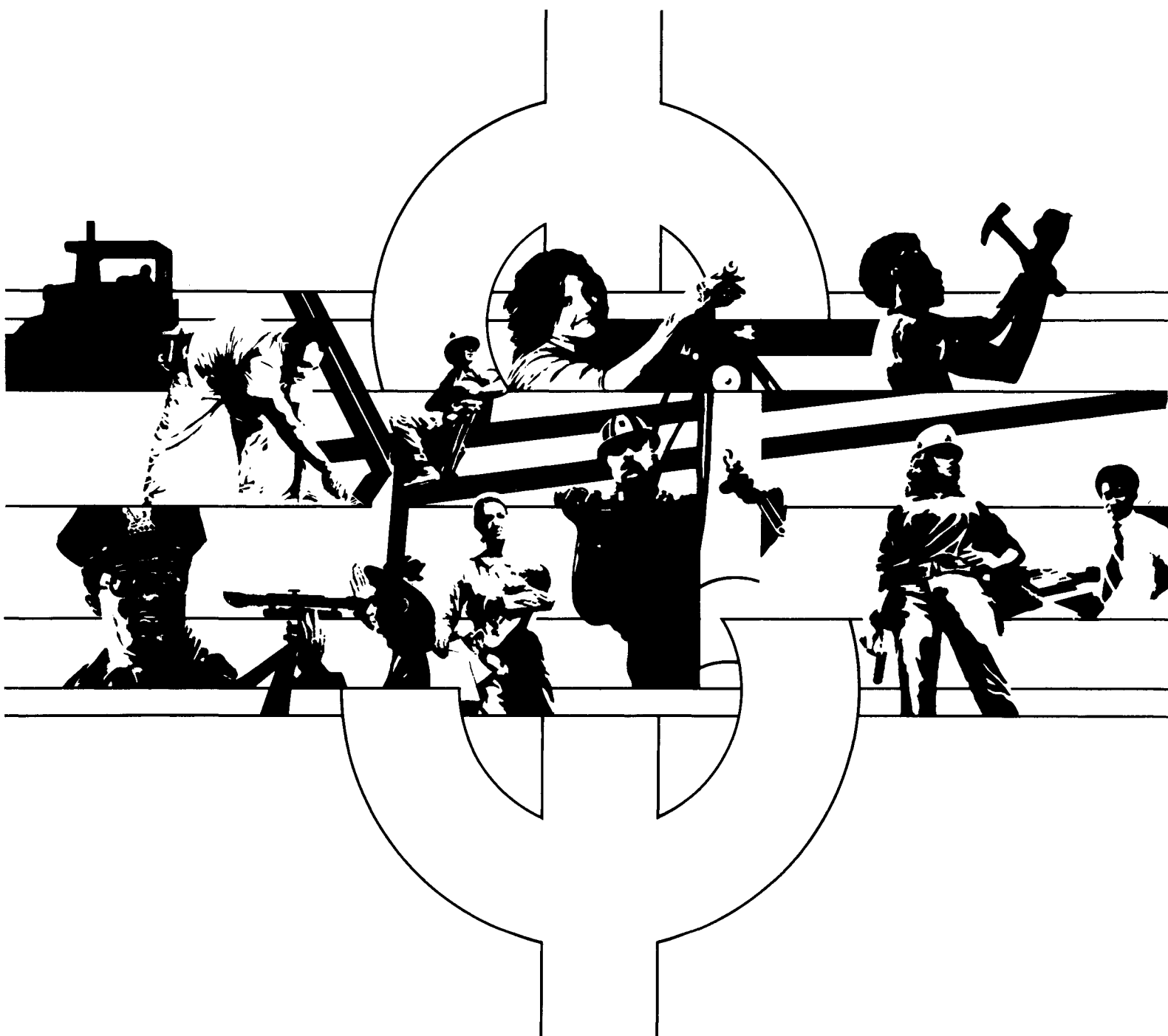


Employment and Earnings September 1981



U.S. Department of Labor
Bureau of Labor Statistics





U.S. DEPARTMENT OF LABOR
Raymond J. Donovan, 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.
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, poverty-nonpoverty area data, family relationship data, weekly earnings data	Jan., Apr., July, Oct.

Establishment data

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Industry divisions (preliminary)	Jan.
Industry detail (final)	Mar.
Women employment detail (final)	Mar.
National data adjusted to new benchmarks	July ¹
Revised historical national data adjusted to new benchmarks	Supplement ²
Revised seasonally adjusted series	July ³
State and area annual averages	May
Area definitions	May

State and area unemployment data

Annual averages	May ⁴
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¹ The issue that introduces new benchmark varies. The July 1981 issue introduced March 1980 benchmarks.

² Month of publication of annual supplement varies. The latest supplement was published in August 1981.

³ Issue varies. Latest revised data introduced July 1981.

⁴ These data first introduced in the May 1981 issue.

Employment and Earnings

Vol. 28 No. 9 September 1981

Editors: Gloria P. Green, Gloria P. Goings, Rosalie K. Epstein

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Employment and Unemployment Developments, August 1981

The employment situation was little changed in August. The overall unemployment rate was 7.2 percent, compared with 7.0 percent in July. During most of the January-June period, the jobless rate had been 7.3 percent.

Following substantial increases in July, employment, as measured both by the monthly surveys of households and establishments, held about steady in August. Since July 1980's recession trough, both employment series have risen by about 2 million.

Unemployment

The unemployment rate in August, 7.2 percent, and the number of unemployed persons, 7.7 million, were up slightly from July. Patterns differed, however, among certain worker groups. For example, the rate for young men 20 to 24 years, which has exhibited considerable volatility since April, rose sharply in August and, at 12.7 percent, returned to the June level. In contrast, unemployment among 20-24 year-old women has shown little movement in recent months, and, at 10.8 percent, the rate was unchanged from July. Among workers 25 years and over, the jobless rate for men (4.8 percent) also was little different over the month, while that for women (5.5 percent) inched down. Among teenagers, the rate for blacks (45.7 percent) increased substantially, whereas unemployment of white teenagers (15.6 percent) was not much different from July. This large rise in black teenage unemployment contributed to a marked increase in the overall jobless rate for black and other workers to 15.0 percent. (See tables A-33, A-35, and A-38.)

The number of unemployed persons who lost their last jobs rose in August; all of the increase was among those whose employment had been permanently terminated. The number of persons on layoff was unchanged over the month but was almost half a million below the level in August 1980. (See table A-39.)

The number of persons unemployed 1 to 3 months increased in August, as did those jobless 6 months or more. The average (mean) duration of unemployment went up to 14.5 weeks, about the level that had prevailed at the beginning of the year. (See table A-37.)

Total employment and the labor force

Total employment, at 98.9 million, was unchanged over the month, after adjustment for seasonality. There was, however, a decrease in the number of employed black teenagers and an increase among white teens. Since the recession trough, total employment has increased by 1.9 million, with all of the increase accounted for by adult men and women.

The civilian labor force was unchanged in August at 106.6 million. The labor force has grown by about 1.6 million over the past 12 months. The participation rate of adult women was up over the year, while participation of adult men and teenagers declined.

Industry payroll employment

Nonfarm payroll employment in August held at the July level of 92.0 million. The job count has expanded by 2.1 million since the recession low. Only construction and government among the major industry divisions posted declines over this period. (See table B-4.)

In the goods-producing sector, there was a continuation of growth in the mining industry, especially in oil, gas, and coal extraction. In construction, employment was unchanged after declining between April and July; the industry has failed to rebound since last year's low, due in large part to the tight money market which has kept interest rates high and the construction of residential housing low. Employment in manufacturing, which had been at depressed levels since last year's recession but had shown signs of improvement in recent months, remained at about the July level. Factory employment has yet to recover fully from the devastating losses in the auto industry from mid-1979 on through the 1980 recession. Over-the-month movements in individual manufacturing industries were generally small and offsetting. There was, however, a decline of 30,000 in food processing plus a reduction of 10,000 in lumber and wood products. On the positive side, machinery continued to show growth with a gain of 15,000 jobs.

In the service-producing sector, there was an employment increase of 60,000 in retail trade, while employment in Federal government decreased by 35,000 over the month.

Hours of work

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls in August was 35.3 hours, up 0.1 hour from July. Manufacturing hours also edged up a tenth of an hour, as did factory overtime hours. All three workweek measures have shown little movement in recent months, through total factory hours and overtime were up over the past year. (See table C-6.)

The index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls rose 0.2 percent in August to 109.5 (1977 = 100). The manufacturing index was little changed over the month. The two indexes were up by 2.7 and 4.4 percent, respectively, from August 1980. (See table C-7.)

Hourly and weekly earnings

Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls rose

1.0 percent in August, while average weekly earnings posted a slightly larger increase, 1.3 percent (seasonally adjusted). Before adjustment for seasonality, average hourly earnings rose 6 cents in August to \$7.30, 63 cents above the year-earlier level. Average weekly earnings were \$259.88 in August, \$2.86 above July and \$23.09 above August 1980.

The Hourly Earnings Index

The Hourly Earnings Index (HEI) was 140.6 (1977 = 100) after seasonal adjustment in August, an increase of 1.1 percent over the previous month. For the 12 months ended in August, the increase (before seasonal adjustment) was 9.2 percent. The HEI excludes the effects of two types of changes unrelated to underlying wage rate movements—fluctuations in overtime in manufacturing and interindustry employment shifts. In dollars of constant purchasing power, the HEI decreased 1.7 percent (before seasonal adjustment) during the 12-month period ended in July. (See table C-8.)

HOUSEHOLD DATA HISTORICAL

A-1. Employment status of the noninstitutional population 16 years and over, 1947 to date

(Numbers in thousands)

Year and month	Total noninstitutional population	Total labor force		Civilian labor force						Not in labor force
		Number	Percent of population	Total	Employed			Unemployed		
					Total	Agri-culture	Nonagri-cultural industries	Number	Percent of labor force	
Annual averages										
1947.....	103,418	60,941	58.9	59,350	57,038	7,890	49,148	2,311	3.9	42,477
1948.....	104,527	62,080	59.4	60,621	58,343	7,629	50,714	2,276	3.8	42,447
1949.....	105,611	62,903	59.6	61,286	57,651	7,658	49,993	3,637	5.9	42,708
1950.....	106,645	63,858	59.9	62,208	58,918	7,160	51,758	3,288	5.3	42,787
1951.....	107,721	65,117	60.4	62,017	59,961	6,726	53,235	2,055	3.3	42,634
1952.....	108,823	65,730	60.4	62,138	60,250	6,500	53,749	1,883	3.0	43,093
1953 ¹	110,601	66,560	60.2	63,015	61,179	6,260	54,919	1,834	2.9	44,041
1954.....	111,671	66,993	60.0	63,643	60,109	6,205	53,904	3,532	5.5	44,678
1955.....	112,732	68,072	60.4	65,023	62,170	6,450	55,722	2,852	4.4	44,663
1956.....	113,811	69,409	61.0	66,552	63,799	6,283	57,514	2,750	4.1	44,402
1957.....	115,065	69,729	60.6	66,929	64,071	5,947	58,123	2,859	4.3	45,336
1958.....	116,363	70,275	60.4	67,639	63,036	5,586	57,450	4,602	6.8	46,088
1959.....	117,881	70,921	60.2	68,369	64,630	5,565	59,065	3,740	5.5	46,960
1960 ¹	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
1961.....	121,343	73,031	60.2	70,459	65,746	5,200	60,546	4,714	6.7	48,312
1962.....	122,981	73,442	59.7	70,614	66,702	4,944	61,759	3,911	5.5	49,539
1963.....	125,154	74,571	59.6	71,833	67,762	4,697	63,076	4,070	5.7	50,583
1964.....	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394
1965.....	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058
1966.....	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288
1967.....	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527
1968.....	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291
1969.....	137,841	84,240	61.1	80,734	77,902	3,606	74,296	2,832	3.5	53,602
1970.....	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280
1971.....	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666
1972 ¹	145,775	88,991	61.0	86,542	81,702	3,472	78,230	4,840	5.6	55,785
1973.....	148,263	91,040	61.4	88,714	84,409	3,452	80,957	4,304	4.9	57,222
1974.....	150,827	93,240	61.8	91,011	85,935	3,492	82,443	5,076	5.6	57,587
1975.....	153,449	94,793	61.8	92,613	84,783	3,380	81,403	7,830	8.5	58,655
1976.....	156,048	96,917	62.1	94,773	87,485	3,297	84,188	7,288	7.7	59,130
1977.....	158,559	99,534	62.8	97,401	90,546	3,244	87,332	6,355	7.0	53,325
1978 ²	151,358	102,537	67.7	100,420	94,373	3,342	91,031	6,047	6.0	58,521
1979.....	163,620	104,996	64.2	102,908	96,945	3,297	93,648	5,963	5.8	59,623
1980.....	166,246	106,821	64.3	104,719	97,270	3,310	93,953	7,448	7.1	53,425
Monthly data, seasonally adjusted²										
1980:										
August...	166,578	107,059	64.3	104,945	97,003	3,210	93,793	7,942	7.5	53,513
September	166,789	107,101	64.2	104,980	97,180	3,399	93,781	7,800	7.4	53,587
October...	167,005	107,288	64.2	105,167	97,206	3,319	93,887	7,961	7.6	59,717
November..	167,201	107,404	64.2	105,285	97,339	3,340	93,999	7,946	7.5	53,797
December..	167,396	107,191	64.0	105,067	97,282	3,394	93,898	7,735	7.4	53,235
1981:										
January..	167,585	107,668	64.2	105,543	97,696	3,433	94,294	7,847	7.4	59,917
February..	167,747	107,802	64.3	105,681	97,927	3,281	94,646	7,754	7.3	59,945
March....	167,902	108,335	64.5	106,177	98,412	3,276	95,136	7,754	7.3	53,598
April....	168,071	108,851	64.8	106,722	98,976	3,453	95,513	7,746	7.3	59,219
May.....	168,272	109,533	65.1	107,406	99,235	3,353	95,892	8,171	7.6	58,739
June.....	168,480	108,337	64.3	106,176	98,392	3,265	95,127	7,784	7.3	63,173
July.....	168,685	108,603	64.4	106,464	98,962	3,258	95,704	7,502	7.0	60,082
August...	168,855	108,762	64.4	106,602	98,944	3,370	95,574	7,657	7.2	60,093

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

² Because seasonality, by definition, does not exist in population figures, data for "total noninstitutional population" are not seasonally adjusted.

HOUSEHOLD DATA HISTORICAL

A-2. Employment status of the noninstitutional population 16 years and over by sex, 1972 to date

(Numbers in thousands)

Sex, year, and month	Total nonin- stitutional popula- tion	Total labor force		Civilian labor force					Not in labor force	
		Number	Percent of popula- tion	Total	Employed			Unemployed		
					Total	Agri- culture	Nonagri- cultural indus- tries	Number		Percent of labor force
MALES										
Annual averages										
1972 ¹	69,964	55,671	79.7	53,265	50,630	2,839	47,791	2,635	4.9	14,133
1973 ¹	71,020	56,479	79.5	54,203	51,963	2,833	49,130	2,240	4.1	14,541
1974.....	72,253	57,349	79.4	55,186	52,518	2,930	49,618	2,668	4.8	14,934
1975.....	73,494	57,706	78.5	55,615	51,230	2,301	48,429	4,385	7.9	15,798
1976.....	74,739	58,397	78.1	56,359	52,391	2,716	49,675	3,968	7.0	15,341
1977.....	75,981	59,467	78.3	57,449	53,861	2,539	51,222	3,588	5.2	16,514
1978 ¹	77,169	60,535	78.4	58,542	55,491	2,531	52,810	3,051	5.2	16,634
1979.....	78,397	61,466	78.4	59,517	56,499	2,645	53,854	3,018	5.1	15,931
1980.....	79,642	62,088	78.0	60,145	55,988	2,664	53,324	4,157	5.9	17,554
Monthly data, seasonally adjusted ²										
1980:										
August...	79,798	62,098	77.8	60,147	55,589	2,605	52,984	4,558	7.5	17,733
September	79,897	62,278	77.9	60,320	55,754	2,726	53,028	4,556	7.5	17,513
October...	80,300	62,335	77.9	60,379	55,881	2,668	53,213	4,498	7.4	17,665
November..	80,391	62,342	77.8	60,388	55,897	2,691	53,206	4,491	7.4	17,749
December..	80,183	62,213	77.6	60,254	55,920	2,651	53,259	4,334	7.2	17,973
1981:										
January..	80,272	62,320	77.6	60,366	56,012	2,712	53,300	4,353	7.2	17,952
February..	80,346	62,288	77.5	60,338	56,045	2,586	53,459	4,293	7.1	18,053
March....	80,415	62,582	77.3	60,628	56,383	2,599	53,784	4,245	7.0	17,833
April.....	80,492	62,848	78.1	60,893	56,688	2,785	53,903	4,205	6.9	17,644
May.....	80,588	63,198	78.4	61,245	56,718	2,692	54,026	4,527	7.4	17,330
June.....	80,587	62,288	77.2	60,335	56,026	2,646	53,390	4,309	7.1	18,333
July.....	80,783	62,433	77.3	60,473	56,494	2,631	53,864	3,979	6.6	18,350
August...	80,863	62,564	77.4	60,584	56,368	2,716	53,652	4,216	7.0	18,300
Annual averages										
FEMALES										
1972 ¹	75,911	33,320	43.9	33,277	31,072	533	30,439	2,205	5.6	42,591
1973 ¹	77,242	34,561	44.7	34,510	32,446	619	31,827	2,064	6.0	42,681
1974.....	78,575	35,892	45.7	35,825	33,417	592	32,825	2,408	6.7	42,693
1975.....	79,954	37,087	46.4	36,998	33,553	579	32,973	3,445	9.3	42,858
1976.....	81,309	38,520	47.4	38,414	35,095	582	34,513	3,320	8.6	42,789
1977.....	82,577	40,067	48.5	39,952	36,685	605	36,080	3,267	3.2	42,510
1978 ¹	83,890	42,002	50.1	41,878	38,881	561	38,221	2,996	7.2	41,837
1979.....	85,223	43,531	51.1	43,391	40,446	552	39,794	2,945	6.8	41,692
1980.....	86,504	44,733	51.7	44,574	41,283	646	40,637	3,291	7.4	41,871
Monthly data, seasonally adjusted ²										
1980:										
August...	86,780	44,961	51.8	44,798	41,414	605	40,839	3,384	7.6	41,813
September	86,892	44,823	51.6	44,660	41,426	673	40,753	3,234	7.2	42,353
October...	87,006	44,953	51.7	44,788	41,325	551	40,674	3,463	7.7	42,053
November..	87,110	45,062	51.7	44,897	41,442	649	40,793	3,455	7.7	42,049
December..	87,213	44,978	51.6	44,813	41,362	743	40,619	3,451	7.7	42,235
1981:										
January..	87,313	45,349	51.9	45,178	41,684	691	40,993	3,493	7.7	41,964
February..	87,402	45,513	52.1	45,343	41,882	695	41,187	3,461	7.6	41,888
March....	87,487	45,723	52.3	45,549	42,029	677	41,352	3,519	7.7	41,754
April.....	87,578	46,003	52.5	45,829	42,288	678	41,610	3,541	7.7	41,575
May.....	87,684	46,335	52.8	46,161	42,517	661	41,856	3,644	7.9	41,349
June.....	87,793	46,020	52.4	45,842	42,366	619	41,747	3,475	7.5	41,774
July.....	87,901	46,170	52.5	45,991	42,467	627	41,840	3,524	7.7	41,732
August...	87,991	46,198	52.5	46,018	42,577	654	41,922	3,441	7.5	41,793

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

² Because seasonality, by definition, does not exist in population figures, data for "total noninstitutional population" are not seasonally adjusted.

HOUSEHOLD DATA

A-3. Employment status of the noninstitutional population by sex, age, and race

(Numbers in thousands)

Sex, age, and race	August 1981										
	Total labor force		Civilian labor force				Not in labor force				
	Number	Percent of population	Total	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
MALES											
16 years and over	63,779	78.9	61,799	57,735	4,064	6.6	17,085	346	719	1,559	14,522
16 to 21 years	9,447	75.6	8,799	7,508	1,291	14.7	3,047	38	369	31	2,539
16 to 19 years	5,644	69.0	5,374	4,507	866	16.1	2,532	27	238	21	2,245
16 to 17 years	2,313	58.1	2,300	1,910	390	17.0	1,670	17	102	7	1,544
18 to 19 years	3,331	79.4	3,074	2,598	476	15.5	862	10	135	14	732
20 to 64 years	56,286	89.9	54,578	51,422	3,155	5.8	5,352	164	480	1,186	4,522
20 to 24 years	9,462	90.3	8,702	7,690	1,012	11.6	1,017	12	255	47	693
25 to 54 years	39,763	94.4	33,815	36,916	1,898	4.9	2,371	91	208	513	1,424
25 to 29 years	9,031	94.9	8,657	8,043	614	7.1	488	14	122	58	294
30 to 34 years	3,541	95.8	3,275	7,818	457	5.5	375	18	53	77	227
35 to 39 years	6,703	95.5	5,518	6,295	223	3.4	305	18	8	30	130
40 to 44 years	5,539	95.3	5,451	5,235	216	4.0	275	10	12	94	159
45 to 49 years	4,976	93.4	4,946	4,736	211	4.3	350	5	12	125	207
50 to 54 years	4,974	89.6	4,967	4,789	177	3.6	577	26	2	203	345
55 to 64 years	7,062	70.4	7,060	6,816	245	3.5	2,965	51	7	431	2,435
55 to 59 years	4,347	81.0	4,346	4,210	136	3.1	1,022	37	6	226	753
60 to 64 years	2,715	58.3	2,715	2,606	109	4.0	1,943	24	1	255	1,652
65 years and over	1,848	18.4	1,848	1,805	43	2.3	8,200	155	--	451	7,584
65 to 69 years	1,073	27.8	1,073	1,048	24	2.3	2,786	38	--	115	2,511
70 years and over	775	12.5	775	757	18	2.4	5,415	117	--	315	4,983
White											
16 years and over	56,522	79.7	54,995	51,912	3,084	5.6	14,403	263	506	1,324	12,309
16 to 21 years	8,232	78.1	7,739	6,794	945	12.2	2,310	28	245	21	2,012
16 to 19 years	4,947	72.0	4,736	4,100	636	13.4	1,922	25	147	17	1,733
16 to 17 years	2,033	51.1	2,022	1,725	297	14.7	1,292	16	64	4	1,209
18 to 19 years	2,914	82.2	2,715	2,376	339	12.5	630	9	84	13	524
20 to 64 years	49,898	90.7	48,582	46,167	2,415	5.0	5,124	122	358	924	3,719
20 to 24 years	3,187	91.4	7,626	6,878	747	9.8	775	5	217	30	523
25 to 54 years	35,287	95.3	31,533	33,065	1,469	4.3	1,741	70	137	437	1,345
25 to 29 years	15,476	96.2	14,981	14,156	825	5.5	609	21	117	97	374
30 to 34 years	10,910	96.3	10,683	10,345	338	3.2	424	20	13	139	253
35 to 39 years	8,901	92.5	8,870	8,564	305	3.4	708	29	7	252	420
55 to 64 years	6,424	71.1	6,423	6,224	199	3.1	2,608	48	4	417	2,149
55 to 59 years	3,962	82.1	3,961	3,848	112	2.8	865	26	3	195	650
60 to 64 years	2,463	58.6	2,463	2,376	87	3.5	1,743	22	1	221	1,500
65 years and over	1,677	18.6	1,677	1,644	33	2.0	7,357	116	--	333	6,858
Black and other											
16 years and over	7,257	73.0	6,804	5,823	981	14.4	2,682	83	213	344	2,042
16 to 21 years	1,216	62.3	1,059	714	345	32.6	737	10	123	7	597
16 to 19 years	697	53.3	637	407	231	36.2	610	2	91	4	513
16 to 17 years	280	42.5	278	185	93	33.5	378	2	38	3	335
18 to 19 years	417	64.3	359	222	137	38.2	232	1	53	1	178
20 to 64 years	5,388	83.9	5,995	5,255	740	12.3	1,228	41	122	252	803
20 to 24 years	1,275	84.1	1,077	812	265	24.6	242	7	48	17	170
25 to 54 years	4,476	87.7	4,282	3,851	429	10.0	530	21	70	161	376
25 to 29 years	2,096	89.2	1,952	1,706	246	12.6	254	12	57	39	147
30 to 34 years	1,332	89.5	1,286	1,185	101	7.9	156	8	7	15	37
35 to 44 years	1,048	82.7	1,044	961	83	7.9	219	2	6	79	133
55 to 64 years	637	64.1	637	592	46	7.2	358	13	3	34	256
55 to 59 years	385	71.0	385	362	24	6.1	157	11	3	40	134
60 to 64 years	252	55.7	252	230	22	8.7	200	3	--	44	153
65 years and over	171	16.3	171	161	10	5.8	843	39	--	73	725

HOUSEHOLD DATA

A-3. Employment status of the noninstitutional population by sex, age, and race—Continued

(Numbers in thousands)

Sex, age, and race	August 1981										
	Total labor force		Civilian labor force				Not in labor force				
	Number	Percent of population	Total	Employed	Unemployed		Total	Keeping house	Going to school	Unable to work	Other reasons
					Number	Percent of labor force					
FEMALES											
16 years and over	45,152	52.5	45,972	42,278	3,694	8.3	41,839	31,689	321	1,071	3,256
16 to 21 years	7,857	64.3	7,788	6,617	1,171	15.0	4,368	1,427	504	13	2,413
16 to 19 years	4,762	59.6	4,733	3,944	790	16.7	3,230	790	339	14	2,087
16 to 17 years	1,947	50.5	1,946	1,596	350	18.0	1,911	299	144	4	1,465
18 to 19 years	2,816	68.1	2,788	2,348	440	15.8	1,319	491	195	10	522
20 to 64 years	40,263	61.4	40,112	37,249	2,863	7.1	25,345	21,279	477	516	3,075
20 to 24 years	7,554	72.2	7,467	6,635	832	11.1	2,910	2,033	271	14	591
25 to 54 years	23,124	64.0	23,060	26,199	1,860	6.6	15,817	13,829	197	244	1,543
25 to 29 years	6,508	67.0	6,464	5,908	556	8.6	3,199	2,778	94	20	306
30 to 34 years	5,907	64.5	5,893	5,439	454	7.7	3,250	2,864	45	32	309
35 to 39 years	4,810	65.4	4,806	4,534	272	5.7	2,544	2,224	35	25	253
40 to 44 years	4,008	65.0	4,007	3,763	244	6.1	2,161	1,895	11	31	225
45 to 49 years	3,498	62.1	3,497	3,289	209	6.0	2,136	1,911	6	55	153
50 to 54 years	3,392	57.3	3,392	3,266	126	3.7	2,527	2,156	6	30	295
55 to 64 years	4,586	40.9	4,586	4,415	171	3.7	6,620	5,417	9	257	936
55 to 59 years	2,947	49.8	2,947	2,833	114	3.9	2,967	2,472	6	131	357
60 to 64 years	1,638	31.0	1,638	1,582	57	3.5	3,653	2,945	3	126	579
65 years and over	1,127	7.3	1,127	1,085	41	3.7	13,263	9,620	5	544	3,094
65 to 69 years	698	14.5	698	666	31	4.5	4,105	3,178	--	33	827
70 years and over	429	4.5	429	419	10	2.3	9,153	6,441	4	445	2,267
White											
16 years and over	39,821	52.2	39,691	36,958	2,733	6.9	36,486	28,162	553	944	6,927
16 to 21 years	6,923	67.7	6,874	6,019	855	12.4	3,309	1,092	328	3	1,330
16 to 19 years	4,247	63.7	4,227	3,621	606	14.3	2,423	599	213	7	1,615
16 to 17 years	1,729	54.0	1,729	1,468	261	15.1	1,475	218	85	1	1,170
18 to 19 years	2,518	72.6	2,498	2,153	345	13.8	949	371	128	5	444
20 to 64 years	34,578	61.1	34,468	32,376	2,092	6.1	22,044	18,712	336	407	2,589
20 to 24 years	6,505	73.8	6,442	5,863	579	9.0	2,304	1,641	184	12	467
25 to 54 years	24,012	63.5	23,965	22,598	1,366	5.7	13,780	12,140	143	135	1,332
25 to 34 years	10,466	65.2	10,424	9,708	716	6.9	5,597	4,935	102	42	518
35 to 44 years	7,553	64.7	7,548	7,162	387	5.1	4,114	3,631	29	45	408
45 to 54 years	5,993	59.6	5,992	5,728	264	4.4	4,069	3,574	12	137	375
55 to 64 years	4,061	40.5	4,061	3,914	147	3.6	5,959	4,931	9	133	820
55 to 59 years	2,626	49.8	2,626	2,528	99	3.9	2,647	2,228	6	100	313
60 to 64 years	1,435	30.2	1,435	1,386	48	3.4	3,313	2,703	3	99	508
65 years and over	996	7.7	996	961	35	3.5	12,019	8,862	4	330	2,723
Black and other											
16 years and over	6,331	54.2	6,281	5,320	961	15.3	5,353	3,526	268	230	1,329
16 to 21 years	934	46.9	914	598	316	34.6	1,059	335	176	10	538
16 to 19 years	515	39.0	507	323	184	36.3	805	201	126	7	472
16 to 17 years	217	33.2	217	128	89	41.1	437	81	58	3	294
18 to 19 years	298	44.6	289	195	94	32.6	370	120	68	4	179
20 to 64 years	5,586	63.3	5,645	4,873	770	13.6	3,303	2,568	141	109	486
20 to 24 years	1,049	63.4	1,025	772	253	24.7	606	392	87	2	124
25 to 54 years	4,112	66.9	4,095	3,601	495	12.1	2,037	1,689	53	49	245
25 to 34 years	1,949	69.5	1,933	1,639	294	15.2	852	708	37	10	97
35 to 44 years	1,266	68.2	1,265	1,135	130	10.2	591	488	17	10	75
45 to 54 years	898	60.2	898	827	71	7.9	594	493	--	28	72
55 to 64 years	524	44.3	524	501	24	4.5	661	486	1	59	115
55 to 59 years	321	50.1	321	306	15	4.8	320	244	1	31	45
60 to 64 years	203	37.4	203	195	8	4.1	340	242	--	27	71
65 years and over	130	9.5	130	124	7	5.1	1,244	757	1	114	371

HOUSEHOLD DATA

A-4. Labor force by sex, age, and race

Sex, age, and race	Total labor force				Civilian labor force			
	Thousands of persons		Participation rates		Thousands of persons		Participation rates	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
MALES								
16 years and over	53,301	63,779	79.3	78.9	61,350	61,793	78.8	78.3
16 to 19 years	5,862	5,644	70.1	69.0	5,585	5,374	69.0	58.0
16 to 17 years	2,444	2,313	59.5	58.1	2,425	2,300	59.4	57.9
18 to 19 years	3,418	3,331	80.2	79.4	3,159	3,074	78.9	78.1
20 to 24 years	9,359	9,462	90.1	90.3	8,613	8,702	89.4	89.5
25 to 54 years	38,968	39,763	94.4	94.4	38,036	38,815	94.3	94.2
25 to 34 years	17,044	17,572	95.6	95.3	16,425	16,932	95.4	95.1
35 to 44 years	11,938	12,241	95.6	95.5	11,653	11,969	95.5	95.4
45 to 54 years	9,987	9,949	91.3	91.5	9,950	9,913	91.3	91.5
55 to 64 years	7,202	7,052	72.6	70.4	7,201	7,050	72.6	70.4
55 to 59 years	4,400	4,347	81.9	81.0	4,399	4,345	81.9	81.0
60 to 64 years	2,803	2,715	61.6	58.3	2,803	2,715	61.6	58.3
65 years and over	1,909	1,848	19.4	18.4	1,909	1,848	19.4	18.4
White								
16 years and over	56,148	56,522	80.1	79.7	54,637	54,995	79.6	79.2
16 to 19 years	5,162	4,947	73.1	72.0	4,951	4,736	72.3	71.1
16 to 17 years	2,184	2,033	63.4	61.1	2,169	2,022	63.3	61.0
18 to 19 years	2,978	2,914	82.4	82.2	2,783	2,715	81.3	81.2
20 to 24 years	8,084	8,187	90.8	91.4	7,533	7,525	90.2	90.3
25 to 54 years	34,578	35,287	95.2	95.3	33,830	34,533	95.1	95.2
25 to 34 years	15,011	15,476	96.2	96.2	14,525	14,981	96.1	96.1
35 to 44 years	10,633	10,910	96.3	96.3	10,404	10,633	96.2	96.2
45 to 54 years	8,934	8,901	92.3	92.6	8,902	8,870	92.3	92.5
55 to 64 years	6,579	6,424	73.4	71.1	6,578	6,423	73.4	71.1
55 to 59 years	4,017	3,962	83.0	82.1	4,016	3,961	83.0	82.1
60 to 64 years	2,562	2,463	62.2	58.6	2,562	2,463	62.2	58.5
65 years and over	1,745	1,577	19.7	18.6	1,745	1,577	19.7	18.5
Black and other								
16 years and over	7,153	7,257	73.9	73.0	6,712	6,804	72.7	71.7
16 to 19 years	700	697	53.5	53.3	633	637	51.0	51.1
16 to 17 years	260	290	39.3	42.5	257	278	39.0	42.4
18 to 19 years	440	417	68.0	64.3	376	359	64.5	60.7
20 to 24 years	1,275	1,275	85.9	84.1	1,035	1,077	83.8	81.7
25 to 54 years	4,390	4,476	89.1	87.7	4,206	4,282	88.7	87.2
25 to 34 years	2,033	2,096	91.3	89.2	1,900	1,952	90.7	88.5
35 to 44 years	1,305	1,332	90.3	89.5	1,259	1,286	90.0	89.2
45 to 54 years	1,053	1,048	83.8	82.7	1,048	1,044	83.8	82.7
55 to 64 years	623	637	64.5	64.1	623	537	64.5	54.1
55 to 59 years	383	385	71.9	71.0	333	385	71.9	71.0
60 to 64 years	241	252	55.4	55.7	241	252	55.4	55.7
65 years and over	164	171	16.5	16.8	164	171	16.5	16.8

HOUSEHOLD DATA

A-4. Labor force by sex, age, and race—Continued

Sex, age, and race	Total labor force				Civilian labor force			
	Thousands of persons		Participation rates		Thousands of persons		Participation rates	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
FEMALES								
16 years and over	44,939	46,152	51.8	52.5	44,777	45,972	51.7	52.4
16 to 19 years	4,880	4,752	59.7	59.6	4,852	4,733	59.6	59.4
16 to 17 years	1,996	1,947	50.3	50.5	1,995	1,946	50.3	50.4
18 to 19 years	2,884	2,816	68.6	68.1	2,857	2,789	68.4	67.9
20 to 24 years	7,420	7,554	71.5	72.2	7,341	7,467	71.3	72.0
25 to 54 years	26,977	28,124	62.7	64.0	26,921	28,050	62.6	64.0
25 to 34 years	11,736	12,415	64.4	65.8	11,686	12,357	64.3	65.7
35 to 44 years	8,366	8,818	63.4	65.2	8,352	8,813	63.4	65.2
45 to 54 years	6,874	6,890	59.1	59.6	6,873	6,889	59.1	59.5
55 to 64 years	4,546	4,585	41.0	40.9	4,546	4,585	41.0	40.9
55 to 59 years	2,821	2,947	47.7	49.8	2,821	2,947	47.7	49.8
60 to 64 years	1,725	1,638	33.3	31.0	1,725	1,638	33.3	31.0
65 years and over	1,117	1,127	7.9	7.8	1,117	1,127	7.9	7.3
White								
16 years and over	38,691	39,821	51.3	52.2	38,571	39,691	51.2	52.1
16 to 19 years	4,309	4,247	62.9	63.7	4,288	4,227	62.8	63.6
16 to 17 years	1,767	1,729	53.3	54.0	1,766	1,729	53.3	54.0
18 to 19 years	2,542	2,518	71.9	72.6	2,523	2,498	71.7	72.5
20 to 24 years	6,383	6,505	73.0	73.8	6,325	6,442	72.8	73.7
25 to 54 years	22,978	24,012	61.9	63.5	22,936	23,965	61.9	63.5
25 to 34 years	9,863	10,466	63.3	65.2	9,825	10,424	63.2	65.1
35 to 44 years	7,164	7,553	62.9	64.7	7,150	7,543	62.9	64.7
45 to 54 years	5,951	5,993	58.6	59.6	5,950	5,992	58.6	59.6
55 to 64 years	4,039	4,051	40.6	40.5	4,039	4,051	40.5	40.5
55 to 59 years	2,501	2,626	47.3	49.8	2,501	2,625	47.3	49.8
60 to 64 years	1,538	1,435	33.0	30.2	1,538	1,435	33.0	30.2
65 years and over	982	995	7.7	7.7	982	995	7.7	7.7
Black and other								
16 years and over	6,248	6,331	55.0	54.2	6,205	6,291	54.8	54.0
16 to 19 years	572	515	43.2	39.0	564	507	42.8	38.5
16 to 17 years	230	217	34.9	33.2	229	217	34.9	33.2
18 to 19 years	342	298	51.3	44.6	334	289	50.7	43.9
20 to 24 years	1,037	1,049	63.9	63.4	1,016	1,025	63.4	62.9
25 to 54 years	3,999	4,112	67.4	66.9	3,985	4,095	67.3	66.8
25 to 34 years	1,873	1,949	70.4	69.6	1,850	1,933	70.2	69.4
35 to 44 years	1,202	1,266	66.8	68.2	1,201	1,255	66.8	68.2
45 to 54 years	924	898	62.6	60.2	924	898	62.6	60.2
55 to 64 years	507	524	44.1	44.3	507	524	44.1	44.3
55 to 59 years	320	321	51.2	50.1	320	321	51.2	50.1
60 to 64 years	187	203	35.6	37.4	187	203	35.6	37.4
65 years and over	134	130	10.1	9.5	134	130	10.1	9.5

HOUSEHOLD DATA

A-5. Employment status of black workers by sex and age

(Numbers in thousands)

Sex and age	August 1981						
	Civilian labor force						Not in labor force
	Total	Employed			Unemployed		
		Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
TOTAL							
16 years and over	11,001	9,220	169	9,051	1,781	16.2	5,852
16 to 19 years	978	584	30	554	395	40.3	1,248
16 to 17 years	422	247	14	233	175	41.5	721
18 to 19 years	556	337	16	321	219	39.4	527
20 to 24 years	1,805	1,335	16	1,319	470	26.1	697
25 to 54 years	6,964	5,126	82	6,044	833	12.0	2,233
25 to 34 years	3,225	2,734	25	2,709	491	15.2	372
35 to 44 years	2,125	1,921	31	1,890	205	9.6	635
45 to 54 years	1,613	1,471	26	1,446	142	8.8	635
55 to 64 years	1,008	944	26	918	64	6.3	935
55 to 59 years	598	563	11	552	35	5.8	412
60 to 64 years	410	381	15	367	29	7.0	473
65 years and over	246	231	15	216	14	5.9	1,319
Males							
16 years and over	5,687	4,792	139	4,653	895	15.7	2,312
16 to 19 years	539	324	21	303	216	40.1	541
16 to 17 years	234	145	11	134	89	38.0	338
18 to 19 years	305	179	11	168	126	41.3	203
20 to 24 years	918	681	13	668	237	25.8	191
25 to 54 years	3,553	3,160	70	3,090	393	11.1	543
25 to 34 years	1,611	1,386	21	1,365	225	14.0	233
35 to 44 years	1,072	981	28	953	92	8.6	143
45 to 54 years	869	792	20	772	77	8.9	199
55 to 64 years	549	507	22	485	42	7.7	313
55 to 59 years	323	302	8	294	21	6.5	138
60 to 64 years	226	205	14	192	21	9.3	175
65 years and over	129	120	13	107	7	5.4	724
Females							
16 years and over	5,314	4,428	30	4,398	886	16.7	4,540
16 to 19 years	439	260	9	251	179	40.8	707
16 to 17 years	188	102	3	99	85	45.8	333
18 to 19 years	251	158	5	153	93	37.0	324
20 to 24 years	887	654	3	651	233	26.3	506
25 to 54 years	3,411	2,965	12	2,954	445	13.0	1,550
25 to 34 years	1,614	1,348	4	1,344	266	16.5	672
35 to 44 years	1,053	940	3	936	113	10.8	492
45 to 54 years	744	679	6	674	65	8.7	436
55 to 64 years	459	437	4	433	22	4.7	572
55 to 59 years	275	261	3	258	14	5.1	274
60 to 64 years	184	176	1	175	8	4.3	298
65 years and over	117	111	2	109	7	5.6	1,095

NOTE: Data relate to black workers only. In the 1970 census, they constituted about 89 percent of the "black and other" population group.

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

[Numbers in thousands]

Employment status and race	Total		Males, 20 years and over		Females, 20 years and over		Both sexes, 16-19 years	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
TOTAL								
Total noninstitutional population	166,578	169,855	71,430	72,687	78,607	79,999	16,541	15,159
Total labor force	108,240	109,931	57,439	58,134	40,059	41,390	10,742	10,407
Percent of population	65.0	65.1	80.4	80.0	51.0	51.7	64.9	68.4
Civilian labor force	106,126	107,771	55,765	56,426	39,925	41,239	10,437	10,107
Employed	98,115	100,013	52,308	53,227	37,091	38,334	8,716	8,451
Agriculture	3,636	3,808	2,455	2,553	551	705	530	550
Nonagricultural industries	94,480	96,205	49,853	50,675	36,440	37,629	8,186	7,901
Unemployed	8,011	7,758	3,457	3,198	2,833	2,904	1,720	1,655
Percent of labor force	7.5	7.2	6.2	5.7	7.1	7.0	16.5	15.4
Not in labor force	58,338	58,924	13,991	14,552	38,548	38,609	5,799	5,752
White								
Total noninstitutional population	145,530	147,232	63,060	64,056	63,562	69,636	13,908	13,540
Total labor force	94,839	96,343	50,986	51,575	34,382	35,574	9,471	9,134
Percent of population	65.2	65.4	80.9	80.5	50.1	51.1	68.1	67.9
Civilian labor force	93,208	94,686	49,686	50,259	34,283	35,464	9,240	8,953
Employed	86,937	88,870	46,964	47,811	32,334	33,337	7,878	7,721
Agriculture	3,358	3,562	2,269	2,384	604	663	495	515
Nonagricultural industries	83,568	85,307	44,695	45,427	31,490	32,674	7,384	7,235
Unemployed	6,272	5,816	2,721	2,448	2,139	2,127	1,361	1,242
Percent of labor force	5.7	6.1	5.5	4.9	6.4	5.0	14.7	13.9
Not in labor force	50,692	50,889	12,075	12,481	34,180	34,063	4,437	4,415
Black and other								
Total noninstitutional population	21,048	21,623	8,370	8,631	10,045	10,363	2,633	2,529
Total labor force	13,401	13,588	6,453	6,559	5,676	5,816	1,272	1,212
Percent of population	63.7	62.8	77.1	76.0	56.5	56.1	48.3	46.1
Civilian labor force	12,918	13,085	6,079	6,166	5,642	5,775	1,197	1,144
Employed	11,179	11,143	5,343	5,416	4,997	4,997	838	730
Agriculture	267	246	185	169	46	43	36	34
Nonagricultural industries	10,911	10,897	5,158	5,247	4,951	4,954	802	535
Unemployed	1,739	1,942	736	750	645	777	359	414
Percent of labor force	13.5	14.8	12.1	12.2	11.4	13.5	30.0	36.2
Not in labor force	7,647	8,035	1,917	2,071	4,369	4,547	1,361	1,417

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A-7. Employment status of the noninstitutional population 16 to 21 years of age by major activity, sex, and race

(Numbers in thousands)

Employment status and major activity	August 1991								
	Total			White			Black and other		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
TOTAL									
Total noninstitutional population	24,720	12,495	12,226	20,774	10,542	10,232	3,945	1,953	1,994
Total labor force	17,305	9,447	7,857	15,155	8,232	6,923	2,150	1,215	934
Percent of population	70.0	75.6	64.3	72.9	78.1	57.7	54.5	62.3	45.9
Civilian labor force	16,587	8,799	7,788	14,613	7,739	6,874	1,973	1,053	914
Employed	14,125	7,508	6,617	12,813	6,794	6,019	1,312	714	598
Agriculture	775	640	135	731	607	124	43	32	11
Nonagricultural industries	13,351	6,868	6,482	12,082	6,187	5,895	1,269	682	587
Unemployed	2,461	1,291	1,171	1,800	945	855	661	345	316
Looking for full-time work	1,673	913	760	1,183	652	531	483	261	228
Looking for part-time work	789	378	411	617	293	324	172	84	88
Percent of labor force	14.8	14.7	15.0	12.3	12.2	12.4	33.5	32.5	34.5
Not in labor force	7,415	3,047	4,368	5,519	2,310	3,303	1,795	737	1,059
Major activity: going to school									
Civilian labor force	224	129	95	194	110	84	30	19	11
Employed	161	90	71	145	81	65	15	10	7
Agriculture	8	4	4	6	3	4	1	1	--
Nonagricultural industries	154	86	67	139	78	61	15	9	7
Unemployed	62	39	24	49	29	20	14	9	4
Looking for full-time work	23	18	5	16	13	3	7	5	2
Looking for part-time work	39	21	18	33	15	17	5	5	2
Percent of labor force	27.9	29.9	25.1	25.2	26.5	23.5	(1)	(1)	(1)
Not in labor force	874	369	504	575	246	328	299	123	175
Major activity: other									
Civilian labor force	16,363	8,670	7,693	14,419	7,529	6,890	1,944	1,033	903
Employed	13,964	7,418	6,546	12,668	6,713	5,955	1,296	704	591
Agriculture	757	636	131	725	605	120	42	31	11
Nonagricultural industries	13,197	6,782	6,415	11,943	6,109	5,835	1,254	674	580
Unemployed	2,399	1,252	1,147	1,751	916	835	648	335	312
Looking for full-time work	1,649	895	754	1,167	639	528	482	255	226
Looking for part-time work	750	357	393	584	277	307	166	80	86
Percent of labor force	14.7	14.4	14.9	12.1	12.0	12.3	33.3	32.3	34.5
Not in labor force	6,542	2,678	3,864	5,345	2,364	2,981	1,497	614	883

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

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A-8. Full- and part-time status of the civilian labor force by sex, age, and race

[Numbers in thousands]

Sex, age, and race	August 1981								
	Full-time labor force				Part-time labor force				
	Total	Employed		Unemployed (looking for full-time work)		Total	Employed on voluntary part time ¹	Unemployed (looking for part-time work)	
		Full-time schedules ¹	Part-time for economic reasons	Number	Percent of full-time labor force			Number	Percent of part-time labor force
TOTAL									
Both sexes, 16 years and over.....	94,328	82,815	5,163	6,350	5.7	13,443	12,035	1,408	10.5
16 to 21 years.....	12,626	9,331	1,922	1,673	13.2	3,951	3,172	779	19.9
16 to 19 years.....	6,967	5,555	1,417	995	14.3	3,140	2,479	651	21.0
16 to 17 years.....	2,304	1,322	700	282	12.2	1,942	1,484	458	23.6
18 to 19 years.....	4,663	3,233	717	713	15.3	1,198	995	202	16.9
20 years and over.....	87,361	78,250	3,746	5,355	6.1	10,304	9,556	748	7.3
20 to 24 years.....	14,533	11,889	1,022	1,622	11.2	1,636	1,414	222	13.6
25 years and over.....	72,828	66,370	2,724	3,734	5.1	8,657	8,142	525	6.1
25 to 54 years.....	61,114	55,486	2,252	3,377	5.5	5,759	5,377	382	5.6
55 years and over.....	11,713	10,884	472	357	3.0	2,908	2,765	143	4.9
Males, 16 years and over.....	57,898	51,776	2,604	3,518	5.1	3,931	3,354	577	14.0
16 to 21 years.....	7,080	5,156	1,011	913	12.9	1,718	1,341	378	22.3
16 to 19 years.....	3,927	2,628	768	531	13.5	1,447	1,111	335	23.2
20 years and over.....	53,971	49,149	1,836	2,987	5.5	2,455	2,243	211	8.6
20 to 24 years.....	8,205	6,723	537	945	11.5	498	430	53	13.6
25 years and over.....	45,767	42,425	1,298	2,042	4.5	1,957	1,813	143	7.3
25 to 54 years.....	38,063	35,159	1,083	1,820	4.8	752	674	78	10.4
55 years and over.....	7,704	7,266	215	223	2.9	1,235	1,140	53	5.4
Females, 16 years and over.....	36,433	31,338	2,559	2,832	7.8	9,512	8,680	832	9.0
16 to 21 years.....	5,545	3,874	911	760	13.7	2,243	1,832	411	19.3
16 to 19 years.....	3,040	1,927	649	465	15.3	1,633	1,368	325	19.2
20 years and over.....	33,393	29,111	1,911	2,368	7.1	7,879	7,312	537	6.8
20 to 24 years.....	6,329	5,166	485	677	10.7	1,138	984	155	13.6
25 years and over.....	27,060	23,945	1,426	1,691	5.2	6,710	6,328	382	5.7
25 to 54 years.....	23,052	20,327	1,168	1,556	6.7	5,007	4,703	304	5.1
55 years and over.....	4,008	3,517	257	135	3.4	1,733	1,625	73	4.6
White									
Males, 16 years and over.....	51,551	46,701	2,190	2,660	5.2	3,444	3,020	424	12.3
16 to 21 years.....	6,222	4,711	858	652	13.5	1,518	1,224	293	19.3
16 to 19 years.....	3,474	2,447	649	378	10.9	1,262	1,004	258	20.5
20 years and over.....	48,077	44,254	1,541	2,282	4.7	2,192	2,016	155	7.6
20 to 24 years.....	7,171	6,008	471	692	9.7	455	400	55	12.1
25 years and over.....	40,907	38,246	1,070	1,589	3.9	1,727	1,617	111	5.4
25 to 54 years.....	33,894	31,598	886	1,411	4.2	639	581	58	9.1
55 years and over.....	7,013	6,649	184	179	2.6	1,037	1,035	53	4.9
Females, 16 years and over.....	30,946	25,792	2,125	2,028	5.6	8,745	8,040	705	8.1
16 to 21 years.....	4,846	3,530	785	531	11.0	2,028	1,708	324	15.0
16 to 19 years.....	2,696	1,775	565	355	13.2	1,531	1,280	251	15.4
20 years and over.....	28,250	25,017	1,560	1,673	5.9	7,214	6,760	454	6.3
20 to 24 years.....	5,395	4,545	399	452	8.4	1,047	920	127	12.1
25 years and over.....	22,855	20,473	1,162	1,221	5.3	6,157	5,840	327	5.3
25 to 54 years.....	19,322	17,240	970	1,112	5.8	4,642	4,388	254	5.5
55 years and over.....	3,533	3,232	191	109	3.1	1,525	1,452	73	4.8
Black and other									
Males, 16 years and over.....	6,347	5,075	414	858	13.5	457	334	123	26.9
16 to 21 years.....	859	445	153	261	30.4	201	116	84	42.0
16 to 19 years.....	453	181	119	153	33.8	184	107	77	42.0
20 years and over.....	5,894	4,894	295	705	12.0	273	227	45	15.9
20 to 24 years.....	1,034	715	66	252	24.4	43	30	13	(2)
25 years and over.....	4,860	4,179	228	453	9.3	230	197	32	13.9
25 to 54 years.....	4,169	3,561	198	409	9.8	113	92	21	19.5
55 years and over.....	691	617	31	44	5.4	117	105	12	10.3
Females, 16 years and over.....	5,484	4,246	434	804	14.7	797	640	157	19.7
16 to 21 years.....	699	344	127	228	32.7	215	127	88	40.7
16 to 19 years.....	345	152	83	110	31.8	152	88	74	45.7
20 years and over.....	5,139	4,094	351	694	13.5	635	552	83	13.1
20 to 24 years.....	933	622	86	225	24.1	91	64	27	30.1
25 years and over.....	4,206	3,472	264	468	11.1	543	489	55	13.1
25 to 54 years.....	3,730	3,087	198	444	11.9	355	315	50	13.7
55 years and over.....	476	385	66	25	5.3	178	173	5	2.8

¹ Employed persons with a job but not at work are distributed proportionately among the full- and part-time employed categories.

