vallejo-Fairfield-Napa .....	4.6	4.4	4.4	27.8	30.2	30.2	37.5	37.7	37.9
<b>Colorado</b> .....	99.2	96.7	96.9	334.5	329.0	334.5	260.1	269.4	262.6
Boulder-Longmont .....	4.1	4.1	4.1	21.4	21.8	21.9	20.9	23.1	21.4
Denver .....	67.6	66.1	66.4	198.7	197.0	198.5	124.0	126.8	125.0
<b>Connecticut</b> .....	151.5	152.0	153.5	393.2	398.1	402.6	203.9	207.4	208.3
Bridgeport-Milford .....	11.8	12.3	12.6	46.2	45.8	46.6	20.0	20.5	21.0
Hartford .....	77.5	79.7	80.4	107.9	110.4	111.4	61.3	61.6	61.8
New Haven-Meriden .....	15.4	15.6	15.9	68.7	71.2	71.6	31.7	32.5	32.2
Stamford .....	13.1	13.4	13.6	37.5	38.4	39.1	10.9	10.7	10.8
Waterbury .....	4.5	4.4	4.5	20.8	21.7	22.3	12.8	13.0	13.1
<b>Delaware</b> .....	27.0	28.1	28.7	74.8	79.4	80.9	47.4	47.9	48.8
Wilmington .....	24.0	25.0	25.4	65.8	69.1	70.2	37.4	38.1	38.4
<b>District of Columbia</b> .....	37.5	37.8	38.0	231.1	242.1	243.1	270.3	267.0	269.9
Washington MSA .....	125.4	128.9	130.6	670.8	692.0	698.9	563.1	563.7	561.4
<b>Florida</b> .....	362.7	369.2	370.7	1,306.8	1,392.2	1,393.4	726.1	782.6	770.6
Daytona Beach .....	6.5	6.6	6.6	31.3	31.9	32.6	18.2	19.7	19.8
Fort Lauderdale-Hollywood-Pompano Beach .....	39.9	41.4	41.8	123.9	131.1	131.7	58.1	61.4	62.0
Fort Myers-Cape Coral .....	8.0	8.2	8.3	29.4	32.5	32.4	15.3	16.5	16.7
Jacksonville .....	37.5	39.3	39.4	99.7	108.1	108.7	56.8	59.6	59.3
Melbourne-Titusville-Palm Bay .....	5.4	5.7	5.9	41.5	43.3	44.0	20.9	21.3	20.8
Miami-Hialeah .....	68.2	67.9	68.2	223.6	227.4	226.8	107.4	113.5	113.5
Orlando .....	33.4	35.8	36.1	154.7	159.3	161.4	54.0	57.0	56.6
Pensacola .....	5.7	5.7	5.7	31.1	31.4	31.5	28.6	28.9	29.0
Sarasota .....	8.5	8.7	8.8	30.3	32.3	32.2	12.2	12.6	12.5
Tallahassee .....	5.0	5.0	5.0	21.8	22.7	22.8	43.9	47.7	45.7
Tampa-St. Petersburg-Clearwater .....	66.0	66.7	67.1	219.7	225.5	225.9	99.9	105.0	103.0
West Palm Beach-Boca Raton-Delray Beach .....	28.7	28.8	28.5	92.9	102.6	101.8	39.1	42.0	41.6

See footnotes at end of table.



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

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

(In thousands)

State and area	Total			Mining			Construction		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Georgia</b> .....	2,779.8	2,792.8	2,800.9	8.4	8.4	8.5	152.1	148.8	150.5
Athens .....	62.0	63.3	63.4	.2	.2	.2	2.5	2.3	2.3
Atlanta .....	1,377.0	1,385.0	1,391.1	1.4	1.4	1.4	73.3	70.5	71.6
Augusta .....	156.9	158.0	157.8	.5	.5	.5	9.5	9.7	9.7
Columbus .....	92.8	92.7	92.7	.1	.1	.1	5.4	5.3	5.3
Macon-Warner Robins .....	118.3	118.8	118.5	.1	.1	.1	5.1	4.7	4.8
Savannah .....	103.5	101.7	102.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.8	8.3	8.7
<b>Hawaii</b> .....	459.8	467.9	469.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.6	20.5	20.8
Honolulu .....	367.4	373.2	374.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.0	16.2	18.6
<b>Idaho</b> .....	337.3	343.2	346.8	2.7	3.1	3.1	14.2	13.5	14.9
Boise City .....	87.5	89.2	89.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	4.5	4.3	4.3
<b>Illinois</b> .....	4,912.3	5,006.9	5,036.0	24.4	24.3	24.3	194.8	206.4	215.4
Aurora-Elgin .....	135.4	140.3	142.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.6	6.8	7.2
Bloomington-Normal .....	54.7	56.3	56.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	1.7	1.8
Champaign-Urbana-Rantoul .....	82.9	66.8	83.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.5	2.3	2.5
Chicago .....	3,038.1	3,063.7	3,109.6	2.5	2.5	2.5	122.4	127.3	129.8
Davenport-Rock Island-Moline .....	156.8	155.8	156.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.7	4.6	4.8
Decatur .....	50.4	50.0	50.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	1.8	1.9
Joliet .....	96.4	97.3	96.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.2	5.2	5.2
Lake County .....	187.5	194.8	197.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.0	9.5	9.9
Peoria .....	132.9	136.0	137.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.3	5.4	5.4
Rockford .....	124.0	126.3	126.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.7	4.4	4.7
Springfield .....	96.3	98.4	98.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.1	3.2	3.2
<b>Indiana</b> .....	2,317.4	2,402.8	2,404.3	8.9	8.4	8.3	103.8	111.0	118.7
Anderson .....	46.5	46.8	46.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	1.4	1.4	1.5
Bloomington .....	46.4	53.3	51.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.2	2.4	2.5
Elkhart-Goshen .....	99.2	103.7	104.6	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.9	2.9	3.0
Evansville .....	126.9	128.5	129.6	2.3	2.1	2.1	7.7	7.3	7.3
Fort Wayne .....	186.3	195.5	196.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	9.6	10.8	11.4
Gary-Hammond .....	222.2	228.7	229.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	12.0	12.7	13.6
Indianapolis .....	608.2	630.0	630.2	.8	.8	.8	31.2	33.1	34.0
Lafayette .....	61.0	63.4	63.1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.6	3.1	3.5
Muncie .....	46.7	53.0	50.7	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.1	2.1	2.2
South Bend-Mishawaka .....	110.1	115.5	113.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.2	5.7	6.0
Terre Haute .....	52.2	53.9	53.3	.3	.3	.3	2.0	2.3	2.4
<b>Iowa</b> .....	1,115.4	1,149.2	1,146.0	2.5	2.4	2.4	36.6	35.7	37.6
Cedar Rapids .....	86.5	90.2	91.3	.2	.1	.1	3.3	2.8	3.0
Des Moines .....	206.9	216.5	218.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.8	7.8	8.1
Dubuque .....	41.7	44.1	42.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.4	1.4	1.4
Sioux City .....	50.3	52.6	53.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	1.7	1.9
Waterloo-Cedar Falls .....	59.7	63.5	62.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.0	2.0	2.3
<b>Kansas</b> .....	1,002.9	1,023.4	1,025.1	11.3	11.7	11.3	47.1	42.7	44.9
Topeka .....	86.7	89.2	90.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.7	3.5	3.6
Wichita .....	226.4	231.1	233.1	2.3	2.4	2.4	10.4	9.7	10.2
<b>Kentucky</b> .....	1,313.7	1,358.9	1,362.1	38.9	36.7	36.3	60.1	64.3	65.6
Lexington-Fayette .....	174.9	180.2	181.6	.8	.6	.6	10.6	9.6	9.6
Louisville .....	438.0	456.0	459.3	.6	.4	.4	22.1	24.7	25.2
Owensboro .....	32.8	34.4	33.8	.9	.8	.8	2.1	2.3	2.4
<b>Louisiana</b> .....	1,482.5	1,498.3	1,501.9	54.6	54.8	55.0	81.2	82.6	82.7
Alexandria .....	46.1	45.7	45.7	.2	.2	.2	2.5	2.4	2.4
Baton Rouge .....	209.2	214.0	210.9	.8	.8	.8	19.1	21.2	21.3
Houma-Thibodaux .....	52.6	53.6	53.5	5.8	6.2	6.1	1.5	1.6	1.7
Lafayette .....	80.6	82.2	82.3	10.2	10.3	10.7	3.1	2.9	2.9
Monroe .....	54.7	53.5	54.7	.3	.3	.4	3.0	2.7	2.7
New Orleans .....	508.1	513.1	516.0	14.6	15.0	14.9	21.9	22.2	22.7
Shreveport .....	132.1	133.5	133.9	3.4	3.0	3.0	6.8	7.6	7.7
<b>Maine</b> .....	511.3	520.6	534.7	.1	.1	.1	33.7	34.6	36.6
Lewiston-Auburn .....	39.6	40.6	41.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.3	2.4	2.4
Portland .....	124.1	128.0	128.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.6	9.4	10.0

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Georgia</b> .....	571.7	569.8	569.8	175.4	176.5	177.3	695.9	693.2	694.5
Athens .....	15.1	15.2	15.3	1.8	1.8	1.8	12.8	13.0	13.0
Atlanta .....	188.8	187.8	187.1	115.3	118.8	119.5	379.7	377.4	378.0
Augusta .....	35.5	36.6	36.4	5.3	5.1	5.2	34.4	33.4	33.6
Columbus .....	20.1	20.1	20.1	3.8	3.5	3.6	20.5	20.0	20.0
Macon-Warner Robins .....	18.3	18.1	18.2	4.9	4.9	4.8	26.9	26.9	26.9
Savannah .....	17.2	16.7	16.6	9.5	8.8	8.8	25.4	25.0	25.0
<b>Hawaii</b> .....	22.1	21.8	22.2	37.1	36.7	36.8	123.7	124.7	125.8
Honolulu .....	16.7	16.4	16.6	30.4	30.3	30.4	96.7	97.9	98.6
<b>Idaho</b> .....	55.3	56.4	58.1	17.8	18.0	18.2	86.3	84.8	86.2
Boise City .....	10.9	12.3	12.5	5.2	5.1	5.2	22.9	22.9	23.0
<b>Illinois</b> .....	930.5	945.5	948.9	295.5	300.0	302.9	1,225.6	1,253.9	1,261.2
Aurora-Elgin .....	36.1	37.4	38.1	2.9	3.0	3.2	38.3	39.1	39.8
Bloomington-Normal .....	5.1	5.6	6.1	2.6	2.6	2.6	12.7	12.8	12.8
Champaign-Urbana-Rantoul .....	7.9	8.1	8.1	2.4	2.3	2.3	19.2	19.1	19.1
Chicago .....	552.5	551.4	555.1	193.4	192.4	194.0	760.7	780.4	787.4
Davenport-Rock Island-Moline .....	34.0	32.8	32.9	8.3	8.3	8.3	42.3	42.5	42.3
Decatur .....	13.5	13.1	13.4	4.9	4.8	4.8	11.1	11.3	11.4
Joliet .....	19.3	19.9	19.9	8.4	8.2	8.2	22.8	22.8	22.8
Lake County .....	41.8	44.3	44.4	6.8	7.2	7.3	50.5	52.3	53.3
Peoria .....	30.7	33.9	34.2	6.8	6.6	6.7	33.1	32.8	33.0
Rockford .....	41.1	43.8	44.6	4.3	4.4	4.3	29.0	28.8	28.9
Springfield .....	4.0	3.9	3.9	4.8	4.9	4.9	22.0	22.0	22.0
<b>Indiana</b> .....	619.4	630.8	635.9	120.7	129.0	130.2	555.2	569.4	574.4
Anderson .....	17.1	16.7	16.6	1.5	1.6	1.6	11.4	11.5	11.6
Bloomington .....	8.7	9.2	9.5	1.7	1.8	1.8	11.2	12.0	11.9
Elkhart-Goshen .....	54.0	56.6	57.3	2.9	2.9	2.9	18.5	18.9	19.2
Evansville .....	30.5	30.5	30.9	6.6	6.7	6.7	33.0	34.2	34.4
Fort Wayne .....	51.0	51.7	52.2	12.1	12.5	12.7	46.4	49.1	49.4
Gary-Hammond .....	55.6	56.5	56.8	15.1	15.0	15.0	53.1	54.4	55.0
Indianapolis .....	107.6	105.8	105.9	37.2	38.6	39.0	157.0	164.2	165.6
Lafayette .....	12.0	12.2	12.3	2.0	2.0	2.0	12.9	13.0	12.9
Muncie .....	10.8	10.7	10.7	2.3	2.5	2.5	12.8	13.1	13.1
South Bend-Mishawaka .....	24.1	23.8	23.9	4.9	5.1	5.1	29.5	30.5	30.9
Terre Haute .....	10.5	10.0	10.1	2.8	2.8	3.0	14.6	15.1	15.1
<b>Iowa</b> .....	215.5	224.1	226.9	53.6	54.4	54.8	284.4	291.0	292.2
Cedar Rapids .....	22.2	23.6	23.8	5.5	6.4	6.6	21.0	21.9	22.0
Des Moines .....	23.7	26.1	26.3	12.1	12.6	12.7	53.8	56.7	57.8
Dubuque .....	12.5	13.0	13.0	1.7	1.8	1.8	9.7	9.7	9.9
Sioux City .....	9.0	10.5	10.6	3.2	3.2	3.2	13.1	13.9	14.0
Waterloo-Cedar Falls .....	13.5	14.9	15.0	1.7	1.7	1.8	14.6	15.2	15.3
<b>Kansas</b> .....	176.5	179.6	181.4	62.0	61.2	61.7	252.7	256.9	259.3
Topeka .....	9.1	9.2	9.3	6.7	6.5	6.5	19.6	20.7	20.9
Wichita .....	59.8	59.6	60.3	10.8	10.7	10.8	53.3	53.6	54.3
<b>Kentucky</b> .....	261.0	270.4	272.7	68.0	68.2	68.5	314.7	328.9	330.7
Lexington-Fayette .....	27.9	30.1	30.3	7.6	7.8	8.0	41.8	43.8	44.0
Louisville .....	86.6	87.8	88.1	27.6	29.7	30.0	108.6	114.2	116.1
Owensboro .....	5.9	5.9	5.9	2.2	2.1	2.2	8.3	8.5	8.5
<b>Louisiana</b> .....	164.2	168.1	168.2	104.3	104.0	104.2	363.7	361.8	363.1
Alexandria .....	3.5	3.4	3.5	2.2	2.2	2.2	11.2	11.1	11.1
Baton Rouge .....	18.6	18.6	18.7	10.3	10.4	10.5	50.7	51.2	51.2
Houma-Thibodaux .....	4.5	4.2	4.5	5.5	6.1	6.1	13.7	13.8	13.7
Lafayette .....	6.0	5.9	6.2	5.7	5.6	5.6	22.0	22.6	22.6
Monroe .....	7.0	7.2	7.1	3.0	2.6	2.6	14.5	13.9	14.1
New Orleans .....	42.3	43.8	43.8	43.0	43.6	43.9	135.0	133.8	134.2
Shreveport .....	18.0	17.1	17.3	8.4	8.0	8.0	32.4	32.2	32.5
<b>Maine</b> .....	104.1	105.8	108.6	21.0	20.9	21.5	128.3	130.9	135.2
Lewiston-Auburn .....	10.3	10.6	10.5	1.5	1.4	1.5	9.7	9.8	10.1
Portland .....	15.4	16.5	16.4	6.0	6.0	6.0	36.6	35.9	37.4

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Georgia</b> .....	156.8	156.3	157.2	541.0	550.1	555.6	478.5	489.7	487.4
Athens .....	1.9	2.0	1.9	9.7	9.7	9.8	18.0	19.3	19.1
Atlanta .....	99.1	99.2	99.9	323.5	327.4	331.3	195.9	202.6	202.4
Augusta .....	6.4	6.1	6.2	32.1	32.6	32.7	33.3	33.9	33.4
Columbus .....	6.2	6.2	6.1	16.1	16.8	16.8	20.7	20.7	20.7
Macon-Warner Robins .....	7.4	7.7	7.7	22.1	22.8	22.5	33.4	33.5	33.4
Savannah .....	4.5	4.4	4.3	24.0	24.2	24.6	16.1	16.3	16.4
<b>Hawaii</b> .....	34.0	34.5	34.6	125.9	129.4	130.3	95.2	100.3	98.5
Honolulu .....	28.6	28.8	29.0	97.8	99.4	100.5	80.2	84.2	82.7
<b>Idaho</b> .....	19.4	19.0	19.1	68.3	70.6	71.4	73.3	77.9	75.6
Boise City .....	7.6	7.5	7.6	19.5	19.3	19.6	16.9	17.8	17.6
<b>Illinois</b> .....	362.2	363.6	366.2	1,161.4	1,182.7	1,199.4	717.9	728.5	717.7
Aurora-Elgin .....	6.5	6.6	6.7	29.9	31.7	32.2	15.0	15.6	15.5
Bloomington-Normal .....	9.4	9.6	9.6	12.0	11.8	12.0	11.1	12.2	11.1
Champaign-Urbana-Rantoul .....	3.4	3.3	3.4	16.3	16.2	16.5	31.2	35.5	31.4
Chicago .....	259.6	262.1	265.7	784.6	804.3	812.2	362.4	363.3	362.9
Davenport-Rock Island-Moline .....	8.0	8.2	8.2	31.4	31.7	32.4	27.9	27.7	27.7
Decatur .....	2.7	2.7	2.7	10.6	10.6	10.9	5.6	5.7	5.6
Joliet .....	3.8	3.8	3.8	20.4	20.1	20.3	16.2	17.0	15.9
Lake County .....	6.9	6.7	6.8	42.8	43.7	44.8	29.1	30.3	30.7
Peoria .....	7.0	7.0	7.0	34.5	33.9	35.0	15.5	16.4	16.4
Rockford .....	5.3	5.2	5.3	27.4	27.0	27.7	12.2	12.7	12.7
Springfield .....	8.1	8.0	8.1	24.1	23.7	24.1	32.1	32.6	32.6
<b>Indiana</b> .....	117.7	119.5	121.8	455.2	477.3	478.9	336.5	357.5	338.1
Anderson .....	1.7	1.6	1.7	9.4	9.8	9.6	6.1	6.0	6.1
Bloomington .....	1.8	1.9	1.9	8.0	8.4	8.5	14.9	17.6	15.3
Elkhart-Goshen .....	2.5	2.7	2.7	12.9	13.9	13.7	5.6	6.0	5.7
Evansville .....	5.2	5.4	5.4	29.4	30.2	30.3	12.3	12.2	12.4
Fort Wayne .....	12.3	12.1	12.3	37.9	41.0	40.9	17.0	18.2	17.4
Gary-Hammond .....	8.4	8.5	8.5	47.9	49.8	49.6	30.2	31.9	30.9
Indianapolis .....	46.5	48.3	49.3	137.1	146.6	146.1	88.8	92.7	89.5
Lafayette .....	3.1	3.2	3.2	11.3	11.5	11.6	17.0	18.4	17.5
Muncie .....	1.7	1.7	1.7	10.5	11.0	11.1	8.6	11.9	9.4
South Bend-Mishawaka .....	6.4	6.5	6.5	29.5	32.2	30.9	10.4	11.7	10.5
Terre Haute .....	2.0	2.1	2.1	10.8	11.2	10.9	9.3	10.2	9.5
<b>Iowa</b> .....	65.3	66.2	67.1	246.0	254.5	250.6	209.5	220.9	216.4
Cedar Rapids .....	4.9	4.9	4.9	19.1	19.8	20.2	10.3	10.7	10.7
Des Moines .....	27.0	28.9	29.4	52.3	54.5	54.7	30.0	29.7	29.7
Dubuque .....	1.4	1.5	1.5	11.5	12.8	11.5	3.4	3.8	3.6
Sioux City .....	2.6	2.6	2.6	13.9	14.3	14.4	6.5	6.4	6.6
Waterloo-Cedar Falls .....	3.1	2.8	2.8	13.6	14.2	13.8	11.1	12.6	11.3
<b>Kansas</b> .....	57.2	57.3	57.8	202.2	208.5	209.2	193.9	205.5	199.5
Topeka .....	6.3	6.6	6.8	20.6	21.0	21.3	20.6	21.6	21.5
Wichita .....	11.6	11.3	11.4	52.8	55.8	56.0	27.4	28.0	27.7
<b>Kentucky</b> .....	61.7	61.8	62.9	275.4	285.5	288.2	233.9	243.1	237.2
Lexington-Fayette .....	9.2	9.2	9.3	40.4	42.1	42.4	36.6	37.0	37.4
Louisville .....	29.2	29.5	30.2	104.1	107.6	108.4	59.2	62.1	60.9
Owensboro .....	1.5	1.5	1.5	7.4	8.0	7.9	4.5	5.3	4.6
<b>Louisiana</b> .....	85.8	84.8	84.6	319.5	328.8	327.6	309.2	313.4	316.5
Alexandria .....	2.6	2.6	2.6	11.2	11.3	11.3	12.7	12.5	12.4
Baton Rouge .....	13.7	13.4	13.7	43.5	43.8	44.4	52.5	54.6	50.3
Houma-Thibodaux .....	2.4	2.2	2.2	8.6	8.9	8.9	10.6	10.6	10.3
Lafayette .....	3.8	3.6	3.6	17.9	18.6	18.6	11.9	12.7	12.1
Monroe .....	4.7	4.5	4.6	11.6	11.5	11.6	10.6	10.8	11.6
New Orleans .....	34.4	34.0	34.0	131.5	136.0	135.4	85.4	84.7	87.1
Shreveport .....	7.4	7.2	7.2	32.1	33.3	33.1	23.6	25.1	25.1
<b>Maine</b> .....	25.2	25.3	25.6	110.4	112.3	116.9	88.5	90.7	90.2
Lewiston-Auburn .....	2.2	2.3	2.5	9.8	10.2	10.4	3.8	3.9	3.9
Portland .....	12.3	12.8	12.8	29.3	30.3	31.2	14.9	15.1	14.9

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Maryland</b> .....	2,050.7	2,039.2	2,043.8	1.9	1.8	1.9	155.7	151.0	151.5
Baltimore MSA .....	1,098.6	1,091.2	1,095.8	.3	.3	.3	75.3	74.1	75.1
Baltimore City .....	458.2	459.3	459.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	19.8	19.4	19.7
Suburban Maryland-D.C. ....	721.7	724.8	721.2	.6	.6	.6	64.9	61.9	62.3
<b>Massachusetts</b> .....	3,091.2	3,124.4	3,154.4	1.9	1.9	2.0	143.7	151.2	158.5
Boston .....	1,727.8	1,752.0	1,756.3	.9	1.0	1.1	72.4	74.1	77.2
Brockton .....	72.9	74.0	75.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.8	4.3	4.4
Fall River .....	58.2	55.9	56.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.6	2.7	2.8
Fitchburg-Leominster .....	40.6	40.8	41.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.7	2.8	2.9
Lawrence-Haverhill .....	164.7	168.0	167.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.7	8.4	8.8
Lowell .....	106.4	107.9	108.1	.2	.1	.1	5.9	6.2	6.7
New Bedford .....	67.5	68.7	69.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.2	3.5	3.7
Springfield .....	239.8	244.2	244.9	.2	.1	.1	10.4	10.4	10.6
Worcester .....	200.6	206.6	207.7	.1	.2	.2	10.2	10.5	11.0
<b>Michigan</b> .....	3,732.3	3,766.0	3,776.7	10.3	10.1	10.5	125.6	131.2	137.0
Ann Arbor .....	159.2	169.5	167.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.8	6.4	6.6
Battle Creek .....	57.2	57.9	58.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	2.1	2.2
Benton Harbor .....	63.3	64.9	64.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.6	1.4	1.6
Detroit .....	1,875.9	1,872.6	1,882.2	.8	.9	.9	60.8	61.6	64.6
Flint .....	174.0	168.3	169.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.6	4.5	4.6
Grand Rapids .....	312.1	322.9	323.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	15.1	14.6	15.2
Kalamazoo .....	101.7	105.0	105.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.2	3.1	3.2
Lansing-East Lansing .....	204.0	208.5	205.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.2	5.4	6.0
Muskegon .....	56.4	57.0	57.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.1	2.1	2.2
Saginaw-Bay City-Midland .....	152.4	156.8	156.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	6.1	6.8	7.2
<b>Minnesota</b> .....	1,982.0	2,026.5	2,043.0	6.8	7.1	7.5	88.4	80.8	85.6
Duluth .....	89.6	90.0	90.4	4.2	4.6	4.7	4.6	3.1	3.3
Minneapolis-St. Paul .....	1,291.6	1,320.7	1,326.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	57.4	54.2	56.0
Rochester .....	57.7	58.1	59.3	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.0	2.0	2.2
St. Cloud .....	67.9	73.1	71.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	4.1	3.9	4.1
<b>Mississippi</b> .....	860.5	666.0	884.3	6.1	6.4	6.3	34.9	34.0	34.7
Jackson .....	175.7	181.9	162.0	.9	1.2	1.1	8.8	8.5	8.8
<b>Missouri</b> .....	2,196.9	2,229.9	2,232.6	5.7	5.5	5.7	102.2	100.9	103.3
Kansas City .....	734.8	739.6	742.3	.5	.5	.5	37.9	36.4	37.3
St. Louis .....	1,130.2	1,141.9	1,146.8	3.5	3.5	3.5	58.5	57.3	58.9
Springfield .....	105.5	113.0	110.5	.1	.1	.1	5.0	5.6	5.8
<b>Montana</b> .....	279.6	275.5	278.4	5.9	5.9	6.2	9.6	9.1	9.8
<b>Nebraska</b> .....	661.7	676.7	675.3	1.8	1.8	1.8	25.5	24.4	25.2
Lincoln .....	108.8	113.6	111.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.3	4.3	4.5
Omaha .....	302.0	307.2	308.7	.2	.2	.2	12.8	12.2	12.5
<b>Nevada</b> .....	504.5	527.7	532.1	6.0	10.1	10.6	30.9	33.0	34.1
Las Vegas .....	285.7	300.4	301.9	.3	.3	.3	19.2	20.1	20.7
Reno .....	132.6	138.2	138.6	.9	1.0	1.1	7.1	7.8	8.2
<b>New Hampshire</b> .....	519.1	530.3	538.6	.7	.7	.8	38.8	39.6	41.2
Nashua .....	93.8	96.2	97.1	.1	.1	.1	5.2	5.7	6.0
Portsmouth-Dover-Rochester,NH-ME .....	111.8	114.1	117.0	.1	.1	.1	6.2	6.3	6.6
<b>New Jersey</b> .....	3,638.5	3,672.1	3,720.0	2.4	2.5	2.5	173.0	182.9	188.7
Atlantic City .....	174.2	165.7	177.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	10.5	10.9	11.3
Bergen-Passaic .....	675.8	685.3	691.8	.1	.1	.1	32.4	32.9	33.9
Camden .....	425.4	437.7	442.3	.1	.1	.1	25.0	27.7	28.9
Jersey City .....	241.9	245.5	247.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.0	7.9	8.3
Middlesex-Somerset-Hunterdon .....	519.7	532.7	538.4	.6	.7	.7	23.8	24.4	25.0
Monmouth-Ocean .....	333.7	335.0	345.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	22.0	24.7	25.3
Newark .....	964.0	972.3	978.1	.7	.7	.7	39.2	42.5	44.0
Trenton .....	195.4	200.2	201.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.3	5.4	5.7

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Maryland</b> .....	207.6	204.1	206.6	94.2	92.3	92.6	523.7	522.8	525.5
Baltimore MSA .....	131.6	130.0	131.0	53.8	53.2	53.5	270.2	269.6	270.6
Baltimore City .....	44.4	44.1	44.4	28.1	27.9	27.8	98.5	98.8	98.5
Suburban Maryland-D.C. ....	34.7	35.7	35.8	26.9	26.7	27.2	191.1	194.2	193.6
<b>Massachusetts</b> .....	602.6	583.6	586.2	131.8	130.8	132.9	730.8	730.7	744.3
Boston .....	283.2	275.3	277.0	76.6	76.1	76.7	387.9	386.5	388.6
Brockton .....	11.6	11.5	11.6	5.1	5.0	5.1	22.0	22.9	23.4
Fall River .....	17.0	15.6	15.7	2.0	1.9	2.0	14.1	15.2	15.4
Fitchburg-Leominster .....	11.9	11.5	11.5	1.6	1.6	1.7	10.1	10.3	10.2
Lawrence-Haverhill .....	51.2	50.0	49.9	7.0	6.7	6.7	36.6	37.9	38.4
Lowell .....	36.3	36.2	36.1	3.8	3.4	3.4	22.3	22.9	22.7
New Bedford .....	19.6	18.9	18.9	2.9	3.0	3.2	16.4	16.9	17.2
Springfield .....	51.0	51.5	51.5	9.7	9.9	10.1	56.5	57.4	58.1
Worcester .....	46.3	45.9	46.4	8.8	8.4	8.6	47.8	48.4	48.9
<b>Michigan</b> .....	974.7	935.7	944.0	151.6	153.0	155.1	862.2	875.9	885.7
Ann Arbor .....	39.8	39.0	39.1	4.1	4.4	4.5	28.4	30.2	30.5
Battle Creek .....	15.2	15.4	15.5	1.9	1.8	1.8	11.4	11.9	12.0
Benton Harbor .....	21.4	21.0	21.1	2.3	2.3	2.5	13.3	13.8	14.0
Detroit .....	473.6	445.1	447.3	84.6	87.7	88.5	441.0	449.3	453.2
Flint .....	59.1	49.0	48.8	4.7	4.5	4.5	44.9	46.7	47.3
Grand Rapids .....	96.1	97.9	99.2	11.2	11.3	11.3	80.6	83.4	84.0
Kalamazoo .....	29.9	30.2	30.4	3.2	3.4	3.4	23.1	23.8	24.0
Lansing-East Lansing .....	36.1	32.9	33.7	6.0	5.7	5.7	41.3	43.2	43.6
Muskegon .....	17.6	17.5	17.3	2.4	2.4	2.4	12.6	12.7	12.9
Saginaw-Bay City-Midland .....	43.8	42.9	43.6	6.9	7.0	7.1	36.3	36.9	37.6
<b>Minnesota</b> .....	378.7	383.6	391.1	100.1	101.7	101.0	494.7	502.5	509.6
Duluth .....	7.6	7.7	7.9	5.9	6.1	6.0	22.4	22.0	22.3
Minneapolis-St. Paul .....	254.1	259.9	262.0	69.2	71.2	70.5	316.6	321.1	323.5
Rochester .....	10.7	10.8	11.4	1.7	1.7	1.7	11.7	11.4	11.5
St. Cloud .....	12.0	12.3	12.6	3.4	3.5	3.6	21.2	22.3	22.5
<b>Mississippi</b> .....	228.9	233.4	235.1	42.3	43.0	43.3	186.8	190.3	191.2
Jackson .....	20.4	21.1	21.3	12.6	13.1	13.1	42.4	43.0	43.3
<b>Missouri</b> .....	425.2	419.5	422.1	143.5	144.3	144.0	543.3	551.8	555.0
Kansas City .....	109.6	109.4	109.4	56.4	56.1	55.7	192.1	191.8	192.3
St. Louis .....	222.5	219.4	221.3	73.1	74.7	75.0	277.6	277.8	280.1
Springfield .....	19.9	21.4	21.4	6.8	7.2	7.2	30.2	31.8	31.6
<b>Montana</b> .....	21.2	20.6	20.5	19.9	19.0	19.2	74.4	72.8	74.0
<b>Nebraska</b> .....	88.6	91.6	93.0	42.7	43.8	43.8	171.2	171.8	171.9
Lincoln .....	13.4	13.6	13.9	5.9	5.9	5.9	25.4	25.0	25.1
Omaha .....	34.0	35.1	35.9	22.8	23.8	23.9	77.6	77.6	77.9
<b>Nevada</b> .....	23.4	24.1	24.5	27.9	28.3	28.9	102.4	106.6	108.5
Las Vegas .....	8.7	8.8	8.9	15.7	16.1	16.4	60.1	63.6	64.2
Reno .....	8.5	8.2	8.2	9.1	9.2	9.4	29.6	30.6	31.3
<b>New Hampshire</b> .....	118.2	120.5	121.6	17.6	17.5	18.0	131.1	134.0	136.9
Nashua .....	36.5	37.2	37.3	2.2	2.1	2.2	21.1	21.7	21.7
Portsmouth-Dover-Rochester,NH-ME .....	20.9	20.8	21.2	3.1	3.1	3.2	30.2	30.6	32.2
<b>New Jersey</b> .....	683.0	669.1	673.9	239.4	243.8	245.2	872.3	873.6	889.2
Atlantic City .....	8.2	8.3	8.3	6.3	6.1	6.2	41.3	36.4	42.9
Bergen-Passaic .....	162.0	161.3	162.1	28.9	28.7	28.7	192.7	194.7	196.8
Camden .....	72.1	71.5	71.9	18.4	19.2	19.2	114.5	118.3	119.4
Jersey City .....	50.8	48.2	49.1	31.2	30.4	30.6	58.9	61.2	61.4
Middlesex-Somerset-Hunterdon .....	114.0	115.8	116.5	43.0	44.4	44.7	124.9	127.9	129.2
Monmouth-Ocean .....	30.6	30.3	30.0	16.4	16.6	16.8	92.6	89.9	93.8
Newark .....	183.3	178.2	178.9	81.8	80.9	80.6	197.1	198.2	199.4
Trenton .....	31.2	30.9	31.2	6.6	6.7	6.8	31.5	32.1	32.4

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Maryland</b> .....	126.0	126.9	128.2	548.8	544.0	550.1	392.7	396.3	387.4
Baltimore MSA .....	75.8	74.2	75.4	288.2	286.8	288.8	203.4	203.0	201.1
Baltimore City .....	44.1	43.9	44.7	139.0	140.1	139.2	84.3	85.0	84.9
Suburban Maryland-D.C. ....	41.6	42.7	43.0	212.8	210.4	212.7	149.0	152.4	146.0
<b>Massachusetts</b> .....	220.9	227.8	231.3	852.6	888.7	889.0	406.9	409.7	410.2
Boston .....	152.1	155.4	157.8	548.8	573.0	566.6	205.9	210.6	211.3
Brockton .....	3.2	3.2	3.2	15.1	15.4	15.7	12.1	11.7	11.7
Fall River .....	3.1	3.2	3.2	10.4	10.7	10.8	7.0	6.6	6.5
Fitchburg-Leominster .....	1.8	1.9	1.9	7.9	8.4	8.6	4.6	4.3	4.3
Lawrence-Haverhill .....	6.5	6.5	6.7	33.9	35.1	35.8	20.8	21.4	21.2
Lowell .....	4.4	4.3	4.3	20.1	20.8	20.8	13.4	14.0	14.0
New Bedford .....	2.6	2.7	2.7	12.9	13.3	13.5	9.9	10.4	10.5
Springfield .....	16.3	16.8	16.9	56.8	59.8	59.0	38.9	38.3	38.6
Worcester .....	14.0	14.9	15.3	49.1	52.6	52.1	24.5	25.7	25.2
<b>Michigan</b> .....	182.1	185.1	187.8	823.1	838.3	842.1	602.7	636.8	616.4
Ann Arbor .....	4.7	4.6	4.7	32.5	34.7	34.9	43.7	49.9	47.0
Battle Creek .....	3.6	3.2	3.3	11.7	11.9	11.9	11.4	11.6	11.5
Benton Harbor .....	2.6	2.7	2.7	13.8	14.9	14.4	8.1	8.7	8.5
Detroit .....	106.9	108.3	109.7	468.0	471.3	474.8	240.3	248.4	243.2
Flint .....	5.9	5.9	5.9	30.6	31.4	32.0	24.3	26.2	25.8
Grand Rapids .....	13.8	14.0	14.0	64.5	69.3	68.2	30.4	32.2	31.3
Kalamazoo .....	4.6	5.0	4.9	23.2	23.5	23.7	14.4	16.1	15.7
Lansing-East Lansing .....	11.5	12.2	12.3	37.1	39.5	39.7	66.6	69.3	64.3
Muskegon .....	1.4	1.3	1.4	11.6	11.8	12.0	8.6	9.2	8.9
Saginaw-Bay City-Midland .....	6.1	6.2	6.3	32.7	34.4	34.6	20.4	22.4	22.2
<b>Minnesota</b> .....	120.7	123.6	124.8	476.7	495.3	497.5	315.9	331.8	325.9
Duluth .....	3.1	3.2	3.3	20.8	21.1	21.5	21.2	22.2	21.5
Minneapolis-St. Paul .....	93.9	96.4	96.8	324.8	334.4	337.2	175.0	182.9	179.8
Rochester .....	1.6	1.6	1.7	24.0	24.5	24.7	6.0	6.1	6.1
St. Cloud .....	2.3	2.4	2.4	13.8	15.0	14.3	11.2	13.8	12.3
<b>Mississippi</b> .....	38.8	39.1	39.4	138.7	142.7	144.8	183.9	199.0	189.4
Jackson .....	14.4	14.4	14.5	38.2	40.3	39.9	38.0	40.4	39.9
<b>Missouri</b> .....	136.4	136.0	137.2	508.5	516.2	518.7	332.1	355.7	346.6
Kansas City .....	58.6	58.4	58.6	169.9	173.1	174.2	109.8	113.9	114.3
St. Louis .....	75.0	74.0	74.5	282.9	291.7	293.0	137.1	143.5	140.5
Springfield .....	4.9	4.8	4.8	26.3	28.1	27.4	12.3	14.0	12.2
<b>Montana</b> .....	13.4	12.5	12.6	65.2	65.3	65.9	70.0	70.3	70.2
<b>Nebraska</b> .....	48.5	48.0	48.3	149.6	151.4	150.6	133.8	143.9	140.7
Lincoln .....	8.1	8.7	8.8	22.9	23.8	23.5	28.8	32.3	30.2
Omaha .....	29.3	28.6	28.8	80.8	83.4	83.7	44.5	46.3	45.8
<b>Nevada</b> .....	23.7	24.8	25.1	224.9	232.7	235.2	83.3	88.1	85.2
Las Vegas .....	14.3	15.2	15.4	135.5	141.7	143.4	31.9	34.6	32.6
Reno .....	7.0	7.0	7.1	55.0	57.0	56.9	15.4	17.4	16.6
<b>New Hampshire</b> .....	32.0	33.8	34.3	115.1	117.3	121.4	65.6	66.9	64.4
Nashua .....	4.0	4.1	4.2	18.0	18.1	18.8	6.7	7.2	6.8
Portsmouth-Dover-Rochester,NH-ME .....	6.6	6.7	6.8	20.7	21.7	22.8	24.0	24.8	24.1
<b>New Jersey</b> .....	229.3	234.4	238.5	891.7	908.7	923.5	547.4	557.1	558.5
Atlantic City .....	7.3	7.2	7.5	75.7	72.0	75.6	24.8	24.7	25.1
Bergen-Passaic .....	36.5	39.8	40.5	152.7	158.8	160.1	88.5	89.0	89.6
Camden .....	24.7	25.8	26.5	99.9	102.6	103.6	70.7	72.5	72.7
Jersey City .....	12.6	13.2	13.3	41.4	43.0	43.1	40.0	41.6	41.6
Middlesex-Somerset-Hunterdon .....	36.0	36.3	36.7	106.0	110.9	112.1	71.4	72.3	71.5
Monmouth-Ocean .....	18.1	16.3	18.7	92.0	93.3	96.8	61.8	61.7	63.4
Newark .....	77.7	79.3	80.4	249.2	256.1	258.7	135.0	136.4	135.4
Trenton .....	9.4	9.6	9.6	56.2	59.0	59.0	55.2	56.5	57.0

