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In this issue:
Job growth in 1986
Status of...
Unemployment insurance changes in 1986





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William E. Brock, Secretary

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Janet L. Norwood, Commissioner

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Labor Month In Review



WORKER DISLOCATION REPORT. A task force appointed by U.S. Labor Secretary William E. Brock reported on a year-long study of the problems of workers displaced by plant closings and mass layoffs.

Conclusions. The task force determined that:

- Some business closings and permanent layoffs are inevitable and can help in achieving and maintaining a competitive, healthy economy and a strong position in the international marketplace.
- New institutional mechanisms must be established as part of the Nation's employment and training system.
- The most effective and successful dislocated worker adjustment programs are those where employers and workers (and their unions) are directly involved in program design and delivery.
- The earlier the notification of a layoff or closure, the more effective is the delivery of public and private services to dislocated workers.
- An identifiable public agency should be available as a resource, have rapid response capability, and coordinate public efforts to aid displaced workers. Employers should be required to notify the agency of planned layoffs or closures.
- Public resources should be provided for readjustment services, retraining, and temporary income support for displaced workers.
- Public and private efforts should be linked to better aid displaced workers.
- A variety of service options for dislocated workers should be provided.
- Improved basic educational skills and recurrent vocational training for workers should be provided to help ensure job mobility and security.
- Fully meeting the needs of displaced workers and of the affected communities can only be accomplished within the framework

of an economy providing an adequate number of jobs.

Recommendations. The task force calls for action by both the private and public sectors to establish institutional arrangements that will provide the ability to respond rapidly to dislocated workers. The task force recommends that:

- The private sector should provide greater effort for the alleviation of displaced worker and community problems.
- Private organizations should continue an active and aggressive role in helping to inform employers about techniques that work best in specific circumstances.
- Guidelines describing responsible private-sector behavior on closings or layoffs should be more widely communicated to employers.
- A new national public effort, initially funded at \$900,000, should be established to provide for early and rapid response to displaced workers' problems. Under this new proposal, Title III of the Job Training Partnership Act would be replaced by a new Federally supported and guided structure providing for State-administered training and reemployment assistance to meet the needs of displaced workers.
- Other services under this proposal would be adjustment assistance and a range of labor market services; labor market information about specific plants; testing, assessment, and counseling; job search training; and a client-oriented job development effort.
- The resources and priorities of the U.S. Employment Service should be refocused and redirected to meet the needs of the dislocated.
- Income support for dislocated workers should last long enough to support substantive training and job search activities. Workers should have incentives to enroll earlier in training programs, and their income maintenance should be used to en-

courage individuals to complete their training.

- The Secretary of Labor should conduct further testing and development of reemployment incentives.
- The Secretary of Labor should encourage and evaluate experiments designed to assist individual dislocated workers in starting their own businesses and facilitate feasibility studies of the purchase of businesses by groups of workers facing displacement.
- The source of funds for these programs should be general revenues. If the Congress determines it cannot fund this initiative from general revenues, alternative methods of financing should be considered.

Malcolm R. Lovell, Jr., director of the Labor-Management Institute at the George Washington University, chaired the task force, which included six representatives from business, six from labor, and eight from government, academic, and economic research organizations. Copies of the report *Economic Adjustment and Worker Dislocation in a Competitive Society* are available from the U.S. Department of Labor, Office of Information and Public Affairs, Room S1032, Washington, DC 20210. □

Publication Award

The *Monthly Labor Review* was honored with an Award of Excellence in the annual competition sponsored by the Washington chapter of the Society for Technical Communication. The *Review* competed against hundreds of publications produced in 1986 by trade associations, private research and educational institutions, corporations, and government agencies. Contest criteria included audience definition, writing, editing, and graphics. Judging was based on the May, June, and July 1986 issues. The Award of Excellence automatically enters the *Review* in the International Publications competition sponsored by the Society for Technical Communication.

The employment situation during 1986: job gains continue, unemployment dips

The labor market continued to improve in the fourth year of the economic recovery—employment grew and the unemployment rate edged below 7 percent; nearly all of the job increase occurred in the service-producing sector

SUSAN E. SHANK AND STEVEN E. HAUGEN

Moderate employment gains continued in 1986, as the U.S. economy completed its fourth year of expansion following the deep 1981–82 recession. Unemployment declined slightly during the year, repeating the pattern of slow improvement evident in 1985. For all of 1986, the civilian unemployment rate averaged 7.0 percent—down from 7.2 percent in 1985 and 7.5 percent in 1984.

Nearly all of the 1986 employment increase took place in the service-producing sector, with particularly large gains in services, finance, insurance, and real estate. In contrast, manufacturing employment declined, and the number of mining jobs dropped markedly—reflecting reduced activity in oil and gas extraction because of sharply lower crude oil prices. Construction job growth, which had been very strong during the previous 3 years, moderated in 1986.

Civilian employment

The number of employed persons rose by about 2.1 million during 1986 (after adjustment is made for revisions in the underlying population estimates used in the Current Population Survey¹), similar to the gain registered in the prior year. (See table 1.) These increases were more moderate than in the “rebound” years immediately after the 1981–82 recession; civilian employment had jumped by about 3½ million in both 1983 and 1984. This pattern of very sharp

job gains in the first 2 years of a recovery followed by slower growth in subsequent years is typical of most of the business cycles since World War II.

Adult women accounted for 1.4 million of the 1986 job increase, compared with 600,000 for adult men and 100,000 for teenagers. For adult men, this employment rise was slightly smaller than that posted in 1985. In contrast, the small employment increase for teenagers was the first recorded since 1979. This development reflected a slight population increase for those ages 16 to 19—reversing the declines that took place from the late 1970’s through 1985, when the last of the baby-boom generation moved through the teen years.

Whites, blacks, and Hispanics. The slower rate of employment growth over the past 2 years has been evident among the three major race/ethnic groups, as reflected in the following employment-population ratios. For both blacks and whites, the slowdown in employment growth can be attributed entirely to adult men. Although both men and women posted sharp employment rebounds in the 2 years immediately after the cyclical trough, only women continued to show strong gains in 1985 and 1986.

Fourth-quarter averages

	1982	1984	1986
White	58.3	60.7	61.8
Black	48.9	53.4	54.3
Hispanic	53.8	58.5	59.3

Susan E. Shank and Steven E. Haugen are economists in the Division of Labor Force Statistics, Bureau of Labor Statistics.

Full- and part-time workers. As has historically been the case, the bulk of the employment growth in 1986 occurred among full-time workers (35 hours or more per week). However, a sizable proportion of the increase took place among persons voluntarily working part time. Their number rose to 15.3 million, about 400,000 more than in 1985.² As a result, voluntary part time edged up to about 14 percent of total employment in 1986; however, this proportion remained below the levels that prevailed from the mid-1970's

through the early 1980's. Adult women and teenagers accounted for most of the increase in voluntary part-time work, many taking positions in the retail trade and services industries.