² Percent not shown where base is less than 75,000.

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A-9. Employment status of the noninstitutional population by family relationship

[Numbers in thousands]

Family relationship	August 1981									
	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	107,771	64.7	100,013	7,758	7.2	58,924	32,034	1,540	2,742	22,607
Husbands	38,959	80.5	37,547	1,412	3.6	9,453	129	99	1,014	8,211
With employed wife	20,765	91.9	20,022	743	3.6	1,841	46	51	378	1,367
With unemployed wife	1,332	93.1	1,196	136	10.2	99	3	3	21	72
With wife not in labor force	16,861	69.2	16,329	532	3.2	7,513	80	45	615	6,772
Wives	24,037	49.7	22,606	1,431	6.0	24,374	21,425	125	301	2,524
With employed husband	21,218	56.5	20,022	1,196	5.6	16,329	14,817	96	114	1,301
With unemployed husband	879	62.3	743	136	15.5	532	479	6	10	38
With husband not in labor force	1,940	20.5	1,841	99	5.1	7,513	6,128	23	177	1,185
Relatives in married-couple families	14,955	69.5	13,114	1,842	12.3	6,552	986	706	301	4,559
16 to 19 years	7,083	65.4	6,133	950	13.4	3,744	275	380	19	3,070
20 to 24 years	5,367	82.1	4,739	628	11.7	1,169	145	277	29	719
25 years and over	2,505	60.4	2,242	264	10.5	1,639	566	49	253	770
Females who maintain families	5,380	58.7	4,816	564	10.5	3,792	3,007	59	141	586
Relatives in families maintained by females	4,795	60.3	3,768	1,028	21.4	3,158	859	280	240	1,779
16 to 19 years	1,550	54.3	1,101	449	29.0	1,304	188	144	8	964
20 to 24 years	1,516	76.6	1,180	336	22.2	462	144	94	17	207
25 years and over	1,729	55.4	1,487	243	14.1	1,392	527	42	215	608
Males who maintain families	1,727	74.8	1,607	121	7.0	582	33	13	79	457
Relatives in families maintained by males	1,523	61.9	1,301	223	14.6	938	437	54	58	390
16 to 19 years	386	63.6	306	80	20.6	221	29	22	2	168
20 to 24 years	435	80.7	369	67	15.3	104	45	21	5	33
25 years and over	702	53.3	626	76	10.8	613	363	11	51	189
Persons living alone	10,167	53.8	9,585	581	5.7	8,741	4,756	80	507	3,398
Males	5,327	71.9	4,984	342	6.4	2,086	112	51	211	1,712
Females	4,840	42.1	4,601	239	4.9	6,655	4,643	30	296	1,686
All others ¹	6,228	82.4	5,669	556	8.9	1,334	402	124	101	703

¹ The majority of these persons are living with nonrelatives. Also included are persons in married-couple families where the husband is in the Armed Forces, persons in secondary families, and some whose family status is unknown.

A-10. Unemployed persons by marital status, race, age, and sex

Marital status, race, and age	Males				Females			
	Thousands of persons		Unemployment rates		Thousands of persons		Unemployment rates	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
	Total, 16 years and over	4,375	4,064	7.1	6.6	3,636	3,694	8.1	8.0
Married, spouse present	1,828	1,501	4.6	3.8	1,660	1,486	6.9	5.1
Widowed, divorced, or separated	447	470	8.6	8.7	668	773	7.9	8.7
Single (never married)	2,100	2,094	12.9	12.7	1,308	1,435	10.5	11.3
White, 16 years and over	3,451	3,084	6.3	5.6	2,821	2,733	7.3	5.9
Married, spouse present	1,533	1,234	4.2	3.4	1,435	1,258	6.7	5.8
Widowed, divorced, or separated	329	336	7.6	7.6	482	529	7.1	7.4
Single (never married)	1,588	1,514	11.4	10.7	903	935	8.7	8.8
Black and other, 16 years and over	924	981	13.8	14.4	815	961	13.1	15.3
Married, spouse present	295	267	8.3	7.6	224	218	8.6	8.7
Widowed, divorced, or separated	118	134	13.8	14.2	185	244	11.4	11.0
Single (never married)	511	579	22.1	24.7	405	499	20.5	24.4
Total, 20 to 64 years of age	3,391	3,155	6.3	5.8	2,799	2,863	7.2	7.1
Married, spouse present	1,758	1,456	4.6	3.8	1,580	1,417	5.9	5.0
Widowed, divorced, or separated	431	461	8.8	9.0	628	723	8.1	8.8
Single (never married)	1,203	1,238	11.2	11.0	592	724	7.6	8.8
White, 20 to 64 years of age	2,674	2,415	5.6	5.0	2,165	2,092	6.5	5.1
Married, spouse present	1,476	1,195	4.2	3.4	1,362	1,202	6.6	5.7
Widowed, divorced, or separated	319	329	7.8	7.7	452	493	7.3	7.5
Single (never married)	879	890	9.7	9.3	352	403	5.5	5.0
Black and other, 20 to 64 years of age	717	740	12.1	12.3	635	770	11.5	13.6
Married, spouse present	281	261	8.2	7.7	219	215	8.5	8.8
Widowed, divorced, or separated	113	131	13.8	14.6	175	235	11.4	14.2
Single (never married)	323	348	19.3	20.5	240	321	16.8	20.7

A-11. Unemployed persons by occupation and sex

Occupation	Thousands of persons		Unemployment rates					
			Total		Males		Females	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
Total, 16 years and over	8,011	7,758	7.5	7.2	7.1	6.6	8.1	8.0
White-collar workers	2,127	2,241	4.0	4.2	2.6	2.7	5.3	5.4
Professional and technical	495	513	3.2	3.2	2.2	2.3	4.5	4.3
Managers and administrators, except farm	255	285	2.2	2.4	1.7	1.9	3.6	4.1
Sales workers	262	301	4.1	4.5	3.5	3.3	4.8	5.9
Clerical workers	1,116	1,141	5.8	5.9	4.7	5.0	6.0	5.1
Blue-collar workers	3,588	3,071	10.3	8.8	9.6	8.2	13.4	11.2
Craft and kindred workers	910	828	6.7	6.1	6.6	6.1	8.2	5.2
Carpenters and other construction craft workers	451	445	10.3	10.3	10.2	10.2	11.9	15.2
All other	459	382	5.0	4.1	4.8	4.1	7.8	4.8
Operatives, except transport	1,553	1,307	13.1	10.9	12.1	10.1	14.5	12.1
Transport equipment operatives	366	296	9.6	7.9	9.3	7.7	13.8	9.7
Nonfarm laborers	760	639	13.8	11.1	14.2	11.1	10.8	11.5
Construction laborers	190	182	17.8	15.7	17.3	15.8	(1)	(1)
All other	570	457	12.8	10.0	13.3	9.8	9.4	11.5
Service workers	1,208	1,282	8.4	8.8	8.5	9.2	8.3	3.5
Private household	50	60	4.7	5.6	(1)	(1)	4.5	5.5
All other	1,158	1,222	8.7	9.1	8.5	9.2	8.8	9.0
Farm workers	135	142	4.3	4.4	3.6	3.6	7.5	7.4
No previous work experience	952	1,022	--	--	--	--	--	--
16 to 19 years	699	781	--	--	--	--	--	--
20 to 24 years	148	162	--	--	--	--	--	--
25 years and over	107	79	--	--	--	--	--	--

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

A-12. Unemployed persons by industry and sex

Industry	Percent distribution		Unemployment rates					
			Total		Males		Females	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
Total, 16 years and over	100.0	100.0	7.5	7.2	7.1	6.6	8.1	8.0
Nonagricultural private wage and salary workers	74.3	71.4	7.6	5.9	7.5	6.6	7.9	7.4
Mining	.8	.8	5.9	5.7	5.7	5.5	7.2	5.5
Construction	8.3	8.5	12.7	12.4	13.0	12.8	9.1	3.5
Manufacturing	26.7	20.9	9.2	7.0	8.3	6.0	11.1	9.0
Durable goods	18.0	12.0	10.4	6.7	9.8	6.1	12.1	8.5
Lumber and wood products	1.1	.7	13.5	7.3	14.4	5.4	7.7	12.5
Furniture and fixtures	.7	.5	10.1	8.0	8.4	6.6	14.2	11.3
Stone, clay, and glass products	.7	.6	9.2	6.4	8.5	6.9	12.4	4.2
Primary metal industries	2.1	1.1	13.1	7.1	12.8	5.9	15.4	3.2
Fabricated metal products	2.2	1.6	11.1	8.3	9.9	6.7	15.6	13.7
Machinery, except electrical equipment	2.6	2.2	7.4	5.7	7.5	4.9	7.3	3.5
Electrical equipment	2.4	1.8	7.8	5.7	5.5	4.0	10.5	7.3
Transportation equipment	4.5	2.6	14.9	8.7	14.4	8.3	17.5	10.7
Automobiles	3.6	1.9	23.1	12.6	21.7	11.4	30.1	19.1
Other transportation equipment	.9	.7	6.0	4.7	5.3	5.1	5.5	2.9
Instruments and related products	.3	.3	4.0	3.7	2.3	4.4	6.3	2.8
Other durable goods industries	1.3	.6	12.7	5.9	8.6	4.7	18.8	7.8
Nondurable goods	8.7	8.9	7.5	7.4	5.6	5.9	10.3	3.4
Food and kindred products	1.4	2.4	5.8	9.0	4.1	7.6	9.5	12.1
Textile mill products	.9	.9	8.6	8.6	5.8	7.7	11.5	9.4
Apparel and other textile products	2.2	1.8	12.4	10.3	9.3	10.0	13.2	13.4
Paper and allied products	.7	.3	7.4	3.3	6.4	2.7	11.2	5.9
Printing and publishing	1.2	1.0	6.3	5.2	5.8	4.8	7.0	5.7
Chemicals and allied products	.8	.9	5.3	5.2	5.0	3.2	6.1	9.8
Rubber and plastics products	1.0	.9	10.5	9.9	8.9	9.1	13.5	11.7
Other nondurable goods industries	.4	.6	5.0	6.4	2.9	5.1	7.1	8.4
Transportation and public utilities	3.9	3.5	5.5	4.6	5.5	5.0	5.5	3.7
Railroads and railway express	.3	.3	4.3	3.6	4.2	3.6	(1)	(1)
Other transportation	2.7	2.7	8.2	7.5	8.2	7.7	8.4	5.7
Communication and other public utilities	.8	.5	2.7	1.7	2.2	1.7	3.7	1.9
Wholesale and retail trade	18.0	19.6	7.4	7.6	5.4	5.4	8.5	3.3
Finance, insurance, and real estate	2.3	2.3	3.2	3.2	3.2	3.1	3.3	3.3
Service industries	14.4	15.8	6.4	6.5	6.2	6.2	6.5	5.7
Professional services	6.1	7.2	4.8	5.2	3.7	4.0	5.3	5.8
All other service industries	8.3	8.6	8.4	8.1	8.3	8.0	8.5	8.3
Agricultural wage and salary workers	2.2	2.4	10.5	9.9	9.1	8.5	15.5	14.8
All other classes of workers	11.6	13.0	3.7	4.0	2.8	3.1	4.8	5.2
No previous work experience	11.9	13.2	--	--	--	--	--	--

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

HOUSEHOLD DATA

A-13. Unemployed persons by reason for unemployment, sex, age, and race

Reason for unemployment	Total unemployed		Males, 20 years and over		Females, 20 years and over		Both sexes, 16 to 19 years		White		Black and other	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
NUMBER OF UNEMPLOYED												
Total unemployed, in thousands	8,011	7,758	3,457	3,198	2,833	2,904	1,723	1,656	6,272	5,815	1,739	1,942
Job losers	4,164	3,850	2,442	2,226	1,269	1,310	453	313	3,311	2,921	852	943
On layoff	1,541	1,182	977	693	546	417	118	72	1,380	959	251	223
Other job losers	2,523	2,668	1,465	1,533	723	893	335	241	1,931	1,942	591	725
Job leavers	1,023	969	398	362	455	429	171	178	872	803	152	157
Reentrants	1,872	1,920	502	521	973	1,015	397	384	1,395	1,417	478	503
New entrants	951	1,019	116	90	137	149	699	780	694	695	237	324
PERCENT DISTRIBUTION												
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	52.0	49.6	70.7	69.6	44.8	45.1	26.3	18.9	52.8	49.9	49.0	48.9
On layoff	20.5	15.2	28.3	21.7	19.3	14.3	6.8	4.4	22.0	16.5	15.0	11.5
Other job losers	31.5	34.4	42.4	47.9	25.5	30.8	19.5	14.5	30.8	33.4	34.0	37.4
Job leavers	12.8	12.5	11.5	11.3	16.0	14.8	9.9	10.8	13.9	13.8	8.7	8.6
Reentrants	23.4	24.7	14.5	16.3	34.4	35.0	23.1	23.2	22.2	24.4	27.5	25.9
New entrants	11.9	13.1	3.3	2.8	4.8	5.1	40.6	47.1	11.1	12.0	14.3	16.7
UNEMPLOYMENT RATE												
Total unemployment rate	7.5	7.2	6.2	5.7	7.1	7.0	16.5	16.4	6.7	6.1	13.5	14.9
Job loser rate ¹	3.9	3.6	4.4	3.9	3.2	3.2	4.3	3.1	3.6	3.1	5.5	7.2
Job leaver rate ¹	1.0	.9	.7	.6	1.1	1.0	1.6	1.8	.9	.8	1.2	1.3
Reentrant rate ¹	1.8	1.8	.9	.9	2.4	2.5	3.8	3.8	1.5	1.5	3.7	3.8
New entrant rate ¹	.9	.9	.2	.2	.3	.4	6.7	7.7	.7	.7	2.0	2.5

¹ Unemployment rates are calculated as a percent of the civilian labor force.

A-14. Unemployed persons by reason for unemployment, sex, age, and duration of unemployment

[Percent distribution]

Reason, sex, and age	August 1981						
	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	7,758	100.0	40.5	34.2	25.3	10.6	14.7
Job losers	3,850	100.0	35.0	31.9	33.1	13.0	20.1
On layoff	1,182	100.0	48.4	28.4	23.1	9.3	13.3
Other job losers	2,668	100.0	29.0	33.4	37.5	14.7	22.3
Job leavers	969	100.0	46.8	30.3	22.9	12.2	10.7
Reentrants	1,920	100.0	48.9	35.5	15.5	6.1	9.5
New entrants	1,019	100.0	39.1	44.2	16.6	8.5	3.1
Males, 20 years and over	3,198	100.0	35.9	29.7	34.4	12.5	21.3
Job losers	2,226	100.0	33.6	29.0	37.3	13.7	23.7
On layoff	693	100.0	51.4	22.6	26.0	11.2	14.9
Other job losers	1,533	100.0	25.6	32.0	42.5	14.8	27.5
Job leavers	362	100.0	41.7	28.6	29.7	12.0	17.7
Reentrants	521	100.0	41.5	33.5	25.0	7.3	17.2
New entrants	90	100.0	36.5	29.5	34.1	14.5	19.6
Females, 20 years and over	2,904	100.0	43.7	34.5	21.7	10.3	11.4
Job losers	1,310	100.0	33.7	36.3	29.5	12.7	16.8
On layoff	417	100.0	40.4	37.7	21.9	8.1	13.8
Other job losers	893	100.0	30.5	36.4	33.0	14.3	18.2
Job leavers	429	100.0	49.7	30.5	19.8	12.0	7.3
Reentrants	1,015	100.0	54.4	33.5	12.1	6.0	6.1
New entrants	149	100.0	41.0	34.7	24.3	14.4	9.9
Both sexes, 16 to 19 years	1,656	100.0	43.7	42.2	14.1	7.3	5.3
Job losers	313	100.0	50.3	31.6	18.1	10.0	9.3
On layoff	72	100.0	(1)	(1)	(1)	(1)	(1)
Other job losers	241	100.0	45.5	31.7	22.8	13.3	9.5
Job leavers	178	100.0	50.0	33.1	16.8	13.3	3.5
Reentrants	384	100.0	44.6	43.7	11.7	3.7	8.0
New entrants	780	100.0	39.1	47.8	13.1	6.6	6.5

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

A-15. Unemployed jobseekers by sex, age, race, and jobsearch methods used

Sex, age, and race	August 1981								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over	7,758	6,416	27.4	5.5	74.2	32.0	14.9	4.9	1.59
16 to 19 years	1,656	1,559	21.9	3.1	78.8	24.7	13.4	3.4	1.45
20 to 24 years	1,844	1,579	32.2	4.3	75.4	34.2	16.3	4.1	1.66
25 to 34 years	2,081	1,658	30.5	6.2	73.9	35.6	16.5	4.6	1.57
35 to 44 years	956	735	25.4	8.4	72.1	32.9	14.1	5.3	1.58
45 to 54 years	723	503	26.8	7.8	66.2	34.8	14.5	8.7	1.59
55 to 64 years	415	293	23.9	9.6	65.9	31.4	12.6	9.9	1.54
65 years and over	84	77	9.1	10.4	59.7	28.5	3.9	11.7	1.23
Males, 16 years and over	4,054	3,264	30.8	5.7	74.1	29.7	16.8	5.4	1.63
16 to 19 years	866	811	23.6	3.1	77.3	23.8	15.4	3.2	1.47
20 to 24 years	1,012	843	36.3	5.0	75.6	33.7	17.7	5.0	1.73
25 to 34 years	1,071	814	37.6	5.8	75.1	32.7	17.2	5.8	1.74
35 to 44 years	440	321	28.0	10.6	69.3	27.1	18.1	8.7	1.62
45 to 54 years	388	258	24.4	8.1	68.2	29.5	18.2	13.6	1.52
55 to 64 years	245	174	25.9	9.2	64.9	30.5	14.9	12.1	1.57
65 years and over	43	43	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Females, 16 years and over	3,694	3,152	23.9	5.4	74.2	34.3	13.0	3.4	1.54
16 to 19 years	790	758	20.1	3.0	79.3	25.7	11.2	3.7	1.44
20 to 24 years	832	736	27.4	3.7	75.1	34.8	14.7	3.0	1.59
25 to 34 years	1,010	844	23.6	6.5	72.7	38.4	15.6	3.3	1.50
35 to 44 years	516	416	23.3	6.7	73.5	37.3	11.1	2.6	1.55
45 to 54 years	334	246	29.3	7.3	64.2	40.2	10.6	3.7	1.55
55 to 64 years	171	119	20.2	10.1	63.9	32.8	9.2	5.9	1.47
65 years and over	41	34	(1)	(1)	(1)	(1)	(1)	(1)	(1)
White, 16 years and over	5,815	4,712	24.7	5.6	75.0	33.6	14.7	5.2	1.60
Males	3,084	2,424	27.8	5.4	75.9	31.9	16.4	6.8	1.64
Females	2,733	2,288	21.4	5.9	76.2	35.4	13.0	3.4	1.55
Black and other, 16 years and over	1,942	1,704	34.8	5.3	68.9	27.4	15.3	4.2	1.56
Males	981	840	39.3	6.7	68.7	23.2	17.7	5.1	1.51
Females	961	864	30.4	4.1	69.1	31.5	13.0	3.4	1.51

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

waiting to begin a new wage and salary job within 30 days are not actually seeking jobs. It should also be noted that the percent using each method will always total more than 100 because many jobseekers use more than one method.

NOTE: The jobseekers total is less than the total unemployed because persons on layoff or

A-16. Unemployed jobseekers by sex, reason for unemployment, and jobsearch methods used

Sex and reason	August 1981								
	Thousands of persons		Methods used as a percent of total jobseekers						Average number of methods used
	Total unemployed	Total job-seekers	Public employment agency	Private employment agency	Employer directly	Placed or answered ads	Friends or relatives	Other	
Total, 16 years and over	7,758	6,416	27.4	5.5	74.2	32.0	14.9	4.9	1.59
Job losers	3,850	2,653	33.7	7.0	74.9	35.0	16.1	5.7	1.72
Job leavers	969	947	25.4	6.9	78.5	33.4	16.9	3.3	1.64
Reentrants	1,920	1,807	23.0	4.2	69.5	30.6	11.6	5.3	1.44
New entrants	1,019	1,009	20.5	3.0	76.5	25.1	15.6	3.4	1.44
Males, 16 years and over	4,064	3,264	30.8	5.7	74.1	29.7	16.8	5.4	1.63
Job losers	2,434	1,685	35.4	6.8	73.1	33.9	17.2	5.9	1.73
Job leavers	433	430	24.2	6.3	80.5	28.1	18.8	3.5	1.51
Reentrants	719	573	28.7	4.9	63.5	24.2	13.4	9.4	1.49
New entrants	479	477	23.5	2.7	79.7	23.7	18.0	2.5	1.50
Females, 16 years and over	3,694	3,152	23.9	5.4	74.2	34.3	13.0	3.4	1.54
Job losers	1,416	968	30.8	7.3	78.1	36.9	14.5	3.5	1.71
Job leavers	537	518	26.4	7.3	75.5	37.5	15.3	3.3	1.66
Reentrants	1,201	1,134	19.6	3.7	69.9	34.4	10.3	3.1	1.41
New entrants	540	532	17.9	3.2	73.9	26.3	13.5	4.1	1.39

NOTE: See note, table A-15.

HOUSEHOLD DATA

A-17. Unemployed persons by duration of unemployment

Duration of unemployment	Total				Full-time workers			
	Thousands of persons		Percent distribution		Thousands of persons		Percent distribution	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
Total, 16 years and over	8,011	7,758	100.0	100.0	6,789	5,350	100.0	100.0
Less than 5 weeks	3,229	3,139	40.3	40.5	2,501	2,339	35.8	36.8
5 to 14 weeks	2,883	2,655	36.0	34.2	2,477	2,175	35.5	34.3
5 to 10 weeks	2,010	1,935	25.1	24.9	1,693	1,575	24.9	24.8
11 to 14 weeks	873	720	10.9	9.3	783	602	11.5	9.5
15 weeks and over	1,898	1,964	23.7	25.3	1,811	1,835	25.7	23.9
15 to 26 weeks	987	824	12.3	10.6	930	771	13.7	12.1
27 weeks and over	912	1,141	11.4	14.7	880	1,064	13.0	15.8
27 to 51 weeks	605	576	7.6	7.4	593	539	8.7	8.5
52 weeks and over	307	565	3.8	7.3	288	525	4.2	8.3
Average (mean) duration, in weeks	12.0	13.9	--	--	13.0	15.2	--	--
Median duration, in weeks	7.5	7.3	--	--	8.3	8.2	--	--

A-18. Unemployed persons by sex, age, race, marital status, and duration of unemployment

Sex, age, race, and marital status	Thousands of persons					Average (mean) duration, in weeks	Median duration, in weeks	Less than 5 weeks as a percent of unemployed in group		15 weeks and over as a percent of unemployed in group	
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over			Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
	August 1981										
Total, 16 years and over	7,758	3,139	2,655	824	1,141	13.9	7.3	40.3	40.5	23.7	25.3
16 to 21 years	2,461	1,032	1,030	202	193	10.7	6.8	46.2	41.9	14.5	16.2
16 to 19 years	1,656	723	699	121	113	9.8	6.5	47.9	43.7	11.0	14.1
20 to 24 years	1,844	779	623	217	225	13.0	6.9	41.6	42.3	21.3	23.9
25 to 34 years	2,081	821	678	232	349	14.5	7.7	37.0	39.5	29.1	27.9
35 to 44 years	956	378	301	101	176	15.4	7.3	34.9	39.6	29.7	28.9
45 to 54 years	723	252	220	95	155	17.9	8.7	38.2	34.9	30.3	34.5
55 to 64 years	415	153	110	48	105	19.6	9.3	34.4	36.9	31.2	36.7
65 years and over	84	33	23	10	18	19.6	7.0	54.2	33.6	23.5	34.0
Males, 16 years and over	4,364	1,492	1,332	474	767	16.2	8.4	35.1	35.7	27.9	30.5
16 to 21 years	1,291	494	547	118	132	12.1	7.6	42.3	33.3	17.5	19.4
16 to 19 years	866	344	382	72	69	11.0	7.3	45.3	39.7	12.6	16.2
20 to 24 years	1,012	391	317	139	165	15.2	8.2	35.8	33.6	25.3	30.0
25 to 34 years	1,071	366	345	113	247	17.7	8.9	28.9	34.2	35.8	33.6
35 to 44 years	440	140	121	55	123	20.2	10.8	30.1	31.8	32.9	40.5
45 to 54 years	388	141	103	59	85	18.6	9.2	33.6	35.4	35.4	37.1
55 to 64 years	245	91	54	33	66	20.9	10.2	31.2	37.1	33.6	40.7
65 years and over	43	19	10	3	10	19.2	5.9	(1)	(1)	(1)	(1)
Females, 16 years and over	3,694	1,647	1,323	350	374	11.3	6.3	46.6	44.6	18.6	19.6
16 to 21 years	1,171	538	483	84	65	9.1	5.8	50.9	45.9	10.9	12.8
16 to 19 years	790	379	317	50	44	8.6	5.5	50.8	48.0	9.1	11.8
20 to 24 years	832	388	306	79	59	10.2	5.7	49.6	45.6	14.4	15.5
25 to 34 years	1,010	455	334	119	102	11.1	6.4	46.5	45.1	21.2	21.9
35 to 44 years	516	238	180	45	52	11.3	5.8	39.7	45.2	25.5	18.9
45 to 54 years	334	111	117	36	70	17.1	8.3	43.0	33.2	25.0	31.7
55 to 64 years	171	62	55	15	38	17.8	8.9	39.7	36.6	27.0	31.0
65 years and over	41	13	13	7	8	20.0	8.6	(1)	(1)	(1)	(1)
Whites, 16 years and over	5,816	2,477	1,944	589	806	13.2	6.9	41.7	42.6	22.3	24.0
Males	3,084	1,177	1,002	346	559	15.5	8.1	36.2	33.2	27.2	29.3
Females	2,733	1,300	942	243	247	10.5	5.6	48.3	47.6	17.5	18.0
Black and other, 16 years and over	1,942	662	711	234	335	16.0	8.6	35.4	34.1	25.9	29.3
Males	981	316	330	128	208	18.4	9.1	30.9	32.2	33.8	34.2
Females	961	347	381	107	127	13.5	8.1	40.5	35.1	22.5	24.3
Males, 16 years and over:											
Married, spouse present	1,501	573	386	180	362	18.5	8.7	34.6	33.2	32.9	36.2
Widowed, divorced, or separated	470	142	147	69	112	18.1	10.2	29.1	30.3	34.4	38.5
Single (never married)	2,094	777	800	224	293	14.2	7.9	36.8	37.1	22.2	24.7
Females, 16 years and over:											
Married, spouse present	1,486	595	496	144	152	11.0	5.8	48.8	45.7	19.2	19.9
Widowed, divorced, or separated	773	313	255	89	115	14.6	7.0	40.0	40.5	24.6	26.5
Single (never married)	1,435	639	571	118	107	9.9	6.3	47.1	44.5	13.8	15.6

* Percent not shown where base is less than 75,000.

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A-19. Unemployed persons by occupation, industry, and duration of unemployment

Occupation and industry	Thousands of persons					Average (mean) duration, in weeks	Median duration, in weeks	Less than 5 weeks as a percent of unemployed in group		15 weeks and over as a percent of unemployed in group	
	Total	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 weeks and over			Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
	August 1981							Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
OCCUPATION											
White-collar workers	2,241	895	848	253	246	12.4	7.2	43.1	39.9	21.6	22.3
Professional and managerial	798	267	340	75	118	14.6	8.5	38.7	33.5	22.3	23.9
Sales workers	301	128	112	31	31	11.1	6.3	37.1	42.5	23.1	20.4
Clerical workers	1,141	499	396	148	98	11.3	6.4	47.4	43.8	20.4	21.5
Blue-collar workers	3,071	1,207	900	335	629	16.4	7.9	36.1	39.3	29.9	31.4
Craft and kindred workers	828	323	240	112	153	15.0	8.4	41.1	39.0	29.3	31.9
Operatives, except transport	1,307	538	374	133	262	16.7	7.3	34.7	41.2	31.2	30.2
Transport equipment operatives	296	122	80	24	70	16.9	6.8	30.0	41.3	30.1	31.7
Nonfarm laborers	639	224	205	66	144	17.5	8.4	35.9	35.0	27.4	32.9
Service workers	1,282	566	401	141	174	12.7	6.6	45.2	44.2	21.7	24.5
INDUSTRY¹											
Agriculture	189	98	66	11	15	8.7	4.8	58.3	51.8	5.2	13.4
Construction	685	282	181	87	136	15.7	7.8	41.6	41.1	30.5	32.5
Manufacturing	1,620	642	471	172	335	16.8	7.8	32.5	39.6	33.7	31.3
Durable goods	933	352	247	110	224	19.2	8.5	31.3	37.7	35.1	35.8
Nondurable goods	687	290	224	63	111	13.5	7.1	35.8	42.2	28.7	25.3
Transportation and public utilities	306	135	79	38	54	15.3	6.8	34.8	44.0	23.7	30.1
Wholesale and retail trade	1,526	559	502	170	184	12.1	6.2	41.3	43.9	23.7	23.2
Finance and service industries	1,886	744	700	207	233	12.3	7.6	45.9	39.4	18.1	23.4
Public administration	294	86	121	30	58	15.9	9.5	43.0	29.2	22.3	29.8
No previous work experience	1,022	400	452	86	83	11.7	7.5	41.2	39.1	10.2	15.5

¹ Includes wage and salary workers only.

A-20. Employed persons by industry, age, and sex

[In thousands]

Industry and age	Total		Males		Females	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
	All industries	98,115	100,013	56,975	57,735	41,141	42,278
16 to 19 years	8,716	8,451	4,667	4,507	4,050	3,944
16 to 17 years	3,591	3,505	1,969	1,910	1,624	1,596
18 to 19 years	5,125	4,945	2,699	2,598	2,426	2,348
20 to 24 years	14,114	14,325	7,545	7,590	6,569	5,635
25 to 54 years	61,007	63,115	35,966	36,916	25,041	26,199
25 to 34 years	25,960	27,209	15,255	15,862	10,705	11,347
35 to 44 years	18,963	19,827	11,136	11,530	7,827	8,237
45 to 54 years	16,084	16,080	9,575	9,525	6,508	6,555
55 to 64 years	11,353	11,231	6,954	6,816	4,400	4,415
55 to 59 years	6,959	7,043	4,239	4,210	2,720	2,833
60 to 64 years	4,394	4,188	2,715	2,606	1,679	1,582
65 years and over	2,926	2,890	1,843	1,805	1,083	1,095
Nonagricultural industries	94,480	96,205	54,078	54,727	40,401	41,478
16 to 19 years	8,185	7,901	4,225	4,052	3,961	3,849
16 to 17 years	3,282	3,220	1,707	1,670	1,576	1,551
18 to 19 years	4,903	4,681	2,518	2,382	2,385	2,298
20 to 24 years	13,583	13,778	7,182	7,245	6,501	5,534
25 to 54 years	59,199	61,248	34,608	35,512	24,591	25,736
25 to 34 years	25,243	26,458	14,704	15,286	10,539	11,172
35 to 44 years	18,415	19,240	10,736	11,104	7,679	8,136
45 to 54 years	15,541	15,549	9,168	9,122	5,373	5,427
55 to 64 years	10,817	10,699	6,514	6,389	4,303	4,310
55 to 59 years	6,691	6,749	4,031	3,989	2,660	2,750
60 to 64 years	4,126	3,950	2,484	2,400	1,543	1,549
65 years and over	2,595	2,579	1,549	1,529	1,046	1,050
Agriculture	3,636	3,808	2,896	3,008	739	800
16 to 19 years	530	550	442	455	88	95
16 to 17 years	309	285	261	240	48	45
18 to 19 years	221	265	181	215	40	50
20 to 24 years	431	547	363	446	68	101
25 to 54 years	1,807	1,868	1,358	1,404	449	453
25 to 34 years	717	751	551	576	166	175
35 to 44 years	548	586	400	426	148	160
45 to 54 years	543	531	407	403	135	128
55 to 64 years	536	532	439	427	97	105
55 to 59 years	269	294	208	221	60	73
60 to 64 years	267	238	231	206	36	32
65 years and over	331	312	294	276	37	35

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A-21. Employed persons by occupation, sex, and age

[In thousands]

Occupation	Total		Males, 20 years and over		Females, 20 years and over		Males, 16-19 years		Females, 16-19 years	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
TOTAL	98,115	100,013	52,308	53,227	37,091	38,334	4,667	4,537	1,350	3,944
White-collar workers	50,849	51,679	23,252	23,434	24,728	25,516	765	725	2,104	2,004
Professional and technical	15,131	15,663	8,513	8,755	6,326	6,693	144	95	143	113
Health workers	2,879	3,110	965	1,011	1,889	2,080	3	2	20	15
Teachers, except college	2,559	2,610	731	741	1,804	1,852	7	3	18	14
Other professional and technical	9,693	9,943	6,817	7,003	2,633	2,761	133	31	110	93
Managers and administrators, except farm	11,354	11,464	8,364	8,291	2,860	3,052	73	53	58	58
Salaried workers	9,322	9,435	6,837	6,808	2,362	2,514	68	55	55	57
Self-employed workers in retail trade	926	940	607	610	315	323	2	6	2	--
Self-employed workers, except retail trade	1,107	1,089	920	874	183	214	3	1	--	1
Sales workers	5,118	6,350	3,042	3,165	2,362	2,495	229	245	135	115
Retail trade	3,147	3,296	950	1,018	1,596	1,583	161	135	110	101
Other industries	2,971	3,054	2,092	2,147	765	813	68	50	46	44
Clerical workers	18,246	18,202	3,333	3,223	13,181	13,276	319	321	1,413	1,382
Stenographers, typists, and secretaries	4,953	5,017	71	68	4,514	4,579	7	10	361	360
Other clerical workers	13,293	13,185	3,262	3,155	8,667	8,697	312	311	1,052	1,022
Blue-collar workers	31,129	32,020	23,025	23,779	5,180	5,427	2,515	2,435	110	107
Craft and kindred workers	12,637	12,783	11,318	11,546	731	720	542	432	45	36
Carpenters	1,224	1,141	1,105	1,054	18	23	97	61	4	3
Construction craft workers, except carpenters	2,698	2,749	2,495	2,545	50	45	136	146	7	12
Mechanics and repairers	3,302	3,395	3,042	3,172	74	56	186	152	1	4
Metal craft workers	1,300	1,273	1,228	1,193	51	51	21	29	--	--
Blue-collar worker supervisors, not elsewhere classified	1,756	1,837	1,540	1,646	190	181	22	9	4	2
All other	2,357	2,387	1,908	1,934	333	364	81	73	30	15
Operatives, except transport	10,298	10,659	5,595	5,815	3,847	4,015	628	602	228	226
Durable goods manufacturing	4,381	4,612	2,725	2,920	1,437	1,472	159	151	50	58
Nondurable goods manufacturing	3,343	3,439	1,295	1,261	1,803	1,903	126	152	113	123
Other industries	2,575	2,608	1,574	1,634	607	640	343	299	50	35
Transport equipment operatives	3,446	3,471	3,061	3,032	202	266	169	164	13	9
Drivers, motor vehicles	2,873	2,903	2,538	2,512	179	237	145	118	11	5
All other	572	568	522	520	24	29	24	16	2	2
Nonfarm laborers	4,748	5,107	3,051	3,386	399	426	1,175	1,159	123	135
Construction	876	978	656	738	13	22	197	210	9	9
Manufacturing	935	1,026	681	779	122	134	117	122	15	11
Other industries	2,936	3,103	1,714	1,869	264	270	861	846	93	117
Service workers	13,164	13,208	3,983	3,872	6,690	6,855	1,314	1,019	1,477	1,451
Private household workers	1,022	1,007	20	23	811	722	8	5	133	257
Service workers, except private household	12,142	12,201	3,963	3,850	5,879	6,133	1,006	1,014	1,294	1,234
Food service workers	4,420	4,574	856	866	2,143	2,308	599	628	817	772
Protective service workers	1,373	1,356	1,227	1,207	118	127	25	21	3	1
All other	6,349	6,271	1,880	1,777	3,613	3,698	382	365	174	131
Farm workers	2,974	3,106	2,049	2,142	494	536	373	357	59	72
Farmers and farm managers	1,582	1,589	1,363	1,362	185	205	30	18	4	3
Farm laborers and supervisors	1,391	1,517	685	779	309	331	343	339	54	69
Paid workers	1,058	1,212	650	735	109	152	257	273	42	52
Unpaid family workers	333	305	36	44	199	179	86	66	13	16

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A-22. Employed persons by occupation, race, and sex

[Percent distribution]

Occupation and race	Total		Males		Females	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
TOTAL						
Total, 16 years and over (thousands)	98,115	100,013	56,975	57,735	41,141	42,278
Percent	100.0	100.0	100.0	100.0	100.0	100.0
White-collar workers	51.8	51.7	42.2	41.3	65.2	55.1
Professional and technical	15.4	15.7	15.2	15.3	15.7	16.1
Managers and administrators, except farm	11.6	11.5	14.8	14.5	7.1	7.4
Sales workers	6.2	6.3	5.7	5.9	6.9	7.3
Clerical workers	18.6	18.2	6.4	6.1	35.5	34.7
Blue-collar workers	31.7	32.0	44.8	45.4	13.6	13.8
Craft and kindred workers	12.9	12.8	20.8	20.8	1.9	1.8
Operatives, except transport	10.5	10.7	10.9	11.1	9.9	10.0
Transport equipment operatives	3.5	3.5	5.7	5.5	.5	.7
Nonfarm laborers	4.8	5.1	7.4	7.9	1.3	1.3
Service workers	13.4	13.2	8.8	8.5	19.9	19.7
Private household workers	1.0	1.0	(1)	(1)	2.4	2.3
Other service workers	12.4	12.2	8.7	8.4	17.4	17.4
Farm workers	3.0	3.1	4.2	4.3	1.3	1.4
Farmers and farm managers	1.6	1.6	2.4	2.4	.5	.5
Farm laborers and supervisors	1.4	1.5	1.8	1.9	.9	.9
White						
Total, 16 years and over (thousands)	86,937	88,870	51,187	51,912	35,750	35,958
Percent	100.0	100.0	100.0	100.0	100.0	100.0
White-collar workers	53.4	53.1	43.7	43.1	67.4	67.3
Professional and technical	15.8	15.9	15.7	15.7	15.9	16.2
Managers and administrators, except farm	12.4	12.2	15.7	15.3	7.6	7.8
Sales workers	6.7	6.8	6.1	6.3	7.5	7.5
Clerical workers	18.6	18.2	6.2	5.9	36.3	35.6
Blue-collar workers	31.3	31.5	44.0	44.7	12.9	13.3
Craft and kindred workers	13.3	13.3	21.2	21.4	1.9	1.8
Operatives, except transport	10.1	10.0	10.6	10.5	9.2	9.1
Transport equipment operatives	3.4	3.3	5.3	5.3	.5	.7
Nonfarm laborers	4.6	4.9	6.9	7.4	1.3	1.3
Service workers	12.2	12.1	7.9	7.6	18.3	18.5
Private household workers	.8	.8	(1)	(1)	1.9	1.8
Other service workers	11.4	11.4	7.8	7.6	16.4	15.7
Farm workers	3.2	3.3	4.4	4.5	1.4	1.5
Farmers and farm managers	1.8	1.7	2.7	2.6	.5	.6
Farm laborers and supervisors	1.4	1.5	1.8	1.9	.9	1.0
Black and other						
Total, 16 years and over (thousands)	11,179	11,143	5,788	5,823	5,391	5,320
Percent	100.0	100.0	100.0	100.0	100.0	100.0
White-collar workers	39.4	40.5	28.6	30.3	51.0	51.6
Professional and technical	12.6	13.8	10.9	12.4	14.3	15.3
Managers and administrators, except farm	5.4	5.8	6.9	5.9	3.8	4.6
Sales workers	2.7	3.1	2.5	2.8	2.9	3.4
Clerical workers	18.8	17.8	8.2	8.2	30.1	28.4
Blue-collar workers	35.4	36.1	51.7	51.3	17.9	19.6
Craft and kindred workers	9.8	8.9	17.3	15.5	1.7	1.5
Operatives, except transport	14.0	15.8	13.6	15.4	14.4	15.2
Transport equipment operatives	4.7	4.5	8.6	8.1	.5	.6
Nonfarm laborers	7.0	6.9	12.2	12.1	1.3	1.3
Service workers	23.3	21.7	16.8	15.0	30.2	23.0
Private household workers	3.1	2.9	.2	.2	6.1	5.9
Other service workers	20.2	18.8	16.6	15.8	24.1	22.1
Farm workers	1.9	1.7	2.9	2.5	.8	.9
Farmers and farm managers	.3	.3	.6	.5	.1	.1
Farm laborers and supervisors	1.6	1.3	2.3	1.9	.8	.7

¹ Less than 0.05 percent.

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A-23. Employed persons by age, sex, and class of worker

[In thousands]

Age and sex	August 1981								
	Nonagricultural industries					Agriculture			
	Wage and salary workers				Self employed	Unpaid family workers	Wage and salary workers	Self employed	Unpaid family workers
	Total	Private household workers	Government	Other					
Total, 16 years and over	88,876	1,282	14,550	73,045	6,953	365	1,724	1,768	316
16 to 19 years	7,776	109	646	6,721	103	22	423	43	84
16 to 17 years	3,166	300	254	2,612	39	15	210	26	49
18 to 19 years	4,611	110	392	4,109	53	7	213	17	35
20 to 24 years	13,410	115	1,251	12,044	350	19	394	115	38
25 to 34 years	24,728	144	4,086	20,499	1,639	91	361	337	52
35 to 44 years	17,451	100	3,426	13,925	1,710	80	216	327	44
45 to 54 years	14,022	162	2,907	10,953	1,451	76	158	821	51
55 to 64 years	9,487	218	1,923	7,346	1,150	62	121	382	29
55 to 59 years	6,025	119	1,242	4,663	633	41	63	210	21
60 to 64 years	3,462	99	681	2,683	467	20	58	173	7
65 years and over	2,002	133	312	1,557	560	17	51	243	18
Males, 16 years and over	49,822	261	7,261	42,301	4,856	39	1,364	1,532	112
16 to 19 years	3,966	133	319	3,514	73	13	347	43	58
16 to 17 years	1,632	101	129	1,403	28	10	177	26	37
18 to 19 years	2,334	32	190	2,111	45	3	170	14	31
20 to 24 years	7,007	42	498	6,468	232	5	308	113	25
25 to 34 years	14,140	23	1,992	12,124	1,140	5	285	283	8
35 to 44 years	9,917	9	1,732	8,176	1,183	3	157	266	3
45 to 54 years	8,094	14	1,510	6,571	1,024	3	126	275	2
55 to 64 years	5,555	11	1,033	4,511	823	6	92	333	1
55 to 59 years	3,487	9	645	2,833	497	4	42	173	1
60 to 64 years	2,067	2	388	1,677	331	2	51	155	--
65 years and over	1,143	29	177	937	385	1	50	221	6
Females, 16 years and over	39,054	1,021	7,289	30,744	2,097	327	359	237	204
16 to 19 years	3,810	276	328	3,207	30	9	75	3	16
16 to 17 years	1,534	199	125	1,209	12	5	33	--	12
18 to 19 years	2,277	77	202	1,997	19	4	43	3	4
20 to 24 years	6,403	74	753	5,576	113	13	86	2	13
25 to 34 years	10,588	121	2,093	8,375	499	84	77	54	45
35 to 44 years	7,533	90	1,694	5,749	527	75	58	63	41
45 to 54 years	5,928	148	1,397	4,383	427	72	33	46	49
55 to 64 years	3,932	207	890	2,836	322	55	29	50	27
55 to 59 years	2,537	110	597	1,830	185	37	21	31	20
60 to 64 years	1,395	97	292	1,006	135	13	7	18	7
65 years and over	859	104	135	620	175	15	2	22	12

A-24. Employed persons by industry and occupation

[In thousands]

Industry	August 1981											
	Total employed	White-collar workers				Blue-collar workers				Service workers		Farm workers
		Professionals and technical workers	Managers and administrators, except farm	Sales workers	Clerical workers	Craft and kindred workers	Operatives, except transport	Transport equipment operatives	Nonfarm laborers	Private household workers	Other service workers	
Agriculture	3,808	91	29	13	87	69	8	37	345	--	22	3,106
Mining	1,105	161	96	7	131	275	320	67	35	--	13	--
Construction	6,375	213	793	28	491	3,334	342	170	978	--	26	--
Manufacturing	21,988	2,538	1,645	538	2,718	4,251	8,051	797	1,326	--	424	--
Durable goods	13,228	1,775	965	209	1,672	2,787	4,612	374	585	--	248	--
Nondurable goods	8,761	763	680	329	1,046	1,464	3,439	423	440	--	177	--
Transportation and public utilities	6,608	649	730	85	1,552	1,394	172	1,380	470	--	177	--
Wholesale and retail trade	20,513	478	4,047	4,193	3,646	1,404	902	765	1,225	--	3,951	--
Wholesale trade	3,957	198	815	897	786	332	193	396	295	--	39	--
Retail trade	16,557	281	3,231	3,296	2,860	1,072	705	370	931	--	3,912	--
Finance, insurance, and real estate	6,014	382	1,152	1,262	2,772	101	7	7	87	--	243	--
Services	28,478	10,078	2,234	219	5,081	1,667	803	194	779	1,007	5,415	--
Private households	1,313	12	--	--	11	13	--	1	229	1,007	39	--
Other service industries	27,165	10,066	2,234	218	5,070	1,654	803	193	550	--	6,376	--
Public administration	5,124	1,073	736	5	1,723	287	53	54	162	--	1,333	--

A-25. Employed persons with a job but not at work by reason, sex, and pay status

(In thousands)

Reason not working and sex	All industries		Nonagricultural industries					
			Total		Wage and salary workers ¹			
					Paid absences ²		Unpaid absences ²	
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
Total, 16 years and over	11,221	11,440	11,035	11,289	6,231	6,454	3,949	4,075
Vacation	8,867	9,067	8,762	8,980	5,605	5,670	2,682	2,350
Illness	1,275	1,320	1,255	1,298	467	581	687	512
Bad weather	77	51	53	39	--	--	--	--
Industrial dispute	100	37	100	37	--	--	--	--
All other reasons	903	964	865	935	209	202	580	513
Males, 16 years and over	5,428	5,344	5,276	5,223	3,454	3,485	1,390	1,316
Vacation	4,125	4,165	4,042	4,098	3,065	3,047	731	791
Illness	735	731	719	711	284	340	374	307
All other reasons ³	567	447	514	414	104	98	284	217
Females, 16 years and over	5,793	6,096	5,759	6,066	2,828	2,968	2,559	2,760
Vacation	4,742	4,902	4,719	4,883	2,540	2,623	1,950	2,060
Illness	539	589	536	587	182	241	313	305
All other reasons ³	513	605	504	597	105	104	295	395

¹Excludes private household workers.

³Includes bad weather and industrial dispute, not shown separately.

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

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

A-26. Persons at work by hours of work and industry

Hours of work	August 1981					
	Thousands of persons			Percent distribution		
	All industries	Nonagricultural industries	Agriculture	All industries	Nonagricultural industries	Agriculture
Total, 16 years and over	88,573	84,915	3,658	100.0	100.0	100.0
1-34 hours	19,915	18,933	982	22.5	22.3	26.9
1-4 hours	697	657	40	.8	.8	1.1
5-14 hours	3,119	2,898	222	3.5	3.4	5.1
15-29 hours	9,798	9,307	490	11.1	11.0	13.4
30-34 hours	6,301	6,071	230	7.1	7.1	6.3
35 hours and over	68,559	65,982	2,676	77.5	77.7	73.2
35-39 hours	6,286	6,141	145	7.1	7.2	4.0
40 hours	39,594	38,949	645	44.7	45.9	17.5
41 hours and over	22,779	20,892	1,886	25.7	24.6	51.5
41 to 48 hours	8,918	8,629	288	10.1	10.2	7.9
49 to 59 hours	7,764	7,314	450	8.8	8.6	12.3
60 hours and over	6,097	4,949	1,148	6.9	5.8	31.4
Average hours, total at work	39.2	38.9	46.6	--	--	--
Average hours, workers on full-time schedules	43.0	42.5	54.2	--	--	--

HOUSEHOLD DATA

A-27. Persons at work 1 to 34 hours by reason for working less than 35 hours and usual status

[Numbers in thousands]

Reason for working less than 35 hours	August 1931					
	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	19,915	6,817	13,098	18,933	6,490	12,443
Economic reasons	5,163	1,933	3,230	4,856	1,801	3,055
Slack work	2,300	1,501	799	2,118	1,378	740
Material shortages or repairs to plant and equipment	82	82	--	78	78	--
New job started during week	240	240	--	238	238	--
Job terminated during week	110	110	--	106	106	--
Could find only part-time work	2,432	--	2,432	2,315	--	2,315
Other reasons	14,750	4,882	9,868	14,077	4,689	9,388
Does not want, or unavailable for, full-time work	7,862	--	7,862	7,499	--	7,499
Vacation	1,856	1,856	--	1,823	1,823	--
Illness	1,426	1,268	158	1,382	1,242	140
Bad weather	231	231	--	163	163	--
Industrial dispute	23	23	--	21	21	--
Legal or religious holiday	124	124	--	124	124	--
Full time for this job	1,340	--	1,340	1,284	--	1,284
All other reasons	1,890	1,382	508	1,782	1,317	465
Average hours:						
Economic reasons	22.0	24.1	20.7	22.2	24.3	20.9
Other reasons	21.8	25.9	19.8	21.9	26.0	19.9
Worked 30 to 34 hours:						
Economic reasons	1,648	843	805	1,568	805	763
Other reasons	4,653	2,535	2,118	4,503	2,454	2,049

A-28. Nonagricultural workers by industry and full- or part-time status

[Numbers in thousands]

Industry	August 1931								Average hours, total at work	Average hours, workers on full-time schedules
	Full- or part-time status									
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules						
Total				40 hours or less	41 to 48 hours	48 hours or more				
Total, 16 years and over	84,915	4,856	9,388	70,671	49,779	8,629	12,263	38.9	42.5	
Wage and salary workers	78,254	4,392	8,271	65,591	47,496	3,104	9,991	38.7	42.1	
Construction	4,808	417	194	4,197	3,105	409	683	39.3	42.0	
Manufacturing	19,653	657	483	18,513	13,490	2,627	2,395	40.8	41.9	
Durable goods	11,692	246	189	11,257	8,268	1,555	1,433	41.1	41.3	
Nondurable goods	7,962	410	295	7,257	5,223	1,071	963	40.4	42.0	
Transportation and public utilities	5,581	178	217	5,186	3,686	644	856	41.3	42.8	
Wholesale and retail trade	16,974	1,581	3,340	12,053	7,756	1,963	2,334	36.7	42.9	
Finance, insurance, and real estate	5,054	103	491	4,860	3,427	463	570	38.9	41.3	
Service industries	20,560	1,349	3,313	15,898	12,382	1,416	2,400	36.6	41.6	
Private households	1,187	266	507	414	284	37	93	24.3	43.9	
All other industries	19,373	1,083	2,806	15,484	11,798	1,379	2,307	37.4	41.5	
Public administration	4,609	89	209	4,311	3,402	430	479	40.1	41.4	
Self-employed workers	6,295	448	988	4,859	2,170	498	2,191	41.3	48.3	
Unpaid family workers	366	15	129	222	115	27	80	37.9	47.8	

¹ Includes mining, not shown separately.