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>New Mexico</b> .....	530.8	540.0	542.5	14.9	15.3	15.5	32.9	30.5	31.2
Albuquerque .....	231.8	236.4	237.0	.2	.2	.2	16.3	15.4	15.7
Las Cruces .....	39.1	41.3	39.7	.1	.1	.1	2.2	2.2	2.3
Santa Fe .....	54.8	55.2	57.0	.1	.1	.1	2.7	2.5	2.6
<b>New York</b> .....	8,124.9	8,215.2	8,272.0	6.3	6.2	6.3	343.3	346.2	359.5
Albany-Schenectady-Troy .....	406.6	413.8	415.3	.4	.4	.4	20.3	20.2	21.2
Binghamton .....	121.6	123.1	124.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.4	5.1	5.4
Buffalo .....	439.8	447.1	449.1	.4	.4	.4	17.8	17.7	18.8
Elmira .....	38.9	40.7	40.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.6	1.6	1.8
Nassau-Suffolk .....	1,149.6	1,154.8	1,168.7	.2	.2	.2	62.0	63.3	65.4
New York PMSA .....	4,132.9	4,152.3	4,169.7	1.3	1.2	1.3	155.9	158.9	161.4
New York City .....	3,602.7	3,618.4	3,631.1	.7	.7	.7	121.1	124.1	126.1
Niagara Falls .....	81.4	82.9	83.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.4	3.3
Orange County .....	102.5	105.7	106.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.7	6.4	6.6
Poughkeepsie .....	116.5	121.2	121.7	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.8	6.8	6.8
Rochester .....	463.7	473.2	473.4	.8	.8	.6	18.9	19.7	20.0
Rockland County .....	98.8	99.6	100.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	5.5	5.6	5.8
Syracuse .....	300.1	306.0	307.1	.3	.2	.3	15.5	17.2	18.0
Utica-Rome .....	121.8	125.2	126.6	.2	.2	.2	4.3	4.2	4.6
Westchester County .....	412.9	415.1	419.0	.3	.3	.3	27.7	27.3	27.8
<b>North Carolina</b> .....	2,872.4	2,941.5	2,962.1	4.9	4.9	5.0	162.8	168.7	171.5
Asheville .....	78.8	78.7	81.0	.1	.1	.1	4.3	4.5	4.5
Charlotte-Gastonia-Rock Hill .....	578.5	601.6	603.4	.4	.4	.4	34.7	38.2	39.2
Greensboro-Winston-Salem-High Point .....	466.4	471.0	472.6	.3	.3	.3	24.8	25.2	25.7
Raleigh-Durham .....	380.9	388.0	391.0	.4	.4	.4	22.0	22.3	22.6
<b>North Dakota</b> .....	255.4	257.4	258.5	4.0	4.3	4.4	12.8	10.2	11.3
Bismarck .....	37.2	37.2	37.5	.2	.2	.2	1.8	1.6	1.7
Fargo-Moorhead .....	70.5	74.2	73.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.0	3.7	4.1
Grand Forks .....	29.3	30.8	29.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.9	1.5	1.7
<b>Ohio</b> .....	4,611.6	4,704.6	4,726.6	21.1	19.9	20.3	184.4	191.0	200.4
Akron .....	262.1	273.1	289.7	.5	.5	.6	9.4	9.5	9.9
Cincinnati .....	680.2	698.7	702.2	.4	.6	.6	30.2	32.3	33.4
Cleveland .....	899.0	910.1	917.6	1.0	.9	.9	29.8	29.4	30.8
Columbus .....	680.2	680.8	685.5	1.0	1.0	1.0	28.0	29.3	30.5
Dayton-Springfield .....	428.7	437.3	440.0	.4	.4	.4	17.0	17.9	18.8
Toledo .....	278.5	290.1	288.8	.3	.3	.3	10.7	12.1	12.7
Youngstown-Warren .....	190.8	196.1	197.5	.7	.6	.6	8.0	8.3	8.9
<b>Oklahoma</b> .....	1,114.3	1,103.3	1,108.2	45.3	43.1	43.2	35.1	32.4	33.4
Enid .....	22.2	21.9	21.9	1.1	1.0	.9	.7	.7	.7
Lawton .....	34.0	33.9	33.8	.2	.2	.2	1.3	1.2	1.2
Oklahoma City .....	404.2	400.2	398.8	11.1	11.0	11.0	13.0	12.5	12.9
Tulsa .....	290.8	288.8	290.6	15.4	14.7	15.0	10.6	9.7	9.9
<b>Oregon</b> .....	1,109.2	1,134.3	1,148.3	1.5	1.3	1.4	36.0	37.5	38.6
Eugene-Springfield .....	106.6	108.4	110.0	.2	.1	.2	3.3	3.2	3.4
Portland .....	557.4	573.5	579.0	.5	.5	.5	19.9	20.0	21.0
Salem .....	96.6	97.0	99.2	.1	.1	.1	3.3	3.3	3.5
<b>Pennsylvania</b> .....	4,944.9	5,038.1	5,068.6	31.1	29.8	30.0	229.7	236.0	248.4
Allentown-Bethlehem .....	273.0	277.8	279.1	.6	.6	.6	13.4	14.3	14.9
Altoona .....	51.7	52.1	52.7	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.8	2.6	2.7
Beaver County .....	51.5	51.9	52.4	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	3.8	4.4	4.5
Erie .....	110.4	112.5	112.4	.3	.3	.3	3.5	3.5	3.6
Harrisburg-Lebanon-Carlisle .....	296.2	302.0	303.6	.3	.3	.3	12.6	13.2	13.5
Johnstown .....	78.5	80.1	80.7	3.7	3.7	3.7	3.0	2.8	3.1
Lancaster .....	179.7	186.3	188.2	.4	.4	.4	10.8	11.4	11.8
Philadelphia PMSA .....	2,151.7	2,179.7	2,189.4	1.1	1.1	1.1	105.1	111.1	115.5
Philadelphia City .....	770.7	776.4	775.0	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	18.1	17.2	17.8
Pittsburgh .....	864.5	867.3	879.3	5.5	5.4	5.5	46.6	41.3	44.3

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	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>New Mexico</b> .....	38.4	39.8	40.4	28.1	28.9	28.7	129.4	130.9	133.0
Albuquerque .....	20.0	20.4	20.4	12.1	12.4	12.3	59.9	61.4	62.3
Las Cruces .....	4.0	3.9	3.9	1.3	1.3	1.1	8.0	8.8	8.7
Santa Fe .....	1.7	1.7	1.8	1.2	1.3	1.3	10.7	11.0	11.4
<b>New York</b> .....	1,224.3	1,218.9	1,224.5	409.1	407.4	411.2	1,715.7	1,709.8	1,728.1
Albany-Schenectady-Troy .....	49.6	47.9	48.1	16.7	16.7	16.7	85.4	88.3	88.4
Binghamton .....	38.0	38.2	38.6	4.5	4.6	4.6	26.3	27.1	27.1
Buffalo .....	77.6	77.1	77.1	22.0	21.7	22.0	109.7	111.9	112.0
Elmira .....	7.9	8.7	8.5	1.4	1.4	1.5	10.6	10.8	10.8
Nassau-Suffolk .....	177.7	173.9	174.0	49.0	49.9	50.2	310.4	308.3	314.1
New York PMSA .....	460.8	458.8	461.2	241.4	240.2	241.1	765.7	761.0	765.1
New York City .....	380.8	376.2	377.6	215.6	214.2	215.1	640.2	636.0	639.2
Niagara Falls .....	24.3	23.9	23.8	3.8	3.9	4.0	18.9	19.5	19.8
Orange County .....	14.8	15.0	15.0	6.0	6.0	6.0	27.2	28.6	28.7
Poughkeepsie .....	30.0	29.9	30.4	3.3	3.3	3.4	21.9	24.7	24.9
Rochester .....	132.3	132.8	133.7	14.6	14.6	14.8	100.6	101.3	102.1
Rockland County .....	15.1	14.5	14.7	4.1	4.1	4.1	23.3	23.6	23.8
Syracuse County .....	53.2	52.1	53.0	18.2	18.1	18.2	71.2	73.0	73.1
Utica-Rome .....	24.2	24.4	24.7	4.4	4.6	4.6	27.0	27.4	28.0
Westchester County .....	63.1	66.2	67.0	21.1	21.2	21.3	97.8	97.0	97.6
<b>North Carolina</b> .....	857.4	859.7	864.0	141.7	147.2	148.5	640.8	663.7	668.0
Asheville .....	19.1	18.9	19.4	3.7	3.7	3.8	18.4	18.9	19.0
Charlotte-Gastonia-Rock Hill .....	153.8	155.3	155.5	48.7	49.8	50.2	138.1	144.9	145.3
Greensboro-Winston-Salem-High Point .....	153.7	151.0	151.7	27.3	27.8	27.7	104.0	105.3	105.7
Raleigh-Durham .....	58.0	57.4	58.4	17.2	16.6	16.6	81.1	83.3	83.5
<b>North Dakota</b> .....	15.8	15.8	16.0	16.2	16.7	16.8	68.5	69.0	69.4
Bismarck .....	2.0	2.0	2.0	2.6	2.7	2.7	9.9	9.8	9.9
Fargo-Moorhead .....	5.0	4.9	5.0	4.4	4.8	4.9	21.1	21.7	21.7
Grand Forks .....	1.7	1.8	1.8	1.5	1.5	1.5	8.2	8.5	8.3
<b>Ohio</b> .....	1,097.6	1,099.7	1,104.9	208.5	209.3	210.6	1,101.9	1,126.2	1,134.5
Akron .....	66.3	66.8	67.2	12.9	12.8	12.9	65.6	66.3	67.0
Cincinnati .....	144.7	143.2	143.2	35.5	36.4	36.6	170.0	174.7	175.9
Cleveland .....	201.1	202.2	203.3	41.4	40.8	41.1	216.0	220.2	222.1
Columbus .....	103.2	102.3	103.0	27.8	28.4	28.5	166.1	173.5	174.0
Dayton-Springfield .....	104.2	103.2	103.4	15.6	15.6	15.7	97.2	100.1	100.9
Toledo .....	62.0	62.2	63.1	13.9	13.8	13.8	69.0	72.1	72.7
Youngstown-Warren .....	49.2	50.3	50.6	7.7	7.7	7.7	48.7	50.6	51.1
<b>Oklahoma</b> .....	154.4	156.0	157.9	63.4	61.3	61.6	271.0	264.8	267.5
Enid .....	1.6	1.6	1.6	2.3	2.2	2.2	6.5	6.4	6.5
Lawton .....	3.5	3.4	3.5	1.5	1.2	1.2	8.4	8.6	8.6
Oklahoma City .....	47.2	47.1	47.4	20.1	19.0	19.2	101.0	99.7	99.4
Tulsa .....	46.8	47.9	48.3	23.3	24.0	24.1	70.6	69.7	69.7
<b>Oregon</b> .....	208.2	208.0	211.1	58.4	58.9	59.7	277.6	287.7	292.7
Eugene-Springfield .....	19.8	19.9	20.3	4.2	4.3	4.4	26.9	27.0	27.1
Portland .....	93.8	97.9	98.5	34.4	35.1	35.4	145.2	149.7	151.9
Salem .....	14.5	12.7	14.4	2.9	2.9	3.0	21.7	22.0	22.3
<b>Pennsylvania</b> .....	1,050.7	1,049.5	1,059.4	248.5	247.8	246.7	1,126.6	1,142.3	1,149.3
Allentown-Bethlehem .....	77.0	76.2	76.6	14.2	13.9	13.9	59.7	61.1	61.5
Altoona .....	11.4	11.5	11.4	4.5	4.6	4.6	12.8	13.2	13.3
Beaver County .....	10.0	9.6	9.6	5.2	5.2	5.1	11.3	10.9	11.2
Erie .....	34.5	34.5	34.7	4.0	3.7	3.7	23.6	23.7	24.0
Harrisburg-Lebanon-Carlisle .....	52.2	52.0	52.6	18.2	18.3	18.4	66.8	68.0	68.2
Johnstown .....	13.3	13.5	13.3	4.9	5.2	4.9	16.6	16.7	17.0
Lancaster .....	60.7	59.7	60.3	7.1	7.1	7.2	43.0	44.9	45.3
Philadelphia PMSA .....	376.2	371.5	373.9	99.5	97.5	97.7	495.3	502.1	502.8
Philadelphia City .....	96.1	94.4	94.7	45.1	45.1	45.1	148.3	151.4	151.7
Pittsburgh .....	125.3	125.1	126.9	45.9	44.2	44.4	216.8	215.4	219.3

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		
	June 1987	May 1988	June 1988 <sup>p</sup>	June 1987	May 1988	June 1988 <sup>p</sup>	June 1987	May 1988	June 1988 <sup>p</sup>
<b>New Mexico</b> .....	27.4	27.6	27.8	124.5	125.6	127.9	135.2	141.4	138.0
Albuquerque .....	15.0	15.1	15.1	63.9	65.1	65.2	44.4	46.4	45.8
Las Cruces .....	1.7	1.7	1.7	8.2	6.6	8.6	15.6	18.7	15.3
Santa Fe .....	2.0	2.0	2.0	14.8	14.5	15.5	21.6	22.1	22.3
<b>New York</b> .....	795.9	795.2	803.0	2,210.5	2,285.4	2,294.3	1,419.6	1,446.0	1,445.1
Albany-Schenectady-Troy .....	22.9	23.1	23.4	100.9	103.9	104.3	110.3	113.3	112.9
Binghamton .....	4.1	4.1	4.1	22.3	22.5	22.9	20.9	21.5	21.2
Buffalo .....	25.9	27.6	27.8	112.3	115.5	115.8	74.3	75.2	75.3
Elmira .....	1.4	1.4	1.4	9.5	10.2	10.3	6.5	6.5	6.5
Nassau-Suffolk .....	75.8	77.7	78.8	290.7	296.1	299.8	183.7	185.4	186.2
New York PMSA .....	585.1	578.6	579.8	1,255.0	1,262.7	1,268.2	667.8	672.7	671.6
New York City .....	551.4	542.0	544.9	1,108.0	1,136.3	1,139.9	584.9	589.0	587.7
Niagara Falls .....	1.9	1.9	1.9	16.1	17.2	17.0	13.0	12.9	13.0
Orange County .....	4.1	4.0	4.1	22.3	22.8	22.8	22.5	22.9	23.1
Poughkeepsie .....	4.7	4.6	4.9	25.4	26.6	26.1	24.5	25.3	25.2
Rochester .....	22.1	22.0	22.2	109.4	115.7	113.7	65.0	66.5	66.3
Rockland County .....	5.1	5.4	5.5	24.4	24.7	25.0	21.3	21.7	21.5
Syracuse .....	19.4	18.4	19.6	70.5	74.1	72.6	51.8	51.9	52.3
Utica-Rome .....	6.7	7.0	7.1	26.1	27.4	27.2	28.6	30.0	30.2
Westchester County .....	27.8	28.4	26.6	117.4	116.4	117.9	57.7	58.2	58.5
<b>North Carolina</b> .....	128.5	131.2	133.8	488.2	510.2	515.5	448.1	455.9	456.0
Asheville .....	2.8	2.5	2.5	18.8	16.1	18.6	11.6	12.0	12.1
Charlotte-Gastonia-Rock Hill .....	36.6	36.9	37.1	104.5	111.7	112.7	61.6	64.4	63.0
Greensboro-Winston-Salem-High Point .....	22.9	23.4	23.6	61.5	63.9	64.4	51.9	54.1	53.3
Raleigh-Durham .....	23.1	23.5	23.8	93.5	98.2	99.0	85.6	86.3	86.7
<b>North Dakota</b> .....	12.7	12.3	12.5	61.0	63.2	63.6	64.6	65.9	64.5
Bismarck .....	1.7	1.6	1.6	10.3	10.7	10.7	8.7	8.6	8.7
Fargo-Moorhead .....	4.5	4.6	4.6	18.3	19.9	19.1	13.2	14.6	13.6
Grand Forks .....	1.2	1.2	1.2	6.7	6.9	6.9	8.1	8.4	8.3
<b>Ohio</b> .....	244.7	250.1	252.2	1,065.9	1,098.0	1,108.8	687.5	710.5	695.0
Akron .....	10.5	10.8	10.9	58.9	61.3	62.4	38.0	45.0	38.8
Cincinnati .....	40.6	41.8	42.3	172.1	179.9	182.4	86.8	89.9	88.0
Cleveland .....	54.7	56.0	56.6	236.3	242.9	244.9	118.5	117.7	117.9
Columbus .....	57.1	56.8	59.3	155.2	164.0	165.0	122.0	123.6	124.2
Dayton-Springfield .....	18.2	18.2	18.4	104.3	107.4	108.5	71.8	74.5	73.8
Toledo .....	11.4	11.2	11.3	71.4	74.4	74.9	39.7	44.0	40.1
Youngstown-Warren .....	8.3	8.4	8.5	44.5	45.3	45.9	23.9	24.9	24.3
<b>Oklahoma</b> .....	60.2	56.7	57.2	235.4	236.3	241.2	249.5	252.7	246.2
Enid .....	1.0	1.0	1.0	5.5	5.4	5.5	3.5	3.6	3.5
Lawton .....	1.6	1.5	1.5	5.8	5.8	5.9	11.7	12.0	11.7
Oklahoma City .....	25.2	23.8	24.0	90.2	90.1	90.3	96.4	97.0	94.6
Tulsa .....	17.6	17.1	17.3	70.2	69.7	70.9	36.3	36.0	35.4
<b>Oregon</b> .....	72.5	73.4	74.2	242.9	251.7	253.7	212.1	215.8	216.9
Eugene-Springfield .....	4.9	4.9	4.9	24.1	25.1	25.6	23.2	23.9	24.1
Portland .....	47.6	48.3	48.7	136.7	141.4	142.0	79.3	80.6	81.0
Salem .....	5.5	5.7	5.7	18.8	20.0	20.0	29.8	30.3	30.2
<b>Pennsylvania</b> .....	295.3	295.9	299.4	1,280.3	1,334.4	1,341.3	682.7	702.4	696.1
Allentown-Bethlehem .....	11.5	11.8	11.8	66.5	69.4	69.8	30.1	30.5	30.0
Altoona .....	1.7	1.8	1.8	11.2	11.0	11.3	7.3	7.4	7.6
Beaver County .....	1.8	1.8	1.8	11.3	11.8	11.9	8.1	8.2	8.3
Erie .....	5.4	5.4	5.4	26.1	27.5	27.8	13.0	13.9	12.9
Harrisburg-Lebanon-Carlisle .....	17.3	17.7	18.0	63.4	64.9	66.0	65.4	67.6	66.6
Johnstown .....	4.8	4.8	4.8	19.4	20.5	20.4	12.8	12.9	13.5
Lancaster .....	6.7	7.1	7.2	36.2	39.2	38.3	14.8	16.5	15.7
Philadelphia PMSA .....	165.2	163.3	165.6	608.9	629.1	627.6	300.4	304.0	305.2
Philadelphia City .....	73.4	73.1	73.7	247.2	251.9	248.7	142.5	143.3	143.3
Pittsburgh .....	54.6	53.7	54.1	264.7	276.0	277.1	105.1	106.2	107.7

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Pennsylvania-Continued</b>									
Reading .....	147.1	153.1	153.9	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	6.8	7.1	7.5
Scranton-Wilkes-Barre .....	291.0	296.2	297.5	0.7	0.6	0.6	12.8	12.7	13.5
Williamsport .....	50.3	52.7	53.2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	2.0	2.0	2.0
York .....	168.4	176.8	176.8	.4	.5	.5	9.8	11.0	11.4
<b>Rhode Island</b> .....	455.7	459.6	460.3	.1	.1	.1	20.4	20.2	20.9
Pawtucket-Woonsocket-Attleboro .....	134.4	134.5	135.0	.1	.1	.1	5.1	5.0	5.2
Providence .....	319.2	325.0	325.4	.1	.1	.1	15.1	15.0	15.5
<b>South Carolina</b> .....	1,406.2	1,448.7	1,452.4	1.7	1.6	1.7	88.5	90.3	91.8
Charleston .....	189.6	193.7	194.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	13.6	13.6	14.0
Columbia .....	227.6	234.7	234.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	14.0	14.4	14.7
Greenville-Spartanburg .....	310.6	316.0	317.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	22.1	22.4	22.9
<b>South Dakota</b> .....	261.3	262.6	266.0	2.7	2.6	2.6	11.2	10.6	11.6
Rapid City .....	35.9	35.9	37.4	.3	.3	.3	2.4	2.3	2.4
Sioux Falls .....	65.3	66.4	67.5	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.1	3.2	3.5
<b>Tennessee</b> .....	2,020.4	2,063.9	2,067.7	6.8	6.6	6.6	98.2	100.7	101.4
Chattanooga .....	185.4	192.9	193.4	.8	.8	.8	8.2	9.4	9.6
Johnson City-Kingsport-Bristol .....	158.6	164.6	162.7	.3	.3	.3	6.6	6.7	6.8
Knoxville .....	252.7	249.8	251.8	1.9	1.9	1.9	11.8	10.5	10.8
Memphis .....	424.0	432.3	435.9	.1	.1	.1	20.1	20.1	20.2
Nashville .....	469.5	461.3	461.1	.7	.6	.6	29.6	26.3	27.2
<b>Texas</b> .....	6,483.8	6,587.3	6,592.3	180.2	180.7	181.7	344.7	322.7	327.0
Abilene .....	47.7	49.5	49.3	2.0	2.1	2.1	2.1	2.0	2.2
Amarillo .....	77.2	78.7	78.9	1.4	1.2	1.2	3.5	3.8	4.0
Austin .....	349.1	352.0	343.6	.8	.7	.7	16.9	15.1	15.5
Beaumont-Port Arthur .....	127.8	129.4	129.2	1.5	1.5	1.5	7.1	7.9	8.0
Brazoria .....	56.6	58.2	58.4	1.8	1.8	1.7	5.6	6.2	6.4
Brownsville-Harlingen .....	65.8	67.2	67.8	.1	.1	.1	2.3	2.2	2.2
Bryan-College Station .....	45.3	48.0	45.7	.6	.6	.6	1.8	2.2	2.3
Corpus Christi .....	123.1	125.2	124.6	4.3	3.9	3.9	6.5	6.3	6.2
Dallas .....	1,332.5	1,332.5	1,333.2	18.8	18.2	18.3	64.1	51.6	51.6
El Paso .....	185.9	189.2	189.3	.1	.1	.1	9.7	9.2	9.4
Ft. Worth-Arlington .....	512.6	516.5	517.1	3.7	3.6	3.6	25.1	19.7	19.5
Galveston-Texas City .....	72.0	71.0	72.1	.6	.6	.6	3.7	2.9	2.9
Houston .....	1,387.6	1,406.5	1,415.6	61.5	63.3	64.2	83.2	83.3	84.6
Killeen-Temple .....	69.9	70.7	71.3	.1	.1	.1	3.5	3.5	3.6
Laredo .....	35.3	36.8	36.4	1.9	1.9	1.9	1.4	1.3	1.3
Longview-Marshall .....	64.0	65.7	66.1	3.5	3.6	3.7	2.9	3.4	3.4
Lubbock .....	89.7	92.8	91.9	.4	.4	.4	3.4	3.3	3.6
McAllen-Edinburg-Mission .....	87.0	90.0	89.5	.9	.9	.9	3.9	4.1	4.1
Midland .....	42.7	44.7	44.9	9.3	9.8	9.8	1.2	1.2	1.2
Odessa .....	42.1	43.4	43.5	5.9	6.0	6.1	2.0	2.1	2.1
San Angelo .....	36.0	36.3	36.5	.4	.4	.4	1.6	1.6	1.6
San Antonio .....	500.6	510.8	508.4	2.6	2.6	2.6	29.3	26.7	26.8
Sherman-Denison .....	37.2	38.2	38.2	.1	.1	.1	1.7	1.7	1.7
Texarkana .....	45.4	45.0	45.1	.1	.1	.1	1.9	1.9	1.8
Tyler .....	61.7	61.7	61.8	1.9	2.0	2.0	2.2	2.3	2.3
Victoria .....	26.9	27.7	27.6	1.4	1.4	1.5	1.9	1.8	1.8
Waco .....	76.2	78.5	77.3	.1	.1	.1	3.5	3.7	3.7
Wichita Falls .....	50.2	50.7	50.9	1.9	2.0	1.9	1.8	2.1	2.1
<b>Utah</b> .....	642.2	649.8	653.2	8.1	8.1	7.9	28.2	23.7	24.7
Provo-Orem .....	72.8	77.2	78.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	2.8	2.7	2.8
Salt Lake City-Ogden .....	448.0	453.9	456.3	2.6	2.8	2.5	19.3	17.1	17.7
<b>Vermont</b> .....	246.0	248.0	249.2	.6	.7	.8	17.8	17.3	18.5
Barre-Montpelier .....	33.7	34.4	35.3	.2	.2	.2	2.3	2.4	2.6
Burlington .....	74.0	78.0	78.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4.7	5.1	5.3

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	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Pennsylvania—Continued</b>									
Reading .....	47.2	48.4	49.0	6.6	7.1	7.1	32.8	33.6	33.8
Scranton-Wilkes-Barre .....	72.3	71.2	71.3	15.4	15.8	16.0	66.1	67.7	67.5
Williamsport .....	16.5	16.6	16.8	1.9	1.9	1.9	11.5	12.3	12.4
York .....	57.4	60.5	60.7	7.4	8.0	8.0	41.3	42.2	42.0
<b>Rhode Island</b>									
.....	117.1	115.4	115.9	16.3	16.0	16.4	104.6	104.7	106.6
Pawtucket-Woonsocket-Attleboro .....	54.2	53.4	53.5	3.5	3.6	3.6	32.7	33.1	33.6
Providence .....	74.2	72.0	72.3	12.2	12.4	12.7	70.0	71.1	72.5
<b>South Carolina</b>									
.....	376.1	377.8	379.5	58.9	60.6	61.0	316.4	330.1	334.0
Charleston .....	19.7	20.3	20.6	10.1	10.1	10.1	47.4	47.2	47.4
Columbia .....	29.2	29.8	30.1	10.3	10.3	10.6	50.1	51.6	51.6
Greenville-Spartanburg .....	100.7	101.5	101.7	11.2	11.7	11.8	71.2	72.9	73.1
<b>South Dakota</b>									
.....	27.9	30.2	30.3	12.1	12.5	12.5	68.8	68.7	69.4
Rapid City .....	3.2	3.1	3.1	1.7	1.9	1.9	10.5	10.3	10.9
Sioux Falls .....	7.5	8.5	8.7	4.6	4.6	4.7	17.6	17.8	17.8
<b>Tennessee</b>									
.....	497.3	498.9	502.0	104.1	106.4	108.1	478.3	485.3	486.3
Chattanooga .....	44.1	46.4	46.7	8.7	8.3	8.4	43.6	44.9	45.0
Johnson City-Kingsport-Bristol .....	53.3	54.1	54.8	6.0	6.1	6.2	35.6	35.7	36.1
Knoxville .....	50.9	49.8	50.4	9.7	10.1	10.2	64.3	64.0	64.7
Memphis .....	52.6	53.6	53.9	38.9	40.1	40.2	117.1	120.6	120.8
Nashville .....	90.7	86.6	86.7	23.0	24.3	24.6	115.5	111.3	110.5
<b>Texas</b>									
.....	922.9	944.2	949.8	383.8	387.0	389.8	1,641.2	1,654.2	1,669.0
Abilene .....	4.5	4.7	4.7	2.5	2.4	2.4	13.3	13.7	13.8
Amarillo .....	9.9	10.0	10.0	5.7	5.9	5.9	22.2	22.7	23.5
Austin .....	39.4	39.2	39.3	10.7	10.8	10.7	79.4	77.5	77.4
Beaumont-Port Arthur .....	25.1	25.5	25.6	9.8	9.5	9.6	31.7	31.4	31.4
Brazoria .....	15.4	15.7	15.7	2.3	2.3	2.3	11.0	11.0	11.0
Brownsville-Harlingen .....	9.9	10.4	10.5	3.1	3.1	3.1	17.4	17.4	17.6
Bryan-College Station .....	3.0	3.1	3.2	1.6	1.7	1.6	9.6	9.6	9.5
Corpus Christi .....	11.3	11.1	11.1	6.9	6.9	6.9	31.8	32.4	32.6
Dallas .....	222.5	221.9	222.8	89.4	91.6	92.2	345.6	348.5	350.2
El Paso .....	36.1	37.7	37.7	10.2	10.7	10.8	46.5	47.1	47.4
Ft. Worth-Arlington .....	110.3	117.6	119.0	30.0	31.1	31.0	138.6	133.8	133.8
Galveston-Texas City .....	8.6	8.5	8.6	5.3	4.5	4.5	14.7	14.7	15.3
Houston .....	144.7	150.3	151.1	98.1	99.0	99.4	350.3	354.7	358.4
Killeen-Temple .....	8.2	8.1	8.5	2.7	2.7	2.8	16.0	16.4	16.6
Laredo .....	1.8	1.6	1.7	4.4	4.9	5.0	10.1	10.6	10.7
Longview-Marshall .....	15.7	15.9	16.2	3.2	3.1	3.2	16.5	16.8	16.9
Lubbock .....	7.2	7.4	7.5	4.8	5.0	5.0	26.6	27.7	27.8
McAllen-Edinburg-Mission .....	12.1	11.6	12.2	2.8	2.7	2.7	26.6	26.9	26.7
Midland .....	2.9	2.8	2.8	2.1	2.2	2.2	10.0	10.2	10.4
Odessa .....	3.7	3.8	3.8	2.0	2.1	2.1	12.4	12.6	12.8
San Angelo .....	5.5	5.6	5.5	3.1	3.1	3.1	9.4	9.3	9.4
San Antonio .....	46.9	47.1	47.2	18.2	18.1	18.3	130.4	132.5	133.3
Sherman-Denison .....	11.1	11.3	11.3	2.0	2.0	2.0	8.3	8.3	8.4
Texarkana .....	7.3	7.0	7.2	1.8	1.7	1.8	10.6	10.6	10.7
Tyler .....	10.7	10.5	10.5	2.9	2.7	2.7	16.6	16.5	16.8
Victoria .....	2.9	3.1	3.1	1.5	1.5	1.5	7.6	7.8	7.7
Waco .....	14.8	14.9	14.9	3.3	3.3	3.3	18.9	19.1	19.2
Wichita Falls .....	8.5	8.1	8.1	2.6	2.6	2.6	12.2	12.2	12.2
<b>Utah</b>									
.....	91.8	95.9	96.7	37.6	38.5	38.7	152.9	151.6	153.0
Provo-Orem .....	10.2	12.8	12.9	2.7	3.0	3.0	15.7	16.4	16.6
Salt Lake City-Ogden .....	61.8	62.9	63.4	28.8	29.6	29.7	111.5	111.7	112.5
<b>Vermont</b>									
.....	49.4	49.3	50.2	10.2	10.6	10.8	56.7	58.0	58.2
Barre-Montpelier .....	4.6	4.6	4.7	.9	.9	.9	7.1	7.3	7.5
Burlington .....	16.5	16.7	17.2	3.0	3.0	3.0	17.3	18.1	18.1

See footnotes at end of table.

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

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

(In thousands)

State and area	Finance, insurance, and real estate			Services			Government		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Pennsylvania-Continued</b>									
Reading .....	7.5	8.1	8.2	29.9	31.2	31.6	16.3	17.6	16.7
Scranton-Wilkes-Barre .....	12.9	12.9	13.1	70.3	73.7	74.6	40.5	41.6	40.9
Williamsport .....	2.3	2.4	2.4	9.6	10.4	10.8	6.5	7.1	6.9
York .....	4.7	5.2	5.3	29.7	31.0	30.9	17.7	18.4	18.0
<b>Rhode Island</b>									
Pawtucket-Woonsocket-Attleboro .....	25.7	26.0	26.2	112.9	117.8	115.4	58.6	59.4	58.8
Providence .....	3.7	3.6	3.7	24.8	25.4	25.0	10.3	10.3	10.3
.....	21.5	21.7	21.8	82.2	87.6	85.7	43.9	45.1	44.8
<b>South Carolina</b>									
Charleston .....	65.7	66.3	67.7	246.3	258.2	260.4	252.6	263.8	256.3
Columbia .....	8.7	8.8	9.1	40.1	40.5	40.6	49.9	53.1	52.6
Greenville-Spartanburg .....	18.3	18.9	19.3	43.7	44.6	44.6	61.6	64.7	63.3
.....	11.9	12.0	12.1	53.1	55.6	55.9	40.1	39.6	39.3
<b>South Dakota</b>									
Rapid City .....	14.6	14.4	14.7	62.7	63.0	63.8	61.4	60.8	61.1
Sioux Falls .....	1.8	1.7	1.7	9.2	9.3	10.0	6.8	7.0	7.0
.....	6.2	6.3	6.5	17.9	18.5	18.6	8.3	7.4	7.8
<b>Tennessee</b>									
Chattanooga .....	103.0	102.5	103.4	413.9	424.1	424.7	318.7	339.4	335.2
Johnson City-Kingsport-Bristol .....	12.1	11.6	11.6	36.9	37.3	37.4	31.0	34.2	33.9
Knoxville .....	5.3	5.5	5.5	27.9	31.5	29.5	23.6	24.7	23.5
Memphis .....	9.7	9.7	9.6	53.0	51.7	52.1	51.3	52.1	52.1
Nashville .....	24.4	24.9	25.1	98.9	99.8	101.8	71.9	73.1	73.8
.....	33.3	33.3	33.4	115.2	111.0	111.6	61.4	67.9	66.5
<b>Texas</b>									
Abilene .....	444.3	439.5	441.2	1,437.8	1,481.3	1,490.1	1,128.9	1,177.7	1,143.7
Amarillo .....	2.6	2.6	2.6	12.5	13.1	12.6	8.2	8.9	8.9
Austin .....	4.5	4.4	4.4	16.7	16.4	16.8	13.3	14.3	13.1
Beaumont-Port Arthur .....	25.3	24.7	24.7	84.6	83.8	83.5	92.0	100.2	91.8
Brazoria .....	5.3	5.3	5.3	27.9	27.9	28.2	19.4	20.4	19.6
Brownsville-Harlingen .....	2.1	2.0	2.0	7.8	8.1	8.1	10.6	11.1	11.2
Bryan-College Station .....	3.5	3.5	3.5	14.1	13.9	15.0	15.5	16.6	15.8
Corpus Christi .....	1.8	1.6	1.7	8.2	8.7	8.6	18.7	20.5	18.2
Dallas .....	6.9	7.0	7.0	27.7	29.5	29.1	27.7	28.1	27.8
El Paso .....	134.1	128.7	128.6	310.8	320.5	323.2	147.2	151.5	146.3
Ft. Worth-Arlington .....	9.7	9.6	9.6	35.2	35.6	36.2	38.5	39.2	38.1
Galveston-Texas City .....	28.2	26.8	26.8	112.4	115.1	116.9	64.3	68.8	66.5
Houston .....	4.3	4.2	4.2	14.2	14.8	15.2	20.6	20.8	20.8
Killeen-Temple .....	103.2	96.7	97.4	360.7	369.8	372.7	185.9	189.4	187.8
Laredo .....	3.0	2.9	2.9	15.3	15.6	15.7	21.1	21.4	21.1
Longview-Marshall .....	1.6	1.7	1.7	5.9	6.1	6.0	8.2	8.7	8.1
Lubbock .....	2.8	2.7	2.7	11.3	11.7	11.6	8.1	8.5	8.4
McAllen-Edinburg-Mission .....	5.6	5.5	5.5	21.5	22.2	22.2	20.2	21.3	19.9
Midland .....	3.6	3.8	3.8	14.0	14.5	14.5	23.1	25.5	24.6
Odessa .....	2.5	2.5	2.5	8.6	8.8	9.0	6.1	7.2	7.0
San Angelo .....	1.6	1.7	1.7	6.9	7.3	7.3	7.6	7.8	7.8
San Antonio .....	1.8	1.8	1.8	7.7	7.7	8.0	6.5	6.8	6.7
Sherman-Denison .....	40.1	40.1	40.3	120.3	126.1	125.8	112.8	117.6	114.1
Texas City .....	1.7	1.7	1.8	8.1	8.8	8.8	4.2	4.3	4.3
Tyler .....	1.9	1.8	1.9	9.4	9.6	9.6	12.4	12.3	12.0
Victoria .....	3.7	3.6	3.6	14.7	14.9	14.8	9.0	9.2	9.1
Waco .....	1.5	1.6	1.6	5.7	5.8	5.8	4.4	4.7	4.6
Wichita Falls .....	4.7	4.7	4.7	19.0	20.3	19.7	11.9	12.4	11.7
.....	2.3	2.3	2.4	11.4	11.5	11.5	9.5	9.9	10.1
<b>Utah</b>									
Provo-Orem .....	33.9	33.9	34.2	147.0	152.5	155.4	142.6	145.6	142.6
Salt Lake City-Ogden .....	2.4	2.3	2.3	25.0	26.0	26.6	14.0	14.0	14.1
.....	27.9	27.9	28.3	101.8	107.1	108.8	94.3	94.8	93.6
<b>Vermont</b>									
Barre-Montpelier .....	12.1	12.2	12.5	60.3	59.4	60.2	38.9	40.5	38.0
Burlington .....	3.0	2.9	2.9	7.3	7.7	8.0	8.3	8.4	8.5
.....	3.6	3.7	3.7	16.2	19.3	20.0	10.7	12.1	11.0

See footnotes at end of table.

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

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

(In thousands)

State and area	Total			Mining			Construction		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Virginia</b> .....	2,711.8	2,787.5	2,817.1	15.7	15.0	15.2	187.7	195.5	200.1
Bristol .....	31.4	33.3	33.5	.1	.1	.1	1.0	.9	1.0
Charlottesville .....	64.7	67.3	65.9	.1	.1	.1	3.8	3.7	3.9
Danville .....	40.4	41.2	41.4	.1	.1	.1	1.7	2.0	2.1
Lynchburg .....	72.3	72.9	73.7	.1	.1	.1	3.5	3.5	3.5
Norfolk-Virginia Beach-Newport News .....	561.5	572.0	581.0	.1	.1	.1	40.4	39.4	39.7
Northern Virginia .....	716.6	746.7	756.8	.5	.5	.5	54.0	57.8	59.0
Richmond-Petersburg .....	439.5	449.7	452.4	.5	.6	.6	29.4	30.7	31.8
Roanoke .....	122.8	119.4	120.5	.1	.2	.2	7.8	7.6	7.9
<b>Washington</b> .....	1,864.3	1,921.9	1,941.7	3.0	3.3	3.4	89.8	97.1	101.2
Seattle .....	935.0	975.8	986.7	.6	.7	.7	47.1	51.4	53.0
<b>West Virginia</b> .....	603.1	616.5	606.4	35.9	33.7	34.0	25.5	25.4	26.8
Charleston .....	107.3	107.6	107.3	2.3	2.0	2.0	4.4	4.3	4.5
Huntington-Ashland .....	103.4	104.1	104.1	1.3	1.4	1.4	4.5	4.4	4.7
Parkersburg-Marietta .....	59.9	60.6	60.8	.6	.6	.6	3.0	3.0	3.1
Wheeling .....	58.4	59.6	59.1	2.1	2.1	2.1	2.1	2.1	2.2
<b>Wisconsin</b> .....	2,105.5	2,145.2	2,181.1	2.3	2.4	2.5	70.4	72.1	75.4
Appleton-Oshkosh-Neenah .....	145.5	149.4	151.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	5.9	6.2	6.8
Eau Claire .....	54.4	58.5	58.4	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.6	1.7
Green Bay .....	94.7	97.3	99.6	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	3.3	3.4	3.5
Janesville-Beloit .....	54.9	56.8	56.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.1	1.2
Kenosha .....	40.8	42.1	41.9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	.7	.7
La Crosse .....	50.4	54.3	54.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.7	2.0
Madison .....	197.7	204.8	205.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.3	7.6	7.7
Milwaukee .....	700.4	715.4	724.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	21.7	21.6	22.5
Racine .....	70.0	71.2	72.3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.8	1.7	1.8
Wausau .....	45.8	47.5	48.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.3	1.4	1.6
<b>Wyoming</b> .....	186.2	178.2	183.7	17.4	17.6	17.7	11.8	8.8	9.6
<b>Puerto Rico</b> .....	788.1	776.9	809.5	.8	.8	.8	35.0	37.0	37.6
Caguas .....	50.2	52.6	55.0	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Mayaguez .....	54.9	55.5	55.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Ponce .....	51.0	48.7	50.1	.1	.2	.2	2.8	3.5	3.5
San Juan .....	487.9	464.0	475.8	.4	.4	.4	26.2	27.1	27.4
<b>Virgin Islands</b> .....	38.7	40.3	40.1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	1.5	1.9	1.8

See footnotes at end of table.