In addition to those who work part time voluntarily, there is a substantial number of persons who want full-time employment but must settle for part time. The two major reasons for this situation—referred to as employed part time for economic reasons—are slack work (an employer-initiated

Table 1. Selected labor force indicators by sex, age, race, and Hispanic origin, seasonally adjusted quarterly averages, 1982-86

[Numbers in thousands]

Characteristic	1982	1984	1985	1986			
	IV	IV	IV	I	II	III	IV
Total							
Civilian labor force	110,959	114,259	116,187	117,008	117,628	118,171	118,558
Percent of population	64.1	64.5	64.9	65.1	65.2	65.3	65.4
Employed	99,120	105,938	107,973	108,752	109,249	109,980	110,420
Employment-population ratio	57.3	59.8	60.3	60.5	60.6	60.8	60.9
Agriculture	3,471	3,323	3,093	3,212	3,171	3,108	3,179
Nonagriculture	95,649	102,615	104,880	105,540	106,078	106,873	107,241
Unemployed	11,839	8,321	8,214	8,256	8,379	8,191	8,138
Unemployment rate	10.7	7.3	7.1	7.1	7.1	6.9	6.9
Men, 20 years and over							
Civilian labor force	58,375	60,014	60,580	61,137	61,189	61,329	61,646
Percent of population	78.8	78.3	78.1	78.2	78.1	78.0	78.1
Employed	52,553	56,249	56,929	57,428	57,417	57,579	57,860
Employment-population ratio	70.9	73.4	73.4	73.5	73.2	73.2	73.3
Unemployed	5,822	3,765	3,651	3,710	3,772	3,750	3,786
Unemployment rate	10.0	6.3	6.0	6.1	6.2	6.1	6.1
Women, 20 years and over							
Civilian labor force	44,112	46,348	47,726	47,990	48,451	48,916	48,993
Percent of population	52.9	54.0	54.9	55.0	55.4	55.8	55.7
Employed	40,127	43,243	44,668	44,902	45,362	45,910	46,048
Employment-population ratio	48.1	50.3	51.4	51.5	51.9	52.3	52.4
Unemployed	3,985	3,105	3,058	3,088	3,089	3,006	2,945
Unemployment rate	9.0	6.7	6.4	6.4	6.4	6.1	6.0
Both sexes, 16 to 19 years							
Civilian labor force	8,472	7,898	7,881	7,880	7,988	7,926	7,919
Percent of population	54.3	54.2	54.5	54.5	55.2	54.7	54.4
Employed	6,440	6,446	6,376	6,422	6,470	6,492	6,512
Employment-population ratio	41.3	44.2	44.1	44.4	44.7	44.8	44.8
Unemployed	2,032	1,451	1,505	1,458	1,518	1,434	1,407
Unemployment rate	24.0	18.4	19.1	18.5	19.0	18.1	17.8
White							
Civilian labor force	96,623	98,812	100,536	101,126	101,571	102,098	102,418
Percent of population	64.4	64.7	65.2	65.3	65.4	65.6	65.7
Employed	87,452	92,608	94,472	94,945	95,366	96,013	96,320
Employment-population ratio	58.3	60.7	61.3	61.3	61.4	61.7	61.8
Unemployed	9,171	6,204	6,063	6,182	6,205	6,086	6,098
Unemployment rate	9.5	6.3	6.0	6.1	6.1	6.0	6.0
Black							
Civilian labor force	11,503	12,251	12,473	12,589	12,707	12,605	12,715
Percent of population	61.5	62.9	63.0	63.4	63.7	62.9	63.2
Employed	9,155	10,403	10,592	10,732	10,822	10,779	10,924
Employment-population ratio	48.9	53.4	53.5	54.0	54.3	53.8	54.3
Unemployed	2,348	1,848	1,881	1,857	1,885	1,826	1,791
Unemployment rate	20.4	15.1	15.1	14.7	14.8	14.5	14.1
Hispanic origin							
Civilian labor force	6,826	7,612	7,802	7,881	8,020	8,143	8,249
Percent of population	63.5	65.4	64.6	64.7	65.3	65.7	66.0
Employed	5,783	6,813	6,960	7,027	7,163	7,268	7,409
Employment-population ratio	53.8	58.5	57.6	57.7	58.3	58.6	59.3
Unemployed	1,043	799	842	855	857	876	839
Unemployment rate	15.3	10.5	10.8	10.8	10.7	10.8	10.2

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

reduction in hours) and an inability to find a full-time job. At about 5½ million in 1986, the number of workers on part-time schedules for economic reasons showed no improvement from the 1985 level and was relatively high by historical standards.

Industry developments

Nonfarm payroll employment (as measured by the survey of business establishments³) topped 100 million in the summer of 1986 and reached 101 million by the fourth quarter. (See table 2.) Practically all of the 2.4-million job increase during 1986 took place in the service-producing sector. (See chart 1.) However, these job gains were smaller than in 1985—particularly in wholesale trade and government. Within the goods sector, construction employment rose over the year, while mining fell sharply. The number of manufacturing jobs also dropped during 1986, even though there was a small rebound in the fourth quarter. Despite the decline in manufacturing employment, however, the factory workweek and overtime hours both remained relatively high.

Service-producing sector. The services, retail trade, and finance, insurance, and real estate industries together added just about 2 million new jobs in 1986—similar to the increase in 1985. The services division posted a 1-million job gain, with the largest increases continuing to occur in business and health services. These two components, which represent about half of services employment, accounted for approximately 60 percent of the over-the-year growth. Retail trade employment also advanced in 1986, as eating and drinking places and food stores continued to add workers.⁴ Smaller, but sustained job gains also took place in auto dealers and service stations.

In finance, insurance, and real estate, employment rose by approximately 6 percent in 1986—the largest relative gain for any industry division. Moreover, this was the only division in which the pace of job gains accelerated between 1985 and 1986. The finance component rose markedly—especially savings and loan associations, mortgage bankers and brokers, and stock brokers and dealers, as sharply lower interest rates caused increased demand for new and refinanced home mortgages, while higher stock prices led to more trading activity.

Government employment growth slowed to about 300,000 in 1986 from 425,000 in the previous year. Federal government employment, which had risen moderately in 1985, was essentially unchanged during 1986. However, small job gains continued at both the State and local levels. Wholesale trade and transportation and public utilities each showed only moderate employment increases during 1986. The recent slowing in wholesale trade job growth probably reflects the general weakness in the goods-producing sector. Within transportation and public utilities, divergent trends continued in 1986, as the transportation component increased slightly, while the communications and public utilities segment remained flat.

Goods-producing industries. Employment in the goods-producing sector fluctuated around 25 million during 1985 and 1986, after rebounding strongly in the 2 years immediately following the 1981–82 recession trough. During 1986, mining employment plummeted, while manufacturing declined moderately, and construction job growth, which had been very robust, slowed markedly.

Changes in mining employment over the past decade have been dominated by developments in oil and gas extraction, which, in turn, were closely related to crude oil prices. As world oil prices began to plunge in 1986, the oil and gas extraction industry lost about 150,000 jobs, one-quarter of its work force. However, the drop in mining jobs slowed during the third quarter and came to a virtual halt by the fourth quarter.

Manufacturing employment rebounded from a recession low of 18.1 million in late 1982 to 19.5 million during the second half of 1984. However, during 1985–86, the number of workers on factory payrolls trended downward—to about 19.1 million in the second half of 1986. Nearly all of the job loss over this period occurred in durable goods—particularly in primary metals (down 100,000) and machinery (down 200,000). Smaller declines took place in fabricated metals and electrical equipment during 1985 and the first half of 1986, but employment leveled off in both industries in the second half of 1986. Only three manufacturing industries registered meaningful job gains in 1986; lumber and wood products, food, and printing and publishing each added about 40,000 jobs.