HOUSEHOLD DATA

A-29. Persons at work in nonagricultural industries by sex, age, race, marital status, and full- or part-time status

[Numbers in thousands]

Sex, age, race, and marital status	August 1981							
	Total at work	On part time for economic reasons	On voluntary part time	On full-time schedules			Average hours, total at work	Average hours, workers on full-time schedules
				Total	40 hours or less	41 hours or more		
TOTAL								
Both sexes, 16 years and over	84,915	4,856	9,388	70,671	49,779	20,892	38.9	42.5
16 to 21 years	12,578	1,798	2,707	8,073	5,355	1,718	33.5	40.7
16 to 19 years	7,446	1,320	2,114	4,012	3,213	799	31.2	40.5
16 to 17 years	3,007	645	1,246	1,116	334	182	26.7	39.8
18 to 19 years	4,439	674	868	2,897	2,280	617	34.2	40.8
20 years and over	77,470	3,536	7,274	66,650	46,567	20,093	39.5	42.7
20 to 24 years	12,797	957	1,192	10,643	3,321	2,627	38.3	41.5
25 years and over	64,672	2,578	6,082	56,012	38,545	17,466	39.9	42.9
25 to 44 years	40,017	1,650	2,979	35,388	24,057	11,321	40.5	43.0
45 to 64 years	22,370	839	1,994	19,537	13,734	5,803	39.3	42.7
65 years and over	2,285	90	1,108	1,087	745	341	29.2	42.9
Males, 16 years and over	49,534	2,363	2,630	44,511	28,133	15,072	41.5	43.9
16 to 21 years	6,514	916	1,110	4,488	3,279	1,209	35.1	41.5
16 to 19 years	3,825	692	910	2,223	1,689	534	32.4	41.1
16 to 17 years	1,568	349	554	665	545	119	27.9	40.2
18 to 19 years	2,256	343	356	1,557	1,144	413	35.5	41.5
20 years and over	45,679	1,671	1,720	42,233	26,749	15,539	42.3	44.0
20 to 24 years	6,821	486	349	5,985	4,102	1,884	40.2	42.7
25 years and over	38,858	1,185	1,371	36,302	22,648	13,654	42.6	44.2
25 to 44 years	23,836	776	374	22,686	13,900	8,786	43.3	43.3
45 to 64 years	13,643	365	374	12,934	8,291	4,623	42.7	43.9
65 years and over	1,378	45	623	710	465	245	30.4	43.0
Females, 16 years and over	35,412	2,492	6,759	26,161	21,341	4,820	35.2	41.4
16 to 21 years	6,064	881	1,598	3,585	3,075	509	32.0	33.7
16 to 19 years	3,621	628	1,204	1,739	1,521	268	29.9	39.8
16 to 17 years	1,439	297	692	450	386	64	25.4	39.2
18 to 19 years	2,182	331	513	1,338	1,134	204	32.3	39.9
20 years and over	31,790	1,864	5,554	24,372	19,813	4,554	35.8	40.4
20 to 24 years	5,976	471	843	4,662	3,919	743	36.0	40.0
25 years and over	25,814	1,393	4,711	19,710	15,900	3,810	35.7	40.5
25 to 44 years	16,182	874	2,605	12,703	10,169	2,534	36.3	40.6
45 to 64 years	8,727	473	1,621	6,633	5,453	1,180	35.5	40.3
65 years and over	906	46	485	375	279	96	27.3	42.8
RACE								
White	75,267	4,051	8,616	62,600	43,151	19,449	39.0	42.7
Males	44,378	1,983	2,369	40,026	24,972	15,054	41.8	43.0
Females	30,889	2,067	6,247	22,575	18,181	4,394	35.1	40.4
Black and other	9,648	805	772	8,071	6,628	1,443	37.8	41.0
Males	5,126	381	260	4,485	3,458	1,017	39.3	41.9
Females	4,522	425	512	3,585	3,159	426	36.1	40.0
MARITAL STATUS								
Males, 16 years and over:								
Married, spouse present	32,643	870	1,055	30,718	18,865	11,853	42.3	44.3
Widowed, divorced, or separated	4,299	194	191	3,914	2,512	1,402	41.8	43.9
Single (never married)	12,561	1,299	1,383	9,879	7,053	2,815	37.7	42.3
Females, 16 years and over:								
Married, spouse present	18,279	967	4,038	13,274	10,955	2,319	34.7	40.2
Widowed, divorced, or separated	7,006	458	870	5,678	4,449	1,229	37.1	40.9
Single (never married)	10,127	1,067	1,851	7,239	5,935	1,273	34.7	40.3

HOUSEHOLD DATA

A-30. Persons at work in nonfarm occupations by sex and full- or part-time status

[Numbers in thousands]

Occupation and sex	August 1981								
	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	85,583	4,922	9,495	71,166	50,075	8,539	12,432	38.9	42.5
White-collar workers	44,592	1,542	5,141	37,909	26,198	4,236	7,475	39.4	42.7
Professional and technical	12,095	298	1,043	10,754	7,462	1,150	2,142	40.0	42.5
Managers and administrators, except farm	10,371	143	493	9,735	4,994	1,292	3,449	44.3	46.4
Sales workers	5,773	386	1,207	4,180	2,537	586	1,057	37.1	43.8
Clerical workers	16,352	715	2,398	13,239	11,203	1,208	823	35.3	39.9
Blue-collar workers	29,208	1,980	1,524	25,704	18,112	3,671	3,921	39.9	42.5
Craft and kindred workers	11,664	575	358	10,731	7,275	1,569	1,836	41.3	43.0
Operatives, except transport	9,746	599	382	8,765	6,605	1,247	913	39.3	41.6
Transport equipment operatives	3,050	200	151	2,699	1,520	448	731	42.5	45.4
Nonfarm laborers	4,749	607	633	3,509	2,712	406	391	35.3	41.1
Service workers	11,783	1,400	2,830	7,553	5,765	782	1,006	34.2	41.9
Private household	928	173	384	371	255	35	91	26.2	43.3
Other service workers	10,855	1,227	2,446	7,182	5,510	747	925	34.9	41.8
Males, 16 years and over	49,998	2,409	2,693	44,896	28,665	6,176	10,055	41.5	43.8
White-collar workers	21,525	492	1,020	20,013	11,514	2,545	5,854	43.1	44.9
Professional and technical	7,467	139	299	7,029	4,524	741	1,754	42.5	43.9
Managers and administrators, except farm	7,528	90	219	7,319	3,478	955	2,896	45.0	47.1
Sales workers	3,173	126	249	2,798	1,468	468	852	42.2	45.3
Clerical workers	3,257	137	253	2,857	2,144	381	342	38.3	41.2
Blue-collar workers	23,994	1,488	1,064	21,442	14,632	3,185	3,625	40.5	42.9
Craft and kindred workers	11,312	515	293	10,204	6,860	1,533	1,841	41.5	43.1
Operatives, except transport	5,867	263	137	5,457	3,875	872	720	41.2	42.5
Transport equipment operatives	2,882	176	119	2,537	1,443	432	712	43.1	45.6
Nonfarm laborers	4,233	535	515	3,183	2,454	377	352	35.5	41.1
Service workers	4,479	429	609	3,441	2,419	446	575	33.3	43.3
Private household	28	3	6	19	9	4	6	37.6	44.5
Other service workers	4,451	429	603	3,419	2,407	442	570	33.3	43.3
Females, 16 years and over	35,585	2,514	5,801	26,273	21,411	2,514	2,345	35.2	40.4
White-collar workers	23,367	1,051	4,121	17,895	14,583	1,691	1,621	35.9	40.3
Professional and technical	4,628	159	745	3,724	2,938	439	377	35.9	40.0
Managers and administrators, except farm	2,743	52	274	2,417	1,517	337	553	41.4	44.3
Sales workers	2,600	261	958	1,381	1,070	117	194	39.3	40.8
Clerical workers	13,395	578	2,144	10,373	9,059	827	487	35.7	39.5
Blue-collar workers	5,214	492	460	4,262	3,481	486	295	37.0	40.3
Craft and kindred workers	652	59	65	528	417	66	45	37.0	40.3
Operatives, except transport	3,379	336	245	3,298	2,731	375	192	37.5	40.1
Transport equipment operatives	158	24	32	112	77	16	19	35.5	42.9
Nonfarm laborers	516	72	118	326	258	29	39	33.0	40.8
Service workers	7,304	971	2,220	4,113	3,347	337	429	31.8	40.7
Private household	399	173	378	348	243	31	74	25.8	42.9
Other service workers	6,405	798	1,843	3,764	3,103	306	355	32.6	40.5

HOUSEHOLD DATA

A-31. Employment status of 14- and 15-year-olds by sex and race

[Numbers in thousands]

Employment status	August 1981								
	Total			White			Black and other		
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females
Civilian noninstitutional population	7,236	3,681	3,555	5,991	3,056	2,935	1,245	625	620
Civilian labor force	1,598	922	676	1,431	828	502	167	94	73
Employed	1,402	802	600	1,279	736	543	123	66	57
Agriculture	204	171	32	198	166	32	6	6	--
Nonagricultural industries	1,199	631	568	1,082	570	511	117	60	57
Unemployed	196	120	76	151	92	59	44	28	17
Unemployment rate	12.3	13.0	11.2	10.6	11.1	9.8	25.4	29.8	(1)
Not in labor force	5,638	2,759	2,879	4,560	2,227	2,333	1,078	531	546
Keeping house	278	14	264	211	11	200	67	3	54
Going to school	242	145	97	157	106	51	85	39	47
Unable to work	23	14	9	12	4	7	11	10	2
All other reasons	5,095	2,586	2,509	4,181	2,106	2,075	914	480	434

A-32. Employed 14- and 15-year-olds by class of worker, occupation, and sex

Class of worker and occupation	August 1981					
	Thousands of persons			Percent distribution		
	Both sexes	Males	Females	Both sexes	Males	Females
CLASS OF WORKER						
Total	1,402	802	600	100.0	100.0	100.0
Nonagricultural industries	1,199	631	568	85.5	78.7	94.8
Wage and salary workers	1,096	550	546	73.2	68.5	91.2
Private household workers	411	140	270	29.3	17.5	45.1
Government workers	85	50	35	6.1	6.2	5.8
Other wage and salary workers	600	360	240	42.8	44.9	40.1
Self-employed workers	75	57	18	5.3	7.1	3.0
Unpaid family workers	27	23	4	1.9	2.9	.7
Agriculture	204	171	32	14.6	21.3	5.3
Wage and salary workers	105	85	20	7.5	10.6	3.3
Self-employed workers	33	33	--	2.4	4.1	--
Unpaid family workers	66	54	12	4.7	6.7	2.0
OCCUPATION						
Total	1,402	802	600	100.0	100.0	100.0
White-collar workers	314	174	140	22.4	21.7	23.3
Professional and technical	30	15	13	2.1	2.0	2.2
Managers and administrators, except farm	7	6	--	.5	.7	--
Sales workers	216	143	73	15.4	17.8	12.1
Clerical workers	62	8	54	4.4	1.0	9.0
Blue-collar workers	373	341	32	26.6	42.5	5.3
Craft and kindred workers	33	27	7	2.4	3.4	1.2
Operatives, except transport	29	21	9	2.1	2.6	1.5
Transport equipment operatives	7	5	2	.5	.6	.3
Nonfarm laborers	303	288	15	21.6	35.9	2.5
Service workers	560	163	398	39.9	20.3	55.2
Private household workers	275	12	253	19.6	1.5	43.8
Other service workers	285	151	135	20.3	18.8	22.5
Farm workers	155	125	30	11.1	15.5	5.0
Farmers and farm managers	3	3	--	.2	.4	--
Farm laborers and supervisors	152	122	30	10.8	15.2	5.0

HOUSEHOLD DATA
SEASONALLY ADJUSTED

A-34. Full- and part-time status of the civilian labor force, seasonally adjusted

[Numbers in thousands]

Full- and part-time status	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
FULL TIME													
Total, 16 years and over:													
Civilian labor force	89,345	89,862	89,896	90,043	90,040	90,393	90,239	90,555	90,938	91,763	90,448	91,313	91,512
Employed	82,792	83,346	83,337	83,411	83,491	83,933	83,844	84,149	84,645	85,073	84,126	84,918	84,513
Unemployed	6,553	6,516	6,559	6,632	6,549	6,460	6,396	6,407	6,293	6,690	6,322	6,401	6,102
Unemployment rate	7.3	7.3	7.3	7.4	7.3	7.1	7.1	7.1	6.9	7.3	7.0	5.7	6.7
PART TIME													
Total, 16 years and over:													
Civilian labor force	15,560	15,105	15,284	15,250	15,023	15,166	15,410	15,504	15,805	15,693	15,780	15,446	15,925
Employed	14,211	13,794	13,833	13,938	13,798	13,775	14,035	14,103	14,376	14,171	14,325	14,003	14,376
Unemployed	1,349	1,311	1,391	1,312	1,225	1,390	1,405	1,396	1,429	1,522	1,455	1,439	1,549
Unemployment rate	8.7	8.7	9.1	8.6	8.2	9.2	9.1	9.0	9.0	9.7	9.2	9.3	9.7

NOTE: Persons on part-time schedules for economic reasons are included in the full-time employed category; unemployed persons are allocated by whether seeking full- or part-time work.

A-35. Employment status by race, sex, and age, seasonally adjusted

[Numbers in thousands]

Race, sex, and age	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
WHITE													
Total, 16 years and over:													
Civilian labor force	92,288	92,317	92,516	92,562	92,383	92,832	93,035	93,313	93,860	94,506	93,464	93,757	93,739
Employed	86,067	86,307	86,371	86,409	86,377	86,620	86,940	87,291	87,791	88,083	87,500	87,979	88,045
Unemployed	6,221	6,010	6,145	6,153	6,006	6,213	6,095	6,022	6,069	6,423	5,964	5,787	5,743
Unemployment rate	6.7	6.5	6.6	6.6	6.5	6.7	6.6	6.5	6.5	6.8	6.4	6.2	6.1
Males, 20 years and over:													
Civilian labor force	49,356	49,415	49,461	49,481	49,449	49,426	49,420	49,595	49,947	50,227	49,878	49,952	49,898
Employed	46,500	46,555	46,660	46,684	46,728	46,704	46,757	47,030	47,330	47,427	47,217	47,531	47,338
Unemployed	2,856	2,859	2,801	2,797	2,721	2,722	2,664	2,564	2,618	2,799	2,661	2,421	2,551
Unemployment rate	5.8	5.8	5.7	5.7	5.5	5.5	5.4	5.4	5.2	5.6	5.3	4.9	5.1
Females, 20 years and over:													
Civilian labor force	34,846	34,765	34,883	34,972	34,910	35,313	35,423	35,529	35,727	36,149	35,980	35,135	36,047
Employed	32,823	32,841	32,845	32,944	32,858	33,180	33,421	33,539	33,679	33,987	33,935	34,011	34,087
Unemployed	2,023	1,924	2,038	2,028	2,052	2,133	2,002	1,990	2,048	2,162	2,045	2,095	1,950
Unemployment rate	5.8	5.5	5.8	5.8	5.9	6.0	5.7	5.6	5.7	6.0	5.7	5.8	5.4
Both sexes, 16 to 19 years:													
Civilian labor force	8,086	8,137	8,172	8,109	8,024	8,093	8,191	8,089	8,186	8,130	7,606	7,709	7,843
Employed	6,744	6,910	6,866	6,781	6,791	6,735	6,762	6,721	6,782	6,669	6,348	6,467	6,621
Unemployed	1,342	1,227	1,306	1,328	1,233	1,358	1,429	1,368	1,404	1,461	1,258	1,242	1,222
Unemployment rate	16.6	15.1	16.0	16.4	15.4	16.8	17.4	16.9	17.2	18.0	16.5	15.1	15.6
BLACK AND OTHER													
Total, 16 years and over:													
Civilian labor force	12,630	12,677	12,686	12,706	12,668	12,684	12,598	12,765	12,899	12,895	12,741	12,658	12,793
Employed	10,902	10,894	10,884	10,922	10,895	11,051	10,942	11,020	11,193	11,133	10,928	10,939	10,877
Unemployed	1,728	1,783	1,802	1,784	1,773	1,633	1,655	1,745	1,706	1,762	1,813	1,719	1,916
Unemployment rate	13.7	14.1	14.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6	14.2	13.6	15.0
Males, 20 years and over:													
Civilian labor force	6,049	6,063	6,030	6,042	6,015	5,996	6,007	6,072	6,091	6,153	6,045	5,929	5,136
Employed	5,291	5,266	5,300	5,315	5,315	5,367	5,355	5,414	5,437	5,425	5,288	5,326	5,373
Unemployed	758	797	730	727	700	629	651	658	654	727	757	702	763
Unemployment rate	12.5	13.2	12.1	12.0	11.6	10.5	10.8	10.8	10.6	11.9	12.5	11.5	12.4
Females, 20 years and over:													
Civilian labor force	5,629	5,568	5,648	5,652	5,654	5,638	5,645	5,703	5,764	5,724	5,759	5,729	5,751
Employed	5,017	4,978	4,953	4,965	4,956	5,016	4,976	4,988	5,083	5,036	5,065	5,040	5,012
Unemployed	612	590	695	687	698	622	669	715	681	688	694	689	739
Unemployment rate	10.9	10.6	12.3	12.2	12.3	11.0	11.9	12.6	11.8	12.0	12.0	12.0	12.8
Both sexes, 16 to 19 years:													
Civilian labor force	952	1,045	1,008	1,012	999	1,051	946	935	1,054	1,018	936	901	906
Employed	594	650	631	642	624	667	611	618	673	676	575	573	492
Unemployed	358	395	377	370	375	384	335	317	381	342	361	328	414
Unemployment rate	37.6	37.8	37.4	36.6	37.5	36.5	35.4	34.0	36.1	33.6	38.6	36.4	45.7

HOUSEHOLD DATA SEASONALLY ADJUSTED

A-36. Major unemployment indicators, seasonally adjusted

[Unemployment rates]

Category	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
CHARACTERISTIC													
Total (all civilian workers)	7.6	7.4	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.6	7.3	7.0	7.2
Males, 20 years and over	6.5	6.6	6.4	6.4	6.2	6.0	6.0	5.9	5.8	6.3	6.1	5.6	5.9
Females, 20 years and over	6.5	6.2	6.7	6.7	6.8	6.7	6.5	6.6	6.6	6.8	6.5	5.7	6.5
Both sexes, 16-19 years	18.8	17.8	18.5	18.6	17.8	19.0	19.3	19.1	19.1	19.5	19.0	18.1	19.9
White	6.7	6.5	6.6	6.6	6.5	6.7	6.5	6.5	6.5	6.8	6.4	5.2	5.1
Black and other	13.7	14.1	14.2	14.0	14.0	12.9	13.1	13.7	13.2	13.6	14.2	13.6	15.0
Married men, spouse present	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4.1	3.8	4.1	4.2	3.9	3.9
Married women, spouse present	6.0	5.7	6.0	5.9	5.8	6.2	5.8	6.0	5.9	5.9	5.6	5.6	5.3
Women who maintain families	9.0	9.0	10.2	9.9	10.4	10.5	9.5	9.4	9.8	10.3	10.5	11.5	9.9
Full-time workers	7.3	7.3	7.3	7.4	7.3	7.1	7.1	7.1	6.9	7.3	7.0	6.7	5.7
Part-time workers	8.7	8.7	9.1	8.6	8.2	9.2	9.1	9.0	9.0	9.7	9.2	9.3	9.7
Unemployed 15 weeks and over ¹	2.0	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.2	2.0	2.1
Labor force time lost ²	8.3	8.2	8.4	8.3	8.2	8.2	8.1	8.1	8.2	8.6	8.0	7.9	7.9
OCCUPATION													
White-collar workers	3.7	3.8	3.9	3.9	4.0	3.9	3.7	3.9	4.0	4.1	3.8	4.1	3.9
Professional and technical	2.4	2.5	2.6	2.5	2.6	2.8	2.5	2.7	3.2	2.9	2.8	2.3	2.4
Managers and administrators, except farm	2.5	2.4	2.5	2.4	2.5	2.4	2.4	2.6	2.4	2.7	2.8	2.7	2.8
Sales workers	4.2	4.3	4.6	4.8	4.7	4.4	4.0	3.8	4.0	4.6	4.1	5.1	4.7
Clerical workers	5.4	5.4	5.6	5.6	5.8	5.7	5.3	5.9	5.6	5.6	5.3	5.7	5.5
Blue-collar workers	11.1	10.8	10.8	10.7	10.5	10.2	10.1	9.8	9.6	10.0	9.8	9.4	9.3
Craft and kindred workers	7.6	7.4	7.1	7.1	7.1	6.8	7.2	7.1	6.8	7.7	7.2	6.7	6.9
Operatives, except transport	13.3	13.0	13.2	13.0	12.9	12.1	11.9	11.3	11.5	11.9	11.0	11.1	11.0
Transport equipment operatives	9.8	10.4	10.6	10.6	8.8	9.1	8.3	9.3	8.1	8.2	8.4	6.9	7.9
Nonfarm laborers	16.1	15.2	15.3	15.0	14.8	15.0	14.9	14.1	13.8	13.1	14.3	14.2	12.9
Service workers	8.5	8.1	8.3	8.3	7.8	8.0	8.7	8.1	8.5	9.4	9.0	8.0	8.9
Farm workers	5.5	4.3	4.4	4.0	4.0	5.0	4.7	5.1	3.7	5.4	6.0	4.5	5.5
INDUSTRY													
Nonagricultural private wage and salary workers ³	8.0	7.8	7.8	7.8	7.7	7.5	7.5	7.3	7.2	7.8	7.4	7.2	7.2
Construction	17.3	15.9	14.6	14.8	13.8	13.3	13.2	14.7	14.4	16.3	16.6	15.0	16.7
Manufacturing	9.3	9.2	9.2	8.9	8.8	8.4	8.4	8.0	7.4	7.9	7.6	7.3	7.0
Durable goods	10.1	10.0	9.5	9.0	9.0	8.3	8.5	7.9	7.3	7.3	7.4	7.3	6.4
Nondurable goods	8.0	7.9	8.9	8.6	8.5	8.5	8.2	8.3	7.6	8.9	7.8	7.3	7.9
Transportation	5.6	5.3	5.3	4.9	4.9	5.8	5.5	6.4	5.7	5.9	4.7	4.0	4.8
Wholesale and retail trade	7.7	7.7	7.8	8.2	8.3	7.6	7.6	7.3	7.3	8.4	7.5	7.9	7.8
Finance and service industries	5.5	5.4	5.6	5.5	5.5	5.8	6.0	5.6	5.9	5.9	5.8	5.5	5.5
Government workers	4.0	4.1	4.4	4.2	4.1	4.4	4.3	4.6	4.9	4.8	4.5	4.5	4.4
Agricultural wage and salary workers	13.2	10.7	11.1	10.1	10.6	11.5	12.1	11.9	9.1	11.1	13.1	13.3	12.6

¹ Unemployment as a percent of the civilian labor force.

as a percent of potentially available labor force hours.

² Aggregate hours lost by the unemployed and persons on part-time for economic reasons

³ Includes mining, not shown separately.

A-37. Unemployed persons by duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
DURATION													
Less than 5 weeks	3,255	3,042	3,186	3,108	3,115	3,259	3,203	3,209	3,074	3,369	3,172	3,187	3,151
5 to 14 weeks	2,533	2,585	2,500	2,524	2,217	2,264	2,324	2,355	2,452	2,581	2,360	2,195	2,345
15 weeks and over	2,150	2,295	2,292	2,329	2,378	2,358	2,250	2,192	2,105	2,168	2,315	2,100	2,194
15 to 26 weeks	1,239	1,366	1,256	1,213	1,231	1,079	992	1,013	1,001	1,022	1,205	1,068	1,059
27 weeks and over	911	929	1,036	1,116	1,147	1,279	1,257	1,179	1,104	1,145	1,110	1,032	1,135
Average (mean) duration, in weeks	12.5	13.0	13.3	13.6	13.5	14.4	14.4	14.0	13.7	13.2	14.2	13.9	14.5
Median duration, in weeks	7.4	8.0	7.5	7.7	7.3	7.4	6.9	7.0	7.7	7.1	6.7	7.0	7.0
PERCENT DISTRIBUTION													
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	41.0	38.4	39.9	39.0	40.4	41.3	41.2	41.4	40.2	41.5	40.4	42.5	41.0
5 to 14 weeks	31.9	32.6	31.3	31.7	28.8	28.7	29.9	30.4	32.2	31.8	30.1	29.3	30.5
15 weeks and over	27.1	29.0	28.7	29.3	30.8	29.9	28.9	28.3	27.6	26.7	29.5	28.1	28.5
15 to 26 weeks	15.6	17.2	15.7	15.2	16.0	13.7	12.8	13.1	13.1	12.6	15.4	14.3	13.8
27 weeks and over	11.5	11.7	13.0	14.0	14.9	16.2	16.2	15.2	14.5	14.1	14.1	13.9	14.7

**HOUSEHOLD DATA
SEASONALLY ADJUSTED**

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

Sex and age	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Total, 16 years and over	7.6	7.4	7.6	7.5	7.4	7.4	7.3	7.3	7.3	7.6	7.3	7.0	7.2
16 to 19 years	18.8	17.8	18.5	18.6	17.8	19.0	19.3	19.1	19.1	19.5	19.0	19.1	18.9
16 to 17 years	22.1	20.1	20.9	21.4	19.9	21.0	21.4	21.3	22.0	21.6	22.6	19.3	20.5
18 to 19 years	16.5	16.0	16.7	16.5	16.4	17.5	17.9	17.7	17.2	18.2	17.3	17.7	17.4
20 to 24 years	12.0	12.0	12.3	12.1	11.7	11.9	11.8	11.7	12.1	12.9	12.1	11.3	11.9
25 years and over	5.4	5.4	5.4	5.4	5.3	5.3	5.1	5.2	5.0	5.3	5.2	5.1	5.1
25 to 54 years	5.9	5.9	5.9	5.9	5.8	5.7	5.5	5.5	5.4	5.6	5.6	5.4	5.4
55 years and over	3.4	3.4	3.4	3.3	3.5	3.5	3.6	3.7	3.3	3.3	3.4	3.5	3.5
Males, 16 years and over	7.6	7.6	7.4	7.4	7.2	7.2	7.1	7.0	6.9	7.4	7.1	6.6	7.0
16 to 19 years	19.9	18.9	19.8	19.8	19.0	20.3	20.1	19.5	19.3	20.2	19.9	18.4	19.7
16 to 17 years	23.7	21.2	21.8	22.3	20.5	23.0	22.1	21.1	22.7	22.7	23.1	19.3	21.5
18 to 19 years	17.1	16.9	18.1	17.8	17.8	18.5	18.7	18.6	17.0	18.3	18.1	17.8	18.1
20 to 24 years	13.6	13.5	13.8	13.2	12.5	12.8	12.7	13.0	13.2	14.2	12.8	11.3	12.7
25 years and over	5.3	5.4	5.1	5.1	4.9	4.9	4.8	4.7	4.6	4.8	5.0	4.7	4.9
25 to 54 years	5.7	6.0	5.6	5.6	5.4	5.2	5.2	5.1	4.9	5.1	5.3	4.9	5.0
55 years and over	3.6	3.5	3.3	3.3	3.3	3.4	3.4	3.2	3.1	3.4	3.5	3.4	3.4
Females, 16 years and over	7.6	7.2	7.7	7.7	7.7	7.7	7.6	7.7	7.7	7.9	7.5	7.7	7.5
16 to 19 years	17.6	16.6	17.0	17.2	16.5	17.5	18.4	18.7	18.9	18.7	18.2	17.7	17.9
16 to 17 years	20.2	18.8	19.8	20.3	19.3	18.7	20.5	21.6	21.1	20.4	20.5	18.7	19.5
18 to 19 years	15.9	15.1	15.1	15.1	14.8	16.4	17.0	16.5	17.4	18.2	16.1	17.5	16.9
20 to 24 years	10.2	10.2	10.6	10.8	10.8	10.8	10.8	10.1	10.9	11.4	11.2	11.3	10.8
25 years and over	5.7	5.4	5.9	5.8	5.9	5.8	5.6	5.9	5.6	5.9	5.5	5.7	5.5
25 to 54 years	6.2	5.9	6.4	6.2	6.3	6.3	5.9	6.2	6.0	6.4	6.0	5.1	5.9
55 years and over	3.1	3.3	3.4	3.4	3.9	3.6	3.9	4.5	3.7	3.3	3.3	3.7	3.6

A-39. Unemployed persons by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
NUMBER OF UNEMPLOYED													
Both sexes, 16 years and over:													
Job losers	4,319	4,387	4,240	4,229	4,226	3,847	3,836	3,885	3,819	4,084	4,219	3,591	3,929
On layoff	1,699	1,744	1,692	1,453	1,470	1,253	1,267	1,233	1,280	1,363	1,367	1,178	1,205
Other job losers	2,620	2,643	2,548	2,776	2,756	2,590	2,629	2,652	2,539	2,721	2,852	2,513	2,724
Job leavers	890	855	870	897	813	907	894	863	854	1,009	863	333	333
Reentrants	1,383	1,844	2,013	1,896	1,869	2,039	1,970	2,040	2,017	2,125	1,955	2,022	1,939
New entrants	870	852	880	890	868	1,000	928	985	987	938	956	873	944
PERCENT DISTRIBUTION													
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	54.2	55.2	53.0	53.5	54.3	49.4	50.7	49.7	49.7	50.1	52.8	49.3	51.4
On layoff	21.3	21.9	21.1	18.4	18.9	16.1	16.5	16.8	16.7	16.8	17.1	15.7	15.7
Other job losers	32.9	33.3	31.8	35.1	35.4	33.2	34.2	32.9	33.1	33.3	35.7	33.6	35.5
Job leavers	11.2	10.8	10.9	11.3	10.5	11.5	11.5	11.2	11.1	12.1	10.8	12.0	11.0
Reentrants	23.6	23.2	25.2	24.0	24.0	26.2	25.7	26.1	26.3	26.1	24.5	27.0	25.4
New entrants	10.9	10.8	11.0	11.2	11.2	12.8	12.1	12.7	12.9	11.5	12.0	11.7	12.3
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE													
Job losers	4.1	4.2	4.0	4.0	4.0	3.6	3.7	3.6	3.6	3.3	4.0	3.5	3.7
Job leavers .....	.8	.8	.8	.9	.8	.9	.8	.9	.8	.9	.8	.3	.9
Reentrants	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.3	1.9	2.0	1.8	1.9	1.8
New entrants .....	.8	.8	.8	.8	.8	.9	.9	.9	.9	.9	.9	.8	.9

**HOUSEHOLD DATA
SEASONALLY ADJUSTED**

A-42. Employed persons by selected social and economic categories, seasonally adjusted

[In thousands]

Category	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
CHARACTERISTIC													
Total, 16 years and over	97,003	97,180	97,206	97,339	97,282	97,695	97,927	98,312	98,976	99,235	98,392	99,962	98,944
Married men, spouse present	37,987	38,027	38,142	38,167	38,231	38,182	38,113	38,355	38,510	38,498	38,216	38,283	38,315
Married women, spouse present	23,126	23,027	22,993	23,065	23,063	23,352	23,356	23,513	23,529	23,831	23,763	23,820	23,693
OCCUPATION													
White-collar workers	51,307	51,374	51,131	51,148	51,065	51,594	51,698	51,745	51,801	51,967	51,959	51,957	52,123
Professional and technical	15,751	15,540	15,780	15,863	15,810	15,965	15,813	15,827	15,754	15,688	16,057	15,955	16,299
Managers and administrators, except farm	11,109	11,007	10,979	11,016	11,009	11,363	11,488	11,565	11,444	11,263	11,174	11,413	11,217
Sales workers	6,140	6,316	6,277	6,155	6,175	6,265	6,271	6,220	6,145	6,461	6,440	6,220	6,359
Clerical workers	18,307	18,211	18,055	18,114	18,071	18,001	18,125	18,135	18,457	18,557	18,288	18,254	18,238
Blue-collar workers	30,232	30,435	30,521	30,550	30,373	30,338	30,446	30,594	31,156	31,373	30,922	31,038	31,113
Craft and kindred workers	12,346	12,490	12,485	12,424	12,337	12,306	12,386	12,605	12,624	12,743	12,482	12,575	12,538
Operatives, except transport	10,147	10,202	10,210	10,247	10,194	10,331	10,330	10,189	10,524	10,609	10,550	10,567	10,501
Transport equipment operatives	3,478	3,434	3,443	3,429	3,402	3,322	3,351	3,363	3,311	3,393	3,425	3,431	3,439
Nonfarm laborers	4,261	4,310	4,383	4,450	4,440	4,380	4,339	4,437	4,596	4,632	4,466	4,415	4,605
Service workers	12,928	12,943	12,891	12,888	12,982	12,946	13,070	13,279	13,255	13,213	12,930	13,284	13,002
Farm workers	2,620	2,757	2,735	2,729	2,804	2,737	2,652	2,679	2,834	2,737	2,548	2,689	2,732
MAJOR INDUSTRY AND CLASS OF WORKER													
Agriculture:													
Wage and salary workers	1,282	1,417	1,353	1,417	1,411	1,465	1,336	1,333	1,524	1,464	1,377	1,457	1,472
Self-employed workers	1,640	1,688	1,640	1,612	1,655	1,615	1,610	1,615	1,548	1,644	1,557	1,559	1,629
Unpaid family workers	280	309	325	324	305	284	325	312	290	231	258	235	250
Nonagricultural industries:													
Wage and salary workers	86,490	86,395	86,587	86,643	86,513	87,125	87,236	87,370	88,195	88,877	87,734	88,291	88,189
Government	15,531	15,575	15,597	15,651	15,653	15,738	15,589	15,685	15,628	15,512	15,460	15,349	15,140
Private industries	70,959	70,820	70,990	70,992	70,860	71,387	71,647	72,183	72,557	73,365	72,274	72,942	73,048
Private households	1,196	1,125	1,144	1,148	1,110	1,197	1,176	1,235	1,241	1,164	1,146	1,211	1,236
Other industries	69,763	69,695	69,846	69,844	69,750	70,190	70,471	70,949	71,327	72,201	71,128	71,731	71,812
Self-employed workers	6,881	6,977	7,035	6,943	6,973	6,839	6,923	6,895	7,021	6,761	7,005	6,885	6,942
Unpaid family workers	403	416	417	405	396	422	371	354	306	338	369	389	378
PERSONS AT WORK¹													
Nonagricultural industries	88,195	88,246	88,488	88,694	88,468	89,499	89,441	89,583	89,202	89,370	89,625	90,837	89,823
Full-time schedules	71,526	71,929	72,071	72,265	72,131	72,807	72,945	72,875	72,761	73,375	73,115	74,232	72,932
Part-time for economic reasons	4,143	4,183	4,220	4,176	4,218	4,474	4,145	4,227	4,044	4,143	3,798	4,225	4,187
Usually work full-time	1,709	1,701	1,635	1,620	1,647	1,698	1,622	1,533	1,517	1,630	1,367	1,532	1,654
Usually work part-time	2,434	2,482	2,535	2,556	2,571	2,775	2,523	2,589	2,527	2,513	2,431	2,593	2,533
Part time for noneconomic reasons	12,526	12,134	12,197	12,253	12,119	12,218	12,351	12,481	12,397	12,352	12,713	12,380	12,704

¹ Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial dispute.

HOUSEHOLD DATA

A-43. Employment status of male Vietnam-era veterans and nonveterans by age

(Numbers in thousands)

Veteran status and age	Not seasonally adjusted									
	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
	Number						Percent of labor force			
	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981	Aug. 1980	Aug. 1981
VETERANS										
Total, 25 years and over	8,311	8,581	7,934	8,178	7,464	7,762	470	416	5.9	5.1
25 to 39 years	7,292	7,318	7,047	7,074	6,609	6,697	438	377	6.2	5.3
25 to 29 years	1,681	1,459	1,579	1,375	1,398	1,258	181	117	11.5	9.5
30 to 34 years	3,568	3,286	3,480	3,201	3,303	3,047	177	154	5.1	4.8
35 to 39 years	2,043	2,573	1,988	2,498	1,908	2,392	80	105	4.0	4.2
40 years and over	1,019	1,263	887	1,104	855	1,065	32	39	3.6	3.5
NONVETERANS										
Total, 25 to 39 years	15,590	16,451	14,812	15,559	13,837	14,681	975	878	6.6	5.6
25 to 29 years	7,139	7,430	6,756	7,041	6,205	6,566	551	475	8.2	5.7
30 to 34 years	4,647	5,326	4,440	5,038	4,200	4,739	243	299	5.4	5.9
35 to 39 years	3,804	3,695	3,616	3,480	3,432	3,376	184	104	5.1	3.0

NOTE: Vietnam-era veterans are males who served in the Armed Forces between August 5, 1964 and May 7, 1975. Nonveterans are males who have never served in the Armed Forces; published data are limited to those 25 to 39 years of age, the group that most closely corresponds to the bulk of the

Vietnam-era veteran population. Data for 20-to-24-year-old veterans are no longer shown on the table, because the group is rapidly disappearing (into the 25-29 age category) and the numbers remaining are not large enough to warrant their continued publication.

**ESTABLISHMENT DATA
EMPLOYMENT**

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

[In thousands]

1972 SIC Code	Industry	All employees					Production workers ¹				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	CHEMICALS AND ALLIED PRODUCTS—Cont'd										
2865	Cyclic crudes and intermediates	35.4	35.0	35.2	35.3	-	21.6	21.4	21.5	21.5	-
2861,9	Gum, wood, and industrial organic chemicals, nec.	138.3	136.8	137.2	136.7	-	55.9	65.3	66.0	65.0	-
287	Agricultural chemicals	71.7	71.1	74.9	73.2	-	45.0	43.8	47.3	45.5	-
289	Miscellaneous chemical products	93.2	93.4	97.1	97.2	-	52.3	52.5	56.3	55.9	-
29	PETROLEUM AND COAL PRODUCTS	211.4	211.8	215.4	216.0	215.9	136.4	136.9	136.2	135.5	133.9
291	Petroleum refining	167.8	167.4	171.3	172.3	-	105.2	104.9	104.2	103.8	-
295	Paving and roofing materials	31.3	32.4	31.4	31.2	-	23.5	24.5	23.9	23.3	-
30	RUBBER AND MISC. PLASTICS PRODUCTS	680.8	702.2	759.0	747.4	755.8	512.5	535.5	585.9	573.5	583.7
301	Tires and inner tubes	115.1	117.6	123.2	122.5	-	78.3	82.0	84.9	83.3	-
302	Rubber and plastics footwear	19.9	21.5	20.6	20.4	-	17.7	19.2	18.3	19.0	-
303,4	Reclaimed rubber, and rubber and plastics hose and belting	20.2	21.7	23.8	23.7	-	13.5	14.8	16.8	15.5	-
306	Fabricated rubber products, nec	97.9	101.5	108.2	105.6	-	74.8	78.2	84.7	82.1	-
307	Miscellaneous plastics products	427.7	439.9	483.2	475.2	-	328.2	341.4	381.2	373.5	-
31	LEATHER AND LEATHER PRODUCTS	211.8	234.4	239.1	228.0	248.1	177.1	198.7	202.4	192.8	210.7
311	Leather tanning and finishing	17.7	19.2	20.8	19.6	-	14.5	16.3	17.5	15.5	-
314	Footwear, except rubber	129.3	145.3	147.0	140.6	-	110.1	125.2	126.2	121.1	-
3143	Men's footwear, except athletic	47.7	56.2	58.5	54.7	-	40.5	48.5	50.1	46.9	-
3144	Women's footwear, except athletic	51.4	55.0	54.8	53.7	-	43.8	47.4	47.1	45.4	-
316	Luggage	16.1	16.1	16.7	16.0	-	12.0	12.3	12.9	12.3	-
317	Handbags and personal leather goods	27.8	30.0	29.6	28.6	-	23.4	25.6	24.7	23.6	-
-	TRANSPORTATION AND PUBLIC UTILITIES	5,132	5,134	5,195	5,171	5,184	4,279	4,275	4,315	4,285	4,313
40	RAILROAD TRANSPORTATION	537.1	534.8	509.2	514.9	-	-	-	-	-	-
4011	Class I railroads ²	483.3	481.2	459.7	465.4	-	-	-	-	-	-
41	LOCAL AND INTERURBAN PASSENGER TRANSIT	224.5	223.2	268.2	225.2	-	204.2	203.2	248.7	205.7	-
411	Local and suburban transportation	78.1	78.7	84.4	82.1	-	70.8	71.9	77.1	71.7	-
412	Taxicabs	52.0	50.9	50.0	50.0	-	-	-	-	-	-
413	Intercity highway transportation	40.6	41.8	40.9	40.6	-	37.6	38.6	37.6	37.1	-
415	School buses	39.6	37.6	77.6	38.6	-	-	-	-	-	-
42	TRUCKING AND WAREHOUSING	1,263.0	1,270.1	1,252.9	1,246.9	-	1,106.4	1,110.4	1,094.2	1,033.5	-
421,3	Trucking and trucking terminals	1,177.1	1,182.7	1,173.2	1,167.1	-	1,033.8	1,036.6	1,027.5	1,022.3	-
422	Public warehousing	85.9	87.4	79.7	79.8	-	72.6	73.8	66.7	66.6	-
44	WATER TRANSPORTATION	222.9	219.6	215.6	219.0	-	-	-	-	-	-
45	TRANSPORTATION BY AIR	458.8	460.2	465.4	468.9	-	-	-	-	-	-
451,2	Air transportation	408.9	410.5	413.8	417.0	-	-	-	-	-	-
46	PIPE LINES, EXCEPT NATURAL GAS	22.5	22.5	22.8	23.2	-	16.4	16.4	16.1	15.3	-
47	TRANSPORTATION SERVICES	198.5	195.8	210.7	215.1	-	-	-	-	-	-
48	COMMUNICATION	1,361.8	1,363.0	1,371.2	1,374.8	-	1,015.9	1,016.5	1,025.8	1,027.3	-
481	Telephone communication	1,079.5	1,079.6	1,074.0	1,077.3	-	784.1	784.2	782.7	734.1	-
483	Radio and television broadcasting	199.4	199.9	203.1	203.1	-	159.6	159.5	164.0	164.1	-
49	ELECTRIC, GAS, AND SANITARY SERVICES	843.0	844.3	878.6	882.8	-	690.9	690.4	718.2	721.5	-
491	Electric services	398.6	399.5	416.5	415.1	-	322.5	322.7	337.4	335.7	-
492	Gas production and distribution	173.7	173.8	178.9	181.6	-	143.2	142.9	146.3	143.3	-
493	Combination utility services	197.5	197.7	209.8	211.6	-	151.8	161.3	171.5	172.9	-
495	Sanitary services	49.3	49.5	49.5	50.5	-	43.6	43.8	43.3	44.1	-
-	WHOLESALE AND RETAIL TRADE	20,300	20,373	20,795	20,733	20,812	17,787	17,857	18,155	18,112	19,184
50,51	WHOLESALE TRADE	5,280	5,287	5,381	5,375	5,331	4,320	4,323	4,335	4,392	4,393
50	WHOLESALE TRADE - DURABLE GOODS	3,104	3,106	3,201	3,200	-	2,537	2,537	2,601	2,602	-
501	Motor vehicles and automotive equipment	413.9	413.6	418.4	418.2	-	333.9	333.4	336.9	335.6	-
502	Furniture and home furnishing	114.2	114.9	118.9	118.9	-	92.8	93.6	96.7	95.5	-
503	Lumber and construction materials	188.9	190.0	195.7	195.1	-	155.7	156.4	161.5	160.6	-
504	Sporting goods, toys, and hobby goods	69.9	70.5	75.0	74.8	-	56.9	57.5	60.4	59.2	-
505	Metals and minerals, except petroleum	149.6	149.6	155.8	155.8	-	120.7	119.9	126.1	125.1	-
506	Electrical goods	416.7	418.0	423.6	421.6	-	338.2	338.7	340.6	340.0	-
507	Hardware, plumbing, and heating equipment	241.5	241.4	246.8	247.8	-	198.6	198.3	202.1	203.2	-

See footnotes at end of table.

**ESTABLISHMENT DATA
EMPLOYMENT**

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

[In thousands]

1972 SIC Code	Industry	All employees					Production workers ¹				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	INSURANCE CARRIERS—Continued										
632	Medical service and health insurance	143.8	143.8	145.3	145.0	-	115.7	115.5	115.8	115.2	-
633	Fire, marine, and casualty insurance	484.1	482.7	485.0	487.0	-	354.3	362.4	352.3	354.3	-
64	INSURANCE AGENTS, BROKERS, AND SERVICE	455.9	456.7	468.1	470.4	-	-	-	-	-	-
65	REAL ESTATE	1,033.2	1,029.6	1,067.4	1,070.8	-	-	-	-	-	-
651	Real estate operators and lessors	472.9	471.8	492.0	492.2	-	-	-	-	-	-
653	Real estate agents and managers	392.8	391.0	401.3	404.5	-	-	-	-	-	-
655	Subdividers and developers	146.1	145.4	152.3	152.4	-	-	-	-	-	-
66	COMBINED REAL ESTATE, INSURANCE, ETC.	21.0	21.2	21.3	21.3	-	-	-	-	-	-
67	HOLDING AND OTHER INVESTMENT OFFICES.	117.9	118.8	126.5	128.9	-	-	-	-	-	-
-	SERVICES	18,145	18,136	18,764	18,858	18,856	16,176	16,159	16,695	16,778	16,752
70	HOTELS AND OTHER LODGING PLACES	1,210.4	1,218.6	1,175.6	1,237.5	-	-	-	-	-	-
701	Hotels, motels, and tourist courts	1,146.4	1,150.7	1,129.6	1,161.3	-	1,057.1	1,059.7	1,035.8	1,065.3	-
72	PERSONAL SERVICES	883.8	877.8	888.5	885.3	-	-	-	-	-	-
721	Laundry, cleaning, and garment services	354.5	353.8	357.1	354.8	-	317.2	316.2	319.1	317.5	-
723	Beauty shops	286.3	283.5	284.1	284.4	-	256.4	263.9	263.9	253.3	-
726	Funeral service and crematories	70.3	69.7	72.9	73.1	-	-	-	-	-	-
73	BUSINESS SERVICES	3,084.2	3,125.2	3,316.8	3,333.3	-	2,690.3	2,732.6	2,901.8	2,912.5	-
731	Advertising	154.3	153.0	157.4	157.4	-	117.1	115.8	121.0	121.2	-
732	Credit reporting and collection	73.5	73.2	72.5	72.0	-	-	-	-	-	-
733	Mailing, reproduction, stenographic	118.0	119.7	128.5	128.9	-	-	-	-	-	-
734	Services to buildings	498.6	493.2	521.2	519.0	-	453.2	449.8	474.0	471.3	-
736	Personnel supply services	534.9	567.0	605.2	618.8	-	-	-	-	-	-
737	Computer and data processing services	308.3	310.2	342.0	346.9	-	257.4	259.7	285.5	289.3	-
75	AUTO REPAIR, SERVICES, AND GARAGES	571.6	568.2	577.9	580.0	-	486.3	484.7	491.8	494.5	-
753	Automotive repair shops	352.7	350.9	354.2	358.4	-	299.7	298.5	299.1	303.7	-
76	MISCELLANEOUS REPAIR SERVICES	284.4	288.3	293.9	294.6	-	244.1	235.8	246.1	247.0	-
78	MOTION PICTURES	236.9	210.1	219.8	220.3	-	211.0	186.8	188.2	189.5	-
781	Motion picture production and services	83.0	58.4	67.2	61.7	-	70.4	48.4	54.9	50.5	-
783	Motion picture theaters	142.5	140.7	141.8	147.9	-	-	-	-	-	-
79	AMUSEMENT AND RECREATION SERVICES	889.5	884.9	906.7	932.1	-	815.0	811.0	827.9	833.0	-
80	HEALTH SERVICES	5,310.3	5,329.6	5,546.4	5,582.4	-	4,746.0	4,756.9	4,962.5	4,933.1	-
801	Offices of physicians	754.4	757.0	783.8	789.7	-	619.6	623.2	645.4	650.9	-
802	Offices of dentists	340.1	340.2	356.6	358.4	-	296.1	296.9	314.1	316.9	-
805	Nursing and personal care facilities	1,010.4	1,018.4	1,054.2	1,058.5	-	910.6	918.4	954.1	957.7	-
806	Hospitals	2,769.9	2,775.2	2,888.9	2,910.6	-	2,543.4	2,548.8	2,648.7	2,570.1	-
81	LEGAL SERVICES	513.7	507.6	548.1	550.3	-	442.5	435.6	469.9	473.8	-
82	EDUCATIONAL SERVICES	979.8	984.9	1,057.9	979.6	-	-	-	-	-	-
821	Elementary and secondary schools	263.9	268.0	293.9	261.5	-	-	-	-	-	-
822	Colleges and universities	601.8	603.3	643.8	601.6	-	-	-	-	-	-
83	SOCIAL SERVICES	1,199.1	1,179.3	1,179.3	1,189.3	-	-	-	-	-	-
86	MEMBERSHIP ORGANIZATIONS	1,567.1	1,557.9	1,588.3	1,596.9	-	-	-	-	-	-
89	MISCELLANEOUS SERVICES	1,010.2	1,011.0	1,044.5	1,055.9	-	843.7	844.5	874.8	834.4	-
891	Engineering and architectural services	553.6	554.7	577.3	580.9	-	472.7	473.6	494.5	477.0	-
893	Accounting, auditing, and bookkeeping	320.0	320.6	333.4	337.0	-	257.6	257.9	268.2	270.8	-
-	GOVERNMENT	15,611	15,430	16,203	15,457	15,258	-	-	-	-	-
-	FEDERAL GOVERNMENT	2,949	2,862	2,825	2,833	2,797	-	-	-	-	-
-	Executive, by agency ⁴	2,893.1	2,805.5	2,769.1	2,776.7	-	-	-	-	-	-
-	Department of Defense	911.5	894.7	931.4	940.6	-	-	-	-	-	-
-	Postal Service	667.3	665.1	661.8	663.8	-	-	-	-	-	-
-	Other executive agencies	1,314.3	1,245.7	1,175.9	1,172.3	-	-	-	-	-	-
-	Legislative	41.5	41.1	40.4	40.9	-	-	-	-	-	-
-	Judicial	14.8	15.0	15.2	15.2	-	-	-	-	-	-

See footnotes at end of table.

ESTABLISHMENT DATA EMPLOYMENT

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

[In thousands]

1972 SIC Code	Industry	All employees					Production workers ¹				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	FEDERAL GOVERNMENT—Continued										
	Federal Government, by industry										
—	Manufacturing activities	108.9	107.2	111.1	113.0	—	—	—	—	—	—
3731	Shipbuilding and repairing	56.5	56.0	58.3	58.6	—	—	—	—	—	—
—	Transportation and public utilities, except										
—	Postal Service	41.5	40.7	40.9	42.4	—	—	—	—	—	—
—	Services	423.4	419.1	410.7	413.4	—	—	—	—	—	—
806	Federal government hospitals	238.6	234.3	231.2	233.5	—	—	—	—	—	—
—	STATE AND LOCAL GOVERNMENT	12,662	12,568	13,378	12,624	12,461	—	—	—	—	—
—	State government	3,417.8	3,411.4	3,462.3	3,382.1	—	—	—	—	—	—
806	State government hospitals	537.0	535.6	534.3	533.2	—	—	—	—	—	—
82	State education	1,167.4	1,167.5	1,244.1	1,158.7	—	—	—	—	—	—
—	General administration including executive, legislative, and judicial functions	1,061.2	1,057.0	1,043.4	1,050.8	—	—	—	—	—	—
—	Local government	9,244.2	9,156.4	9,916.0	9,241.9	—	—	—	—	—	—
—	Transportation and public utilities	624.7	628.4	641.2	644.0	—	—	—	—	—	—
806	Local government hospitals	610.4	612.4	630.7	633.7	—	—	—	—	—	—
82	Local education	4,340.3	4,283.2	5,238.5	4,371.3	—	—	—	—	—	—
—	General administration including executive, legislative, and judicial functions	3,215.6	3,189.2	3,019.7	3,171.9	—	—	—	—	—	—

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

² Beginning January 1978, data relate to line haul railroads with operating revenues of \$50,000,000 or more.