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

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

(In thousands)

State and area	Manufacturing			Transportation and public utilities			Wholesale and retail trade		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Virginia</b> .....	431.1	425.3	429.1	143.4	144.9	146.8	614.2	638.6	648.9
Bristol .....	10.3	11.4	11.4	1.1	1.1	1.1	7.8	8.2	8.5
Charlottesville .....	8.7	8.6	8.7	2.2	2.3	2.3	13.1	14.1	14.2
Danville .....	16.9	16.7	16.7	1.0	1.0	1.0	8.4	9.1	9.3
Lynchburg .....	24.0	23.2	23.4	3.0	2.8	2.9	14.3	15.4	15.7
Norfolk-Virginia Beach-Newport News .....	67.9	69.8	70.7	26.5	25.9	26.5	137.2	140.4	143.1
Northern Virginia .....	35.1	35.2	35.7	49.8	52.7	54.0	160.2	168.1	169.5
Richmond-Petersburg .....	62.2	62.1	62.2	23.1	23.6	23.7	103.9	109.3	110.1
Roanoke .....	19.7	19.2	19.5	9.0	8.6	8.7	34.7	32.0	32.1
<b>Washington</b> .....	317.2	331.2	334.3	99.5	102.1	104.0	459.9	468.8	478.0
Seattle .....	181.8	192.4	194.8	59.7	60.3	61.1	227.8	235.5	239.1
<b>West Virginia</b> .....	87.1	85.0	86.7	37.0	36.5	37.0	139.3	142.7	144.1
Charleston .....	11.2	10.8	10.8	8.3	8.5	8.5	28.0	28.3	28.5
Huntington-Ashland .....	19.3	19.1	19.3	8.0	7.7	7.7	26.6	26.8	27.0
Parkersburg-Marietta .....	13.9	13.9	14.5	2.1	2.2	2.2	14.6	14.7	14.6
Wheeling .....	7.1	7.1	7.2	3.2	3.3	3.3	15.9	16.1	16.2
<b>Wisconsin</b> .....	531.5	541.3	555.6	95.3	97.2	98.4	500.9	512.6	523.6
Appleton-Oshkosh-Neenah .....	51.5	52.3	54.4	5.2	5.4	5.3	30.8	32.1	32.2
Eau Claire .....	10.4	10.8	11.1	3.5	3.8	3.7	15.7	16.8	16.8
Green Bay .....	24.9	24.8	26.2	6.4	6.3	6.3	24.9	25.5	26.1
Janesville-Beloit .....	17.7	17.9	17.8	2.3	2.5	2.5	13.6	14.0	14.0
Kenosha .....	13.0	14.5	14.3	1.5	1.3	1.3	9.1	9.2	9.4
La Crosse .....	10.7	11.2	11.2	2.5	2.7	2.7	14.0	14.5	14.5
Madison .....	22.7	22.9	23.4	7.1	7.4	7.4	43.9	45.7	45.8
Milwaukee .....	168.5	174.0	175.9	35.0	35.6	35.6	161.5	165.5	168.2
Racine .....	24.2	24.7	24.9	2.3	2.3	2.3	16.7	17.2	17.4
Wausau .....	13.1	13.5	14.0	2.8	3.0	2.9	11.3	11.6	11.6
<b>Wyoming</b> .....	7.7	8.0	8.2	12.8	12.6	12.8	41.3	39.0	40.8
<b>Puerto Rico</b> .....	146.0	154.3	151.1	16.2	15.5	15.4	134.7	140.4	140.1
Caguas .....	15.1	15.0	14.7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.1	9.8	9.9
Mayaguez .....	17.5	20.1	18.2	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	7.7	7.9	7.9
Ponce .....	8.6	9.1	8.8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	8.0	8.2	8.1
San Juan .....	64.3	66.2	66.1	12.5	12.8	12.7	93.5	99.5	99.3
<b>Virgin Islands</b> .....	2.2	2.3	2.3	2.6	2.6	2.6	9.1	9.4	9.3

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		
	June 1987	May 1988	June 1988 <sup>1</sup>	June 1987	May 1988	June 1988 <sup>1</sup>	June 1987	May 1988	June 1988 <sup>1</sup>
<b>Virginia</b> .....	146.5	148.4	150.9	640.2	674.8	686.9	533.0	545.0	539.2
Bristol .....	1.2	1.3	1.4	4.7	5.1	5.0	5.3	5.2	5.0
Charlottesville .....	3.6	3.6	3.6	12.0	12.0	12.2	21.2	22.9	20.9
Danville .....	1.3	1.3	1.3	5.8	5.7	5.6	5.2	5.3	5.3
Lynchburg .....	3.8	4.0	4.1	14.4	14.2	14.1	9.4	9.7	9.9
Norfolk-Virginia Beach-Newport News .....	27.3	27.7	28.5	133.6	140.6	144.1	128.5	128.1	128.3
Northern Virginia .....	46.3	48.6	49.5	227.0	239.5	243.2	143.7	144.3	145.4
Richmond-Petersburg .....	36.9	35.9	36.5	93.9	96.3	96.7	89.6	91.2	90.8
Roanoke .....	8.1	8.6	8.6	27.9	27.6	28.2	15.5	15.6	15.3
<b>Washington</b> .....	108.0	108.1	108.9	420.3	445.5	446.2	366.6	365.8	365.7
Seattle .....	68.3	68.3	68.7	217.1	234.5	236.4	132.6	132.7	132.9
<b>West Virginia</b> .....	24.3	24.3	24.5	125.8	126.3	124.8	128.2	142.6	128.5
Charleston .....	6.1	6.0	6.0	25.6	25.0	25.5	21.4	22.7	21.5
Huntington-Ashland .....	4.0	3.8	3.9	20.5	21.6	21.8	19.2	19.3	18.3
Parkersburg-Marietta .....	2.3	2.3	2.3	13.6	13.6	13.5	9.8	10.3	10.0
Wheeling .....	2.7	2.7	2.7	15.6	15.8	15.6	9.7	10.4	9.8
<b>Wisconsin</b> .....	113.7	114.0	115.4	460.3	468.1	476.6	331.1	337.5	333.6
Appleton-Oshkosh-Neenah .....	7.1	7.6	7.6	27.8	28.2	28.6	16.9	17.3	16.4
Eau Claire .....	2.0	2.0	2.0	11.9	12.2	12.4	9.5	11.3	10.7
Green Bay .....	3.4	3.5	3.6	20.5	22.4	22.6	11.2	11.4	11.2
Janesville-Beloit .....	1.7	1.7	1.7	11.8	12.6	12.7	6.5	6.9	6.8
Kenosha .....	1.3	1.4	1.4	8.1	8.5	8.4	6.5	6.5	6.4
La Crosse .....	1.5	1.5	1.5	13.7	14.3	14.4	6.6	8.4	8.0
Madison .....	17.6	18.2	18.4	42.8	44.2	44.6	56.1	58.6	57.6
Milwaukee .....	49.2	48.7	49.3	180.1	185.9	188.7	84.0	83.8	83.8
Racine .....	2.3	2.3	2.3	14.0	14.8	14.9	8.6	8.2	8.6
Wausau .....	3.4	3.4	3.5	8.0	8.3	8.3	5.8	6.3	6.1
<b>Wyoming</b> .....	7.5	7.2	7.2	35.1	32.0	35.7	52.6	53.0	51.7
<b>Puerto Rico</b> .....	35.0	36.3	36.3	107.8	114.5	112.6	312.6	278.1	315.8
Caguas .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	17.5	17.5	20.4
Mayaguez .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	20.7	18.2	20.3
Ponce .....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	9.2	9.3	9.1	19.5	15.4	17.3
San Juan .....	28.7	29.4	29.3	77.3	81.6	80.5	184.9	147.0	160.0
<b>Virgin Islands</b> .....	1.7	1.7	1.7	9.0	9.5	9.2	12.6	12.9	13.2

<sup>1</sup> Not available.

<sup>2</sup> Combined with construction.

<sup>3</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 1987 benchmarks except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

**ESTABLISHMENT DATA  
HISTORICAL HOURS AND EARNINGS**

**C-1. Average hours and earnings of production or nonsupervisory 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	12.46	525.81	37.4	12.48	466.75
1987 .....	34.8	8.98	312.50	42.4	12.52	530.85	37.8	12.69	479.68
<b>Monthly data, not seasonally adjusted</b>									
<b>1987:</b>									
July .....	35.0	\$8.90	\$311.50	42.0	\$12.41	\$521.22	38.6	\$12.60	\$486.36
August .....	35.2	8.94	314.69	42.7	12.40	529.48	38.6	12.68	489.45
September .....	34.7	9.05	314.04	42.3	12.50	528.75	36.5	12.79	466.84
October .....	34.9	9.08	316.89	42.9	12.42	532.82	38.8	12.82	497.42
November .....	34.8	9.13	317.72	42.6	12.54	534.20	37.1	12.83	475.99
December .....	34.8	9.13	317.72	43.1	12.60	543.06	37.6	12.81	481.66
<b>1988:</b>									
January .....	34.4	9.18	315.79	42.1	12.77	537.62	35.9	12.99	466.34
February .....	34.5	9.17	316.37	41.8	12.71	531.28	36.1	12.82	462.80
March .....	34.4	9.18	315.79	41.9	12.59	527.52	37.4	12.87	481.34
April .....	34.7	9.23	320.28	42.8	12.60	539.28	37.9	12.88	488.15
May .....	34.6	9.26	320.40	42.2	12.54	529.19	38.2	12.87	491.63
June <sup>p</sup> .....	35.0	9.23	323.05	42.6	12.55	534.63	38.7	12.87	498.07
July <sup>p</sup> .....	35.1	9.25	324.68	42.2	12.61	532.14	38.5	12.94	498.19

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
<b>Annual averages</b>										
1964 .....	40.7	\$2.53	\$2.43	\$102.97	41.1	\$2.89	\$118.78	40.7	\$2.52	\$102.56
1965 .....	41.2	2.61	2.50	107.53	41.3	3.03	125.14	40.8	2.61	106.49
1966 .....	41.4	2.71	2.59	112.19	41.2	3.11	128.13	40.7	2.73	111.11
1967 .....	40.6	2.82	2.71	114.49	40.5	3.23	130.82	40.3	2.88	116.06
1968 .....	40.7	3.01	2.88	122.51	40.6	3.42	138.85	40.1	3.05	122.31
1969 .....	40.6	3.19	3.05	129.51	40.7	3.63	147.74	40.2	3.23	129.85
1970 .....	39.8	3.35	3.23	133.33	40.5	3.85	155.93	39.9	3.44	137.26
1971 .....	39.9	3.57	3.45	142.44	40.1	4.21	168.82	39.5	3.65	144.18
1972 .....	40.5	3.82	3.66	154.71	40.4	4.65	187.86	39.4	3.85	151.69
1973 .....	40.7	4.09	3.91	166.46	40.5	5.02	203.31	39.3	4.08	160.34
1974 .....	40.0	4.42	4.25	176.80	40.2	5.41	217.48	38.8	4.39	170.33
1975 .....	39.5	4.83	4.67	190.79	39.7	5.88	233.44	38.7	4.73	183.05
1976 .....	40.1	5.22	5.02	209.32	39.8	6.45	256.71	38.7	5.03	194.66
1977 .....	40.3	5.68	5.44	228.90	39.9	6.99	278.90	38.8	5.39	209.13
1978 .....	40.4	6.17	5.91	249.27	40.0	7.57	302.80	38.8	5.88	228.14
1979 .....	40.2	6.70	6.43	269.34	39.9	8.16	325.58	38.8	6.39	247.93
1980 .....	39.7	7.27	7.02	288.62	39.6	8.87	351.25	38.5	6.96	267.96
1981 .....	39.8	7.99	7.72	318.00	39.4	9.70	382.18	38.5	7.56	291.06
1982 .....	38.9	8.49	8.25	330.26	39.0	10.32	402.48	38.3	8.09	309.85
1983 .....	40.1	8.83	8.52	354.08	39.0	10.79	420.81	38.5	8.55	329.18
1984 .....	40.7	9.19	8.82	374.03	39.4	11.12	438.13	38.5	8.89	342.27
1985 .....	40.5	9.54	9.16	386.37	39.5	11.40	450.30	38.4	9.16	351.74
1986 .....	40.7	9.73	9.34	396.01	39.2	11.70	458.64	38.3	9.35	358.11
1987 .....	41.0	9.91	9.48	406.31	39.2	12.03	471.58	38.1	9.59	365.38
<b>Monthly data, not seasonally adjusted</b>										
<b>1987:</b>										
July .....	40.6	\$9.87	\$9.45	\$400.72	39.6	\$12.00	\$475.20	38.2	\$9.56	\$365.19
August .....	40.9	9.86	9.42	403.27	39.7	12.06	478.78	38.3	9.60	367.68
September .....	40.8	9.99	9.53	407.59	39.2	12.11	474.71	38.0	9.64	366.32
October .....	41.3	9.95	9.48	410.94	39.4	12.12	477.53	38.3	9.65	369.60
November .....	41.4	10.01	9.54	414.41	39.3	12.21	479.85	38.2	9.72	371.30
December .....	41.8	10.07	9.59	420.93	39.2	12.24	479.81	38.2	9.73	371.69
<b>1988:</b>										
January .....	41.0	10.07	9.62	412.87	39.0	12.16	474.24	37.9	9.78	370.66
February .....	40.7	10.05	9.63	409.04	38.9	12.23	475.75	37.9	9.78	370.66
March .....	40.9	10.07	9.64	411.86	38.6	12.19	470.53	37.9	9.78	370.66
April .....	41.0	10.12	9.68	414.92	39.2	12.27	480.98	38.2	9.88	377.42
May .....	40.9	10.14	9.70	414.73	39.2	12.28	481.38	38.0	9.87	375.06
June <sup>p</sup> .....	41.2	10.16	9.70	418.59	39.5	12.29	485.46	38.2	9.85	376.27
July <sup>p</sup> .....	40.7	10.18	9.73	414.33	39.7	12.31	488.71	38.3	9.94	380.70

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	117.29
1974 .....	32.7	3.14	102.68	36.5	3.77	137.61	33.6	3.75	126.00
1975 .....	32.4	3.36	108.86	36.5	4.06	148.19	33.5	4.02	134.67
1976 .....	32.1	3.57	114.60	36.4	4.27	155.43	33.3	4.31	143.52
1977 .....	31.6	3.85	121.66	36.4	4.54	165.26	33.0	4.65	153.45
1978 .....	31.0	4.20	130.20	36.4	4.89	178.00	32.8	4.99	163.67
1979 .....	30.6	4.53	138.62	36.2	5.27	190.77	32.7	5.36	175.27
1980 .....	30.2	4.88	147.38	36.2	5.79	209.60	32.6	5.85	190.71
1981 .....	30.1	5.25	158.03	36.3	6.31	229.05	32.6	6.41	208.97
1982 .....	29.9	5.48	163.85	36.2	6.78	245.44	32.6	6.92	225.59
1983 .....	29.8	5.74	171.05	36.2	7.29	263.90	32.7	7.31	239.04
1984 .....	29.8	5.85	174.33	36.5	7.63	278.50	32.6	7.59	247.43
1985 .....	29.4	5.94	174.64	36.4	7.94	289.02	32.5	7.90	256.75
1986 .....	29.2	6.03	176.08	36.4	8.36	304.30	32.5	8.18	265.85
1987 .....	29.2	6.11	178.41	36.3	8.73	316.90	32.5	8.48	275.60
Monthly data, not seasonally adjusted									
<b>1987:</b>									
July .....	30.0	\$6.07	\$182.10	36.2	\$8.63	\$312.41	32.8	\$8.34	\$273.55
August .....	30.2	6.07	183.31	36.4	8.74	318.14	32.9	8.40	276.36
September .....	29.5	6.20	182.90	36.0	8.73	314.28	32.4	8.54	276.70
October .....	29.1	6.16	179.26	36.2	8.76	317.11	32.5	8.61	279.83
November .....	29.0	6.18	179.22	36.3	8.89	322.71	32.5	8.71	283.08
December .....	29.3	6.19	181.37	36.0	8.81	317.16	32.4	8.73	282.85
<b>1988:</b>									
January .....	28.3	6.24	176.59	36.2	8.96	324.35	32.4	8.81	285.44
February .....	28.5	6.23	177.56	36.4	9.02	328.33	32.6	8.81	287.21
March .....	28.6	6.24	178.46	35.8	8.97	321.13	32.3	8.80	284.24
April .....	28.9	6.26	180.91	36.2	9.03	326.89	32.6	8.82	287.53
May .....	28.9	6.28	181.49	35.8	9.09	325.42	32.4	8.84	286.42
June <sup>p</sup> .....	29.4	6.26	184.04	35.9	8.96	321.66	32.7	8.78	287.11
July <sup>p</sup> .....	30.0	6.28	188.40	36.2	9.00	325.80	33.0	8.80	290.40

<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 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Total private</b> .....		35.0	35.0	34.6	35.0	35.1					
<b>Mining</b> .....		42.3	42.0	42.2	42.6	42.2					
Metal mining .....	10	41.9	42.0	42.2	42.5						
Iron ores .....	101	41.4	40.0	40.2	41.4						
Copper ores .....	102	42.6	43.6	43.7	43.1						
Coal mining .....	11,12	42.8		41.5	42.1						
Bituminous coal and lignite mining .....	12	42.8		41.5	42.1						
Oil and gas extraction .....	13	40.7	42.1	41.2	41.3						
Crude petroleum, natural gas, and natural gas liquids .....	131,2	40.6	42.5	40.2	41.5						
Oil and gas field services .....	138	40.8	41.8	41.8	41.2						
Nonmetallic minerals, except fuels .....	14	46.5	46.3	46.5	47.1						
Crushed and broken stone .....	142	48.2	48.6	47.7	48.4						
<b>Construction</b> .....		38.1	38.6	38.2	38.7	38.5					
General building contractors .....	15	37.5	37.8	37.5	37.9						
Residential building construction .....	152	37.1	37.1	36.7	37.0						
Operative builders .....	153	38.0	38.0	39.1	38.5						
Nonresidential building construction .....	154	38.0	38.5	38.4	39.0						
Heavy construction contractors .....	16	41.7	42.8	42.6	43.3						
Highway and street construction .....	161	42.7	44.9	43.9	45.0						
Heavy construction, except highway .....	162	41.0	41.5	41.9	42.3						
Special trade contractors .....	17	37.4	37.8	37.3	37.7						
Plumbing, heating, and air conditioning .....	171	38.2	38.7	38.5	38.9						
Painting, paper hanging, and decorating .....	172	36.2	36.4	35.9	36.7						
Electrical work .....	173	38.9	39.2	38.7	38.7						
Masonry, stonework, and plastering .....	174	35.6	35.8	35.4	35.5						
Carpentering and flooring .....	175	36.1	36.1	35.9	35.7						
Roofing and sheet metal work .....	176	34.1	35.2	34.1	35.7						
<b>Manufacturing</b> .....		41.1	40.6	40.9	41.2	40.7	3.7	3.6	3.7	3.9	3.8
<b>Durable goods</b> .....		41.7	41.0	41.7	41.9	41.2	3.8	3.6	4.0	4.1	3.8
Lumber and wood products .....	24	41.3	40.4	40.5	40.9	40.2	4.1	3.9	3.7	3.9	
Logging camps and logging contractors .....	241	40.7	39.6	40.5	41.0	-	4.3	4.0	4.7	4.0	
Sawmills and planing mills .....	242	42.4	41.2	41.4	41.6		4.8	4.5	4.4	4.4	
Sawmills and planing mills, general .....	2421	42.5	41.4	41.9	42.0		4.9	4.7	4.6	4.6	
Hardwood dimension and flooring .....	2426	42.1	41.0	39.7	40.2		4.3	3.7	3.2	3.5	
Millwork, plywood, and structural members .....	243	41.6	40.5	40.0	40.6		4.1	3.8	3.3	3.8	
Millwork .....	2431	42.5	41.2	40.5	41.0		4.1	3.6	2.8	3.4	
Wood kitchen cabinets .....	2434	40.8	40.0	39.0	39.8		3.5	3.3	2.8	3.4	
Hardwood veneer and plywood .....	2435	41.2	39.8	41.0	41.0		3.9	4.0	3.8	3.8	
Softwood veneer and plywood .....	2436	41.6	40.0	40.8	41.5		4.7	4.3	4.7	5.0	
Wood containers .....	244	39.1	38.9	39.4	39.5		3.3	3.1	3.6	3.5	
Wood buildings and mobile homes .....	245	39.9	40.3	39.8	40.5		3.5	3.5	3.0	3.2	
Mobile homes .....	2451	39.4	40.1	39.4	40.0		3.2	3.0	2.9	2.9	
Miscellaneous wood products .....	249	40.6	39.9	40.3	40.6		3.4	3.0	3.1	3.3	
Furniture and fixtures .....	25	40.0	39.3	39.1	39.3	38.7	2.7	2.5	2.4	2.6	
Household furniture .....	251	39.5	38.9	38.6	39.1	-	2.5	2.3	2.2	2.3	
Wood household furniture .....	2511	40.1	39.3	39.3	39.2		2.7	2.3	2.5	2.4	
Upholstered household furniture .....	2512	38.4	37.9	36.8	38.0		2.0	1.7	1.3	1.8	
Metal household furniture .....	2514	41.2	40.3	40.4	40.5		3.3	3.0	3.1	2.7	
Mattresses and bedsprings .....	2515	38.7	39.2	39.5	40.6		2.7	3.4	3.1	3.6	
Office furniture .....	252	40.8	39.3	40.0	39.5		3.0	2.5	2.2	2.4	
Public building and related furniture .....	253	40.5	41.2	40.4	41.5		3.4	3.8	3.9	4.5	
Partitions and fixtures .....	254	41.1	40.0	40.3	39.7		3.3	3.3	2.9	3.0	
Miscellaneous furniture and fixtures .....	259	40.4	39.5	38.0	39.3		2.5	2.6	2.1	2.7	
Stone, clay, and glass products .....	32	42.5	42.6	42.8	42.8	42.5	5.2	5.3	5.3	5.3	
Flat glass .....	321	46.7	44.3	46.5	47.2	-	6.0	5.0	8.2	7.9	
Glass and glassware, pressed or blown .....	322	41.3	40.9	41.7	40.9		4.8	5.0	4.4	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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Total private</b> .....		\$8.91	\$8.90	\$9.26	\$9.23	\$9.25	\$311.85	\$311.50	\$320.40	\$323.05	\$324.68
<b>Mining</b> .....		12.52	12.41	12.54	12.55	12.61	529.60	521.22	529.19	534.63	532.14
Metal mining .....		12.91	12.92	12.99	13.18		540.93	542.64	548.18	560.15	
Iron ores .....	101	14.20	14.84	13.41	14.55		587.88	593.60	539.08	602.37	
Copper ores .....	102	11.37	11.25	11.56	11.68		484.36	490.50	505.17	503.41	
Coal mining .....	11,12	15.65		15.75	15.80		669.82	614.26	653.63	665.18	
Bituminous coal and lignite mining .....	12	15.71		15.80	15.85		672.39	618.19	655.70	667.29	
Oil and gas extraction .....	13	11.52	11.50	11.62	11.58		468.86	484.15	478.74	478.25	
Crude petroleum, natural gas, and natural gas liquids .....	131,2	13.98	14.03	14.39	14.32		567.59	596.28	578.48	594.28	
Oil and gas field services .....	138	9.97	9.91	10.14	10.06		406.78	414.24	423.85	414.47	
Nonmetallic minerals, except fuels .....	14	10.64	10.60	10.89	10.94		494.76	490.78	506.39	515.27	
Crushed and broken stone .....	142	10.07	10.04	10.33	10.41		485.37	487.94	492.74	503.84	
<b>Construction</b> .....		12.66	12.60	12.87	12.87	12.94	482.35	486.36	491.63	498.07	498.19
General building contractors .....	15	11.61	11.59	12.09	12.00		435.38	438.10	453.38	454.80	
Residential building construction .....	152	10.88	10.77	11.44	11.32		403.65	399.57	419.85	418.84	
Operative builders .....	153	10.28	10.22	11.04	11.04		390.64	388.36	431.66	425.04	
Nonresidential building construction .....	154	12.52	12.57	12.87	12.85		475.76	483.95	494.21	501.15	
Heavy construction contractors .....	16	12.21	12.11	12.31	12.39		509.16	518.31	524.41	536.49	
Highway and street construction .....	161	12.12	12.09	12.24	12.47		517.52	542.84	537.34	561.15	
Heavy construction, except highway .....	162	12.28	12.12	12.36	12.34		503.48	502.98	517.88	521.98	
Special trade contractors .....	17	13.24	13.18	13.37	13.38		495.18	498.20	498.70	504.43	
Plumbing, heating, and air conditioning .....	171	13.45	13.39	13.70	13.66		513.79	518.19	527.45	531.37	
Painting, paper hanging, and decorating .....	172	12.52	12.56	12.63	12.55		453.22	457.18	453.42	460.59	
Electrical work .....	173	14.69	14.70	14.68	14.70		571.44	576.24	568.12	568.89	
Masonry, stonework, and plastering .....	174	13.56	13.44	13.67	13.65		482.74	481.15	483.92	484.58	
Carpentering and flooring .....	175	12.46	12.41	12.77	12.79		449.81	448.00	458.44	456.60	
Roofing and sheet metal work .....	176	11.58	11.58	11.90	11.83		394.88	407.62	405.79	422.33	
<b>Manufacturing</b> .....		9.87	9.87	10.14	10.16	10.18	405.66	400.72	414.73	418.59	414.33
<b>Durable goods</b> .....		10.40	10.38	10.67	10.70	10.70	433.68	425.58	444.94	448.33	440.84
Lumber and wood products .....	24	8.43	8.45	8.54	8.59	8.64	348.16	341.38	345.87	351.33	347.33
Logging camps and logging contractors .....	241	10.78	10.79	10.64	10.74	-	438.75	427.28	430.92	440.34	-
Sawmills and planing mills .....	242	8.59	8.60	8.68	8.70		364.22	354.32	359.35	361.92	
Sawmills and planing mills, general .....	2421	8.95	8.95	9.00	9.02		380.38	370.53	377.10	378.84	
Hardwood dimension and flooring .....	2426	6.77	6.78	7.00	7.02		285.02	277.98	277.90	282.20	
Millwork, plywood, and structural members .....	243	8.33	8.35	8.59	8.61		346.53	338.18	343.60	349.57	
Millwork .....	2431	8.63	8.65	8.84	8.80		366.78	356.38	358.02	360.80	
Wood kitchen cabinets .....	2434	7.66	7.61	7.95	8.04		312.53	304.40	310.05	319.99	
Hardwood veneer and plywood .....	2435	6.85	6.89	7.02	6.99		282.22	274.22	287.82	286.59	
Softwood veneer and plywood .....	2436	9.77	9.77	10.12	10.19		406.43	390.80	412.90	422.89	
Wood containers .....	244	6.20	6.21	6.39	6.33		242.42	241.57	251.77	250.04	
Wood buildings and mobile homes .....	245	7.92	7.97	8.08	8.09		316.01	321.19	321.58	327.65	
Mobile homes .....	2451	8.01	8.04	8.22	8.22		315.59	322.40	323.87	328.80	
Miscellaneous wood products .....	249	7.38	7.32	7.37	7.39		299.63	292.07	297.01	300.03	
Furniture and fixtures .....	25	7.66	7.66	7.87	7.89	7.94	306.40	301.04	307.72	310.08	307.28
Household furniture .....	251	7.04	7.05	7.24	7.29	-	278.08	274.25	279.46	285.04	-
Wood household furniture .....	2511	6.50	6.53	6.80	6.79		260.65	256.63	267.24	266.17	
Upholstered household furniture .....	2512	7.75	7.69	7.90	7.92		297.60	291.45	290.72	300.96	
Metal household furniture .....	2514	7.05	7.21	7.12	7.37		290.46	290.56	287.65	298.49	
Mattresses and bedsprings .....	2515	7.60	7.63	7.74	7.78		294.12	299.10	305.73	315.87	
Office furniture .....	252	8.70	8.66	8.94	9.01		354.96	340.34	357.60	355.90	
Public building and related furniture .....	253	8.12	8.06	8.34	8.39		328.86	332.07	336.94	348.19	
Partitions and fixtures .....	254	9.12	9.18	9.40	9.31		374.83	367.20	378.82	369.61	
Miscellaneous furniture and fixtures .....	259	8.17	8.09	8.25	8.14		330.07	319.56	313.50	319.90	
Stone, clay, and glass products .....	32	10.28	10.30	10.45	10.47	10.55	436.90	438.78	447.26	448.12	448.38
Flat glass .....	321	14.34	14.05	14.92	14.87	-	669.68	622.42	693.78	701.86	-
Glass and glassware, pressed or blown .....	322	11.43	11.62	11.66	11.73		472.06	475.26	486.22	479.76	

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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
Stone, clay, and glass products—Continued											
Glass containers .....	3221	41.5	40.6	42.1	40.5		5.9	5.9	5.5	5.3	
Pressed and blown glass, nec .....	3229	41.0	41.2	41.2	41.3		3.6	3.8	3.2	3.3	
Products of purchased glass .....	323	41.3	41.3	41.8	41.9		3.6	3.5	3.4	3.5	
Cement, hydraulic .....	324	41.8	42.0	42.8	42.3		3.3	3.3	3.5	3.2	
Structural clay products .....	325	42.0	42.0	42.0	41.9		4.2	4.3	4.2	4.4	
Pottery and related products .....	326	40.2	39.3	39.8	40.0		2.7	2.9	3.1	2.9	
Concrete, gypsum, and plaster products .....	327	44.0	44.7	44.3	44.6		7.0	7.3	7.1	7.3	
Concrete block and brick .....	3271	46.4	45.3	45.6	46.3		8.8	8.5	7.6	8.0	
Concrete products, nec .....	3272	43.4	43.7	43.5	43.4		6.2	6.2	6.2	6.3	
Ready-mixed concrete .....	3273	43.4	45.0	44.2	44.7		6.9	7.7	7.5	7.9	
Misc. nonmetallic mineral products .....	329	41.9	41.6	42.5	42.5		4.6	4.3	4.8	4.7	
Abrasive products .....	3291	43.4	42.7	43.5	43.8		3.8	3.5	3.6	3.8	
Asbestos products .....	3292	42.7	40.3	43.1	42.6		5.1	4.1	4.7	3.8	
Primary metal industries .....											
Blast furnaces and basic steel products .....	331	43.4	43.7	43.9	44.5	43.7	4.9	5.2	5.6	6.0	
Blast furnaces and steel mills .....	3312	43.5	44.2	44.2	44.7	-	4.9	5.4	5.8	6.1	
Steel pipe and tubes .....	3317	43.1	41.7	42.9	44.1		5.5	4.7	5.8	6.5	
Iron and steel foundries .....	332	43.0	42.2	43.8	43.6		5.0	4.6	5.8	5.8	
Gray iron foundries .....	3321	43.1	42.3	44.2	43.9		5.4	4.8	6.3	6.2	
Malleable iron foundries .....	3322	43.2	41.4	42.1	42.9		4.5	3.4	4.3	4.6	
Steel foundries, nec .....	3325	42.1	41.9	43.8	43.4		4.3	4.4	5.6	5.7	
Primary nonferrous metals .....	333	43.4	43.3	43.2	43.4		4.5	4.4	4.5	4.6	
Primary aluminum .....	3334	44.2	44.0	43.8	43.8		4.8	4.7	4.7	4.9	
Nonferrous rolling and drawing .....	335	43.3	42.9	43.5	43.7		5.6	5.6	5.8	6.2	
Copper rolling and drawing .....	3351	43.2	41.6	42.8	43.5		5.5	5.9	5.3	6.8	
Aluminum sheet, plate, and foil .....	3353	43.8	44.3	45.0	45.3		7.2	7.4	7.7	7.7	
Nonferrous wire drawing and insulating .....	3357	42.5	42.7	43.5	43.3		4.7	4.9	5.5	5.7	
Nonferrous foundries .....	336	41.6	40.5	42.1	42.1		3.3	3.1	3.9	4.1	
Aluminum foundries .....	3361	42.2	41.3	42.9	42.8		3.6	3.4	4.2	4.6	
Fabricated metal products .....											
Metal cans and shipping containers .....	341	44.5	44.4	43.9	45.0	-	6.2	6.3	5.2	5.9	
Metal cans .....	3411	44.5	44.7	44.0	45.2		6.2	6.4	5.3	6.0	
Cutlery, hand tools, and hardware .....	342	41.1	40.3	41.5	41.9		3.0	3.0	3.4	3.6	
Hand and edge tools, and hand saws and blades .....	3423,5	42.0	40.1	40.9	41.4		3.2	2.7	2.8	3.0	
Hardware, nec .....	3429	40.4	40.2	41.5	41.8		2.9	3.1	3.6	3.8	
Plumbing and heating, except electric .....	343	42.0	40.4	40.2	40.8		4.0	3.0	3.1	3.5	
Plumbing fittings and brass goods .....	3432	42.5	40.4	40.6	40.8		3.8	2.3	3.1	3.2	
Heating equipment, except electric .....	3433	40.9	39.9	39.4	40.5		3.1	2.9	2.7	3.3	
Fabricated structural metal products .....	344	41.1	40.6	40.8	41.2		3.5	3.4	3.4	3.8	
Fabricated structural metal .....	3441	41.5	41.2	41.8	42.3		3.7	3.7	4.3	4.9	
Metal doors, sash, and trim .....	3442	40.8	40.4	40.4	40.7		3.6	3.3	2.9	3.3	
Fabricated plate work (boiler shops) .....	3443	42.1	41.3	42.2	42.9		3.6	3.4	3.9	4.3	
Sheet metal work .....	3444	40.0	39.5	39.5	39.8		3.1	3.1	2.9	2.9	
Architectural metal work .....	3446	41.3	40.5	40.5	40.5		3.9	3.5	3.4	3.5	
Screw machine products, bolts, etc .....	345	42.7	41.6	43.1	43.0		4.8	4.2	5.3	5.2	
Screw machine products .....	3451	41.2	40.7	42.2	42.0		3.6	3.3	4.6	4.4	
Bolts, nuts, rivets, and washers .....	3452	44.3	42.7	44.2	44.3		6.1	5.3	6.1	6.2	
Metal forgings and stampings .....	346	42.4	40.5	43.3	43.6		4.5	3.6	5.4	5.5	
Iron and steel forgings .....	3462	42.1	40.9	43.4	43.5		4.0	3.5	4.7	5.1	
Automotive stampings .....	3465	43.8	41.0	45.8	46.2		5.3	3.5	7.0	7.2	
Metal stampings, nec .....	3469	40.8	39.7	40.6	41.0		3.7	3.6	3.9	3.8	
Metal services, nec .....	347	41.3	40.8	40.9	41.1		3.7	3.4	3.5	3.8	
Plating and polishing .....	3471	40.9	40.4	40.8	41.1		3.6	3.5	3.5	3.8	
Metal coating and allied services .....	3479	41.9	41.5	41.0	41.2		3.9	3.2	3.6	3.8	
Ordnance and accessories, nec .....	348	41.5	40.6	41.4	41.5		3.0	2.6	3.3	3.3	
Ammunition, except for small arms, nec .....	3483	40.1	39.4	40.7	40.4		2.4	2.1	2.6	2.5	
Misc. fabricated metal products .....	349	41.3	40.5	41.6	42.0		3.5	3.3	3.6	3.7	
Valves and pipe fittings .....	3494	41.7	40.7	42.1	42.6		3.6	3.5	3.8	4.0	
Misc. fabricated wire products .....	3496	41.0	40.8	40.7	41.5		3.2	3.3	3.3	3.6	
Machinery, except electrical .....											
Engines and turbines .....	351	42.4	42.9	44.2	44.2	-	4.9	3.5	4.9	4.7	
Turbines and turbine generator sets .....	3511	39.3	38.7	42.7	44.0		3.6	3.3	4.7	5.2	
Internal combustion engines, nec .....	3519	43.4	44.2	44.6	44.2		5.3	3.5	5.0	4.6	
Farm and garden machinery .....	352	41.9	41.7	42.7	42.3		3.2	3.5	3.8	3.7	
Farm machinery and equipment .....	3523	42.5	43.0	43.7	43.5		3.8	4.4	4.6	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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
Stone, clay, and glass products—Continued											
Glass containers .....	3221	\$11.99	\$12.14	\$12.08	\$12.24		\$497.59	\$492.88	\$508.57	\$495.72	
Pressed and blown glass, nec .....	3229	10.77	10.99	11.16	11.14		441.57	452.79	459.79	460.08	
Products of purchased glass .....	323	8.87	8.83	9.11	9.13		366.33	364.68	380.80	382.55	
Cement, hydraulic .....	324	13.15	13.24	13.13	13.02		549.67	556.08	561.96	550.75	
Structural clay products .....	325	8.49	8.52	8.86	8.86		356.58	357.84	372.12	371.23	
Pottery and related products .....	326	8.77	8.88	9.40	9.33		352.55	348.98	374.12	373.20	
Concrete, gypsum, and plaster products .....	327	10.11	10.10	10.18	10.24		444.84	451.47	450.97	456.70	
Concrete block and brick .....	3271	8.93	9.04	9.31	9.36		414.35	409.51	424.54	433.37	
Concrete products, nec .....	3272	8.90	8.96	9.05	9.18		386.26	391.55	393.68	398.41	
Ready-mixed concrete .....	3273	11.05	10.95	11.02	11.04		479.57	492.75	487.08	493.49	
Misc. nonmetallic mineral products .....	329	10.43	10.40	10.54	10.57		437.02	432.64	447.95	449.23	
Abrasive products .....	3291	9.68	9.73	10.03	9.94		420.11	415.47	436.31	435.37	
Asbestos products .....	3292	10.33	10.59	10.65	10.48		441.09	426.78	459.02	446.45	
Primary metal industries .....	33	11.91	11.93	12.13	12.16	\$12.19	513.32	510.60	527.66	531.39	\$524.17
Blast furnaces and basic steel products .....	331	13.75	13.63	13.96	13.97	14.00	596.75	595.63	612.84	621.67	611.80
Blast furnaces and steel mills .....	3312	14.45	14.25	14.70	14.71		628.58	629.85	649.74	657.54	
Steel pipe and tubes .....	3317	11.12	10.93	10.94	11.09		479.27	455.78	469.33	489.07	
Iron and steel foundries .....	332	10.70	10.70	10.97	11.02		460.10	451.54	480.49	480.47	
Gray iron foundries .....	3321	11.11	11.15	11.50	11.58		478.84	471.65	508.30	508.36	
Malleable iron foundries .....	3322	11.82	11.65	11.83	11.68		510.62	482.31	498.04	501.07	
Steel foundries, nec .....	3325	10.06	10.04	10.23	10.23		423.53	420.68	448.07	443.98	
Primary nonferrous metals .....	333	12.88	13.02	13.09	13.12		558.99	563.77	565.49	569.41	
Primary aluminum .....	3334	13.34	13.42	13.53	13.58		589.63	590.48	592.61	594.80	
Nonferrous rolling and drawing .....	335	11.38	11.43	11.64	11.71		492.75	490.35	506.34	511.73	
Copper rolling and drawing .....	3351	10.56	10.62	10.77	10.96		456.19	441.79	460.96	476.76	
Aluminum sheet, plate, and foil .....	3353	13.87	13.70	13.95	13.99		607.51	606.91	627.75	633.75	
Nonferrous wire drawing and insulating .....	3357	11.31	11.44	11.88	11.99		480.68	488.49	516.78	519.17	
Nonferrous foundries .....	336	9.46	9.48	9.59	9.63		393.54	383.94	403.74	405.42	
Aluminum foundries .....	3361	9.71	9.70	9.77	9.83		409.76	400.61	419.13	420.72	
Fabricated metal products .....	34	9.98	9.93	10.23	10.27	10.19	416.17	405.14	426.59	432.37	416.77
Metal cans and shipping containers .....	341	13.28	13.30	13.41	13.48		590.96	590.52	588.70	606.60	
Metal cans .....	3411	14.04	14.04	14.27	14.31		624.78	627.59	627.88	646.81	
Cutlery, hand tools, and hardware .....	342	9.82	9.70	10.18	10.24		403.60	390.91	422.47	429.06	
Hand and edge tools, and hand saws and blades .....	3423,5	9.18	9.03	9.30	9.27		385.56	362.10	380.37	383.78	
Hardware, nec .....	3429	10.11	9.97	10.60	10.72		408.44	400.79	439.90	448.10	
Plumbing and heating, except electric .....	343	9.21	9.17	9.26	9.32		386.82	370.47	372.25	380.26	
Plumbing fittings and brass goods .....	3432	8.69	8.58	8.87	8.92		369.33	346.63	360.12	363.94	
Heating equipment, except electric .....	3433	9.16	9.20	9.04	9.09		374.64	367.08	356.18	368.15	
Fabricated structural metal products .....	344	9.27	9.26	9.50	9.51		381.00	375.96	387.60	391.81	
Fabricated structural metal .....	3441	9.88	9.92	10.19	10.16		410.02	408.70	425.94	429.77	
Metal doors, sash, and trim .....	3442	7.64	7.59	8.03	8.05		311.71	306.64	324.41	327.64	
Fabricated plate work (boiler shops) .....	3443	10.25	10.11	10.25	10.27		431.53	417.54	432.55	440.58	
Sheet metal work .....	3444	9.66	9.81	9.86	9.87		386.40	387.50	389.47	392.83	
Architectural metal work .....	3446	8.99	8.90	8.89	8.97		371.29	360.45	360.05	363.29	
Screw machine products, bolts, etc .....	345	9.75	9.71	10.00	9.98		416.33	403.94	431.00	429.14	
Screw machine products .....	3451	9.05	9.05	9.29	9.27		372.86	368.34	392.04	389.34	
Bolts, nuts, rivets, and washers .....	3452	10.50	10.45	10.83	10.82		465.15	446.22	478.69	479.33	
Metal forgings and stampings .....	346	11.78	11.67	12.30	12.34		499.47	472.64	532.59	538.02	
Iron and steel forgings .....	3462	12.48	12.49	12.88	12.94		525.41	510.84	558.99	562.89	
Automotive stampings .....	3465	13.65	13.53	14.47	14.53		597.87	554.73	662.73	671.29	
Metal stampings, nec .....	3469	9.26	9.33	9.42	9.43		377.81	370.40	382.45	386.63	
Metal services, nec .....	347	7.98	8.06	8.19	8.26		329.57	328.85	334.97	339.49	
Plating and polishing .....	3471	7.96	8.08	8.19	8.25		325.56	326.43	334.15	339.08	
Metal coating and allied services .....	3479	8.02	8.02	8.18	8.27		336.04	332.83	335.38	340.72	
Ordnance and accessories, nec .....	348	10.97	10.98	11.27	11.33		455.26	445.79	466.58	470.20	
Ammunition, except for small arms, nec .....	3483	10.51	10.43	10.88	10.96		421.45	410.94	442.82	442.78	
Misc. fabricated metal products .....	349	9.29	9.29	9.43	9.46		383.68	376.25	392.29	397.32	
Valves and pipe fittings .....	3494	9.96	9.93	10.23	10.28		415.33	404.15	430.68	437.93	
Misc. fabricated wire products .....	3496	8.39	8.33	8.38	8.40		343.99	339.86	341.07	348.60	
Machinery, except electrical .....	35	10.68	10.67	10.90	10.93	10.94	452.83	446.01	462.16	464.53	461.67
Engines and turbines .....	351	13.31	13.32	13.63	13.69		564.34	571.43	602.45	605.10	
Turbines and turbine generator sets .....	3511	12.96	12.77	13.87	13.76		509.33	494.20	592.25	605.44	
Internal combustion engines, nec .....	3519	13.41	13.46	13.56	13.67		581.99	594.93	604.78	604.21	
Farm and garden machinery .....	352	9.92	9.91	9.88	9.96		415.65	413.25	421.88	421.31	
Farm machinery and equipment .....	3523	10.60	10.54	10.61	10.60		450.50	453.22	463.66	461.10	