Construction employment leveled off at just about 5.0 million from the spring of 1986 to yearend, after having risen by 30 percent over the previous 3½ years. This was consistent with the pattern of new housing starts, which rose strongly in the first few years of recovery, but then decreased in the second half of 1986. The slowing of construction job growth was also in line with the decrease in the value of private nonresidential construction—especially industrial, office, and other commercial buildings.⁵ The weakness in manufacturing and a surplus of office and other commercial structures were major factors in the decline in nonresidential construction.

Hours of work. The average workweek of production or nonsupervisory workers on private nonagricultural payrolls edged down to 34.7 hours in 1986 from 34.9 hours in 1985. This measure has trended downward gradually over the past two decades—in tandem with the increasing importance of the service-producing sector, where the workweek is typically shorter and marked by a greater degree of part-time work. However, the index of aggregate weekly hours, which combines workweek and employment effects, continued to advance for the fourth year in a row. This index averaged 119.0 (1977=100) in the fourth quarter of 1986, up from 116.5 a year earlier and well above the 102.6 registered at the recession trough in the fourth quarter of 1982.

In manufacturing, the workweek remained high by historical standards throughout the 1984–86 period, averaging 40.6 hours, the highest sustained level since 1973. Factory overtime, at 3.5 hours per week in 1986, was also relatively high. The strong performance of the workweek combined with relatively weak employment suggests that many employers have decided to meet their demands for labor through increased hours rather than by hiring new workers. The index of aggregate weekly hours in manufacturing declined slightly in both 1985 and 1986—to about 93.1 (1977 = 100) in the fourth quarter of 1986. This very cyclical measure had been as high as 107.6 in the first quarter of 1979; it then fell to 83.3 in the fourth quarter of 1982, and subsequently rebounded to 95.2 in mid-1984.

Unemployment

Unemployment edged downward during 1986, continuing the pattern of slow improvement exhibited in 1985. Both the number of unemployed persons (8.1 million in the fourth quarter) and the civilian unemployment rate (6.9 percent) were down marginally from the levels a year earlier. Most labor force groups reflected the overall pattern, registering either small drops or little change in unemployment over the year.

Major demographic groups. The jobless rate for adult women declined to 6.0 percent by the fourth quarter of 1986, after holding steady at around 6.7 percent for most of 1984 and 1985. In contrast, the rates for adult men (6.1 percent) and teenagers (17.8 percent) showed little or no change over the year.

Similarly, there were only modest, if any, improvements among the three major race/ethnic groups. The unemployment rate for blacks, at 14.1 percent in the fourth quarter, was still about $2\frac{1}{2}$ times the 6-percent rate for white workers, while the figure for Hispanics (10.2 percent) remained about midway between the two.

Industry and occupation. For workers in most industry and occupational groups, unemployment rates in 1986 were little changed from those in 1985, although there were a few exceptions. For example, the adverse effects of the drop in petroleum prices were reflected in a near doubling of the jobless rate for mining workers during 1986—to around 16 percent in the third quarter. Also, the rate for construction workers edged up in the fourth quarter of the year, consistent with the slowing of employment growth.

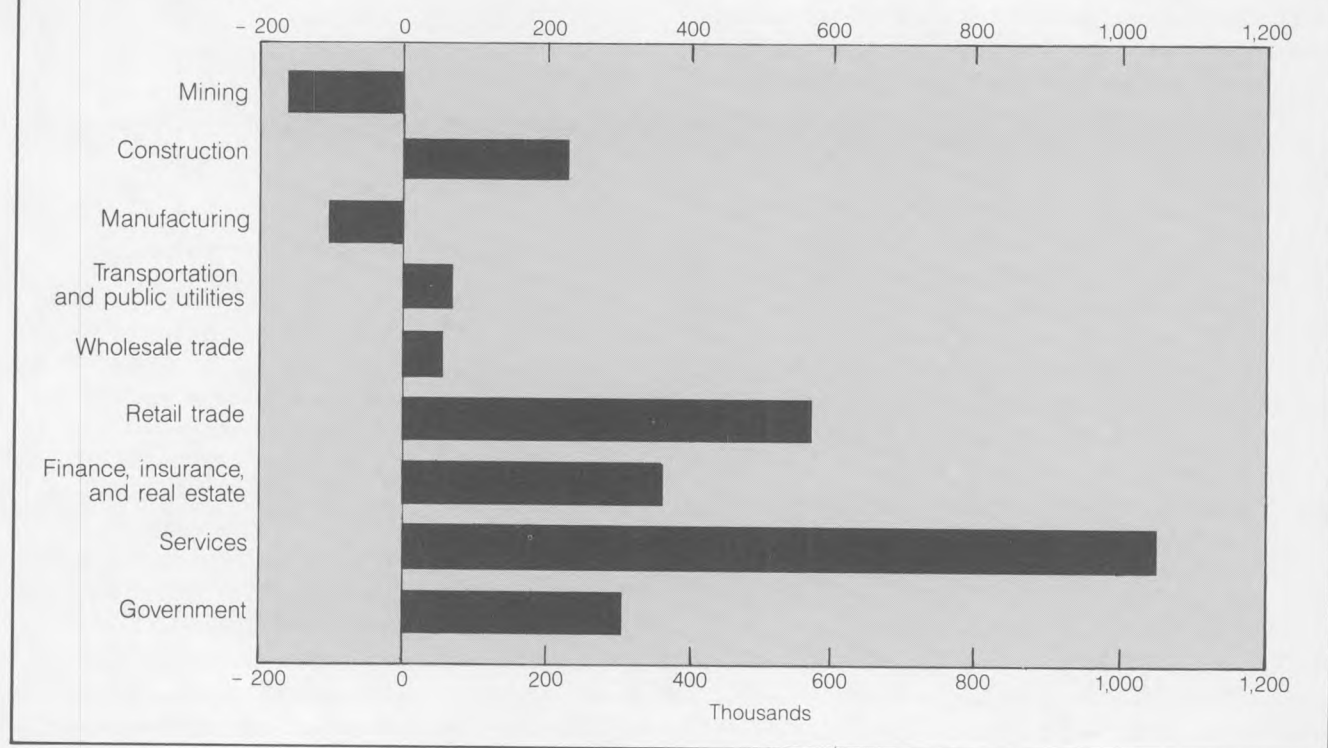
Table 2. Employees on nonagricultural payrolls by industry, seasonally adjusted quarterly averages, 1982–86

[Numbers in thousands]