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

⁴ Prepared by the Office of Personnel Management. Data relate to civilian employment only and exclude Central Intelligence and National Security Agencies.

— Data not available.
p = preliminary.

NOTE: Data from April 1980 forward are subject to revision when more recent benchmark data are introduced. See "Benchmark adjustment" in the Explanatory notes of this publication.

**ESTABLISHMENT DATA
WOMEN EMPLOYEES**

B-3. Women employees on nonagricultural payrolls by industry

(In thousands)

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
-	TOTAL	38,310	38,237	39,143	39,301	39,455
-	PRIVATE SECTOR	30,309	30,415	31,124	31,312	31,564
-	MINING	102	106	113	116	127
10	METAL MINING	9.3	9.9	9.1	9.3	9.7
11, 12	COAL MINING	10.6	10.7	4.4	4.5	10.3
13	OIL AND GAS EXTRACTION	72.8	75.5	89.2	92.5	95.5
131, 2	Crude petroleum, natural gas, and natural gas liquids	47.3	49.5	57.3	58.7	51.7
138	Oil and gas field services	25.5	26.0	31.4	33.9	34.9
14	NONMETALLIC MINERALS, EXCEPT FUELS	9.6	9.7	9.3	10.3	10.2
142	Crushed and broken stone	2.7	2.7	2.5	2.7	2.7
144	Sand and gravel	3.2	3.2	3.2	3.2	3.3
-	CONSTRUCTION	374	381	391	395	404
15	GENERAL BUILDING CONTRACTORS	132.0	134.7	138.6	138.1	141.5
152	Residential building construction	78.1	79.9	82.0	81.8	84.9
153	Operative builders	13.8	13.9	14.9	14.9	14.5
154	Nonresidential building construction	40.1	40.9	41.7	41.5	42.1
16	HEAVY CONSTRUCTION CONTRACTORS	61.2	63.3	59.2	61.4	64.3
161	Highway and street construction	18.3	19.4	15.9	17.1	19.2
162	Heavy construction, except highway	42.9	43.9	43.3	44.3	45.1
17	SPECIAL TRADE CONTRACTORS	180.9	183.0	193.6	195.5	198.3
171	Plumbing, heating, air conditioning	50.1	50.1	52.9	53.7	54.5
172	Painting, paper hanging, decorating	11.4	11.8	12.5	12.8	12.8
173	Electrical work	33.0	33.9	36.6	36.7	35.7
174	Masonry, stonework, and plastering	20.9	20.7	22.5	23.2	23.7
175	Carpentering and flooring	14.2	14.1	15.5	15.2	15.6
176	Roofing and sheet metal work	13.1	13.2	13.6	13.7	13.7
-	MANUFACTURING	6,287	6,264	6,333	6,371	6,449
24, 25, 32-39	DURABLE GOODS	2,996	2,963	3,051	3,066	3,099
20-23, 26-31	NONDURABLE GOODS	3,291	3,301	3,282	3,305	3,350
	DURABLE GOODS					
24	LUMBER AND WOOD PRODUCTS	99.1	98.2	105.2	107.6	107.5
241	Logging camps and logging contractors	5.0	5.3	5.3	5.6	5.5
242	Sawmills and planing mills	20.3	20.2	20.0	20.5	20.7
2421	Sawmills and planing mills, general	14.0	14.3	14.1	14.4	14.5
243	Millwork, plywood, and structural members	39.2	38.1	43.7	44.7	44.2
244	Wood containers	7.1	7.0	6.9	7.3	7.2
245	Wood buildings and mobile homes	7.6	7.5	8.5	8.7	8.3
249	Miscellaneous wood products	19.9	20.1	20.9	20.8	21.1
25	FURNITURE AND FIXTURES	137.9	133.7	145.1	144.6	145.2
251	Household furniture	100.2	96.0	104.8	104.2	104.2
2511	Wood household furniture	43.2	42.0	44.3	44.3	44.5
2512	Upholstered household furniture	33.0	32.1	35.1	34.9	35.2
2515	Mattresses and bedsprings	7.9	8.0	8.3	8.3	8.5
252	Office furniture	12.6	12.4	13.0	13.1	13.3
253	Public building and related furniture	5.1	5.1	5.2	5.3	5.4
254	Partitions and fixtures	9.9	10.2	10.9	10.8	10.8
259	Miscellaneous furniture and fixtures	10.1	10.0	11.2	11.2	11.5
32	STONE, CLAY, AND GLASS PRODUCTS	126.9	125.3	126.4	127.9	130.7
322	Glass and glassware, pressed or blown	42.2	41.7	40.7	41.2	41.3
3221	Glass containers	23.5	23.6	22.6	23.2	23.5
3229	Pressed and blown glass, nec	18.7	18.1	18.1	18.0	18.3
323	Products of purchased glass	13.3	13.0	13.2	13.2	13.9
324	Cement, hydraulic	1.6	1.7	1.7	1.7	1.9
325	Structural clay products	6.4	6.5	6.5	6.6	6.7
326	Pottery and related products	15.7	15.3	14.4	14.5	14.5
327	Concrete, gypsum, and plaster products	15.1	15.2	14.9	15.2	15.4
329	Misc. nonmetallic mineral products	30.2	29.5	32.1	32.5	33.1
33	PRIMARY METAL INDUSTRIES	123.5	121.6	126.8	127.2	127.4
331	Blast furnace and basic steel products	40.2	38.2	41.5	42.3	42.5
3312	Blast furnaces and steel mills	30.6	28.9	31.5	32.0	32.4
332	Iron and steel foundries	18.6	18.2	18.3	18.4	18.0

ESTABLISHMENT DATA WOMEN EMPLOYEES

B-3. Women employees on nonagricultural payrolls by industry—Continued

(In thousands)

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
PRIMARY METAL INDUSTRIES—Continued						
3321	Gray iron foundries	8.6	8.4	8.9	9.0	9.1
3322	Malleable iron foundries	1.2	1.1	1.1	1.1	1.1
3325	Steel foundries, nec	5.3	5.2	4.8	4.8	4.6
333	Primary nonferrous metals	5.4	5.6	5.2	5.2	5.2
3334	Primary aluminum	2.3	2.4	2.3	2.3	2.4
335	Nonferrous rolling and drawing	39.2	40.2	40.0	39.6	39.7
3351	Copper rolling and drawing	3.3	3.3	3.5	3.5	3.6
3353	Aluminum sheet, plate, and foil	4.3	4.2	4.0	4.0	4.1
3357	Nonferrous wire drawing and insulating	23.1	24.1	24.4	23.9	23.7
336	Nonferrous foundries	14.3	13.8	15.8	15.8	15.9
3361	Aluminum foundries	7.3	6.9	8.0	8.1	8.1
34	FABRICATED METAL PRODUCTS	330.8	323.3	338.1	339.5	342.5
341	Metal cans and shipping containers	13.2	12.7	12.7	12.8	13.1
3411	Metal cans	11.4	11.0	10.9	11.0	11.2
342	Cutlery, hand tools, and hardware	56.1	54.0	58.3	58.0	58.5
3423, 5	Hand and edge tools, and hand saws and blades	16.6	16.2	15.3	16.5	15.7
3429	Hardware, nec	32.4	30.9	35.2	35.0	35.3
343	Plumbing and heating, except electric	15.5	14.9	15.5	16.5	16.5
344	Fabricated structural metal products	69.7	69.0	71.4	72.0	72.9
3441	Fabricated structural metal	7.6	7.5	7.4	7.4	7.4
3442	Metal doors, sash, and trim	18.4	18.4	19.5	20.2	20.7
3443	Fabricated plate work (boiler shops)	18.1	18.2	18.7	18.7	18.8
3444	Sheet metal work	15.7	15.4	15.0	16.0	15.1
345	Screw machine products, bolts, etc.	24.8	24.2	23.7	23.7	23.6
3451	Screw machine products	12.4	12.4	12.2	12.3	12.3
3452	Bolts, nuts, rivets, and washers	12.4	11.8	11.5	11.4	11.4
346	Metal forgings and stampings	49.5	48.2	53.3	53.9	54.1
3462	Iron and steel forgings	4.1	4.3	4.2	4.3	4.3
3465	Automotive stampings	11.0	10.2	13.3	13.9	14.1
3469	Metal stampings, nec	31.9	31.3	33.2	33.1	33.1
347	Metal services, nec	24.4	23.8	24.5	24.3	24.5
3471	Plating and polishing	17.0	16.8	17.4	17.3	17.4
3479	Metal coating and allied services	7.4	7.0	7.1	7.0	7.1
348	Ordinance and accessories, nec	17.2	17.3	17.3	17.3	17.4
349	Misc. fabricated metal products	60.4	59.2	60.4	61.0	62.1
3494	Valves and pipe fittings	23.8	23.2	23.0	23.1	23.5
3496	Misc. fabricated wire products	14.4	14.0	14.7	14.4	14.9
35	MACHINERY, EXCEPT ELECTRICAL	495.8	491.2	503.1	505.3	511.3
351	Engines and turbines	25.3	24.9	22.7	22.9	23.5
3511	Turbines and turbine generator sets	6.0	6.2	5.0	5.8	5.9
3519	Internal combustion engines, nec	19.3	18.7	16.7	17.1	17.5
352	Farm and garden machinery	28.8	26.6	28.1	26.7	25.5
3523	Farm machinery and equipment	22.8	21.2	20.9	20.6	20.3
353	Construction and related machinery	47.8	48.1	51.2	51.5	52.5
3531	Construction machinery	14.2	14.2	15.0	15.2	15.6
3533	Oil field machinery	13.3	13.6	15.1	15.3	15.7
354	Metalworking machinery	58.6	58.0	57.1	58.3	58.7
3541	Machine tools, metal cutting types	10.8	10.6	10.8	10.5	10.6
3544	Special dies, tools, jigs, and fixtures	15.6	15.7	15.5	16.2	16.4
3545	Machine tool accessories	14.2	14.2	13.5	14.0	14.0
355	Special industry machinery	31.1	31.2	30.6	30.3	31.3
3551	Food products machinery	6.6	6.5	5.9	5.8	5.8
3552	Textile machinery	5.3	5.1	5.0	4.8	4.8
3555	Printing trades machinery	6.6	6.8	7.3	7.3	7.5
356	General industrial machinery	63.0	62.3	62.3	62.7	63.1
3561	Pumps and pumping equipment	11.7	11.5	11.5	11.5	11.6
3562	Ball and roller bearings	14.0	13.9	14.2	14.0	13.3
357	Office and computing machines	152.7	155.1	159.9	160.8	163.7
3573	Electronic computing equipment	124.0	126.4	132.0	132.8	135.4
358	Refrigeration and service machinery	37.9	36.0	39.5	40.1	40.3
3585	Refrigeration and heating equipment	25.0	23.3	27.0	27.3	27.5
359	Misc. machinery, except electrical	50.6	49.0	51.2	51.9	52.2
3599	Machinery, except electrical, nec	40.2	39.5	39.5	40.2	40.8
36	ELECTRIC AND ELECTRONIC EQUIPMENT	894.9	885.3	910.3	912.1	920.7
361	Electric distributing equipment	45.7	44.1	46.2	46.3	47.2
3612	Transformers	19.3	18.3	18.7	18.6	19.1
3613	Switchgear and switchboard apparatus	26.4	25.8	27.5	27.7	28.1
362	Electrical industrial apparatus	91.7	87.8	91.7	91.8	92.3
3621	Motors and generators	48.8	46.1	50.8	50.7	50.7
3622	Industrial controls	30.2	29.2	28.5	28.6	29.8
363	Household appliances	57.1	54.5	61.9	62.3	62.3
3632	Household refrigerators and freezers	8.5	8.8	11.2	11.4	11.7
3633	Household laundry equipment	3.5	3.2	4.2	4.4	4.6
3634	Electric housewares and fans	27.9	27.5	28.4	28.2	28.4
364	Electric lighting and wiring equipment	97.8	94.3	96.7	96.0	97.7
3641	Electric lamps	22.8	21.9	21.3	20.4	21.3

**ESTABLISHMENT DATA
WOMEN EMPLOYEES**

B-3. Women employees on nonagricultural payrolls by industry—Continued

[In thousands]

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
ELECTRIC AND ELECTRONIC EQUIPMENT—Continued						
3643	Current-carrying wiring devices	44.3	43.3	43.2	43.5	44.4
365	Radio and TV receiving equipment	55.4	57.3	58.0	58.0	58.0
3651	Radio and TV receiving sets	41.9	43.4	44.5	44.5	45.1
366	Communication equipment	205.7	205.0	207.0	207.4	209.5
3661	Telephone and telegraph apparatus	80.9	78.9	75.3	74.9	73.9
3662	Radio and TV communication equipment	124.8	126.1	131.7	132.5	135.6
367	Electronic components and accessories	290.3	291.5	289.8	290.3	292.9
3671-3	Electronic tubes	16.1	16.2	16.5	16.4	15.5
3674	Semiconductors and related devices	107.0	108.8	109.4	109.0	108.1
3679	Electronic components, nec.	115.1	115.1	116.2	117.3	118.6
369	Misc. electrical equipment and supplies	51.2	50.8	59.0	60.3	57.4
3694	Engine electrical equipment	22.7	22.2	23.4	30.2	30.3
TRANSPORTATION EQUIPMENT						
37	Motor vehicles and equipment	286.3	285.3	301.0	303.4	309.5
371	Motor vehicles and equipment	101.8	100.3	104.2	105.2	109.2
3711	Motor vehicles and car bodies	40.4	40.9	36.9	37.3	38.9
3713	Truck and bus bodies	4.2	4.0	3.9	3.5	3.8
3714	Motor vehicle parts and accessories	54.0	52.3	59.3	60.7	62.6
372	Aircraft and parts	118.5	118.6	124.5	125.2	125.0
3721	Aircraft	63.6	63.3	69.1	69.8	72.7
3724	Aircraft engines and engine parts	28.1	28.3	28.2	28.2	28.1
3728	Aircraft equipment, nec.	26.8	27.0	27.2	27.2	27.2
373	Ship and boat building and repairing	21.1	20.9	23.9	23.8	24.3
3731	Ship building and repairing	15.8	15.8	17.0	16.8	17.9
374	Railroad equipment	7.1	7.0	5.6	5.5	5.5
376	Guided missiles, space vehicles, parts	23.8	24.2	26.5	26.7	27.0
3761	Guided missiles and space vehicles	19.8	20.1	22.0	22.2	22.4
379	Miscellaneous transportation equipment	6.6	7.1	7.7	8.3	8.3
INSTRUMENTS AND RELATED PRODUCTS						
38	Engineering and scientific instruments	302.7	303.1	304.1	305.3	308.5
381	Engineering and scientific instruments	23.5	23.6	24.1	24.4	24.5
382	Measuring and controlling devices	105.4	104.8	106.7	107.0	107.9
3822	Environmental controls	24.8	23.3	23.9	23.6	22.9
3823	Process control instruments	17.6	18.3	19.1	19.3	19.9
3825	Instruments to measure electricity	46.6	47.1	48.3	48.6	49.3
383	Optical instruments and lenses	11.5	11.8	11.2	11.3	11.7
384	Medical instruments and supplies	84.8	84.6	86.2	86.4	86.9
3841	Surgical and medical instruments	41.5	41.1	42.1	42.3	42.5
3842	Surgical appliances and supplies	35.4	35.4	35.8	35.8	36.1
385	Ophthalmic goods	26.0	25.7	25.2	25.4	25.2
386	Photographic equipment and supplies	37.8	39.0	39.3	39.9	41.5
387	Watches, clocks, and watchcases	13.7	13.6	11.1	10.9	10.7
MISCELLANEOUS MANUFACTURING INDUSTRIES						
39	Jewelry, silverware, and plated ware	198.2	196.0	190.7	193.1	195.5
391	Jewelry, silverware, and plated ware	25.1	25.1	25.4	25.4	25.4
393	Musical instruments	8.8	8.7	10.3	10.3	10.3
394	Toys and sporting goods	63.8	62.4	58.7	60.4	61.6
3942, 4	Dolls, games, toys, and children's vehicles	33.7	34.3	31.4	32.9	34.4
3949	Sporting and athletic goods, nec.	30.1	28.1	27.3	27.5	27.2
395	Pens, pencils, office and art supplies	20.8	20.7	20.6	20.8	20.9
396	Costume jewelry and notions	30.4	30.0	27.2	27.4	27.6
399	Miscellaneous manufactures	49.3	49.1	48.5	48.9	49.7
NONDURABLE GOODS						
FOOD AND KINDRED PRODUCTS						
20	Meat products	479.4	493.5	472.3	478.3	489.1
201	Meat products	115.2	117.9	111.9	113.5	114.3
2011	Meat packing plants	29.4	30.1	28.5	28.5	29.1
2013	Sausages and other prepared meats	20.4	20.7	20.1	20.5	20.9
2016	Poultry dressing plants	58.2	60.6	56.7	57.6	58.1
202	Dairy products	37.8	39.0	37.3	37.3	38.6
2026	Fluid milk	17.6	17.8	17.4	17.4	17.5
203	Preserved fruits and vegetables	89.9	94.8	83.6	86.3	87.9
2032	Canned specialties	8.1	8.3	8.4	8.5	8.3
2033	Canned fruits and vegetables	27.1	28.2	24.3	25.5	25.4
2037	Frozen fruits and vegetables	21.5	22.7	19.0	19.9	21.0
204	Grain mill products	29.0	29.5	28.8	29.4	30.0
205	Bakery products	59.3	58.8	57.5	57.3	59.1
2051	Bread, cake, and related products	39.7	39.8	38.4	38.7	39.3
2052	Cookies and crackers	19.6	19.0	19.1	18.6	18.8
206	Sugar and confectionery products	37.9	37.5	40.5	40.3	40.5
207	Fats and oils	6.0	6.0	5.0	5.1	5.1
208	Beverages	40.4	41.3	41.5	41.4	42.0
2082	Malt beverages	7.1	7.4	7.5	7.6	7.7
2086	Bottled and canned soft drinks	18.3	18.7	19.2	19.1	19.3
209	Misc. foods and kindred products	63.9	68.7	65.2	66.7	71.5
TOBACCO MANUFACTURES						
21	Cigarettes	21.9	22.3	23.3	23.0	23.3
211	Cigarettes	13.9	14.3	14.9	14.8	15.4

**ESTABLISHMENT DATA
WOMEN EMPLOYEES**

B-3. Women employees on nonagricultural payrolls by industry—Continued

[In thousands]

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
22	TEXTILE MILL PRODUCTS	407.9	398.2	398.1	399.5	433.3
221	Weaving mills, cotton	66.2	65.6	61.3	61.6	51.3
222	Weaving mills, synthetics	49.6	44.4	49.0	48.9	49.1
223	Weaving and finishing mills, wool	7.7	7.6	7.4	7.4	7.5
224	Narrow fabric mills	13.6	13.7	14.4	14.5	14.5
225	Knitting mills	143.3	143.1	140.1	141.4	143.1
2251	Women's hosiery, except socks	24.0	23.9	22.2	22.3	22.6
2252	Hosiery, nec	23.8	23.7	24.4	24.8	25.1
2253	Knit outerwear mills	48.7	49.2	49.4	50.4	51.3
2254	Knit underwear mills	23.9	24.0	23.4	23.3	23.7
2257	Circular knit fabric mills	13.2	12.9	12.2	12.0	11.9
226	Textile finishing, except wool	22.9	22.6	21.7	21.5	22.0
2261	Finishing plants, cotton	9.7	9.6	9.0	8.3	9.2
2262	Finishing plants, synthetic	6.3	6.3	6.5	6.5	5.5
227	Floor covering mills	22.5	21.8	22.2	22.6	22.4
228	Yarn and thread mills	62.5	60.5	61.3	62.1	62.6
2281	Yarn mills, except wool	38.8	38.4	39.2	39.4	39.5
2282	Throwing and winding mills	12.1	11.6	11.3	11.9	12.1
229	Miscellaneous textile goods	19.6	18.8	19.7	19.5	19.9
23	APPAREL AND OTHER TEXTILE PRODUCTS	1,033.7	1,038.5	1,013.3	1,020.9	1,035.1
231	Men's and boys' suits and coats	61.5	62.2	59.5	60.5	61.7
232	Men's and boys' furnishings	311.1	312.7	296.1	298.2	322.4
2321	Men's and boys' shirts and nightwear	88.4	89.1	84.1	84.3	85.8
2327	Men's and boys' separate trousers	64.4	64.6	62.0	62.4	62.8
2328	Men's and boys' work clothing	88.4	88.7	84.2	85.5	95.9
233	Women's and misses' outerwear	359.6	361.7	353.5	354.4	337.3
2331	Women's and misses' blouses and waists	55.4	56.1	55.1	54.9	54.8
2335	Women's and misses' dresses	125.1	125.9	123.6	121.0	122.7
2337	Women's and misses' suits and coats	55.6	57.8	47.4	52.4	51.4
2339	Women's and misses' outerwear, nec	123.5	121.9	127.4	126.1	125.9
234	Women's and children's undergarments	77.7	77.3	76.0	76.7	77.6
2341	Women's and children's underwear	62.8	62.8	61.5	62.1	62.7
2342	Brassieres and allied garments	14.9	14.5	14.4	14.5	14.9
236	Children's outerwear	56.3	57.7	55.4	56.0	57.3
2361	Children's dresses and blouses	24.5	25.1	24.1	24.5	25.0
238	Misc. apparel and accessories	43.3	43.5	42.3	42.1	43.2
239	Misc. fabricated textile products	108.8	108.0	115.6	117.5	119.4
2391	Curtains and draperies	21.8	21.2	21.5	22.2	22.5
2392	House furnishings, nec	31.5	31.1	30.7	31.0	31.5
2396	Automotive and apparel trimmings	12.3	12.5	18.1	19.2	19.4
26	PAPER AND ALLIED PRODUCTS	159.6	159.8	160.5	161.5	163.1
261, 26	Paper and pulp mills	27.6	27.9	27.5	27.9	28.8
262	Paper mills, except building paper	24.6	24.9	24.7	25.1	25.9
263	Paperboard mills	5.9	6.1	5.9	5.9	5.1
264	Misc. converted paper products	76.9	76.9	78.0	78.3	78.9
265	Paperboard containers and boxes	49.2	48.9	49.1	49.4	49.3
27	PRINTING AND PUBLISHING	496.7	498.6	510.4	510.2	511.8
271	Newspapers	157.3	159.7	161.1	162.6	154.5
272	Periodicals	52.7	52.9	53.8	53.6	54.1
273	Books	55.0	54.2	56.4	55.6	54.6
274	Miscellaneous publishing	26.6	26.5	28.0	27.6	27.5
275	Commercial printing	130.1	130.0	137.4	137.2	137.0
2751	Commercial printing, letterpress	54.9	54.9	57.4	57.4	57.8
2752	Commercial printing, lithographic	69.7	69.7	73.5	73.3	72.3
276	Manifold business forms	15.9	15.7	15.4	15.5	15.7
278	Blankbooks and bookbinding	32.7	32.9	32.7	32.7	32.2
279	Printing trade services	10.7	10.9	11.2	11.2	11.4
28	CHEMICALS AND ALLIED PRODUCTS	275.7	278.8	280.2	281.8	295.9
281	Industrial inorganic chemicals	24.0	24.3	24.4	24.5	24.9
2819	Industrial inorganic chemicals, nec	16.0	16.2	16.5	16.6	16.7
282	Plastics materials and synthetics	44.6	44.2	43.3	43.3	44.0
2821	Plastics materials and resins	11.2	11.3	11.4	11.5	11.3
2824	Organic fibers, noncellulosic	26.1	25.8	25.0	24.9	25.1
283	Drugs	81.7	82.7	85.2	85.9	87.1
2834	Pharmaceutical preparations	68.6	69.4	71.5	71.9	72.3
284	Soap, cleaners, and toilet goods	55.2	56.4	56.2	56.3	57.2
2841	Soap and other detergents	9.5	9.3	9.1	9.1	9.3
2844	Toilet preparations	31.9	32.6	33.4	33.5	34.2
285	Paints and allied products	12.8	12.7	12.5	12.5	12.8
286	Industrial organic chemicals	25.8	26.4	26.0	26.0	26.5
2861,9	Gum, wood, and industrial organic chemicals, nec	21.0	21.8	21.5	21.7	22.2
287	Agricultural chemicals	11.1	11.2	10.9	11.2	11.3
289	Miscellaneous chemical products	20.5	20.9	21.7	22.0	22.1

**ESTABLISHMENT DATA
WOMEN EMPLOYEES**

B-3. Women employees on nonagricultural payrolls by industry—Continued

[In thousands]

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
29	PETROLEUM AND COAL PRODUCTS	26.7	28.0	29.5	30.1	30.9
291	Petroleum refining	21.5	22.8	24.5	25.0	25.5
30	RUBBER AND MISC. PLASTICS PRODUCTS	246.5	240.3	256.5	259.2	254.5
301	Tires and inner tubes	11.8	11.5	11.6	11.7	11.9
302	Rubber and plastics footwear	13.1	13.4	12.6	12.5	12.7
303,4	Reclaimed rubber, and rubber and plastics hose and belting	5.8	5.7	6.0	6.1	7.4
306	Fabricated rubber products, nec	35.3	34.0	35.3	36.9	37.5
307	Miscellaneous plastics products	180.5	175.6	190.0	192.0	195.0
31	LEATHER AND LEATHER PRODUCTS	142.5	143.0	137.6	140.6	143.0
311	Leather tanning and finishing	2.7	2.6	2.9	3.0	3.0
314	Footwear, except rubber	97.3	98.2	93.4	95.5	97.3
3143	Men's footwear, except athletic	34.6	34.9	35.8	36.1	35.3
3144	Women's footwear, except athletic	40.4	41.0	34.7	36.3	37.6
316	Luggage	8.8	8.7	8.3	8.3	8.7
317	Handbags and personal leather goods	20.6	20.4	19.8	20.2	20.3
—	TRANSPORTATION AND PUBLIC UTILITIES	1,289	1,294	1,322	1,330	1,343
41	LOCAL AND INTERURBAN PASSENGER TRANSIT	70.2	65.9	71.8	73.2	59.5
411	Local and suburban transportation	13.0	12.9	15.3	15.5	15.6
412	Taxicabs	6.9	6.7	7.3	7.2	7.1
413	Intercity highway transportation	5.0	5.2	5.0	5.0	5.1
415	School buses	42.6	38.4	41.4	42.8	38.0
42	TRUCKING AND WAREHOUSING	149.7	150.7	149.2	150.0	152.5
421,3	Trucking and trucking terminals	133.8	135.6	134.7	135.5	137.8
422	Public warehousing	15.9	15.1	14.5	14.5	14.7
44	WATER TRANSPORTATION	19.6	20.7	21.4	21.9	23.0
45	TRANSPORTATION BY AIR	149.2	149.8	150.6	151.8	153.2
451,2	Air transportation	140.7	141.2	142.1	143.1	144.4
46	PIPE LINES, EXCEPT NATURAL GAS	2.7	2.8	3.1	3.1	3.3
47	TRANSPORTATION SERVICES	92.5	91.7	97.2	97.5	101.3
48	COMMUNICATION	627.9	633.2	636.9	639.5	511.9
481	Telephone communication	544.3	548.8	548.5	550.1	553.8
483	Radio and television broadcasting	62.5	63.2	64.7	65.2	56.1
49	ELECTRIC, GAS, AND SANITARY SERVICES	152.3	155.2	163.3	164.4	168.6
491	Electric services	70.6	72.0	76.8	77.2	78.4
492	Gas production and distribution	35.9	37.0	37.7	38.4	39.8
493	Combination utility services	35.5	35.6	37.7	37.9	39.1
495	Sanitary services	5.4	5.5	6.1	5.9	5.2
—	WHOLESALE AND RETAIL TRADE	8,807	8,858	8,903	8,980	9,153
50,51	WHOLESALE TRADE	1,357	1,363	1,377	1,383	1,391
50	WHOLESALE TRADE-DURABLE GOODS	759	757	768	772	775
501	Motor vehicles and automotive equipment	90.1	90.0	88.5	88.7	89.9
502	Furniture and home furnishings	43.4	43.4	44.9	45.4	45.1
503	Lumber and construction materials	34.2	34.4	36.0	36.5	36.9
504	Sporting goods, toys, and hobby goods	23.8	23.4	25.1	25.4	25.4
505	Metals and minerals, except petroleum	29.9	29.5	29.7	29.9	30.2
506	Electrical goods	120.7	121.2	122.3	123.3	124.3
507	Hardware, plumbing, and heating equipment	67.2	66.6	65.2	66.5	65.4
508	Machinery, equipment, and supplies	301.3	301.7	307.2	308.8	309.5
509	Miscellaneous durable goods	48.3	46.5	47.3	47.8	47.7
51	WHOLESALE TRADE-NONDURABLE GOODS	598	606	609	611	616
511	Paper and paper products	45.5	46.2	48.7	48.8	49.2
512	Drugs, proprietaries, and sundries	64.1	64.0	65.7	65.9	65.0
513	Apparel, piece goods, and notions	81.3	82.1	81.3	81.9	83.0
514	Groceries and related products	156.4	161.2	157.1	158.8	151.5
516	Chemicals and allied products	32.9	33.3	35.3	34.8	35.1
517	Petroleum and petroleum products	50.6	51.4	52.0	51.9	52.6
518	Beer, wine, and distilled beverages	20.9	21.0	22.0	22.0	22.2
519	Miscellaneous nondurable goods	114.3	113.8	114.3	114.7	114.8

ESTABLISHMENT DATA WOMEN EMPLOYEES

B-3. Women employees on nonagricultural payrolls by industry—Continued

[In thousands]

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
52-59	RETAIL TRADE	7,450	7,495	7,525	7,597	7,752
52	BUILDING MATERIALS AND GARDEN SUPPLIES	166.5	163.4	167.9	159.3	155.9
521	Lumber and other building materials	64.5	64.8	65.3	67.1	67.8
525	Hardware stores	54.6	54.5	54.9	55.8	55.1
53	GENERAL MERCHANDISE STORES	1,476.0	1,478.0	1,425.2	1,420.5	1,544.5
531	Department stores	1,201.2	1,203.1	1,154.2	1,146.6	1,258.9
533	Variety stores	195.5	195.3	193.1	194.1	193.6
539	Misc. general merchandise stores	79.3	79.6	77.9	79.8	82.0
54	FOOD STORES	1,003.6	1,011.1	1,039.1	1,044.6	1,056.9
541	Grocery stores	838.4	845.3	867.4	872.9	874.1
542	Meat markets and freezer provisioners	18.6	18.5	17.5	16.9	17.4
546	Retail bakeries	79.8	79.3	80.2	81.4	81.4
55	AUTOMOTIVE DEALERS AND SERVICE STATIONS	299.9	301.8	302.8	307.3	309.8
551.2	New and used car dealers	114.0	111.5	113.3	113.9	114.3
553	Auto and home supply stores	46.5	46.7	48.0	48.8	48.8
554	Gasoline service stations	123.7	127.6	125.9	128.9	130.7
56	APPAREL AND ACCESSORY STORES	652.7	650.7	675.7	671.9	573.5
561	Men's and boys' clothing and furnishings	57.7	58.4	58.1	57.9	58.2
562	Women's ready-to-wear stores	306.1	302.0	314.3	313.9	312.6
565	Family clothing stores	132.6	133.4	137.6	138.4	140.2
566	Shoe stores	83.0	82.8	87.2	93.5	95.3
57	FURNITURE AND HOME FURNISHING STORES	201.8	198.6	206.1	206.5	204.4
571	Furniture and home furnishings stores	134.6	134.8	137.5	138.4	139.1
572	Household appliance stores	22.1	21.8	23.0	22.5	22.3
573	Radio, television, and music stores	45.1	42.0	45.5	45.7	43.5
58	EATING AND DRINKING PLACES	2,649.6	2,702.1	2,670.4	2,727.3	2,759.8
59	MISCELLANEOUS RETAIL	1,000.0	989.0	1,038.5	1,049.0	1,046.6
591	Drug stores and proprietary stores	302.7	301.9	300.4	301.3	304.0
592	Liquor stores	29.7	30.2	32.2	33.5	34.5
594	Miscellaneous shopping goods stores	344.6	342.8	365.6	371.6	372.3
596	Nonstore retailers	149.2	146.4	161.3	159.6	150.7
598	Fuel and ice dealers	22.8	22.6	23.5	23.1	22.3
599	Retail stores, nec	130.2	123.7	135.1	139.7	131.6
-	FINANCE, INSURANCE, AND REAL ESTATE	3,020	3,044	3,147	3,159	3,188
60	BANKING	1,103.9	1,115.4	1,147.5	1,151.2	1,151.1
602	Commercial and stock savings banks	1,017.0	1,026.9	1,056.0	1,059.0	1,059.1
61	CREDIT AGENCIES OTHER THAN BANKS	368.2	367.8	396.5	396.9	398.5
612	Savings and loan associations	177.7	178.0	198.1	198.4	193.3
614	Personal credit institutions	121.1	120.2	127.7	127.8	128.3
62	SECURITY, COMMODITY BROKERS, AND SERVICES	88.4	90.4	100.6	101.3	103.1
621	Security brokers and dealers	70.9	72.2	81.9	82.6	84.2
63	INSURANCE CARRIERS	741.1	744.8	753.2	756.1	753.3
631	Life insurance	289.2	291.8	296.7	300.0	302.1
632	Medical service and health insurance	102.7	102.9	105.3	105.1	105.2
633	Fire, marine, and casualty insurance	301.7	303.0	301.7	311.5	302.1
64	INSURANCE AGENTS, BROKERS, AND SERVICE	280.3	281.5	292.8	291.0	294.4
65	REAL ESTATE	364.5	369.1	377.5	382.6	392.1
651	Real estate operators and lessors	140.5	142.4	147.7	149.3	153.8
653	Real estate agents and managers	174.7	176.8	177.1	179.2	183.4
655	Subdividers and developers	34.7	35.4	37.7	39.0	39.7
66	COMBINED REAL ESTATE, INSURANCE, ETC.	13.5	13.5	13.0	12.9	12.3
67	HOLDING AND OTHER INVESTMENT OFFICES	60.3	61.1	65.0	56.5	55.5
-	SERVICES	10,430	10,468	10,915	10,961	11,000
70	HOTELS AND OTHER LODGING PLACES	605.0	629.6	593.0	613.7	543.0
701	Hotels, motels, and tourist courts	587.3	606.2	574.7	594.3	517.5

**ESTABLISHMENT DATA
WOMEN EMPLOYEES**

B-3. Women employees on nonagricultural payrolls by industry—Continued

[In thousands]

1972 SIC Code	Industry	May 1980	June 1980	Apr. 1981	May 1981	June 1981
72	PERSONAL SERVICES	611.2	607.5	623.9	609.1	609.4
721	Laundry, cleaning, and garment services	225.6	225.3	225.3	226.4	227.0
723	Beauty shops	254.0	253.2	252.9	253.3	252.5
726	Funeral service and crematories	19.3	19.4	18.9	19.1	19.9
73	BUSINESS SERVICES	1,309.4	1,312.3	1,415.1	1,426.0	1,436.2
731	Advertising	71.6	71.3	73.3	74.6	74.8
732	Credit reporting and collection	53.4	52.9	51.1	51.9	51.5
733	Mailing, reproduction, stenographic	57.4	58.3	62.4	52.5	53.4
734	Services to buildings	183.1	185.4	192.7	197.8	199.5
736	Personnel supply services	331.1	320.3	364.9	367.6	367.8
737	Computer and data processing services	138.6	141.1	159.5	157.5	151.2
75	AUTO REPAIR, SERVICES, AND GARAGES	96.1	96.6	97.4	97.0	95.9
753	Automotive repair shops	42.1	42.4	43.7	43.7	43.9
76	MISCELLANEOUS REPAIR SERVICES	58.8	58.5	57.3	58.3	58.0
78	MOTION PICTURES	83.9	88.3	85.8	86.7	90.5
781	Motion picture production and services	24.7	25.6	22.2	21.9	21.4
783	Motion picture theaters	53.4	56.6	57.5	58.8	53.2
79	AMUSEMENT AND RECREATION SERVICES	312.4	341.9	301.9	332.0	353.5
80	HEALTH SERVICES	4,251.6	4,296.8	4,446.9	4,461.3	4,510.5
801	Offices of physicians	579.3	582.2	600.4	602.2	510.0
802	Offices of dentists	288.3	290.7	302.6	304.1	305.2
805	Nursing and personal care facilities	887.2	898.0	919.9	925.9	934.4
806	Hospitals	2,192.6	2,221.5	2,300.4	2,335.2	2,334.5
81	LEGAL SERVICES	350.4	356.3	374.3	374.2	334.4
82	EDUCATIONAL SERVICES	597.7	531.6	639.5	621.1	551.0
821	Elementary and secondary schools	184.7	175.2	202.1	201.8	191.5
822	Colleges and universities	345.9	289.9	367.7	349.8	301.3
83	SOCIAL SERVICES	850.2	837.7	890.4	890.4	873.0
89	MISCELLANEOUS SERVICES	315.2	319.4	347.0	340.8	345.5
891	Engineering and architectural services	112.6	115.2	121.9	123.1	125.9
893	Accounting, auditing, and bookkeeping	143.8	144.8	165.3	158.7	159.5
-	GOVERNMENT	8,001	7,822	8,019	7,989	7,731
-	FEDERAL GOVERNMENT	945	957	873	881	835
-	STATE AND LOCAL GOVERNMENT	7,056	5,865	7,141	7,108	5,335
-	State government	1,649.4	1,566.9	1,682.5	1,652.1	1,575.9
-	Hospitals	337.2	338.9	334.8	333.5	334.9
-	State education	675.4	590.3	701.4	680.3	599.5
-	General administration including executive, legislative, and judicial functions	428.4	426.6	433.2	434.2	435.9
-	Local government	5,406.3	5,298.2	5,458.0	5,445.6	5,319.5
-	Transportation and public utilities	96.9	99.0	101.9	102.7	103.0
-	Hospitals	487.3	491.6	505.8	506.9	512.5
-	Local education	3,586.7	3,418.4	3,615.8	3,606.7	3,439.3
-	General administration including executive, legislative, and judicial functions	1,007.9	1,050.9	1,005.6	1,001.3	1,033.3

ESTABLISHMENT DATA SEASONALLY ADJUSTED EMPLOYMENT

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

[In thousands]

Industry division and group	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July P	Aug. P
TOTAL	90,219	90,461	90,668	90,844	90,949	91,091	91,258	91,347	91,458	91,554	91,515	91,355	92,027
GOODS-PRODUCING	25,322	25,345	25,521	25,629	25,631	25,647	25,657	25,705	25,700	25,705	25,918	25,947	25,923
MINING	1,008	1,023	1,032	1,052	1,069	1,083	1,091	1,098	950	957	1,110	1,131	1,119
CONSTRUCTION	4,324	4,362	4,379	4,389	4,387	4,390	4,399	4,415	4,418	4,334	4,284	4,253	4,255
MANUFACTURING	19,990	20,050	20,110	20,188	20,175	20,174	20,177	20,191	20,332	20,414	20,424	20,547	20,515
DURABLE GOODS	11,907	11,963	12,013	12,090	12,077	12,084	12,074	12,093	12,207	12,254	12,278	12,333	12,330
Lumber and wood products	671	680	679	683	687	689	691	592	702	710	599	703	533
Furniture and fixtures	456	462	462	463	454	464	456	457	478	484	486	493	499
Stone, clay, and glass products	551	555	555	558	555	554	554	551	556	558	558	557	551
Primary metal industries	1,077	1,092	1,108	1,126	1,137	1,137	1,140	1,141	1,145	1,142	1,144	1,142	1,133
Fabricated metal products	1,567	1,575	1,578	1,582	1,581	1,579	1,577	1,581	1,595	1,604	1,604	1,614	1,607
Machinery, except electrical	2,454	2,463	2,481	2,489	2,490	2,487	2,481	2,480	2,491	2,511	2,521	2,537	2,533
Electric and electronic equipment	2,074	2,073	2,087	2,096	2,103	2,110	2,110	2,117	2,134	2,143	2,143	2,153	2,151
Transportation equipment	1,339	1,843	1,848	1,874	1,839	1,840	1,833	1,843	1,878	1,872	1,886	1,887	1,894
Instruments and related products	707	709	709	712	712	713	711	712	714	715	717	722	727
Miscellaneous manufacturing ind.	411	410	406	407	409	411	411	409	414	414	415	425	417
NONDURABLE GOODS	8,083	8,092	8,097	8,098	8,098	8,090	8,103	8,092	8,125	8,160	8,145	8,203	8,135
Food and kindred products	1,720	1,712	1,711	1,705	1,701	1,696	1,705	1,691	1,597	1,703	1,573	1,535	1,555
Tobacco manufactures	68	63	69	71	71	71	72	72	71	71	71	71	72
Textile mill products	844	843	845	844	842	841	839	838	842	843	845	845	849
Apparel and other textile products	1,263	1,261	1,256	1,253	1,250	1,244	1,243	1,243	1,250	1,253	1,254	1,273	1,275
Paper and allied products	587	689	691	692	692	691	631	583	691	694	695	695	599
Printing and publishing	1,256	1,251	1,262	1,265	1,269	1,269	1,272	1,275	1,280	1,283	1,284	1,291	1,293
Chemicals and allied products	1,097	1,101	1,102	1,103	1,105	1,106	1,109	1,103	1,107	1,109	1,111	1,109	1,110
Petroleum and coal products	208	208	208	209	209	211	210	210	211	213	212	212	212
Rubber and misc. plastic products	708	717	722	725	729	730	731	734	744	753	757	750	753
Leather and leather products	232	232	231	231	230	231	231	231	231	233	233	233	245
SERVICE-PRODUCING	64,897	65,015	65,147	65,215	65,318	65,444	65,601	65,542	65,758	65,859	65,797	65,303	65,398
TRANSPORTATION AND PUBLIC UTILITIES	5,126	5,124	5,129	5,114	5,118	5,124	5,135	5,133	5,151	5,143	5,143	5,151	5,173
WHOLESALE AND RETAIL TRADE	20,413	20,450	20,461	20,464	20,470	20,529	20,600	20,535	20,535	20,714	20,717	20,794	20,353
WHOLESALE TRADE	5,274	5,290	5,296	5,296	5,300	5,305	5,313	5,315	5,333	5,345	5,349	5,353	5,370
RETAIL TRADE	15,139	15,160	15,165	15,168	15,170	15,224	15,297	15,319	15,303	15,368	15,368	15,435	15,493
FINANCE, INSURANCE, AND REAL ESTATE	5,188	5,205	5,221	5,235	5,254	5,268	5,283	5,293	5,316	5,325	5,331	5,345	5,355
SERVICES	17,981	18,043	18,087	18,160	18,240	18,300	18,343	18,371	18,475	18,540	18,560	18,553	18,533
GOVERNMENT	16,189	15,193	16,249	16,242	16,235	15,223	15,240	16,204	16,170	16,131	16,040	15,065	15,013
FEDERAL	2,808	2,784	2,795	2,796	2,800	2,799	2,795	2,781	2,767	2,779	2,781	2,777	2,742
STATE AND LOCAL	13,381	13,409	13,454	13,446	13,436	13,424	13,445	13,423	13,403	13,352	13,259	13,288	13,271

p=preliminary.

ESTABLISHMENT DATA
SEASONALLY ADJUSTED EMPLOYMENT

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

[In thousands]

Industry division and group	1980							1981					
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
TOTAL	38,045	38,141	38,269	38,425	38,473	33,570	33,657	38,780	38,877	38,931	38,987	39,083	39,254
GOODS-PRODUCING	6,704	6,681	6,721	6,736	6,754	5,778	5,795	6,305	6,814	6,823	6,878	5,915	5,935
MINING	103	104	105	107	108	111	113	115	117	119	114	116	124
CONSTRUCTION	375	374	379	381	384	389	390	391	392	394	397	397	399
MANUFACTURING	6,226	6,203	6,237	6,248	6,262	5,273	6,292	6,300	6,305	6,310	6,367	5,402	5,414
DURABLE GOODS	2,948	2,934	2,942	2,956	2,973	2,990	3,000	3,003	3,013	3,020	3,054	3,073	3,087
Lumber and wood products	97	93	101	102	102	102	103	104	104	104	106	108	107
Furnitures and fixtures	136	133	135	137	137	138	139	139	141	141	145	145	143
Stone, clay, and glass products	124	122	124	125	125	125	125	125	127	125	127	123	129
Primary metal industries	121	116	118	121	122	124	124	124	124	124	127	123	127
Fabricated metal products	322	320	326	329	330	330	331	330	331	333	337	341	342
Machinery, except electrical	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Electric and electronic equipment	381	375	377	378	382	388	392	397	398	402	412	415	416
Transportation equipment	284	288	288	287	292	296	291	292	294	295	302	303	303
Instruments and related products	299	302	301	301	302	302	304	303	302	302	303	305	304
Miscellaneous manufacturing ind.	193	194	191	190	189	188	191	192	191	191	192	194	193
NONDURABLE GOODS	3,278	3,269	3,295	3,292	3,289	3,289	3,292	3,292	3,292	3,290	3,313	3,323	3,327
Food and kindred products	499	505	515	509	508	506	505	505	505	500	505	507	495
Tobacco manufactures	25	25	24	25	25	25	25	26	26	26	26	26	26
Textile mill products	395	392	399	398	398	398	398	397	396	395	398	399	400
Apparel and other textile products	1,021	1,013	1,020	1,016	1,012	1,008	1,006	1,004	1,001	1,001	1,005	1,012	1,013
Paper and allied products	157	156	157	158	158	159	159	159	160	160	161	162	150
Printing and publishing	199	498	497	500	500	502	504	504	505	507	510	511	512
Chemicals and allied products	276	275	275	276	277	278	280	281	282	283	282	282	283
Petroleum and coal products	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Rubber and misc. plastics products	239	236	241	244	246	247	243	250	250	252	257	261	253
Leather and leather products	139	134	139	138	137	137	137	137	138	137	137	133	133
SERVICE-PRODUCING	31,341	31,460	31,548	31,689	31,719	31,792	31,862	31,974	32,063	32,103	32,109	32,173	32,328
TRANSPORTATION AND PUBLIC UTILITIES	1,286	1,287	1,290	1,295	1,312	1,307	1,311	1,310	1,314	1,319	1,327	1,329	1,335
WHOLESALE AND RETAIL TRADE ..	8,871	8,891	8,915	8,936	8,935	8,941	8,946	8,993	9,031	9,051	8,990	9,024	9,155
WHOLESALE TRADE	1,359	1,367	1,367	1,371	1,374	1,370	1,378	1,375	1,378	1,377	1,388	1,393	1,393
RETAIL TRADE	7,512	7,524	7,548	7,565	7,561	7,571	7,568	7,618	7,653	7,674	7,602	7,631	7,762
FINANCE, INSURANCE, AND REAL ESTATE	3,028	3,044	3,054	3,065	3,078	3,083	3,103	3,120	3,130	3,138	3,153	3,169	3,172
SERVICES	10,399	10,495	10,526	10,582	10,613	10,671	10,720	10,765	10,803	10,830	10,882	10,905	10,924
GOVERNMENT	7,757	7,743	7,763	7,811	7,781	7,784	7,732	7,781	7,785	7,771	7,757	7,745	7,731
FEDERAL	339	318	393	379	383	385	337	337	385	373	377	377	375
STATE AND LOCAL	6,918	6,825	6,870	6,932	6,898	6,898	6,895	6,894	6,900	6,893	6,880	6,868	6,856

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

ESTABLISHMENT DATA
SEASONALLY ADJUSTED EMPLOYMENT

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

[In thousands]

Industry division and group	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July p	Aug. p
TOTAL PRIVATE	60,182	60,363	60,464	60,598	60,657	60,807	60,870	60,951	61,114	61,179	61,292	61,594	61,652
GOODS-PRODUCING	18,064	18,167	18,213	18,291	18,278	18,305	18,298	18,345	18,338	18,317	18,387	18,491	18,432
MINING	748	759	763	779	791	800	806	813	689	694	819	833	848
CONSTRUCTION	3,386	3,416	3,426	3,431	3,428	3,452	3,439	3,459	3,462	3,376	3,323	3,316	3,307
MANUFACTURING	13,930	13,992	14,024	14,081	14,059	14,053	14,053	14,074	14,187	14,247	14,245	14,342	14,327
DURABLE GOODS	8,176	8,229	8,259	8,320	8,301	8,305	8,297	8,325	8,412	8,442	8,455	8,502	8,505
Lumber and wood products	560	569	567	569	573	575	576	577	586	593	585	535	577
Furniture and fixtures	367	372	373	373	374	374	376	375	386	392	393	397	395
Stone, clay, and glass products	502	506	506	508	505	504	533	531	506	507	506	505	510
Primary metal industries	318	833	847	864	874	875	879	379	884	880	882	873	874
Fabricated metal products	1,153	1,151	1,165	1,169	1,168	1,166	1,164	1,169	1,178	1,184	1,187	1,197	1,199
Machinery, except electrical	1,567	1,573	1,579	1,581	1,577	1,577	1,573	1,575	1,580	1,594	1,502	1,511	1,530
Electric and electronic equipment	1,304	1,306	1,310	1,316	1,322	1,324	1,326	1,334	1,345	1,353	1,354	1,368	1,356
Transportation equipment	1,178	1,185	1,189	1,215	1,182	1,183	1,176	1,190	1,218	1,210	1,218	1,215	1,222
Instruments and related products	422	421	422	422	423	422	419	420	423	423	422	427	430
Miscellaneous manufacturing ind.	305	304	301	303	303	305	305	304	307	306	306	316	310
NONDURABLE GOODS	5,754	5,763	5,765	5,761	5,758	5,747	5,756	5,749	5,775	5,805	5,790	5,840	5,822
Food and kindred products	1,184	1,177	1,177	1,170	1,166	1,162	1,168	1,158	1,164	1,179	1,144	1,164	1,132
Tobacco manufactures	53	54	54	55	55	55	55	55	56	55	55	55	55
Textile mill products	733	732	734	732	731	729	727	727	729	731	733	743	735
Apparel and other textile products	1,078	1,077	1,073	1,071	1,068	1,062	1,051	1,061	1,065	1,071	1,077	1,092	1,097
Paper and allied products	516	519	520	521	521	521	520	519	521	523	524	524	527
Printing and publishing	701	704	703	704	707	705	707	703	709	710	709	711	715
Chemicals and allied products	516	620	619	621	622	623	625	625	627	629	632	630	638
Petroleum and coal products	134	134	134	134	133	134	134	134	134	135	133	132	131
Rubber and misc. plastics products	543	551	556	558	561	562	564	565	575	584	585	535	532
Leather and leather products	196	195	195	195	194	194	195	194	195	197	197	203	208
SERVICE-PRODUCING	42,118	42,201	42,251	42,307	42,389	42,502	42,572	42,615	42,776	42,862	42,905	43,103	43,180
TRANSPORTATION AND PUBLIC UTILITIES	4,270	4,272	4,275	4,260	4,265	4,264	4,270	4,269	4,291	4,272	4,269	4,275	4,299
WHOLESALE AND RETAIL TRADE	17,901	17,929	17,933	17,932	17,932	17,982	18,013	18,031	18,027	18,084	18,093	18,195	18,225
WHOLESALE TRADE	4,309	4,317	4,320	4,318	4,324	4,324	4,329	4,330	4,342	4,352	4,350	4,359	4,370
RETAIL TRADE	13,592	13,612	13,613	13,614	13,608	13,658	13,684	13,701	13,685	13,732	13,743	13,827	13,856
FINANCE, INSURANCE, AND REAL ESTATE	3,929	3,939	3,950	3,960	3,972	3,986	3,992	3,995	4,017	4,024	4,030	4,035	4,043
SERVICES	16,018	16,061	16,093	16,155	16,220	16,270	16,297	16,320	16,341	16,382	16,513	16,535	16,512

¹ For coverage of series, see footnote 1, table B-2.

p=preliminary.