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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
<b>Machinery, except electrical—Continued</b>											
Construction and related machinery .....	353	42.6	42.1	43.3	43.3		3.8	3.4	4.3	4.3	
Construction machinery .....	3531	43.7	42.6	44.0	44.5		3.6	3.1	3.9	4.1	
Mining machinery .....	3532	42.6	42.2	41.6	41.1		4.6	4.0	3.9	3.7	
Oil field machinery .....	3533	42.6	43.7	45.3	44.2		5.0	4.9	6.6	6.3	
Conveyors and conveying equipment .....	3535	42.4	42.0	42.5	42.9		3.8	3.7	4.4	4.5	
Industrial trucks and tractors .....	3537	39.7	39.6	40.9	41.2		2.8	2.6	2.8	3.5	
Metalworking machinery .....	354	42.6	41.9	42.9	43.2		4.5	4.3	4.9	4.9	
Machine tools, metal cutting types .....	3541	42.4	41.1	42.4	42.8		3.7	3.6	4.1	4.3	
Machine tools, metal forming types .....	3542	42.0	41.3	43.8	44.1		4.6	4.3	5.2	5.3	
Special dies, tools, jigs, and fixtures .....	3544	43.1	42.4	43.3	43.7		5.1	5.0	5.6	5.7	
Machine tool accessories .....	3545	41.6	41.1	41.7	42.2		3.8	3.7	4.5	4.3	
Power driven hand tools .....	3546	42.1	41.9	43.0	42.4		3.5	3.2	3.8	3.3	
Special industry machinery .....	355	42.2	41.3	42.2	42.4		4.2	3.9	4.5	4.8	
Food products machinery .....	3551	42.3	41.5	42.3	41.9		3.7	3.3	4.1	4.1	
Textile machinery .....	3552	43.7	41.9	42.2	42.6		4.6	4.0	3.6	3.8	
Printing trades machinery .....	3555	39.9	39.7	40.4	40.5		4.0	4.2	4.8	5.1	
General industrial machinery .....	356	42.4	41.6	42.9	42.8		3.9	3.8	4.5	4.7	
Pumps and pumping equipment .....	3561	43.2	41.4	43.5	43.6		4.0	3.4	4.3	4.6	
Ball and roller bearings .....	3562	43.5	43.3	44.4	44.1		5.2	4.8	6.1	6.2	
Air and gas compressors .....	3563	41.8	41.1	42.8	41.5		3.0	3.0	4.8	4.8	
Blowers and fans .....	3564	41.8	41.1	41.2	41.9		3.0	3.6	2.8	3.1	
Speed changers, drives, and gears .....	3566	41.0	41.1	43.7	42.9		3.4	3.8	5.4	5.6	
Power transmission equipment, nec .....	3568	43.6	41.7	41.5	41.8		4.6	4.3	4.6	5.1	
Office and computing machines .....	357	43.0	41.9	41.1	41.2		3.6	3.2	2.8	3.2	
Electronic computing equipment .....	3573	42.9	41.5	41.3	41.3		3.6	3.2	2.7	3.2	
Refrigeration and service machinery .....	358	42.3	41.9	41.9	42.3		3.8	3.9	3.7	4.0	
Refrigeration and heating equipment .....	3585	42.8	42.6	42.6	42.8		3.9	4.4	4.1	4.2	
Misc. machinery, except electrical .....	359	41.7	41.4	41.7	42.1		4.0	3.8	4.4	4.4	
Carburetors, pistons, rings, and valves .....	3592	42.2	40.5	42.8	43.1		4.5	3.4	5.1	5.2	
Machinery, except electrical, nec .....	3599	41.6	41.5	41.6	42.0		3.9	3.8	4.3	4.4	
Electrical and electronic equipment .....	36	41.0	40.3	40.7	41.1	40.2	3.0	2.7	3.0	3.3	
Electric distributing equipment .....	361	41.5	40.5	41.8	42.3	-	3.0	3.0	3.2	3.6	
Transformers .....	3612	42.5	40.8	41.3	42.4		3.1	2.8	3.1	3.4	
Switchgear and switchboard apparatus .....	3613	40.5	40.2	42.1	42.1		2.9	3.2	3.3	3.7	
Electrical industrial apparatus .....	362	41.3	40.8	41.6	42.6		3.3	3.0	3.7	4.4	
Motors and generators .....	3621	41.2	40.9	41.5	42.6		3.5	3.4	4.2	5.1	
Industrial controls .....	3622	40.7	39.9	41.0	41.9		2.6	1.7	2.3	2.8	
Household appliances .....	363	40.3	39.3	39.3	39.8		3.0	2.5	2.4	3.0	
Household refrigerators and freezers .....	3632	40.0	39.2	40.5	39.5		3.3	3.2	3.7	4.9	
Household laundry equipment .....	3633	40.2	41.3	40.1	40.1		3.2	3.7	1.9	2.0	
Electric housewares and fans .....	3634	40.3	38.6	39.1	39.6		2.6	1.9	2.6	3.0	
Electric lighting and wiring equipment .....	364	40.0	39.3	40.0	40.5		2.6	2.2	2.8	3.2	
Electric lamps .....	3641	40.0	39.4	40.3	40.9		2.7	2.4	2.9	3.7	
Current-carrying wiring devices .....	3643	39.8	39.5	39.5	40.0		2.6	2.5	2.7	3.0	
Noncurrent-carrying wiring devices .....	3644	40.6	39.5	40.4	40.8		2.6	1.5	2.3	2.6	
Residential lighting fixtures .....	3645	39.0	37.4	38.4	38.7		1.4	1.1	1.8	1.7	
Radio and TV receiving equipment .....	365	41.2	40.2	41.3	41.3		2.2	2.1	3.4	3.3	
Radio and TV receiving sets .....	3651	41.1	39.8	41.2	40.9		1.7	1.5	2.8	2.8	
Communication equipment .....	366	41.1	40.9	40.8	40.9		2.6	2.5	2.5	2.5	
Telephone and telegraph apparatus .....	3661	41.6	41.7	42.5	42.7		2.6	2.4	3.2	2.9	
Radio and TV communication equipment .....	3662	40.9	40.6	40.2	40.2		2.6	2.5	2.2	2.4	
Electronic components and accessories .....	367	41.0	40.5	40.3	40.5		3.3	3.2	3.2	3.3	
Electronic tubes .....	3671-3	41.7	40.0	41.3	41.6		2.9	2.1	3.8	3.3	
Semiconductors and related devices .....	3674	40.8	40.8	40.2	40.1		3.5	4.0	3.4	3.4	
Electronic components, nec .....	3679	41.4	40.7	40.5	40.7		3.5	3.2	3.0	3.4	
Misc. electrical equipment and supplies .....	369	41.9	40.6	41.9	42.6		3.6	2.6	3.8	4.2	
Storage batteries .....	3691	41.6	40.3	41.2	41.9		3.5	2.8	2.7	3.4	
Engine electrical equipment .....	3694	43.4	41.2	42.8	43.6		4.6	2.9	5.0	5.3	

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
<b>Machinery, except electrical—Continued</b>											
Construction and related machinery .....	353	\$11.00	\$10.96	\$11.06	\$11.09		\$468.60	\$461.42	\$478.90	\$480.20	
Construction machinery .....	3531	12.19	12.16	12.31	12.37		532.70	518.02	541.64	550.47	
Mining machinery .....	3532	11.39	11.61	11.38	11.40		485.21	489.94	473.41	468.54	
Oil field machinery .....	3533	11.12	10.78	10.87	10.78		473.71	471.09	492.41	476.48	
Conveyors and conveying equipment .....	3535	9.56	9.65	9.82	9.97		405.34	405.30	417.35	427.71	
Industrial trucks and tractors .....	3537	9.74	9.63	9.78	9.83		386.68	381.35	400.00	405.00	
Metalworking machinery .....	354	11.07	11.04	11.30	11.29		471.58	462.58	484.77	487.73	
Machine tools, metal cutting types .....	3541	11.15	11.11	11.20	11.28		472.76	456.62	474.88	482.78	
Machine tools, metal forming types .....	3542	11.41	11.47	11.81	11.73		479.22	473.71	517.28	517.29	
Special dies, tools, jigs, and fixtures .....	3544	11.82	11.78	12.08	12.06		509.44	499.47	523.06	527.02	
Machine tool accessories .....	3545	9.95	9.91	10.15	10.10		413.92	407.30	423.26	426.22	
Power driven hand tools .....	3546	8.44	8.40	8.81	8.94		355.32	351.96	378.83	379.06	
Special industry machinery .....	355	10.59	10.64	11.02	11.10		446.90	439.43	465.04	470.64	
Food products machinery .....	3551	10.59	10.57	11.04	11.08		447.96	438.66	466.99	464.25	
Textile machinery .....	3552	8.80	8.80	9.09	9.10		384.56	368.72	383.60	387.66	
Printing trades machinery .....	3555	11.22	11.53	12.03	12.09		447.68	457.74	486.01	489.65	
General industrial machinery .....	356	10.37	10.33	10.58	10.60		439.69	429.73	453.88	453.68	
Pumps and pumping equipment .....	3561	11.04	11.02	11.15	11.24		476.93	456.23	485.03	490.06	
Ball and roller bearings .....	3562	11.10	10.83	11.15	11.17		482.85	468.94	495.06	492.60	
Air and gas compressors .....	3563	10.27	10.25	10.44	10.57		429.29	421.28	446.83	438.66	
Blowers and fans .....	3564	9.09	9.14	9.39	9.39		379.96	375.65	386.87	393.44	
Speed changers, drives, and gears .....	3566	10.13	10.24	10.52	10.61		415.33	420.86	459.72	455.17	
Power transmission equipment, nec .....	3568	10.54	10.52	10.59	10.55		459.54	438.68	439.49	440.99	
Office and computing machines .....	357	10.25	10.29	10.64	10.68		440.75	431.15	437.30	440.02	
Electronic computing equipment .....	3573	10.25	10.28	10.66	10.67		439.73	426.62	440.26	440.67	
Refrigeration and service machinery .....	358	10.40	10.35	10.63	10.66		439.92	433.67	445.40	450.92	
Refrigeration and heating equipment .....	3585	10.66	10.60	10.85	10.88		456.25	451.56	462.21	465.66	
Misc. machinery, except electrical .....	359	10.38	10.35	10.56	10.57		432.85	428.49	440.35	445.00	
Carburetors, pistons, rings, and valves .....	3592	12.73	12.69	12.75	12.82		537.21	513.95	545.70	552.54	
Machinery, except electrical, nec .....	3599	10.04	10.04	10.26	10.27		417.66	416.66	426.82	431.34	
Electrical and electronic equipment .....	36	9.83	9.86	10.12	10.15	\$10.20	403.03	397.36	411.88	417.17	\$410.04
Electric distributing equipment .....	361	9.09	9.19	9.41	9.40	-	377.24	372.20	393.34	397.62	-
Transformers .....	3612	8.92	9.02	9.21	9.19		379.10	368.02	380.37	389.66	
Switchgear and switchboard apparatus .....	3613	9.24	9.33	9.57	9.58		374.22	375.07	402.90	403.32	
Electrical industrial apparatus .....	362	9.80	9.84	10.07	10.08		404.74	401.47	418.91	429.41	
Motors and generators .....	3621	9.68	9.70	10.06	10.08		398.82	396.73	417.49	429.41	
Industrial controls .....	3622	9.70	9.83	9.96	9.93		394.79	392.22	408.36	416.07	
Household appliances .....	363	9.75	9.90	10.14	10.12		392.93	389.07	398.50	402.78	
Household refrigerators and freezers .....	3632	11.18	11.33	11.63	11.82		447.20	444.14	471.02	466.89	
Household laundry equipment .....	3633	11.63	11.81	11.81	11.80		467.53	487.75	473.58	473.18	
Electric housewares and fans .....	3634	7.27	7.27	7.37	7.37		292.98	280.62	288.17	291.85	
Electric lighting and wiring equipment .....	364	9.08	9.09	9.51	9.53		363.20	357.24	380.40	385.97	
Electric lamps .....	3641	10.21	10.46	10.65	10.64		408.40	412.12	429.20	435.18	
Current-carrying wiring devices .....	3643	8.63	8.65	9.15	9.19		343.47	341.68	361.43	367.60	
Noncurrent-carrying wiring devices .....	3644	9.21	9.21	9.25	9.25		373.93	363.80	373.70	377.40	
Residential lighting fixtures .....	3645	6.83	6.85	7.05	7.08		266.37	256.19	270.72	274.00	
Radio and TV receiving equipment .....	365	9.13	9.11	9.64	9.40		376.16	366.22	398.13	388.22	
Radio and TV receiving sets .....	3651	9.44	9.43	10.04	9.88		387.98	375.31	413.65	404.09	
Communication equipment .....	366	11.67	11.77	12.03	12.10		479.64	481.39	490.82	494.89	
Telephone and telegraph apparatus .....	3661	11.25	11.31	11.54	11.72		468.00	471.63	490.45	500.44	
Radio and TV communication equipment .....	3662	11.82	11.95	12.23	12.26		483.44	485.17	491.65	492.85	
Electronic components and accessories .....	367	8.87	8.91	9.08	9.16		363.67	360.86	365.92	370.98	
Electronic tubes .....	3671-3	11.12	11.23	11.30	11.37		463.70	449.20	466.69	472.99	
Semiconductors and related devices .....	3674	10.56	10.68	11.05	11.22		430.85	435.74	444.21	449.92	
Electronic components, nec .....	3679	8.10	8.08	8.16	8.21		335.34	328.86	330.48	334.15	
Misc. electrical equipment and supplies .....	369	10.58	10.29	10.80	10.83		443.30	417.77	452.52	461.36	
Storage batteries .....	3691	11.20	11.05	11.02	11.05		465.92	445.32	454.02	463.00	
Engine electrical equipment .....	3694	11.25	10.69	11.61	11.66		488.25	440.43	496.91	508.38	

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				
		June 1987	July 1987	May 1988	June 1988 <sup>o</sup>	July 1988 <sup>o</sup>	June 1987	July 1987	May 1988	June 1988 <sup>o</sup>	July 1988 <sup>o</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .....	37	41.9	41.0	43.0	43.0	41.8	4.1	3.7	4.8	4.9	
Motor vehicles and equipment .....	371	42.0	40.9	44.3	44.3	42.1	4.0	3.5	5.7	5.8	
Motor vehicles and car bodies .....	3711	41.2	40.3	44.3	44.3	-	3.4	3.1	5.6	5.9	
Truck and bus bodies .....	3713	42.1	42.7	43.2	43.1	-	4.1	4.6	4.9	4.1	
Motor vehicle parts and accessories .....	3714	42.9	41.3	44.6	44.7	-	4.6	3.8	6.1	6.2	
Truck trailers .....	3715	41.5	40.5	40.3	41.6	-	3.7	3.5	2.7	3.8	
Aircraft and parts .....	372	42.5	41.6	42.1	41.9	-	4.9	4.7	4.3	4.4	
Aircraft .....	3721	42.3	41.5	41.6	41.2	-	4.8	4.4	3.9	3.8	
Aircraft engines and engine parts .....	3724	42.3	41.5	41.7	41.9	-	4.6	4.4	4.1	4.4	
Aircraft equipment, nec .....	3728	42.8	41.9	43.0	43.1	-	5.4	5.4	5.1	5.2	
Ship and boat building and repairing .....	373	40.5	39.9	40.6	40.6	-	2.8	2.5	3.2	3.0	
Ship building and repairing .....	3731	40.2	40.1	40.9	40.9	-	2.6	2.6	3.2	3.1	
Boat building and repairing .....	3732	40.9	39.7	39.9	40.1	-	3.2	2.5	3.1	2.8	
Railroad equipment .....	374	41.7	40.1	42.2	42.7	-	1.9	2.4	3.7	4.0	
Guided missiles, space vehicles, and parts .....	376	42.1	41.4	42.8	42.6	-	4.0	3.6	4.1	4.1	
Guided missiles and space vehicles .....	3761	42.1	41.2	42.7	42.4	-	4.0	3.6	4.2	4.2	
Miscellaneous transportation equipment .....	379	39.8	39.4	39.7	40.0	-	3.5	3.8	2.7	2.9	
Travel trailers and campers .....	3792	37.5	38.4	38.8	38.7	-	1.6	2.4	1.7	2.0	
Instruments and related products .....	38	41.5	40.8	41.2	41.5	40.9	2.9	2.5	2.9	3.1	
Engineering and scientific instruments .....	381	41.2	41.3	41.3	41.3	-	3.1	3.0	2.8	2.7	
Measuring and controlling devices .....	382	41.4	40.6	41.3	41.6	-	2.6	2.2	2.6	2.8	
Environmental controls .....	3822	39.6	39.5	39.4	39.5	-	2.5	2.3	2.1	2.1	
Process control instruments .....	3823	42.9	41.1	43.8	44.0	-	3.2	2.8	3.7	3.8	
Instruments to measure electricity .....	3825	40.8	39.8	40.5	40.8	-	2.1	1.9	2.2	2.6	
Optical instruments and lenses .....	383	42.0	41.2	42.6	43.5	-	2.9	2.5	3.0	3.6	
Medical instruments and supplies .....	384	40.7	40.2	41.0	41.0	-	2.9	2.6	2.9	3.0	
Surgical and medical instruments .....	3841	41.1	40.4	41.1	41.2	-	3.1	2.5	2.9	3.0	
Surgical appliances and supplies .....	3842	40.3	40.1	40.7	40.4	-	2.7	2.5	2.9	2.8	
Ophthalmic goods .....	385	40.7	40.1	40.2	39.8	-	2.4	2.6	2.9	2.7	
Photographic equipment and supplies .....	386	44.4	42.8	41.9	43.2	-	3.7	3.1	3.9	4.3	
Watches, clocks, and watchcases .....	387	42.0	41.5	38.8	40.6	-	3.0	2.3	1.2	2.2	
Miscellaneous manufacturing .....	39	39.4	38.8	39.0	39.4	38.8	2.5	2.2	2.3	2.5	
Jewelry, silverware, and plated ware .....	391	38.3	37.2	37.6	37.3	-	1.8	1.4	1.7	1.8	
Jewelry, precious metal .....	3911	37.7	36.3	36.5	36.0	-	1.4	1.0	1.3	1.4	
Musical instruments .....	393	41.6	41.2	40.6	40.0	-	3.4	2.4	2.7	2.3	
Toys and sporting goods .....	394	39.2	38.6	38.9	39.4	-	2.1	2.0	2.3	2.2	
Dolls, games, toys, and children's vehicles .....	3942,4	38.4	37.8	37.4	37.9	-	1.7	1.5	1.2	1.1	
Sporting and athletic goods, nec .....	3949	39.8	39.2	40.1	40.5	-	2.5	2.5	3.1	3.1	
Pens, pencils, office, and art supplies .....	395	40.8	40.6	40.2	40.7	-	2.6	2.2	2.6	3.3	
Costume jewelry and notions .....	396	37.6	36.0	38.1	39.0	-	3.3	2.4	1.8	2.6	
Costume jewelry .....	3961	35.3	34.1	37.3	37.4	-	2.7	2.0	1.5	2.2	
Miscellaneous manufactures .....	399	40.0	39.8	39.5	40.0	-	2.7	2.7	2.6	2.8	
Signs and advertising displays .....	3993	40.0	39.4	39.6	40.0	-	2.6	2.3	2.7	2.8	
<b>Nondurable goods .....</b>		40.3	40.0	39.9	40.2	40.0	3.6	3.6	3.4	3.6	3.7
Food and kindred products .....	20	40.1	40.0	40.1	40.4	40.5	4.0	4.2	3.9	4.3	-
Meat products .....	201	39.8	39.6	39.8	40.4	-	3.7	3.6	4.0	4.4	
Meat packing plants .....	2011	40.7	40.9	41.4	41.1	-	4.2	4.1	4.9	5.1	
Sausages and other prepared meats .....	2013	41.0	40.9	41.0	41.5	-	3.9	4.0	4.8	5.1	
Poultry dressing plants .....	2016	38.8	38.4	38.1	39.5	-	3.4	3.1	3.0	3.5	
Dairy products .....	202	42.1	41.6	41.1	41.4	-	4.9	4.8	4.1	4.5	
Cheese, natural and processed .....	2022	40.2	39.5	39.6	40.1	-	4.0	4.0	3.6	3.6	
Fluid milk .....	2026	43.1	42.3	41.9	42.1	-	5.3	5.2	4.4	4.7	
Preserved fruits and vegetables .....	203	38.4	38.2	39.2	38.8	-	3.6	4.6	3.1	3.7	
Canned specialties .....	2032	38.8	39.9	39.4	40.0	-	2.9	5.0	4.3	4.2	
Canned fruits and vegetables .....	2033	36.5	36.8	40.5	39.2	-	3.8	4.9	3.7	4.2	
Frozen fruits and vegetables .....	2037	38.6	37.7	37.0	37.9	-	3.8	4.5	2.3	3.6	
Grain mill products .....	204	44.1	44.5	43.9	44.2	-	5.8	6.3	5.5	5.8	
Flour and other grain mill products .....	2041	46.5	47.0	45.7	46.1	-	6.5	6.7	5.8	6.5	
Prepared feeds, nec .....	2048	43.9	44.2	42.6	43.2	-	6.1	6.6	5.4	5.9	
Bakery products .....	205	40.0	39.5	40.5	40.2	-	3.8	3.9	4.1	4.1	
Bread, cake, and related products .....	2051	39.1	39.1	39.5	39.3	-	4.0	4.2	4.4	4.3	
Cookies and crackers .....	2052	42.3	40.5	43.0	42.4	-	3.3	3.3	3.5	3.6	

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average hourly earnings					Average weekly earnings				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Durable goods—Continued</b>											
Transportation equipment .....	37	\$12.87	\$12.82	\$13.31	\$13.38	\$13.30	\$539.25	\$525.62	\$572.33	\$575.34	\$555.94
Motor vehicles and equipment .....	371	13.47	13.35	14.10	14.17	13.94	565.74	546.02	624.63	627.73	586.87
Motor vehicles and car bodies .....	3711	15.19	15.26	16.12	16.22	-	625.83	614.98	714.12	718.55	-
Truck and bus bodies .....	3713	11.36	11.53	11.87	11.77	-	478.26	492.33	512.78	507.29	-
Motor vehicle parts and accessories .....	3714	12.65	12.56	13.25	13.33	-	542.69	518.73	590.95	595.85	-
Truck trailers .....	3715	9.40	9.35	9.25	9.27	-	390.10	378.68	372.78	385.63	-
Aircraft and parts .....	372	13.10	13.15	13.46	13.53	-	556.75	547.04	566.67	566.91	-
Aircraft .....	3721	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	-	-	-	-	-	-
Aircraft engines and engine parts .....	3724	\$13.16	\$13.26	\$13.64	\$13.75	\$556.67	\$550.29	\$568.79	\$576.13	-	-
Aircraft equipment, nec .....	3728	12.20	12.33	12.48	12.53	522.16	516.63	536.64	540.04	-	-
Ship and boat building and repairing .....	373	10.29	10.32	10.39	10.35	416.75	411.77	421.83	420.21	-	-
Ship building and repairing .....	3731	11.64	11.61	11.57	11.56	467.93	465.56	473.21	472.80	-	-
Boat building and repairing .....	3732	8.02	8.07	8.30	8.29	328.02	320.38	331.17	332.43	-	-
Railroad equipment .....	374	11.90	11.80	11.88	11.96	496.23	473.18	501.34	510.69	-	-
Guided missiles, space vehicles, and parts .....	376	12.46	12.64	13.01	13.09	524.57	523.30	556.83	557.63	-	-
Guided missiles and space vehicles .....	3761	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )	-	-	-	-	-	-
Miscellaneous transportation equipment .....	379	\$10.60	\$10.57	\$10.26	\$10.31	\$421.88	\$416.46	\$407.32	\$412.40	-	-
Travel trailers and campers .....	3792	8.78	8.65	8.64	8.73	329.25	332.16	335.23	337.85	-	-
Instruments and related products .....	38	9.66	9.71	9.87	9.90	10.04	400.89	396.17	406.64	410.85	410.64
Engineering and scientific instruments .....	381	10.62	10.68	10.85	10.95	-	437.54	441.08	448.11	452.24	-
Measuring and controlling devices .....	382	9.53	9.56	9.66	9.67	-	394.54	388.14	398.96	402.27	-
Environmental controls .....	3822	8.82	8.83	9.04	9.24	-	349.27	348.79	356.18	364.98	-
Process control instruments .....	3823	9.40	9.45	9.38	9.31	-	403.26	388.40	410.84	409.64	-
Instruments to measure electricity .....	3825	9.85	9.80	9.88	9.81	-	401.88	390.04	400.14	400.25	-
Optical instruments and lenses .....	383	10.43	10.61	10.56	10.78	-	438.06	437.13	449.86	468.93	-
Medical instruments and supplies .....	384	8.66	8.64	8.86	8.84	-	352.46	347.33	363.26	362.44	-
Surgical and medical instruments .....	3841	8.77	8.81	9.14	9.12	-	360.45	355.92	375.65	375.74	-
Surgical appliances and supplies .....	3842	8.53	8.45	8.52	8.52	-	343.76	338.85	346.76	344.21	-
Ophthalmic goods .....	385	7.35	7.45	7.48	7.46	-	299.15	298.75	300.70	296.91	-
Photographic equipment and supplies .....	386	12.76	12.95	13.69	13.63	-	566.54	554.26	573.61	588.82	-
Watches, clocks, and watchcases .....	387	7.13	7.23	7.30	7.28	-	299.46	300.05	283.24	295.57	-
Miscellaneous manufacturing .....	39	7.75	7.72	7.94	7.93	8.00	305.35	299.54	309.66	312.44	310.40
Jewelry, silverware, and plated ware .....	391	8.27	8.24	8.61	8.59	-	316.74	306.53	323.74	320.41	-
Jewelry, precious metal .....	3911	8.36	8.31	8.75	8.73	-	315.17	301.65	319.38	314.28	-
Musical instruments .....	393	7.44	7.55	7.92	7.95	-	309.50	311.06	321.55	318.00	-
Toys and sporting goods .....	394	7.20	7.11	7.21	7.13	-	282.24	274.45	280.47	280.92	-
Dolls, games, toys, and children's vehicles .....	3942,4	7.07	6.86	6.99	6.92	-	271.49	259.31	261.43	262.27	-
Sporting and athletic goods, nec .....	3949	7.30	7.31	7.37	7.28	-	290.54	286.55	295.54	294.84	-
Pens, pencils, office, and art supplies .....	395	7.73	7.62	7.83	7.82	-	315.38	309.37	314.77	318.27	-
Costume jewelry and notions .....	396	6.29	6.38	6.65	6.73	-	236.50	229.68	253.37	262.47	-
Costume jewelry .....	3961	5.66	5.80	6.13	6.23	-	199.80	197.78	228.65	233.00	-
Miscellaneous manufactures .....	399	8.49	8.42	8.69	8.72	-	339.60	335.12	343.26	348.80	-
Signs and advertising displays .....	3993	8.86	8.78	9.08	9.07	-	354.40	345.93	359.57	362.80	-
<b>Nondurable goods</b> .....		9.13	9.18	9.38	9.39	9.46	367.94	367.20	374.26	377.48	378.40
Food and kindred products .....	20	8.92	8.88	9.15	9.12	9.14	357.69	355.20	366.92	368.45	370.17
Meat products .....	201	7.43	7.41	7.64	7.63	-	295.71	293.44	304.07	308.25	-
Meat packing plants .....	2011	8.31	8.35	8.53	8.53	-	338.22	341.52	353.14	350.58	-
Sausages and other prepared meats .....	2013	8.97	8.90	9.07	9.08	-	367.77	364.01	371.87	376.82	-
Poultry dressing plants .....	2016	6.14	6.08	6.34	6.33	-	238.23	233.47	241.55	250.04	-
Dairy products .....	202	9.54	9.58	9.81	9.79	-	401.63	398.53	403.19	405.31	-
Cheese, natural and processed .....	2022	8.85	9.01	9.25	9.19	-	355.77	355.90	366.30	368.52	-
Fluid milk .....	2026	10.10	10.11	10.20	10.23	-	435.31	427.65	427.38	430.68	-
Preserved fruits and vegetables .....	203	8.20	8.11	8.57	8.42	-	314.88	309.80	335.94	326.70	-
Canned specialties .....	2032	10.35	10.27	10.59	10.59	-	401.58	409.77	417.25	423.60	-
Canned fruits and vegetables .....	2033	8.23	8.06	8.60	8.46	-	300.40	296.61	348.30	331.63	-
Frozen fruits and vegetables .....	2037	7.52	7.36	7.82	7.47	-	290.27	277.47	289.34	283.11	-
Grain mill products .....	204	10.80	10.92	11.11	11.15	-	476.28	485.94	487.73	492.83	-
Flour and other grain mill products .....	2041	10.38	10.59	10.75	10.75	-	482.67	497.73	491.28	495.58	-
Prepared feeds, nec .....	2048	8.31	8.38	8.63	8.59	-	364.81	370.40	367.64	371.09	-
Bakery products .....	205	10.03	9.97	10.18	10.30	-	401.20	393.82	412.29	414.06	-
Bread, cake, and related products .....	2051	9.97	9.94	10.17	10.28	-	389.83	388.65	401.72	404.00	-
Cookies and crackers .....	2052	10.17	10.03	10.20	10.32	-	430.19	406.22	438.60	437.57	-

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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Food and kindred products—Continued											
Sugar and confectionery products .....	206	39.3	39.1	39.2	40.0		2.4	2.4	2.3	2.9	
Cane and beet sugar .....	2061-3	40.7	40.9	40.4	40.3		4.1	4.4	3.2	4.2	
Confectionery products .....	2065	37.9	37.5	38.1	39.3		1.7	1.8	1.9	2.3	
Fats and oils .....	207	41.4	41.7	42.4	43.0		5.2	5.1	4.9	5.0	
Beverages .....	208	41.6	41.4	41.0	41.6		4.5	4.3	4.3	4.8	
Malt beverages .....	2082	42.7	43.3	43.2	43.6		5.4	5.3	6.5	6.8	
Bottled and canned soft drinks .....	2086	42.1	41.5	40.7	41.4		4.8	4.5	3.9	4.8	
Misc. food and kindred products .....	209	38.5	39.1	37.6	38.5		3.8	4.3	3.3	4.0	
Tobacco manufactures .....	21	41.2	37.3	39.5	39.8	39.0	5.2	2.7	2.5	2.9	
Cigarettes .....	211	42.2	36.9	39.5	40.0	-	6.2	2.8	2.8	3.1	
Textile mill products .....	22	42.4	41.6	40.7	40.9	40.4	4.7	4.4	3.6	3.8	
Weaving mills, cotton .....	221	43.7	42.8	40.0	40.1	-	6.3	6.1	3.9	3.9	
Weaving mills, synthetics .....	222	42.7	42.3	41.3	41.9		5.0	4.7	3.9	4.4	
Weaving and finishing mills, wool .....	223	43.3	41.2	41.3	41.2		2.3	1.9	2.7	3.4	
Narrow fabric mills .....	224	41.3	40.3	40.9	41.5		3.6	3.5	3.0	3.3	
Knitting mills .....	225	40.6	39.9	39.5	40.0		3.7	3.3	2.8	3.1	
Women's hosiery, except socks .....	2251	39.3	38.8	38.2	37.7		3.2	3.4	2.2	2.0	
Hosiery, nec .....	2252	40.0	39.1	38.7	39.6		3.0	3.0	2.2	2.6	
Knit outerwear mills .....	2253	39.9	40.0	39.2	40.1		3.3	2.9	2.6	3.0	
Knit underwear mills .....	2254	40.3	38.4	38.6	39.9		2.9	2.4	1.6	2.5	
Circular knit fabric mills .....	2257	42.9	42.0	41.1	40.7		5.8	4.9	4.4	4.1	
Textile finishing, except wool .....	226	42.9	41.7	41.7	41.5		5.5	4.4	4.3	4.3	
Finishing plants, cotton .....	2261	42.7	42.8	41.7	41.5		4.9	4.5	4.2	3.9	
Finishing plants, synthetics .....	2262	43.3	40.6	42.2	42.1		5.8	3.8	4.7	5.0	
Floor covering mills .....	227	44.1	43.3	42.1	42.9		4.1	3.9	3.4	4.5	
Yarn and thread mills .....	228	43.0	42.5	40.5	40.3		5.4	5.2	4.2	4.0	
Yarn mills, except wool .....	2281	43.9	43.3	40.7	40.5		5.9	5.7	4.3	4.1	
Throwing and winding mills .....	2282	38.5	37.4	39.0	38.7		3.7	3.0	3.5	2.9	
Miscellaneous textile goods .....	229	42.9	42.4	43.1	43.1		4.6	4.1	4.6	4.6	
Apparel and other textile products .....	23	37.3	36.9	36.8	37.3	36.9	1.9	1.7	1.6	1.8	
Men's and boys' suits and coats .....	231	36.2	36.1	36.7	37.3	-	1.1	1.0	1.2	1.4	
Men's and boys' furnishings .....	232	37.9	37.4	36.6	37.5		1.7	1.5	1.4	1.6	
Men's and boys' shirts and nightwear .....	2321	38.2	37.7	37.0	37.7		1.7	1.5	1.2	1.4	
Men's and boys' separate trousers .....	2327	37.1	36.8	36.6	37.1		1.3	.8	1.5	1.8	
Men's and boys' work clothing .....	2328	37.6	37.1	35.3	36.6		1.8	1.7	1.3	1.6	
Women's and misses' outerwear .....	233	35.7	35.6	35.8	35.8		1.6	1.5	1.5	1.6	
Women's and misses' blouses and waists .....	2331	36.0	35.3	35.7	36.9		1.3	1.0	1.1	1.6	
Women's and misses' dresses .....	2335	35.6	35.7	35.6	35.1		1.5	1.5	1.4	1.3	
Women's and misses' suits and coats .....	2337	36.0	36.3	36.3	37.0		2.0	2.0	1.8	1.9	
Women's and misses' outerwear, nec .....	2339	35.7	35.5	35.7	35.5		1.7	1.6	1.6	1.7	
Women's and children's undergarments .....	234	37.9	37.2	37.1	37.8		1.4	1.2	1.3	1.5	
Women's and children's underwear .....	2341	38.4	37.9	37.2	38.3		1.4	1.2	1.1	1.6	
Brassieres and allied garments .....	2342	35.1	33.4	36.6	35.3		1.3	1.1	2.5	1.2	
Children's outerwear .....	236	38.2	37.8	36.8	37.8		2.0	2.0	1.4	1.8	
Children's dresses and blouses .....	2361	36.8	36.1	35.4	36.4		1.5	1.5	1.1	1.3	
Misc. apparel and accessories .....	238	39.0	38.1	38.4	38.3		2.2	1.8	2.2	1.8	
Misc. fabricated textile products .....	239	39.0	38.1	38.6	39.1		2.8	2.4	2.4	2.8	
Curtains and draperies .....	2391	38.5	37.6	36.1	36.4		2.0	1.4	1.2	1.5	
House furnishings, nec .....	2392	39.3	38.5	37.6	38.0		2.7	3.1	1.6	2.1	
Automotive and apparel trimmings .....	2396	39.4	38.8	41.3	42.6		4.2	3.2	4.8	6.1	
Paper and allied products .....	26	43.3	43.2	43.1	43.0	43.0	5.1	5.2	4.9	4.9	
Paper and pulp mills .....	261,2,6	45.3	45.6	45.4	44.9	-	6.3	6.7	6.4	6.1	
Paper mills, except building paper .....	262	45.6	45.8	45.6	45.1		6.5	6.9	6.5	6.3	
Paperboard mills .....	263	44.0	43.6	45.1	44.3		7.8	7.3	8.4	7.4	
Misc. converted paper products .....	264	41.9	42.2	41.5	41.5		3.8	4.0	3.6	3.7	
Paper coating and glazing .....	2641	44.4	44.2	43.2	42.9		4.6	4.5	3.8	3.9	
Envelopes .....	2642	41.1	41.7	41.0	40.8		2.8	3.1	2.7	2.6	
Bags, except textile bags .....	2643	41.8	42.0	41.1	41.1		4.0	4.4	4.1	4.1	
Paperboard containers and boxes .....	265	42.8	42.0	42.2	42.6		4.6	4.5	4.2	4.3	
Folding paperboard boxes .....	2651	42.8	41.6	41.4	42.0		4.5	4.2	3.9	4.2	
Corrugated and solid fiber boxes .....	2653	43.2	42.5	42.6	43.0		4.9	4.8	4.4	4.6	
Sanitary food containers .....	2654	42.7	42.0	43.6	43.6		4.4	4.7	4.9	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				
		June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>	June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>
<b>Nendurable goods—Continued</b>											
<b>Food and kindred products—Continued</b>											
Sugar and confectionery products .....	206	\$9.37	\$9.40	\$9.51	\$9.44		\$368.24	\$367.54	\$372.79	\$377.60	
Cane and beet sugar .....	2061-3	11.08	11.04	10.97	11.16		450.96	451.54	443.19	449.75	
Confectionery products .....	2065	8.13	8.26	8.40	8.29		308.13	309.75	320.04	325.80	
Fats and oils .....	207	9.51	9.53	9.29	9.35		393.71	397.40	393.90	402.05	
Beverages .....	208	11.90	11.87	12.06	12.07		495.04	491.42	494.46	502.11	
Malt beverages .....	2082	16.78	16.56	16.76	17.09		716.51	717.05	724.03	745.12	
Bottled and canned soft drinks .....	2086	9.44	9.47	9.59	9.61		397.42	393.01	390.31	397.85	
Misc. food and kindred products .....	209	8.17	8.21	8.57	8.52		314.55	321.01	322.23	328.02	
Tobacco manufactures .....	21	15.85	15.17	15.24	15.78	\$16.14	653.02	565.84	601.98	628.04	\$629.46
Cigarettes .....	211	17.90	17.26	17.52	17.97	-	755.38	636.89	692.04	718.80	-
Textile mill products .....	22	7.13	7.13	7.31	7.33	7.30	302.31	296.61	297.52	299.80	294.92
Weaving mills, cotton .....	221	7.51	7.52	7.63	7.65	-	328.19	321.86	305.20	306.77	-
Weaving mills, synthetics .....	222	7.70	7.70	7.92	7.98	-	328.79	325.71	327.10	334.36	-
Weaving and finishing mills, wool .....	223	7.69	7.57	7.95	8.04	-	332.98	311.88	328.34	331.25	-
Narrow fabric mills .....	224	6.69	6.73	6.72	6.77	-	276.30	271.22	274.85	280.96	-
Knitting mills .....	225	6.50	6.52	6.61	6.60	-	263.90	260.15	261.10	264.00	-
Women's hosiery, except socks .....	2251	6.38	6.48	6.50	6.47	-	250.73	251.42	248.30	243.92	-
Hosiery, nec .....	2252	6.16	6.19	6.35	6.37	-	246.40	242.03	245.75	252.25	-
Knit outerwear mills .....	2253	6.41	6.45	6.33	6.29	-	255.76	258.00	248.14	252.23	-
Knit underwear mills .....	2254	6.14	6.13	6.39	6.41	-	247.44	235.39	246.65	255.76	-
Circular knit fabric mills .....	2257	7.17	7.13	7.44	7.43	-	307.59	299.46	305.78	302.40	-
Textile finishing, except wool .....	226	7.52	7.40	7.72	7.77	-	322.61	308.58	321.92	322.46	-
Finishing plants, cotton .....	2261	7.52	7.43	7.73	7.77	-	321.10	318.00	322.34	322.46	-
Finishing plants, synthetics .....	2262	7.78	7.60	7.99	8.08	-	336.87	308.56	337.18	340.17	-
Floor covering mills .....	227	7.41	7.42	7.63	7.65	-	326.78	321.29	321.22	328.19	-
Yarn and thread mills .....	228	6.75	6.78	7.02	6.98	-	290.25	288.15	284.31	281.29	-
Yarn mills, except wool .....	2281	6.73	6.76	6.99	6.97	-	295.45	292.71	284.49	282.29	-
Throwing and winding mills .....	2282	6.91	6.92	7.26	7.13	-	266.04	258.81	283.14	275.93	-
Miscellaneous textile goods .....	229	8.09	8.05	8.26	8.30	-	347.06	341.32	356.01	357.73	-
Apparel and other textile products .....	23	5.89	5.87	6.05	6.08	6.02	219.70	216.60	222.64	226.78	222.14
Men's and boys' suits and coats .....	231	6.65	6.62	6.78	6.81	-	240.73	238.98	248.83	254.01	-
Men's and boys' furnishings .....	232	5.45	5.43	5.55	5.55	-	206.56	203.08	203.13	208.13	-
Men's and boys' shirts and nightwear .....	2321	5.20	5.21	5.44	5.40	-	198.64	196.42	201.28	203.58	-
Men's and boys' separate trousers .....	2327	5.36	5.28	5.38	5.42	-	198.86	194.30	196.91	201.08	-
Men's and boys' work clothing .....	2328	5.56	5.56	5.58	5.59	-	209.06	206.28	196.97	204.59	-
Women's and misses' outerwear .....	233	5.67	5.71	5.85	5.88	-	202.42	203.28	209.43	210.50	-
Women's and misses' blouses and waists .....	2331	5.00	5.05	5.11	5.12	-	180.00	178.27	182.43	188.93	-
Women's and misses' dresses .....	2335	6.04	6.10	6.16	6.20	-	215.02	217.77	219.30	217.62	-
Women's and misses' suits and coats .....	2337	6.53	6.57	6.51	6.61	-	235.08	238.49	236.31	244.57	-
Women's and misses' outerwear, nec .....	2339	5.48	5.50	5.74	5.76	-	195.64	195.25	204.92	204.48	-
Women's and children's undergarments .....	234	5.47	5.49	5.66	5.66	-	207.31	204.23	209.99	213.95	-
Women's and children's underwear .....	2341	5.31	5.33	5.49	5.52	-	203.90	202.01	204.23	211.42	-
Brassieres and allied garments .....	2342	6.43	6.47	6.62	6.48	-	225.69	216.10	242.29	228.74	-
Children's outerwear .....	236	5.28	5.27	5.37	5.42	-	201.70	199.21	197.62	204.88	-
Children's dresses and blouses .....	2361	5.11	5.12	5.35	5.41	-	188.05	184.83	189.39	196.92	-
Misc. apparel and accessories .....	238	5.67	5.64	5.89	5.90	-	221.13	214.88	226.18	225.97	-
Misc. fabricated textile products .....	239	7.10	6.98	7.31	7.41	-	276.90	265.94	282.17	289.73	-
Curtains and draperies .....	2391	5.82	5.73	5.97	6.10	-	224.07	215.45	215.52	222.04	-
House furnishings, nec .....	2392	6.10	6.08	6.16	6.23	-	239.73	234.08	231.62	236.74	-
Automotive and apparel trimmings .....	2396	10.64	10.47	11.17	11.43	-	419.22	406.24	461.32	486.92	-
Paper and allied products .....	26	11.42	11.49	11.64	11.63	11.74	494.49	496.37	501.68	500.09	504.82
Paper and pulp mills .....	261,2,6	13.93	14.08	14.25	14.32	-	631.03	642.05	646.95	642.97	-
Paper mills, except building paper .....	262	14.00	14.16	14.31	14.39	-	638.40	648.53	652.54	648.99	-
Paperboard mills .....	263	14.45	14.36	14.62	14.34	-	635.80	626.10	659.36	635.26	-
Misc. converted paper products .....	264	9.91	9.97	10.11	10.06	-	415.23	420.73	419.57	417.49	-
Paper coating and glazing .....	2641	10.93	11.00	11.29	11.23	-	485.29	486.20	487.73	481.77	-
Envelopes .....	2642	9.14	9.25	9.63	9.51	-	375.65	385.73	394.83	388.01	-
Bags, except textile bags .....	2643	9.24	9.29	9.36	9.32	-	386.23	390.18	384.70	383.05	-
Paperboard containers and boxes .....	265	9.78	9.80	9.90	9.96	-	418.58	411.60	417.78	424.30	-
Folding paperboard boxes .....	2651	10.20	10.19	10.30	10.32	-	436.56	423.90	426.42	433.44	-
Corrugated and solid fiber boxes .....	2653	9.98	10.01	10.03	10.14	-	431.14	425.43	427.28	436.02	-
Sanitary food containers .....	2654	9.23	9.32	9.72	9.69	-	394.12	391.44	423.79	422.48	-

See footnotes at end of table.