Industry	1982	1984	1985	1986			
	IV	IV	IV	I	II	III	IV ¹
Total	88,725	95,907	98,668	99,403	99,848	100,316	101,075
Goods-producing	22,982	24,943	24,937	25,028	24,952	24,872	24,897
Mining	1,029	958	907	876	794	755	742
Oil and gas extraction	651	610	565	538	475	432	419
Construction	3,837	4,498	4,769	4,868	4,964	5,001	4,999
General building contractors	959	1,189	1,282	1,316	1,309	1,302	1,301
Manufacturing	18,116	19,486	19,261	19,284	19,194	19,116	19,156
Durable goods	10,485	11,635	11,454	11,446	11,367	11,289	11,282
Nondurable goods	7,631	7,851	7,808	7,838	7,827	7,827	7,873
Service-producing	65,743	70,964	73,731	74,375	74,896	75,444	76,178
Transportation and public utilities	5,022	5,201	5,270	5,281	5,233	5,286	5,341
Transportation	2,735	2,965	3,037	3,052	3,037	3,069	3,112
Communications and public utilities	2,288	2,236	2,232	2,229	2,195	2,217	2,229
Wholesale trade	5,214	5,645	5,800	5,838	5,855	5,857	5,861
Durable goods	3,034	3,337	3,451	3,477	3,476	3,484	3,489
Nondurable goods	2,179	2,308	2,349	2,361	2,379	2,372	2,372
Retail trade	15,193	16,931	17,585	17,786	17,902	18,029	18,172
General merchandise stores	2,139	2,316	2,324	2,331	2,345	2,358	2,356
Food stores	2,510	2,685	2,848	2,891	2,920	2,947	2,970
Automotive dealers and service stations	1,635	1,835	1,919	1,935	1,943	1,961	1,977
Eating and drinking places	4,873	5,527	5,785	5,851	5,889	5,934	6,011
Finance, insurance, and real estate	5,356	5,779	6,068	6,155	6,261	6,362	6,435
Finance	2,664	2,890	3,039	3,081	3,139	3,190	3,223
Insurance	1,715	1,785	1,861	1,889	1,918	1,953	1,980
Real estate	976	1,105	1,168	1,185	1,204	1,219	1,232
Services	19,134	21,237	22,410	22,643	22,940	23,244	23,463
Business services	3,289	4,197	4,601	4,682	4,766	4,855	4,935
Health services	5,892	6,177	6,400	6,472	6,542	6,628	6,698
Government	15,824	16,171	16,599	16,672	16,704	16,666	16,906
Federal	2,745	2,830	2,904	2,920	2,896	2,881	2,899
State	3,641	3,773	3,900	3,922	3,934	3,924	3,974
Local	9,438	9,568	9,795	9,830	9,875	9,862	10,033

¹ Data are preliminary.

Chart 1. Employment changes by major industry, fourth quarter 1985-86 averages, seasonally adjusted



In contrast, the unemployment rate for workers in manufacturing, an industry plagued by a variety of problems for several years, declined slightly between 1985 and 1986—to 7.1 percent by yearend. One possible explanation for this seemingly inconsistent development is that many manufacturing workers who had been laid off earlier realized that recall was unlikely and either found employment in another industry or withdrew from the labor force.⁶

Duration and reasons. The length of time that persons remain unemployed and the reasons for their unemployment are important variables in assessing the health of the Nation's job market. There were minor shifts within these categories of unemployment that were consistent with a slight improvement in the jobless picture. For example, the proportion of unemployed persons who were jobless for 27 weeks or more—often referred to as the very long-term unemployed—edged down to 14½ percent by late 1986 from about 15 percent in late 1985. In line with this decline, the mean duration of unemployment, at 15 weeks in the fourth quarter of 1986, was slightly below the figure for late 1985. The recent decline in the mean duration followed much larger decreases in the earlier stages of the current recovery—from 19.7 weeks in the fourth quarter of 1983 to 15.4 weeks in the fourth quarter of 1985.

Unemployed persons are also classified by reason for joblessness: job losers, job leavers, labor force entrants, and reentrants. A slight redistribution of the unemployed among

these categories in 1986 provided further evidence of some improvement in the job market. As the following tabulation shows, the proportion of the unemployed who lost their job because of layoff declined from 14 to 13 percent during 1986.

	Fourth-quarter averages		
	1982	1985	1986
Total unemployed	100.0	100.0	100.0
Job losers	61.3	49.3	48.6
On layoff	20.7	14.1	13.2
Other job losers	40.7	35.2	35.3
Job leavers	6.7	10.8	12.8
Reentrants	21.1	27.2	26.0
New entrants	10.9	12.8	12.6

The proportion of the unemployed who had left jobs voluntarily to look for different ones rose from about 11 to 13 percent over the past year. Not only is the decline in the number of unemployed persons on layoff a positive development, but an increase in the job leavers category can also be viewed as a sign of an improving economy, because it often reflects increased worker confidence in the job market. The proportion of unemployed persons who were reentering the labor force declined slightly in 1986, while that for new entrants changed little.

Discouraged workers. The vast majority of persons who elect to remain out of the labor force do not want to work. However, some of them want a job but do not actually seek

work for a number of reasons, including health problems, family responsibilities, and school enrollment. Another group of persons not in the labor force indicate that they want to work but do not look for a job because they think they cannot find one. Such persons are typically referred to as discouraged workers. While not included among the unemployed because they are not actively seeking work, these persons provide another measure of labor market difficulty.

In the fourth quarter of 1986, there were 1.1 million persons classified as discouraged workers, essentially unchanged from the level a year earlier. About three-fourths of this group cited job market factors—for example, the belief that no work was available—as the principal reason for not looking, while the remainder indicated personal factors. The number of discouraged workers declined from 1.8 million in late 1982 to 1.3 million by early 1985, with virtually all of the decline occurring among persons citing job market factors. Overall, the number of discouraged workers in 1986 still exceeded the levels registered prior to the back-to-back recessions in the 1980–82 period.

Cyclical comparisons

The present economic expansion completed its fourth year in November 1986, making it (at the time of this writing) the third longest period of sustained growth since World War II.⁷ The expansion that followed the 1960–61 recession lasted almost 9 years, while the one after the 1973–75 recession ran nearly 5 years—from March 1975 through January 1980. In this section, comparisons are based on percentage changes in selected series over the 4-year periods following business cycle troughs in March 1975 and November 1982.⁸

In terms of overall labor market performance, the 1975–79 expansion was somewhat more robust than the current expansion at the 4-year point. Employment rose more in the 1975–79 expansion than in the 1982–86 period, while the unemployment rate dropped to a similar degree in both expansions. However, it is important to note that, although both recessions were similar in terms of length and severity, the labor market was considerably stronger before the onset of the 1973–75 recession. The unemployment rate averaged 4.9 percent in the year before the 1973–75 recession, versus 7.5 percent in the comparable period prior to the 1981–82 recession. Unemployment was at a high level when the 1981–82 recession began because the recovery from the 1980 recession was brief and incomplete.

Unemployment. Overall, there was little difference in the degree to which the unemployment rate fell during the two recovery periods under examination. As the following tabulation shows, the rate for all civilian workers fell from 10.8 to 6.9 percent in the 1982–86 period and from 8.6 to 5.8 percent in the post-1975 recovery period. This translates into a proportionate decline of slightly over a third in the 1982–86 period, only marginally steeper than that exhibited from 1975 to 1979.⁹

	March		November	
	1975	1979	1982	1986
Total	8.6	5.8	10.8	6.9
Men, 20 years and over	6.8	4.1	10.0	6.2
Women, 20 years and over	8.3	5.8	9.1	6.1
Both sexes, 16 to 19 years	19.9	15.9	24.1	18.2
White	7.8	5.1	9.6	6.0
Black	15.1	12.5	20.2	14.2
Hispanic	12.1	7.9	15.2	9.6