ESTABLISHMENT DATA
SEASONALLY ADJUSTED EMPLOYMENT

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

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12-month span
1978				
January.....	66.3	77.0	80.8	79.9
February.....	65.3	76.5	82.8	82.8
March.....	72.1	80.2	83.7	82.3
April.....	73.3	78.2	77.9	85.2
May.....	65.4	78.2	80.2	83.7
June.....	70.6	73.0	78.2	83.4
July.....	62.5	71.2	74.1	81.7
August.....	66.9	69.5	77.3	80.8
September.....	67.2	72.1	77.0	79.4
October.....	66.3	76.2	79.4	75.0
November.....	72.4	76.7	73.3	77.6
December.....	70.9	77.6	74.7	75.0
1979				
January.....	65.1	72.1	72.1	74.7
February.....	66.0	68.6	71.8	70.6
March.....	64.2	65.7	70.1	69.5
April.....	54.1	65.7	64.8	67.2
May.....	60.5	62.8	59.6	59.6
June.....	62.5	63.7	54.4	58.1
July.....	57.0	55.5	56.7	55.8
August.....	53.2	50.0	51.5	55.2
September.....	49.1	53.5	52.0	50.0
October.....	61.6	52.0	50.6	46.2
November.....	49.4	53.5	51.2	38.1
December.....	49.7	49.4	47.7	35.8
1980				
January.....	52.6	50.6	40.4	32.0
February.....	53.2	46.8	33.4	32.6
March.....	49.4	38.7	30.8	31.7
April.....	34.6	30.8	24.7	32.3
May.....	32.8	27.0	26.2	31.4
June.....	31.4	25.9	28.2	31.4
July.....	36.9	35.5	35.2	31.4
August.....	64.8	54.9	45.1	32.6
September.....	64.0	71.2	61.0	34.9
October.....	61.3	69.8	73.5	43.6
November.....	63.4	64.8	72.7	55.8
December.....	56.7	64.0	65.4	70.3
1981				
January.....	59.6	61.0	68.6	78.8p
February.....	55.8	61.3	68.6	77.0p
March.....	52.3	64.2	67.2	
April.....	69.8	68.9	71.8p	
May.....	62.5	66.9	71.8p	
June.....	51.5	68.0p		
July.....	68.0p	64.2p		
August.....	57.8p			
September.....				
October.....				
November.....				
December.....				

¹ Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

**ESTABLISHMENT DATA
STATE AND AREA EMPLOYMENT**

B-8 Employees on nonagricultural payrolls for States and selected areas by industry division—Continued

(In thousands)

State and area	Total			Mining			Construction			Manufacturing		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
1 PUERTO RICO	(*)	(*)	(*)	•9	•8	(*)	40•5	34•8	(*)	(*)	(*)	(*)
2 Caguas	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
3 Mayaguez	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
4 Ponce	(*)	(*)	(*)	(*)	(*)	(*)	4•0	2•8	2•7	(*)	(*)	(*)
5 San Juan	(*)	(*)	(*)	(*)	(*)	(*)	27•5	24•5	23•5	(*)	(*)	(*)
6 VIRGIN ISLANDS.....	36•4	36•9	37•4	(2)	(2)	(2)	2•8	3•2	3•0	3•3	3•2	3•1

¹ Combined with services.
² Combined with construction.
³ Area included in Chicago-Gary Standard Consolidated Statistical Area.
⁴ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical Area: Burlington, Camden, and Gloucester Counties, New Jersey.
⁵ Subarea of New York—Northeastern New Jersey.
⁶ Subarea of Rochester Standard Metropolitan Statistical Area.
⁷ Area included in New York and Nassau-Suffolk combined SMSA's.
⁸ Subarea of New York Standard Metropolitan Statistical Area.
⁹ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical Area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pennsylvania.
¹⁰ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical

Area: Philadelphia County.
¹¹ Subarea of Northeast Pennsylvania Standard Metropolitan Statistical Area: Lackawanna County.
¹² Subarea of Northeast Pennsylvania Standard Metropolitan Statistical Area: Luzerne County.
¹³ Total includes data for industry divisions not shown separately.
¹⁴ Subarea of Washington, D.C. Standard Metropolitan Statistical Area: Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park cities and Arlington, Fairfax, Loudoun, and Prince William Counties, Virginia.
p = preliminary.
* Not available.

SOURCE: Cooperating State agencies listed on inside back cover.

**ESTABLISHMENT DATA
STATE AND AREA EMPLOYMENT**

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

(In thousands)

Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services			Government			
JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	
17.4	18.2	(*)	112.8	112.3	(*)	27.6	28.3	(*)	80.5	80.0	(*)	259.1	235.3	(*)	1
(*)	(*)	(*)	5.5	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12.5	11.1	(*)	2
(*)	(*)	(*)	5.7	5.7	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15.9	15.5	(*)	3
(*)	(*)	(*)	7.8	7.6	(*)	(*)	(*)	(*)	(*)	(*)	(*)	18.9	17.9	(*)	4
13.7	(*)	(*)	71.1	71.0	(*)	20.8	21.3	(*)	55.5	(*)	(*)	124.2	128.6	(*)	5
2.0	2.0	2.0	7.3	7.5	7.3	1.5	1.6	1.6	5.7	5.8	5.8	13.8	13.6	14.6	6

**ESTABLISHMENT DATA
HOURS AND EARNINGS**

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

1972 SIC Code	Industry	Average weekly hours					Average overtime hours				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
-	TOTAL PRIVATE	35.3	35.5	35.4	35.5	35.6	-	-	-	-	-
-	MINING	42.0	43.2	42.1	43.1	43.4	-	-	-	-	-
10	METAL MINING	37.2	38.2	41.4	40.8	-	-	-	-	-	
101	Iron ores	36.8	35.4	42.8	41.0	-	-	-	-	-	
102	Copper ores	30.6	34.0	41.5	42.6	-	-	-	-	-	
11, 12	COAL MINING	-	40.0	34.8	-	-	-	-	-	-	
12	BITUMINOUS COAL AND LIGNITE MINING	-	40.0	34.7	-	-	-	-	-	-	
13	OIL AND GAS EXTRACTION	45.5	45.4	45.1	45.5	-	-	-	-	-	
131, 2	Crude petroleum, natural gas, and natural gas liquids	41.1	40.9	41.4	41.8	-	-	-	-	-	
138	Oil and gas field services	47.1	47.0	46.4	46.7	-	-	-	-	-	
14	NONMETALLIC MINERALS, EXCEPT FUELS	43.6	43.7	43.0	43.6	-	-	-	-	-	
142	Crushed and broken stone	44.2	44.1	43.1	43.8	-	-	-	-	-	
-	CONSTRUCTION	37.7	37.3	37.2	37.7	37.4	-	-	-	-	
15	GENERAL BUILDING CONTRACTORS	36.7	36.3	36.2	36.7	-	-	-	-	-	
152	Residential building construction	36.3	35.8	36.1	36.3	-	-	-	-	-	
153	Operative builders	36.5	36.3	35.9	36.9	-	-	-	-	-	
154	Nonresidential building construction	37.1	36.8	36.4	37.1	-	-	-	-	-	
16	HEAVY CONSTRUCTION CONTRACTORS	41.4	40.9	40.1	41.1	-	-	-	-	-	
161	Highway and street construction	42.8	41.9	41.4	42.8	-	-	-	-	-	
162	Heavy construction, except highway	40.6	40.4	39.6	40.4	-	-	-	-	-	
17	SPECIAL TRADE CONTRACTORS	36.7	36.4	36.4	36.7	-	-	-	-	-	
171	Plumbing, heating, air conditioning	37.8	37.6	37.6	37.9	-	-	-	-	-	
172	Painting, paper hanging, decorating	35.3	34.9	35.1	35.5	-	-	-	-	-	
173	Electrical work	37.5	37.6	37.7	38.2	-	-	-	-	-	
174	Masonry, stonework, and plastering	35.4	35.0	34.7	34.7	-	-	-	-	-	
175	Carpentering and flooring	35.2	34.7	35.3	34.8	-	-	-	-	-	
176	Roofing and sheet metal work	34.9	34.3	33.7	35.0	-	-	-	-	-	
-	MANUFACTURING	38.8	39.4	40.2	39.6	39.9	2.4	2.7	3.0	2.3	
24, 25, 32-39	DURABLE GOODS	39.0	39.7	40.6	40.0	40.2	2.3	2.6	3.0	2.3	
20-23, 26-31	NONDURABLE GOODS	38.5	39.0	39.5	39.1	39.4	2.6	2.9	2.9	2.8	
	DURABLE GOODS										
24	LUMBER AND WOOD PRODUCTS	38.1	39.2	39.5	38.6	39.0	2.5	3.0	2.8	2.7	
241	Logging camps and logging contractors	40.1	40.3	39.7	39.4	-	3.7	4.7	3.8	3.7	
242	Sawmills and planing mills	38.9	39.6	39.9	39.0	-	3.2	3.7	3.1	3.2	
2421	Sawmills and planing mills, general	39.2	39.8	39.9	39.0	-	3.5	3.9	3.3	3.4	
2426.	Hardwood dimension and flooring	37.4	38.8	40.0	39.4	-	1.8	2.4	2.5	2.2	
243	Millwork, plywood, and structural members	37.0	38.7	39.5	38.2	-	1.8	2.2	2.5	2.0	
2431	Millwork	36.5	38.0	39.5	38.2	-	1.1	1.5	1.9	1.3	
2434	Wood kitchen cabinets	34.9	37.7	39.0	37.0	-	1.0	1.1	1.9	1.3	
2435	Hardwood veneer and plywood	37.2	38.6	41.5	39.3	-	2.1	2.9	3.8	2.9	
2436	Softwood veneer and plywood	39.4	40.6	38.8	38.1	-	3.2	4.0	3.1	3.2	
244	Wood containers	36.5	37.2	39.3	38.6	-	1.4	1.6	2.5	2.2	
245	Wood buildings and mobile homes	36.4	37.9	37.4	37.0	-	1.3	1.8	1.5	1.3	
2451	Mobile homes	35.4	37.4	37.6	37.7	-	1.1	1.6	1.2	1.4	
249	Miscellaneous wood products	38.6	40.0	40.1	38.8	-	2.3	2.7	2.8	2.5	
25	FURNITURE AND FIXTURES	36.2	37.6	38.9	37.8	38.2	1.1	1.6	2.0	1.7	
251	Household furniture	35.4	36.9	38.6	37.4	-	.8	1.3	1.8	1.5	
2511	Wood household furniture	35.8	37.3	39.1	37.7	-	.9	1.4	1.9	1.6	
2512	Upholstered household furniture	33.9	35.8	37.6	36.8	-	.5	.7	1.3	1.0	
2514	Metal household furniture	35.5	36.3	40.0	37.7	-	.8	.9	2.9	2.4	
2515	Mattresses and bedsprings	36.9	37.7	37.9	36.5	-	1.5	2.4	1.7	1.7	
252	Office furniture	37.4	39.2	39.9	38.8	-	1.1	2.1	2.6	2.1	
253	Public building and related furniture	38.8	39.2	40.6	39.9	-	2.3	2.5	2.5	2.3	
254	Partitions and fixtures	37.7	38.7	38.9	38.1	-	2.2	2.7	2.5	2.4	
259	Miscellaneous furniture and fixtures	37.4	38.9	39.1	38.8	-	.7	1.0	1.4	1.5	

See footnotes at end of table.

**ESTABLISHMENT DATA
HOURS AND EARNINGS**

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

1972 SIC Code	Industry	Average weekly hours					Average overtime hours				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	CHEMICALS AND ALLIED PRODUCTS—Cont'd										
284	Soap, cleaners, and toilet goods	39.9	40.2	40.5	40.2	-	2.6	2.8	2.8	2.4	-
2841	Soap and other detergents	43.2	42.4	42.1	41.6	-	4.3	4.5	3.9	3.7	-
2844	Toilet preparations	38.6	39.4	39.5	39.1	-	2.2	2.0	2.3	1.5	-
2842, 3	Polishing, sanitation, and finishing preparations	38.2	39.0	40.5	40.5	-	1.3	1.8	2.4	2.4	-
285	Paints and allied products	39.7	40.1	41.2	40.9	-	2.1	2.4	3.4	3.0	-
286	Industrial organic chemicals	42.1	42.0	43.0	42.7	-	3.1	3.2	3.9	3.9	-
2865	Cyclic crudes and intermediates	41.6	41.1	42.1	42.6	-	2.3	2.7	4.0	3.7	-
2861, 9	Gum, wood, and industrial organic chemicals, nec	42.3	42.3	43.3	42.7	-	3.3	3.4	3.9	4.0	-
287	Agricultural chemicals	42.6	42.8	42.9	41.8	-	4.5	4.3	4.4	3.9	-
289	Miscellaneous chemical products	40.0	40.5	41.2	40.8	-	2.5	3.0	2.9	2.8	-
29	PETROLEUM AND COAL PRODUCTS	42.7	42.2	43.5	43.7	42.9	3.5	3.6	4.0	3.9	-
291	Petroleum refining	42.8	42.1	43.5	44.1	-	3.0	3.0	3.7	3.6	-
295	Paving and roofing materials	42.9	43.2	44.4	43.4	-	5.9	6.2	6.2	5.6	-
30	RUBBER AND MISC. PLASTICS PRODUCTS	38.6	40.0	40.9	40.0	40.3	2.2	2.7	3.2	3.0	-
301	Tires and inner tubes	36.5	40.7	41.9	41.3	-	1.6	2.5	3.0	2.9	-
302	Rubber and plastics footwear	42.6	42.1	39.1	40.4	-	3.1	3.2	2.9	3.1	-
303, 4	Reclaimed rubber, and rubber and plastics hose and belting	40.5	41.5	42.5	41.5	-	1.7	2.8	3.2	3.1	-
306	Fabricated rubber products, nec	37.9	39.3	40.5	39.2	-	1.8	2.4	2.9	2.5	-
307	Miscellaneous plastics products	38.9	39.9	40.8	39.7	-	2.3	2.9	3.4	3.1	-
31	LEATHER AND LEATHER PRODUCTS	36.4	36.6	38.1	36.5	38.5	1.2	1.6	1.8	1.3	-
311	Leather tanning and finishing	39.1	39.5	40.7	39.0	-	2.1	2.8	3.5	2.2	-
314	Footwear, except rubber	36.4	36.5	38.2	36.1	-	1.0	1.3	1.6	1.1	-
3143	Men's footwear, except athletic	36.5	37.6	39.3	36.7	-	.7	1.3	1.7	1.0	-
3144	Women's footwear, except athletic	36.4	35.4	37.5	35.5	-	1.3	1.2	1.8	1.3	-
316	Luggage	37.9	38.1	37.7	36.8	-	3.3	3.0	1.9	1.4	-
317	Handbags and personal leather goods	34.1	35.4	36.7	36.4	-	1.2	1.6	1.7	1.5	-
-	TRANSPORTATION AND PUBLIC UTILITIES	39.9	39.7	39.8	39.8	39.8	-	-	-	-	-
4011	RAILROAD TRANSPORTATION: Class I railroads ²	43.6	42.0	44.2	-	-	-	-	-	-	-
41	LOCAL AND INTERURBAN PASSENGER TRANSIT	36.8	36.8	34.3	37.5	-	-	-	-	-	-
411	Local and suburban transportation	40.2	40.1	38.8	40.1	-	-	-	-	-	-
413	Intercity highway transportation	36.9	36.1	36.3	38.6	-	-	-	-	-	-
42	TRUCKING AND WAREHOUSING	38.8	39.4	39.7	39.4	-	-	-	-	-	-
421, 3	Trucking and trucking terminals	38.8	39.5	39.8	39.4	-	-	-	-	-	-
422	Public warehousing	38.5	38.6	38.4	38.8	-	-	-	-	-	-
46	PIPE LINES, EXCEPT NATURAL GAS	42.0	41.4	42.5	43.3	-	-	-	-	-	-
48	COMMUNICATION	40.2	40.0	40.0	39.8	-	-	-	-	-	-
481	Telephone communication	40.6	40.4	40.3	40.2	-	-	-	-	-	-
4817	Switchboard operating employees ³	33.5	33.5	34.2	34.8	-	-	-	-	-	-
4818	Line construction employees ⁴	44.4	44.5	43.8	44.1	-	-	-	-	-	-
483	Radio and television broadcasting	38.2	38.3	38.0	37.9	-	-	-	-	-	-
49	ELECTRIC, GAS, AND SANITARY SERVICES	42.4	41.8	41.5	41.4	-	-	-	-	-	-
491	Electric services	43.8	42.5	41.9	41.9	-	-	-	-	-	-
492	Gas production and distribution	40.6	40.7	40.8	40.6	-	-	-	-	-	-
493	Combination utility services	41.6	41.6	41.2	41.3	-	-	-	-	-	-
495	Sanitary services	41.2	41.4	41.5	40.8	-	-	-	-	-	-
-	WHOLESALE AND RETAIL TRADE	32.6	32.7	32.3	32.7	32.7	-	-	-	-	-
50, 51	WHOLESALE TRADE	38.2	38.4	38.6	38.7	38.6	-	-	-	-	-
50	WHOLESALE TRADE-DURABLE GOODS	38.8	39.0	39.0	39.0	-	-	-	-	-	-
501	Motor vehicles and automotive equipment	38.5	38.7	39.0	38.9	-	-	-	-	-	-
502	Furniture and home furnishings	37.1	37.3	37.6	37.3	-	-	-	-	-	-
503	Lumber and construction materials	38.4	38.8	39.0	39.3	-	-	-	-	-	-
504	Sporting goods, toys, and hobby goods	37.5	37.7	37.4	37.5	-	-	-	-	-	-

See footnotes at end of table.

**ESTABLISHMENT DATA
HOURS AND EARNINGS**

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

1972 SIC Code	Industry	Average weekly hours					Average overtime hours				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	WHOLESALE TRADE-DURABLE GOODS—Continued										
505	Metals and minerals, except petroleum	39.0	39.2	39.6	39.8	-	-	-	-	-	
506	Electrical goods	38.9	39.0	38.9	39.0	-	-	-	-	-	
507	Hardware, plumbing, and heating equipment	38.5	38.9	38.3	38.4	-	-	-	-	-	
508	Machinery, equipment, and supplies	39.4	39.4	39.4	39.5	-	-	-	-	-	
509	Miscellaneous durable goods	37.6	38.1	38.4	37.6	-	-	-	-	-	
51	WHOLESALE TRADE-NONDURABLE GOODS ..	37.4	37.7	38.0	38.2	-	-	-	-	-	
511	Paper and paper products	36.2	36.2	36.8	37.0	-	-	-	-	-	
512	Drugs, proprietaries, and sundries	37.2	37.1	37.3	37.7	-	-	-	-	-	
513	Apparel, piece goods, and notions	36.5	36.9	36.7	36.9	-	-	-	-	-	
514	Groceries and related products	36.4	37.4	38.3	38.7	-	-	-	-	-	
516	Chemicals and allied products	38.9	39.1	38.9	38.7	-	-	-	-	-	
517	Petroleum and petroleum products	40.2	39.6	39.1	39.5	-	-	-	-	-	
518	Beer, wine, and distilled beverages	37.6	37.3	37.1	37.4	-	-	-	-	-	
519	Miscellaneous nondurable goods	38.3	38.2	38.4	38.7	-	-	-	-	-	
52-59	RETAIL TRADE	30.8	30.9	30.4	30.8	30.9	-	-	-	-	
52	BUILDING MATERIALS AND GARDEN SUPPLIES	37.5	37.3	37.1	37.4	-	-	-	-	-	
521	Lumber and other building materials	39.2	39.1	39.0	39.3	-	-	-	-	-	
525	Hardware stores	34.8	34.5	34.1	34.5	-	-	-	-	-	
53	GENERAL MERCHANDISE STORES	29.9	30.0	29.5	30.0	-	-	-	-	-	
531	Department stores	29.8	29.9	29.4	30.0	-	-	-	-	-	
533	Variety stores	29.9	30.1	29.3	29.6	-	-	-	-	-	
539	Misc. general merchandise stores	30.2	30.4	30.6	30.5	-	-	-	-	-	
54	FOOD STORES	32.3	32.2	31.6	32.0	-	-	-	-	-	
541	Grocery stores	32.5	32.5	31.9	32.2	-	-	-	-	-	
546	Retail bakeries	29.8	30.0	29.1	29.1	-	-	-	-	-	
55	AUTOMOTIVE DEALERS AND SERVICE STATIONS	37.8	37.9	37.8	37.9	-	-	-	-	-	
551, 2	New and used car dealers	38.3	38.5	38.4	38.3	-	-	-	-	-	
553	Auto and home supply stores	40.9	41.0	40.6	40.8	-	-	-	-	-	
554	Gasoline service stations	35.8	35.8	35.6	36.1	-	-	-	-	-	
56	APPAREL AND ACCESSORY STORES	29.1	29.1	28.8	29.5	-	-	-	-	-	
561	Men's and boys' clothing and furnishings	32.6	32.4	32.0	32.8	-	-	-	-	-	
562	Women's ready-to-wear stores	27.9	27.6	27.6	28.3	-	-	-	-	-	
565	Family clothing stores	27.9	28.5	28.6	29.0	-	-	-	-	-	
566	Shoe stores	29.7	30.0	28.7	29.1	-	-	-	-	-	
57	FURNITURE AND HOME FURNISHINGS STORES	35.0	35.2	34.8	35.2	-	-	-	-	-	
571	Furniture and home furnishings stores	34.7	34.9	34.9	35.3	-	-	-	-	-	
572	Household appliance stores	35.8	35.7	35.7	36.0	-	-	-	-	-	
573	Radio, television, and music stores	35.4	35.5	33.9	34.4	-	-	-	-	-	
58	EATING AND DRINKING PLACES ⁵	26.7	27.2	26.4	26.9	-	-	-	-	-	
59	MISCELLANEOUS RETAIL	31.8	32.0	31.5	32.0	-	-	-	-	-	
591	Drug stores and proprietary stores	30.2	30.2	29.4	30.1	-	-	-	-	-	
594	Miscellaneous shopping goods stores	31.1	31.2	30.9	31.5	-	-	-	-	-	
596	Nonstore retailers	33.4	33.7	33.7	33.7	-	-	-	-	-	
598	Fuel and ice dealers	38.5	38.4	38.4	38.1	-	-	-	-	-	
599	Retail stores, nec	33.2	33.6	32.9	33.1	-	-	-	-	-	
-	FINANCE, INSURANCE, AND REAL ESTATE ⁶	36.2	36.3	36.1	36.3	36.4	-	-	-	-	
60	BANKING	36.5	36.5	36.5	36.4	-	-	-	-	-	
602	Commercial and stock savings banks	36.4	36.4	36.5	36.3	-	-	-	-	-	
61	CREDIT AGENCIES OTHER THAN BANKS	36.4	36.5	36.7	36.9	-	-	-	-	-	
612	Savings and loan associations	36.2	36.4	36.2	36.4	-	-	-	-	-	
614	Personal credit institutions	36.1	36.1	36.9	37.4	-	-	-	-	-	
63	INSURANCE CARRIERS	37.6	37.5	37.1	37.4	-	-	-	-	-	
631	Life insurance	37.8	37.8	37.2	37.7	-	-	-	-	-	
632	Medical service and health insurance	38.1	37.9	37.5	37.6	-	-	-	-	-	
633	Fire, marine, and casualty insurance	37.0	36.9	36.6	36.8	-	-	-	-	-	

See footnotes at end of table.

ESTABLISHMENT DATA HOURS AND EARNINGS

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

1972 SIC Code	Industry	Average weekly earnings					Average hourly earnings				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	SERVICES	\$191.32	\$192.31	\$206.99	\$208.89	\$211.20	\$5.78	\$5.81	\$6.33	\$6.33	\$6.40
701	HOTELS AND OTHER LODGING PLACES: Hotels, motels, and tourist courts	137.77	138.03	147.08	148.82	-	4.43	4.41	4.75	4.77	-
721	PERSONAL SERVICES: Laundry, cleaning, and garment services	151.87	151.99	163.59	162.32	-	4.52	4.51	4.34	4.85	-
723	Beauty shops	126.71	126.71	142.67	138.23	-	4.31	4.31	4.74	4.67	-
73	BUSINESS SERVICES	202.40	201.86	214.50	215.49	-	6.06	6.08	6.50	6.53	-
731	Advertising	281.67	285.16	314.35	308.70	-	7.89	8.01	8.33	8.82	-
734	Services to buildings	146.40	146.20	148.79	149.60	-	5.21	5.24	5.45	5.43	-
737	Computer and data processing services	263.15	262.81	293.09	297.38	-	7.19	7.22	7.90	7.93	-
75	AUTO REPAIR, SERVICES, AND GARAGES	232.41	234.55	244.48	248.97	-	6.10	6.14	6.40	6.45	-
753	Automotive repair shops	254.28	258.45	271.37	273.74	-	6.52	6.61	6.87	6.93	-
76	MISCELLANEOUS REPAIR SERVICES	276.50	290.78	301.04	305.24	-	7.00	6.99	7.55	7.65	-
78	MOTION PICTURES	200.36	177.55	199.18	193.44	-	7.03	6.48	7.75	7.06	-
781	Motion picture production and services	398.48	391.95	447.34	430.17	-	10.27	10.05	11.58	11.03	-
79	AMUSEMENT AND RECREATION SERVICES	164.84	165.36	176.26	181.83	-	5.20	5.20	5.75	5.70	-
80	HEALTH SERVICES	188.58	189.66	205.63	211.12	-	5.68	5.73	6.25	5.34	-
801	Offices of physicians	190.45	193.43	208.33	208.98	-	5.86	5.97	6.47	5.17	-
802	Offices of dentists	161.87	163.57	175.34	178.98	-	5.64	5.66	6.24	6.28	-
805	Nursing and personal care facilities	131.67	129.16	139.36	143.33	-	4.18	4.18	4.51	4.55	-
806	Hospitals	209.42	211.41	229.14	236.65	-	5.07	5.11	6.70	5.32	-
81	LEGAL SERVICES	253.62	252.40	273.14	274.40	-	7.33	7.38	8.01	8.00	-
89	MISCELLANEOUS SERVICES	324.61	328.14	353.95	355.68	-	8.52	8.59	9.29	9.35	-
891	Engineering and architectural services	352.69	357.10	386.88	388.61	-	9.09	9.18	9.92	9.99	-
893	Accounting, auditing, and bookkeeping	277.49	279.38	297.42	299.25	-	7.38	7.47	7.91	7.98	-

¹ For coverage of series, see footnote 1, table B-2.
² Beginning January 1978, data relate to line haul railroads with operating revenues of \$50,000,000 or more.
³ Data relate to employees in such occupations in the telephone industry as switchboard operators; service assistants; operating room instructors; and pay-station attendants. In 1977, such employees made up 20 percent of the total number of nonsupervisory employees in establishments reporting hours and earnings data.
⁴ Data relate to employees in such occupations in the telephone industry as central office craft persons; installation and exchange repair craft persons; line, cable and conduit craft persons; and laborers. In 1977, such employees made up 37 percent of the total number of nonsupervisory employees in establishments reporting hours and earnings data.

⁵ Money payments only; tips, not included.
⁶ Data for nonoffice sales agents excluded from all series in this division.
 - Data not available.
 p = preliminary.

NOTE: Data from April 1980 forward are subject to revision when more recent benchmark data are introduced. See "Benchmark adjustment" in the Explanatory notes of this publication.

**ESTABLISHMENT DATA
HOURS AND EARNINGS**

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

1972 SIC Code	Industry	Average weekly hours					Average overtime hours				
		July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	SERVICES	33.1	33.1	32.7	33.0	33.0	-	-	-	-	-
	HOTELS AND OTHER LODGING PLACES:										
701	Hotels, motels, and tourist courts	31.1	31.3	30.9	31.2	-	-	-	-	-	-
	PERSONAL SERVICES:										
721	Laundry, cleaning, and garment services	33.6	33.7	33.8	33.4	-	-	-	-	-	-
723	Beauty shops	29.4	29.4	30.1	29.6	-	-	-	-	-	-
	BUSINESS SERVICES										
73	Advertising	33.4	33.2	33.0	33.0	-	-	-	-	-	-
731	Services to buildings	35.7	35.6	35.6	35.0	-	-	-	-	-	-
734	Computer and data processing services	28.1	27.9	27.3	27.3	-	-	-	-	-	-
737	.....	36.6	36.4	37.1	37.5	-	-	-	-	-	-
	AUTO REPAIR, SERVICES, AND GARAGES										
75	Automotive repair shops	38.1	38.2	38.2	38.6	-	-	-	-	-	-
753	.....	39.0	39.1	39.5	39.5	-	-	-	-	-	-
76	MISCELLANEOUS REPAIR SERVICES	39.5	41.6	39.3	39.9	-	-	-	-	-	-
	MOTION PICTURES										
78	Motion picture production and services	28.5	27.4	25.7	27.4	-	-	-	-	-	-
781	.....	38.8	39.0	38.3	39.0	-	-	-	-	-	-
79	AMUSEMENT AND RECREATION SERVICES	31.7	31.8	30.6	31.9	-	-	-	-	-	-
	HEALTH SERVICES										
80	Offices of physicians	33.2	33.1	32.9	33.3	-	-	-	-	-	-
801	Offices of dentists	32.5	32.4	32.2	32.3	-	-	-	-	-	-
802	Nursing and personal care facilities	28.7	28.9	28.1	28.5	-	-	-	-	-	-
805	Hospitals	31.5	30.9	30.9	31.5	-	-	-	-	-	-
806	.....	34.5	34.6	34.2	34.7	-	-	-	-	-	-
81	LEGAL SERVICES	34.6	34.2	34.1	34.3	-	-	-	-	-	-
	MISCELLANEOUS SERVICES										
89	Engineering and architectural services	38.1	38.2	38.1	38.0	-	-	-	-	-	-
891	Accounting, auditing, and bookkeeping	38.8	38.9	39.0	38.9	-	-	-	-	-	-
893	.....	37.6	37.4	37.6	37.5	-	-	-	-	-	-

ESTABLISHMENT DATA HOURS AND EARNINGS

C-3. Average hourly earnings excluding overtime of production workers on manufacturing payrolls by industry

Major industry group	Average hourly earnings excluding overtime ¹				
	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
MANUFACTURING	\$7.07	\$7.06	\$7.53	\$7.74	\$7.74
DURABLE GOODS	7.54	7.52	8.21	8.26	8.23
Lumber and wood products	6.46	6.47	6.85	6.90	-
Furniture and fixtures	5.45	5.43	5.74	5.79	-
Stone, clay, and glass products	7.27	7.23	7.92	7.98	-
Primary metal industries	9.57	9.57	10.34	10.37	-
Fabricated metal products	7.22	7.26	7.93	7.94	-
Machinery, except electrical	7.74	7.73	8.46	8.52	-
Electric and electronic equipment	6.80	6.83	7.39	7.50	-
Transportation equipment	9.00	9.00	9.93	9.93	-
Instruments and related products	6.70	6.68	7.14	7.26	-
Miscellaneous manufacturing industries	5.38	5.36	5.79	5.86	-
NONDURABLE GOODS	6.40	6.41	6.93	6.97	6.97
Food and kindred products	6.57	6.54	7.11	7.13	-
Tobacco manufactures	8.01	7.64	9.12	9.18	-
Textile mill products	4.92	5.02	5.20	5.30	-
Apparel and other textile products	4.45	4.53	4.91	4.87	-
Paper and allied products	7.58	7.59	8.11	8.23	-
Printing and publishing	7.31	7.37	7.90	7.97	-
Chemicals and allied products	8.09	8.11	8.73	8.80	-
Petroleum and coal products	9.85	9.80	10.79	10.95	-
Rubber and misc. plastics products	6.37	6.43	6.95	7.02	-
Leather and leather products	4.48	4.51	4.86	4.87	-

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

p=preliminary.

² Not available as average overtime rates are significantly above time and one-half. Inclusion of data for the group in the nondurable goods total has little effect.

C-4. Gross and spendable average weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls by industry division, in current and constant (1977) dollars

Industry	Gross average weekly earnings			Spendable average weekly earnings ²					
	July 1980	June 1981	July 1981P	Worker with no dependents			Married worker with 3 dependents		
				July 1980	June 1981	July 1981P	July 1980	June 1981	July 1981P
TOTAL PRIVATE:									
Current dollars	\$234.39	\$254.88	\$257.02	\$188.33	\$201.32	\$202.30	\$205.86	\$220.08	\$221.69
Constant (1977) dollars	171.59	170.49	169.87	137.87	134.66	134.04	150.70	147.21	146.52
MINING:									
Current dollars	380.94	418.47	434.02	285.05	305.34	314.57	314.80	338.96	349.74
Constant (1977) dollars	278.87	279.91	286.86	208.67	204.24	207.91	230.45	226.73	231.15
CONSTRUCTION:									
Current dollars	373.23	394.32	404.52	280.43	291.01	297.06	309.18	322.21	329.23
Constant (1977) dollars	273.23	263.76	267.36	205.29	194.56	196.34	226.34	215.53	217.53
MANUFACTURING:									
Current dollars	282.85	320.39	317.59	221.87	245.18	243.40	242.63	269.01	266.99
Constant (1977) dollars	207.06	214.31	209.91	162.42	164.30	160.37	177.62	179.94	175.45
TRANSPORTATION AND PUBLIC UTILITIES:									
Current dollars	354.71	383.27	387.25	268.76	284.45	286.31	295.69	314.51	317.31
Constant (1977) dollars	259.67	256.37	255.95	196.75	190.27	189.56	215.46	210.37	209.72
WHOLESALE AND RETAIL TRADE:									
Current dollars	178.65	190.25	193.26	147.85	155.40	157.57	154.32	171.00	173.07
Constant (1977) dollars	130.78	127.26	127.73	108.24	103.35	104.14	120.29	114.38	114.39
FINANCE, INSURANCE, AND REAL ESTATE:									
Current dollars	208.87	225.26	227.96	169.95	180.73	182.55	186.23	197.76	199.89
Constant (1977) dollars	152.91	150.68	150.67	124.41	120.89	120.72	136.33	132.28	132.05
SERVICES:									
Current dollars	191.32	206.99	208.89	157.16	167.51	168.38	172.69	183.69	185.15
Constant (1977) dollars	140.06	138.45	138.06	115.05	112.05	111.62	126.42	122.87	122.38

¹ For coverage of series, see footnote 1, table B-2.

² Spendable earnings are calculated by taking the average weekly pay for all production or nonsupervisory jobs, both full-time and part-time, and then deducting social security and Federal income taxes applicable to a single worker or to a married worker with three dependents who earned

this amount (see Explanatory Notes for the establishment data in the back of this publication). A technical note on the calculation and uses of the spendable earnings series is available on request.

p=preliminary.

ESTABLISHMENT DATA HOURS AND EARNINGS

C-5. Indexes of aggregate weekly hours and payrolls of production or nonsupervisory workers¹ on private nonagricultural payrolls by industry division and major manufacturing group

(1977=100)

Industry division and group	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	Hours				
TOTAL PRIVATE	107.0	108.3	110.4	110.6	111.3
GOODS-PRODUCING	98.6	101.5	104.7	103.4	104.3
MINING	119.2	122.0	131.2	135.6	139.0
CONSTRUCTION	123.8	124.7	118.1	122.2	121.3
MANUFACTURING	92.7	96.0	100.9	98.2	99.9
DURABLE GOODS	91.7	93.7	101.3	98.2	98.3
Lumber and wood products	86.9	91.6	95.9	93.2	93.8
Furniture and fixtures	83.9	90.9	101.4	96.7	99.6
Stone, clay, and glass products	92.1	94.4	97.1	95.5	96.7
Primary metal industries	81.6	82.9	95.8	92.4	91.5
Fabricated metal products	88.6	92.5	98.8	94.8	95.9
Machinery, except electrical	105.1	104.8	112.0	109.3	109.5
Electric and electronic equipment	98.2	101.0	109.4	107.2	107.9
Transportation equipment	82.0	81.1	91.4	87.0	86.5
Instruments and related products	108.4	109.7	113.0	111.2	112.8
Miscellaneous manufacturing industries	86.5	92.0	93.2	90.1	94.0
NONDURABLE GOODS	94.2	99.4	100.2	98.2	101.5
Food and kindred products	102.2	111.9	97.6	100.7	105.1
Tobacco manufactures	83.9	95.9	90.7	89.2	109.5
Textile mill products	84.2	89.7	93.4	89.7	91.7
Apparel and other textile products	90.3	95.6	99.2	93.7	99.1
Paper and allied products	95.3	97.4	101.9	100.3	100.4
Printing and publishing	104.6	106.1	108.2	107.7	109.4
Chemicals and allied products	97.8	98.1	103.4	101.7	102.1
Petroleum and coal products	103.8	103.0	105.6	105.6	102.3
Rubber and misc. plastics products	86.3	93.6	104.7	100.1	104.1
Leather and leather products	79.9	90.2	95.7	87.3	100.7
SERVICE-PRODUCING	111.7	112.0	113.5	114.6	114.8
TRANSPORTATION AND PUBLIC UTILITIES	106.6	106.1	107.2	106.6	107.0
WHOLESALE AND RETAIL TRADE	106.6	107.6	108.1	109.1	109.5
WHOLESALE TRADE	109.8	110.4	112.4	112.7	112.4
RETAIL TRADE	105.4	106.5	106.4	107.8	108.4
FINANCE, INSURANCE, AND REAL ESTATE	116.4	116.6	119.0	120.0	120.4
SERVICES	118.3	118.2	120.8	122.6	122.5

¹ For coverage of series, see footnote 1, table B-2.

p=preliminary.

ESTABLISHMENT DATA HOURS AND EARNINGS

C-5. Indexes of aggregate weekly hours and payrolls of production or nonsupervisory workers¹ on private nonagricultural payrolls by industry division and major manufacturing group—Continued

(1977=100)

Industry division and group	July 1980	Aug. 1980	June 1981	July 1981P	Aug. 1981P
	Payrolls				
TOTAL PRIVATE	135.4	137.7	151.5	152.6	154.7
GOODS-PRODUCING	127.3	131.5	146.2	145.0	148.5
MINING	155.7	161.0	187.8	198.0	203.5
CONSTRUCTION	151.2	154.5	154.4	151.8	162.7
MANUFACTURING	119.1	123.5	141.6	138.6	141.4
DURABLE GOODS	117.4	120.1	142.4	138.4	139.3
Lumber and wood products	113.8	120.9	133.6	130.6	131.4
Furniture and fixtures	106.8	116.3	137.5	131.8	137.6
Stone, clay, and glass products	120.4	124.0	138.9	137.8	140.2
Primary metal industries	108.3	110.3	139.2	134.4	134.7
Fabricated metal products	111.5	117.3	137.8	131.7	133.6
Machinery, except electrical	134.3	134.2	157.6	154.6	155.0
Electric and electronic equipment	126.5	131.3	154.3	153.3	155.3
Transportation equipment	105.0	103.9	130.0	123.6	123.2
Instruments and related products	140.4	142.2	156.8	156.5	159.7
Miscellaneous manufacturing industries	108.5	115.5	126.7	123.3	128.9
NONDURABLE GOODS	122.0	129.4	140.1	138.9	144.0
Food and kindred products	131.2	143.7	134.9	139.8	146.8
Tobacco manufactures	122.7	135.4	152.6	152.0	174.0
Textile mill products	107.2	117.0	126.9	123.9	130.2
Apparel and other textile products	112.1	121.4	136.8	127.9	137.2
Paper and allied products	127.3	130.6	146.1	146.9	146.6
Printing and publishing	128.6	132.0	143.8	144.5	146.9
Chemicals and allied products	127.2	128.2	145.7	144.5	145.3
Petroleum and coal products	135.9	134.4	152.3	154.2	148.2
Rubber and misc. plastics products	109.4	120.5	146.3	140.9	147.7
Leather and leather products	101.0	115.1	132.1	123.0	139.5
SERVICE-PRODUCING	141.1	142.0	155.3	157.3	159.1
TRANSPORTATION AND PUBLIC UTILITIES	135.5	135.7	147.6	148.3	152.3
WHOLESALE AND RETAIL TRADE	136.7	138.1	148.8	150.8	151.6
WHOLESALE TRADE	142.0	143.3	156.6	158.3	159.1
RETAIL TRADE	133.8	135.4	144.6	145.7	147.5
FINANCE, INSURANCE, AND REAL ESTATE	147.9	149.6	163.4	166.0	168.5
SERVICES	147.1	147.6	164.3	165.9	168.5

ESTABLISHMENT DATA SEASONALLY ADJUSTED HOURS

C-6. Average weekly hours of production or nonsupervisory workers¹ on private nonagricultural payrolls by industry division and major manufacturing group, seasonally adjusted

Industry	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ^P	Aug. P
TOTAL PRIVATE	35.2	35.3	35.3	35.3	35.3	35.3	35.2	35.3	35.4	35.3	35.2	35.2	35.3
MINING	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
CONSTRUCTION	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
MANUFACTURING	39.5	39.5	39.7	39.8	39.9	40.1	39.8	39.9	40.2	40.3	40.1	40.0	40.1
<i>Overtime hours</i>	2.7	2.7	2.8	3.0	3.0	3.0	2.8	2.8	2.9	3.2	3.0	3.0	3.1
DURABLE GOODS	40.0	40.1	40.1	40.4	40.4	40.6	40.1	40.4	40.8	40.3	40.5	40.5	40.5
<i>Overtime hours</i>	2.7	2.7	2.8	3.0	3.1	3.0	2.8	2.8	3.0	3.2	3.0	3.0	3.1
Lumber and wood products	38.8	38.7	38.6	39.1	39.3	39.8	39.1	39.1	39.6	39.3	39.0	38.7	38.5
Furniture and fixtures	37.6	38.1	38.0	38.0	38.4	38.5	38.6	38.5	38.8	39.0	38.9	38.5	38.2
Stone, clay, and glass products	40.5	40.8	40.8	40.9	41.0	41.3	40.6	40.7	41.2	41.0	40.8	41.0	40.3
Primary metal industries	39.4	39.7	40.1	40.8	41.2	41.1	40.7	41.0	41.2	41.0	40.8	40.5	40.7
Fabricated metal products	40.2	40.4	40.4	40.5	40.4	40.5	40.2	40.4	40.9	40.9	40.7	40.5	40.5
Machinery, except electrical	40.8	40.9	40.8	41.0	40.9	41.1	40.8	40.9	41.3	41.4	41.1	41.2	41.1
Electric and electronic equipment	39.6	39.6	39.8	39.9	40.0	40.1	39.6	40.0	40.2	40.4	40.2	40.5	40.4
Transportation equipment	40.8	40.7	40.7	41.2	41.0	41.3	40.5	40.9	42.0	41.3	41.4	41.3	42.0
Instruments and related products	40.3	40.2	40.3	40.4	40.4	40.6	40.5	40.5	40.1	40.4	40.4	40.7	40.5
Miscellaneous manufacturing ind	38.6	38.8	38.6	38.6	38.9	38.8	38.6	38.7	38.9	39.2	39.1	39.2	38.9
NONDURABLE GOODS	38.9	38.9	39.0	39.1	39.2	39.5	39.2	39.2	39.3	39.5	39.4	39.3	39.3
<i>Overtime hours</i>	2.8	2.8	2.8	2.9	2.9	3.0	2.9	2.3	2.9	3.1	3.0	2.9	3.0
Food and kindred products	39.8	39.7	39.6	39.8	39.7	40.3	39.9	39.7	40.1	40.0	39.8	39.4	39.2
Tobacco manufactures	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Textile mill products	39.5	39.3	39.8	39.9	40.1	40.0	40.0	39.9	39.8	40.5	40.2	40.3	40.3
Apparel and other textile products	35.2	35.2	35.4	35.2	35.5	36.1	35.6	35.7	35.5	36.0	35.1	35.3	35.3
Paper and allied products	42.0	42.2	42.2	42.4	42.8	42.6	42.4	42.4	42.6	42.8	42.7	42.8	42.4
Printing and publishing	37.0	36.9	37.1	36.8	37.4	37.5	37.3	37.1	37.3	37.5	37.4	37.3	37.3
Chemicals and allied products	41.2	41.4	41.5	41.6	41.6	41.6	41.6	41.5	41.5	41.7	41.7	41.7	41.4
Petroleum and coal products	42.1	42.4	42.8	42.9	43.2	43.8	43.8	43.5	44.1	43.8	43.4	43.1	42.7
Rubber and misc. plastics products	40.2	40.2	40.5	40.8	40.8	40.9	40.3	40.5	40.7	41.3	41.0	40.5	41.0
Leather and leather products	35.6	36.4	36.7	36.3	36.6	36.8	37.0	37.1	35.6	37.1	37.4	35.4	33.5
TRANSPORTATION AND PUBLIC UTILITIES	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
WHOLESALE AND RETAIL TRADE	32.1	32.1	32.1	32.2	32.1	32.2	32.2	32.2	32.3	32.1	32.1	32.1	32.1
WHOLESALE TRADE	38.3	38.5	38.5	38.5	38.6	38.8	38.6	38.5	38.6	38.5	38.5	38.6	38.5
RETAIL TRADE	30.1	30.1	30.1	30.2	30.0	30.1	30.2	30.2	30.3	30.1	30.1	30.0	30.1
FINANCE, INSURANCE, AND REAL ESTATE	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
SERVICES	32.6	32.6	32.6	32.7	32.7	32.7	32.8	32.8	32.8	32.7	32.5	32.5	32.5

¹ For coverage of series, see footnote 1, table B-2.

p=preliminary.

² This series is not published seasonally adjusted since the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

ESTABLISHMENT DATA SEASONALLY ADJUSTED

C-7. Indexes of aggregate weekly hours of production or nonsupervisory workers¹ on private nonagricultural payrolls by industry division and major manufacturing group, seasonally adjusted

(1977=100)

Industry division and group	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ^p	Aug. ^p
TOTAL PRIVATE	105.6	107.1	107.4	107.7	107.9	108.2	107.9	108.4	108.9	108.9	108.7	109.3	109.5
GOODS-PRODUCING	103.2	101.3	101.7	102.0	102.3	102.4	100.9	102.4	102.8	103.1	102.6	103.5	103.5
MINING	120.5	123.1	124.0	126.6	130.1	130.1	128.6	128.2	112.0	113.3	128.0	135.1	137.2
CONSTRUCTION	114.5	117.6	117.7	114.4	115.6	113.9	109.1	116.6	115.8	112.9	109.3	110.9	110.0
MANUFACTURING	96.5	97.2	97.6	98.4	98.5	98.9	98.0	98.4	99.9	100.7	100.2	100.6	100.7
DURABLE GOODS	96.0	96.8	97.3	98.6	98.5	99.0	97.8	98.5	100.7	101.1	100.6	101.2	101.3
Lumber and wood products	83.5	89.5	89.1	90.6	91.7	93.2	91.7	91.9	94.5	95.1	92.9	92.4	91.7
Furniture and fixtures	92.6	95.1	95.1	95.1	96.4	96.6	97.4	97.4	100.5	102.6	102.6	102.5	101.5
Stone, clay, and glass products	92.4	93.9	93.9	94.5	94.1	94.5	92.8	92.7	94.8	94.5	93.9	94.3	94.3
Primary metal industries	84.7	86.9	89.3	92.6	94.6	94.6	94.0	94.7	95.7	94.8	94.6	93.5	93.5
Fabricated metal products	94.4	95.6	95.9	96.4	96.1	96.2	95.3	95.2	98.2	98.7	93.4	93.3	93.2
Machinery, except electrical	103.3	109.0	109.1	109.8	109.3	109.3	108.7	109.1	110.5	111.3	111.5	112.4	113.5
Electric and electronic equipment	103.6	103.7	104.6	105.3	106.1	106.5	105.3	107.0	108.4	109.6	109.2	111.4	110.7
Transportation equipment	87.6	87.9	88.2	91.3	88.3	89.1	86.8	88.7	93.3	92.2	91.9	91.5	93.5
Instruments and related products	111.4	110.9	111.4	111.7	112.0	112.3	111.2	111.5	110.9	112.0	111.7	113.9	114.4
Miscellaneous manufacturing ind	90.7	90.9	89.5	90.1	90.8	91.2	90.7	90.5	92.0	92.4	92.2	95.4	92.9
NONDURABLE GOODS	97.4	97.7	98.0	98.0	98.4	98.9	98.3	98.1	98.7	100.1	99.5	99.8	99.3
Food and kindred products	101.5	100.7	100.4	100.3	99.7	100.9	100.4	99.0	100.5	100.8	98.1	93.3	95.5
Tobacco manufactures	90.6	95.6	100.1	102.2	97.1	98.4	98.1	96.5	96.5	98.4	98.3	101.9	105.9
Textile mill products	90.5	91.1	91.3	91.3	91.5	91.2	90.9	90.7	90.7	92.5	92.1	93.6	92.7
Apparel and other textile products	94.5	94.4	94.6	93.9	94.4	95.4	94.0	94.3	94.1	96.0	95.8	97.5	93.2
Paper and allied products	97.6	98.4	98.8	99.4	100.4	99.9	99.2	99.1	99.9	100.3	100.7	101.0	100.5
Printing and publishing	106.4	106.6	107.0	106.3	108.5	108.5	108.2	107.8	108.5	109.5	108.8	103.9	109.4
Chemicals and allied products	98.7	99.8	99.9	100.5	100.6	100.8	101.1	101.0	101.2	102.0	102.5	102.2	102.7
Petroleum and coal products	100.6	101.3	102.2	102.5	102.4	104.6	104.6	103.9	103.3	105.4	102.9	101.4	99.7
Rubber and misc. plastics products	95.3	96.7	98.3	99.4	100.0	100.4	99.3	103.1	102.2	105.3	104.7	103.6	105.0
Leather and leather products	89.0	88.5	88.8	87.8	88.1	88.5	89.5	89.3	98.5	90.5	91.4	91.5	99.3
SERVICE-PRODUCING	110.1	110.3	110.6	110.9	111.0	111.3	111.7	111.3	112.3	112.0	112.1	112.4	112.9
TRANSPORTATION AND PUBLIC UTILITIES	105.9	106.0	106.3	105.7	106.6	105.0	105.4	105.1	105.4	104.9	105.2	105.3	105.4
WHOLESALE AND RETAIL TRADE	105.7	106.0	106.1	106.3	105.9	106.6	106.8	105.9	107.2	106.9	107.0	107.4	107.8
WHOLESALE TRADE	109.7	110.5	110.6	110.5	110.9	111.5	111.1	111.1	111.4	111.4	111.3	112.1	111.8
RETAIL TRADE	104.2	104.3	104.3	104.7	103.9	104.7	105.2	105.4	105.6	105.2	105.3	105.5	105.2
FINANCE, INSURANCE, AND REAL ESTATE	115.3	114.9	115.9	116.2	116.5	117.3	117.4	117.5	117.8	117.4	117.6	118.1	118.9
SERVICES	115.5	115.8	116.0	116.9	117.3	117.7	118.2	118.4	119.3	119.2	119.7	119.3	119.4

¹ For coverage of series, see footnote 1, table B-2.

^p=preliminary.