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

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

Industry	1972 SIC Code	Average weekly hours					Average overtime hours				
		June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>	June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing .....	27	37.6	37.9	37.5	37.6	37.8	2.7	2.9	2.8	2.6	
Newspapers .....	271	33.4	33.4	33.2	33.6	-	1.5	1.4	1.3	1.4	
Periodicals .....	272	38.0	38.1	37.9	37.7		2.9	2.8	3.1	3.0	
Books .....	273	37.9	38.8	39.5	38.6		3.3	3.5	3.7	2.8	
Book publishing .....	2731	37.9	38.4	38.7	38.1		2.9	3.1	3.2	2.2	
Book printing .....	2732	37.8	39.4	40.8	39.3		3.9	4.2	4.7	3.8	
Miscellaneous publishing .....	274	36.5	36.5	35.7	35.7		2.2	2.2	1.9	1.7	
Commercial printing .....	275	39.0	39.4	38.7	38.7		3.1	3.4	3.2	2.9	
Commercial printing, letterpress .....	2751	39.0	39.2	38.7	38.8		2.8	2.8	2.9	2.7	
Commercial printing, lithographic .....	2752	38.9	39.3	38.5	38.5		3.1	3.5	3.3	2.9	
Manifold business forms .....	276	41.8	41.8	41.3	42.1		3.6	4.2	3.8	4.6	
Blankbooks and bookbinding .....	278	38.6	38.4	38.7	38.7		2.4	2.4	2.8	2.7	
Printing trade services .....	279	38.0	38.6	38.4	38.9		3.3	4.0	3.7	4.2	
Chemicals and allied products .....	28	42.2	41.9	42.0	42.4	42.0	3.9	3.9	4.0	4.2	
Industrial inorganic chemicals .....	281	42.2	42.1	42.6	43.1	-	3.8	4.1	4.0	4.3	
Industrial inorganic chemicals, nec .....	2819	42.7	42.7	42.6	43.3		3.8	4.1	3.9	4.3	
Plastics materials and synthetics .....	282	42.7	42.5	43.1	43.5		4.3	4.3	4.7	4.9	
Plastics materials and resins .....	2821	43.5	43.0	43.4	44.0		4.4	4.4	4.9	5.1	
Organic fibers, noncellulosic .....	2824	42.1	42.5	42.8	43.1		4.0	4.0	4.4	4.6	
Drugs .....	283	41.8	41.1	40.8	41.2		3.1	2.7	2.9	2.9	
Pharmaceutical preparations .....	2834	41.8	40.9	40.7	41.0		3.1	2.7	2.9	3.0	
Soap, cleaners, and toilet goods .....	284	41.2	41.0	39.9	40.3		3.3	3.5	3.1	3.6	
Soap and other detergents .....	2841	43.6	44.5	43.8	44.0		5.1	5.9	4.7	4.8	
Polishing, sanitation, and finishing preparations .....	2842,3	41.7	41.7	41.0	42.0		3.3	3.4	3.0	3.6	
Toilet preparations .....	2844	39.5	38.6	37.2	37.6		2.2	2.1	2.3	2.9	
Paints and allied products .....	285	42.0	42.2	42.2	42.4		4.0	4.3	4.0	4.3	
Industrial organic chemicals .....	286	43.7	43.7	43.7	43.7		5.1	5.3	5.1	5.2	
Cyclic crudes and intermediates .....	2865	43.2	42.8	41.7	42.3		5.6	5.7	4.4	5.4	
Gum, wood, and industrial organic chemicals, nec .....	2861,9	43.8	43.9	44.2	44.1		4.9	5.2	5.3	5.1	
Agricultural chemicals .....	287	42.7	42.0	43.4	44.0		4.3	3.8	5.2	5.6	
Miscellaneous chemical products .....	289	41.4	41.0	42.0	42.0		3.2	3.4	3.6	3.7	
Petroleum and coal products .....	29	43.6	44.9	44.1	45.0	45.2	4.8	5.2	5.3	5.9	
Petroleum refining .....	291	43.2	44.7	43.8	44.9	-	4.0	4.4	4.8	5.4	
Paving and roofing materials .....	295	46.0	47.2	46.6	46.8		8.5	9.1	8.6	9.0	
Rubber and misc. plastics products .....	30	41.8	41.0	41.6	41.7	41.3	4.1	3.9	4.1	4.2	
Tires and inner tubes .....	301	43.7	44.2	45.2	44.7		5.4	6.2	6.1	6.2	
Rubber and plastics footwear .....	302	43.0	41.8	39.7	39.3		3.3	3.1	1.6	1.4	
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	42.3	41.7	43.9	44.2		3.5	4.1	4.2	4.1	
Fabricated rubber products, nec .....	306	41.7	40.5	41.6	41.9		3.7	3.3	3.7	4.0	
Miscellaneous plastics products .....	307	41.5	40.6	41.1	41.3		4.0	3.7	4.0	4.1	
Leather and leather products .....	31	39.5	38.7	37.6	37.9	37.7	2.6	2.3	1.9	2.1	
Leather tanning and finishing .....	311	42.1	40.8	41.2	41.3	-	4.3	3.1	4.0	4.1	
Footwear, except rubber .....	314	39.7	39.2	37.3	37.8		2.7	2.4	1.6	1.9	
Men's footwear, except athletic .....	3143	39.3	38.9	37.4	37.3		2.1	2.0	.9	1.1	
Women's footwear, except athletic .....	3144	40.2	39.9	37.1	38.2		3.4	3.3	2.1	2.8	
Luggage .....	316	40.0	38.2	39.7	39.9		2.2	2.6	2.8	3.5	
Handbags and personal leather goods .....	317	37.0	36.1	35.6	36.3		2.3	2.1	2.0	1.5	
<b>Transportation and public utilities .....</b>		<b>39.2</b>	<b>39.6</b>	<b>39.2</b>	<b>39.5</b>	<b>39.7</b>					
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	43.6	44.1	45.0	45.2						
Local and interurban passenger transit .....	41	33.9	36.3	34.3	34.5						
Local and suburban transportation .....	411	38.1	38.6	38.4	38.7						
Intercity highway transportation .....	413	38.6	39.9	39.4	40.8						
Trucking and warehousing .....	42	38.8	38.8	38.0	38.8						
Trucking and trucking terminals .....	421,3	38.8	38.7	38.0	38.8						
Public warehousing .....	422	38.7	39.1	38.3	38.7						
Pipe lines, except natural gas .....	46	41.1	43.4	40.9	41.9						

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				
		June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Nondurable goods—Continued</b>											
Printing and publishing .....	27	\$10.19	\$10.24	\$10.43	\$10.44	\$10.47	\$383.14	\$388.10	\$391.13	\$392.54	\$395.77
Newspapers .....	271	10.21	10.26	10.45	10.47	-	341.01	342.68	346.94	351.79	-
Periodicals .....	272	10.59	10.59	10.83	10.85	-	402.42	403.48	410.46	409.05	-
Books .....	273	9.34	9.39	9.30	9.31	-	353.99	364.33	367.35	359.37	-
Book publishing .....	2731	8.92	8.93	8.95	8.96	-	338.07	342.91	346.37	341.38	-
Book printing .....	2732	10.05	10.12	9.85	9.86	-	379.89	398.73	401.88	387.50	-
Miscellaneous publishing .....	274	9.29	9.37	9.75	9.83	-	339.09	342.01	348.08	350.93	-
Commercial printing .....	275	10.43	10.49	10.72	10.69	-	406.77	413.31	414.86	413.70	-
Commercial printing, letterpress .....	2751	10.07	10.06	10.32	10.35	-	392.73	394.35	399.38	401.58	-
Commercial printing, lithographic .....	2752	10.56	10.62	10.85	10.77	-	410.78	417.37	417.73	414.65	-
Manifold business forms .....	276	10.70	10.81	10.92	11.16	-	447.26	451.86	451.00	469.84	-
Blankbooks and bookbinding .....	278	8.09	8.08	8.32	8.28	-	312.27	310.27	321.98	320.44	-
Printing trade services .....	279	12.43	12.52	12.82	12.82	-	472.34	483.27	492.29	498.70	-
Chemicals and allied products .....	28	12.28	12.37	12.59	12.60	12.71	518.22	518.30	528.78	534.24	533.82
Industrial inorganic chemicals .....	281	13.49	13.60	13.73	13.82	-	569.28	572.56	584.90	595.64	-
Industrial inorganic chemicals, nec .....	2819	13.59	13.73	13.75	13.86	-	580.29	586.27	585.75	600.14	-
Plastics materials and synthetics .....	282	12.57	12.58	12.99	13.01	-	536.74	534.65	559.87	565.94	-
Plastics materials and resins .....	2821	13.50	13.51	13.84	13.76	-	587.25	580.93	600.66	605.44	-
Organic fibers, noncellulosic .....	2824	11.99	12.02	12.45	12.49	-	504.78	510.85	532.86	538.32	-
Drugs .....	283	11.58	11.59	12.00	11.96	-	484.04	476.35	489.60	492.75	-
Pharmaceutical preparations .....	2834	11.23	11.31	11.67	11.73	-	469.41	462.58	474.97	480.93	-
Soap, cleaners, and toilet goods .....	284	10.77	10.88	11.02	10.94	-	443.72	446.08	439.70	440.88	-
Soap and other detergents .....	2841	13.92	13.96	14.41	14.23	-	606.91	621.22	631.16	626.12	-
Polishing, sanitation, and finishing preparations .....	2842,3	9.96	10.07	10.26	10.38	-	415.33	419.92	420.66	435.96	-
Toilet preparations .....	2844	9.15	9.19	9.29	9.24	-	361.43	354.73	345.59	347.42	-
Paints and allied products .....	285	10.77	10.81	11.21	11.17	-	452.34	456.18	473.06	473.61	-
Industrial organic chemicals .....	286	14.83	14.93	14.99	15.03	-	648.07	652.44	655.06	656.81	-
Cyclic crudes and intermediates .....	2865	14.72	14.69	14.80	15.00	-	635.90	628.73	617.16	634.50	-
Gum, wood, and industrial organic chemicals, nec .....	2861,9	14.86	14.99	15.04	15.04	-	650.87	658.06	664.77	663.26	-
Agricultural chemicals .....	287	11.72	11.93	11.89	12.19	-	500.44	501.06	516.03	536.36	-
Miscellaneous chemical products .....	289	11.22	11.38	11.39	11.49	-	464.51	466.58	478.38	482.58	-
Petroleum and coal products .....	29	14.44	14.51	14.93	15.04	15.24	629.58	651.50	658.41	676.80	688.85
Petroleum refining .....	291	15.65	15.69	16.14	16.26	-	676.08	701.34	706.93	730.07	-
Paving and roofing materials .....	295	11.40	11.38	11.59	11.59	-	524.40	537.14	540.09	542.41	-
Rubber and misc. plastics products .....	30	8.89	8.96	9.04	9.06	9.10	371.60	367.36	376.06	377.80	375.83
Tires and inner tubes .....	301	14.03	14.39	14.20	14.24	-	613.11	636.04	641.84	636.53	-
Rubber and plastics footwear .....	302	6.07	6.04	6.29	6.35	-	261.01	252.47	249.71	249.56	-
Reclaimed rubber, and rubber and plastics hose and belting .....	303,4	8.96	8.96	9.19	9.18	-	379.01	373.63	403.44	405.76	-
Fabricated rubber products, nec .....	306	8.61	8.69	8.77	8.79	-	359.04	351.95	364.83	368.30	-
Miscellaneous plastics products .....	307	8.29	8.29	8.44	8.47	-	344.04	336.57	346.88	349.81	-
Leather and leather products .....	31	6.09	5.99	6.27	6.27	6.26	240.56	231.81	235.75	237.63	236.00
Leather tanning and finishing .....	311	8.11	8.05	8.49	8.42	-	341.43	328.44	349.79	347.75	-
Footwear, except rubber .....	314	5.71	5.70	5.94	5.96	-	226.69	223.44	221.56	225.29	-
Men's footwear, except athletic .....	3143	6.09	6.17	6.25	6.28	-	239.34	240.01	233.75	234.24	-
Women's footwear, except athletic .....	3144	5.39	5.34	5.67	5.69	-	216.68	213.07	210.36	217.36	-
Luggage .....	316	6.39	6.21	6.27	6.33	-	255.60	237.22	248.92	252.57	-
Handbags and personal leather goods .....	317	5.93	5.82	6.10	6.01	-	219.41	210.10	217.16	218.16	-
<b>Transportation and public utilities .....</b>		11.94	12.00	12.28	12.29	12.31	468.05	475.20	481.38	485.46	488.71
Railroad transportation:											
Class I railroads <sup>3</sup> .....	4011	14.14	14.11	15.11	15.11	-	616.50	622.25	679.95	682.97	-
Local and interurban passenger transit .....	41	8.21	8.52	8.37	8.46	-	278.32	309.28	287.09	291.87	-
Local and suburban transportation .....	411	8.81	9.10	8.94	8.99	-	335.66	351.26	343.30	347.91	-
Intercity highway transportation .....	413	11.52	11.52	11.16	11.31	-	444.67	459.65	439.70	461.45	-
Trucking and warehousing .....	42	10.77	10.72	10.97	10.93	-	417.88	415.94	416.86	424.08	-
Trucking and trucking terminals .....	421,3	10.93	10.89	11.13	11.08	-	424.08	421.44	422.94	429.90	-
Public warehousing .....	422	8.52	8.44	8.85	8.80	-	329.72	330.00	338.96	340.56	-
Pipe lines, except natural gas .....	46	15.24	14.97	15.90	15.57	-	626.36	649.70	650.31	652.38	-

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				
		June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>	June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>
<b>Transportation and public utilities—Continued</b>											
Communication .....	48	39.8	40.4	39.6	39.8						
Telephone communication .....	481	41.1	42.0	41.1	41.4						
Radio and television broadcasting .....	483	36.3	35.9	35.6	35.9						
Electric, gas, and sanitary services .....	49	41.5	41.5	41.2	41.6						
Electric services .....	491	41.2	41.3	41.3	41.4						
Gas production and distribution .....	492	40.4	40.5	40.4	41.1						
Combination utility services .....	493	42.4	42.5	41.2	42.2						
Sanitary services .....	495	43.4	43.1	42.7	42.4						
<b>Wholesale trade .....</b>		<b>38.3</b>	<b>38.2</b>	<b>38.0</b>	<b>38.2</b>	<b>38.3</b>					
Durable goods .....	50	38.8	38.6	38.4	38.6						
Motor vehicles and automotive equipment .....	501	38.3	38.5	38.0	38.2						
Furniture and home furnishings .....	502	37.2	36.8	37.1	37.4						
Lumber and construction materials .....	503	39.4	39.5	39.5	39.9						
Sporting goods, toys, and hobby goods .....	504	36.2	36.4	35.4	35.7						
Metals and minerals, except petroleum .....	505	40.7	40.4	40.2	40.3						
Electrical goods .....	506	38.6	38.3	38.0	37.9						
Hardware, plumbing, and heating equipment .....	507	38.6	38.6	38.1	38.7						
Machinery, equipment, and supplies .....	508	39.2	38.9	38.7	38.9						
Miscellaneous durable goods .....	509	37.8	37.7	37.6	37.9						
Nondurable goods .....	51	37.6	37.6	37.4	37.5						
Paper and paper products .....	511	36.9	36.9	36.7	37.0						
Drugs, proprietaries, and sundries .....	512	37.1	37.6	36.6	36.9						
Apparel, piece goods, and notions .....	513	36.6	36.5	36.5	36.7						
Groceries and related products .....	514	38.1	38.2	37.7	38.0						
Chemicals and allied products .....	516	39.3	39.2	39.7	40.0						
Petroleum and petroleum products .....	517	39.2	39.1	38.4	38.5						
Beer, wine, and distilled beverages .....	518	36.1	36.3	35.8	36.2						
Miscellaneous nondurable goods .....	519	37.1	37.0	37.4	37.0						
<b>Retail trade .....</b>		<b>29.6</b>	<b>30.0</b>	<b>28.9</b>	<b>29.4</b>	<b>30.0</b>					
Building materials and garden supplies .....	52	37.2	37.4	36.6	36.9						
Lumber and other building materials .....	521	38.9	39.3	38.4	38.9						
Hardware stores .....	525	33.6	33.8	32.8	33.4						
General merchandise stores .....	53	28.6	29.1	27.3	27.9						
Department stores .....	531	28.3	28.8	27.0	27.6						
Variety stores .....	533	29.5	30.1	28.9	29.3						
Misc. general merchandise stores .....	539	31.2	31.7	28.8	29.8						
Food stores .....	54	30.6	31.0	29.9	30.8						
Grocery stores .....	541	30.9	31.2	30.0	30.9						
Retail bakeries .....	546	27.7	28.1	28.2	28.9						
Automotive dealers and service stations .....	55	36.7	36.9	36.3	36.8						
New and used car dealers .....	551,2	37.5	37.4	37.2	37.5						
Auto and home supply stores .....	553	39.5	39.6	38.3	38.9						
Gasoline service stations .....	554	34.2	34.7	34.1	34.8						
Apparel and accessory stores .....	56	27.0	27.8	26.4	27.1						
Men's and boys' clothing and furnishings .....	561	30.2	30.6	28.3	29.2						
Women's ready-to-wear stores .....	562	25.7	26.4	24.7	25.3						
Family clothing stores .....	565	27.0	27.7	26.3	27.2						
Shoe stores .....	566	28.1	29.1	27.8	28.8						
Furniture and home furnishings stores .....	57	33.0	33.3	32.6	32.9						
Furniture and home furnishings stores .....	571	33.1	33.4	33.2	33.4						
Household appliance stores .....	572	34.1	34.4	33.3	33.8						
Radio, television, and music stores .....	573	32.5	32.9	31.3	31.8						
Eating and drinking places <sup>4</sup> .....	58	26.2	26.7	25.7	26.1						

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				
		June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>	June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>
<b>Transportation and public utilities—Continued</b>											
Communication .....	48	\$12.35	\$12.42	\$12.60	\$12.67		\$491.53	\$501.77	\$498.96	\$504.27	
Telephone communication .....	481	13.07	13.16	13.30	13.32		537.18	552.72	546.63	551.45	
Radio and television broadcasting .....	483	10.82	10.72	11.31	11.62		392.77	384.85	402.64	417.16	
Electric, gas, and sanitary services .....	49	13.65	13.67	14.23	14.09		566.48	567.31	586.28	586.14	
Electric services .....	491	13.78	13.81	14.40	14.22		567.74	570.35	594.72	588.71	
Gas production and distribution .....	492	12.84	12.90	13.32	13.15		518.74	522.45	538.13	540.47	
Combination utility services .....	493	15.99	15.93	16.67	16.57		677.98	677.03	686.80	699.25	
Sanitary services .....	495	9.99	10.10	10.82	10.77		433.57	435.31	462.01	456.65	
<b>Wholesale trade .....</b>		<b>9.54</b>	<b>9.56</b>	<b>9.87</b>	<b>9.85</b>	<b>\$9.94</b>	<b>365.38</b>	<b>365.19</b>	<b>375.06</b>	<b>376.27</b>	<b>\$380.70</b>
Durable goods .....	50	9.69	9.70	10.09	10.06		375.97	374.42	387.46	388.32	
Motor vehicles and automotive equipment .....	501	8.70	8.65	9.11	9.08		333.21	333.03	346.18	346.86	
Furniture and home furnishings .....	502	8.90	8.93	9.46	9.41		331.08	328.62	350.97	351.93	
Lumber and construction materials .....	503	9.13	9.23	9.57	9.64		359.72	364.59	378.02	384.64	
Sporting goods, toys, and hobby goods .....	504	9.71	9.73	9.84	9.59		351.50	354.17	348.34	342.36	
Metals and minerals, except petroleum .....	505	10.37	10.36	10.60	10.63		422.06	418.54	426.12	428.39	
Electrical goods .....	506	9.97	9.98	10.50	10.43		384.84	382.23	399.00	395.30	
Hardware, plumbing, and heating equipment .....	507	9.20	9.22	9.54	9.47		355.12	355.89	363.47	366.49	
Machinery, equipment, and supplies .....	508	10.33	10.35	10.74	10.71		404.94	402.62	415.64	416.62	
Miscellaneous durable goods .....	509	7.81	7.80	7.92	7.95		295.22	294.06	297.79	301.31	
Nondurable goods .....	51	9.34	9.36	9.54	9.53		351.18	351.94	356.80	357.38	
Paper and paper products .....	511	9.97	9.98	10.33	10.22		367.89	368.26	379.11	378.14	
Drugs, proprietaries, and sundries .....	512	10.87	10.79	11.12	11.03		403.28	405.70	406.99	407.01	
Apparel, piece goods, and notions .....	513	9.11	9.14	9.48	9.45		333.43	333.61	346.02	346.82	
Groceries and related products .....	514	9.46	9.50	9.70	9.67		360.43	362.90	365.69	367.46	
Chemicals and allied products .....	516	12.02	12.10	12.13	12.15		472.39	474.32	481.56	486.00	
Petroleum and petroleum products .....	517	9.56	9.49	9.67	9.65		374.75	371.06	371.33	371.53	
Beer, wine, and distilled beverages .....	518	11.03	11.02	11.15	11.06		398.18	400.03	399.17	400.37	
Miscellaneous nondurable goods .....	519	7.69	7.66	7.78	7.79		285.30	283.42	290.97	288.23	
<b>Retail trade .....</b>		<b>6.08</b>	<b>6.07</b>	<b>6.28</b>	<b>6.26</b>	<b>6.28</b>	<b>179.97</b>	<b>182.10</b>	<b>181.49</b>	<b>184.04</b>	<b>188.40</b>
Building materials and garden supplies .....	52	6.93	6.97	7.29	7.31		257.80	260.68	266.81	269.74	
Lumber and other building materials .....	521	7.29	7.30	7.73	7.69		283.58	286.89	296.83	299.14	
Hardware stores .....	525	5.90	5.94	6.18	6.18		198.24	200.77	202.70	206.41	
General merchandise stores .....	53	6.45	6.42	6.52	6.52		184.47	186.82	178.00	181.91	
Department stores .....	531	6.77	6.73	6.81	6.82		191.59	193.82	183.87	188.23	
Variety stores .....	533	4.82	4.82	4.96	4.92		142.19	145.08	143.34	144.16	
Misc. general merchandise stores .....	539	4.95	4.91	5.31	5.27		154.44	155.65	152.93	157.05	
Food stores .....	54	6.90	6.89	7.00	6.94		211.14	213.59	209.30	213.75	
Grocery stores .....	541	7.03	7.03	7.11	7.05		217.23	219.34	213.30	217.85	
Retail bakeries .....	546	5.61	5.57	5.98	5.99		155.40	156.52	168.64	173.11	
Automotive dealers and service stations .....	55	7.85	7.87	8.29	8.27		288.10	290.40	300.93	304.34	
New and used car dealers .....	551,2	9.64	9.67	10.19	10.20		361.50	361.66	379.07	382.50	
Auto and home supply stores .....	553	6.67	6.68	7.04	7.01		263.47	264.53	269.63	272.69	
Gasoline service stations .....	554	5.49	5.54	5.76	5.75		187.76	192.24	196.42	200.10	
Apparel and accessory stores .....	56	5.58	5.53	5.78	5.79		150.66	153.73	152.59	156.91	
Men's and boys' clothing and furnishings .....	561	6.71	6.54	7.12	7.06		202.64	200.12	201.50	206.15	
Women's ready-to-wear stores .....	562	5.19	5.13	5.45	5.45		133.38	135.43	134.62	137.89	
Family clothing stores .....	565	5.60	5.53	5.58	5.66		151.20	153.18	146.75	153.95	
Shoe stores .....	566	5.58	5.58	5.92	5.92		156.80	162.38	164.58	170.50	
Furniture and home furnishings stores .....	57	7.44	7.50	7.78	7.83		245.52	249.75	253.63	257.61	
Furniture and home furnishings stores .....	571	7.57	7.64	7.89	7.94		250.57	255.18	261.95	265.20	
Household appliance stores .....	572	7.39	7.51	7.73	7.88		252.00	258.34	257.41	266.34	
Radio, television, and music stores .....	573	7.23	7.27	7.60	7.61		234.98	239.18	237.88	242.00	
Eating and drinking places <sup>4</sup> .....	58	4.39	4.39	4.53	4.52		115.02	117.21	116.42	117.97	

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				
		June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>	June 1987	July 1987	May 1988	June 1988 <sup>2</sup>	July 1988 <sup>2</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	30.5	30.7	29.8	30.1						
Drug stores and proprietary stores .....	591	28.6	28.9	27.3	27.7						
Miscellaneous shopping goods stores .....	594	29.0	29.5	28.2	29.0						
Nonstore retailers .....	596	33.1	33.0	31.9	32.0						
Fuel and ice dealers .....	598	37.9	37.8	37.7	38.1						
Retail stores, nec .....	599	32.1	31.8	32.4	31.9						
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		<b>36.4</b>	<b>36.2</b>	<b>35.8</b>	<b>35.9</b>	<b>36.2</b>					
Banking .....	60	36.2	36.2	35.4	35.7						
Commercial and stock savings banks .....	602	36.2	36.2	35.3	35.6						
Credit agencies other than banks .....	61	37.0	36.4	36.1	36.3						
Savings and loan associations .....	612	36.5	35.9	35.7	35.8						
Personal credit institutions .....	614	36.7	36.6	36.1	36.5						
Insurance carriers .....	63	37.4	37.1	37.1	37.1						
Life insurance .....	631	36.9	36.8	36.6	36.6						
Medical service and health insurance .....	632	37.8	37.6	37.5	37.6						
Fire, marine, and casualty insurance .....	633	37.4	36.9	37.2	37.1						
<b>Services</b> .....		<b>32.7</b>	<b>32.8</b>	<b>32.4</b>	<b>32.7</b>	<b>33.0</b>					
Hotels and other lodging places:											
Hotels, motels, and tourist courts <sup>4</sup> .....	701	31.0	31.1	31.4	31.5						
Personal services:											
Laundry, cleaning, and garment services .....	721	34.4	34.2	34.5	34.3						
Beauty shops <sup>4</sup> .....	723	29.7	29.5	30.1	30.1						
Business services .....	73	33.8	33.6	33.7	34.1						
Advertising .....	731	36.7	36.8	36.4	36.7						
Services to buildings .....	734	29.2	28.7	29.2	29.2						
Computer and data processing services .....	737	37.7	37.6	37.7	37.6						
Auto repair, services, and garages .....	75	36.8	37.1	36.4	36.7						
Automotive repair shops .....	753	38.3	38.6	37.5	38.1						
Miscellaneous repair services .....	76	38.0	38.1	38.0	38.3						
Motion pictures .....	78	29.1	30.5	27.8	28.5						
Motion picture production and services .....	781	37.3	39.0	36.7	36.7						
Amusement and recreation services .....	79	29.0	30.5	27.9	28.6						
Health services .....	80	32.4	32.6	32.2	32.4						
Offices of physicians .....	801	30.8	30.8	31.0	31.1						
Offices of dentists .....	802	28.1	28.3	28.0	28.4						
Nursing and personal care facilities .....	805	31.6	32.0	31.5	31.6						
Hospitals .....	806	34.3	34.4	33.8	34.1						
Legal services .....	81	34.9	34.7	34.3	34.8						
Miscellaneous services .....	89	38.5	38.3	37.6	38.0						
Engineering and architectural services .....	891	39.7	39.5	38.9	39.4						
Accounting, auditing, and bookkeeping .....	893	37.0	36.8	36.1	36.4						

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				
		June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>	June 1987	July 1987	May 1988	June 1988 <sup>a</sup>	July 1988 <sup>a</sup>
<b>Retail trade—Continued</b>											
Miscellaneous retail .....	59	\$6.30	\$6.31	\$6.54	\$6.54		\$192.15	\$193.72	\$194.89	\$196.85	
Drug stores and proprietary stores .....	591	5.84	5.90	6.22	6.22		167.02	170.51	169.81	172.29	
Miscellaneous shopping goods stores .....	594	5.87	5.84	6.17	6.12		170.23	172.28	173.99	177.48	
Nonstore retailers .....	596	7.21	7.28	7.39	7.45		238.65	240.24	235.74	238.40	
Fuel and ice dealers .....	598	8.87	8.88	9.08	9.01		336.17	335.66	342.32	343.28	
Retail stores, nec .....	599	6.50	6.53	6.57	6.66		208.65	207.65	212.87	212.45	
<b>Finance, insurance, and real estate<sup>5</sup></b> .....		8.63	8.63	9.09	8.96	\$9.00	314.13	312.41	325.42	321.66	\$325.80
<b>Banking</b> .....	60	7.45	7.42	7.87	7.79		269.69	268.60	278.60	278.10	
Commercial and stock savings banks .....	602	7.23	7.19	7.59	7.52		261.73	260.28	267.93	267.71	
<b>Credit agencies other than banks</b> .....	61	7.89	7.91	8.24	8.16		291.93	287.92	297.46	296.21	
Savings and loan associations .....	612	7.37	7.42	7.70	7.64		269.01	266.38	274.89	273.51	
Personal credit institutions .....	614	7.41	7.44	7.74	7.68		271.95	272.30	279.41	280.32	
<b>Insurance carriers</b> .....	63	9.41	9.53	10.14	10.10		351.93	353.56	376.19	374.71	
Life insurance .....	631	8.72	8.88	9.60	9.53		321.77	326.78	351.36	348.80	
Medical service and health insurance .....	632	9.38	9.48	9.89	9.78		354.56	356.45	370.88	367.73	
Fire, marine, and casualty insurance .....	633	9.88	9.95	10.65	10.63		369.51	367.16	396.18	394.37	
<b>Services</b> .....		8.37	8.34	8.84	8.78	8.80	273.70	273.55	286.42	287.11	290.40
<b>Hotels and other lodging places:</b>											
Hotels, motels, and tourist courts <sup>4</sup> .....	701	6.10	6.01	6.42	6.36		189.10	186.91	201.59	200.34	
<b>Personal services:</b>											
Laundry, cleaning, and garment services .....	721	6.17	6.18	6.31	6.31		212.25	211.36	217.70	216.43	
Beauty shops <sup>4</sup> .....	723	6.54	6.44	6.81	6.92		194.24	189.98	204.98	208.29	
<b>Business services</b> .....	73	8.69	8.71	9.08	9.05		293.72	292.66	306.00	308.61	
Advertising .....	731	11.79	11.69	12.46	12.21		432.69	430.19	453.54	448.11	
Services to buildings .....	734	6.71	6.74	6.84	6.94		195.93	193.44	199.73	202.65	
Computer and data processing services .....	737	12.13	12.12	12.71	12.70		457.30	455.71	479.17	477.52	
<b>Auto repair, services, and garages</b> .....	75	7.79	7.78	8.10	8.12		286.67	288.64	294.84	298.00	
Automotive repair shops .....	753	8.39	8.40	8.76	8.77		321.34	324.24	328.50	334.14	
<b>Miscellaneous repair services</b> .....	76	9.06	9.16	9.58	9.51		346.09	351.74	364.04	364.23	
<b>Motion pictures</b> .....	78	10.95	10.73	11.44	11.26		318.65	327.27	318.03	320.91	
Motion picture production and services .....	781	15.52	15.15	15.75	15.87		578.90	590.85	578.03	582.43	
<b>Amusement and recreation services</b> .....	79	6.48	6.23	7.44	6.82		187.92	190.02	207.58	195.05	
<b>Health services</b> .....	80	8.61	8.68	9.15	9.16		278.96	282.97	294.63	296.78	
Offices of physicians .....	801	8.32	8.39	8.78	8.72		256.26	258.41	272.18	271.19	
Offices of dentists .....	802	8.42	8.41	8.90	8.86		236.60	238.00	249.20	251.62	
Nursing and personal care facilities .....	805	5.96	6.01	6.24	6.28		188.34	192.32	196.56	198.45	
Hospitals .....	806	9.73	9.82	10.40	10.42		333.74	337.81	351.52	355.32	
<b>Legal services</b> .....	81	11.88	11.89	12.71	12.61		414.61	412.58	435.95	438.83	
<b>Miscellaneous services</b> .....	89	11.95	11.99	12.57	12.41		460.08	459.22	472.63	471.58	
Engineering and architectural services .....	891	12.79	12.80	13.32	13.10		507.76	505.60	518.15	516.14	
Accounting, auditing, and bookkeeping .....	893	10.24	10.36	10.91	10.77		378.88	381.25	393.85	392.03	

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

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

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

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

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

- Data not available.

<sup>a</sup> = preliminary.

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

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

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

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

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

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

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

Series	Aircraft (SIC 3721)				Guided missiles and space vehicles (SIC 3761)			
	May 1987	June 1987	May 1988	June 1988 <sup>p</sup>	May 1987	June 1987	May 1988	June 1988 <sup>p</sup>
Average hourly earnings, excluding lump-sum payments .....	\$13.72	\$13.71	\$14.04	\$14.10	\$12.76	\$12.83	\$13.40	\$13.51
Average hourly earnings, including lump-sum payments .....	14.37	14.37	14.50	14.56	13.06	13.13	13.67	13.79

<sup>p</sup> = preliminary.