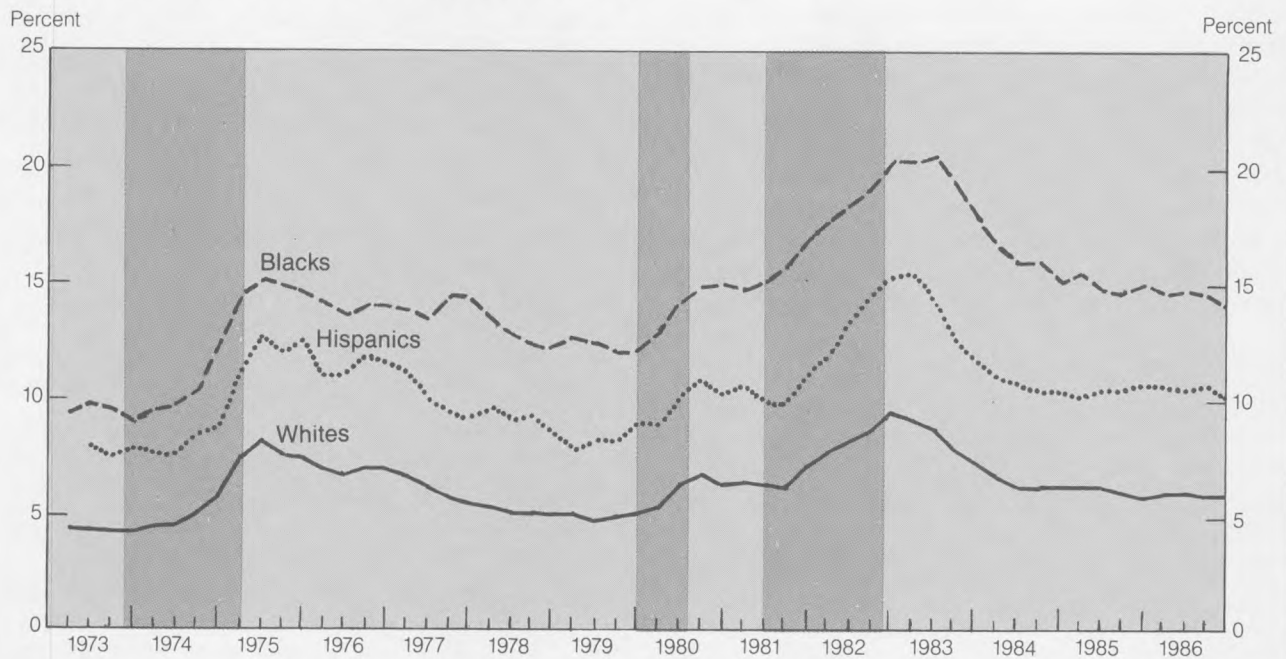
Consistent with the overall pattern, unemployment rates for most labor force groups fell by roughly similar amounts during the two expansions. This was true for adult men and women, as well as for white and Hispanic workers. However, for black workers and teenagers, jobless rates fell more over the 1982–86 period than in the earlier recovery period. (See chart 2.)

Employment. The number of employed persons rose by about 11½ percent during the 1982–86 expansion, somewhat less than the tremendous increase during the 1975–79 rebound.¹⁰ The tabulation below shows employment changes during the two periods for major demographic groups. The rise in teenage employment during the most recent expansion was almost trivial compared with the large advance in the earlier period. In large part, this difference reflects the disparity in their population growth over the two periods. From the mid-1960's through the mid-1970's the teenage population rose sharply. However, after this period, their population leveled off, and then declined from 1979 until 1986. Clearly, these swings in the teenage population have overwhelmed cyclical effects on youth employment in recent years. Although the job increase for adult women was somewhat smaller in the last 4 years than the phenomenal growth recorded in the 1975–79 expansion, it was still very large. Employment increases for adult men were similar in both periods.

	Percent change	
	1975–79	1982–86
Total	15.6	11.4
Men, 20 years and over	11.2	10.2
Women, 20 years and over	22.5	14.8
Both sexes, 16–19 years	15.9	0.3
White	14.5	10.2
Black	19.1	18.9
Hispanic	32.0	29.2

White workers accounted for virtually all of the slower employment growth in the current expansion. In contrast, job gains for blacks and persons of Hispanic origin, whose populations have been growing rapidly, were about the same in both periods.

Chart 2. Unemployment rates for whites, blacks, and persons of Hispanic origin, seasonally adjusted, quarterly averages, 1973–86



NOTE: Shaded areas indicate recessions, as designated by the National Bureau of Economic Research.

As the following tabulation shows, total nonfarm payroll employment, as measured by the business survey, rose about 14 percent in the present expansion, compared with 17 percent in the 1975–79 period.

	Percent change	
	1975–79	1982–86
Nonfarm total	17.0	14.0
Goods-producing	17.9	8.5
Mining	26.9	-27.7
Construction	26.7	29.9
Manufacturing	15.8	6.0
Service-producing	16.6	15.9

Job growth in the goods-producing sector was much weaker over the 1982–86 period than it was in the earlier expansion. Manufacturing employment, which had rebounded very strongly in the 1975–79 expansion, rose by only 6 percent over the past 4 years.

While nearly all manufacturing industries experienced weaker job growth in the 1982–86 expansion, the difference was especially large in the metals and machinery industries. Primary metals employment reversed direction—from a 7-percent increase in the 1975–79 period to an 8-percent decrease in the 1982–86 period. Fabricated metals and machinery both registered job gains of 17–18 percent in the 1975–79 expansion, while in the 1982–86 period, there was no change in machinery employment and only a 6-percent

increase in fabricated metals. Together, these three industries added 700,000 jobs in the 1975–79 expansion, but showed no net change in the 1982–86 period.

Mining employment has been extremely volatile in recent years, primarily due to wild swings in crude oil prices. The large drop in mining jobs over the last 4 years just about matched the jump in the 1975–79 period. In contrast, the construction industry added jobs at a faster rate in the current expansion than in the 1975–79 period. Residential construction advanced very strongly in the first 2 years of the current expansion, and private nonresidential activity picked up steam beginning in 1984.

The service-producing sector posted strong and roughly similar job gains in the two periods studied. Retail trade; finance, insurance, and real estate; and services set the pace in both expansions, as each division grew by about 20 percent. However, increases were more moderate in this expansion for local government and transportation and public utilities employment (6 to 7 percent) than in the 1975–79 period (10 to 12 percent).

THE LABOR MARKET continued to improve in 1986, although at a slower pace than in the first 2 years of recovery from the 1981–82 recession. Civilian employment rose by about 2 million each in 1985 and 1986, while the unemployment rate continued to edge downward, reaching 6.9 percent in the second half of 1986. Virtually all of the job gains in

1986 took place in the service-producing sector, with the services industry itself accounting for a large proportion of the growth. In contrast, goods-producing employment remained weak. Manufacturing employment continued to decline, while there was a sharp drop in mining and a marked slowing in construction job growth.

At the 4-year point in the current economic expansion, employment growth and the reduction in unemployment have both been substantial. However, in percentage terms, the employment increase in the 1982–86 period was less than the advance posted during the 1975–79 expansion,

while the civilian unemployment rate fell by similar amounts in both periods. The extremely large employment increase in the 1975–79 period was led by women and teenagers—both of whom also had experienced tremendous labor force growth during these years. Nonfarm payroll employment also rose more in the 1975–79 period than it did in the current expansion. Most of this difference was attributable to the goods-producing sector, in which the rate of job growth in the current expansion was only half that recorded in the 1975–79 period. □

—FOOTNOTES—

¹ The Current Population Survey is a monthly sample survey of about 60,000 households and provides information on the labor force, employment, and unemployment by demographic and economic characteristics. In January 1986, revised population estimates were introduced into the CPS. These estimates include an explicit allowance for undocumented immigration since 1980, as well as an improved estimate of emigration. The net effect of these changes was to cause jumps of 350,000–400,000 each in the population, labor force, and in employment (between December 1985 and January 1986). Allowances are made for these breaks in series in the discussion of over-the-year changes. However, with the exception of data for persons of Hispanic origin, data shown in table 1 for periods prior to 1986 have not been revised. For more information, see "Changes in the Estimation Procedure in the CPS Beginning in January 1986" in the February 1986 issue of *Employment and Earnings*.