ESTABLISHMENT DATA SEASONALLY ADJUSTED

C-8. Hourly Earnings Index and average hourly and weekly earnings of production or nonsupervisory workers¹ on private nonagricultural payrolls, seasonally adjusted

Industry	1980					1981							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July P.	Aug. P.
Hourly Earnings Index² (1977=100)													
TOTAL PRIVATE (In current dollars)	128.7	129.4	130.6	132.1	132.6	133.8	135.0	135.8	136.7	137.7	138.4	139.0	140.5
MINING ³	135.0	136.7	137.5	139.2	139.8	142.1	143.2	144.0	145.7	145.6	147.2	148.5	149.4
CONSTRUCTION	122.9	123.1	124.4	125.2	126.2	127.6	128.0	128.6	129.0	129.4	130.4	131.7	132.0
MANUFACTURING	131.3	132.3	133.5	134.6	135.4	136.5	137.5	138.5	139.9	140.7	141.6	142.5	143.5
TRANSPORTATION AND PUBLIC UTILITIES	128.1	128.1	130.9	132.6	132.8	133.7	135.4	136.1	137.3	138.9	139.8	140.1	142.5
WHOLESALE AND RETAIL TRADE	129.3	129.9	130.8	132.3	132.4	133.7	135.0	135.8	136.4	137.4	137.8	138.3	139.5
FINANCE, INSURANCE, AND REAL ESTATE	128.7	129.1	129.9	132.4	131.9	133.2	135.0	135.0	135.4	136.8	137.1	137.6	140.1
SERVICES	125.6	127.3	128.5	130.5	131.1	132.0	133.2	134.0	134.8	136.0	136.6	135.9	139.4
TOTAL PRIVATE (In 1977 dollars) ⁴	93.9	93.3	93.2	93.3	92.7	92.8	92.7	92.8	93.0	93.1	92.9	92.2	-
Average hourly earnings													
TOTAL PRIVATE	\$6.72	\$6.76	\$6.83	\$6.90	\$6.94	\$6.99	\$7.04	\$7.09	\$7.14	\$7.18	\$7.23	\$7.27	\$7.34
MINING	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
CONSTRUCTION	\$10.02	\$10.05	\$10.15	\$10.21	\$10.30	\$10.39	\$10.44	\$10.49	\$10.52	\$10.57	\$10.69	\$10.75	\$10.81
MANUFACTURING	7.36	7.41	7.49	7.59	7.63	7.69	7.74	7.80	7.90	7.95	7.99	8.02	8.09
TRANSPORTATION AND PUBLIC UTILITIES	8.93	8.94	9.12	9.20	9.26	9.33	9.44	9.48	9.57	9.67	9.74	9.75	9.94
WHOLESALE AND RETAIL TRADE	5.54	5.57	5.61	5.66	5.69	5.72	5.73	5.81	5.84	5.89	5.91	5.93	5.97
FINANCE, INSURANCE, AND REAL ESTATE	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
SERVICES	\$5.91	\$5.94	\$6.00	\$6.07	\$6.11	\$6.15	\$6.20	\$6.24	\$6.27	\$6.32	\$6.38	\$6.41	\$6.50
Average weekly earnings													
TOTAL PRIVATE:													
Current dollars	236.54	238.53	241.10	243.57	244.98	246.75	247.91	250.28	252.76	253.45	254.50	255.90	259.10
1977 dollars ⁴	172.53	172.05	172.09	171.89	171.19	171.12	170.20	170.96	172.06	171.37	170.92	159.31	-
Real spendable earnings (married worker with 3 dependents, 1977 dollars) ^{5, 6}	151.34	150.74	150.57	150.20	149.48	148.38	147.49	147.96	148.73	148.07	147.62	146.55	-

¹ For coverage of series, see footnote 1, table B-2.

² The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments: Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

³ The unadjusted data are shown because the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.

⁴ The deflator for these series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

⁵ See footnote 2, table C-6.

⁶ See footnote 2, table C-4.

p=preliminary.

C-9. Hours of wage and salary workers¹ in nonagricultural establishments by industry division

Industry division	Millions of hours (Annual rate) ²			Percent change		
	JUNE 1981	JULY 1981	AUGUST 1981	Aug. 1980 to Aug. 1981	June 1981 to July 1981	July 1981 to Aug. 1981
TOTAL	170,921	171,143	171,812	2.2	0.1	0.4
PRIVATE SECTOR	139,410	139,852	140,416	3.1	0.3	0.4
MINING	2,394	2,517	2,560	14.6	5.1	1.7
CONSTRUCTION	8,040	8,120	8,057	-1.2	1.0	-0.8
MANUFACTURING	42,192	42,337	42,414	3.7	0.3	0.2
DURABLE GOODS	25,633	25,725	25,792	4.7	0.4	0.3
NONDURABLE GOODS	16,560	16,612	16,622	2.1	0.3	0.1
TRANSPORTATION AND PUBLIC UTILITIES	10,598	10,586	10,607	1.1	-0.1	0.2
WHOLESALE AND RETAIL TRADE	34,654	34,617	34,893	2.3	-0.1	0.8
FINANCE, INSURANCE, AND REAL ESTATE	10,039	10,069	10,131	3.6	0.3	0.6
SERVICES	31,493	31,607	31,754	3.7	0.4	0.5
GOVERNMENT	31,511	31,291	31,396	-1.4	-0.7	0.3

¹ 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 for Surveys and Studies*, BLS Bulletin 1910—Chapter 30, Productivity Measures: Private Economy and Major Sectors.

² "Annual rate" refers to total hours paid for 1 week in the month, expressed as a seasonally adjusted annual equivalent.

**PRODUCTIVITY
SEASONALLY ADJUSTED**

C-11. Percent changes from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, private business sector, seasonally adjusted at annual rate

Item	Quarterly percent change						Annual percent change					
	IV 1979 to I 1980	I 1980 to II 1980	II 1980 to III 1980	III 1980 to IV 1980	IV 1980 to I 1981	I 1981 to II 1981	I 1979 to I 1980	II 1979 to II 1980	III 1979 to III 1980	IV 1979 to IV 1980	I 1980 to I 1981	II 1980 to II 1981
	PRIVATE BUSINESS SECTOR:											
Output per hour of all persons	1.6	-1.8	1.3	-1.1	4.6	r2.8	-0.1	-0.6	0.0	0.0	0.7	r1.9
Output	1.8	-11.5	1.1	6.9	7.9	r-0.9	0.9	-1.6	-1.9	-0.7	0.8	r3.7
Hours	0.2	-9.9	-0.2	8.1	3.1	-3.7	1.0	-1.0	-1.9	-0.7	0.0	1.7
Compensation per hour	10.7	12.3	9.5	8.6	11.8	r10.4	9.9	10.1	10.3	10.3	10.5	10.1
Real compensation per hour	-5.0	-0.7	1.6	-3.8	0.4	3.1	-3.8	-3.8	-2.3	-2.0	-0.7	0.3
Unit labor costs	9.0	14.4	8.1	9.8	6.9	r7.3	10.0	10.8	10.3	10.3	9.7	r8.0
Unit nonlabor payments	11.2	2.6	13.7	10.2	17.2	r5.0	5.1	5.1	7.4	9.3	10.8	r11.4
Implicit price deflator	9.7	10.5	9.8	9.9	10.0	r6.6	8.4	9.0	9.4	10.0	10.1	r9.1
NONFARM BUSINESS SECTOR:												
Output per hour of all persons	0.3	-2.9	3.6	-0.2	4.3	r0.7	-0.7	-1.0	0.1	0.1	1.1	r2.1
Output	1.4	-12.1	2.9	7.1	7.9	r-1.9	0.6	-1.9	-1.8	-0.5	1.1	r3.9
Hours	1.1	-9.5	-0.7	7.3	3.5	-2.6	1.3	-0.9	-1.9	-0.6	0.0	1.8
Compensation per hour	10.2	11.3	9.0	9.8	11.6	9.6	9.7	9.9	10.1	10.1	10.4	10.0
Real compensation per hour	5.4	-1.6	1.2	-2.7	0.2	2.4	-4.0	-4.0	-2.5	-2.2	-0.8	0.2
Unit labor costs	9.9	14.6	5.3	10.1	7.0	r8.8	10.4	11.0	9.9	9.9	9.2	r7.8
Unit nonlabor payments	14.6	4.2	15.0	9.9	20.3	r2.7	6.4	6.9	9.1	10.8	12.2	r11.8
Implicit price deflator	11.3	11.3	8.2	10.0	11.0	r6.9	9.1	9.7	9.6	10.2	10.1	r9.0
MANUFACTURING:												
Output per hour of all persons	-0.5	-4.7	-1.2	12.1	3.2	r4.3	0.5	-1.5	-1.5	1.2	2.2	4.5
Output	-1.0	-21.5	-7.6	24.4	7.3	r3.5	-1.2	-6.3	-8.2	-2.8	-0.8	r6.3
Hours	-0.6	-17.6	-6.5	11.0	4.0	r-0.8	-1.7	-4.9	-6.7	-4.0	-2.9	1.7
Compensation per hour	10.4	15.5	12.7	10.5	11.1	r10.6	9.4	9.6	11.7	12.3	12.4	11.2
Real compensation per hour	-5.3	2.1	4.5	-2.2	-0.3	r3.4	-4.2	-4.3	-1.0	-0.3	1.0	1.3
Unit labor costs	10.9	21.2	14.0	-1.5	7.7	6.0	8.9	11.3	13.4	10.9	10.0	6.4
DURABLE GOODS												
Output per hour of all persons	-2.2	-3.4	-3.5	14.1	4.4	r5.7	-0.9	-2.6	-2.1	1.0	2.7	r5.0
Output	-2.9	-25.0	-11.2	30.1	8.5	r5.2	-3.0	-8.7	-10.7	-4.2	-1.5	r7.2
Hours	-0.8	-22.4	-8.0	14.0	4.0	r-0.5	-2.1	-6.2	-8.8	-5.2	-4.1	r2.1
Compensation per hour	12.3	16.5	13.4	11.3	11.1	r10.6	9.6	9.7	12.4	13.3	13.0	r11.6
Real compensation per hour	-3.7	2.9	5.2	-1.4	-0.3	r3.3	-4.1	-4.1	-0.5	0.7	1.6	r1.7
Unit labor costs	14.8	20.5	17.6	-2.5	6.4	r4.6	10.7	12.6	14.7	12.2	10.1	6.3
NONDURABLE GOODS												
Output per hour of all persons	2.2	-7.2	2.2	9.5	1.4	r2.4	2.7	0.0	-0.9	1.5	1.3	r3.8
Output	1.9	-15.9	-2.2	16.5	5.6	r1.1	1.7	-2.8	-4.3	-0.6	0.3	r5.0
Hours	-0.3	-9.4	-4.3	6.4	4.1	r-1.2	-1.0	-2.7	-3.5	-2.1	-1.0	r1.2
Compensation per hour	7.0	15.6	11.9	8.2	11.2	r10.6	9.2	9.7	11.2	10.6	11.7	r10.5
Real compensation per hour	-8.2	2.2	3.8	-4.2	-0.2	r3.4	-4.4	-4.1	-1.5	-1.7	0.4	0.6
Unit labor costs	4.7	24.5	9.5	-1.2	9.6	r8.0	6.3	9.7	12.2	9.0	10.2	r6.4
NONFINANCIAL CORPORATIONS:												
Output per all-employee hour	1.5	-0.5	6.7	0.0	6.3	p0.9	-0.3	-0.5	1.3	1.9	3.1	p3.4
Output	2.2	-10.9	3.4	7.9	11.5	p-1.3	0.4	-2.0	-1.6	0.4	2.6	p5.3
Hours	0.7	-10.5	-3.1	7.9	4.8	p-2.2	0.7	-1.5	-2.8	-1.5	-0.5	p1.7
Compensation per hour	10.2	12.0	10.2	9.4	11.4	p9.2	9.8	9.9	10.3	10.4	10.8	p10.1
Real compensation per hour	-5.4	-1.0	2.2	-3.1	0.0	p2.1	-3.9	-3.9	-2.2	1.9	-0.5	p0.3
Total unit costs	9.8	17.0	6.2	9.4	5.6	p10.0	10.6	12.0	11.0	10.5	9.5	p7.8
Unit labor costs	8.6	12.6	3.2	9.4	4.8	p8.3	10.1	10.5	8.9	8.4	7.4	p6.4
Unit nonlabor costs	13.5	30.6	14.7	9.5	7.9	p14.9	12.2	16.3	16.8	16.8	15.4	p11.7
Unit profits	15.3	-41.9	30.3	15.7	77.9	p-19.4	-9.5	-17.2	-8.6	0.3	11.8	p21.3
Implicit price deflator	10.3	10.5	7.9	9.9	10.4	p7.1	8.5	9.1	9.1	9.6	9.7	p8.8

GPO 873-678

p=preliminary.
r=revised.

ESTABLISHMENT DATA
STATE AND AREA HOURS AND EARNINGS

C-12. Gross hours and earnings of production workers on manufacturing payrolls, by State and selected areas

State and area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
ALABAMA	\$256.75	\$282.40	\$284.82	39.5	40.4	40.4	\$6.50	\$6.99	\$7.05
Birmingham	312.30	317.21	319.56	41.2	39.8	39.5	7.58	7.97	8.09
Mobile	328.08	353.43	369.18	41.9	40.3	42.0	7.83	8.77	8.79
ALASKA	504.87	467.37	(*)	52.7	40.5	(*)	9.58	11.54	(*)
ARIZONA	290.14	316.01	310.70	39.8	39.7	38.5	7.29	7.96	8.07
Phoenix	286.63	311.58	305.34	39.7	40.1	38.7	7.22	7.77	7.89
Tucson	274.48	299.54	310.08	37.6	38.6	39.4	7.30	7.76	7.87
ARKANSAS	220.22	253.13	247.67	38.5	40.5	39.5	5.72	6.25	6.27
Fayetteville—Springdale	197.88	216.58	197.44	38.8	38.4	34.7	5.10	5.64	5.69
Fort Smith	215.28	247.27	246.64	36.8	39.5	39.4	5.85	6.26	6.26
Little Rock—North Little Rock	254.02	291.51	283.91	39.2	41.0	40.1	6.48	7.11	7.08
Pine Bluff	341.12	319.66	320.26	41.6	41.3	41.7	8.20	7.74	7.68
CALIFORNIA	303.03	336.66	337.82	39.0	39.7	39.1	7.77	8.48	8.64
Anaheim—Santa Ana—Garden Grove	284.72	319.60	324.82	39.6	40.0	40.2	7.19	7.99	8.08
Bakersfield	322.25	350.64	355.85	38.5	39.8	40.3	8.37	8.81	8.83
Fresno	266.72	296.83	283.19	37.2	38.3	36.4	7.17	7.75	7.78
Los Angeles—Long Beach	288.51	320.80	321.95	39.2	40.1	39.6	7.36	8.00	8.13
Modesto	301.09	316.86	326.32	38.7	38.5	38.3	7.78	8.23	8.52
Oxnard—Simi Valley—Ventura	260.52	288.21	281.99	38.2	39.0	37.8	6.82	7.39	7.46
Riverside—San Bernardino—Ontario	294.46	325.84	336.66	37.8	39.4	39.7	7.79	8.27	8.48
Sacramento	321.86	346.23	348.84	38.0	38.3	38.0	8.47	9.04	9.18
Salinas—Seaside—Monterey	279.00	297.97	313.12	37.5	38.3	38.8	7.44	7.78	8.07
San Diego	289.64	315.12	325.54	39.3	39.0	39.7	7.37	8.08	8.20
San Francisco—Oakland	360.21	410.41	415.66	38.9	39.5	39.7	9.26	10.39	10.47
San Jose	320.74	349.84	345.32	39.5	39.8	38.8	8.12	8.79	8.90
Santa Barbara—Santa Maria—Lompoc	260.88	305.37	293.71	37.7	39.1	37.8	6.92	7.81	7.77
Santa Rosa	279.80	293.76	297.99	38.7	38.4	38.6	7.23	7.65	7.72
Stockton	321.54	350.34	352.29	38.6	39.1	39.1	8.33	8.96	9.01
Vallejo—Fairfield—Napa	301.55	375.75	391.39	37.0	39.1	39.1	8.15	9.61	10.01
COLORADO	298.65	321.55	319.14	39.4	39.6	39.4	7.58	8.12	8.10
Denver—Boulder	300.99	317.15	315.56	39.5	39.3	39.2	7.62	8.07	8.05
CONNECTICUT	293.23	319.35	317.95	41.3	41.8	41.4	7.10	7.64	7.68
Bridgeport	313.60	340.49	341.91	42.9	43.1	42.9	7.31	7.90	7.97
Hartford	311.88	334.13	328.86	41.2	41.2	40.5	7.57	8.11	8.12
New Britain	310.17	335.20	331.57	42.2	42.7	42.4	7.35	7.85	7.82
New Haven—West Haven	280.80	299.95	303.75	40.0	40.1	40.5	7.02	7.48	7.50
Stamford	284.14	295.40	298.19	42.6	41.2	41.3	6.67	7.17	7.22
Waterbury	244.99	275.60	275.73	40.9	42.4	41.0	5.99	6.50	6.53
DELAWARE	299.05	355.45	357.00	39.4	43.4	42.5	7.59	8.19	8.40
Wilmington	351.16	395.25	387.28	39.5	42.5	40.3	8.89	9.30	9.61
DISTRICT OF COLUMBIA:									
Washington SMSA	328.32	348.93	355.15	38.4	38.9	39.2	8.55	8.97	9.06
FLORIDA	239.79	265.61	268.26	39.7	40.8	40.4	6.04	6.51	6.64
Fort Lauderdale—Hollywood	218.62	249.90	241.52	38.9	40.7	39.4	5.62	6.14	6.13
Jacksonville	274.13	314.91	319.12	39.5	42.1	42.1	6.94	7.48	7.58
Lakeland—Winter Haven	291.38	314.69	304.86	42.6	44.7	42.4	6.84	7.04	7.19
Miami	202.54	222.05	220.92	38.8	39.3	39.1	5.22	5.65	5.65
Orlando	268.80	279.21	282.91	42.0	41.0	41.3	6.40	6.81	6.85
Pensacola	292.98	331.78	331.50	40.3	42.7	42.5	7.27	7.77	7.80
Tampa—St. Petersburg	241.59	266.24	264.79	39.8	40.4	40.8	6.07	6.59	6.49
West Palm Beach—Boca Raton	258.57	295.11	303.02	39.0	41.8	42.8	6.63	7.06	7.08
GEORGIA	226.37	256.82	250.51	39.3	40.7	39.7	5.76	6.31	6.31
Atlanta	262.36	302.30	297.68	38.3	40.2	40.5	6.85	7.52	7.35
Savannah	324.75	359.20	352.96	43.3	44.4	43.9	7.50	8.09	8.04
HAWAII	240.31	276.36	264.96	37.2	37.6	36.8	6.46	7.35	7.20
Honolulu	238.14	270.42	253.78	37.8	37.3	36.1	6.30	7.25	7.03
IDAHO	290.18	304.79	325.18	36.5	36.9	37.9	7.95	8.26	8.58
Boise City	276.51	274.52	278.21	39.0	37.4	37.8	7.09	7.34	7.36

See footnotes at end of table.

ESTABLISHMENT DATA

STATE AND AREA HOURS AND EARNINGS

C-12. Gross hours and earnings of production workers on manufacturing payrolls, by State and selected areas—Continued

State and area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
ILLINOIS	\$311.42	\$362.70	\$359.29	38.4	40.3	39.7	\$8.11	\$9.00	\$9.05
Bloomington—Normal	282.30	330.40	349.43	38.2	40.0	41.5	7.39	8.26	8.42
Champaign—Urbana—Rantoul	235.28	308.27	324.69	34.0	38.2	39.5	6.92	8.07	8.22
Chicago SMSA	292.22	331.57	326.14	38.4	39.9	39.2	7.61	8.31	8.32
Davenport—Rock Island—Moline	374.19	433.92	447.33	39.1	39.7	40.3	9.57	10.93	11.10
Decatur	340.33	424.26	407.74	35.9	40.1	38.0	9.48	10.58	10.73
Kankakee	281.47	285.38	300.38	38.4	36.4	37.5	7.33	7.84	8.01
Peoria	376.32	474.80	479.19	36.5	40.0	39.8	10.31	11.87	12.04
Rockford	299.89	356.00	374.33	38.3	40.0	40.6	7.83	8.90	9.22
Springfield	316.65	385.92	390.44	38.9	39.5	39.8	8.14	9.77	9.81
INDIANA	324.86	379.20	377.61	38.4	40.6	40.3	8.46	9.34	9.37
Gary—Hammond—East Chicago	417.28	502.25	(*)	36.7	40.8	(*)	11.37	12.31	(*)
Indianapolis	328.89	383.16	(*)	39.2	41.2	(*)	8.39	9.30	(*)
IOWA	344.86	376.20	374.42	39.1	39.6	38.6	8.82	9.50	9.70
Cedar Rapids	330.75	372.64	348.35	37.8	39.6	36.4	8.75	9.41	9.57
Des Moines	331.97	390.25	392.16	37.3	39.7	38.0	8.90	9.83	10.32
Dubuque	444.61	421.30	417.27	46.9	39.3	38.6	9.48	10.72	10.81
Sioux City	338.66	287.21	264.55	41.1	38.5	37.0	8.24	7.46	7.15
Waterloo—Cedar Falls	520.54	500.58	510.44	47.8	39.2	39.6	10.89	12.77	12.89
KANSAS	289.64	319.97	317.15	39.3	40.4	39.3	7.37	7.92	8.07
Topeka	298.90	343.71	332.87	39.8	40.2	39.3	7.51	8.55	8.47
Wichita	321.87	356.97	361.09	39.3	41.8	41.6	8.19	8.54	8.68
KENTUCKY	274.53	314.81	308.11	37.3	39.9	39.3	7.36	7.89	7.84
Lexington—Fayette	278.19	316.52	312.46	37.9	38.6	37.6	7.34	8.20	8.31
Louisville	295.54	374.26	368.28	35.1	39.9	39.9	8.42	9.28	9.23
LOUISIANA	317.52	350.66	348.06	40.5	41.4	40.9	7.84	8.47	8.51
Baton Rouge	431.27	452.52	437.00	43.3	41.9	40.5	9.96	10.80	10.79
New Orleans	301.47	353.05	354.09	39.0	41.1	40.7	7.73	8.59	8.70
Shreveport	258.75	299.36	323.08	37.5	40.4	42.4	6.90	7.41	7.62
MAINE	241.79	268.62	271.35	39.9	40.7	40.2	6.06	6.60	6.75
Lewiston—Auburn	196.56	218.44	221.60	39.0	39.5	39.5	5.04	5.53	5.61
Portland	236.19	249.87	251.16	39.3	38.5	38.7	6.01	6.49	6.49
MARYLAND	299.10	330.44	331.97	39.2	40.2	39.9	7.63	8.22	8.32
Baltimore	312.84	349.57	351.08	39.7	40.6	40.4	7.88	8.61	8.69
MASSACHUSETTS	253.76	284.72	(*)	39.1	40.5	(*)	6.49	7.03	(*)
Boston	277.07	305.78	(*)	39.3	40.5	(*)	7.05	7.55	(*)
Brockton	198.78	224.14	(*)	38.3	39.6	(*)	5.19	5.66	(*)
Fall River	186.79	214.45	(*)	36.2	38.5	(*)	5.16	5.57	(*)
Lawrence—Haverhill	268.37	292.63	(*)	40.6	40.7	(*)	6.61	7.19	(*)
Lowell	218.65	258.08	(*)	36.2	40.2	(*)	6.04	6.42	(*)
New Bedford	214.64	243.07	(*)	37.2	38.4	(*)	5.77	6.33	(*)
Springfield—Chicopee—Holyoke	255.17	286.90	(*)	39.5	41.4	(*)	6.46	6.93	(*)
Worcester	258.06	291.60	(*)	39.1	40.5	(*)	6.56	7.20	(*)
MICHIGAN	369.25	439.31	426.30	39.0	41.7	40.6	9.47	10.54	10.50
Ann Arbor	401.84	501.28	487.34	40.1	43.7	42.3	10.02	11.47	11.52
Battle Creek	382.10	425.22	418.81	40.4	41.4	40.8	9.40	10.27	10.27
Bay City	335.28	399.32	395.23	39.8	42.1	41.7	8.42	9.49	9.48
Detroit	408.22	473.95	460.73	40.1	42.4	41.5	10.18	11.18	11.10
Flint	438.11	523.78	498.87	40.8	45.4	41.5	10.74	11.54	12.02
Grand Rapids	304.93	356.24	348.31	38.6	40.5	39.5	7.90	8.80	8.82
Jackson	337.48	414.08	415.16	40.1	44.0	44.1	8.42	9.41	9.41
Kalamazoo—Portage	337.79	421.45	389.38	38.8	41.6	39.3	8.71	10.13	9.91
Lansing—East Lansing	349.84	473.82	459.37	34.8	39.4	38.7	10.05	12.03	11.87
Muskegon—Norton Shores—Muskegon Heights	327.33	379.72	348.23	39.6	41.4	38.0	8.27	9.17	9.16
Saginaw	403.79	535.40	514.34	38.7	42.6	42.1	10.43	12.57	12.22
MINNESOTA	292.23	330.62	328.55	38.3	39.5	39.3	7.63	8.37	8.36
Duluth—Superior	257.40	329.22	332.07	35.8	40.1	40.3	7.19	8.21	8.24
Minneapolis—St. Paul	309.93	350.64	350.46	38.5	39.8	39.6	8.05	8.81	8.85
St. Cloud	206.91	214.69	217.98	33.0	31.9	31.5	6.27	6.73	6.92

See footnotes at end of table.

**ESTABLISHMENT DATA
STATE AND AREA HOURS AND EARNINGS**

C-12. Gross hours and earnings of production workers on manufacturing payrolls, by State and selected areas—Continued

State and area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
MISSISSIPPI	\$206.12	\$237.21	\$232.23	38.1	39.8	38.9	\$5.41	\$5.96	\$5.97
Jackson	232.25	258.73	262.10	39.7	40.3	40.2	5.85	6.42	6.52
MISSOURI	279.13	316.39	310.47	38.5	40.1	39.3	7.25	7.89	7.90
Kansas City	308.80	365.52	353.42	38.6	40.3	39.4	8.00	9.07	8.97
St. Joseph	276.40	281.47	284.86	40.0	39.7	39.4	6.91	7.09	7.23
St. Louis	320.19	356.00	355.21	39.0	40.0	39.6	8.21	8.90	8.97
Springfield	251.46	307.84	313.40	38.1	41.1	41.4	6.60	7.49	7.57
MONTANA	375.90	372.30	374.10	42.0	42.5	43.0	8.95	8.76	8.70
NEBRASKA	295.07	323.57	310.08	39.5	40.7	39.3	7.47	7.95	7.89
Lincoln	266.45	307.33	303.00	36.4	39.2	38.5	7.32	7.84	7.87
Omaha	302.48	314.39	330.34	39.8	38.2	39.8	7.60	8.23	8.30
NEVADA	296.11	313.18	322.33	37.2	38.1	38.1	7.96	8.22	8.46
Las Vegas	396.60	396.29	(*)	38.9	38.7	(*)	9.27	10.24	(*)
NEW HAMPSHIRE	228.69	252.33	(*)	38.5	39.8	(*)	5.94	6.34	(*)
Manchester	219.74	241.16	(*)	39.1	39.6	(*)	5.62	6.09	(*)
Nashua	249.56	273.08	(*)	39.3	38.9	(*)	6.35	7.02	(*)
NEW JERSEY	293.86	324.69	320.78	40.2	41.1	40.4	7.31	7.90	7.94
Atlantic City	221.40	231.59	230.12	36.0	36.3	35.9	6.15	6.38	6.41
Camden	296.61	326.83	321.20	40.3	40.6	40.0	7.36	8.05	8.03
Hackensack	257.94	286.18	279.60	39.5	41.0	40.0	6.53	6.98	6.99
Jersey City	280.06	305.93	304.84	39.5	40.9	40.7	7.09	7.48	7.49
New Brunswick—Perth Amboy—Sayreville	342.78	373.51	371.23	41.2	42.3	41.9	8.32	8.83	8.86
Newark	303.40	341.07	337.02	40.4	41.9	41.2	7.51	8.14	8.18
Paterson—Clifton—Passaic	268.49	316.41	307.60	39.6	42.7	41.4	6.78	7.41	7.43
Trenton	288.02	333.45	336.26	38.3	39.0	39.1	7.52	8.55	8.60
NEW MEXICO	229.47	259.49	266.95	39.7	40.8	39.2	5.78	6.36	6.81
Albuquerque	248.24	263.63	256.77	41.1	41.0	40.5	6.04	6.43	6.34
NEW YORK	279.03	309.28	306.94	38.7	39.6	39.1	7.21	7.81	7.85
Albany—Schenectady—Troy	302.44	330.08	325.01	39.9	40.6	39.3	7.58	8.13	8.27
Binghamton	268.71	289.93	285.93	40.9	41.3	40.5	6.57	7.02	7.06
Buffalo	368.95	415.34	403.20	39.8	40.6	40.0	9.27	10.23	10.08
Elmira	281.13	316.20	308.87	39.1	40.8	39.7	7.19	7.75	7.78
Monroe County	366.06	416.94	405.59	40.9	41.2	40.6	8.95	10.12	9.99
Nassau—Suffolk	271.17	295.54	295.32	39.3	40.1	39.8	6.90	7.37	7.42
New York—Northeastern New Jersey	265.48	295.66	(*)	38.7	39.9	(*)	6.86	7.41	(*)
New York and Nassau—Suffolk	243.94	268.48	267.29	37.3	38.3	37.7	6.54	7.01	7.09
New York SMSA	236.35	261.20	259.33	36.7	37.8	37.1	6.44	6.91	6.99
New York City	234.33	254.76	253.96	36.5	37.3	36.7	6.42	6.83	6.92
Poughkeepsie	294.69	327.24	317.48	41.1	43.4	42.5	7.17	7.54	7.47
Rochester	343.80	392.78	379.36	40.4	41.0	40.4	8.51	9.58	9.39
Rockland County	270.68	300.70	293.57	39.4	40.2	39.3	6.87	7.48	7.47
Syracuse	309.91	341.11	340.61	40.3	40.9	40.5	7.69	8.34	8.41
Utica—Rome	264.49	301.02	296.86	39.3	40.9	39.9	6.73	7.36	7.44
Westchester County	252.18	310.38	302.40	38.5	42.0	40.7	6.55	7.39	7.43
NORTH CAROLINA	206.28	231.66	232.85	38.2	39.6	39.2	5.40	5.85	5.94
Asheville	203.70	229.43	236.16	38.8	39.9	40.3	5.25	5.75	5.86
Charlotte—Gastonia	204.37	240.31	245.59	38.2	40.8	41.0	5.35	5.89	5.99
Greensboro—Winston-Salem—High Point	226.86	252.98	251.37	38.0	39.1	37.8	5.97	6.47	6.65
Raleigh—Durham	246.36	268.94	267.30	39.8	40.2	39.6	6.19	6.69	6.75
NORTH DAKOTA	245.06	271.65	272.42	37.3	38.1	38.1	6.57	7.13	7.15
Fargo—Moorhead	267.91	288.75	294.03	36.6	37.5	37.6	7.32	7.70	7.82
OHIO	338.98	397.44	389.50	39.6	41.4	40.7	8.56	9.60	9.57
Akron	355.66	404.07	401.82	40.6	42.4	41.9	8.76	9.53	9.59
Canton	336.49	394.30	395.52	38.5	40.4	40.4	8.74	9.76	9.79
Cincinnati	324.82	358.07	355.88	40.2	41.3	41.0	8.08	8.67	8.68
Cleveland	335.94	411.74	394.38	39.2	42.1	40.7	8.57	9.78	9.69
Columbus	301.85	341.94	336.48	39.1	39.9	39.4	7.72	8.57	8.54
Dayton	342.95	413.10	399.65	40.3	42.5	41.5	8.51	9.72	9.63
Toledo	343.39	409.28	405.96	39.2	41.3	40.8	8.76	9.91	9.95
Youngstown—Warren	395.85	483.14	475.73	39.0	41.4	40.8	10.15	11.67	11.66

See footnotes at end of table.

**ESTABLISHMENT DATA
STATE AND AREA HOURS AND EARNINGS**

C-12. Gross hours and earnings of production workers on manufacturing payrolls, by State and selected areas—Continued

State and area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
OKLAHOMA	\$294.71	\$328.46	\$334.49	39.4	40.5	40.3	\$7.48	\$8.11	\$8.30
Oklahoma City	324.80	341.02	360.77	40.6	39.7	40.4	8.00	8.59	8.93
Tulsa	304.51	358.48	356.70	38.4	41.3	41.0	7.93	8.68	8.70
OREGON	340.66	358.15	353.63	38.8	37.7	37.5	8.78	9.50	9.43
Eugene—Springfield	384.29	385.77	385.30	41.1	38.5	38.3	9.35	10.02	10.06
Jackson County	347.16	349.88	(*)	37.9	37.5	(*)	9.16	9.33	(*)
Portland	333.91	360.75	361.00	39.1	38.5	38.0	8.54	9.37	9.50
Salem	311.17	313.40	298.59	37.0	34.9	34.4	8.41	8.98	8.68
PENNSYLVANIA	287.27	325.84	322.87	38.1	39.4	38.9	7.54	8.27	8.30
Allentown—Bethlehem—Easton	301.78	325.17	333.41	38.2	38.3	38.5	7.90	8.49	8.66
Altoona	245.97	289.76	282.82	37.9	40.3	39.5	6.49	7.19	7.16
Delaware Valley . ⁶	300.23	336.47	333.08	39.4	40.2	39.7	7.62	8.37	8.39
Erie	312.76	346.92	344.38	40.2	41.3	40.9	7.78	8.40	8.42
Harrisburg	286.77	302.08	301.75	39.5	39.8	39.6	7.26	7.59	7.62
Johnstown	318.43	328.74	329.06	37.2	37.7	36.4	8.56	8.72	9.04
Lancaster	249.23	285.59	276.91	38.7	39.5	38.3	6.44	7.23	7.23
Northeast Pennsylvania	213.08	227.07	230.88	36.3	36.1	37.0	5.87	6.29	6.24
Philadelphia SMSA	299.41	335.30	330.70	39.5	40.3	39.7	7.58	8.32	8.33
Pittsburgh	338.63	406.42	408.04	37.5	40.2	40.4	9.03	10.11	10.10
Reading	271.91	303.67	301.08	38.9	39.8	39.0	6.99	7.63	7.72
Scranton . ⁷	205.71	223.02	230.89	35.9	36.5	38.1	5.73	6.11	6.06
Wilkes-Barre—Hazleton . ⁸	218.50	229.84	231.59	36.6	35.8	36.3	5.97	6.42	6.38
Williamsport	273.31	299.81	298.76	39.1	39.5	38.5	6.99	7.59	7.76
York	260.45	301.92	304.09	38.7	40.8	40.6	6.73	7.40	7.49
RHODE ISLAND	218.96	242.61	237.68	39.1	40.1	38.9	5.60	6.05	6.11
Providence—Warwick—Pawtucket	217.40	241.60	237.34	39.1	40.2	39.1	5.56	6.01	6.07
SOUTH CAROLINA	217.67	249.08	248.44	38.8	40.9	40.2	5.61	6.09	6.18
Charleston—North Charleston	253.04	269.60	273.53	39.6	39.3	39.7	6.39	6.86	6.89
Columbia	211.07	243.61	241.59	38.1	40.2	39.8	5.54	6.06	6.07
Greenville—Spartanburg	215.34	247.20	246.24	38.8	41.2	40.7	5.55	6.00	6.05
SOUTH DAKOTA	266.34	278.56	284.82	39.4	41.7	41.1	6.76	6.68	6.93
Rapid City	199.84	248.14	252.76	32.6	34.9	35.7	6.13	7.11	7.08
Sioux Falls	378.16	370.98	406.47	44.7	45.8	47.1	8.46	8.10	8.63
TENNESSEE	236.20	268.92	(*)	38.8	40.5	(*)	6.09	6.64	(*)
Chattanooga	232.46	273.79	(*)	39.4	41.8	(*)	5.90	6.55	(*)
Knoxville	269.57	285.48	(*)	38.4	39.0	(*)	7.02	7.32	(*)
Memphis	287.03	297.94	(*)	40.2	40.1	(*)	7.14	7.43	(*)
Nashville—Davidson	252.71	301.02	(*)	38.7	40.9	(*)	6.53	7.36	(*)
TEXAS	292.41	331.89	325.54	40.5	41.8	41.0	7.22	7.94	7.94
Abilene	187.77	217.22	214.65	39.2	43.1	41.2	4.79	5.04	5.21
Amarillo	278.36	324.40	319.57	40.4	40.0	39.6	6.89	8.11	8.07
Austin	234.72	259.79	262.03	40.4	41.5	41.2	5.81	6.26	6.36
Beaumont—Port Arthur—Orange	418.97	439.82	435.89	41.4	40.8	40.1	10.12	10.78	10.87
Corpus Christi	314.58	351.92	365.37	42.0	41.5	41.9	7.49	8.48	8.72
Dallas—Fort Worth	268.25	310.90	300.21	39.8	41.9	40.9	6.74	7.42	7.34
El Paso	204.31	224.77	234.67	40.7	43.9	43.7	5.02	5.12	5.37
Galveston—Texas City	442.46	507.05	506.17	42.3	43.9	43.9	10.46	11.55	11.53
Houston	372.75	412.34	415.42	42.6	44.1	44.1	8.75	9.35	9.42
Longview—Marshall	297.20	313.61	314.82	40.0	39.9	39.8	7.43	7.86	7.91
Lubbock	228.02	261.88	258.95	40.5	41.7	41.3	5.63	6.28	6.27
San Angelo	198.92	230.60	244.39	38.7	41.7	42.8	5.14	5.53	5.71
San Antonio	208.46	232.88	239.54	40.4	41.0	41.3	5.16	5.68	5.80
Sherman—Denison	244.68	294.26	293.38	38.9	40.7	40.3	6.29	7.23	7.28
Waco	261.81	270.40	259.97	41.1	40.6	41.2	6.37	6.66	6.31
Wichita Falls	251.25	292.93	297.86	38.3	41.2	41.6	6.56	7.11	7.16
UTAH	267.90	305.88	313.56	38.0	40.3	40.2	7.05	7.59	7.80
Salt Lake City—Ogden	255.46	297.32	298.98	38.3	41.7	40.9	6.67	7.13	7.31
VERMONT	245.69	269.05	264.49	39.5	39.8	39.3	6.22	6.76	6.73
Burlington	271.70	303.60	287.03	41.8	42.7	40.2	6.50	7.11	7.14
Springfield	263.64	317.54	306.12	38.6	41.4	41.2	6.83	7.67	7.43

See footnotes at end of table.

ESTABLISHMENT DATA
STATE AND AREA HOURS AND EARNINGS

C-12. Gross hours and earnings of production workers on manufacturing payrolls, by State and selected areas—Continued

State and area	Average weekly earnings			Average weekly hours			Average hourly earnings		
	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P	JULY 1980	JUNE 1981	JULY 1981P
VIRGINIA	\$245.07	\$267.33	\$264.32	38.9	39.9	39.1	\$6.30	\$6.70	\$6.76
Bristol.....	204.04	216.81	217.80	36.5	36.5	36.3	5.59	5.94	6.00
Lynchburg.....	241.96	269.84	274.32	39.6	40.7	41.5	6.11	6.63	6.61
Norfolk—Virginia Beach—Portsmouth.....	261.88	288.23	290.79	39.5	41.0	40.5	6.63	7.03	7.18
Northern Virginia ¹	271.21	289.25	292.39	38.8	39.3	39.3	6.99	7.36	7.44
Petersburgh—Colonial Heights—Hopewell.....	300.99	341.88	293.36	39.5	40.7	34.8	7.62	8.40	8.43
Richmond.....	311.22	352.00	340.95	39.0	40.0	39.1	7.98	8.80	8.72
Roanoke ²	223.68	246.87	264.22	38.9	39.0	40.4	5.75	6.33	6.54
WASHINGTON	364.62	414.09	419.61	38.3	39.4	39.4	9.52	10.51	10.65
Seattle—Everett.....	369.99	423.44	422.84	38.5	39.5	38.9	9.61	10.72	10.87
Spokane.....	337.50	365.53	372.71	37.5	37.8	37.8	9.00	9.67	9.86
Tacoma.....	342.89	414.16	422.41	36.4	39.9	39.7	9.42	10.38	10.64
WEST VIRGINIA	305.47	342.78	346.63	37.9	39.4	38.6	8.06	8.70	8.98
Charleston.....	359.31	419.44	429.29	40.6	42.8	41.8	8.85	9.80	10.27
Huntington—Ashland.....	342.80	395.57	388.78	36.9	40.2	38.8	9.29	9.84	10.02
Parkersburg—Marietta.....	339.05	393.30	365.86	40.8	42.2	41.2	8.31	9.32	8.88
Wheeling.....	322.41	384.35	383.50	38.2	39.1	39.7	8.44	9.83	9.66
WISCONSIN	315.27	354.48	355.23	39.5	40.5	40.6	7.98	8.76	8.74
Appleton—Oshkosh.....	306.45	351.62	353.67	40.5	42.3	42.0	7.56	8.32	8.42
Eau Claire.....	322.61	348.57	325.45	40.8	41.6	40.3	7.91	8.38	8.09
Green Bay.....	331.42	379.15	371.70	41.4	42.1	42.0	8.00	9.02	8.85
Janeville—Beloit.....	311.29	368.27	371.00	40.1	39.1	39.0	7.76	9.42	9.52
Kenosha.....	361.32	415.51	430.19	39.4	41.1	41.5	9.18	10.12	10.36
La Crosse.....	272.48	306.16	306.93	40.0	40.7	41.1	6.81	7.52	7.47
Madison.....	326.63	332.42	343.43	38.8	39.0	39.8	8.42	8.52	8.62
Milwaukee.....	347.38	386.62	392.52	39.2	40.2	40.5	8.86	9.62	9.70
Racine.....	338.53	379.67	382.58	38.5	40.2	40.1	8.79	9.44	9.55
WYOMING	316.42	320.80	339.07	41.2	40.0	41.3	7.68	8.02	8.21
VIRGIN ISLAND	279.33	349.86	359.53	40.6	42.0	42.7	6.88	8.33	8.42

¹ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical Area: Burlington, Camden, and Gloucester Counties, New Jersey.
² Subarea of New York—Northeastern New Jersey.
³ Subarea of Rochester Standard Metropolitan Statistical Area.
⁴ Area included in New York and Nassau-Suffolk combined SMSA's.
⁵ Subarea of New York Standard Metropolitan Statistical Area.
⁶ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical Area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pennsylvania.
⁷ Subarea of Northeast Pennsylvania Standard Metropolitan Statistical Area:

Lackawanna County.
⁸ Subarea of Northeast Pennsylvania Standard Metropolitan Statistical Area: Luzerne County.
⁹ Subarea of Washington, D.C. Standard Metropolitan Statistical Area: Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park cities and Arlington, Fairfax, Loudoun, and Prince William Counties, Virginia.
p = preliminary.
* Not available.

SOURCE: Cooperating State agencies listed on inside back cover.

ESTABLISHMENT DATA LABOR TURNOVER

D-1. Labor turnover rates in manufacturing, 1971 to date

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accessions													
1971.....	3.9	3.5	3.1	3.5	3.6	4.0	4.9	4.0	5.3	4.8	3.9	3.3	2.5
1972.....	4.5	4.1	3.7	4.0	4.1	4.9	5.4	4.7	6.1	5.4	4.8	3.7	2.7
1973.....	4.8	4.7	4.1	4.5	4.6	5.4	5.9	5.2	6.3	5.8	5.2	3.8	2.6
1974.....	4.2	4.2	3.7	4.1	4.5	5.1	5.4	4.9	5.5	4.9	3.8	2.4	1.8
1975.....	3.7	2.9	2.7	3.2	3.7	4.0	4.5	4.6	5.2	4.6	3.7	2.8	2.2
1976.....	3.9	3.9	3.5	4.2	3.9	4.5	4.8	4.2	5.1	4.4	3.5	2.9	2.2
1977.....	4.0	3.7	3.7	4.0	3.8	4.6	4.9	4.3	5.3	4.6	3.9	3.1	2.4
1978.....	4.1	3.8	3.2	3.8	4.0	4.7	4.9	4.4	5.4	4.9	4.3	3.3	2.4
1979.....	4.0	4.0	3.4	3.8	3.9	4.7	4.8	4.3	5.0	4.5	4.1	3.0	2.2
1980.....	3.5	3.8	3.3	3.5	3.1	3.4	3.9	3.8	4.5	4.3	3.6	2.7	2.2
1981.....		3.4	3.0	3.4	3.3	3.5	4.0	P3.6					
New hires													
1971.....	2.6	2.0	1.9	2.2	2.3	2.7	3.5	2.7	3.4	3.4	2.7	2.2	1.6
1972.....	3.3	2.6	2.5	2.8	2.9	3.7	4.2	3.5	4.5	4.3	3.9	2.9	2.1
1973.....	3.9	3.5	3.2	3.5	3.7	4.5	5.0	4.1	5.1	4.8	4.4	3.1	2.0
1974.....	3.2	3.2	2.8	3.1	3.3	4.0	4.3	3.7	4.2	3.9	2.9	1.7	1.0
1975.....	2.0	1.3	1.2	1.3	1.6	2.0	2.5	2.6	3.1	3.1	2.5	1.8	1.3
1976.....	2.6	2.1	2.1	2.7	2.6	3.1	3.6	2.9	3.6	3.2	2.5	1.9	1.3
1977.....	2.8	2.2	2.1	2.6	2.7	3.5	3.7	3.0	4.0	3.5	3.0	2.2	1.6
1978.....	3.1	2.5	2.2	2.7	2.9	3.6	3.9	3.3	4.2	3.9	3.5	2.6	1.7
1979.....	2.9	2.8	2.5	2.8	2.9	3.6	3.8	3.1	3.7	3.4	3.1	2.2	1.5
1980.....	2.1	2.4	2.2	2.3	2.0	2.1	2.4	2.1	2.5	2.6	2.2	1.6	1.2
1981.....		1.8	1.8	2.0	2.0	2.3	2.8	P2.3					
Recalls													
1976.....	1.0	1.4	1.0	1.2	1.0	1.0	0.9	1.1	1.1	0.8	0.7	0.7	0.7
1977.....	.9	1.2	1.3	1.1	.9	.8	.8	.9	1.0	.8	.6	.6	.6
1978.....	.7	1.0	.7	.8	.8	.8	.7	.8	.9	.7	.6	.5	.5
1979.....	.7	.9	.7	.7	.7	.8	.7	.9	.9	.8	.7	.6	.5
1980.....	1.1	1.1	.9	.9	.8	1.0	1.2	1.5	1.7	1.4	1.1	.9	.8
1981.....		1.3	1.0	1.1	1.1	1.0	.9	P1.0					
Total separations													
1971.....	4.2	4.2	3.5	3.7	3.9	3.7	3.8	4.8	5.5	5.3	4.3	3.7	3.8
1972.....	4.3	4.1	3.5	3.9	3.8	3.9	4.2	4.8	5.5	5.5	4.4	3.8	3.7
1973.....	4.7	4.3	3.8	4.3	4.2	4.4	4.5	5.2	6.5	5.8	5.0	4.2	4.0
1974.....	4.9	5.0	4.1	4.4	4.3	4.4	4.2	4.9	6.2	5.5	5.1	5.0	5.2
1975.....	4.2	6.1	4.5	4.2	4.0	3.9	3.7	4.4	4.7	4.4	4.1	3.5	3.4
1976.....	3.8	3.7	3.0	3.5	3.6	3.4	3.6	4.3	4.9	4.7	4.1	3.4	3.5
1977.....	3.8	3.9	3.4	3.4	3.4	3.5	3.5	4.3	5.1	4.9	3.8	3.4	3.4
1978.....	3.9	3.6	3.1	3.5	3.6	3.7	3.8	4.1	5.3	4.9	4.1	3.5	3.4
1979.....	4.0	3.8	3.2	3.6	3.7	3.8	3.9	4.3	5.7	4.7	4.2	3.8	3.5
1980.....	4.0	4.1	3.5	3.7	4.7	4.8	4.4	4.2	4.8	4.1	3.8	3.0	3.1
1981.....		3.6	3.1	3.2	3.1	3.1	3.2	P3.6					
Quits													
1971.....	1.8	1.5	1.3	1.5	1.6	1.7	1.8	1.8	2.8	2.9	2.0	1.5	1.2
1972.....	2.3	1.7	1.6	1.9	2.0	2.2	2.2	2.2	3.6	3.5	2.5	2.0	1.6
1973.....	2.8	2.3	2.1	2.5	2.5	2.8	2.8	2.8	4.6	4.0	3.1	2.3	1.6
1974.....	2.4	2.2	2.0	2.3	2.4	2.7	2.5	2.6	4.0	3.3	2.2	1.4	1.0
1975.....	1.4	1.1	.9	1.0	1.1	1.3	1.4	1.5	2.5	2.1	1.6	1.2	.9
1976.....	1.7	1.3	1.2	1.6	1.7	1.7	1.8	1.9	2.8	2.5	1.7	1.2	1.0
1977.....	1.8	1.4	1.3	1.6	1.7	1.9	1.9	1.9	3.1	2.8	1.9	1.5	1.2
1978.....	2.1	1.5	1.4	1.8	2.0	2.1	2.2	2.1	3.5	3.1	2.3	1.7	1.3
1979.....	2.0	1.8	1.6	1.9	2.0	2.1	2.1	2.0	3.3	2.7	2.1	1.6	1.1
1980.....	1.5	1.6	1.5	1.6	1.5	1.5	1.4	1.4	2.2	1.9	1.4	1.1	.9
1981.....		1.2	1.1	1.2	1.3	1.3	1.4	P1.5					
Layoffs													
1971.....	1.6	1.9	1.4	1.4	1.4	1.2	1.2	2.1	1.8	1.5	1.5	1.5	1.8
1972.....	1.1	1.5	1.1	1.1	1.0	.9	1.1	1.7	.9	.9	1.0	1.0	1.3
1973.....	.9	1.1	.8	.8	.7	.7	.7	1.4	.8	.8	.8	1.1	1.6
1974.....	1.5	1.8	1.3	1.1	.9	.8	.8	1.4	1.1	1.2	1.8	2.8	3.6
1975.....	2.1	4.0	2.9	2.5	2.1	1.8	1.6	2.0	1.3	1.5	1.6	1.7	1.9
1976.....	1.3	1.6	1.0	1.1	1.1	.9	.9	1.6	1.1	1.3	1.5	1.5	1.8
1977.....	1.1	1.7	1.4	1.0	.9	.8	.8	1.5	1.0	1.1	1.1	1.1	1.5
1978.....	.9	1.2	.9	.9	.8	.7	.7	1.1	.8	.8	.9	1.0	1.4
1979.....	1.1	1.1	.8	.8	.9	.7	.9	1.4	1.3	1.1	1.2	1.5	1.7
1980.....	1.7	1.6	1.2	1.3	2.3	2.5	2.2	2.0	1.7	1.4	1.5	1.4	1.6
1981.....		1.6	1.2	1.2	1.0	1.0	1.1	P1.3					

p=preliminary.