NOTE: Average hourly earnings, including lump-sum payments for guided missiles and space vehicles have been revised to incorporate

corrected data from respondents as follows: December 1987, \$13.75; January 1988, \$13.56; February 1988, \$13.62; March 1988, \$13.65; and April 1988, \$13.65.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

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

Industry	June 1987	July 1987	May 1988	June 1988 <sup>p</sup>	July 1988 <sup>p</sup>
<b>Manufacturing</b> .....	\$9.44	\$9.45	\$9.70	\$9.70	\$9.73
<b>Durable goods</b> .....	9.95	9.95	10.19	10.19	10.22
Lumber and wood products .....	8.03	8.07	8.16	8.20	(2)
Furniture and fixtures .....	7.41	7.42	7.63	7.64	(2)
Stone, clay, and glass products .....	9.69	9.70	9.84	9.86	(2)
Primary metal industries .....	11.28	11.29	11.42	11.43	(2)
Fabricated metal products .....	9.54	9.52	9.76	9.78	(2)
Machinery, except electrical .....	10.20	10.21	10.39	10.40	(2)
Electrical and electronic equipment .....	9.48	9.54	9.76	9.76	(2)
Transportation equipment .....	12.28	12.26	12.61	12.66	(2)
Instruments and related products .....	9.33	9.41	9.54	9.54	(2)
Miscellaneous manufacturing .....	7.51	7.51	7.71	7.69	(2)
<b>Nondurable goods</b> .....	8.74	8.78	8.99	8.99	\$9.05
Food and kindred products .....	8.50	8.44	8.73	8.67	(2)
Tobacco manufactures .....	14.91	14.65	14.77	15.23	(2)
Textile mill products .....	6.76	6.78	7.00	7.00	(2)
Apparel and other textile products .....	5.74	5.74	5.92	5.94	(2)
Paper and allied products .....	10.79	10.84	11.01	11.01	(2)
Printing and publishing .....	9.84	9.87	10.06	10.08	(2)
Chemicals and allied products .....	11.74	11.82	12.02	12.01	(2)
Petroleum and coal products .....	13.69	13.71	14.08	14.11	(2)
Rubber and misc. plastics products .....	8.48	8.56	8.61	8.62	(2)
Leather and leather products .....	5.89	5.82	6.11	6.10	(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 1987 benchmark levels. When more recent benchmark data are introduced, all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA  
EARNINGS  
NOT SEASONALLY ADJUSTED**

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

Industry	Average hourly earnings					Average weekly earnings				
	June 1987	July 1987	May 1988	June 1988 <sup>1</sup>	July 1988 <sup>2</sup>	June 1987	July 1987	May 1988	June 1988 <sup>1</sup>	July 1988 <sup>2</sup>
<b>Total private:</b>										
Current dollars .....	\$8.91	\$8.90	\$9.26	\$9.23	\$9.25	\$311.85	\$311.50	\$320.40	\$323.05	\$324.68
Constant (1977) dollars .....	4.83	4.81	4.85	4.82	( <sup>3</sup> )	169.02	168.47	167.92	168.61	( <sup>3</sup> )
<b>Mining:</b>										
Current dollars .....	12.52	12.41	12.54	12.55	\$12.61	529.60	521.22	529.19	534.63	\$532.14
Constant (1977) dollars .....	6.79	6.71	6.57	6.55	( <sup>3</sup> )	287.05	281.89	277.35	279.03	( <sup>3</sup> )
<b>Construction:</b>										
Current dollars .....	12.66	12.60	12.87	12.87	\$12.94	482.35	486.36	491.63	498.07	\$498.19
Constant (1977) dollars .....	6.86	6.81	6.75	6.72	( <sup>3</sup> )	261.44	263.04	257.67	259.95	( <sup>3</sup> )
<b>Manufacturing:</b>										
Current dollars .....	9.87	9.87	10.14	10.16	\$10.18	405.66	400.72	414.73	418.59	\$414.33
Constant (1977) dollars .....	5.35	5.34	5.31	5.30	( <sup>3</sup> )	219.87	216.72	217.36	218.47	( <sup>3</sup> )
<b>Transportation and public utilities:</b>										
Current dollars .....	11.94	12.00	12.28	12.29	\$12.31	468.05	475.20	481.38	485.46	\$488.71
Constant (1977) dollars .....	6.47	6.49	6.44	6.41	( <sup>3</sup> )	253.69	257.00	252.30	253.37	( <sup>3</sup> )
<b>Wholesale trade:</b>										
Current dollars .....	9.54	9.56	9.87	9.85	\$9.94	365.38	365.19	375.06	376.27	\$380.70
Constant (1977) dollars .....	5.17	5.17	5.17	5.14	( <sup>3</sup> )	198.04	197.51	196.57	196.38	( <sup>3</sup> )
<b>Retail trade:</b>										
Current dollars .....	6.08	6.07	6.28	6.26	\$6.28	179.97	182.10	181.49	184.04	\$188.40
Constant (1977) dollars .....	3.30	3.28	3.29	3.27	( <sup>3</sup> )	97.54	98.49	95.12	96.05	( <sup>3</sup> )
<b>Finance, insurance, and real estate:</b>										
Current dollars .....	8.63	8.63	9.09	8.96	\$9.00	314.13	312.41	325.42	321.66	\$325.80
Constant (1977) dollars .....	4.68	4.67	4.76	4.68	( <sup>3</sup> )	170.26	168.96	170.56	167.88	( <sup>3</sup> )
<b>Services:</b>										
Current dollars .....	8.37	8.34	8.84	8.78	\$8.80	273.70	273.55	286.42	287.11	\$290.40
Constant (1977) dollars .....	4.54	4.51	4.63	4.58	( <sup>3</sup> )	148.35	147.94	150.12	149.85	( <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> Not available.  
<sup>3</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 1987 benchmark levels. When more recent benchmark data are introduced all unadjusted data from April 1987 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

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

Industry	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
<b>Total private</b> .....	34.8	34.8	34.6	34.9	34.8	34.6	34.7	34.8	34.6	34.9	34.7	34.7	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> .....	41.0	41.0	40.6	41.2	41.2	41.0	41.1	41.0	40.9	41.2	41.0	41.1	41.1
<i>Overtime hours</i> .....	3.8	3.8	3.7	3.9	3.9	3.8	3.9	3.7	3.7	3.9	3.9	3.9	3.9
<b>Durable goods</b> .....	41.6	41.5	41.0	41.8	41.8	41.5	41.6	41.5	41.5	42.0	41.8	41.8	41.7
<i>Overtime hours</i> .....	3.8	3.9	3.7	4.0	4.0	3.9	4.0	3.8	3.8	4.2	4.2	4.1	4.0
Lumber and wood products .....	40.6	40.5	39.6	40.4	40.7	40.4	40.2	40.3	40.1	40.6	40.1	40.2	40.4
Furniture and fixtures .....	40.0	40.0	39.5	40.1	40.2	39.8	39.6	39.5	39.3	39.5	39.5	39.3	39.4
Stone, clay, and glass products .....	42.3	42.2	42.0	42.5	42.4	42.5	42.0	42.3	42.3	42.5	42.3	42.4	42.2
Primary metal industries .....	43.2	43.3	43.2	43.6	43.5	43.4	43.4	43.1	43.3	43.5	43.6	43.6	43.4
Blast furnaces and basic steel products ..	43.7	43.7	44.6	43.9	43.8	44.0	44.0	43.8	43.7	43.8	43.9	44.3	43.7
Fabricated metal products .....	41.5	41.5	40.9	41.9	42.1	41.7	41.8	41.6	41.6	42.0	41.9	42.0	41.6
Machinery, except electrical .....	42.5	42.3	41.7	42.6	42.7	42.6	42.7	42.6	42.5	42.8	42.6	42.4	42.9
Electrical and electronic equipment .....	40.9	40.9	40.4	41.0	41.0	40.9	41.1	40.9	40.9	41.2	41.0	41.1	40.8
Transportation equipment .....	41.8	41.8	41.4	42.4	42.3	41.5	42.0	42.0	42.1	43.0	43.0	43.0	42.7
Motor vehicles and equipment .....	41.8	41.9	41.5	42.8	42.9	41.4	42.1	42.3	42.3	44.1	44.0	44.3	43.0
Instruments and related products .....	41.5	41.6	41.0	41.9	41.4	41.2	41.8	41.3	41.4	41.8	41.4	41.4	41.6
Miscellaneous manufacturing .....	39.5	39.7	38.9	39.5	39.2	39.2	39.1	39.3	39.2	39.4	39.2	39.4	39.5
<b>Nondurable goods</b> .....	40.3	40.3	40.1	40.4	40.3	40.3	40.3	40.2	40.1	40.3	40.0	40.1	40.3
<i>Overtime hours</i> .....	3.7	3.7	3.6	3.8	3.7	3.7	3.8	3.6	3.6	3.6	3.6	3.6	3.8
Food and kindred products .....	40.1	40.2	40.2	40.4	40.4	40.5	40.6	40.3	40.1	40.1	40.1	40.4	40.6
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 .....	42.3	42.0	41.4	41.8	41.6	41.5	41.5	41.6	41.2	41.6	40.8	40.6	41.1
Apparel and other textile products .....	37.2	37.2	36.4	37.3	37.1	37.1	36.8	37.0	37.0	37.4	36.8	37.0	37.2
Paper and allied products .....	43.5	43.4	43.7	43.6	43.5	43.3	43.4	43.3	43.2	43.3	43.3	43.1	43.3
Printing and publishing .....	38.1	38.1	38.1	38.1	38.0	38.0	38.1	38.1	38.1	38.2	37.7	38.0	38.0
Chemicals and allied products .....	42.2	42.4	42.5	42.5	42.5	42.5	42.5	42.4	42.5	42.1	42.0	42.4	42.3
Petroleum and coal 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> )
Rubber and misc. plastics products .....	41.6	41.6	41.3	41.8	41.8	41.6	41.7	41.6	41.7	42.0	41.7	41.6	41.9
Leather and leather products .....	38.4	38.9	37.8	38.8	38.3	38.0	38.0	37.8	37.9	37.3	37.3	36.9	37.4
<b>Transportation and public utilities</b> .....	39.3	39.3	39.1	39.3	39.2	39.1	39.5	39.1	38.8	39.5	39.4	39.3	39.4
<b>Wholesale trade</b> .....	38.1	38.2	38.0	38.2	38.2	38.0	38.1	38.2	38.1	38.3	38.0	38.0	38.2
<b>Retail trade</b> .....	29.3	29.4	29.5	29.2	29.2	28.8	29.0	29.1	29.0	29.2	29.0	29.1	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	32.5	32.5	32.6	32.6	32.5	32.6	32.7	32.4	32.7	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 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision.

**ESTABLISHMENT DATA  
HOURS  
SEASONALLY ADJUSTED**

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

(1977=100)

Industry	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
<b>Total private</b> .....	121.1	121.6	121.1	122.5	122.8	122.5	123.0	123.9	123.6	125.1	124.4	125.4	126.3
<b>Goods-producing</b> .....	99.3	99.6	98.0	101.0	101.2	101.3	100.5	101.1	101.6	102.7	102.1	103.2	103.4
<b>Mining</b> .....	81.9	82.9	82.7	85.0	84.1	84.0	81.7	82.5	83.2	85.9	84.4	85.2	85.2
<b>Construction</b> .....	133.0	133.9	127.0	136.7	136.4	137.7	132.1	136.0	139.1	141.1	139.3	144.0	142.1
<b>Manufacturing</b> .....	93.6	93.8	93.2	94.8	95.1	95.0	95.2	95.2	95.2	96.1	95.7	96.1	96.7
<b>Durable goods</b> .....	90.7	91.3	90.3	92.5	92.9	92.5	92.7	92.7	92.7	94.0	93.9	94.2	94.9
Lumber and wood products .....	102.4	101.8	100.2	102.2	103.9	103.7	103.0	103.6	103.1	104.7	103.2	103.6	103.2
Furniture and fixtures .....	112.7	112.4	111.3	114.1	114.6	114.0	113.7	113.2	112.3	113.2	113.7	113.1	115.0
Stone, clay, and glass products .....	86.1	85.9	85.7	87.1	87.3	88.3	86.5	87.3	87.5	88.3	87.5	88.1	86.1
Primary metal industries .....	64.1	65.0	65.5	66.5	66.8	66.6	66.5	66.4	66.9	67.6	68.1	68.7	69.2
Blast furnaces and basic steel products .....	51.3	51.8	54.0	53.9	54.1	54.1	53.9	53.9	54.1	54.8	54.6	55.4	54.9
Fabricated metal products .....	87.9	88.2	87.5	90.1	91.2	90.7	90.9	90.8	90.8	91.8	92.1	92.8	92.7
Machinery, except electrical .....	86.2	86.5	85.7	88.1	89.0	89.3	90.0	90.2	90.4	91.5	91.6	91.6	94.1
Electrical and electronic equipment .....	100.2	100.4	99.3	101.4	101.5	101.8	102.2	101.8	101.9	102.8	102.3	103.0	103.3
Transportation equipment .....	97.1	99.4	97.5	99.7	99.1	97.1	97.5	97.3	96.8	100.0	100.2	100.1	99.8
Motor vehicles and equipment .....	83.3	88.5	85.7	88.9	88.7	84.6	84.7	85.7	84.8	89.8	89.9	90.5	88.7
Instruments and related products .....	102.8	103.0	102.1	105.2	104.4	103.9	106.0	105.0	105.2	106.5	106.1	106.6	107.9
Miscellaneous manufacturing .....	82.2	82.9	81.5	83.4	83.6	83.6	83.4	84.8	84.5	85.0	83.9	84.7	85.8
<b>Nondurable goods</b> .....	97.8	97.5	97.3	98.3	98.5	98.7	99.0	99.0	98.8	99.1	98.4	98.9	99.5
Food and kindred products .....	99.6	99.5	99.7	100.3	100.9	101.3	102.2	101.7	100.9	101.0	100.5	101.7	101.7
Tobacco manufactures .....	75.5	73.2	70.9	71.7	73.8	76.4	77.2	75.8	74.8	73.8	71.0	71.4	75.3
Textile mill products .....	84.0	83.0	82.1	82.9	82.7	82.5	82.7	81.7	82.2	80.6	80.0	81.2	81.2
Apparel and other textile products .....	87.0	85.4	84.0	86.3	86.1	85.9	85.1	85.5	85.7	86.2	84.7	84.9	84.6
Paper and allied products .....	101.0	100.8	102.3	101.7	101.4	101.2	101.6	101.5	101.3	101.4	101.5	101.3	101.9
Printing and publishing .....	131.6	132.2	132.7	133.0	133.4	133.7	134.9	135.5	136.0	136.5	134.9	136.4	136.4
Chemicals and allied products .....	94.5	95.5	96.2	96.2	96.7	97.4	97.4	97.1	97.9	97.1	97.4	98.8	96.9
Petroleum and coal products .....	85.9	83.7	84.7	85.1	85.3	86.3	86.3	84.5	83.5	84.9	85.3	86.6	86.0
Rubber and misc. plastics products .....	116.1	116.5	116.2	118.7	119.6	120.1	120.9	121.0	121.8	122.9	123.1	123.4	126.3
Leather and leather products .....	59.1	58.4	56.7	58.2	57.5	57.0	57.5	57.2	56.9	55.5	55.5	54.9	55.2
<b>Service-producing</b> .....	133.2	133.8	133.9	134.3	134.7	134.2	135.5	136.4	135.8	137.4	136.8	137.8	139.0
<b>Transportation and public utilities</b> .....	109.5	109.9	110.0	110.9	111.0	111.0	112.6	111.8	111.2	113.5	113.5	113.6	114.4
<b>Wholesale trade</b> .....	119.2	119.8	119.6	120.7	121.3	121.3	122.2	123.1	123.6	124.8	124.4	125.1	126.2
<b>Retail trade</b> .....	123.0	123.6	124.1	123.5	123.8	122.2	124.0	125.2	124.8	126.0	125.1	126.2	127.5
<b>Finance, insurance, and real estate</b> .....	141.4	141.8	140.6	141.1	141.3	139.6	141.3	141.6	139.6	141.1	140.1	140.4	142.1
<b>Services</b> .....	152.9	153.5	153.7	154.8	155.3	155.6	156.5	158.0	157.2	159.0	158.3	159.9	161.1

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

<sup>p</sup> = preliminary.

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

**ESTABLISHMENT DATA  
EARNINGS  
SEASONALLY ADJUSTED**

**C-7. The Hourly Earnings Index and average hourly and weekly earnings of production or nonsupervisory workers<sup>1</sup> on private nonagricultural payrolls, seasonally adjusted**

Industry	1987						1988						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June <sup>p</sup>	July <sup>p</sup>
Hourly Earnings Index <sup>2</sup> (1977=100)													
<b>Total private</b> (in current dollars) .....	173.2	174.1	174.6	174.9	175.6	175.7	176.6	176.7	177.0	178.0	178.7	178.6	179.5
<b>Mining</b> .....	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )
<b>Construction</b> .....	154.9	155.1	154.8	155.2	156.5	155.4	157.6	156.8	157.5	157.8	157.5	158.0	159.2
<b>Manufacturing</b> .....	174.5	175.3	176.3	176.1	176.4	176.6	176.8	177.0	177.3	177.9	178.4	178.8	179.0
<b>Transportation and public utilities</b> .....	176.2	177.0	176.8	177.5	177.6	178.2	178.3	179.1	179.4	180.6	181.6	181.3	181.9
<b>Wholesale trade</b> .....	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )
<b>Retail trade</b> .....	161.1	161.5	162.3	162.1	162.4	162.7	163.4	163.4	163.8	164.8	165.4	165.7	166.8
<b>Finance, insurance, and real estate</b> .....	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )
<b>Services</b> .....	180.9	182.4	182.5	183.9	184.9	185.2	186.5	186.3	186.9	188.3	189.9	189.3	191.1
<b>Total private</b> (in constant dollars) <sup>4</sup> .....	93.7	93.8	93.7	93.5	93.8	93.7	93.8	93.7	93.5	93.6	93.6	93.2	( <sup>q</sup> )
Average hourly earnings													
<b>Total private</b> .....	\$8.96	\$9.01	\$9.02	\$9.07	\$9.10	\$9.11	\$9.14	\$9.13	\$9.16	\$9.23	\$9.27	\$9.28	\$9.32
<b>Mining</b> .....	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )	( <sup>q</sup> )
<b>Construction</b> .....	\$12.71	\$12.72	\$12.70	\$12.72	\$12.81	\$12.74	\$12.91	\$12.82	\$12.90	\$12.93	\$12.91	\$12.95	\$13.06
<b>Manufacturing</b> .....	9.88	9.94	10.00	9.99	10.00	10.01	10.02	10.03	10.05	10.11	10.15	10.18	10.19
<b>Transportation and public utilities</b> .....	12.03	12.09	12.07	12.12	12.13	12.16	12.14	12.19	12.21	12.29	12.35	12.35	12.35
<b>Wholesale trade</b> .....	9.59	9.65	9.64	9.70	9.71	9.69	9.75	9.72	9.76	9.88	9.88	9.86	9.98
<b>Retail trade</b> .....	6.12	6.13	6.18	6.16	6.17	6.19	6.20	6.20	6.22	6.25	6.28	6.29	6.33
<b>Finance, insurance, and real estate</b> .....	8.70	8.79	8.76	8.82	8.89	8.84	8.92	8.91	8.90	8.99	9.08	8.98	9.07
<b>Services</b> .....	8.46	8.53	8.55	8.60	8.65	8.67	8.72	8.72	8.75	8.81	8.88	8.86	8.93
Average weekly earnings													
<b>Total private:</b>													
In current dollars .....	311.81	313.55	312.09	316.54	316.68	315.21	317.16	317.72	316.94	322.13	321.67	322.02	325.27
In constant (1977) dollars <sup>4</sup> .....	168.64	168.85	167.52	169.27	169.08	168.02	168.43	168.46	167.43	169.36	168.41	168.07	( <sup>q</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. Data for 1987 and earlier years have been revised based on recomputed seasonal adjustment factors for the CPI-W.

<sup>5</sup> Not available.

<sup>p</sup> = preliminary.

NOTE: Establishment survey estimates are currently projected from March 1987 benchmark levels. When more recent benchmark data are introduced, all seasonally adjusted data from January 1984 forward are subject to revision. Beginning in 1989, publication of the Hourly Earnings Index series shown in this table will be discontinued.



**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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Alabama</b> .....	41.8	41.0	41.4	\$8.72	\$8.95	\$8.94	\$362.75	\$386.95	\$370.12
Birmingham .....	40.8	40.8	41.4	8.95	9.15	9.15	365.16	373.32	378.81
Mobile .....	41.5	40.7	40.6	10.08	10.63	10.65	418.32	432.64	432.39
<b>Alaska</b> .....	42.3	36.3	45.3	11.56	12.63	11.33	488.99	458.47	513.25
<b>Arizona</b> .....	40.9	41.4	41.4	9.89	9.77	9.82	404.50	404.48	406.55
<b>Arkansas</b> .....	41.6	41.2	40.9	7.87	8.13	8.08	327.39	334.96	330.47
Fayetteville-Springdale .....	39.6	41.2	41.9	6.98	7.24	7.22	276.41	298.29	302.52
Fort Smith .....	41.7	40.8	40.3	8.45	8.73	8.65	352.37	356.18	348.60
Little Rock-North Little Rock .....	41.5	40.7	40.9	8.51	8.50	8.51	353.17	345.95	348.06
Pine Bluff .....	44.4	43.4	43.5	10.58	10.70	10.45	469.75	464.38	454.58
<b>California</b> .....	40.5	( <sup>1</sup> )	( <sup>1</sup> )	10.78	( <sup>1</sup> )	( <sup>1</sup> )	436.59	( <sup>1</sup> )	( <sup>1</sup> )
<b>Colorado</b> .....	40.0	41.1	40.8	10.17	10.28	10.29	406.80	422.51	419.83
Denver .....	39.7	41.2	41.3	10.51	10.56	10.70	417.25	435.07	441.91
<b>Connecticut</b> .....	42.3	41.7	41.7	10.44	10.78	10.79	441.61	449.53	449.94
Bridgeport-Milford .....	42.2	42.2	41.8	10.77	11.17	11.10	454.49	471.37	463.98
Hartford .....	42.1	42.6	42.5	10.69	11.20	11.21	450.05	477.12	476.43
New Haven-Meriden .....	40.7	40.5	40.8	10.10	10.23	10.29	411.07	414.32	419.83
Stamford .....	40.6	40.6	40.4	11.43	12.00	12.10	464.06	487.20	488.84
Waterbury .....	42.8	43.0	43.3	8.99	9.17	9.62	384.77	394.31	416.55
<b>Delaware</b> .....	40.8	39.6	40.3	10.50	10.74	10.72	428.40	425.30	432.02
Wilmington .....	41.8	40.2	40.6	12.17	13.30	13.37	508.71	534.66	542.82
<b>District of Columbia:</b>									
Washington MSA .....	39.3	39.5	39.8	10.55	11.22	11.18	414.62	443.19	444.96
<b>Florida</b> .....	41.1	40.9	41.1	8.10	8.27	8.35	332.91	338.24	343.19
Fort Lauderdale-Hollywood-Pompano Beach .....	42.6	41.3	41.6	8.03	8.28	8.34	342.08	341.96	346.94
Jacksonville .....	40.6	40.3	41.6	8.58	9.13	9.06	348.35	367.94	376.90
Miami-Hialeah .....	39.5	39.7	40.2	7.17	7.16	7.20	283.22	284.25	289.44
Orlando .....	41.2	40.9	40.7	8.55	8.74	8.90	352.26	357.47	362.23
Pensacola .....	42.8	42.6	43.0	10.41	10.78	10.73	445.55	459.23	461.39
Tampa-St. Petersburg-Clearwater .....	39.8	41.0	41.6	7.60	7.92	8.03	302.48	324.72	334.05
West Palm Beach-Boca Raton-Delray Beach .....	41.2	40.7	40.2	8.98	9.09	9.22	369.98	369.96	370.64
<b>Georgia</b> .....	42.3	41.1	41.4	8.47	8.65	8.62	358.28	355.52	356.87
Atlanta .....	42.0	41.2	41.1	10.01	10.27	10.38	420.42	423.12	426.62
Savannah .....	46.2	48.4	48.8	11.01	11.23	11.20	508.66	543.53	546.56
<b>Hawaii</b> .....	38.2	39.2	39.3	9.29	9.81	9.85	354.88	384.55	387.11
Honolulu .....	38.4	39.3	39.5	9.40	9.85	9.99	360.96	387.11	394.61
<b>Idaho</b> .....	38.9	37.8	37.7	10.38	9.62	9.69	403.78	363.64	365.31
<b>Illinois</b> .....	41.8	41.7	41.7	10.86	11.07	11.09	453.95	461.62	462.45
Aurora-Elgin .....	42.0	41.7	42.1	10.37	10.62	10.67	435.54	442.85	449.21
Bloomington-Normal .....	42.6	39.6	43.1	10.81	11.45	11.42	460.51	453.42	492.20
Champaign-Urbana-Rantoul .....	41.2	39.2	39.4	9.31	8.95	8.88	383.57	350.84	349.87
Chicago .....	41.6	42.4	42.5	10.57	10.82	10.82	439.71	458.77	459.85
Davenport-Rock Island-Moline .....	40.6	40.0	39.0	12.84	12.64	12.61	521.30	505.60	491.79
Decatur .....	41.1	41.2	42.1	13.99	14.10	14.25	574.99	580.92	599.93
Joliet .....	41.9	41.3	41.4	11.77	11.83	11.66	493.16	488.58	482.72
Lake County .....	39.4	40.7	41.2	10.83	11.34	11.38	426.70	461.54	468.86
Peoria .....	43.9	46.0	47.1	13.19	13.56	13.70	579.04	623.76	645.27
Rockford .....	41.7	42.9	43.0	11.09	11.61	11.54	462.45	498.07	496.22
Springfield .....	42.4	41.6	42.8	11.57	11.49	11.73	490.57	477.98	502.04
<b>Indiana</b> .....	41.9	41.9	42.2	11.02	11.43	11.37	461.74	478.92	479.81

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Iowa</b> .....	41.1	41.5	41.2	\$10.63	\$10.59	\$10.60	\$436.89	\$439.49	\$436.72
Cedar Rapids .....	39.8	40.0	39.8	12.04	11.92	12.17	479.19	476.80	484.37
Des Moines .....	40.4	41.8	42.5	11.52	11.97	11.86	465.41	500.35	504.05
Dubuque .....	42.6	41.2	40.3	12.58	11.84	11.96	535.91	487.81	481.99
Sioux City .....	39.9	33.2	33.4	8.03	8.08	8.34	320.40	268.26	278.56
<b>Kansas</b> .....	41.3	40.5	41.2	9.84	10.12	10.14	406.39	409.86	417.77
Topeka .....	41.5	44.2	43.2	10.97	11.30	11.22	455.26	499.46	484.70
Wichita .....	41.0	40.5	41.2	10.87	10.54	10.60	445.67	426.87	436.72
<b>Kentucky</b> .....	40.5	40.6	40.8	10.06	10.15	10.21	407.43	412.09	416.57
Lexington-Fayette .....	40.0	39.6	39.5	10.45	10.27	10.31	418.00	406.69	407.25
Louisville .....	41.7	42.0	42.2	11.51	11.72	11.85	479.97	492.24	500.07
<b>Louisiana</b> .....	41.5	42.0	42.6	10.85	10.91	11.07	450.28	458.22	471.58
Baton Rouge .....	43.2	42.0	42.1	12.19	12.67	12.85	526.61	532.14	540.99
New Orleans .....	39.8	40.4	40.7	10.50	10.32	10.56	417.90	416.93	429.79
Shreveport .....	40.1	41.3	42.3	11.79	11.52	11.99	472.78	475.78	507.18
<b>Maine</b> .....	41.7	40.9	40.2	8.73	9.04	9.03	364.04	369.74	363.01
Lewiston-Auburn .....	41.9	41.5	39.9	7.32	7.97	7.97	306.71	330.76	318.00
Portland .....	39.1	41.1	41.2	9.14	9.59	9.37	357.37	394.15	386.04
<b>Maryland</b> .....	40.8	41.2	41.5	9.91	10.48	10.41	404.33	431.78	432.02
Baltimore MSA .....	41.5	42.0	42.0	10.74	11.12	11.11	445.71	467.04	466.62
<b>Massachusetts</b> .....	41.5	40.8	41.5	9.68	10.12	10.23	401.72	412.90	424.55
Boston .....	40.8	41.4	41.7	10.64	10.94	10.90	434.11	452.92	454.53
Springfield .....	42.3	42.7	42.9	9.16	9.67	9.78	387.47	412.91	419.56
Worcester .....	41.2	40.1	40.5	9.78	10.26	10.41	402.94	411.43	421.61
<b>Michigan</b> .....	41.9	43.6	43.8	12.94	13.47	13.51	542.19	587.29	591.74
Ann Arbor .....	44.2	46.5	46.6	13.94	14.75	14.87	616.15	685.88	692.94
Battle Creek .....	43.4	42.0	42.0	13.74	14.12	14.39	596.32	593.04	604.38
Detroit .....	43.2	44.8	45.2	13.84	14.42	14.49	597.89	646.02	654.95
Flint .....	41.3	43.4	43.8	15.06	16.64	16.53	621.98	722.18	724.01
Grand Rapids .....	39.8	41.3	41.6	11.08	11.32	11.33	440.98	467.52	471.33
Kalamazoo .....	42.8	42.6	43.4	11.94	12.35	12.40	511.03	526.11	538.16
Lansing-East Lansing .....	42.7	44.5	43.6	14.06	15.12	15.50	600.36	672.84	675.80
Muskegon .....	40.5	41.0	40.8	11.88	12.03	12.07	481.14	493.23	492.46
Saginaw-Bay City-Midland .....	43.1	44.3	44.1	14.40	15.21	15.26	620.64	673.80	672.97
<b>Minnesota</b> .....	41.1	40.1	40.8	10.34	10.58	10.57	424.97	424.26	431.26
Duluth .....	40.4	39.1	43.0	10.84	10.84	10.91	437.94	423.84	469.13
Minneapolis-St. Paul .....	41.1	40.3	41.3	11.17	11.21	11.33	459.09	451.76	467.93
St. Cloud .....	38.6	38.7	40.3	9.45	9.71	10.03	364.77	375.78	404.21
<b>Mississippi</b> .....	40.2	40.0	40.7	7.56	7.83	7.83	303.91	313.20	318.68
Jackson .....	40.4	40.4	40.5	8.60	8.88	8.94	347.44	358.75	362.07
<b>Missouri</b> .....	40.7	40.8	41.0	10.00	10.11	10.13	407.00	412.49	415.33
Kansas City .....	40.7	40.9	41.3	11.02	11.43	11.41	448.51	467.49	471.23
St. Louis .....	41.1	41.2	41.2	11.68	11.73	11.78	480.05	483.28	485.34
Springfield .....	40.0	39.7	40.9	8.64	8.48	8.57	345.60	336.66	350.51
<b>Montana</b> .....	39.2	39.1	38.6	10.72	10.69	10.88	420.22	417.98	419.97
<b>Nebraska</b> .....	40.0	40.7	40.4	9.22	9.50	9.54	368.80	386.65	385.42
Lincoln .....	39.8	40.4	39.1	9.56	9.95	9.74	380.49	401.98	380.83
Omaha .....	40.2	41.6	40.6	9.88	10.21	10.31	397.18	424.74	418.59
<b>Nevada</b> .....	40.8	39.6	38.9	9.73	10.00	10.06	396.98	396.00	391.33
Las Vegas .....	40.8	39.8	39.9	11.89	12.35	12.56	485.11	491.53	501.14
<b>New Hampshire</b> .....	41.1	40.5	40.9	9.35	9.54	9.59	384.29	386.37	392.23
Nashua .....	41.9	40.6	40.0	11.16	11.62	11.76	467.60	471.77	470.40

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>New Jersey</b> .....	41.1	41.0	41.1	\$10.38	\$10.82	\$10.86	\$426.62	\$443.62	\$446.35
<b>New Mexico</b> .....	39.7	40.8	39.5	8.63	8.92	9.02	342.61	363.94	356.29
Albuquerque .....	39.6	41.1	40.6	9.04	9.24	9.31	357.98	379.76	377.99
<b>New York</b> .....	40.2	39.8	39.9	9.99	10.36	10.40	401.60	412.33	414.96
Albany-Schenectady-Troy .....	40.3	40.7	40.6	10.44	10.82	10.93	420.73	440.37	443.76
Binghamton .....	40.6	40.0	40.5	9.08	9.51	9.63	368.65	380.40	390.02
Buffalo .....	41.3	42.9	43.4	11.85	12.31	12.40	489.41	528.10	538.16
Elmira .....	42.9	41.7	41.5	9.48	9.90	9.77	406.69	412.83	405.46
Nassau-Suffolk .....	40.7	39.4	39.5	10.74	10.99	11.03	437.12	433.01	435.69
New York PMSA .....	37.9	37.1	37.0	9.41	9.75	9.76	356.64	361.73	361.12
New York City .....	37.6	36.9	36.7	9.33	9.48	9.49	350.81	349.81	348.28
Niagara Falls .....	40.8	42.4	42.2	12.76	13.33	13.36	520.61	565.19	563.79
Orange County .....	38.3	39.1	39.3	7.92	8.09	8.22	303.34	316.32	323.05
Poughkeepsie .....	42.5	40.9	41.0	9.31	9.91	9.94	395.68	405.32	407.54
Rochester .....	42.1	42.5	42.6	11.70	12.37	12.37	492.57	525.73	526.96
Rockland County .....	39.3	35.3	35.2	10.13	11.30	11.19	398.11	398.89	393.89
Syracuse .....	41.6	42.2	41.9	11.05	11.78	11.93	459.68	497.12	499.87
Utica-Rome .....	41.5	41.1	41.1	9.72	9.69	9.59	403.38	398.26	394.15
Westchester County .....	40.5	39.8	40.5	9.73	11.45	11.39	394.07	455.71	461.30
<b>North Carolina</b> .....	41.4	40.3	40.4	7.83	8.09	8.10	324.16	326.03	327.24
Asheville .....	42.3	41.4	41.3	7.82	8.15	8.15	330.79	337.41	336.60
Charlotte-Gastonia-Rock Hill .....	42.7	40.3	40.4	8.02	8.34	8.33	342.45	336.10	336.53
Greensboro-Winston-Salem-High Point .....	41.2	39.8	40.4	8.77	8.89	8.98	361.32	353.82	362.79
Raleigh-Durham .....	42.0	41.3	41.5	8.97	9.10	9.20	376.74	375.83	381.80
<b>North Dakota</b> .....	38.3	38.9	39.6	8.41	8.50	8.49	322.10	330.65	336.20
Fargo-Moorhead .....	37.0	38.1	39.9	8.42	8.49	8.40	311.54	323.47	335.16
<b>Ohio</b> .....	42.6	43.0	43.3	11.70	12.01	12.03	498.42	516.43	520.90
Akron .....	43.1	43.3	43.8	11.33	11.66	11.63	488.32	504.88	509.39
Cincinnati .....	42.8	42.1	42.0	10.90	11.06	11.10	466.52	465.63	466.20
Cleveland .....	42.9	43.4	43.6	11.52	11.83	11.86	494.21	513.42	517.10
Columbus .....	41.5	41.4	41.5	11.40	11.60	11.56	473.10	480.24	479.74
Dayton-Springfield .....	42.2	43.7	43.8	11.90	12.61	12.70	502.18	551.06	556.26
Toledo .....	41.8	42.4	42.7	12.66	13.04	13.06	529.19	552.90	557.66
Youngstown-Warren .....	42.8	43.7	42.7	13.24	13.58	13.67	566.67	593.45	583.71
<b>Oklahoma</b> .....	41.0	41.1	41.0	10.16	10.33	10.33	416.56	424.56	423.53
Oklahoma City .....	41.2	41.0	41.9	11.21	11.68	11.52	461.85	476.88	482.69
Tulsa .....	40.6	41.1	40.6	10.52	10.78	10.79	427.11	443.06	438.07
<b>Oregon</b> .....	39.6	38.6	39.3	10.51	10.75	10.89	416.20	414.95	420.12
Eugene-Springfield .....	39.7	39.5	40.1	10.72	10.61	10.75	425.58	419.10	431.08
Portland .....	39.5	39.0	39.1	10.65	10.95	10.78	420.68	427.05	421.50
Salem .....	40.3	37.0	38.1	9.07	9.39	8.84	365.52	347.43	336.80

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		
	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>	June 1987	May 1988	June 1988 <sup>a</sup>
<b>Pennsylvania</b> .....	41.2	40.8	41.2	\$9.94	\$10.20	\$10.23	\$409.53	\$418.16	\$421.48
Allentown-Bethlehem .....	39.7	40.1	39.8	10.50	10.26	10.33	416.85	411.43	411.13
Altoona .....	41.1	40.1	41.3	8.56	8.62	8.79	351.82	345.66	363.03
Beaver County .....	42.1	42.4	42.4	11.09	10.72	10.71	466.89	454.53	454.10
Erie .....	41.9	42.7	42.5	10.21	10.37	10.44	427.80	442.80	443.70
Harrisburg-Lebanon-Carlisle .....	40.0	39.1	39.9	9.32	9.49	9.52	372.80	371.06	379.85
Johnstown .....	39.6	39.6	40.2	8.43	8.34	8.30	333.83	330.26	333.66
Lancaster .....	40.6	39.9	40.4	9.65	9.97	10.08	391.79	397.80	407.23
Philadelphia PMSA .....	41.1	40.3	40.7	10.82	11.22	11.25	444.70	452.17	457.88
Pittsburgh .....	42.0	41.9	41.9	11.19	11.23	11.24	469.98	470.54	470.96
Reading .....	40.9	40.6	41.2	10.06	10.63	10.69	411.45	431.58	440.43
Scranton-Wilkes-Barre .....	39.4	38.5	38.9	8.68	8.88	8.91	341.99	341.88	346.60
Williamsport .....	42.3	41.2	42.1	8.47	8.78	8.89	358.28	361.74	374.27
York .....	42.8	42.6	42.6	9.46	9.75	9.77	404.89	415.35	416.20
<b>Rhode Island</b> .....	40.3	39.7	39.6	8.13	8.47	8.50	327.64	336.26	336.60
Pawtucket-Woonsocket-Attleboro .....	40.4	40.0	40.0	7.67	8.04	8.08	309.87	321.60	323.20
Providence .....	40.3	39.6	39.6	8.13	8.43	8.44	327.64	333.83	334.22
<b>South Carolina</b> .....	41.9	41.2	41.4	8.09	8.28	8.30	338.97	341.14	343.62
Charleston .....	42.1	40.9	41.0	9.06	9.11	9.16	381.43	372.60	375.56
Columbia .....	41.5	41.2	41.3	7.88	8.30	8.34	327.02	341.96	344.44
Greenville-Spartanburg .....	42.0	41.2	41.4	7.98	8.23	8.24	335.16	339.08	341.14
<b>South Dakota</b> .....	42.2	42.2	42.5	7.93	8.02	7.86	334.65	338.44	334.05
Sioux Falls .....	46.1	45.2	45.0	7.95	8.19	7.98	366.50	370.19	359.10
<b>Tennessee</b> .....	41.7	41.6	42.0	8.71	8.90	8.90	363.21	370.24	373.80
Chattanooga .....	42.6	40.0	40.3	7.89	8.19	8.29	336.11	327.60	334.09
Johnson City-Kingsport-Bristol .....	43.3	42.5	42.4	9.10	9.38	9.46	394.03	398.65	401.10
Knoxville .....	40.4	42.1	42.4	9.06	9.09	9.03	366.02	382.69	382.87
Memphis .....	44.9	42.0	41.8	9.08	8.97	8.92	407.69	376.74	372.86
Nashville .....	42.8	41.2	41.7	10.09	10.20	10.27	431.85	420.24	428.26
<b>Texas</b> .....	41.2	41.3	41.9	9.80	9.93	9.93	403.76	410.11	416.07
Dallas .....	41.3	41.2	41.4	9.75	9.69	9.76	402.68	399.23	404.06
Ft. Worth-Arlington .....	41.3	41.8	42.6	9.70	10.53	10.63	400.61	440.15	452.84
Houston .....	43.3	43.6	43.5	11.24	11.17	11.24	486.69	487.01	488.94
San Antonio .....	39.6	41.1	40.4	7.61	7.56	7.56	301.36	310.72	305.42
<b>Utah</b> .....	38.9	39.7	40.2	9.95	9.96	9.94	387.06	395.41	399.59
Salt Lake City-Ogden .....	39.8	40.1	41.2	9.97	10.00	9.88	396.81	401.00	407.06
<b>Vermont</b> .....	40.8	40.4	41.4	9.09	9.23	9.34	370.87	372.89	386.68
Burlington .....	40.9	41.5	40.0	9.92	9.45	10.11	405.73	392.17	404.40
<b>Virginia</b> .....	41.2	40.8	41.1	9.16	9.41	9.38	377.39	383.93	385.52
Bristol .....	41.2	43.1	42.4	7.75	7.88	7.80	319.30	339.63	330.72
Charlottesville .....	41.0	41.3	41.4	7.50	7.75	7.71	307.50	320.08	319.19
Danville .....	44.3	42.1	42.2	8.15	8.62	8.61	361.05	362.90	363.34
Lynchburg .....	41.8	39.7	41.3	8.52	8.76	8.92	356.14	347.77	368.40
Northern Virginia .....	40.0	40.3	39.5	9.79	10.54	10.55	391.60	424.76	416.73
Richmond-Petersburg .....	41.6	41.6	42.0	12.06	12.09	12.06	501.70	502.94	506.52
Roanoke .....	40.8	40.3	40.0	8.78	9.30	9.22	358.22	374.79	368.80
<b>Washington</b> .....	40.6	40.6	39.9	11.62	11.64	11.74	471.77	472.58	468.43

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		
	June 1987	May 1988	June 1988 <sup>p</sup>	June 1987	May 1988	June 1988 <sup>p</sup>	June 1987	May 1988	June 1988 <sup>p</sup>
<b>West Virginia</b> .....	40.5	41.0	40.9	\$10.57	\$10.88	\$10.78	\$428.09	\$446.08	\$440.90
Charleston .....	42.0	44.3	43.1	13.27	13.23	13.43	557.34	586.09	578.83
Huntington-Ashland .....	39.3	41.1	41.3	12.04	12.09	12.19	473.17	496.90	503.45
Parkersburg-Marietta .....	43.3	42.2	41.2	12.29	12.75	12.85	532.16	538.05	529.42
Wheeling .....	41.4	42.3	42.4	12.17	11.79	12.02	503.84	498.72	509.65
<b>Wisconsin</b> .....	41.2	41.4	41.5	10.46	10.69	10.57	430.95	442.57	438.66
Appleton-Oshkosh .....	42.4	42.8	42.5	10.78	11.17	11.09	457.07	478.08	471.33
Eau Claire .....	41.8	39.8	40.6	10.78	10.69	10.54	450.60	425.46	427.92
Green Bay .....	41.7	41.4	43.6	11.19	11.57	11.35	466.62	479.00	494.86
Janesville-Beloit .....	38.6	42.2	42.1	12.26	12.83	12.82	473.24	541.43	539.72
Kenosha .....	40.5	41.9	39.4	12.29	12.96	12.77	497.75	543.02	503.14
La Crosse .....	39.3	39.1	39.5	9.29	9.08	9.01	365.10	355.03	355.90
Madison .....	40.6	40.4	40.5	9.82	9.99	10.34	398.69	403.60	418.77
Milwaukee .....	41.1	41.0	41.3	11.59	11.65	11.48	476.35	477.65	474.12
Racine .....	40.7	40.7	40.1	11.17	10.91	10.99	454.62	444.04	440.70
Wausau .....	43.3	42.8	41.9	9.88	10.04	10.09	427.80	429.71	422.77
<b>Wyoming</b> .....	39.9	37.3	37.0	9.90	10.07	9.84	395.01	375.61	364.08
<b>Puerto Rico</b> .....	38.9	38.7	38.9	5.54	5.49	5.52	215.51	212.46	214.73
<b>Virgin Islands</b> .....	42.8	40.4	40.5	9.40	9.44	9.31	402.32	381.38	377.05

<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 1987 benchmarks, except Colorado. Data for Colorado have been adjusted to December 1986 benchmarks.