² A more comprehensive measure of part-time workers based on "usual hours" instead of voluntary or involuntary status was recently introduced. Based on the new definition, there were about 19 million persons who usually worked 1 to 34 hours in 1986. The more traditional measure is used in this article to differentiate trends in the number of persons working part time for economic or for other reasons. See Thomas J. Nardone, "Part-time workers: who are they?" *Monthly Labor Review*, February 1986, pp. 13–19.

³ The Current Employment Statistics program is a monthly survey of approximately 290,000 nonagricultural establishments and provides information on the number of employees on business payrolls, as well as on average hours and earnings.

⁴ For more information, see Steven E. Haugen, "The employment expansion in retail trade, 1973–85," *Monthly Labor Review*, August 1986, pp. 9–16.

⁵ See U.S. Bureau of the Census, *Construction Reports—Value of New Construction Put in Place*: May 1986, C30–86–5, and later monthly news releases. All references to value of construction are in constant (1982) dollars.

⁶ The industry and occupational designations of unemployed persons are based on their last full-time job lasting 2 weeks or more.

⁷ Business cycle peaks and troughs are determined by the National Bureau of Economic Research, a private nonprofit research organization. The three recessions referred to extended from the following peak-to-trough dates: April 1960 to February 1961, November 1973 to March 1975, and July 1981 to November 1982.

⁸ The 1961–65 expansion period is excluded from this analysis because: 1) the 1960–61 recession was relatively brief and mild, which contributed to a fairly moderate "rebound"; 2) many data series are not available for the 1961–65 expansion; and 3) the demographic and industrial structure of the U.S. labor market in the 1961–65 period was vastly different from that of the past decade.

⁹ Because the labor force usually expands rapidly during periods of economic recovery, unemployment rates typically decline to a greater degree than unemployment levels. While this pattern held for both 4-year periods under study, the difference was particularly marked in the 1975–79 expansion. This can be explained by the fact that the labor force expansion throughout the 1970's was the largest in the postwar period, as women entered the labor market in huge numbers and most of the baby-boom generation reached working age. Unemployment rates automatically take into account variations in labor force growth over a given period of time, and are, therefore, a better measure of changes in unemployment conditions than are levels.

¹⁰ Revised population estimates introduced into the CPS in January 1978 and 1986 (footnote 1) affect employment and labor force changes during the 1975–79 and 1982–86 periods. However, because the effect of these revisions is much less when spread over the 4-year periods studied, no adjustments are made to the data discussed in this section.

Labor force status of Vietnam-era veterans

*Special survey confirms labor market
difficulties of men who served
in Southeast Asia, especially those
with service-connected disabilities*

SHARON R. COHANY

A decade after the war's end, the labor force status of Vietnam-era veterans is generally quite similar to that of nonveterans. There are exceptions, however. Those who served in the Vietnam theater (Vietnam, Laos, and Cambodia and the surrounding airspace and waters), and most particularly those who received disabling injuries from combat and other causes, have higher unemployment rates and lower labor force participation rates than their peers.

In 1985, data were collected for the first time on the labor force status of men who actually served in Southeast Asia, distinguishing between those with and without service-connected disabilities. The data confirm the precarious circumstances of disabled veterans, who are especially vulnerable to unemployment.

The information is from the Current Population Survey (CPS), a monthly survey of about 59,500 households conducted and tabulated by the U.S. Census Bureau for the Bureau of Labor Statistics. In a supplement to the April 1985 survey, men 18 years and older were asked about their service in the Armed Forces and whether they had a service-connected disability.¹ (See appendix for information on the types of questions asked.) The supplement was cosponsored

by the Veterans Administration (VA) and two Department of Labor agencies—the Veterans Employment and Training Service and the BLS.²

Overall picture

Our Nation's 26.2 million male veterans account for nearly one-third of all men 18 years and older. The 7.9 million Vietnam-era veterans are the youngest wartime participants and the second largest veterans' group, exceeded only by the 9.7 million veterans of World War II.³ About 2.4 million veterans, or 9 percent, have a service-connected disability. Most served during wartime, with nearly 800,000 having served during the Vietnam era.

In this study, the Vietnam-era veterans are those men who served in the Armed Forces anywhere during the Nation's longest war, from August 1964 to April 1975, and who are currently in the civilian noninstitutional population. Only 46 percent of these veterans actually served in the Vietnam theater of operations. The age distribution of veterans of the Vietnam era is relatively concentrated, with two-thirds between ages 35 and 44 in April 1985. Indeed, one-half were between ages 35 and 39. (Because of the aging of the population, there were no longer any Vietnam-era veterans under age 25.) The following tabulation shows the age distribution of Vietnam-theater and other Vietnam-era veterans and non-veterans in the civilian noninstitutional population in April 1985.

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	Veterans		Nonveterans
	Vietnam theater	Other Vietnam era	
Number (thousands)	3,672	4,260	54,435
Percent	100.0	100.0	100.0
18 to 24 years	0.0	0.0	23.9
25 to 34 years	15.3	27.9	31.0
35 to 44 years	68.9	59.8	16.8
35 to 39 years	49.6	36.6	8.9
40 to 44 years	19.3	23.2	7.9
45 years and over	15.8	12.2	28.3

Many misperceptions surround the men who served during the Vietnam era.⁴ For example, contrary to popular belief, most were not drafted, but volunteered for military service. In 1968, the year with the largest number on active duty, just 40 percent of all enlisted new entrants were draftees.⁵ Another myth is that minorities constituted a disproportionate share of our military forces. In fact, blacks make up 9 percent of Vietnam-era veterans (11 percent of Vietnam-theater veterans), and Hispanics account for 4 percent of these veterans. The black share of the adult male population is about 10 percent, and the Hispanic share is 6 percent.