**ESTABLISHMENT DATA
LABOR TURNOVER**

D-2. Labor turnover rates, by industry—Continued

(Per 100 employees)

1972 SIC Code	Industry	Accession rates						Separation rates					
		Total		New hires		Recalls		Total		Quits		Layoffs	
		June 1981	July 1981P	June 1981	July 1981P	June 1981	July 1981P	June 1981	July 1981P	June 1981	July 1981P	June 1981	July 1981P
PAPER AND ALLIED PRODUCTS—Continued													
263	Paperboard mills	3.3	-	2.3	-0.	0.6	-	1.0	-	0.4	-	0.2	-
264	Misc. converted paper products	3.9	-	2.8	-	.8	-	2.8	-	1.1	-	.9	-
265	Paperboard containers and boxes	3.5	-	2.5	-	.9	-	2.7	-	1.0	-	.9	-
2651	Folding paperboard boxes	3.8	-	2.6	-	1.2	-	2.7	-	1.1	-	.9	-
2653	Corrugated and solid fiber boxes	3.0	-	2.4	-	.5	-	2.4	-	.9	-	.8	-
27	PRINTING AND PUBLISHING	3.6	3.0	2.9	2.5	.5	.4	2.9	2.9	1.7	1.7	.7	.6
271	Newspapers	3.9	-	3.6	-	.2	-	3.0	-	2.4	-	.1	-
272	Periodicals	3.7	-	3.2	-	.5	-	2.4	-	1.7	-	.2	-
273	Books	4.0	-	2.9	-	.9	-	4.1	-	1.4	-	2.0	-
274	Miscellaneous publishing	3.3	-	2.9	-	.3	-	3.1	-	1.7	-	.9	-
275	Commercial printing	3.1	-	2.3	-	.7	-	2.8	-	1.2	-	.9	-
2751	Commercial printing, letterpress	3.0	-	2.1	-	.7	-	3.1	-	1.3	-	1.0	-
2752	Commercial printing, lithographic	3.0	-	2.4	-	.6	-	2.6	-	1.1	-	.8	-
27B	Blankbooks and bookbinding	4.1	-	3.5	-	.6	-	3.3	-	1.6	-	1.1	-
28	CHEMICALS AND ALLIED PRODUCTS	2.5	1.7	2.1	1.2	.3	.3	1.7	1.8	.7	.7	.4	.6
281	Industrial inorganic chemicals	2.4	-	1.9	-	.4	-	1.0	-	.4	-	.2	-
2819	Industrial inorganic chemicals, nec	2.4	-	1.9	-	.4	-	1.0	-	.4	-	.3	-
282	Plastics materials and synthetics	1.8	-	1.5	-	.2	-	1.0	-	.5	-	.1	-
2821	Plastics materials and resins	2.5	-	2.3	-	.1	-	1.3	-	.7	-	.2	-
2824	Organic fibers, noncellulosic	1.0	-	.8	-	.1	-	.7	-	.3	-	.1	-
283	Drugs	2.4	-	2.0	-	.2	-	1.7	-	.7	-	.2	-
2834	Pharmaceutical preparations	2.4	-	2.0	-	.2	-	1.7	-	.7	-	.2	-
284	Soap, cleaners, and toilet goods	3.9	-	3.2	-	.5	-	2.1	-	.9	-	.5	-
2841	Soap and other detergents	2.5	-	1.7	-	.8	-	1.5	-	.4	-	.5	-
2844	Toilet preparations	5.1	-	4.2	-	.5	-	2.4	-	1.1	-	.6	-
285	Paints and allied products	3.9	-	3.4	-	.3	-	2.6	-	1.0	-	.3	-
286	Industrial organic chemicals	2.0	-	1.6	-	.1	-	1.3	-	.5	-	.4	-
287	Agricultural chemicals	2.2	-	1.9	-	.2	-	3.5	-	.8	-	1.9	-
289	Miscellaneous chemical products	2.9	-	2.5	-	.3	-	2.6	-	1.0	-	.9	-
29	PETROLEUM AND COAL PRODUCTS	3.0	2.1	2.5	1.8	.4	.3	1.7	2.4	.6	.6	.5	.9
291	Petroleum refining	2.7	-	2.4	-	.2	-	1.1	-	.4	-	.2	-
295	Paving and roofing materials	4.4	-	2.9	-	1.3	-	4.1	-	1.6	-	1.5	-
30	RUBBER AND MISC. PLASTICS PRODUCTS	4.6	3.9	3.3	2.8	1.0	.8	3.5	4.0	1.7	1.8	.9	1.1
301	Tires and inner tubes	2.2	-	.9	-	.9	-	1.4	-	.3	-	.3	-
302	Rubber and plastics footwear	4.3	-	2.8	-	1.2	-	4.1	-	2.1	-	1.2	-
303,4	Reclaimed rubber, and rubber and plastics hose and belting	3.1	-	2.1	-	.6	-	2.0	-	1.2	-	.3	-
306	Fabricated rubber products, nec	4.1	-	2.8	-	1.0	-	3.1	-	1.4	-	.8	-
307	Miscellaneous plastics products	5.5	-	4.1	-	1.0	-	4.2	-	2.1	-	1.0	-
31	LEATHER AND LEATHER PRODUCTS	6.4	7.2	5.1	4.7	1.1	2.2	5.7	7.3	3.0	3.3	1.7	3.1
311	Leather tanning and finishing	6.0	-	4.4	-	1.4	-	3.3	-	1.7	-	.9	-
314	Footwear, except rubber	6.4	-	5.0	-	1.1	-	5.9	-	3.0	-	1.9	-
3143	Men's footwear, except athletic	5.0	-	4.2	-	.3	-	4.4	-	3.0	-	.3	-
3144	Women's footwear, except athletic	7.6	-	5.4	-	1.9	-	5.0	-	2.7	-	1.3	-
NONMANUFACTURING:													
-	MINING	6.1	5.2	4.8	4.0	.8	.8	3.9	3.7	2.7	2.6	.2	.2
10	METAL MINING	2.8	1.2	2.1	.7	.5	.3	1.6	1.5	.8	.7	.3	.2
101	Iron ores	2.9	-	1.4	-	1.1	-	1.4	-	.3	-	.5	-
102	Copper ores	2.2	-	1.8	-	.2	-	.8	-	.3	-	(1)	-
12	BITUMINOUS COAL AND LIGNITE MINING	2.7	2.2	.9	1.1	.9	.9	1.0	1.2	.6	.6	.1	.1
13	OIL AND GAS EXTRACTION	8.2	7.5	7.1	6.0	.7	.9	5.5	5.2	4.0	3.9	.2	.1
131, 2	Crude petroleum, natural gas, and natural gas liquids	5.4	-	4.8	-	.2	-	1.8	-	1.0	-	.1	-
13B	Oil and gas field services	10.0	-	8.6	-	1.0	-	8.0	-	6.0	-	.2	-
14	NONMETALLIC MINERALS, EXCEPT FUELS	3.7	2.5	2.4	1.6	1.0	.7	2.4	2.4	1.1	1.0	.9	.7
142	Crushed and broken stone	3.7	-	2.3	-	1.3	-	2.6	-	1.2	-	.9	-
144	Sand and gravel	4.7	-	2.8	-	1.5	-	3.2	-	1.3	-	1.5	-
-	COMMUNICATION:												
481	Telephone communication	1.4	-	1.3	-	(1)	-	.9	-	.4	-	.1	-

¹ Less than 0.05.

P=preliminary.

**ESTABLISHMENT DATA
STATE AND AREA LABOR TURNOVER**

D-4. Labor turnover rates in manufacturing for selected States and areas

[Per 100 employees]

State and area	Accession rates						Separation rates					
	Total		New hires		Recalls		Total		Quits		Layoffs	
	May 1981	June 1981 ^P	May 1981	June 1981 ^P	May 1981	June 1981 ^P	May 1981	June 1981 ^P	May 1981	June 1981 ^P	May 1981	June 1981 ^P
ALABAMA:												
Birmingham	1.8	2.1	1.1	1.2	0.5	0.7	3.0	2.5	0.6	0.6	1.8	1.5
Mobile	7.4	6.0	3.8	4.7	3.6	1.2	5.1	3.4	1.4	1.3	2.8	1.0
ALASKA	17.5	33.9	10.6	23.9	3.0	10.0	6.3	8.1	3.5	2.6	2.8	5.1
ARIZONA	3.8	4.0	3.1	3.4	.5	.5	3.0	3.3	1.7	1.9	.4	.4
Phoenix	3.8	4.1	3.1	3.5	.5	.5	3.0	3.3	1.7	1.9	.4	.3
ARKANSAS	6.9	4.9	5.1	3.9	1.2	.6	4.8	4.5	3.0	2.7	.6	.9
Fort Smith	10.0	5.3	8.4	2.5	.8	.7	4.8	5.6	2.3	3.2	.9	1.3
Little Rock—North Little Rock	3.8	3.9	3.0	2.6	.6	1.1	2.8	2.8	1.5	1.6	.5	.3
Pine Bluff	3.1	4.0	2.7	3.1	.2	.7	2.3	2.2	1.3	1.5	.6	.2
CALIFORNIA	3.6	4.4	2.5	3.2	.9	1.0	3.5	4.0	1.5	1.6	1.1	1.4
COLORADO	3.2	4.3	2.8	3.8	.3	.3	2.7	3.0	1.8	1.7	.3	.6
Denver—Boulder	2.7	4.0	2.4	3.7	.2	.3	2.7	2.7	1.7	1.7	.3	.3
CONNECTICUT	2.5	2.7	1.7	2.2	.6	.3	2.0	2.3	1.0	1.0	.4	.7
Hartford	1.9	2.1	1.3	1.7	.4	.2	1.9	3.2	1.0	1.1	.3	1.6
DELAWARE	2.6	3.6	1.5	2.1	.5	.9	2.1	2.8	.8	1.2	.5	.3
Wilmington	2.2	3.0	1.2	1.5	.5	.8	1.7	2.2	.5	.7	.4	.2
FLORIDA	4.3	5.1	3.6	4.4	.5	.6	4.3	4.7	2.5	2.8	.8	1.1
Fort Lauderdale—Hollywood	4.5	5.4	4.2	5.1	.2	.2	4.6	5.3	3.3	3.4	.2	.9
Jacksonville	4.5	5.9	3.3	5.5	1.1	.4	3.9	4.5	1.5	3.0	1.0	.2
Miami	5.2	5.2	4.8	4.3	.3	.9	5.1	4.2	3.0	2.7	1.1	.5
Orlando	5.0	5.2	4.2	4.4	.6	.5	4.7	4.9	2.7	1.9	.9	2.2
Pensacola	2.3	2.6	1.9	2.5	.1	(1)	1.4	1.7	.9	1.1	.1	.1
Tampa—St. Petersburg	5.1	6.5	4.0	5.4	1.0	1.0	5.5	6.2	3.4	3.9	1.2	1.3
West Palm Beach—Boca Raton	4.1	5.7	3.8	4.6	.3	1.1	4.3	5.0	3.1	2.8	.1	1.2
GEORGIA	3.5	4.1	2.9	3.2	.4	.6	3.3	3.2	2.0	1.9	.5	.5
Atlanta ²	2.9	3.1	2.1	2.2	.6	.7	2.5	2.3	1.2	1.1	.5	.5
HAWAII ³	2.0	4.4	1.3	1.6	.5	2.6	4.6	1.5	.8	.9	3.4	.2
IDAHO ⁴	6.0	5.7	2.9	2.7	2.9	2.8	4.6	3.1	1.4	1.5	2.6	.7
ILLINOIS:												
Chicago SMSA	2.7	3.4	1.7	2.2	.7	.8	2.6	2.8	.9	1.0	.7	.9
Davenport—Rock Island—Moline	2.0	1.9	.8	.9	.7	.8	2.0	1.3	.5	.5	.7	.3
Decatur	2.3	1.8	.4	.7	1.7	.7	3.1	1.7	.3	.1	2.4	1.1
Peoria	1.8	1.6	.6	.7	1.0	.8	2.1	1.5	.3	.2	1.4	1.0
Rockford	3.4	2.6	1.1	1.5	2.2	.7	2.6	1.8	.8	.8	1.1	.6
INDIANA ⁵	3.1	3.1	1.7	1.6	.9	1.0	2.5	3.0	.7	.7	1.0	1.4
Indianapolis ⁶	3.1	2.8	1.8	1.7	.6	.7	2.2	1.9	.5	.7	.7	.4
IOWA	2.6	2.7	1.3	1.4	1.0	1.0	2.1	4.9	.7	.7	.9	3.8
Cedar Rapids	2.6	2.8	.4	.7	1.8	1.7	1.9	2.7	.5	.5	.7	1.6
Des Moines	1.8	3.2	.3	1.0	.7	1.8	1.8	1.9	.4	.7	.6	.4
KANSAS	3.5	3.7	2.8	2.9	.6	.6	3.5	3.6	1.9	2.0	.8	.9
Topeka	3.3	3.1	2.2	2.0	1.1	.9	4.4	4.3	1.3	1.2	1.7	1.7
Wichita	3.2	3.5	2.6	2.8	.4	.4	3.0	3.0	2.0	1.8	.3	.2
KENTUCKY	4.2	3.4	1.9	1.7	1.9	1.3	3.0	3.0	.8	.8	1.3	1.4
Lexington—Fayette	4.4	2.8	1.5	1.7	2.8	.5	1.5	2.6	.5	.7	.2	1.4
Louisville	2.9	2.2	1.1	.9	1.0	.6	2.2	2.2	.4	.4	.8	.6
LOUISIANA:												
New Orleans	7.6	5.2	6.1	4.5	1.1	.5	4.6	4.1	2.8	2.6	.4	.3
MAINE	5.2	5.6	3.7	3.2	1.2	1.2	4.1	3.8	1.7	1.8	1.6	1.2
Portland	4.3	3.2	3.4	2.9	.7	.2	3.3	2.7	2.0	1.8	.6	.4
MARYLAND	3.6	(*)	2.1	(*)	1.2	(*)	3.0	(*)	1.1	(*)	1.0	(*)
Baltimore	2.9	(*)	1.7	(*)	1.0	(*)	2.7	(*)	.9	(*)	.9	(*)
MASSACHUSETTS	3.2	3.9	2.2	3.0	.7	.7	2.7	2.6	1.2	1.2	.6	.6
Boston	3.0	4.1	2.4	3.4	.5	.6	2.6	2.2	1.2	1.2	.6	.4

See footnotes at end of table.

**ESTABLISHMENT DATA
STATE AND AREA LABOR TURNOVER**

D-4. Labor turnover rates in manufacturing for selected States and areas—Continued

[Per 100 employees]

State and area	Accession rates						Separation rates					
	Total		New hires		Recalls		Total		Quits		Layoffs	
	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p
MICHIGAN	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Detroit	2.0	1.8	.5	.6	1.1	.7	1.7	2.0	.5	.8	.7	.6
Flint	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Grand Rapids	2.2	3.5	1.0	1.7	.7	1.3	1.9	3.1	.6	.8	.7	1.6
Lansing—East Lansing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
MINNESOTA	2.8	3.7	1.8	2.7	.8	.7	2.5	2.3	1.1	1.1	.9	.7
Minneapolis—St. Paul	2.5	3.1	1.9	2.5	.5	.5	1.9	2.1	1.0	1.1	.3	.4
MISSISSIPPI:												
Jackson	3.0	4.1	2.5	2.6	.4	1.4	3.9	3.5	1.6	1.6	1.7	1.1
MISSOURI	3.4	3.2	2.3	2.3	.9	.7	3.0	2.8	1.2	1.2	1.0	.9
Kansas City	2.7	2.8	2.0	2.1	.7	.6	3.2	3.2	1.2	1.3	1.2	1.1
St. Louis	2.4	2.4	1.6	1.7	.6	.5	2.2	2.0	.9	.7	.7	.6
MONTANA	3.1	4.6	1.5	3.4	1.5	1.0	2.6	2.3	1.5	1.2	.9	.9
NEBRASKA	4.0	3.9	2.9	2.9	.8	.9	3.1	2.9	1.6	1.6	.9	.7
NEVADA	6.6	5.9	5.8	5.2	.8	.6	5.3	6.8	3.1	3.4	.4	1.4
NEW HAMPSHIRE	4.1	4.4	3.3	3.6	.4	.5	3.8	3.6	2.1	2.1	.9	.7
NEW JERSEY:												
Camden ⁷	2.9	3.7	1.6	2.5	.9	.8	2.4	2.3	.7	.8	.9	.6
Hackensack	3.2	4.1	2.2	2.9	.9	1.0	4.1	4.1	1.3	1.4	1.7	1.8
Jersey City	3.1	4.6	2.2	2.6	.8	2.0	2.8	3.0	.9	.9	1.1	1.2
New Brunswick—Perth Amboy—Sayreville	3.0	3.7	2.2	2.8	.7	.8	2.5	2.8	1.3	1.1	.4	.9
Newark	2.6	3.6	2.0	2.8	.5	.5	2.6	2.6	.9	1.0	.9	.7
Paterson—Clifton—Passaic	3.3	3.7	2.0	2.8	1.2	.8	4.6	3.9	1.1	1.2	1.7	1.9
Trenton	3.2	3.2	1.9	2.2	1.1	.8	3.4	4.1	1.0	1.0	1.7	2.4
NEW MEXICO	4.6	5.7	4.3	5.0	.3	.6	4.9	4.4	2.7	2.5	1.2	.8
NEW YORK	3.5	4.4	2.2	2.8	1.1	1.4	3.1	3.3	1.0	1.1	1.3	1.4
Albany—Schenectady—Troy	2.8	3.7	1.3	1.8	.9	1.2	3.0	2.5	.6	.8	1.4	.7
Binghamton	2.8	3.4	2.1	2.8	.5	.5	1.9	2.3	.9	.9	.2	.2
Buffalo	2.5	2.9	.9	1.3	1.4	1.3	2.3	2.4	.5	.5	1.1	1.2
Elmira	2.9	3.2	2.1	2.4	.5	.6	2.6	1.7	.7	.5	.9	.5
Monroe County ⁸	1.9	4.1	1.7	3.6	.2	.3	1.5	1.3	.5	.5	.5	.3
Nassau—Suffolk ⁹	3.7	4.8	3.0	3.7	.6	.9	3.2	4.5	1.7	2.1	.8	1.6
New York and Nassau—Suffolk	3.9	4.8	2.6	3.0	1.2	1.6	3.9	4.2	1.3	1.4	1.8	2.0
New York SMSA ⁹	3.9	4.8	2.5	2.8	1.4	1.8	4.1	4.2	1.2	1.2	2.1	2.1
New York City ¹⁰	4.2	4.8	2.6	2.9	1.5	1.8	4.5	4.3	1.2	1.2	2.4	2.1
Rochester	2.3	4.6	1.8	3.7	.4	.7	1.8	1.8	.6	.6	.7	.7
Syracuse	3.1	3.9	2.2	3.0	.7	.7	2.1	2.4	.9	1.1	.5	.7
Utica—Rome	2.3	3.6	1.3	2.2	.9	1.3	2.8	2.5	.8	.8	1.4	1.2
Westchester County ¹⁰	2.7	3.1	1.9	2.5	.5	.4	2.4	2.7	.8	.9	.9	1.1
NORTH CAROLINA	3.7	3.6	3.0	3.1	.4	.3	3.5	3.1	2.1	2.0	.6	.3
Charlotte—Gastonia	4.4	4.3	3.9	3.5	.3	.6	4.6	3.6	2.8	2.5	1.0	.3
Greensboro—Winston-Salem—High Point	3.3	3.3	2.7	2.9	.2	.1	3.2	3.1	1.9	1.8	.5	.4
NORTH DAKOTA	6.3	8.2	2.9	3.7	3.3	3.1	6.4	3.1	2.7	1.3	3.2	.8
Fargo—Moorhead	7.9	6.8	2.8	3.7	4.7	2.1	2.7	4.0	1.9	.7	.1	2.2
OHIO	2.4	3.0	.9	1.7	(*)	(*)	2.1	2.0	.5	.5	.9	.8
Akron	1.2	2.1	.7	1.1	(*)	(*)	1.1	.9	.3	.3	.4	.2
Canton	3.0	3.5	1.1	1.5	(*)	(*)	2.2	2.4	.5	.5	.7	.9
Cincinnati	2.3	2.4	1.0	1.5	(*)	(*)	2.2	2.0	.6	.7	1.1	.6
Cleveland	2.4	2.8	1.0	1.6	(*)	(*)	1.8	2.0	.5	.6	.6	.6
Columbus	2.2	2.5	1.2	1.7	(*)	(*)	2.1	1.7	.7	.6	.8	.5
Dayton	1.6	2.5	1.1	1.4	(*)	(*)	1.5	2.0	.6	.6	.3	.7
Toledo	3.1	3.5	1.0	1.3	(*)	(*)	2.5	2.7	.5	.4	1.2	1.3
Youngstown—Warren	2.3	3.3	.7	1.8	(*)	(*)	2.5	2.2	.3	.4	1.4	1.1
OKLAHOMA	6.9	6.8	6.0	6.0	.6	.5	5.5	5.5	4.0	4.0	.6	.5
Oklahoma City	5.4	6.0	4.7	5.3	.4	.4	5.3	5.3	3.7	3.7	.7	.6
Tulsa ¹¹	6.1	6.5	5.6	6.0	.4	.3	5.7	4.9	3.6	3.4	.6	.2
OREGON ⁵	3.0	3.8	1.6	2.5	1.3	1.1	3.3	3.4	1.0	1.0	1.8	1.8
Eugene—Springfield ⁵	2.9	2.7	1.9	2.0	.7	.5	2.1	3.5	.9	.7	.6	2.2
Portland ⁵	2.5	3.4	1.4	2.3	1.0	1.0	3.6	3.1	1.0	1.0	2.1	1.6

See footnotes at end of table.

ESTABLISHMENT DATA
STATE AND AREA LABOR TURNOVER

D-4. Labor turnover rates in manufacturing for selected States and areas—Continued

[Per 100 employees]

State and area	Accession rates						Separation rates					
	Total		New hires		Recalls		Total		Quits		Layoffs	
	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p	May 1981	June 1981 ^p
PENNSYLVANIA	2.9	3.6	1.4	2.0	1.2	1.3	2.7	3.1	0.7	0.7	1.3	1.6
Allentown—Bethlehem—Easton	2.5	2.4	1.3	1.3	1.0	.9	2.7	2.2	.7	.6	1.3	1.0
Altoona	4.2	3.1	1.3	1.9	2.6	1.0	2.3	1.6	.5	.7	1.2	.5
Erie	3.2	5.2	1.3	2.1	1.3	2.7	2.9	2.7	.6	1.1	1.4	1.3
Harrisburg	2.9	2.4	1.6	1.7	1.1	.4	1.9	1.9	.9	.8	.3	.5
Johnstown	4.4	4.3	1.2	1.0	3.1	3.0	2.7	2.7	.5	.4	1.5	1.7
Lancaster	2.5	3.5	1.9	2.6	.5	.6	2.1	2.4	1.2	1.1	.3	.4
Northeast Pennsylvania	3.0	3.7	1.5	1.9	1.2	1.6	3.3	2.6	.9	.9	1.9	1.3
Philadelphia SMSA	2.8	3.7	1.5	2.2	1.0	1.1	2.7	3.0	.8	.9	1.2	1.3
Pittsburgh	2.5	3.2	.9	1.4	1.3	1.5	2.8	2.9	.4	.3	1.6	1.9
Reading	2.3	2.2	1.6	1.5	.7	.6	2.4	2.4	.9	.8	1.0	1.0
Scranton ¹²	3.1	3.3	1.5	1.7	1.5	1.5	3.5	1.6	1.0	1.1	2.2	.3
Wilkes-Barre—Hazleton ¹²	3.1	3.9	1.7	2.1	1.1	1.5	3.1	3.4	.9	.8	1.6	2.0
Williamsport	1.6	1.5	.9	.6	.6	.7	1.7	1.7	.4	.2	.8	.9
York	2.9	3.5	1.8	2.4	1.0	.9	2.4	2.2	.9	1.1	1.0	.6
RHODE ISLAND	3.6	3.9	2.4	2.8	1.0	.9	3.4	3.8	1.5	1.4	1.1	1.7
Providence—Warwick—Pawtucket	3.6	3.8	2.3	2.8	1.0	.8	3.4	3.8	1.5	1.3	1.1	1.7
SOUTH CAROLINA	3.5	3.7	2.7	2.7	.5	.7	3.3	3.4	1.7	1.6	.6	.9
Charleston—North Charleston	4.5	4.2	4.0	3.8	.4	.3	4.2	3.2	2.1	1.8	.8	.4
Columbia	3.1	4.1	2.5	3.5	.4	.3	4.3	3.3	1.8	1.9	1.0	.1
Greenville—Spartanburg	3.8	3.4	3.0	2.7	.5	.5	3.5	3.5	2.0	1.8	.5	.7
SOUTH DAKOTA	3.9	3.4	3.0	2.4	.6	.6	3.0	3.1	1.4	1.3	.8	1.0
Sioux Falls	1.8	3.8	1.3	1.7	.4	2.1	3.9	4.5	.8	.9	2.6	3.2
TENNESSEE:												
Memphis	2.7	2.6	1.7	1.6	.8	.9	2.1	1.8	.8	.8	.3	.4
TEXAS:												
Dallas—Fort Worth	4.5	(*)	4.1	(*)	.3	(*)	4.6	(*)	3.2	(*)	.4	(*)
Houston	4.3	(*)	4.0	(*)	.1	(*)	3.7	(*)	2.6	(*)	.2	(*)
San Antonio	5.4	(*)	4.7	(*)	.5	(*)	5.0	(*)	3.3	(*)	.4	(*)
UTAH ⁴	3.5	4.7	3.0	4.1	.3	.5	3.5	4.0	2.1	2.3	.9	1.0
Salt Lake City—Ogden ⁴	3.0	4.1	2.6	3.7	.3	.3	3.4	4.0	1.9	2.1	.9	1.0
VERMONT	3.6	4.2	2.8	3.2	.6	.8	2.9	2.8	1.3	1.2	1.1	1.1
Burlington	4.5	4.3	4.0	3.9	.2	(¹)	2.0	1.9	.8	.6	.8	1.1
Springfield	2.7	2.4	2.1	1.9	.5	.2	2.9	1.6	.9	.7	1.5	.3
VIRGINIA	3.1	3.5	1.9	2.3	1.0	1.0	3.0	3.2	1.1	1.3	1.1	1.2
Richmond	2.6	3.2	1.8	2.1	.1	.4	2.5	2.3	.9	.8	.6	.4
WASHINGTON:												
Seattle—Everett ¹³	1.6	2.4	1.0	1.6	.4	.7	2.2	2.4	.8	.9	.9	.6
WEST VIRGINIA	2.0	3.1	.8	1.7	.6	1.3	2.2	2.3	.6	.9	1.1	.9
WISCONSIN	3.1	4.5	1.6	2.4	1.2	1.7	2.4	2.5	.7	.6	.9	1.1
Milwaukee	2.6	3.3	1.2	1.6	1.1	1.3	2.3	2.6	.6	.6	.9	1.1
WYOMING	8.5	7.9	7.3	7.2	.9	.7	5.6	6.2	3.1	3.0	1.4	2.1

¹ Less than 0.05.

² Excludes agricultural chemicals, and miscellaneous manufacturing.

³ Excludes canned fruits, vegetables, preserves, jams, and jellies.

⁴ Excludes canning and preserving, and sugar.

⁵ Excludes canning and preserving.

⁶ Excludes canning and preserving, and newspapers.

⁷ Subarea of Philadelphia, Pennsylvania Standard Metropolitan Statistical Area.

⁸ Area.

⁹ Subarea of Rochester Standard Metropolitan Statistical Area.

¹⁰ Area included in New York and Nassau-Suffolk combined SMSA's.

¹¹ Subarea of New York Standard Metropolitan Statistical Area.

¹² Excludes new-hire rate for transportation equipment.

¹³ Subarea of Northeast Pennsylvania Standard Metropolitan Statistical Area.

¹⁴ Excludes canning and preserving, printing and publishing.

^p preliminary.

*Not available.

SOURCE: Cooperating State agencies listed on inside back cover except for data for the States of California, New Mexico, and West Virginia which are collected and calculated by the Bureau of Labor Statistics (Washington Office).

STATE AND AREA UNEMPLOYMENT DATA

E-1. Labor force and unemployment by State and selected metropolitan areas

(Numbers in thousands)

State and area	Labor force			Unemployment					
				Number			Percent of labor force		
	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P
ALABAMA	1,666.1	1,644.8	1,635.9	179.1	161.1	152.5	10.7	9.8	9.3
Birmingham	385.3	376.9	374.1	40.3	37.1	33.2	10.5	9.8	8.9
Huntsville	140.3	138.9	139.0	18.5	13.5	12.3	13.2	9.7	8.8
Mobile	186.1	186.0	184.8	15.2	16.8	16.0	8.2	9.0	8.7
Montgomery	122.4	120.9	120.0	9.8	10.5	9.8	8.0	8.7	8.2
Tuscaloosa	51.4	51.4	50.8	5.1	5.1	4.8	10.0	9.9	9.4
ALASKA	199.2	202.8	206.7	17.9	18.0	17.4	9.0	8.9	8.4
ARIZONA	1,121.2	1,132.0	1,138.6	85.2	70.3	74.0	7.6	6.2	6.5
Phoenix	684.2	690.3	694.0	45.4	34.8	36.2	6.6	5.0	5.2
Tucson	201.0	206.6	208.1	13.1	11.0	10.9	6.5	5.3	5.3
ARKANSAS	992.6	1,010.3	1,016.0	84.5	85.8	83.6	8.5	8.5	8.2
Fayetteville-Springdale	77.1	77.7	78.4	5.3	3.9	4.1	6.9	5.1	5.3
Fort Smith ¹	85.5	85.7	85.6	9.9	6.7	6.6	11.6	7.8	7.7
Little Rock—North Little Rock	189.2	193.4	195.7	11.9	14.5	14.2	6.3	7.5	7.3
Pine Bluff	39.6	40.8	41.1	2.6	4.1	4.1	6.6	10.1	9.9
CALIFORNIA ²	11,347.0	11,320.8	11,486.9	790.0	762.0	855.0	7.0	6.7	7.4
Anaheim—Santa Ana—Garden Grove	1,105.9	1,142.7	1,141.3	51.5	51.1	55.6	4.7	4.5	4.9
Bakersfield	191.0	194.7	197.8	14.3	14.0	16.0	7.5	7.2	8.1
Fresno	270.1	273.2	277.1	22.5	22.9	24.7	8.3	8.4	8.9
Los Angeles—Long Beach ²	3,634.0	3,496.0	3,613.0	247.0	230.0	253.0	6.8	6.6	7.0
Modesto	128.9	130.2	133.7	17.1	18.7	17.9	13.3	14.4	13.4
Oxnard—Simi Valley—Ventura	235.1	238.1	240.8	17.3	16.7	20.9	7.4	7.0	8.7
Riverside—San Bernardino—Ontario	578.7	585.6	587.6	49.6	45.9	55.1	8.6	7.8	9.4
Sacramento	471.5	478.6	481.8	38.3	37.2	42.2	8.1	7.8	8.8
Salinas—Seaside—Monterey	132.8	132.6	133.4	10.1	10.0	11.6	7.6	7.5	8.7
San Diego	756.2	768.2	774.2	55.1	49.6	55.8	7.3	6.5	7.2
San Francisco—Oakland	1,638.1	1,648.7	1,666.3	93.4	90.3	104.7	5.7	5.5	6.3
San Jose	754.6	766.6	776.6	40.2	45.2	50.6	5.3	5.9	6.5
Santa Barbara—Santa Maria—Lompoc	150.0	149.8	152.4	8.3	7.6	9.3	5.5	5.1	6.1
Santa Rosa	133.3	133.2	130.9	10.1	9.6	10.8	7.5	7.2	8.3
Stockton	161.3	172.6	164.6	16.9	17.2	17.7	10.5	9.9	10.7
Vallejo—Fairfield—Napa	129.8	131.0	135.3	9.5	9.0	10.5	7.3	6.9	7.8
COLORADO	1,507.8	1,504.8	1,507.2	87.3	90.2	78.4	5.8	6.0	5.2
Denver—Boulder	883.9	891.1	886.3	46.9	50.0	43.0	5.3	5.6	4.9
CONNECTICUT	1,637.5	1,610.1	1,605.3	110.6	96.1	101.6	6.8	6.0	6.3
Bridgeport	201.1	195.5	195.3	13.8	11.6	12.1	6.9	5.9	6.2
Hartford	394.5	390.6	389.0	21.3	21.4	22.2	5.4	5.5	5.7
New Britain	76.5	77.5	76.0	5.7	5.0	5.4	7.4	6.5	7.1
New Haven—West Haven	207.9	203.9	201.5	14.5	13.7	13.9	7.0	6.7	6.9
Stamford	122.9	123.2	123.3	5.4	4.6	4.9	4.4	3.8	3.9
Waterbury	114.3	107.7	109.2	11.0	7.6	9.3	9.6	7.1	8.5
DELAWARE	288.2	290.4	292.0	25.3	21.4	21.2	8.8	7.4	7.3
Wilmington ¹	254.0	254.3	253.8	23.8	18.9	18.5	9.4	7.4	7.3
DISTRICT OF COLUMBIA	326.4	304.1	310.9	25.2	29.8	31.6	7.7	9.8	10.2
Washington SMSA ¹	1,666.6	1,671.5	1,672.0	75.7	90.9	89.9	4.5	5.4	5.4
FLORIDA ²	4,019.0	4,145.0	4,200.7	309.0	262.7	271.7	7.7	6.3	6.5
Bradenton	57.7	N.A.	57.1	4.0	N.A.	3.3	6.9	N.A.	5.9
Daytona Beach	98.8	N.A.	103.3	6.3	N.A.	5.6	6.4	N.A.	5.4
Fort Lauderdale—Hollywood	435.3	N.A.	445.3	24.3	N.A.	21.5	5.6	N.A.	4.8
Fort Myers—Cape Coral	73.7	N.A.	82.2	5.1	N.A.	4.1	6.9	N.A.	5.0
Gainesville	71.0	N.A.	74.7	3.7	N.A.	3.1	5.3	N.A.	4.2
Jacksonville	304.1	N.A.	320.3	20.8	N.A.	19.7	6.8	N.A.	6.1
Lakeland—Winter Haven	128.6	N.A.	132.0	20.4	N.A.	18.4	15.9	N.A.	13.9
Melbourne—Titusville—Cocoa	110.7	N.A.	115.3	9.4	N.A.	9.2	8.5	N.A.	8.0
Miami	744.9	N.A.	757.9	54.2	N.A.	43.7	7.3	N.A.	5.8
Orlando	331.5	N.A.	348.5	26.5	N.A.	24.1	8.0	N.A.	6.9
Panama City	38.9	N.A.	40.8	3.5	N.A.	3.4	9.1	N.A.	8.3
Pensacola	109.3	N.A.	119.5	8.5	N.A.	6.6	7.8	N.A.	5.6
Sarasota	70.6	N.A.	75.6	4.3	N.A.	3.5	6.0	N.A.	4.7
Tallahassee	78.0	N.A.	81.0	4.4	N.A.	3.9	5.7	N.A.	4.9
Tampa—St. Petersburg	615.3	N.A.	647.1	42.7	N.A.	37.7	6.9	N.A.	5.8
West Palm Beach—Boca Raton	232.4	N.A.	243.7	19.9	N.A.	17.0	8.6	N.A.	7.0

See footnotes at end of table.

STATE AND AREA UNEMPLOYMENT DATA

E-1. Labor force and unemployment by State and selected metropolitan areas—Continued

(Numbers in thousands)

State and area	Labor force			Unemployment					
				Number			Percent of labor force		
	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P
GEORGIA	2,412.8	2,441.9	2,442.8	185.5	153.0	151.7	7.7	6.3	6.2
Albany	50.0	51.5	53.1	4.3	4.2	5.1	8.5	8.1	9.7
Atlanta	970.2	999.7	992.7	58.1	54.7	54.3	6.0	5.5	5.5
Augusta	124.7	126.1	125.9	9.6	8.9	8.2	7.7	7.0	6.5
Columbus	84.6	84.1	84.7	7.2	6.7	6.4	8.6	7.9	7.5
Macon	99.6	100.3	100.5	6.7	6.8	5.8	6.7	6.8	5.8
Savannah	88.3	90.4	89.2	6.4	5.3	5.1	7.3	5.9	5.7
HAWAII	407.4	412.9	415.3	20.6	25.7	22.6	5.1	6.2	5.5
Honolulu	318.1	323.4	324.7	15.4	18.7	16.3	4.8	5.8	5.0
IDAHO	435.5	437.7	435.0	35.7	31.1	29.0	8.2	7.1	6.7
Boise City	90.5	91.5	90.2	6.0	5.6	4.8	6.6	6.1	5.3
ILLINOIS ²	5,553.0	5,588.1	5,602.1	551.0	472.2	430.0	9.9	8.4	7.7
Bloomington—Normal	58.7	60.3	58.6	4.1	3.7	3.6	7.0	6.1	6.1
Champaign—Urbana—Rantoul	79.4	83.8	88.1	5.4	5.4	4.8	6.8	6.5	5.4
Chicago	3,489.0	3,488.5	3,523.6	320.9	279.9	261.3	9.2	8.0	7.4
Davenport—Rock Island—Moline ¹	189.9	190.6	188.8	15.3	14.6	13.5	8.1	7.7	7.2
Decatur	62.8	62.6	63.3	10.1	6.7	6.4	16.0	10.7	10.2
Kankakee	43.1	41.6	42.3	6.3	4.7	4.7	14.5	11.3	11.1
Peoria	174.9	175.2	175.4	16.5	14.2	12.1	9.4	8.1	6.9
Rockford	135.0	136.7	136.5	16.6	13.2	11.5	12.3	9.7	8.4
Springfield	98.1	98.6	98.6	8.6	6.6	6.2	8.8	6.6	6.3
INDIANA	2,641.5	2,613.1	2,590.6	296.5	240.9	235.9	11.2	9.2	9.1
Anderson	59.1	55.2	55.4	11.6	5.5	6.1	19.7	10.0	11.0
Elkhart	69.9	67.5	67.0	10.2	5.7	5.6	14.6	8.5	8.3
Evansville ¹	149.0	149.5	148.2	12.3	11.8	10.7	8.2	7.9	7.2
Fort Wayne	198.3	192.0	192.4	21.5	17.4	16.6	10.8	9.0	8.6
Gary—Hammond—East Chicago	307.8	295.0	295.3	43.2	31.3	31.4	14.0	10.6	10.6
Indianapolis	603.7	611.5	608.7	50.2	48.0	49.5	8.3	7.9	8.1
Lafayette—West Lafayette	59.7	59.5	59.7	4.1	4.2	3.9	6.9	7.0	6.6
Muncie	57.2	55.9	55.3	8.5	6.7	6.0	14.8	12.0	10.8
South Bend	140.8	136.1	134.2	15.5	11.8	11.0	11.0	8.7	8.2
Terre Haute	82.3	79.5	78.7	7.2	7.9	6.9	8.7	9.9	8.8
IOWA	1,500.1	1,486.5	1,463.9	96.3	90.9	89.2	6.4	6.1	6.1
Cedar Rapids	91.9	89.8	88.1	7.5	6.9	6.4	8.2	7.7	7.3
Des Moines	187.6	188.0	184.5	12.1	12.6	12.3	6.4	6.7	6.7
Dubuque	46.7	45.9	45.2	4.2	4.4	4.2	9.1	9.5	9.4
Sioux City ¹	55.8	55.0	53.4	3.9	4.2	3.7	7.1	7.7	7.0
Waterloo—Cedar Falls	70.3	68.8	68.7	5.2	5.3	5.3	7.3	7.7	7.7
KANSAS	1,211.3	1,250.5	1,230.6	58.4	52.8	49.8	4.8	4.2	4.0
Lawrence	33.9	34.9	34.4	1.7	1.8	1.7	4.9	5.0	4.8
Topeka	96.8	99.8	98.5	5.6	5.4	5.2	5.7	5.4	5.3
Wichita	229.0	237.8	235.7	11.3	10.0	9.4	4.9	4.2	4.0
KENTUCKY	1,647.6	1,674.0	1,656.8	149.0	125.8	117.1	9.0	7.5	7.1
Lexington—Fayette	175.9	179.5	177.5	9.9	8.2	7.8	5.6	4.5	4.4
Louisville ¹	435.0	443.1	439.5	35.6	34.0	32.4	8.2	7.7	7.4
Owensboro	42.8	44.0	43.5	3.5	3.0	2.9	8.3	6.8	6.6
LOUISIANA	1,736.4	1,804.0	1,797.2	118.4	157.4	147.2	6.8	8.7	8.2
Alexandria	67.4	69.9	69.6	5.8	7.8	7.2	8.6	11.2	10.3
Baton Rouge	220.6	233.2	232.0	16.8	26.9	23.9	7.6	11.6	10.3
Lafayette	79.8	86.9	87.5	3.1	4.0	3.7	3.9	4.6	4.2
Lake Charles	74.3	76.5	76.6	4.6	7.0	6.2	6.3	9.1	8.1
Monroe	53.4	54.4	54.1	4.4	5.0	5.4	8.3	9.2	9.9
New Orleans	480.3	483.2	483.5	28.6	37.4	35.9	5.9	7.7	7.4
Shreveport	154.8	161.2	160.1	11.4	13.0	12.1	7.3	8.0	7.6
MAINE	514.5	517.7	531.4	48.2	39.9	45.9	9.4	7.7	8.6
Lewiston—Auburn	37.3	38.3	38.7	4.6	3.0	4.3	12.4	7.9	11.1
Portland	91.1	93.2	93.7	6.2	5.8	6.4	6.8	6.2	6.8
MARYLAND	2,173.4	2,186.3	2,168.3	149.5	154.6	157.8	6.9	7.1	7.3
Baltimore	1,079.9	1,075.6	1,059.0	87.5	87.1	90.2	8.1	8.1	8.5

See footnotes at end of table.

STATE AND AREA UNEMPLOYMENT DATA

E-1. Labor force and unemployment by State and selected metropolitan areas—Continued

(Numbers in thousands)

State and area	Labor force			Unemployment					
				Number			Percent of labor force		
	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P
MASSACHUSETTS¹	2,927.0	2,982.7	3,016.9	177.0	191.0	200.7	6.1	6.4	6.7
Boston	1,418.8	1,464.6	1,492.9	74.9	85.5	90.4	5.3	5.8	6.1
Brockton	82.1	82.3	82.5	5.9	7.0	7.2	7.2	8.5	8.7
Fall River ¹	74.6	73.3	74.2	7.3	5.9	6.6	9.7	8.1	8.9
Lawrence—Haverhill ¹	141.8	146.1	N.A.	9.5	9.1	N.A.	6.7	6.2	N.A.
Lowell	121.7	125.8	124.8	7.5	8.9	8.6	6.1	7.1	6.9
New Bedford	83.5	82.1	81.4	8.0	6.9	7.9	9.6	8.4	9.7
Springfield—Chicopee—Holyoke	271.0	272.1	277.3	16.1	16.8	18.6	5.9	6.2	6.7
Worcester	196.3	201.5	199.8	11.0	13.4	12.8	5.6	6.6	6.4
MICHIGAN²	4,348.0	4,469.7	4,480.6	626.0	495.2	529.8	14.4	11.1	11.8
Ann Arbor	141.2	148.0	146.2	12.7	11.3	12.9	9.0	7.6	8.8
Battle Creek	82.3	83.5	83.9	11.2	8.4	9.1	13.6	10.1	10.9
Bay City	53.9	54.2	54.3	9.2	5.7	5.9	17.1	10.6	10.8
Detroit	2,044.0	2,091.4	2,100.0	304.3	259.3	259.6	14.9	11.4	12.3
Flint	234.8	240.8	237.4	52.7	33.4	33.6	22.4	13.9	14.2
Grand Rapids	317.9	336.4	335.5	31.9	28.9	30.5	10.0	8.6	9.1
Jackson	67.8	68.9	69.4	10.2	7.4	8.1	15.1	10.7	11.6
Kalamazoo—Portage	134.9	139.7	139.1	13.7	11.9	12.4	10.2	8.5	8.9
Lansing—East Lansing	239.3	254.2	253.6	27.9	25.0	28.8	11.6	9.8	11.3
Muskegon—Norton Shores—Muskegon Heights	80.3	82.0	82.6	11.9	10.9	10.5	14.8	13.2	12.7
Saginaw	101.8	103.1	105.3	17.5	10.6	12.9	17.1	10.3	12.2
MINNESOTA	2,169.0	2,245.6	2,228.6	125.1	121.1	102.7	5.8	5.4	4.6
Duluth—Superior ¹	118.6	N.A.	N.A.	10.6	N.A.	N.A.	8.9	N.A.	N.A.
Minneapolis—St. Paul	1,112.4	1,194.2	1,180.0	52.6	56.0	47.3	4.7	4.7	4.0
Rochester	56.5	59.6	59.4	2.5	2.6	2.1	4.4	4.4	3.5
St. Cloud	77.5	78.1	77.2	5.9	5.4	4.5	7.6	6.9	5.8
MISSISSIPPI	1,041.3	1,021.5	1,018.6	92.1	87.6	83.7	8.8	8.6	8.2
Jackson	155.8	153.9	151.4	8.9	9.8	9.4	5.7	6.4	6.2
MISSOURI	2,323.0	2,412.2	2,381.9	178.4	180.4	163.0	7.7	7.5	6.8
Kansas City ¹	689.5	714.0	706.3	45.2	43.9	40.6	6.6	6.1	5.7
St. Joseph	45.9	46.5	46.0	3.8	3.9	3.5	8.2	8.4	7.7
St. Louis ¹	1,107.1	1,145.2	1,136.3	97.8	100.9	87.7	8.8	8.8	7.7
Springfield	103.4	108.8	108.6	6.3	6.3	5.9	6.1	5.7	5.4
MONTANA	390.5	408.8	402.6	24.1	27.3	24.8	6.2	6.7	6.1
Billings	57.8	60.2	59.5	2.9	3.3	2.9	5.0	5.5	4.9
Great Falls	35.4	36.6	35.5	2.7	3.2	2.7	7.8	8.8	7.5
NEBRASKA	800.9	817.9	813.8	34.1	32.5	30.6	4.3	4.0	3.8
Lincoln	110.0	111.1	113.0	4.3	4.5	4.1	3.9	4.1	3.7
Omaha ¹	280.8	290.3	296.0	16.9	16.6	15.3	6.0	5.7	5.2
NEVADA	383.6	398.5	398.2	26.1	26.5	26.8	6.8	6.7	6.7
Las Vegas	210.2	218.4	217.4	16.9	17.1	17.0	8.1	7.8	7.8
Reno	109.1	111.0	111.7	5.4	5.2	5.6	4.9	4.7	5.0
NEW HAMPSHIRE	474.0	480.0	482.0	29.1	23.5	24.9	6.1	4.9	5.2
Manchester	82.4	83.3	82.8	5.9	4.7	5.0	7.2	5.7	6.1
Nashua	78.1	81.4	80.6	4.3	4.5	3.9	5.5	5.5	4.8
NEW JERSEY	3,680.0	3,612.0	3,622.8	295.0	269.0	246.1	8.0	7.4	6.8
Atlantic City	113.6	119.1	122.3	8.9	9.7	8.4	7.8	8.1	6.8
Jersey City	248.8	241.3	238.5	28.0	27.7	25.0	11.2	11.5	10.5
Long Branch—Asbury Park	243.7	246.0	248.9	19.0	16.2	15.5	7.8	6.6	6.2
New Brunswick—Perth Amboy—Sayreville	335.8	327.1	325.8	25.0	22.8	20.1	7.4	7.0	6.2
Newark	992.1	973.3	977.1	79.0	72.1	65.0	8.0	7.4	6.7
Paterson—Clifton—Passaic	216.5	210.5	210.8	22.6	19.3	18.8	10.4	9.2	8.9
Trenton	162.5	163.1	163.0	12.4	9.1	9.1	7.6	5.6	5.6
Vineland—Millville—Bridgeton	61.4	60.1	59.5	7.2	7.9	6.9	11.7	13.1	11.5
NEW MEXICO	554.0	562.5	560.1	42.2	45.6	40.0	7.6	8.1	7.1
Albuquerque	205.0	208.1	207.1	16.8	16.5	15.0	8.2	7.9	7.3

See footnotes at end of table.

STATE AND AREA UNEMPLOYMENT DATA

E-1. Labor force and unemployment by State and selected metropolitan areas—Continued

(Numbers in thousands)

State and area	Labor force			Unemployment					
				Number			Percent of labor force		
	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P	JUL. 1980	JUN. 1981	JUL. 1981P
TEXAS²	6,500.0	6,754.1	6,730.2	344.0	488.0	369.8	5.3	7.2	5.5
Amarillo	87.5	89.2	90.5	3.7	5.3	4.6	4.2	6.0	5.1
Austin	249.7	262.0	262.9	9.9	12.5	9.3	4.0	4.8	3.5
Beaumont—Port Arthur—Orange	168.9	174.8	170.1	11.4	17.9	11.6	6.7	10.2	6.8
Corpus Christi	145.1	148.5	147.9	9.2	12.6	9.8	6.3	8.5	6.6
Dallas—Fort Worth	1,545.3	1,623.2	1,622.1	71.6	108.0	84.4	4.6	6.7	5.2
El Paso	174.5	180.8	176.4	15.4	21.3	15.9	8.8	11.8	9.0
Galveston—Texas City	86.6	89.0	88.4	5.7	8.2	6.4	6.6	9.2	7.2
Houston	1,495.6	1,564.5	1,565.1	66.3	97.0	71.6	4.4	6.2	4.6
Lubbock	101.6	102.0	103.0	4.6	6.6	4.9	4.5	6.4	4.8
San Antonio	431.2	447.3	441.6	28.8	41.2	30.3	6.7	9.2	6.9
Waco	80.3	82.5	81.7	4.7	5.5	4.3	5.9	6.7	5.3
Wichita Falls	61.0	63.0	63.2	2.6	3.1	2.2	4.3	4.9	3.5
UTAH	619.2	612.0	608.2	41.4	38.5	35.4	6.7	6.3	5.8
Salt Lake City—Ogden	404.1	401.0	400.5	25.5	24.4	23.1	6.3	6.1	5.8
VERMONT	246.9	252.3	254.9	18.3	14.2	13.8	7.4	5.6	5.4
VIRGINIA	2,567.2	2,599.8	2,567.2	145.3	157.6	151.7	5.7	6.1	5.9
Lynchburg	76.4	76.7	73.4	5.2	4.6	4.4	6.8	6.0	6.0
Newport News—Hampton	172.1	177.5	174.2	9.2	11.6	10.8	5.3	6.5	6.2
Norfolk—Virginia Beach—Portsmouth ¹	331.6	341.0	337.4	19.8	22.9	20.7	6.0	6.7	6.1
Petersburg—Colonial Heights—Hopewell	62.9	60.8	58.0	4.2	4.6	4.6	6.6	7.6	7.9
Richmond	330.2	339.9	332.7	12.6	15.0	14.3	3.8	4.4	4.3
Roanoke	113.9	112.0	111.6	6.5	6.2	6.5	5.7	5.6	5.8
WASHINGTON	1,935.5	1,945.8	1,922.1	148.6	178.0	175.2	7.7	9.1	9.1
Seattle—Everett	819.8	845.5	831.4	52.6	69.3	65.2	6.4	8.2	7.8
Spokane	150.9	147.4	143.3	11.4	13.4	13.2	7.5	9.1	9.2
Tacoma	178.9	172.2	171.6	13.6	15.9	15.5	7.6	9.2	9.1
WEST VIRGINIA	787.0	752.9	766.4	79.8	79.0	71.7	10.1	10.5	9.3
Charleston	130.6	122.2	124.6	9.9	10.0	9.2	7.6	8.2	7.4
Huntington—Ashland ¹	128.2	125.9	129.0	14.7	13.6	13.5	11.4	10.8	10.4
Parkersburg—Marietta ¹	73.6	70.5	71.2	6.9	6.1	6.1	9.4	8.7	8.5
Wheeling ¹	85.1	79.9	81.3	8.5	6.7	6.5	10.0	8.4	8.0
WISCONSIN	2,438.2	2,468.7	2,463.4	194.1	179.2	172.9	8.0	7.3	7.0
Appleton—Oshkosh	151.5	153.9	153.2	12.0	11.1	10.1	7.9	7.2	6.6
Eau Claire	57.3	59.8	59.9	4.1	4.3	4.3	7.1	7.1	7.2
Green Bay	89.4	93.8	92.9	6.1	8.0	6.8	6.9	8.5	7.3
Janesville—Beloit	69.6	72.3	74.3	12.0	5.0	7.9	17.2	6.9	10.6
Kenosha	64.2	60.1	59.2	7.9	5.3	5.0	12.3	8.8	8.5
La Crosse	47.6	50.2	50.6	2.6	3.3	3.2	5.4	6.6	6.4
Madison	182.9	187.7	186.7	9.3	10.2	9.5	5.1	5.5	5.1
Milwaukee	740.0	751.6	745.3	54.9	54.9	50.4	7.4	7.3	6.8
Racine	90.6	90.8	90.3	9.1	7.6	7.6	10.1	8.4	8.5
WYOMING	244.1	259.8	258.4	9.2	11.1	9.7	3.8	4.3	3.7

¹ Includes interstate portion of area located in adjacent State.