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

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

Industry	Millions of hours (annual rate) <sup>1</sup>			Percent change		
	May 1988 <sup>1</sup>	June 1988 <sup>1</sup>	July 1988 <sup>2</sup>	July 1987 to July 1988 <sup>2</sup>	May 1988 to June 1988 <sup>1</sup>	June 1988 to July 1988 <sup>2</sup>
Total .....	196,092	197,137	198,254	4.0	0.5	0.6
Private sector .....	161,160	162,443	163,474	4.3	.8	.6
Mining .....	1,626	1,645	1,628	2.5	1.2	-1.0
Construction .....	10,256	10,559	10,423	6.2	3.0	-1.3
Manufacturing .....	41,492	41,657	41,826	3.1	.4	.4
Durable goods .....	24,748	24,855	24,930	3.8	.4	.3
Nondurable goods .....	16,744	16,802	16,896	2.1	.3	.6
Transportation and public utilities .....	11,368	11,447	11,495	4.4	.7	.4
Wholesale trade .....	12,061	12,156	12,246	5.3	.8	.7
Retail trade .....	28,806	28,991	29,404	4.1	.6	1.4
Finance, insurance, and real estate .....	12,399	12,480	12,611	1.8	.7	1.1
Services .....	43,152	43,508	43,839	5.7	.8	.8
Government .....	34,932	34,693	34,780	2.5	-.7	.2

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

<sup>2</sup> = preliminary.

= revised.

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

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

**PRODUCTIVITY DATA  
SEASONALLY ADJUSTED**

**C-10. Indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted<sup>1</sup>**

(1977=100)

Item	Annual average		Quarterly index										
	1986 <sup>c</sup>	1987 <sup>c</sup>	1985	1986				1987				1988	
			IV <sup>a</sup>	I <sup>a</sup>	II <sup>a</sup>	III <sup>a</sup>	IV <sup>a</sup>	I <sup>a</sup>	II <sup>a</sup>	III <sup>a</sup>	IV <sup>a</sup>	I <sup>a</sup>	II <sup>a</sup>
<b>Business sector</b>													
Output per hour of all persons .....	110.1	111.0	108.5	110.5	110.4	110.0	109.8	109.9	110.6	111.7	111.8	112.8	112.2
Output .....	128.6	133.3	125.9	128.4	128.2	128.5	129.3	130.5	132.2	134.3	136.2	138.0	139.2
Hours .....	116.8	120.1	116.1	116.2	116.1	116.8	117.8	118.8	119.5	120.3	121.8	122.3	124.1
Compensation per hour .....	183.1	190.4	178.8	180.4	182.0	184.0	186.2	187.3	189.0	191.1	194.0	195.8	198.0
Real compensation per hour .....	101.2	101.5	99.4	100.0	101.2	101.7	102.2	101.5	101.2	101.4	102.0	102.1	102.0
Unit labor costs .....	166.3	171.5	164.8	163.3	164.9	167.3	169.6	170.5	170.8	171.1	173.5	173.5	176.5
Unit nonlabor payments .....	165.0	168.7	161.6	164.5	165.2	166.6	163.7	165.6	168.7	171.5	168.9	170.0	169.2
Implicit price deflator .....	165.8	170.5	163.7	163.7	165.0	167.0	167.5	168.7	170.1	171.2	171.9	172.3	173.9
<b>Nonfarm business sector</b>													
Output per hour of all persons .....	108.2	109.0	106.5	108.6	108.4	108.0	107.8	107.8	108.6	109.6	109.9	110.8	110.3
Output .....	128.2	133.0	125.5	128.1	127.8	128.1	128.8	130.1	131.9	134.1	136.0	137.9	139.5
Hours .....	118.5	122.1	117.9	117.9	117.9	118.6	119.5	120.7	121.5	122.3	123.8	124.4	126.4
Compensation per hour .....	182.3	189.4	177.9	179.8	181.2	183.1	185.4	186.4	187.9	190.0	192.9	194.6	196.6
Real compensation per hour .....	100.8	101.0	99.0	99.6	100.7	101.2	101.8	101.0	100.6	100.8	101.4	101.5	101.3
Unit labor costs .....	168.6	173.8	167.1	165.5	167.1	169.5	172.1	172.9	173.0	173.3	175.6	175.7	178.2
Unit nonlabor payments .....	166.4	170.2	162.7	166.1	166.6	168.1	164.9	167.2	169.8	173.0	170.9	171.6	171.4
Implicit price deflator .....	167.8	172.5	165.5	165.7	167.0	169.0	169.5	170.9	171.9	173.2	174.0	174.2	175.8
<b>Manufacturing</b>													
Output per hour of all persons .....	127.7	132.0	125.3	126.6	127.2	128.0	128.8	130.0	131.7	132.8	133.2	134.3	135.4
Output .....	124.7	130.1	123.3	124.2	124.1	124.8	125.9	127.2	128.7	131.1	133.5	135.0	136.8
Hours .....	97.7	98.6	98.4	98.1	97.6	97.4	97.7	97.8	97.7	98.8	100.2	100.6	101.0
Compensation per hour .....	183.0	186.9	179.4	181.1	182.0	183.6	185.3	185.9	186.3	187.2	188.2	190.7	192.1
Real compensation per hour .....	101.2	99.7	99.8	100.3	101.2	101.5	101.7	100.8	99.7	99.3	99.0	99.4	99.0
Unit labor costs .....	143.3	141.7	143.2	143.0	143.2	143.4	143.8	143.1	141.4	141.0	141.3	142.1	141.9
<b>Durable goods</b>													
Output per hour of all persons .....	133.5	138.5	130.4	132.2	132.6	133.9	135.1	136.6	138.1	139.1	140.0	141.3	142.7
Output .....	130.8	136.0	129.5	130.5	130.0	130.7	131.8	133.3	134.2	136.5	139.9	141.3	143.9
Hours .....	98.0	98.2	99.3	98.7	98.0	97.6	97.6	97.6	97.2	98.2	99.9	100.0	100.9
Compensation per hour .....	181.9	185.2	178.6	180.3	184.0	182.2	184.2	184.9	184.4	185.3	186.2	189.5	190.1
Real compensation per hour .....	100.6	98.8	99.3	99.9	100.5	100.7	101.2	100.2	98.8	98.3	97.9	98.8	98.0
Unit labor costs .....	136.3	133.7	136.9	136.4	136.3	136.0	136.4	135.3	133.5	133.2	133.0	134.1	133.3
<b>Nondurable goods</b>													
Output per hour of all persons .....	118.9	122.3	117.6	118.1	118.9	119.2	119.6	120.1	122.4	123.5	123.2	123.9	124.7
Output .....	115.8	121.4	114.1	114.7	115.4	115.9	117.0	118.0	120.5	123.1	124.0	125.6	126.2
Hours .....	97.3	99.3	97.0	97.1	97.0	97.2	97.9	98.2	98.4	99.7	100.7	101.4	101.3
Compensation per hour .....	184.8	190.1	180.5	182.1	184.0	186.0	187.2	188.0	189.7	190.8	191.9	193.2	195.7
Real compensation per hour .....	102.2	101.4	100.4	100.9	102.3	102.8	102.8	101.9	101.6	101.2	100.9	100.8	100.9
Unit labor costs .....	155.4	155.4	153.5	154.3	154.7	156.0	156.5	156.4	155.0	154.5	155.8	156.0	157.0
<b>Nonfinancial corporations</b>													
Output per all-employee hour .....	109.7	111.3	108.0	109.5	109.3	109.6	110.3	110.1	110.9	112.2	112.2	113.3	( <sup>2</sup> )
Output .....	129.1	134.6	126.7	128.8	128.3	128.9	130.4	131.3	133.3	136.1	137.7	140.1	( <sup>2</sup> )
Hours .....	117.7	120.9	117.3	117.6	117.3	117.6	118.1	119.3	120.2	121.3	122.8	123.6	( <sup>2</sup> )
Compensation per hour .....	179.5	185.5	175.3	177.1	178.5	180.2	182.2	182.9	184.3	186.1	188.5	189.9	( <sup>2</sup> )
Real compensation per hour .....	99.2	98.9	97.5	98.1	99.2	99.6	100.1	99.1	98.7	98.7	99.1	99.0	( <sup>2</sup> )
Total unit costs .....	167.3	170.6	165.8	165.5	166.7	168.4	168.8	169.9	170.3	170.2	172.0	171.5	( <sup>2</sup> )
Unit labor costs .....	163.6	166.6	162.3	161.7	163.3	164.3	165.1	166.2	166.1	165.9	168.1	167.5	( <sup>2</sup> )
Unit nonlabor costs .....	178.4	182.5	176.3	176.7	176.9	180.3	179.6	180.8	182.6	183.0	183.6	183.4	( <sup>2</sup> )
Unit profits .....	132.4	130.8	132.4	133.7	132.7	133.6	129.7	128.5	129.8	136.4	128.3	132.5	( <sup>2</sup> )
Implicit price deflator .....	163.2	165.8	161.8	161.7	162.6	164.2	164.1	164.9	165.4	166.1	166.7	166.9	( <sup>2</sup> )

<sup>1</sup> All of the productivity and cost measures incorporate revised output and compensation measures reported by the Bureau of Economic Analysis of the U.S. Department of Commerce; revised seasonal factors for employment and average weekly hours; and revised data for employees of nonagricultural establishments.

<sup>2</sup> Not available.

<sup>3</sup> = preliminary.

<sup>4</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<sup>1</sup>**

Item	Percent change from											
	Previous quarter					Same quarter, previous year						
	I 1987'	II 1987'	III 1987'	IV 1987'	I 1988'	II 1988 <sup>p</sup>	I 1987'	II 1987'	III 1987'	IV 1987'	i 1988'	II 1988 <sup>p</sup>
<b>Business sector</b>												
Output per hour of all persons .....	0.3	2.7	3.9	0.6	3.5	-2.2	-0.6	0.2	1.5	1.9	2.7	1.4
Output .....	3.7	5.3	6.6	5.7	5.5	3.5	1.6	3.1	4.5	5.3	5.8	5.3
Hours .....	3.4	2.5	2.6	5.1	1.9	5.9	2.2	2.9	3.0	3.4	3.0	3.9
Compensation per hour .....	2.5	3.6	4.6	6.2	3.7	4.7	3.8	3.8	3.9	4.2	4.5	4.8
Real compensation per hour .....	-2.8	-1.2	.8	2.4	.3	-1	1.5	.0	-3	-2	.5	.8
Unit labor costs .....	2.2	.8	.7	5.6	.2	7.0	4.4	3.6	2.3	2.3	1.8	3.3
Unit nonlabor payments .....	4.6	7.9	6.7	-5.8	2.5	-1.8	.7	2.1	2.9	3.2	2.7	.3
Implicit price deflator .....	3.0	3.2	2.8	1.4	1.0	3.9	3.1	3.1	2.5	2.6	2.1	2.3
<b>Nonfarm business sector</b>												
Output per hour of all persons .....	.0	3.2	3.7	.9	3.4	-1.7	-.8	.2	1.5	1.9	2.8	1.6
Output .....	4.0	5.7	6.8	5.9	5.6	4.7	1.6	3.2	4.7	5.6	6.0	5.7
Hours .....	4.0	2.5	2.9	4.9	2.1	6.5	2.4	3.0	3.2	3.6	3.1	4.1
Compensation per hour .....	2.1	3.4	4.5	6.4	3.5	4.1	3.7	3.7	3.7	4.1	4.4	4.6
Real compensation per hour .....	-3.2	-1.4	.6	2.6	.1	-6	1.4	-.1	-.4	-.4	.5	.7
Unit labor costs .....	2.1	.2	.7	5.4	.1	5.9	4.5	3.5	2.2	2.1	1.6	3.0
Unit nonlabor payments .....	5.7	6.5	7.7	-4.8	1.6	-.3	.6	1.9	2.9	3.6	2.6	1.0
Implicit price deflator .....	3.3	2.3	3.1	1.8	.6	3.8	3.1	3.0	2.5	2.6	1.9	2.3
<b>Manufacturing</b>												
Output per hour of all persons .....	3.6	5.5	3.2	1.3	3.2	3.5	2.7	3.6	3.7	3.4	3.3	2.8
Output .....	4.1	4.9	7.8	7.5	4.6	5.4	2.4	3.7	5.1	6.0	6.2	6.3
Hours .....	.5	-.6	4.4	6.1	1.3	1.8	-.3	.1	1.4	2.6	2.8	3.4
Compensation per hour .....	1.4	.7	2.1	2.1	5.4	2.9	2.7	2.3	2.0	1.6	2.6	3.1
Real compensation per hour .....	-3.8	-4.0	-1.7	-1.5	2.0	-1.8	.4	-1.4	-2.1	-2.7	-1.3	-.7
Unit labor costs .....	-2.1	-4.6	-1.1	.8	2.2	-.6	.0	-1.2	-1.7	-1.8	-.7	.3
<b>Durable goods</b>												
Output per hour of all persons .....	4.7	4.4	2.9	2.6	3.8	3.8	3.3	4.1	3.8	3.7	3.4	3.3
Output .....	4.5	2.8	7.0	10.2	4.3	7.4	2.1	3.3	4.5	6.1	6.0	7.2
Hours .....	-.2	-1.5	4.0	7.3	.4	3.5	-1.2	-.8	.6	2.3	2.5	3.8
Compensation per hour .....	1.3	-1.0	2.0	1.9	7.1	1.4	2.6	2.0	1.7	1.1	2.5	3.1
Real compensation per hour .....	-3.9	-5.6	-1.7	-1.7	3.6	-3.2	.3	-1.7	-2.4	-3.2	-1.4	-.8
Unit labor costs .....	-3.2	-5.1	-.9	-.7	3.2	-2.3	-.8	-2.0	-2.1	-2.5	-.9	-.2
<b>Nondurable goods</b>												
Output per hour of all persons .....	1.9	7.6	3.8	-1.1	2.3	2.6	1.8	2.9	3.6	3.0	3.1	1.9
Output .....	3.4	8.5	9.0	3.1	5.1	2.1	2.9	4.4	6.2	6.0	6.4	4.8
Hours .....	1.5	.8	5.1	4.2	2.7	-.5	1.1	1.5	2.5	2.9	3.2	2.9
Compensation per hour .....	1.6	3.8	2.4	2.2	2.9	5.2	3.2	3.1	2.6	2.5	2.8	3.2
Real compensation per hour .....	-3.6	-1.0	-1.4	-1.4	-.5	.4	.9	-.7	-1.5	-1.9	-1.1	-.7
Unit labor costs .....	-.2	-3.6	-1.3	3.4	.6	2.5	1.4	.2	-1.0	-.5	-.3	1.3
<b>Nonfinancial corporations</b>												
Output per all-employee hour .....	-1.0	3.1	4.7	-.1	4.3	( <sup>q</sup> )	.5	1.5	2.3	1.6	3.0	( <sup>q</sup> )
Output .....	2.9	6.1	8.8	4.7	7.2	( <sup>q</sup> )	2.0	3.9	5.6	5.6	6.7	( <sup>q</sup> )
Hours .....	4.0	2.9	4.0	4.8	2.8	( <sup>q</sup> )	1.5	2.4	3.2	3.9	3.8	( <sup>q</sup> )
Compensation per hour .....	1.6	2.9	4.1	5.2	3.0	( <sup>q</sup> )	3.3	3.2	3.3	3.4	3.8	( <sup>q</sup> )
Real compensation per hour .....	-3.6	-1.8	.3	1.5	-.4	( <sup>q</sup> )	1.0	-.6	-.9	-1.0	-.1	( <sup>q</sup> )
Total unit costs .....	2.6	1.0	-.2	4.2	-1.0	( <sup>q</sup> )	2.6	2.1	1.1	1.9	1.0	( <sup>q</sup> )
Unit labor costs .....	2.6	-.2	-.6	5.3	-1.2	( <sup>q</sup> )	2.8	1.7	.9	1.8	.8	( <sup>q</sup> )
Unit nonlabor costs .....	2.5	4.1	.8	1.3	-.3	( <sup>q</sup> )	2.3	3.2	1.5	2.2	1.5	( <sup>q</sup> )
Unit profits .....	-3.5	3.9	21.9	-21.5	13.8	( <sup>q</sup> )	-3.8	-2.2	2.0	-1.1	3.1	( <sup>q</sup> )
Implicit price deflator .....	2.0	1.2	1.7	1.5	.3	( <sup>q</sup> )	2.0	1.7	1.2	1.6	1.2	( <sup>q</sup> )

<sup>1</sup> All of the productivity and cost measures incorporate revised output and compensation measures reported by the Bureau of Economic Analysis of the U.S. Department of Commerce; revised seasonal factors for employment and average weekly hours; and revised data for employees of nonagricultural establishments.

<sup>2</sup> Not available.

<sup>p</sup> = preliminary.

= 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		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Alabama</b> .....	1,912.5	1,862.1	1,875.1	142.8	126.4	128.2	7.5	6.8	6.8
Birmingham .....	449.9	441.1	445.9	29.0	24.8	25.2	6.4	5.6	5.7
Huntsville .....	131.5	131.6	133.5	6.5	6.3	6.9	5.0	4.8	5.2
Mobile .....	216.3	206.5	206.7	19.2	17.8	17.7	8.9	8.6	8.6
Montgomery .....	139.9	134.9	135.0	9.0	8.6	8.3	6.4	6.4	6.1
Tuscaloosa .....	68.7	68.9	67.7	4.2	3.6	3.7	6.2	5.3	5.5
<b>Alaska</b> .....	262.2	246.2	249.8	28.9	23.2	21.7	11.0	9.4	8.7
<b>Arizona</b> .....	1,609.1	1,633.1	1,623.3	106.2	94.4	98.8	6.6	5.8	6.1
Phoenix .....	999.4	1,015.6	1,010.5	53.2	46.9	48.5	5.3	4.6	4.8
Tucson .....	305.7	311.3	306.2	15.3	14.7	14.7	5.0	4.7	4.8
<b>Arkansas</b> .....	1,101.9	1,138.6	1,128.2	87.7	88.0	87.6	8.0	7.7	7.8
Fayetteville-Springdale .....	57.2	61.8	60.4	2.3	2.5	2.7	4.0	4.0	4.4
Fort Smith .....	93.3	95.6	95.3	5.5	5.6	5.8	5.9	5.9	6.0
Little Rock-North Little Rock .....	258.7	267.4	266.6	19.2	17.5	17.6	7.4	6.6	6.6
Pine Bluff .....	37.4	37.7	37.6	3.3	3.1	3.3	8.9	8.1	8.7
<b>California<sup>1</sup></b> .....	13,808.4	14,066.4	14,175.7	749.5	814.9	770.6	5.4	5.8	5.4
Anaheim-Santa Ana .....	1,299.4	1,335.5	1,348.7	41.8	44.8	43.7	3.2	3.4	3.2
Bakersfield .....	229.0	237.4	236.1	21.7	25.8	22.7	9.5	10.9	9.6
Fresno .....	299.6	313.1	314.0	27.4	38.3	32.2	9.1	12.2	10.3
Los Angeles-Long Beach .....	4,219.0	4,109.3	4,129.1	239.0	213.1	208.5	5.7	5.2	5.1
Modesto .....	151.7	163.6	163.0	18.7	24.4	21.6	12.3	14.9	13.2
Oakland .....	1,032.8	1,058.2	1,073.7	51.1	55.1	52.3	4.9	5.2	4.9
Oxnard-Ventura .....	337.8	354.0	358.0	17.3	18.7	18.3	5.1	5.3	5.1
Riverside-San Bernardino .....	917.5	969.7	978.8	48.8	59.9	59.2	5.3	6.2	6.1
Sacramento .....	676.8	713.5	721.1	35.3	42.1	39.1	5.2	5.9	5.4
San Diego .....	1,062.3	1,113.5	1,126.9	46.3	53.0	50.9	4.4	4.8	4.5
San Francisco .....	871.5	888.7	900.3	33.4	34.9	34.3	3.8	3.9	3.8
San Jose .....	803.9	825.4	833.2	36.7	37.3	35.4	4.6	4.5	4.2
Santa Barbara-Santa Maria-Lompoc .....	179.7	183.0	184.3	7.7	8.5	7.5	4.3	4.6	4.1
Santa Rosa-Petaluma .....	190.3	196.4	199.6	8.6	10.2	9.7	4.5	5.2	4.9
Stockton .....	193.8	202.9	199.5	17.8	21.6	20.6	9.2	10.6	10.3
Vallejo-Fairfield-Napa .....	184.8	193.5	197.2	10.0	11.7	11.1	5.4	6.0	5.6
<b>Colorado</b> .....	1,726.0	1,692.5	1,690.0	131.0	109.0	104.8	7.6	6.4	6.2
Boulder-Longmont .....	131.0	130.4	129.0	7.7	5.9	6.1	5.9	4.5	4.7
Denver .....	900.1	883.8	882.7	64.3	51.9	51.5	7.1	5.9	5.8
<b>Connecticut</b> .....	1,776.6	1,723.9	1,761.8	58.0	42.2	53.0	3.3	2.4	3.0
Bridgeport-Milford .....	233.5	226.6	231.7	9.1	6.9	8.3	3.9	3.1	3.6
Hartford .....	429.4	419.4	427.4	13.0	9.3	12.2	3.0	2.2	2.9
New Haven-Meriden .....	276.2	268.0	274.3	8.9	6.3	8.0	3.2	2.3	2.9
Stamford .....	120.0	116.8	119.4	2.9	2.0	2.7	2.4	1.7	2.2
Waterbury .....	104.0	98.8	102.1	4.5	2.9	3.7	4.3	3.0	3.6
<b>Delaware</b> .....	338.1	346.4	353.0	10.3	10.2	10.6	3.0	2.9	3.0
Wilmington .....	290.4	299.8	303.1	10.8	10.1	10.5	3.7	3.4	3.5
<b>District of Columbia</b> .....	334.1	336.9	344.0	21.0	16.5	18.0	6.3	4.9	5.2
Washington .....	2,136.7	2,202.1	2,234.1	70.0	60.4	65.5	3.3	2.7	2.9
<b>Florida<sup>1</sup></b> .....	5,884.1	6,103.9	6,142.2	312.6	288.2	295.2	5.3	4.7	4.8
Daytona Beach .....	146.1	154.0	155.7	6.1	6.6	6.5	4.2	4.3	4.2
Fort Lauderdale-Hollywood-Pompano Beach .....	613.5	645.7	652.8	24.9	26.1	25.5	4.1	4.0	3.9
Fort Myers-Cape Coral .....	130.2	142.1	141.8	5.1	4.8	4.4	3.9	3.4	3.1
Jacksonville .....	446.9	468.2	474.7	25.5	23.7	24.2	5.7	5.1	5.1
Melbourne-Titusville-Palm Bay .....	175.7	182.5	184.6	9.2	8.8	8.1	5.3	4.8	4.4
Miami-Hialeah .....	912.6	926.3	930.7	51.5	48.0	46.7	5.6	5.2	5.0
Orlando .....	563.5	579.5	587.9	26.6	26.3	28.1	4.7	4.5	4.8
Pensacola .....	150.4	152.6	154.2	8.7	8.8	8.9	5.8	5.8	5.8
Sarasota .....	116.6	123.2	123.9	4.4	3.5	4.1	3.8	2.9	3.3
Tallahassee .....	125.7	127.9	127.6	5.5	5.1	4.5	4.4	4.0	3.6
Tampa-St. Petersburg-Clearwater .....	960.5	991.9	996.6	47.2	43.2	45.0	4.9	4.4	4.5
West Palm Beach-Boca Raton-Delray Beach .....	390.4	411.3	408.6	21.7	17.9	20.2	5.6	4.4	4.9

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		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Georgia</b> .....	3,101.1	3,143.7	3,147.1	177.3	191.2	199.3	5.7	6.1	6.3
Athens .....	72.5	73.7	73.3	3.2	3.1	3.1	4.3	4.3	4.3
Atlanta .....	1,461.9	1,488.0	1,494.1	72.5	79.5	83.8	5.0	5.3	5.6
Augusta .....	181.2	182.3	181.9	10.9	12.1	12.4	6.0	6.6	6.8
Columbus .....	101.7	101.2	100.7	6.3	7.0	7.0	6.2	6.9	7.0
Macon-Warner Robins .....	130.8	131.1	129.7	8.0	8.0	7.7	6.1	6.1	6.0
Savannah .....	112.6	112.7	113.1	7.0	8.2	8.3	6.2	7.3	7.3
<b>Hawaii</b> .....	521.9	522.2	523.3	22.3	15.5	16.2	4.3	3.0	3.1
Honolulu .....	389.7	389.8	390.7	14.9	10.3	10.6	3.8	2.7	2.7
<b>Idaho</b> .....	481.5	475.6	485.9	34.6	29.6	27.4	7.2	6.2	5.6
Boise City .....	103.4	105.5	104.7	5.7	4.4	4.3	5.5	4.1	4.1
<b>Illinois</b> <sup>1</sup> .....	5,853.1	5,731.0	5,808.2	454.4	394.6	403.6	7.8	6.9	6.9
Aurora-Elgin .....	176.7	175.5	179.1	11.0	8.7	9.3	6.2	5.0	5.2
Bloomington-Normal .....	65.1	66.4	65.4	3.1	3.6	3.0	4.7	5.4	4.6
Champaign-Urbana-Rantoul .....	86.3	88.1	85.8	4.1	3.5	3.7	4.7	4.0	4.3
Chicago .....	3,222.8	3,159.0	3,217.8	228.8	205.3	210.2	7.1	6.5	6.5
Davenport-Rock Island-Moline .....	183.4	179.9	181.7	14.0	12.5	13.0	7.6	6.9	7.1
Decatur .....	59.1	57.0	57.5	5.7	5.1	4.8	9.6	9.0	8.3
Joliet .....	198.4	192.3	193.0	17.5	14.7	14.6	8.8	7.6	7.6
Lake County .....	272.0	270.7	278.4	13.3	11.5	12.5	4.9	4.3	4.5
Peoria .....	154.8	152.0	154.5	13.3	10.4	10.8	8.6	6.8	7.0
Rockford .....	152.1	144.4	145.8	16.7	10.6	10.8	11.0	7.3	7.4
Springfield .....	110.0	107.3	108.4	5.8	5.2	5.5	5.3	4.9	5.0
<b>Indiana</b> .....	2,744.4	2,793.0	2,820.3	170.5	125.7	128.7	6.2	4.5	4.6
Anderson .....	59.1	58.4	58.2	3.7	3.0	3.1	6.3	5.1	5.3
Bloomington .....	54.8	60.1	58.8	2.1	2.0	1.8	3.9	3.3	3.0
Elkhart-Goshen .....	93.0	96.7	98.7	4.2	3.1	3.3	4.6	3.2	3.3
Evansville .....	142.5	142.3	143.5	10.0	8.2	7.7	7.0	5.7	5.4
Fort Wayne .....	194.2	200.0	202.4	9.9	8.0	7.9	5.1	4.0	3.9
Gary-Hammond .....	254.6	251.8	255.0	23.4	13.9	14.3	9.2	5.5	5.6
Indianapolis .....	653.8	669.4	677.3	33.0	25.8	28.1	5.0	3.9	4.1
Lafayette .....	62.9	64.9	65.1	2.3	2.1	1.9	3.7	3.3	3.0
Muncie .....	57.2	60.3	59.1	3.5	2.9	2.9	6.1	4.9	4.9
South Bend-Mishawaka .....	125.6	129.5	129.2	7.1	5.6	6.0	5.7	4.3	4.6
Terre Haute .....	58.0	59.0	58.6	3.8	3.3	3.0	6.5	5.5	5.0
<b>Iowa</b> .....	1,459.3	1,484.6	1,499.6	76.8	59.5	59.9	5.3	4.0	4.0
Cedar Rapids .....	92.9	96.0	97.7	4.9	3.2	3.3	5.3	3.3	3.4
Des Moines .....	223.4	229.5	233.3	10.0	7.5	7.6	4.5	3.3	3.3
Dubuque .....	43.4	45.8	45.0	2.4	2.1	2.1	5.5	4.7	4.7
Sioux City .....	64.7	60.9	62.2	5.9	3.0	3.0	9.2	4.9	4.8
Waterloo-Cedar Falls .....	67.4	69.8	68.5	5.3	3.9	3.5	7.9	5.6	5.1
<b>Kansas</b> .....	1,293.1	1,302.6	1,307.4	61.9	52.9	56.7	4.8	4.1	4.3
Topeka .....	90.8	94.1	94.8	4.0	3.5	3.8	4.4	3.8	4.0
Wichita .....	254.1	256.7	258.3	12.2	11.3	12.2	4.8	4.4	4.7
<b>Kentucky</b> .....	1,685.5	1,717.8	1,711.4	146.3	134.5	133.1	8.7	7.8	7.8
Lexington-Fayette .....	179.5	188.7	189.0	8.8	8.6	9.1	4.9	4.6	4.8
Louisville .....	491.8	515.7	513.8	35.2	30.6	30.6	7.2	5.9	5.9
Owensboro .....	43.9	44.9	44.1	4.9	3.7	3.8	11.2	8.3	8.6
<b>Louisiana</b> .....	1,989.9	1,907.7	1,925.2	250.6	202.4	202.1	12.6	10.6	10.5
Alexandria .....	63.1	60.1	60.6	6.4	5.8	5.6	10.2	9.7	9.3
Baton Rouge .....	266.9	261.3	261.8	29.0	23.1	24.1	10.9	8.8	9.2
Houma-Thibodaux .....	75.3	70.2	70.2	12.2	8.0	7.3	16.2	11.4	10.4
Lafayette .....	102.0	96.1	96.7	13.7	9.2	9.1	13.4	9.6	9.4
Monroe .....	72.0	67.6	69.3	7.6	6.8	6.9	10.5	10.1	10.0
New Orleans .....	612.8	590.5	599.4	64.6	56.0	55.8	10.5	9.5	9.3
Shreveport .....	170.1	165.9	167.3	19.0	16.7	16.5	11.2	10.1	9.8
<b>Maine</b> .....	603.8	587.8	607.1	24.9	22.5	22.2	4.1	3.8	3.7
Lewiston-Auburn .....	42.4	41.0	42.1	2.3	1.6	1.9	5.5	4.0	4.5
Portland .....	126.6	123.7	126.5	2.8	2.6	2.6	2.2	2.1	2.1

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		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Maryland</b> .....	2,427.7	2,436.5	2,459.0	102.8	100.1	108.5	4.2	4.1	4.4
Baltimore .....	1,172.7	1,170.1	1,184.8	54.0	52.6	59.1	4.6	4.5	5.0
<b>Massachusetts</b> <sup>1</sup> .....	3,147.8	3,105.8	3,216.7	97.3	83.8	110.2	3.1	2.7	3.4
Boston .....	1,553.2	1,540.2	1,583.4	42.0	36.2	47.6	2.7	2.3	3.0
Brockton .....	98.1	97.6	101.9	3.5	3.1	4.3	3.6	3.2	4.3
Fall River .....	76.3	74.6	77.1	3.6	3.2	4.0	4.7	4.3	5.2
Fitchburg-Leominster .....	47.1	45.1	46.8	1.9	1.4	2.1	4.1	3.1	4.5
Lawrence-Haverhill .....	187.7	184.3	189.2	8.4	6.2	7.7	4.5	3.4	4.1
Lowell .....	151.9	149.0	153.0	5.2	4.2	5.9	3.4	2.8	3.8
New Bedford .....	85.5	85.4	88.7	3.9	3.4	4.2	4.6	4.0	4.7
Springfield .....	255.1	253.1	261.0	8.5	6.7	8.7	3.3	2.6	3.3
Worcester .....	217.1	218.9	224.8	6.1	5.6	7.2	2.8	2.5	3.2
<b>Michigan</b> <sup>1</sup> .....	4,577.3	4,507.2	4,593.8	408.6	295.1	326.4	8.9	6.5	7.1
Ann Arbor .....	154.8	161.5	162.1	7.9	5.5	5.9	5.1	3.4	3.7
Battle Creek .....	65.0	63.8	65.4	5.4	3.9	4.7	8.4	6.2	7.2
Benton Harbor .....	77.6	78.1	79.5	6.5	4.6	5.0	8.4	5.9	6.3
Detroit .....	2,219.4	2,166.6	2,208.2	199.5	145.6	161.5	9.0	6.7	7.3
Flint .....	203.0	197.6	203.4	25.8	26.0	29.7	12.7	13.2	14.6
Grand Rapids .....	349.4	351.4	357.8	24.3	15.4	18.6	7.0	4.4	5.2
Kalamazoo .....	112.9	113.9	115.6	6.8	4.6	5.1	6.1	4.0	4.4
Lansing-East Lansing .....	240.9	239.2	240.7	17.0	11.3	13.2	7.1	4.7	5.5
Muskegon .....	69.1	67.1	68.4	7.7	5.2	5.9	11.2	7.7	8.7
Saginaw-Bay City-Midland .....	186.0	184.3	188.8	18.1	11.7	12.6	9.8	6.3	6.7
<b>Minnesota</b> .....	2,284.6	2,342.0	2,373.9	119.0	75.6	80.5	5.2	3.2	3.4
Duluth .....	108.5	107.1	108.8	9.8	5.7	5.8	9.0	5.4	5.3
Minneapolis-St.Paul .....	1,353.7	1,389.0	1,402.5	59.9	38.7	41.5	4.4	2.8	3.0
Rochester .....	57.8	59.2	60.7	2.2	1.4	1.5	3.8	2.3	2.4
St. Cloud .....	89.7	96.7	96.1	5.2	3.2	3.7	5.8	3.3	3.8
<b>Mississippi</b> .....	1,167.5	1,156.1	1,149.4	123.2	81.3	90.1	10.6	7.0	7.8
Jackson .....	201.6	203.8	204.1	15.3	10.2	11.3	7.8	5.0	5.5
<b>Missouri</b> .....	2,598.3	2,584.6	2,612.8	158.1	119.2	133.5	6.1	4.8	5.1
Kansas City .....	840.5	835.3	841.5	48.6	35.9	39.7	5.8	4.3	4.7
St. Louis .....	1,282.2	1,265.4	1,281.3	90.8	71.9	79.5	7.1	5.7	6.2
Springfield .....	119.8	123.6	121.3	5.7	4.2	4.4	4.7	3.4	3.7
<b>Montana</b> .....	413.0	407.4	411.4	29.1	27.6	26.3	7.0	6.8	6.4
<b>Nebraska</b> .....	810.3	808.2	823.5	40.0	26.8	27.3	4.9	3.3	3.3
Lincoln .....	119.5	122.3	121.1	3.8	4.1	3.2	3.2	3.4	2.6
Omaha .....	323.8	321.5	327.2	17.7	11.5	12.7	5.5	3.6	3.9
<b>Nevada</b> .....	585.4	579.8	582.8	35.1	31.1	31.6	6.2	5.4	5.4
Las Vegas .....	327.0	337.4	339.0	21.7	19.5	20.5	6.8	5.8	6.1
Reno .....	138.7	141.9	141.7	7.5	6.6	6.2	5.4	4.7	4.4
<b>New Hampshire</b> .....	600.4	598.8	609.2	15.8	12.4	12.1	2.8	2.1	2.0
Nashua .....	98.6	99.4	100.3	3.0	2.4	2.6	3.0	2.4	2.6
Portsmouth-Dover-Rochester .....	134.7	134.2	137.1	3.1	2.0	2.0	2.3	1.5	1.4
<b>New Jersey</b> <sup>1</sup> .....	4,042.2	3,985.5	4,024.4	167.3	148.8	146.8	4.1	3.8	3.6
Atlantic City .....	186.4	171.2	181.4	9.2	9.0	8.2	4.9	5.3	4.5
Bergen-Passaic .....	731.9	720.6	730.3	26.1	22.6	22.7	3.6	3.2	3.1
Jersey City .....	289.9	287.8	289.1	17.9	18.3	17.0	6.6	6.6	6.3
Middlesex-Somerset-Hunterdon .....	561.9	559.2	565.3	16.9	14.9	14.7	3.0	2.7	2.6
Monmouth-Ocean .....	490.7	479.3	495.6	16.3	15.0	15.4	3.3	3.1	3.1
Newark .....	976.1	956.8	966.0	42.9	37.2	37.0	4.4	3.9	3.8
Trenton .....	173.7	172.1	174.3	6.0	4.5	4.7	3.5	2.6	2.7
<b>New Mexico</b> .....	689.4	690.9	693.4	64.8	55.4	60.2	9.4	8.0	6.7
Albuquerque .....	261.7	265.9	266.7	18.0	15.6	17.7	6.9	5.9	6.6
Las Cruces .....	54.6	56.8	56.4	4.5	4.1	5.1	8.3	7.2	9.0
Santa Fe .....	67.5	68.9	69.3	4.1	3.6	3.7	6.0	5.5	5.4

See footnotes at end of table.