Table 1. Employment status of men 18 years and over, by veteran status and age, April 1985, not seasonally adjusted
(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population	Civilian labor force					Not in labor force
		Total	Percent of population	Employed	Unemployed		
					Number	Percent of labor force	
Veterans							
Total, 18 years and over	26,153	19,524	74.7	18,449	1,075	5.5	6,629
18 to 24	378	340	89.9	280	60	17.7	38
25 to 34	2,933	2,770	94.4	2,515	255	9.2	163
35 to 44	5,977	5,761	96.4	5,443	318	5.5	216
45 and over	16,865	10,653	63.2	10,212	440	4.1	6,212
Vietnam era:							
Total, 18 years and over	7,932	7,449	93.9	7,003	445	6.0	483
18 to 24	(1)	(1)	(1)	(1)	(1)	(1)	(1)
25 to 34	1,753	1,677	95.7	1,522	155	9.3	76
35 to 44	5,078	4,895	96.4	4,630	265	5.4	183
45 and over	1,101	877	79.7	852	25	2.8	224
Vietnam theater:							
Total, 18 years and over	3,672	3,383	92.1	3,158	225	6.7	288
18 to 24	(1)	(1)	(1)	(1)	(1)	(1)	(1)
25 to 34	563	533	94.7	472	61	11.4	30
35 to 44	2,529	2,402	95.0	2,251	151	6.3	128
45 and over	580	449	77.4	435	14	3.1	130
Other Vietnam era:							
Total, 18 years and over	4,260	4,065	95.4	3,845	220	5.4	195
18 to 24	(1)	(1)	(1)	(1)	(1)	(1)	(1)
25 to 34	1,190	1,144	96.1	1,050	95	8.3	46
35 to 44	2,549	2,494	97.8	2,379	115	4.6	55
45 and over	521	427	82.0	417	11	2.5	94
Other war periods:							
Total, 18 years and over	13,666	7,784	57.0	7,436	348	4.5	5,882
18 to 24	(1)	(1)	(1)	(1)	(1)	(1)	(1)
25 to 34	(1)	(1)	(1)	(1)	(1)	(1)	(1)
35 to 44	(1)	(1)	(1)	(1)	(1)	(1)	(1)
45 and over	13,666	7,784	57.0	7,436	348	4.5	5,882
45 to 54	2,673	2,398	89.7	2,274	124	5.2	275
55 to 64	6,778	4,595	67.8	4,400	194	4.2	2,183
65 and over	4,215	791	18.8	762	29	3.7	3,424
Other service periods:							
Total, 18 years and over	4,555	4,291	94.2	4,010	282	6.6	264
18 to 24	378	340	89.9	280	60	17.7	38
25 to 34	1,180	1,093	92.6	993	100	9.2	87
35 to 44	899	866	96.3	813	53	6.1	33
45 and over	2,098	1,992	94.9	1,923	69	3.5	106
Nonveterans							
Total, 18 years and over	54,435	42,724	78.5	39,538	3,185	7.5	11,712
18 to 24	13,034	10,097	77.5	8,893	1,204	11.9	2,937
25 to 34	16,852	15,932	94.5	14,861	1,071	6.7	920
35 to 44	9,165	8,639	94.3	8,175	465	5.4	526
45 and over	15,384	8,054	52.4	7,609	446	5.5	7,330

¹ Because of the aging of the population, there were no longer any Vietnam-era veterans under age 25 or any other war veterans under age 45.

Table 2. Employment status of male Vietnam-era veterans, by race and Hispanic origin, April 1985, not seasonally adjusted
(Numbers in thousands)

Veteran status, race, and Hispanic origin	Civilian noninstitutional population	Civilian labor force					Not in labor force
		Total	Percent of population	Employed	Unemployed		
					Number	Percent of labor force	
Total							
Vietnam-era veterans	7,932	7,449	93.9	7,003	445	6.0	483
Vietnam theater	3,672	3,383	92.1	3,158	225	6.7	288
Other Vietnam era	4,260	4,065	95.4	3,845	220	5.4	195
Nonveterans	54,435	42,724	78.5	39,538	3,185	7.5	11,712
White							
Vietnam-era veterans	7,084	6,660	94.0	6,326	335	5.0	424
Vietnam theater	3,193	2,947	92.3	2,786	161	5.4	246
Other Vietnam era	3,892	3,714	95.4	3,539	174	4.7	178
Nonveterans	46,468	36,849	79.3	34,504	2,345	6.4	9,619
Black							
Vietnam-era veterans	724	678	93.6	588	90	13.2	46
Vietnam theater	411	379	92.2	325	54	14.1	32
Other Vietnam era	312	299	95.8	263	36	12.1	13
Nonveterans	6,100	4,444	72.9	3,725	719	16.2	1,656
Hispanic origin							
Vietnam-era veterans	356	341	95.8	312	29	8.6	15
Vietnam theater	161	150	93.2	140	9	6.3	11
Other Vietnam era	195	192	98.5	172	20	10.4	4
Nonveterans	4,575	3,759	82.2	3,388	371	9.9	816

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

Men who served in Southeast Asia accounted for two-thirds of the nearly 800,000 Vietnam-era veterans who reported a service-connected disability. Their disability is rated from 0 to 100 percent, representing the "average impairment in earning capacity" in civilian occupations resulting from diseases and injuries caused or aggravated by military service.⁶ About half had disability ratings of less than 30 percent.

Labor force

Veterans of the Vietnam era are now in their prime working ages, and 7.5 million of a total of 7.9 million were in the labor force in April 1985. Being a large segment of their generation, they account for more than 1 of 4 men in the labor force between the ages of 30 and 44. With a 94-percent participation rate, Vietnam-era veterans were as likely as their nonveteran peers to be in the labor force. (See table 1.) Those who served in the Vietnam theater were somewhat less likely to be labor force participants than other veterans of that period (92 versus 95 percent), in part because a larger proportion had service-connected disabilities. Black and Hispanic veterans were as likely to be in the labor force as whites, in contrast to the situation for nonveterans, among whom blacks have lower participation rates than whites and Hispanics. (See table 2.)

For disabled Vietnam-era veterans, labor force participation varied widely, depending on the degree of disability. Those with disability ratings of less than 30 percent were nearly as likely to be in the labor force as those with no

disability. However, the participation rate was only 35 percent for those reporting disability ratings of 60 percent or higher. (See table 3.) Disabled veterans of the Vietnam theater were about as likely to be labor force participants as disabled veterans who had served elsewhere.

Of course, the existence of other sources of income can influence the veteran's decision to seek employment. Most disabled veterans as defined in this report received regular monthly compensation through the VA or Department of Defense. Based on the extent of the reduced capacity to work, VA payments range from under \$100 to around \$4,000 per month.⁷ For instance, a veteran whose only service-connected injury was the loss of the use of part of a finger or toe may be eligible to receive \$70 per month. At the other extreme, a veteran whose military service resulted in quadriplegia may be entitled to around \$4,000 (including the maximum allowance for dependents).

Unemployment

The unemployment rate for Vietnam-era veterans was 6.0 percent in April 1985. Altogether, almost 450,000 of the men were looking for work. Those who actually served in Southeast Asia were more likely to be unemployed than other Vietnam-era veterans, 6.7 percent compared with 5.4 percent. This was partly the result of their higher incidence of disability and also of factors which predated their military service. For instance, men in the Vietnam theater had, on average, less education and were from poorer families than other veterans of the same era.⁸ Hence, they were already at

a greater risk in terms of joblessness. A 1980 survey of veterans identified "finding a job" as their biggest problem, but less than one-half attributed their difficulties to military service.⁹

The jobless rate for disabled Vietnam-era veterans, at 8.1 percent, was much higher than that for those without disability (5.6 percent). Disabled veterans who served in Southeast Asia were more likely to be unemployed than other disabled Vietnam-era veterans (9.2 versus 5.6 percent). Of the former, those with disability ratings of 30 to 50 percent had a particularly high jobless rate—16.0 percent.

The jobless rate for black Vietnam-era veterans was substantially higher than that for their white and Hispanic counterparts, regardless of the theater of service. The rate for black veterans averaged 2½ to 3 times that for the whites, about the same relationship as in the general population. However, black and Hispanic veterans, like other veterans, had a lower jobless rate than their nonveteran counterparts. Two-thirds of the jobless Vietnam-era veterans were reentrants, a very high proportion, indicating more frequent breaks from the labor force for veterans than for men who never served in the Armed Forces. Almost none of the veterans were new entrants to the civilian labor force.

The median length of joblessness for Vietnam-era veter-

ans was 9.3 weeks, about 3 weeks less than the duration for all men 25 years and over. Those who served in Southeast Asia were unemployed for a shorter time than were those who served outside the war zone. The men who served in the Vietnam theater were also less likely to be among the long-term unemployed (15 weeks and longer).