² Data are obtained directly from the Current Population Survey. (See "Explanatory Notes" for State and Area Unemployment Data in Employment and Earnings, monthly.)

becomes available. Data refer to place of residence.

p = preliminary.

N.A. = not available.

NOTE: Estimates for 1980 have been benchmarked to 1980 Current Population Survey annual averages. Except in the 10 States and 2 areas designated by footnote 2, estimates for 1981 are provisional and will be revised when new benchmark information

SOURCE: Current Population Survey and Cooperating State Employment Security Agencies listed on inside back cover.

Explanatory Notes

Introduction

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

Data based on household interviews are obtained from a sample survey of the population 16 years of age and over. The survey is conducted each month by the Bureau of the Census for the Bureau of Labor Statistics and provides comprehensive data on the labor force, the employed, and the unemployed, including such characteristics as age, sex, race, family relationship, marital status, occupation, and industry attachment. The survey also provides data on the characteristics and past work experience of those not in the labor force. The information is collected by trained interviewers from a sample of about 60,000 households, representing 629 areas in 1,133 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 and weekly earnings, and labor turnover for the Nation, States, and metropolitan areas. The employment, hours, and earnings series are based on payroll reports from a sample of establishments employing over 30 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. Based on a somewhat smaller sample, labor turnover data relate to actions occurring during the entire 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 definition 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 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, and unpaid workers who worked 15 hours or more during the survey week in family-operated enterprises. 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 approach 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 persons 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 dispute, 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 mean 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 Report 601.

COMPARABILITY OF THE HOUSEHOLD DATA WITH OTHER SERIES

Unemployment insurance data. The unemployed total from the household survey includes all persons who did not have a job at all during the survey week and were looking for work or were waiting to be called back to a job from which they had been laid off, whether or

not they were eligible for unemployment insurance. Figures on unemployment insurance claims, prepared by the Employment and Training Administration of the Department of Labor, exclude persons who have exhausted their benefit rights, new workers who have not earned rights to unemployment insurance, and persons losing jobs not covered by unemployment insurance systems (some workers in agriculture, domestic services, and religious organizations, and self-employed and unpaid family workers). Beginning in January 1978, coverage was extended to include domestic workers whose employers paid \$1,000 or more in wages in any calendar quarter, agricultural employees whose employers engaged 10 or more workers in 20 weeks or paid a total of \$20,000 or more in wages in any calendar quarter, and almost all State and local government employees.

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

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

Agricultural employment estimates of the Department of Agriculture. The principal differences in coverage are the inclusion of persons under 16 in the Statistical Research Service (SRS) 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 impact on differences in level and trend of the two series.

COMPARABILITY OF THE PAYROLL EMPLOYMENT DATA WITH OTHER SERIES

Statistics on manufactures and business, Bureau of the Census. BLS establishment statistics on employment differ from employment

counts derived by the Bureau of Census from its censuses or annual business establishments. The major reasons for some 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. Beginning in January 1972, coverage was expanded to include employees of small firms and selected nonprofit activities who had not been covered previously. However, certain activities, such as interstate railroads, parochial schools, and churches are not covered by unemployment insurance whereas these included in the BLS establishment statistics. 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.

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. This report is available from BLS upon request.

These monthly surveys of the population are conducted with 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. Separate statistics are also collected and published for 14- and 15-year-olds. 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, members of the Armed Forces, and persons under 14 years of age are not covered in the regular monthly enumerations and are excluded from the population and labor force statistics shown in this report. Data on members of the Armed Forces, who are

included as part of the categories "total noninstitutional population" and "total labor force," are, however, obtained from the Department of Defense.

Each month 60,000 occupied units are eligible for interview. About 2,500 of these households are visited but interviews are not obtained because the occupants are not at home after repeated calls or are unavailable for other reasons. This represents a noninterview rate for the survey of between 4 or 5 percent. In addition to the 60,000 occupied units, there are 11,000 sample units in an average month which are visited but found to be vacant or otherwise not to be enumerated. Part of the sample is changed each month. The rotation plan provides for three-fourths of the sample to be common from 1 month to the next and one-half to be common with the same month a year earlier.

Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the national 47,000 household sample in January 1978.

Over the period November 1978 to April 1979 the sample was again enlarged by 9,000 households. These supplementary households were added to the 56,000 household sample in January 1980.

Beginning in May 1981 the sample size was cut by about 6,000 occupied housing units. The reduction did not affect the ability to

publish reliable State and local estimates and had practically no effect on the reliability of national estimates.

CONCEPTS

Employed persons comprise (a) all those who during the survey week did any work at all as paid employees, in their own business, profession, or 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 dispute, or personal reasons, whether or not they were paid by their employers for the time off, and whether or not they were seeking other jobs.

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, temporarily in the United States, who are not living on the premises of an embassy.

Excluded are persons whose only activity consisted of work around the house (such as home housework, and painting or repairing own home) or volunteer work for religious, charitable, and similar organizations.

Unemployed persons comprise all persons who did not work during the survey week, who made specific efforts to find a job within the past 4 weeks, and who were available for work during the survey week (except for temporary illness). Also included as unemployed are those who did not work at all, were available for work, and (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 wage or salary job within 30 days.

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.

Unemployed persons by 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.

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 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 wage or salary 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 pick-up point.

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

The unemployment rate 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, marital status, race, occupation, industry, etc. The job-loser, job-leaver, reentrant, and new entrant rates are each calculated as a percent of the civilian labor force; the sum of the rates for the four groups thus equals the total unemployment rate.

Participation rates represent the proportion of the noninstitutional population that is in the labor force. Two types of participation rates are published. The total labor force participation rate, which is the ratio of the total labor force and the total noninstitutional population; and the civilian labor force participation rate, which is the ratio of the civilian labor force and the civilian noninstitutional population. 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 total noninstitutional population that is employed.

Not in labor force includes all civilians 16 years and over 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, and "other." The "other" group includes for the most part retired persons, those reported as too old to work, the voluntarily idle, and seasonal workers for whom the survey week fell in an "off" season and who were not reported as unemployed. Persons doing only incidental unpaid family work (less than 15 hours) are also classified as not in the labor force.

For persons not in the labor force, data on previous work experience, intentions to seek work again, desire for a job at the time of interview, and reasons for not looking for work are compiled 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, the detailed not-in-labor force questions were asked of persons in the first and fifth months in the sample, 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 civilian job lasting 2 weeks or more. The occupation and industry groups used in the CPS are defined as in the 1970 Census of Population. 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 blood or marriage.

Hours of work statistics relate to the actual number of hours worked during the survey week. For example, a person who normally works 40 hours a week but who was off on the Columbus Day holiday would be reported as working 32 hours even though he/she was 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. However, all the hours are credited to the major job.

The distribution of employment by hours worked relates to persons "at work" during the survey week. At-work data differ from data on total employment because the latter include persons in the zero-hours worked category, "with a job but not at work." Included in this latter group are persons who were on vacation, ill, involved in a labor

dispute, or otherwise absent from their jobs for voluntary, noneconomic reasons.

Persons who worked 35 hours or more in the survey week are designated as working "full time," correspondingly 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 other 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. "Other reasons" include: Labor dispute, bad weather, own illness, vacation, demands of home, housework, school, no desire for full-time work, and full-time worker only during the 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.

The *full-time labor force* consists of persons working on full-time schedules, persons involuntarily working part-time (part time for economic reasons), 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. Persons with a job but not at work during the survey week are classified according to whether they usually work full or part-time.

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: (1) That unemployed persons looking for full-time work lost an average of 37.5 hours (2) that 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) that persons on part time for economic reasons lost the difference between 37.5 hours and the actual number of hours they worked.

White and black and other are terms used to describe the race of workers. The "black-and-other category," includes all persons who identified themselves in the enumeration process to be other than white. At the time of the 1970 Census of Population, 89 percent of the black-and-other population group were black; the remainder were primarily American Indians, Alaskan Natives, and Asians and Pacific Islanders. The term "black" is used in this volume when the relevant data are provided exclusively for the black population.

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. According to the 1970 Census of Population, approximately 96 percent of their population is white.

Major activity: going to school and *major activity: other* are terms used to describe whether the activity of young persons during the reference week is primarily one of going to school or not. Statistics on major activity are published every month in table A-7 for 16- to 21-year-olds by employment status, race, and sex, and, if unemployed, whether seeking full- or part-time work.

Vietnam-era veterans are those who served in the Armed Forces of the United States between August 5, 1964, and May 7, 1975. Tables for veterans in this volume are limited to males in the civilian noninstitutional population, i.e., veterans in institutions and females are excluded.

Nonveterans are males who never served in the Armed Forces.

The *poverty areas* classification consists of all Census geographical divisions in which 20 percent or more of the residents were poor according to the 1970 Decennial Census. Persons were classified as poor or nonpoor by using income thresholds adopted by a Federal interagency committee in 1969. These thresholds vary by family size, composition, and residence (farm-nonfarm). 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 areas encompassed by Standard Metropolitan Statistical Areas (SMSA's). The metropolitan area total is based on the number of SMSA's as defined in the 1970 Decennial Census and does not include any subsequent additions or changes. Nonmetropolitan areas refer to the total of all areas outside SMSA's. The nonmetropolitan total is disaggregated into farm and nonfarm components.

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. Data refer to the sole or primary job of wage and salary workers. 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.

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 are 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 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 blood, marriage, or adoption; all such persons are considered as members of one family even though they may include a "subfamily," that is, a married couple or a parent-child group related by blood or marriage to the householder and sharing the living quarters. The counts of families used in this volume refer to primary families only, that is, all persons in the household who are related to the householder. Families are classified either as married-couple families or as those maintained by women or men without spouses. 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.

HISTORIC COMPARABILITY

Raised lower age limit

Beginning with data for 1967, the lower age limit for official statistics on persons in the labor force was raised from 14 to 16 years. A detailed discussion of this and other definitional changes introduced at that time including estimates of their effect on the various series, is contained in "New Definitions for Employment and Unemployment" by Robert L. Stein in the February 1967 issue of *Employment and Earnings and Monthly Report on the Labor Force*.

Noncomparability of labor force levels

Before the changes introduced in 1967, the labor force data were not comparable for three earlier periods: (1) Beginning in 1953, as a result of the introduction of data from the 1950 census into the estimation procedure, population levels were raised by about 600,000; labor force, total employment, and agricultural employment by about 350,000, primarily affecting the figures for totals and males; 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 in nonagricultural employment; other labor force categories were not appreciably affected; (3) beginning in 1962, the introduction of figures from the 1960 census reduced the population by about 50,000, labor force and employment by about 200,000; unemployment totals were virtually unchanged. In addition, beginning in 1972, information from the 1970 census was introduced into the estimation procedures, producing an increase in the civilian noninstitutional population of 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. A subsequent population adjustment based on the 1970 census was introduced in March 1973. This adjustment affected the white and black and other groups but had little effect on totals. The adjustment 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.

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 population estimates had its greatest impact on estimates of 20- to 24-year-old males—particularly those of the black-and-other population—but had little effect on 16 and over totals. 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 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 males and 46,000 females. 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 1978, the introduction of an expansion of the sample and revisions in the estimation procedures resulted in an increase of roughly a quarter of a million in the overall 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 determined 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 1979, the first-stage ratio estimation method was changed in the CPS estimation procedure. The new procedure is described in the Estimating Methods section. The reasoning behind the change and an indication of the differences appear in "Change in the Estimation Procedure for the Current Population Survey beginning in January 1979" in the February 1979 issue of *Employment and Earnings*. Differences between the old and new procedures exist only for metropolitan and nonmetropolitan estimates, not for the total U.S.

Changes in the occupational classification system

Beginning with 1971, the comparability of occupational employment data was affected as a result of changes in census occupational classifications introduced into the Current Population Survey (CPS). These changes stemmed from an exhaustive review of the classification system to be used for the 1970 Census of Population. This review, the most comprehensive since the 1940 census, was to reduce the size of large groups, to be more specific about general and "not elsewhere classified" groups, and to provide information on emerging significant occupations. Differences in March 1970 employment levels tabulated on both the 1960 and 1970 classification systems ranged from a drop of 650,000 in operatives to an increase of 570,000 in service workers, much of which resulted from a shift between these two

groups; the nonfarm laborers group increased by 420,000, and changes in other groups amounted to 220,000 or less.

An additional major group was created by splitting the operatives category into two: Operatives, except transport, and transport equipment operatives. Separate data for these two groups first became available in January 1972. At the same time, several changes in titles, as well as in order of presentation, were introduced; for example, the title of the managers, officials, and proprietors group was changed to "managers and administrators, except farm," since only proprietors performing managerial duties are included in the category.

Apart from the effects of revisions in the occupational classification system beginning in 1971, comparability of occupational employment data was further affected in December 1971, when a question eliciting information on major activities or duties was added to the monthly CPS questionnaire in order to determine more precisely the occupational classification of individuals. This change resulted in several dramatic occupational shifts, particularly from managers and administrators to other groups. Thus, meaningful comparisons of occupational levels cannot always be made for 1972 and subsequent years with earlier periods. However, revisions in the occupational classification system as well as in the CPS questionnaire are believed to have had but a negligible impact on unemployment rates.

Additional information on changes in the occupational classification system of the CPS appears in "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*.

Changes in 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, occasionally the sample is expanded in terms of number of sample areas and number of sample persons. In 1953, a rotation plan was introduced in which a sample unit would be interviewed for 4 months, leave the sample for 8 months, and then return to the sample for another 4 months. When Alaska and Hawaii achieved statehood, three more sample areas were added to the sample 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 with the existing design. A coverage improvement sample, composed of approximately 450 sample household units which represent 237,000 occupied mobile homes and 600,000 new construction housing units, was included in computing the estimates beginning in October 1978 in order to provide coverage of mobile homes and new construction housing units that previously had no chance for selection in the CPS sample. 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.

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

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. There are no subsequent adjustments to independent benchmark data on labor force, employment, or unemployment. Therefore, revisions of the historical data are not an inherent feature of this statistical program.

The CPS estimation procedure involves weighting the data from each sample person. The basic weight, which is the inverse of the probability of the person being in the sample, is a rough measure of the number of actual persons that the sample person represents. In States supplemented in the 1978 and 1980 expansions, almost all sample persons within the same sample area have the same basic weight, but the weight may differ across sample areas. The basic weight is the same for almost all sample persons in unsupplemented States. The basic weights are then adjusted for noninterview, 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 respondent for other reasons. This adjustment is made separately by combinations of sample areas within each State and the District of Columbia, and within these, for six groups—two race categories (white, and black and other) within three residence categories. For sample areas which are Standard Metropolitan Statistical Areas (SMSA's), these residence categories are the central cities, and the urban and the rural balance of the SMSA's. For other sample areas, the residence categories are urban, rural nonfarm, and rural farm. The proportion of sample households not interviewed varies from 4 to 5 percent depending on weather, vacations, 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 latter 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 629 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 procedure is performed at two

geographic levels: First, by the four census regions (Northeast, North Central, South, and West), and second, for each of the 46 States which contains nonsample areas. The procedure corrects for the differences that existed at the time of the 1970 census between the distribution by race and residence of the population in the sample areas and the known race-residence distribution in the portions of the census region or State represented by these areas. The regional adjustment is performed by metropolitan-nonmetropolitan residence and race, while the State adjustment is done by urban-rural status and race.

b. *Second-stage ratio estimate.* In this stage, the sample proportions in the categories described below are adjusted to the distribution of independent current estimates of the population in the same categories. The second-stage ratio estimate is done in order to increase the reliability of the estimates and is done 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 for the State. The second step involves "nonwhite" persons only, and is an adjustment to independent estimates of 40 age-sex-race categories across the whole Nation. (The race categories used are black and other minority races.) The third adjustment is applied to all sample persons and is a weighting to nationwide independent population estimates within 68 age-sex-race groups. The entire second-stage ratio estimation procedure is iterated six times, each time beginning at the weights developed the previous time. This iteration ensures that the sample estimates both of State population and of national age-sex-race categories, will be virtually equal to the independent population estimates.

The independent controls by State for the civilian noninstitutional population 16 years and over are an arithmetic extrapolation of the trend in the growth of this segment of the population from the April 1, 1970 census through the latest available July 1 estimate, adjusted as a last step to a current estimate of the U.S. population of this group. State estimates by age for July 1 are published annually in *Current Population Reports*, Series P-25. For a description of the methodology used in developing the State total, see Report 640 of that series. Descriptions of the age estimates methodology are available on request from the Chief of the Population Division, U.S. Bureau of the Census, Washington, D.C. 20233.

Prior to January 1974, the independent national controls used for the age-sex-race groups in both the second and third steps of the second-stage ratio estimation procedure were prepared by carrying forward the most recent census data (1970) after taking account of subsequent aging of the population, births, deaths, and migration between the United States and other countries. Beginning in 1974, the "inflation-deflation" method of deriving independent population controls was introduced into the CPS estimation procedures. These independent controls are prepared by inflating the most recent census counts to include the estimated net census undercount by age, sex, and

Table A. Characteristics of the CPS sample

Time period	Number of sample areas	Households eligible		Households visited 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	330	33,500	1,500	6,000
Jan. 1960 to Feb. 1963	333 ²	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 present	629	57,500	2,500	11,000

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

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

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. The actual percent change over time in the population in any age group is preserved.

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. Almost all estimates of month-to-month change are improved by this procedure, and most estimates of levels 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. 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 errors. 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 article "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. Overall undercoverage as compared to the level of the decennial census, is about 5 percent. It is known that the CPS undercoverage varies with age, sex, and race. Generally, undercoverage is larger for males than for females and larger for black and other races than for whites. Ratio estimation to independent age-sex-race 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 group. Further, the independent population controls used have not been adjusted for undercoverage in the 1970 census, which was estimated at 2.5 percent of the population, with differentials by age, sex, and race similar to those observed in the CPS.

Additional information on nonsampling error in the CPS appears in the paper, "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 paper "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 and up-to-date 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 were 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 were 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 tables 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

not published when the monthly base is less than 75,000 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 percentages 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. For example, assume that in a given month 3.6 percent of a total of 90,771,000 employed persons are employed in agriculture. First the standard error on an estimate of 3.6 percent with a base of 90,771,000 is obtained from table H (0.09 percentage point). The appropriate factor from table I for the numerator of the percentage, agricultural employment, is 1.26. The generalized standard error characteristic. It should be noted that the tables of standard errors for month-to-month change apply only to estimates of change between two consecutive months. Estimates of change for nonconsecutive months are subject to higher standard errors. Table J contains factors for use with tables D, F, H, and I to compute approximate standard errors, as described below, for levels, labor force participation rates, and percentages as pertaining to year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages and changes in yearly averages. Note that standard errors for changes in quarterly and yearly estimates apply only to consecutive quarters and years. For years prior to 1967, the standard errors must be adjusted due to the differences in the sample size. For years prior to 1956, the standard errors should be multiplied by 1.50 and for the 1956-66 period they should be multiplied by 1.22. Table K provides generalized standard errors for quarterly estimates of persons and families for use with the CPS earnings data.

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

Illustration. Assume that in a given month the number of persons working a specific number of hours was 12,000,000, an increase of 400,000 over the previous month. Linear interpolation in the second column of table D shows that the standard error on an estimate of 12,000,000 is about 150,000. The 68 percent confidence interval as shown by these data is from 11,850,000 to 12,150,000. 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 111,000.

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 on both the size of the rate or percentage and the total upon which the rate or percentage is based. Estimated rates and percentages are relatively more reliable than the corresponding estimates of the numerator of the rates or percentages; this is particularly true for percentages of 50 percent or more. As a general rule, percentages are on the estimated 3.6 percent is then approximately $0.09 \times 1.26 = 0.1$ percentage point.

Standard errors for year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly averages and changes in yearly averages. The approximate standard errors of levels, rates and percentages involving year-to-year change of monthly estimates, quarterly averages, changes in quarterly averages, yearly

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

Illustration. For example, suppose that one is interested in the year-to-year change of a monthly unemployment rate. Let us assume that for a certain month the unemployment rate is 6.9 percent based on a total of 95,676,000 in the civilian labor force, and that a year prior to this the unemployment rate was 6.1 percent based on a total of 94,254,000 in the civilian labor force for the month. First, the standard error on the average of the two estimates, 6.5 percent with a base of 94,965,000, is obtained from table F (0.11 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 per-

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	208	161
Employed	229	175
Unemployed	122	123
Males, 20 years and over:		
Civilian labor force	113	95
Employed	131	114
Unemployed	84	85
Females, 20 years and over:		
Civilian labor force	167	124
Employed	168	128
Unemployed	71	74
Both sexes, 16-19 years:		
Civilian labor force	80	85
Employed	85	94
Unemployed	58	72
Black and other, 16 years and over:		
Civilian labor force	73	56
Employed	84	63
Unemployed	59	62
Males, 20 years and over:		
Civilian labor force	40	34
Employed	49	43
Unemployed	40	42
Females, 20 years and over:		
Civilian labor force	62	46
Employed	62	48
Unemployed	36	40
Both sexes, 16-19 years:		
Civilian labor force	33	37
Employed	31	36
Unemployed	28	30

sons and families may be obtained by using table K in conjunction with the following formula:

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

where X is the estimate for one quarter and Y is the estimate for another quarter. The coefficient, P, is a measure of the correlation between the estimates X and Y resulting from the presence of some of the same respondents in the sample for each estimate. For consecutive year-to-year changes of quarterly estimates, the values of P are .30 for persons (total, white, and black) and .35 for families (total, white, and black). The respective values for estimates of Hispanics are .45 and .55.

Illustration:

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

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

or about 259,000.

Table C. Standard errors for unemployment rates by major characteristics

Selected categories	Standard error of-		Selected categories	Standard error of-	
	Monthly level	Consecutive month change		Monthly level	Consecutive month change
Total (all civilian workers)	0.12	0.12			
Males, 20 years and over .....	.15	.15			
Females, 20 years and over .....	.17	.18			
Both sexes, 16-19 years .....	.57	.67			
White workers .....	.12	.12			
Black (and other) workers .....	.46	.49			
Married men, spouse present .....	.15	.16			
Married women, spouse present .....	.21	.23			
Full-time workers .....	.12	.13			
Part-time workers .....	.32	.40			
Unemployed 15 weeks and over .....	.06	.07			
OCCUPATION			OCCUPATION		
White-collar workers .....	.12	.13	Blue-collar workers—Continued		
Professional and technical .....	.18	.20	Operatives, except transport	0.44	0.50
Managers and administrators, except farm .....	.20	.23	Transport equipment operatives .....	.70	.77
Sales workers .....	.36	.41	Nonfarm laborers .....	.71	.81
Clerical workers .....	.23	.25	Service workers .....	.32	.36
Blue-collar workers .....	.24	.26	Farm workers .....	.54	.62
Craft and kindred workers .....	.33	.37	INDUSTRY		
			Nonagricultural private wage and salary workers .....	.13	.13
			Construction .....	.59	.70
			Manufacturing .....	.27	.30
			Durable goods .....	.37	.41
			Nondurable goods .....	.39	.45
			Transportation and public utilities .....	.38	.42
			Wholesale and retail trade .....	.26	.29
			Finance and service industries .....	.17	.19
			Government workers .....	.20	.23
			Agricultural wage and salary workers	1.07	1.26

Table D. Standard errors for estimates of monthly level

(In thousands)

Estimated monthly level	Characteristic ¹								
	Agricultural employment	Labor force data other than unemployment and agricultural employment data						Unemployment	
		Total or white	Black and other	Total or white, 16-19 years	Black and other, 16-19 years	Total or white males only, or females only	Black and other males only, or females only	Total or white	Black and other
50	13	10	10	10	10	9	9	10	11
100	18	14	14	14	14	13	13	14	15
500	41	32	32	32	28	30	29	31	33
1,000	57	45	44	44	33	42	40	44	46
2,000	81	64	60	60	13	59	52	62	63
4,000	113	90	79	77	-	82	60	87	83
6,000	137	109	88	84	-	99	53	106	93
8,000	-	125	90	84	-	113	16	122	-
10,000	-	139	87	76	-	124	-	135	-
15,000	-	166	36	-	-	146	-	163	-
20,000	-	188	-	-	-	161	-	182	-
30,000	-	219	-	-	-	177	-	-	-
40,000	-	249	-	-	-	178	-	-	-
50,000	-	253	-	-	-	164	-	-	-
60,000	-	260	-	-	-	131	-	-	-
70,000	-	260	-	-	-	49	-	-	-
80,000	-	254	-	-	-	-	-	-	-
100,000	-	221	-	-	-	-	-	-	-
120,000	-	143	-	-	-	-	-	-	-

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

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

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

(In thousands)

Estimated monthly level	Characteristic ¹							
	Labor force data other than unemployment and agricultural employment data				Unemployment			
	Total or white	Black and other	Total or white, 16-19 years	Black and other, 16-19 years	Total or white	Both sexes 16-19 years, or part-time labor force ²	Black and other	Black and other, 16-19 years
50	8	8	12	12	11	12	12	12
100	11	11	17	17	16	17	16	17
500	24	23	37	33	35	39	36	34
1,000	34	33	52	37	48	55	49	39
2,000	47	45	70	-	68	77	65	-
4,000	66	58	89	-	93	107	80	-
6,000	81	65	96	-	110	129	-	-
8,000	93	68	93	-	123	147	-	-
10,000	103	65	78	-	132	162	-	-
15,000	123	33	-	-	145	191	-	-
20,000	130	-	-	-	146	211	-	-
30,000	163	-	-	-	-	-	-	-
40,000	179	-	-	-	-	-	-	-
50,000	189	-	-	-	-	-	-	-
60,000	194	-	-	-	-	-	-	-
70,000	195	-	-	-	-	-	-	-
80,000	191	-	-	-	-	-	-	-
100,000	179	-	-	-	-	-	-	-
120,000	119	-	-	-	-	-	-	-

¹ See footnote 1, table D.

² Part-time labor force for unemployment also includes persons

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

Table F. Standard errors for unemployment rates

Monthly base of unemployment rate (In thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.05	2.88	4.49	6.18	7.36	8.25	8.93	9.46	9.85	10.36
100	1.45	2.04	3.18	4.37	5.20	5.83	6.32	6.69	6.97	7.33
500 .....	.65	.91	1.42	1.96	2.33	2.61	2.82	2.99	3.12	3.28
1,000 .....	.46	.65	1.01	1.38	1.65	1.84	2.00	2.12	2.21	2.32
2,000 .....	.32	.46	.71	.98	1.17	1.31	1.42	1.50	1.56	1.64
4,000 .....	.23	.32	.50	.69	.83	.92	1.00	1.06	1.10	1.16
6,000 .....	.19	.26	.41	.57	.67	.75	.82	.86	.90	.94
10,000 .....	.15	.21	.32	.44	.52	.59	.63	.67	.70	.73
20,000 .....	.11	.15	.23	.31	.37	.41	.45	.47	.49	.51
60,000 .....	.06	.08	.12	.17	.20	.23	.25	.26	.27	.28
100,000 .....	.04	.06	.10	.13	.16	.18	.19	.20	.21	.22

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

Monthly base of unemployment rate (In thousands)	Monthly unemployment rate (percent)									
	1	2	5	10	15	20	25	30	35	50
50	2.32	3.28	5.12	7.10	8.52	9.64	10.05	11.39	11.97	12.55
100	1.64	2.32	3.62	5.02	6.02	6.81	7.11	8.05	8.39	8.87
500 .....	.74	1.04	1.62	2.25	2.69	3.04	3.17	3.58	3.73	3.93
1,000 .....	.52	.73	1.15	1.59	1.90	2.15	2.24	2.52	2.62	2.74
2,000 .....	.37	.52	.81	1.12	1.34	1.51	1.57	1.76	1.83	1.89
4,000 .....	.26	.37	.57	.79	.94	1.06	1.10	1.22	1.26	1.26
6,000 .....	.21	.30	.47	.64	.76	.86	.89	.97	1.00	-
10,000 .....	.16	.13	.36	.49	.59	.65	.67	.72	-	-
20,000 .....	.11	.15	.24	.33	.39	.44	.48	.51	-	-
60,000 .....	.06	.09	.13	.18	.21	.22	.23	-	-	-
100,000 .....	.05	.07	.10	.13	.14	.14	-	-	-	-

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	2.03	2.85	4.44	6.12	7.28	8.15	8.83	9.34	9.72	10.19
100	1.43	2.02	3.14	4.32	5.15	5.77	6.24	6.61	6.88	7.21
500 .....	.64	.90	1.41	1.93	2.30	2.58	2.79	2.95	3.07	3.22
1,000 .....	.45	.64	.99	1.37	1.63	1.82	1.97	2.09	2.17	2.28
2,000 .....	.32	.45	.70	.97	1.15	1.29	1.40	1.48	1.54	1.61
4,000 .....	.23	.32	.50	.68	.81	.91	.99	1.04	1.09	1.14
6,000 .....	.19	.26	.41	.56	.66	.74	.81	.85	.89	.93
10,000 .....	.14	.20	.31	.43	.51	.58	.62	.66	.69	.73
20,000 .....	.10	.14	.22	.31	.36	.41	.44	.47	.49	.51
40,000 .....	.07	.10	.16	.22	.26	.29	.31	.33	.34	.36
60,000 .....	.06	.08	.13	.18	.21	.24	.25	.27	.28	.29
80,000 .....	.05	.07	.11	.15	.18	.20	.22	.23	.24	.25
100,000 .....	.05	.06	.10	.14	.16	.18	.20	.21	.22	.23
160,000 .....	.04	.05	.08	.11	.13	.14	.16	.17	.17	.18

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 data and unemployment data:			Total or white:		
Total	1.00	.74	Total .....	.97	1.08
Males only .....	.93	.84	Both sexes, 16-19 years .....	.97	1.21
Females only .....	.86	.75	Black and other:		
Both sexes, 16-19 years	1.00	1.18	Total	1.04	1.13
Part-time labor force	1.00	1.18	Both sexes, 16-19 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	Factors				
	Year-to-year change of monthly estimate	Quarterly averages	Change in quarterly averages	Yearly averages	Change in yearly averages
Agricultural employment:					
Total or males	1.30	0.89	0.80	0.72	0.70
Females or teenagers (16-19 years)	1.30	.83	.80	.58	.70
Part time	1.40	.74	.80	.46	.70
Labor force data other than agricultural employment data and unemployment data:					
Total or white	1.30	.88	.88	.67	.70
Black and other or teenagers (16-19 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 level

(In thousands)

Estimated quarterly level	Characteristic								
	Total			Males				Females	
	Part-time workers	Total or full-time workers		Part-time workers	Total or full-time workers			Total, full-time, or part-time workers	
		Total or white	Black		Total	White	Black	Total or white	Black
10	5	5	5	5	5	5	5	5	5
50	11	12	12	11	12	12	11	11	11
75	13	15	15	13	15	15	13	13	13
100	15	17	17	15	17	17	15	15	15
150	19	21	21	19	21	21	19	19	19
200	22	24	24	22	24	24	22	21	21
250	24	27	27	24	27	27	24	24	24
300	26	30	30	26	30	30	26	26	26
500	34	38	38	34	38	37	34	33	33
750	42	47	46	42	47	45	42	41	41
1,000	48	54	53	48	54	50	48	46	46
1,500	59	66	63	59	66	59	59	56	56
2,000	68	76	72	68	76	65	68	63	63
2,500	76	85	79	75	84	69	75	69	69
3,000	83	93	85	82	92	71	82	74	74
5,000	107	119	100	105	117	64	105	85	85
7,500	130	145	107	127	140	-	127	-	-
10,000	149	165	102	144	157	-	145	-	-
15,000	180	198	-	187	183	-	173	-	-
20,000	205	224	-	192	199	-	195	-	-
25,000	226	244	-	207	209	-	211	-	-
30,000	224	261	-	219	212	-	224	-	-
40,000	273	286	-	236	201	-	242	-	-
50,000	296	301	-	-	-	-	-	-	-
75,000	331	304	-	-	-	-	-	-	-
100,000	343	255	-	-	-	-	-	-	-

Establishment Data (B, C, and D tables)

COLLECTION

Payroll reports provide current information on wage and salary employment, hours, earnings, and labor turnover in nonagricultural establishments, by industry and geographic location.

Federal-State cooperation

Under cooperative arrangements, responding establishments report employment, hours, and earnings data and/or labor turnover 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

Two types of data collection schedules are used: Form BLS 790—Report on Employment, Payroll, and Hours; and Form DL 1219—Monthly Report on Labor Turnover. 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. Form DL 1219 provides for the collection of information on the total number of accessions and separations, by type, during the calendar month, and total employment during the pay period which includes the 12th of the month.

CONCEPTS

Industrial classification

Establishments reporting on Form BLS 790 and Form DL 1219 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, earnings, and labor turnover for the Nation and for most 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 sectors.

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 in households. Salaried officers of corporations are included. Government employment covers only civilian employees; military personnel are excluded. Employees of the Central Intelligence and National Security Agencies are also excluded.

Persons on establishment payrolls who are on paid sick leave (when pay is received directly from the firm), on paid holiday or 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, or on strike for the entire period or who were hired but have not yet reported during the period.

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. An exception

Production and related workers include working supervisors and all nonsupervisory workers (including group leaders and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., power plant), and 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, laborers, etc., whether working at the site of construction or 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, vacations, 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 and vacations, and for sick leave when pay is received directly from the firm.

Overtime hours covers 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 includes 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. *Gross average hourly and weekly 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 the production worker, construction worker, or nonsupervisory employee definitions.

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

Long-term trends of gross 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.

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

Average overtime hours. The overtime hours represent that portion of the gross 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, gross 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 stoppages, absenteeism, and labor turnover may not have the same influence on overtime hours as on gross hours.

Railroads 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. Gross 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. Gross average weekly

earnings are derived by multiplying average weekly hours by average hourly earnings.

Spendable average weekly earnings. Spendable average weekly earnings in current dollars are obtained by deducting estimated Federal social security and income taxes from average weekly earnings. The amount of income tax liability depends on the number of dependents supported by the worker, the worker's marital status and level of gross income. To reflect these variables, the Bureau calculates two sets of spendable earnings series based on the assumptions that the worker earned the gross average weekly earnings and was taxed at the rates applicable to either (1) a single worker with no dependents, or (2) a married worker with three dependents who files a joint return. The computations are based on gross average weekly earnings for all production or nonsupervisory workers in the industry division excluding other income and income earned by other family members.

The series reflect the spendable earnings of only those workers, with no dependents or three dependents, whose gross weekly pay approximates the average earnings indicated for all production and nonsupervisory workers. It does not reflect, for example, the average earnings of all married workers with three dependents; such workers, in fact, have higher gross average earnings than workers with no dependents.

Since part-time as well as full-time workers are included, and since the proportion of part-time workers has been rising, the series understates the increase in earnings for full-time workers. As noted, "fringe benefits" are not included in the earnings. For a more complete discussion of the uses and limitations of these series, see the article by Paul M. Schwab, "Two Divergent Measures of Purchasing Power," in the *Monthly Labor Review* for August 1979. Reprints of this article are available upon request from the Bureau of Labor Statistics.

"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).

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. Prior to January 1956, these data were based on the application of adjustment factors to gross average hourly earnings (as described in the *Monthly Labor Review*, May 1950, pp. 537-40). Both methods eliminate only the earnings due to overtime paid for at 1½ times the straight-time rates. No adjustment is made for other premium payment provisions, such as holiday work, late-shift work, and overtime rates other than time and one-half.

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

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 172 unpublished seasonally adjusted employment series (two-digit nonmanufacturing 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*.

Labor turnover

Labor turnover is the gross movement of wage and salary workers into and out of employed status with respect to individual establishments. This movement, which relates to a calendar month, is divided into two broad types: *Accessions* (new hires and rehires) and *separations* (terminations of employment initiated by either employer or employee). Each type of action is cumulated for a calendar month and expressed as a rate per 100 employees. The data relate to all employees, whether full- or part-time, permanent or temporary, including executive, office, sales, other salaried personnel, and production workers. The inclusion of transfers to or from another establishment of the company as separations and accessions began January 1959.

Accessions are the total number of permanent and temporary additions to the employment roll, including both new and rehired employees.

New hires are temporary or permanent additions to the employment roll of persons who have never before been employed in the establishment (except employees transferring from another establishment of the same company) or of former employees not recalled by the employer.

Recalls are permanent or temporary additions to the employment roll of persons specifically recalled to a job in the same establishment of the company following a period of layoff lasting more than 7 consecutive days. (The collection of recalls, as a separate item, began January 1976.)

Other accessions are all additions to the employment roll which are not classified as new hires or recalls. These include transfers from other establishments of the company and former employees returning from military leave or other absences without pay who have been counted as separations. Data on other accessions are not published separately but are included in total accessions.

Separations are terminations of employment during the calendar month and are classified according to cause—quits, layoffs, and other separations—defined as follows:

Quits are terminations of employment initiated by employees, failure to report after being hired (if counted as new hires previously), and unauthorized absences, if, on the last day of the month, the person has been absent more than 7 consecutive calendar days.

Layoffs are suspensions without pay lasting or expected to last more than 7 consecutive calendar days, initiated by the employer without prejudice to the worker.

Other separations, which are not published separately but are included in total separations, are terminations of employment because of discharge, permanent disability, death, retirement, transfer to another establishment of the company, and entrance into the Armed Forces for a period expected to last more than 30 consecutive calendar days.

Relationship of labor turnover to employment series

Month-to-month changes in total employment in manufacturing industries reflected by labor turnover rates are not strictly comparable with the changes shown in the Bureau's employment series for the following reasons: (1) Accessions and separations are computed for the entire calendar month; the employment reports refer to the pay period which includes the 12th of the month; and (2) employees on strike are not counted as turnover actions although such employees are excluded from the employment estimates if the work stoppage extends through the report period.

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, small bias correction factors are applied to selected employment estimates each month. The size of the bias correction factors is determined from past experience. 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 nonsupervisory worker-data are used to weight the hours and earnings 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. The labor turnover estimates are stratified by industry only.

Benchmark adjustments

Employment estimates are compared periodically with comprehensive counts of employment which provide "benchmarks" for the various nonagricultural industries, and appropriate adjustments are made as indicated. The industry estimates are currently projected from March 1980 levels. Normally, benchmark adjustments are made annually.

The primary sources of benchmark information are employment data, by industry, compiled quarterly by States 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 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 1980 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 current employment statistics program 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 large 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

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

Item	Basic estimating cell (industry, region, size, or region/size cell)	Aggregate industry levels (divisions, groups and, where stratified, individual cells)
Monthly data		
All employees	All-employee estimate for previous month multiplied by ratio of all employees in current month to all employees in previous month, for sample establishments which reported for both months. ¹	Sum of all-employee estimates for component cells.
Production or nonsupervisory workers, women employees	All-employee estimate for current month multiplied by (1) ratio of production or nonsupervisory workers to all employees in sample establishments for current month, (2) estimated ratio of women to all employees. ²	Sum of production- or nonsupervisory-worker estimates, or estimates of women employees, for component cells.
Gross average weekly hours	Production- or nonsupervisory-worker hours divided by number of production or nonsupervisory workers. ²	Average, weighted by production- or nonsupervisory-worker employment, of the average weekly hours for component cells.
Average weekly overtime hours	Production-worker overtime hours divided by number of production workers. ²	Average, weighted by production-worker employment, of the average weekly overtime hours for component cells.
Gross average hourly earnings	Total production- or nonsupervisory-worker payroll divided by total production- or nonsupervisory-worker hours. ²	Average, weighted by aggregate hours, of the average hourly earnings for component cells.
Gross average weekly earnings	Product of gross average weekly hours and average hourly earnings.	Product of gross average weekly hours and average hourly earnings.
Labor turnover rates	The number of particular actions (e.g., quits) in reporting establishments divided by total employment in those firms. The result is multiplied by 100.	Average, weighted by employment, of the rates for component cells.
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.
Gross 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
Gross 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 by aggregate payrolls divided by annual aggregate hours.
Gross average weekly earnings	Product of gross average weekly hours and average hourly earnings.	Product of gross average weekly hours and average hourly earnings.
Labor turnover rates	Annual average aggregate (of each labor turnover action) divided by annual average employment.	Annual average aggregate (of each labor turnover action) divided by annual average employment.

¹ The estimates result from multiplying the product shown by bias adjustment factors to compensate for the underrepresentation of newly formed enterprises in the sample and other bias sources.

² The sample production-worker ratio, women-worker ratio, average weekly hours, average overtime hours, and average hourly earnings are

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

Table M. Comparison of nonagricultural employment benchmarks and estimates for March 1980

Industry division	Benchmark, March 1980	Estimate, March 1980	Percent difference
Total	90,253,000	90,316,000	0.1
Mining	990,000	996,000	.6
Construction	4,087,000	4,150,000	1.5
Manufacturing	20,722,000	20,793,000	.3
Transportation and public utilities	5,127,000	5,143,000	.3
Wholesale and retail trade	20,068,000	20,226,000	.7
Finance, insurance, and real estate	5,090,000	5,085,000	-.1
Services	17,636,000	17,478,000	-.9
Government	16,533,000	16,445,000	-.5

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

In the context of the BLS employment and labor turnover statistics programs, with their 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 O shows the approximate coverage, in terms of employment, of the labor turnover sample.

Reliability of the employment estimates

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 cumulate 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

Table N. Approximate size and coverage of BLS employment and payrolls sample, March 1980¹

Industry division	Number of establishments in sample	Employees	
		Number reported	Percent of total
Total	166,300	34,270,000	38
Mining	2,100	369,000	37
Construction	16,100	739,000	18
Manufacturing	44,200	11,175,000	54
Transportation and public utilities:			
Railroad transportation (ICC)	40	482,000	90
Other transportation and public utilities	7,600	2,623,000	57
Wholesale and retail trade	41,100	3,288,000	16
Finance, insurance, and real estate	11,200	1,826,000	36
Services	25,500	2,516,000	20
Government:			
Federal ²	4,500	2,869,000	100
State and local	13,900	8,383,000	61

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

² National estimates of Federal employment by agency are provided to BLS by the Office of Personnel Management. Detailed industry estimates for the Executive Branch, as well as State and area estimates of Federal employment, are based on a sample of 4,500 reports covering about 55 percent of employment in Federal establishments.

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 P presents the average percent revisions of the six most recent benchmarks (excluding the March 1973 adjustment) for major industry divisions. Detailed descriptions of individual benchmark revisions are available from the Bureau upon request.

The hours and earnings estimates for basic estimating cells are not subject to benchmark revisions, although the broader groupings may be affected slightly by changes in employment weights. The hours and earnings estimates, however, are subject to sampling errors which may be expressed as relative errors of the estimates. (A relative error is a standard error expressed as a percent of the estimate.) Relative errors for major industries are presented in table P and for individual industries with the specified number of employees in table Q. 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

Table O. Approximate size and coverage of BLS labor turnover sample, March 1980

Industry	Employees	
	Number reported	Percent of total
Total	9,252,000	40
Manufacturing	8,461,000	41
Mining	227,000	23
Telephone communication	744,000	70

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

(In percent)

Industry division	Average benchmark revision in estimates of employment ¹	Relative errors ²	
		Average weekly hours	Average hourly earnings
Total nonagricultural employment	0.3	-	-
Total private .....	.3	0.1	0.2
Mining	1.0	.5	.5
Construction	1.7	.2	.3
Manufacturing .....	.3	.1	.1
Durable goods .....	.4	.1	.1
Nondurable goods .....	.4	.1	.1
Transportation and public utilities .....	.4	.7	.4
Trade .....	.4	.1	.2
Wholesale .....	.7	.2	.3
Retail .....	.4	.2	.2
Finance, insurance, and real estate .....	.5	.2	.4
Services .....	.7	.4	.8
Government ³ .....	.5	-	-

¹ The average percent revision in employment for the following benchmarks: 1970, 1971, 1974, 1978, 1979 and 1980.

² Relative errors relate to March 1971 data.

³ Estimates for government are based on a total count for Federal Government and, prior to the March 1979 revision, samples for State and local government benchmarked to a quinquennial census of government conducted by the Bureau of the Census.

error from the averages that would have been obtained from a complete census.

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

$$RMSE = \sqrt{(Standard\ Deviation)^2 + (Bias)^2}$$

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

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

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

Size of employment estimate	Root-mean-square error of employment estimates ¹	Relative errors ² (in percent)	
		Average weekly hours	Average hourly earnings
50,000	2,100	0.9	1.5
100,000	4,400	.7	1.1
200,000	7,100	.5	.9
500,000	15,200	.4	.8
1,000,000	17,100	.3	.5
2,000,000	28,500	.3	.5

¹ Assuming 12-month intervals between benchmark revisions.

² Relative errors relate to March 1971 data.

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

STATISTICS FOR STATES AND AREAS

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

For the States and the areas shown in the B and C sections of this periodical, all the annual average data for the detailed industry statistics currently published by each cooperating State agency are presented (from the earliest date of availability of each series) in a summary volume published annually by the BLS.

PRODUCTIVITY DATA

Tables C-10, C-11, and C-12 are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensa-

Table R. Errors of preliminary employment estimates

Category	Root-mean-square error of—	
	Monthly level	Month-to-month change
INDUSTRY DIVISIONS		
Total nonagricultural employment	83,000	69,000
Mining	5,000	5,000
Construction	19,000	16,000
Manufacturing	29,000	27,000
Durable two-digit industries	3,700	3,500
Nondurable two-digit industries	2,500	2,500
Transportation and public utilities	14,000	14,000
Wholesale and retail trade	30,000	27,000
Finance, insurance, and real estate	8,000	7,000
Services	31,000	26,000
Government	46,000	36,000
DETAILED INDUSTRIES: SIZE OF EMPLOYMENT ESTIMATE		
50,000	300	400
100,000	700	700
200,000	1,100	1,100
500,000	3,900	4,100
1,000,000	3,800	3,900
2,000,000	6,000	6,100

NOTE: Division level data are based on differences from January 1975 through December 1980. Detailed industry data are based on differences from August 1978 through June 1979.

tion and gross national product supplied by the U.S. Department of Commerce and the Federal Reserve Board.

Definitions

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 labor input, or labor productivity, measure changes in the volume of goods and services produced per unit of labor.

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

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

Manufacturing data have been revised to reflect revisions in the Federal Reserve Board Index of Industrial Production. 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.

State and Area Unemployment Data (E table)

FEDERAL-STATE COOPERATIVE PROGRAM

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

ESTIMATING METHODS

Labor force and unemployment in 10 large States: New York, California, Illinois, Ohio, New Jersey, Pennsylvania, Michigan, Texas, Massachusetts, and Florida; and two areas: Los Angeles-Long Beach metropolitan area and New York City, are sufficiently reliable to be used directly from the CPS. For a description of the CPS concepts see "Household Data," above.

Monthly employment and unemployment estimates in the remaining 40 States and 214 labor market areas are prepared in several stages.

1. *Preliminary estimate—employment*: The total employment estimate is based primarily 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 residences as used in the CPS. Factors for adjusting from place of work to place of residence have been developed for the major categories of employment by class of worker and industry on the basis of employment relationships which existed at the time of the 1970 Decennial Census. These factors are applied to the payroll employment estimates for the current period to obtain adjusted employment estimates.

2. *Preliminary estimate—unemployment*: In the current month, the estimate of unemployment is an aggregate of the estimates for each of three building block categories: (1) Persons who were previously employed in industries covered by State unemployment insurance (UI) laws; (2) those previously employed in industries not covered by these

laws; and (3) those who were either entering the 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 unemployment 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 non-covered 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) proportion of the working age population that is considered "youth." The composite estimate of total entrants is defined as:

$$U = A(X + E) + BX, \text{ where}$$

U = total entrant unemployment

E = total employment

X = total experienced unemployment

A, B = synthetic factors incorporating seasonal variation and an assumed relationship between the proportion of youths in the working population and the historical relationship of entrants to the experienced unemployed (B factor) or the experienced labor force (A factor).

3. *Correction factors for employment and unemployment* are then applied at the State level to the UI-based estimates obtained above for

each of the 40 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).

4. *Substate adjustment for additivity.* Independent estimates of employment and unemployment are prepared both for the State (obtained directly from the CPS in the 10 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 substate estimates of employment and unemployment add to the independent State totals. In California and New York, which also have substate areas taken directly from the CPS, the additivity adjustment for the remaining areas is applied to the State total minus the direct CPS area.

5. *Benchmark correction procedures.* Once each year monthly estimates prepared by State employment security agencies using UI-based estimating procedures are adjusted, or benchmarked, by BLS to the annual average CPS estimates for the 40 States for which monthly CPS estimates are not available. This adjustment is necessary because the State-prepared estimates are not as reliable as the CPS annual averages due to differences in State UI laws, the structural limitations of the UI-based estimating method, and errors in the UI data.

The 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 second-stage estimates are forced into agreement with CPS annual averages. In the 10 States which use CPS estimates monthly, no benchmark correction is required, as the average of the 12 monthly State CPS estimates will equal the 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 data are published regularly in *Employment and Earnings*.

The seasonal adjustment programs used for these series are based on an *adaptation* of the standard ratio-to-moving average method. They provide for "moving" adjustment factors to take account of changing seasonal patterns. A detailed description of the method is given in the publication, *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, the 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 new 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, February 1980. 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 essentially places more emphasis on recent data, provides better seasonal adjustments than does the X-11 method alone.

The second change is that seasonal factors are now being calculated for use during the first 6 months of the year rather than for the entire year. In July of each year, the BLS will calculate and publish (in *Employment and Earnings*) a new set of seasonal factors for use in the second half, based on the experience through June. Revisions of historical data for the most recent 5 years will continue to be made once a year, at the beginning of each calendar year.

All civilian 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 (males and females under and over 20 years of age) are separately adjusted for seasonal variation and are then added to derive seasonally adjusted total figures. In order to provide seasonally adjusted total employment and civilian labor force estimates, the appropriate series are aggregated. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unemployment (the sum of 4 seasonally adjusted sex-age components) by the civilian labor force (the sum of 12 seasonally adjusted sex-age components).

Revised seasonally adjusted data for selected labor force series based on the experience through December 1980, new seasonal adjustment factors to be used to calculate the overall unemployment rate for the first 6 months of 1981, and a description of the current seasonal adjustment methodology are published in the January 1981 issue of *Employment and Earnings*. Revised seasonally adjusted data covering the entire 5-year revision period for a broader range of labor force series appear in the February 1981 issue of this publication. Many additional series, which are either components or aggregates of the series presented, are available from the BLS upon request.

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 estimates are based on data through March of 1981. The ARIMA model options for projecting the data series for 1 year ahead have been used in seasonally adjusting the establishment series, introduced with June 1981 data.

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 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, 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. Beginning with data for July 1981, these failed or unsatisfactory seasonally adjusted series are used in the aggregation to broader level seasonally adjusted series. In prior months, the unadjusted series were used in the aggregation process.

The seasonally adjusted establishment data for Federal Government are based on a series which excludes the Christmas temporary help employed by the Postal Service in December. The employment of these workers constitutes the only significant seasonal change in

Federal Government employment during the winter months. Furthermore, the volume of such employment may change substantially from year to year because of administrative decisions by the Postal Service. Hence, it was considered desirable to exclude this group from the data upon which the seasonally adjusted series is based.

For labor turnover rates, seasonal adjustment factors are applied directly to the component series. These series are then aggregated to obtain total levels (total accessions and total separations). These factors are derived by the *X-11 ARIMA Method* using the trading day option except for recalls. As a result, these series are adjusted for the number of times each day of the week occurs in a given month, as well as for the month of the year.

The revised seasonally adjusted series for the establishment data reflect experience through March 1981. Seasonal factors to be used for current adjustment appear in the July 1981 issue of *Employment and Earnings*.

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