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

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

(Numbers in thousands)

State and area	Civilian labor force			Unemployed					
				Number			Percent of labor force		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>New York<sup>1</sup></b> .....	8,540.3	8,269.8	8,555.6	391.3	340.4	289.3	4.6	4.1	3.4
Albany-Schenectady-Troy .....	423.9	407.0	421.8	14.5	14.4	11.9	3.4	3.5	2.8
Binghamton .....	127.6	122.8	127.7	4.7	4.4	3.7	3.7	3.6	2.9
Buffalo .....	451.4	433.1	447.8	21.1	21.1	17.6	4.7	4.9	3.9
Elmira .....	42.0	41.8	42.7	1.5	1.6	1.4	3.5	3.8	3.2
Nassau-Suffolk .....	1,463.5	1,387.7	1,454.4	44.6	42.1	38.8	3.0	3.0	2.7
New York .....	3,873.5	3,797.5	3,900.2	210.6	164.7	140.8	5.4	4.3	3.6
New York City .....	3,182.0	3,142.5	3,214.4	191.0	147.1	125.0	6.0	4.7	3.9
Orange County .....	133.2	129.2	135.1	4.5	4.3	3.9	3.4	3.3	2.9
Poughkeepsie .....	127.5	125.1	130.1	3.3	3.3	2.6	2.6	2.7	2.0
Rochester .....	500.7	480.4	496.4	20.3	17.7	15.0	4.0	3.7	3.0
Syracuse .....	322.6	308.7	319.6	17.3	16.2	13.4	5.4	5.3	4.2
Utica-Rome .....	136.9	132.1	138.2	5.9	5.9	4.7	4.3	4.5	3.4
<b>North Carolina<sup>1</sup></b> .....	3,296.3	3,291.4	3,343.5	160.6	109.4	116.4	4.9	3.3	3.5
Asheville .....	88.0	86.9	89.7	4.0	2.8	2.6	4.6	3.3	2.9
Charlotte-Gastonia-Rock Hill .....	630.5	641.7	649.6	26.7	18.7	20.5	4.2	2.9	3.2
Greensboro-Winston-Salem-High Point .....	513.0	515.1	521.6	21.4	14.5	15.8	4.2	2.8	3.0
Raleigh-Durham .....	395.0	394.9	400.1	13.8	9.8	10.6	3.5	2.5	2.6
<b>North Dakota</b> .....	337.4	329.6	336.5	15.9	12.3	13.2	4.7	3.7	3.9
Bismarck .....	45.9	44.3	45.5	2.2	1.8	1.9	4.7	4.1	4.2
Fargo-Moorhead .....	85.1	87.3	86.9	2.9	1.9	2.2	3.4	2.2	2.5
Grand Forks .....	36.1	37.3	36.7	1.3	1.2	1.3	3.6	3.3	3.5
<b>Ohio<sup>1</sup></b> .....	5,307.0	5,242.8	5,324.5	385.3	301.6	322.9	7.3	5.8	6.1
Akron .....	318.1	319.5	319.4	23.1	18.5	19.0	7.3	5.8	6.0
Cincinnati .....	750.4	753.8	763.0	48.6	39.5	42.7	6.5	5.2	5.6
Cleveland .....	935.9	923.0	937.7	60.4	50.5	53.4	6.5	5.5	5.7
Columbus .....	699.6	701.6	712.2	40.4	32.9	34.9	5.8	4.7	4.9
Dayton-Springfield .....	464.9	459.9	467.7	28.4	21.9	24.3	6.1	4.8	5.2
Toledo .....	309.9	309.8	311.0	24.4	16.9	17.6	7.9	5.5	5.7
Youngstown-Warren .....	224.1	219.5	223.0	21.7	14.8	15.5	9.7	6.8	6.9
<b>Oklahoma</b> .....	1,594.4	1,527.5	1,527.7	122.2	94.2	92.5	7.7	6.2	6.1
Enid .....	31.1	29.7	29.9	2.2	1.6	1.4	7.1	5.3	4.8
Lawton .....	50.5	50.3	50.3	2.6	2.7	2.6	5.2	5.3	5.2
Oklahoma City .....	516.4	499.6	502.3	32.1	25.2	24.6	6.2	5.0	4.9
Tulsa .....	356.3	339.4	342.5	30.7	23.7	23.5	8.6	7.0	6.9
<b>Oregon</b> .....	1,414.7	1,432.0	1,460.1	78.1	84.0	84.5	5.5	5.9	5.8
Eugene-Springfield .....	140.4	143.1	145.1	7.3	7.8	8.2	5.2	5.4	5.7
Portland .....	637.7	652.9	664.6	32.1	31.8	32.4	5.0	4.9	4.9
Salem .....	131.9	131.5	137.2	7.1	8.1	8.0	5.4	6.2	5.9
<b>Pennsylvania<sup>1</sup></b> .....	5,719.4	5,634.7	5,786.1	354.5	279.5	325.3	6.2	5.0	5.6
Allentown-Bethlehem .....	321.7	317.0	326.1	18.0	13.0	17.0	5.6	4.1	5.2
Altoona .....	59.7	59.1	61.0	4.3	4.0	4.7	7.3	6.8	7.7
Beaver County .....	63.4	62.0	63.9	6.4	5.5	6.0	10.1	8.9	9.4
Erie .....	128.7	125.9	128.5	10.1	7.7	8.8	7.9	6.1	6.8
Harrisburg-Lebanon-Carlisle .....	316.2	314.8	321.6	14.9	12.2	13.1	4.7	3.9	4.1
Johnstown .....	94.7	93.0	96.2	8.1	6.5	7.7	8.6	7.0	8.0
Lancaster .....	214.3	215.6	219.7	10.3	7.5	9.1	4.8	3.5	4.1
Philadelphia .....	2,407.8	2,375.4	2,424.0	123.4	99.4	114.0	5.1	4.2	4.7
Pittsburgh .....	961.6	936.1	967.6	67.3	51.4	59.5	7.0	5.5	6.1
Reading .....	171.2	173.3	176.8	9.7	8.3	8.7	5.7	4.8	4.9
Scranton-Wilkes-Barre .....	350.1	345.1	355.0	24.9	19.4	23.3	7.1	5.6	6.6
Williamsport .....	58.4	59.2	60.9	3.2	2.8	3.1	5.5	4.8	5.2
York .....	209.0	214.1	217.0	10.9	9.2	9.6	5.2	4.3	4.4
<b>Rhode Island</b> .....	525.3	524.7	527.4	20.2	14.4	16.3	3.9	2.7	3.1
Pawtucket-Woonsocket-Attleboro .....	169.9	167.7	168.1	7.3	5.4	6.3	4.3	3.2	3.7
Providence .....	339.2	342.7	344.0	12.8	9.2	10.6	3.8	2.7	3.1
<b>South Carolina</b> .....	1,661.9	1,671.7	1,674.9	94.5	76.8	78.2	5.7	4.6	4.7
Charleston .....	226.0	229.0	231.3	11.0	9.2	9.6	4.9	4.0	4.2
Columbia .....	231.6	237.8	238.8	9.6	7.9	7.9	4.1	3.3	3.3
Greenville-Spartanburg .....	329.2	327.7	329.7	14.8	11.3	11.7	4.5	3.4	3.5
<b>South Dakota</b> .....	366.5	368.3	378.9	14.4	11.0	13.3	3.9	3.0	3.5
Rapid City .....	40.9	41.0	42.9	1.5	1.2	1.5	3.7	2.9	3.5
Sioux Falls .....	73.8	73.7	74.8	2.2	2.3	2.4	3.0	3.1	3.2

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		
	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>	June 1987	May 1988	June 1988 <sup>P</sup>
<b>Tennessee</b> .....	2,353.9	2,379.6	2,364.6	153.4	120.5	127.3	8.5	5.1	5.4
Chattanooga .....	205.8	214.9	213.9	12.4	11.4	11.8	6.0	5.3	5.5
Johnson City-Kingsport-Bristol .....	218.0	222.0	219.2	15.2	11.1	11.7	7.1	5.0	5.3
Knoxville .....	287.0	283.1	282.1	17.8	13.4	13.9	6.2	4.7	4.9
Memphis LMA .....	450.8	454.9	452.3	25.8	20.7	21.9	5.7	4.6	4.8
Nashville .....	521.4	517.6	514.0	22.4	20.6	22.5	4.3	4.0	4.4
<b>Texas<sup>1</sup></b> .....	8,352.4	8,333.8	8,598.7	803.2	804.6	685.8	9.6	7.3	8.0
Ablene .....	54.2	54.6	55.7	5.3	3.6	3.9	9.8	8.8	7.0
Amarillo .....	101.2	101.3	104.9	7.4	5.8	6.3	7.3	5.7	6.0
Austin .....	428.0	432.2	436.5	32.5	28.5	29.9	7.6	6.1	6.9
Beaumont-Port Arthur .....	185.1	181.4	185.9	23.8	16.9	18.7	14.4	10.5	11.3
Brazoria .....	82.0	82.4	85.1	9.1	6.8	7.7	11.2	8.2	9.1
Brownsville-Harlingen .....	97.9	98.1	102.4	15.1	12.8	14.8	15.4	13.0	14.5
Bryan-College Station .....	55.8	57.6	56.9	3.9	2.6	3.0	7.1	4.5	5.3
Corpus Christi .....	164.0	163.8	167.1	23.0	16.2	17.8	14.0	9.9	10.7
Dallas .....	1,459.7	1,465.5	1,511.5	105.9	84.6	98.0	7.3	5.8	6.5
El Paso .....	234.7	238.1	249.0	28.5	24.6	29.5	12.2	10.3	11.9
Fort Worth-Arlington .....	683.1	684.1	705.8	55.6	43.7	49.5	8.1	6.4	7.0
Galveston-Texas City .....	112.2	109.1	114.2	13.8	9.8	11.1	12.3	9.0	9.8
Houston .....	1,638.9	1,610.5	1,669.7	170.4	113.7	128.3	10.4	7.1	7.7
Killeen-Temple .....	94.5	95.5	98.7	8.3	7.2	8.2	8.8	7.6	8.3
Laredo .....	46.2	46.3	47.3	7.6	5.9	6.6	16.5	12.8	13.9
Longview-Marshall .....	80.8	79.4	82.3	9.9	6.8	7.6	12.2	8.6	9.2
Lubbock .....	111.6	114.8	117.2	8.0	6.2	7.1	7.2	5.4	6.0
McAllen-Edinburg-Mission .....	145.1	148.8	152.6	25.1	22.6	24.0	17.3	15.2	15.7
Midland .....	51.0	49.8	51.3	5.5	3.0	3.2	10.8	6.0	6.2
Odessa .....	55.1	54.1	56.2	7.2	4.0	4.5	13.1	7.5	8.1
San Angelo .....	45.7	45.8	47.0	3.2	2.8	3.1	7.0	6.0	6.5
San Antonio .....	612.4	628.6	647.3	55.4	49.2	56.4	9.0	7.8	8.7
Sherman-Denison .....	48.9	50.4	51.6	4.2	3.1	3.5	8.7	6.1	6.7
Texarkana .....	58.4	58.9	60.2	5.4	4.9	5.2	9.3	8.4	8.6
Tyler .....	78.8	76.7	79.2	7.7	5.7	6.5	9.8	7.4	8.2
Victoria .....	37.6	36.8	38.0	4.0	2.6	3.0	10.7	7.0	7.9
Waco .....	93.0	93.7	95.9	8.3	6.6	7.7	9.0	7.1	8.1
Wichita Falls .....	58.4	58.5	60.1	5.2	3.6	3.7	8.8	6.1	6.1
<b>Utah</b> .....	767.7	749.1	746.6	50.0	36.4	35.3	6.5	4.9	4.7
Provo-Orem .....	98.9	95.7	97.0	7.0	4.1	3.9	7.1	4.2	4.1
Salt Lake City-Ogden .....	503.5	495.5	493.5	30.2	22.3	22.1	6.0	4.5	4.5
<b>Vermont</b> .....	300.0	295.0	299.8	9.8	7.8	7.6	3.3	2.7	2.5
Burlington .....	74.1	76.7	77.8	1.8	1.4	1.5	2.4	1.9	2.0
<b>Virginia</b> .....	3,030.0	3,117.7	3,170.7	129.3	112.2	120.6	4.3	3.6	3.8
Charlottesville .....	65.1	68.9	68.3	2.1	1.5	1.8	3.2	2.2	2.7
Danville .....	50.8	52.9	53.8	3.2	3.4	3.7	6.3	6.5	6.8
Lynchburg .....	71.9	73.0	74.6	3.7	3.4	3.9	5.2	4.6	5.2
Norfolk-Virginia Beach-Newport News .....	608.1	624.0	636.2	29.9	25.7	28.3	4.9	4.1	4.4
Richmond-Petersburg .....	432.9	447.1	452.0	16.6	14.7	15.0	3.8	3.3	3.3
Roanoke .....	121.2	120.7	122.7	4.6	4.6	4.8	3.8	3.8	3.9
<b>Washington</b> .....	2,305.1	2,348.0	2,358.8	165.8	138.5	138.9	7.2	5.9	5.9
Seattle .....	999.8	1,051.8	1,043.7	61.2	50.2	50.4	6.1	4.8	4.8
<b>West Virginia</b> .....	755.2	751.9	736.0	77.6	66.5	65.0	10.3	8.8	8.8
Charleston .....	118.0	116.3	115.2	10.7	8.8	8.8	9.1	7.5	7.6
Huntington-Ashland .....	128.1	126.1	125.1	13.4	9.9	9.9	10.4	7.9	7.9
Parkersburg-Marietta .....	72.6	70.9	71.5	6.3	4.6	4.6	8.7	6.5	6.7
Wheeling .....	72.6	71.4	70.8	6.7	5.6	5.4	9.2	7.8	7.6
<b>Wisconsin</b> .....	2,531.3	2,526.7	2,582.8	148.7	102.7	102.8	5.8	4.1	4.0
Appleton-Oshkosh-Neenah .....	166.3	167.9	171.8	9.0	6.4	5.9	5.4	3.8	3.5
Eau Claire .....	70.6	74.1	74.8	4.0	2.9	2.9	5.7	3.9	3.9
Green Bay .....	107.0	106.8	109.7	6.2	4.4	4.1	5.8	4.1	3.7
Janesville-Beloit .....	72.3	72.7	73.3	5.3	3.3	3.2	7.4	4.5	4.4
Kenosha .....	55.5	54.9	55.6	4.1	2.3	2.7	7.4	4.1	4.9
La Crosse .....	52.8	56.1	56.7	2.7	1.8	2.0	5.1	3.2	3.5
Madison .....	214.0	219.8	222.0	7.7	5.6	5.7	3.8	2.5	2.6
Milwaukee .....	746.4	751.3	767.7	41.5	28.2	28.9	5.6	3.7	3.8
Racine .....	87.2	88.5	88.9	6.0	3.7	3.9	6.9	4.3	4.4
Wausau .....	59.4	60.2	61.7	3.5	2.6	2.7	6.0	4.3	4.3
<b>Wyoming</b> .....	254.9	233.6	238.8	19.5	13.1	11.5	7.7	5.6	4.8

<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 1987 have been

benchmarked to 1987 Current Population Survey annual averages. Except in the 11 States designated by footnote 1, estimates for 1988 are provisional and will be revised when new benchmark information becomes available. Area definitions are published annually in the May issue of this publication.

# Explanatory Notes

## Introduction

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

*Data based on household interviews* are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the Bureau of Labor Statistics and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of over about 55,800 households, representing 729 areas in 1,973 counties and independent cities, with coverage in 50 States and the District of Columbia. The data collected are based on the activity or status reported for the calendar week including the 12th of the month.

*Data based on establishment records* are compiled each month from mail questionnaires by the Bureau of Labor Statistics, in cooperation with State agencies. The establishment survey is designed to provide industry information on nonagricultural wage and salary employment, average weekly hours, average hourly earnings, and average weekly earnings for the Nation, States, and metropolitan areas. The employment, hours, and earnings series are currently based on payroll reports from a sample of over 300,000 establishments employing over 38 million nonagricultural wage and salary workers. The data relate to all workers, full or part time, who received pay during the payroll period which includes the 12th day of the month.

### RELATION BETWEEN THE HOUSEHOLD AND ESTABLISHMENT SERIES

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

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

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

### Employment

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

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

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

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

### Hours of work

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

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

## Earnings

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

## COMPARABILITY OF HOUSEHOLD DATA WITH OTHER SERIES

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

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

unemployed in the household survey.

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

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

## COMPARABILITY OF PAYROLL EMPLOYMENT DATA WITH OTHER SERIES

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

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

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

# Household Data (A tables)

## COLLECTION AND COVERAGE

Statistics on the employment status of the population, the personal, occupational, and other characteristics of the employed, the unemployed, and persons not in the labor force, and related data are compiled for the BLS by the Bureau of the Census in its Current Population Survey (CPS). A detailed description of this survey appears in *Concepts and Methods Used in Labor Force Statistics Derived from the Current Population Survey*, BLS Report 463. Historical national data are published in *Labor Force Statistics Derived From the Current Population Survey: A Databook*, BLS Bulletin 2096.

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

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

Each month about 55,800 occupied units are eligible for interview. About 2,600 of these households are visited but interviews are not obtained because the occupants are not at home after repeated calls or are unavailable for other reasons. This represents a noninterview rate for the survey of between 4 and 5 percent. In addition to the 55,800 occupied units, there are 11,500 sample units in an average month which are visited but found to be vacant or otherwise not enumerated. Part of the sample is changed each month. The rotation plan provides for three-fourths of the sample to be common from one month to the next, and one-half to be common with the same month a year earlier.

## CONCEPTS AND DEFINITIONS

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

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

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

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

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

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

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

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

*Jobseekers* are all unemployed persons who made



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## HISTORICAL COMPARABILITY

### Change in lower age limit

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

*Report on the Labor Force*, February 1967.

### Noncomparability of labor force levels

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

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

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

Beginning in January 1978, the introduction of an expansion in the sample and revisions in the estimation procedures resulted in an increase of about 250,000 in the civilian labor

force and employment totals; unemployment levels and rates were essentially unchanged. An explanation of the procedural changes and an indication of the differences appear in "Revisions in the Current Population Survey in January 1978" in the February 1978 issue of *Employment and Earnings*.

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

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

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

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

Beginning in January 1985, most of the steps of the CPS estimation procedure—the noninterview adjustment, the first and second-stage ratio adjustments, and the composite

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

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

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

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

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

The 1980 census occupational classification system evolved

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

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

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

### Changes in the sample design

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

One major change made after every decennial census is to change the sample design to make use of the recently collected census materials. Also, the number of sample areas and the number of sample persons are increased occasionally. In 1953, the current rotation plan was introduced, in which a sample unit is interviewed for 4 months, leaves the sample for 8 months, and then returns to the sample for another 4 months. When Alaska and Hawaii achieved statehood, three more sample areas were added to account for the population in these States. After the 1960 census, selection of a major portion of the sample from census address lists was begun, though a portion of the sample is still collected using area sampling. Following the 1970 census, the ultimate sampling unit was changed from a noncontiguous cluster of six housing units to a usually contiguous cluster of four housing units. In January 1978, a supplemental sample of 9,000 housing units, selected in 24 States and the District of Columbia and designed to provide more reliable annual average estimates for States, was incorporated into the design. In October 1978, a coverage improvement sample, composed of approximately 450 sample household units which represented 237,000 occupied mobile homes and 600,000 new construction housing units, was included in computing the estimates in order to provide coverage of mo-

mobile homes and new construction units that previously had no chance for selection in the CPS sample selected from the 1970 census frame. In January 1980, another supplemental sample of 9,000 households selected in 32 States and the District of Columbia was added to the existing sample. A sample reduction of about 6,000 units was implemented in May 1981. Beginning in January 1982, the sample was expanded by 100 households to provide additional coverage in counties added to SMSA's, which were redefined in 1973.

Beginning in 1985, a new State-based CPS sample was selected based on 1980 census information rather than 1970 census information. The selection of new sample areas provided an opportunity to improve the efficiency of the sample design. Sample areas chosen to replace incoming sample areas account for only 10 percent of the national estimate. The new CPS sample has resulted in increased reliability for State estimates with a slightly reduced sample size. Sample households are chosen from 729 sample areas, which represent 1,973 geographic areas in the United States. This current number of sample areas is not completely comparable to the old number of sample areas since many of the sample areas have been redefined. (See pp. 7-10 of the May 1984 issue of *Employment and Earnings*, for an overview of these new definitions and the introduction of the new sample.) A sample reduction of about 4,000 households was implemented in April 1988.

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

### ESTIMATING METHODS

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

1. *Noninterview adjustment.* The weights for all interviewed households are adjusted to the extent needed to account for occupied sample households for which no information was obtained because of absence, impassable roads, refusals, or unavailability of the respondents for other reasons. This noninterview adjustment is made separately by combinations of similar sample areas that are not necessarily contained within a State. Similarity of sample areas is based on Metropolitan Statistical Area (MSA) status and size. Within

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

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

<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 using the two most recent July 1 estimates, adjusted as a last step to a current estimate of the U.S. population of this group. State estimates by age for July 1 are published annually in *Current Population Reports, Series P-25*. For a description of the methodology used in developing the State total, see Report 957 of that series. A description of the age estimates methodology is available in Report 1010 of that series.

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

and emigrants to yield an estimate of the Hispanic population by age and sex.

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

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

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

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

### **Rounding of estimates**

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

### **Reliability of the estimates**

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

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

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

Nonsampling errors occurring in the interview phase of the survey have been studied by means of a reinterview program. This program is used to estimate various sources of error as well as to evaluate and control the work of the interviewers. A random sample of each interviewer's work is inspected through reinterview at regular intervals. The results indicate, among other things, that the data published from the CPS are subject to moderate systematic biases. A description of the CPS reinterview program and some of the other results may be found in the *Current Population Survey Reinterview Program*,



January 1961 Through December 1966, Technical Paper No. 19, Bureau of the Census, U.S. Department of Commerce.

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

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

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

*Sampling error.* The standard error is primarily a measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The sample estimate and its estimated standard error enable one to construct confidence intervals, ranges that would include the average of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions and using the same sample design, and an estimate and its estimated error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.

2. Approximately 90 percent of the intervals from 1.6

standard errors below the estimate to 1.6 standard errors above the estimate would include the average of all possible samples.

3. Approximately 95 percent of the intervals from 2 standard errors below the estimate to 2 standard errors above the estimate would include the average result of all possible samples.

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

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

Tables D through H provide generalized standard errors for monthly level and month-to-month change for estimated totals, unemployment rates, and percentages. Table I contains factors for use with table H for computing standard errors, as described below, for monthly level and month-to-month change for percentages. Standard errors for intermediate values not shown in the table may be approximated by linear interpolation. The standard error for estimated changes from one month to the next is more closely related to the monthly level for the characteristic than to the size of the specific month-to-month change itself. Thus, in order to use the generalized standard errors for month-to-month change as given in the tables of standard errors, it is necessary to obtain the monthly estimate for the characteristic. It should be noted that the tables of standard errors for month-to-month change apply only to estimates of change between 2 consecutive months. Estimates of change for non-consecutive months are subject to higher standard errors. Table J contains factors for use with tables D, F, H, and I to compute approximate standard errors for levels, labor force participation rates, and percentages as pertaining to the year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages. Note that standard errors for changes in quarterly and yearly estimates apply only to consecutive quarters and years. For years prior to 1967, the standard errors must be adjusted due to the differences in the sample size. For years prior to 1956, the standard errors should be multiplied by 1.50, and for the 1956-66 period they should be multiplied by 1.22. Table K provides generalized standard



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

(in thousands)

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

errors for quarterly estimates of persons and families for use with the CPS earnings data.

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

*Illustration.* Assume that in a given month the number of persons working a specific number of hours was 12,000,000, an increase of 400,000 over the previous month. Linear interpolation in the second column of table D shows that the standard error on an estimate of 12,000,000 is about 174,000. The 68-percent confidence interval as shown by these data is from 11,826,000 to 12,174,000. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. Recall that the standard error of a month-to-month change is primarily dependent on the size of the monthly estimate. Thus, using linear interpolation in the first column of table E, the standard error on a month-to-month change of 400,000, when the monthly level is approximately 12,000,000, is about 129,000.

*Standard errors for rates and percentages.* The reliability of an estimated unemployment rate or an estimated percentage, computed using sample data for both numerator and denominator, depends upon both the size of the rate or percentage and the total upon which the rate or percentage is based. Estimated rates and percentages are relatively more

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

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

reliable than the corresponding estimates of the numerator of the rates or percentages; this is particularly true for percentages of 50 percent or more. As a general rule, percentages are not published when the monthly base is less than 75,000, the quarterly average base is less than 60,000, or the annual average base is less than 35,000.

Tables F and G show generalized standard errors for monthly level and month-to-month change for unemployment rates. Generalized standard errors for estimated monthly percentages and estimated month-to-month change in percentage can be obtained through the use of the standard errors in table H and the factors in table I. First, obtain the standard error from table H for the specific percentage and base. The generalized standard error is then calculated by multiplying the standard error from table H by the appropriate factor from table I. When the numerator and denominator of the percentage are in different categories, use the factor indicated by the numerator of the percentage.

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

*Standard errors for year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages.* The approximate standard errors of levels, rates, and percentages involving year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages, and changes in yearly averages may be obtained by using table J in conjunction with the other tables. Standard errors for estimates of change are more closely related to the level of the estimate than to the size of the specific change. Thus, to obtain the standard error of an estimate of an average level, rate, or percentage, or an estimate of a change in level, rate, or percentage, it is first necessary to find the appropriate estimate of level. For an estimate of an average level, rate, or percentage, find the standard error of this estimate. For an estimate of change in level, rate, or percentage, find the standard error of the average of the two estimates affecting the change. Then, after computing the standard error by treating these estimates as monthly estimates and using the procedures above, multiply this result by a suitable factor from table J to obtain the approximate standard error for the average or change.

*Illustration.* Suppose that one is interested in the year-to-year change of a monthly unemployment rate. Assume that for a certain month the unemployment rate is 6.2 percent, based on a total of 119,865,000 in the civilian labor force, and that

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

(in thousands)

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

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

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

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

(in thousands)

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

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

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

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

a year prior to this the unemployment rate was 7.0 percent, based on a total of 117,834,000 in the civilian labor force for the month. First, the standard error on the average of the two estimates, 6.6 percent with a base of 118,850,000, is obtained from table F (0.11 percentage point). The appropriate factor, then, from table J is 1.40. The approximate standard error on the change of 0.8 percent is then given by  $0.11 \times 1.40 = 0.15$  percentage point.

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

Standard error of year-to-year change =

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

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

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

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

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

or about 259,000.

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

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

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

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

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

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

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

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

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

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

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

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

(In thousands)

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

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

## COLLECTION

Payroll reports provide current information on wage and salary employment and hours and earnings in nonagricultural establishments, by industry and geographic location. Historical statistics are published in *Employment, Hours, and Earnings, United States, 1909-84*, and *Employment, Hours, and Earnings, States and Areas, 1939-82* and their supplements.

### Federal-State cooperation

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

### Shuttle schedules

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

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

## CONCEPTS

### Industrial classification

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

industry indicated by the principal product or activity.

All data on employment, hours, and earnings for the Nation and for States and areas are classified in accordance with the 1972 *Standard Industrial Classification Manual (SICM)*, Office of Management and Budget. The BLS tabulates and estimates statistics which distinguish between private and public establishments, thus maintaining continuity with previously published statistics for the private and government sector.

### Industry employment

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

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

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

*Indexes of diffusion of changes in number of employees on nonagricultural payrolls.* These indexes measure the percent of industries which posted increases in employment over the specified time span. The indexes are calculated from 185 seasonally adjusted employment series (two-digit non-manufacturing industries and three-digit manufacturing industries) covering all nonagricultural payroll employment in the private sector. A more detailed discussion of these indexes appears in "Introduction of Diffusion Indexes," in the December 1974 issue of *Employment and Earnings*.

### Industry hours and earnings

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

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

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

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

*Payroll* covers the payroll for full- and part-time production, construction, or nonsupervisory workers who received pay for any part of the pay period which includes the 12th of the month. The payroll is reported before deductions of any kind, e.g., for old-age and unemployment insurance, group insurance, withholding tax, bonds, or union dues; also included is pay for overtime, holidays, vacation, and sick leave paid directly by the firm. Bonuses (unless earned and paid regularly each pay period); other pay not earned in the pay period reported (e.g., retroactive pay); tips; and the value of free rent, fuel, meals, or other payment in kind are excluded. "Fringe benefits" (such as health and other types of insurance, contributions to retirement, etc., paid by the employer) are also excluded.

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

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

*Average weekly hours.* The workweek information relates to the average hours for which pay was received and is differ-

ent from standard or scheduled hours. Such factors as unpaid absenteeism, labor turnover, part-time work, and stoppages cause average weekly hours to be lower than scheduled hours of work for an establishment. Group averages further reflect changes in the workweek of component industries.

*Indexes of aggregate weekly hours.* The indexes of aggregate weekly hours are prepared by dividing the current month's aggregate by the average of the 12 monthly figures for 1977. For basic industries, the hours aggregates are the product of average weekly hours and production worker or nonsupervisory worker employment. At all higher levels of industry aggregation, hours aggregates are the sum of the component aggregates.

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

Since overtime hours are premium hours by definition, weekly hours and overtime hours do not necessarily move in the same direction from month to month; for example, overtime premiums may be paid for hours in excess of the straight-time workday although less than a full week is worked. Diverse trends at the industry group level also may be caused by a marked change in hours for a component industry where little or no overtime was worked in both the previous and current months. In addition, such factors as work stoppages, absenteeism, and labor turnover may not have the same influence on overtime hours as on average hours.

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

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

*Average hourly earnings, including lump-sum wage payments.* These series are compiled only for aircraft



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

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

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

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

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

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

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

## ESTIMATING METHODS

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

### The "link relative" technique

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

### Size and regional stratification

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

### Benchmark adjustments

Employment estimates are compared periodically with benchmarks (comprehensive counts of employment) for the various nonagricultural industries, and appropriate adjustments are made as indicated. The industry estimates are currently projected from March 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)
Monthly data		
All employees . . .	All-employee estimate for previous month multiplied by ratio of all employees in current month to all employees in previous month, for sample establishments which reported for both months. <sup>1</sup>	Sum of all-employee estimates for component cells.
Production or nonsupervisory workers, women employees . . .	All-employee estimate for current month multiplied by (1) ratio of production or nonsupervisory workers to all employees in sample establishments for current month, (2) estimated ratio of women to all employees. <sup>2</sup>	Sum of production or nonsupervisory worker estimates, or estimates of women employees, for component cells.
Average weekly hours . . .	Production or nonsupervisory worker hours divided by number of production or nonsupervisory workers. <sup>2</sup>	Average, weighted by production or nonsupervisory worker employment, of the average weekly hours for component cells.
Average weekly overtime hours . . .	Production worker overtime hours divided by number of production workers. <sup>2</sup>	Average, weighted by production worker employment, of the average weekly overtime hours for component cells.
Average hourly earnings . . .	Total production or nonsupervisory worker payroll divided by total production or nonsupervisory worker hours. <sup>2</sup>	Average, weighted by aggregate hours, of the average hourly earnings for component cells.
Average weekly earnings . . .	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.
Annual average data		
All employees, women employees, and production or nonsupervisory workers . . .	Sum of monthly estimates divided by 12.	Sum of monthly estimates divided by 12.
Average weekly hours . . .	Annual total of aggregate hours (production or nonsupervisory worker employment multiplied by average weekly hours) divided by annual sum of employment	Annual total of aggregate hours for production or nonsupervisory workers divided by annual sum of employment for these workers.
Average weekly overtime hours . . .	Annual total of aggregate overtime hours (production worker employment multiplied by average weekly overtime hours) divided by annual sum of employment.	Annual total of aggregate overtime hours for production workers divided by annual sum of employment for these workers.
Average hourly earnings . . .	Annual total of aggregate payrolls (product of production or nonsupervisory worker employment by weekly hours and hourly earnings) divided by annual aggregate hours.	Annual total of aggregate payrolls divided by annual aggregate hours.
Average weekly earnings . . .	Product of average weekly hours and average hourly earnings.	Product of average weekly hours and average hourly earnings.

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

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

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

from the records of the Social Security Administration, the Interstate Commerce Commission, and a number of other agencies in private industry or government.

The estimates for the benchmark month are compared with new benchmark levels, industry by industry. If revisions are necessary, the monthly series of estimates between benchmark periods are adjusted between the new benchmark and the preceding one, and the new benchmark for each industry is then carried forward progressively to the current month by use of the sample trends. Thus, under this procedure, the benchmark is used to establish the level of employment; the sample is used to measure the month-to-month changes in the level. A comparison of the actual amounts of revisions made at the time of the March 1987 benchmark adjustment is shown in table M.

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

## THE SAMPLE

### Design

The sampling plan used in the establishment survey is known as "sampling proportionate to average size of establishment." This design is an optimum allocation design among strata since the sampling variance is proportional to the average size of establishments. Under this type of design, large establishments fall into the sample with certainty. The size of the sample for the various industries is determined empirically on the basis of experience and of cost considerations. In a manufacturing industry in which a high proportion of total employment is concentrated in relatively few establishments, a larger percent of total employment is included in the sample. Consequently, the sample design for such industries provides for a complete census of the large establishments, with only a few chosen from among the smaller establishments or none at all if the concentration of employment is great enough. On the other hand, in an industry in which a large proportion of total employment is

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

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

<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 1987<sup>1</sup>**

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

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

<sup>2</sup> Total Federal employment counts for use in national estimates are provided to BLS by the Office of Personnel Management. Detailed industry estimates for the Executive Branch, as well as State and area estimates of Federal employment, are based on a sample of 4,600 reports covering about 55 percent of employment in Federal establishments.

## Reliability

Although the relatively large size of the BLS establishment sample assures a high degree of accuracy, the estimates derived from it may differ from the figures that would be obtained if it were possible to take a complete census using the same schedules and procedures. As discussed under the previous section, a link relative technique is used to estimate employment. This requires the use of the previous month's estimate as the base in computing the current month's estimate. Thus, small sampling and response errors may accumulate over several months. To remove this accumulated error, the estimates are usually adjusted annually to new benchmarks. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments (resulting from changes in their product which are not reflected in the levels of estimates until the data are adjusted to new benchmarks). In fact, at the more detailed industry levels, particularly within manufacturing, changes in classification are the major cause of benchmark adjustments. Another cause of differences arises from improvements in the quality of the benchmark data. Table O presents the average percent revisions of the five most recent benchmarks for major industry divisions. Detailed descriptions of individual benchmark revisions are available from the Bureau upon request.

The hours and earnings estimates for basic estimating cells are not subject to benchmark revisions, although the broader groupings may be affected slightly by changes in employment weights. The hours and earnings estimates, however, are subject to sampling errors, which may be expressed as

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.

**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	.2	0.1	0.2
Mining	2.9	1.0	1.3
Construction	1.4	.2	.5
Manufacturing	.8	.1	.2
Durable goods	.9	.1	.3
Nondurable goods	.8	.1	.2
Transportation and public utilities	.3	.7	.6
Wholesale trade	.8	.2	.4
Retail trade	.9	.2	.4
Finance, insurance, and real estate	.3	.2	.4
Services	.2	.4	.6
Government <sup>3</sup>	.5	—	—

<sup>1</sup> The average percent revision in employment for the 1983-87 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.

## 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 as they occur. Additional industry detail may be obtained from the State agencies listed on the inside back cover of each issue. These statistics are based on the same

establishment reports used by BLS for preparing national estimates. For employment, the sum of the State figures may differ slightly from the equivalent official U.S. totals on a national basis, because some States have more recent benchmarks than others and because of the effects of differing industrial and geographic stratification.

**Table Q. Errors of preliminary employment estimates**

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

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

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

### COLLECTION

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

### CONCEPTS

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

*Output* is the constant-dollar market value of final goods and services produced in a given period. Indexes of *output per hour* of all persons measure changes in the volume of goods and services produced per paid hour of labor input.

*Compensation per hour* includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed.

*Real compensation per hour* is compensation per hour adjusted to eliminate the effect of changes in the Consumer Price Index for All Urban Consumers (CPI-U).

*Unit labor costs* measure the labor compensation cost required to produce one unit of output and are derived by dividing compensation per hour by output per hour.

*Unit nonlabor payments* include profits, depreciation, interest, and indirect taxes per unit of output. They are com-

puted by subtracting compensation of all persons from the current-dollar gross national product and dividing by output. In these tables, unit nonlabor costs contain all the components of unit nonlabor payments except unit profits.

*Unit profits* include corporate profits and inventory valuation adjustments per unit of output.

The *implicit price deflator* is derived by dividing the current-dollar estimate of gross product by the constant-dollar estimate, making the deflator, in effect, a price index for gross product of the sector reported.

### NOTES ON THE DATA

For the business sector and the nonfarm business sector, these indexes relate to the gross domestic product less households and institutions, owner-occupied housing, and the statistical discrepancy. For the nonfinancial corporate sector, the indexes refer to the gross domestic product of nonfinancial corporate business.

Manufacturing output data are supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly measures have been adjusted by the Bureau of Labor Statistics to annual estimates of output (gross product originating) from the Bureau of Economic Analysis. Compensation and hours data are from the Bureau of Economic Analysis and the Bureau of Labor Statistics. Historical statistics for most productivity measures appear in *Trends in Multifactor Productivity, 1948-81*, BLS Bulletin 2178. Additional information may be obtained from the Office of Productivity and Technology (202 523-9261).

## State and Area Labor Force Data (D table)

### FEDERAL-STATE COOPERATIVE PROGRAM

Labor force and unemployment estimates for States, labor market areas (LMA's), and other areas covered under Federal assistance programs are developed by State employment security agencies under a Federal-State cooperative program. The local unemployment estimates which are derived from standardized procedures developed by BLS are the basis of determining eligibility of an area for benefits under Federal programs such as the Job Training Partnership Act and the Public Works and Economic Development Act.

Annual average data for the States and areas shown in table D are published in *Employment and Earnings* (usually the May issue). For regions, States, selected metropolitan areas, and central cities, annual average data classified by selected demographic, social, and economic characteristics are

published in the BLS bulletin, *Geographic Profile of Employment and Unemployment*.

Labor force and unemployment estimates for counties, cities, and other small areas have been prepared for administration of various Federal economic assistance programs and may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The report "Employment and Unemployment in States and Local Areas" is published monthly through GPO and is available on microfiche only on a subscription basis.

### ESTIMATING METHODS

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

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

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

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

2. *Preliminary estimate—unemployment*: In the current month, the estimate of unemployment is an aggregate of the estimates for each of three categories: (1) Persons who were previously employed in industries covered by State UI laws; (2) those previously employed in industries not covered by these laws; and (3) those who were entering the civilian labor force for the first time or reentering after a period of separation. This is referred to below as the UI-based estimate.

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

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

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

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

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

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

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

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

## Seasonal Adjustment

Over the course of a year, the size of the Nation's labor force, the levels of employment and unemployment, and other measures of labor market activity undergo sharp fluctuations due to such seasonal events as changes in weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These adjustments make it easier to observe the cyclical and other nonseasonal movements in the series. In evaluating changes in a seasonally adjusted series, it is important to note that seasonal adjustment is merely an approximation based on past experience. Seasonally adjusted estimates have a broader margin of possible error than the original data on which they are based, since they are subject not only to sampling and other errors but are also affected by the uncertainties of the seasonal adjustment process itself. Seasonally adjusted series for selected labor force and establishment-based data are published regularly in *Employment and Earnings*.

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

Beginning in January 1980, BLS introduced two major modifications in the seasonal adjustment methodology for data from the household survey. First, the data are being seasonally adjusted with a procedure called X-11 ARIMA, which was developed at Statistics Canada as an extension of the existing standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method*, by Estela Bee Dagum, Statistics Canada Catalogue No. 12-564E, January 1983. The X-11 procedure was originally developed at the Bureau of the Census and had been used by the BLS to seasonally adjust labor force series since 1973. Tests have shown that use of the X-11 ARIMA procedure, which places more emphasis on recent data, provides better seasonal adjustments than does the X-11 method alone.

The second change is that seasonal adjustment factors are calculated for use during the first 6 months of the year rather than for the entire year. In July of each year, BLS calculates and publishes in *Employment and Earnings* a set of seasonal adjustment factors for use in the second half, based on the experience through June. Revisions of historical data for the most recent 5 years are made at the beginning of each calendar year. However, as a result of the revisions to the estimates for 1970-81 based on 1980 census population counts, revisions to seasonally adjusted series in early 1982 were carried back to 1970.

All labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. For example, for each of the three major labor force components—agricultural employment, nonagricultural employment, and unemployment—data for four sex-age groups (men and women under and over 20 years of age) are separately adjusted for seasonal variation and are then added to derive seasonally adjusted total figures. The seasonally adjusted figure for the labor force is the sum of eight seasonally adjusted civilian employment components, plus the resident Armed Forces total (not adjusted for seasonality), and four seasonally adjusted unemployment components; the total for unemployment is the sum of the four unemployment components; and the overall unemployment rate is derived by dividing the resulting estimate of total unemployment by the estimate of the labor force. Because of the independent seasonal adjustment of various series, components will not necessarily add to totals.

Revised seasonally adjusted data for selected labor force series based on the experience through December, new seasonal adjustment factors to be used to calculate the civilian unemployment rate for the first 6 months of the following year, and a description of the current seasonal adjustment methodology are published in each January issue of *Employment and Earnings*. Revised seasonally adjusted data covering the revision period for a broader range of labor force series are published in the February issue of this publication.

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

Seasonal adjustment factors are directly applied to the component levels. Seasonally adjusted totals for most of these series are then obtained by taking a weighted average of the seasonally adjusted data for the component series. Seasonally adjusted average weekly earnings are the product of seasonally adjusted average hourly earnings and seasonally adjusted average weekly hours.

Average weekly earnings in constant dollars, seasonally adjusted, are obtained by dividing average weekly earnings, seasonally adjusted, by the seasonally adjusted Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), and multiplying by 100. Indexes of aggregate weekly hours, seasonally adjusted, are obtained by multiplying average weekly hours, seasonally adjusted, by production



or nonsupervisory workers, seasonally adjusted, and dividing by the 1977 base. For total private, total goods-producing, total private service-producing, wholesale trade, retail trade, manufacturing, and durable and nondurable goods industries, the indexes of aggregate weekly hours, seasonally adjusted, are obtained by summing the aggregate weekly hours, seasonally adjusted, for the appropriate component industries and dividing by the 1977 base.

Seasonally adjusted data are not published for a number of series characterized by small seasonal components relative to their trend-cycle and/or irregular components. These failed or unsatisfactory seasonally adjusted series are used in the aggregation to broader level seasonally adjusted series, however.

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

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

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

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## COOPERATING STATE AGENCIES

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

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