Employment

Both public and private sector employers have had various incentives to hire the Vietnam-era veteran. Many large employers, most notably the Federal, State, and local governments, give veterans preference in hiring, usually by adding points to their score on a competitive civil service exam. Public job service agencies in each State provide veterans with special assistance and counseling and have given them priority in referrals to job openings with Federal contractors. The Department of Labor sponsors training programs, as does the Department of Defense. The Labor Department also has responsibility for enforcing veterans' re-employment rights. Many of these services were firmly in place well before the war's end.¹⁰

More than 18 million veterans were employed at the time the survey was taken, including 7 million from the Vietnam period. While the most recent wartime veterans were about

Table 3. Employment status of male Vietnam-era veterans, by presence of service-connected disability and reported disability rating, April 1985, not seasonally adjusted

(Numbers in thousands)

Presence and rating of disability	Civilian noninstitutional population	Civilian labor force					Not in labor force
		Total	Percent of population	Employed	Unemployed		
					Number	Percent of labor force	
Vietnam-era veterans							
Total, 18 years and over	7,932	7,449	93.9	7,003	445	6.0	483
With service-connected disability	771	616	79.9	566	50	8.1	156
Less than 30-percent disability rating	398	367	92.2	337	29	8.0	31
30- to 50-percent disability rating	190	151	79.5	133	18	11.9	40
60-percent or higher disability rating	119	41	34.5	41	—	(1)	78
Disability rating not reported	63	58	(1)	56	3	(1)	7
Without service-connected disability	6,858	6,570	95.8	6,201	368	5.6	289
Presence of disability not reported	302	264	87.4	236	27	10.3	39
Vietnam theater							
Total, 18 years and over	3,672	3,383	92.1	3,158	225	6.7	288
With service-connected disability	515	416	80.8	378	38	9.2	99
Less than 30-percent disability rating	260	244	93.8	225	19	7.8	16
30- to 50-percent disability rating	137	106	77.4	89	17	16.0	30
60-percent or higher disability rating	78	30	38.5	30	—	(1)	48
Disability rating not reported	39	36	(1)	34	2	(1)	4
Without service-connected disability	3,004	2,842	94.6	2,666	176	6.2	162
Presence of disability not reported	153	125	81.7	114	11	8.7	28
Other Vietnam era							
Total, 18 years and over	4,260	4,065	95.4	3,845	220	5.4	195
With service-connected disability	256	199	77.7	188	11	5.6	57
Less than 30-percent disability rating	138	123	89.1	112	10	8.5	15
30- to 50-percent disability rating	54	44	(1)	44	—	(1)	9
60-percent or higher disability rating	41	11	(1)	11	—	(1)	30
Disability rating not reported	24	21	(1)	21	—	(1)	3
Without service-connected disability	3,854	3,727	96.7	3,535	192	5.2	127
Presence of disability not reported	150	139	92.7	122	16	11.8	11

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

NOTE: Dash indicates fewer than 500 persons.

as likely to be working as their nonveteran peers, there were differences in the types and settings of employment. Perhaps the most striking of these is the large proportion, particularly among the disabled, who were working in the public sector and in the Federal Government in particular. About 20 percent of the Vietnam-era veterans held public sector jobs, compared with 11 percent of nonveterans. Those men who actually served in the Vietnam theater were somewhat more likely to be public employees than other veterans of the same period. Black and Hispanic veterans were even more apt to be public sector employees than were whites. The following tabulation shows the percent of employed veterans who were wage and salary workers in private industry (excluding the self-employed and unpaid family workers) and in government in April 1985:

	Private industry	Government	
		Total	Federal
Vietnam era	70.2	20.3	8.6
Disabled	58.1	33.0	19.8
Not disabled	71.1	19.4	7.7
Vietnam theater	69.3	21.7	9.5
Disabled	58.5	33.3	18.8
Not disabled	70.6	20.4	8.4
Other Vietnam era	71.0	19.2	7.9
Disabled	57.4	31.9	21.8
Not disabled	71.5	18.6	7.2

Among disabled Vietnam-era veterans with jobs, one-third were in the public sector, with about 1 of 5 employed by the Federal Government. This reflects several factors, including special hiring preferences given to the disabled veteran (in addition to preferences given to all who served when the Nation was at war), special retention rights during reductions in force, and perhaps an unusually strong commitment on the part of Federal agencies to hire handicapped workers in general.¹¹

Veterans of the Vietnam period were about as likely to be self-employed as other men their age. Disabled Vietnam-era veterans were somewhat less likely to be self-employed than other veterans.

The average length of the workweek for Vietnam-era veterans, at 45 hours, was about the same as that for adult men in general, and varied little on the basis of theater of service or disability. However, disabled veterans were more likely to work part time (less than 35 hours per week) than nondisabled veterans. Not surprisingly, disabled veterans reported more absenteeism than other veterans.

Occupations. The Armed Forces provide certain training which is generally transferable to civilian jobs. While there are some military specialties, such as infantry and gun crews, which have no civilian counterpart, jobs in management, repair, clerical, and craft specialties are similar to those of civilians.¹²

The role of education in occupational selection has been critical for veterans. An estimated 70 percent of Vietnam-era veterans returned to school after their military discharge,¹³ the great majority taking advantage of veterans' educational benefits.¹⁴ Despite this, veterans are less likely to hold college and postgraduate degrees than their nonveteran peers, and this lower educational attainment is reflected in the types of jobs they hold, on average.¹⁵ In addition, the employment situation of veterans cannot be viewed apart from the performance of the economy as a whole. Economic dislocations in recent years have limited the growth of blue-collar jobs in favor of managerial, professional, and technical positions, to the detriment of some veterans who left the service with training and experience in craft, repair, and related fields.

Table 4. Employed male Vietnam-era veterans and non-veterans by occupation and class of worker, April 1985, not seasonally adjusted
(Percent distribution)

Occupation and class of worker	Vietnam-era veterans			Nonveterans
	Total	Vietnam theater	Other Vietnam era	
Total, 18 years and over (in thousands)	7,003	3,158	3,845	39,538
Percent	100.0	100.0	100.0	100.0
Occupation				
Managerial and professional specialty	27.5	25.5	29.3	23.7
Executive, administrative, and managerial	15.6	14.3	16.7	12.0
Professional specialty	11.9	11.1	12.6	11.7
Technical, sales, and administrative support	20.3	20.0	20.6	19.0
Technicians and related support	4.1	4.2	4.0	2.7
Sales occupations	9.5	9.2	9.7	11.0
Administrative support, including clerical	6.8	6.6	6.9	5.3
Service occupations	7.9	9.2	7.0	9.5
Protective service	3.9	5.0	3.1	2.1
Other service occupations	4.0	4.1	3.9	7.4
Precision production, craft, and repair	23.5	24.5	22.7	20.2
Mechanics and repairers	9.4	9.3	9.5	6.9
Construction trades	7.5	8.5	6.6	7.8
Other precision production, craft, and repair	6.7	6.8	6.6	5.5
Operators, fabricators, and laborers	18.4	18.7	18.2	22.1
Machine operators, assemblers, and inspectors	7.2	7.2	7.3	8.5
Transportation and material moving occupations	7.4	7.7	7.2	7.2
Handlers, equipment cleaners, helpers, and laborers	3.8	3.8	3.7	6.4
Farming, forestry, and fishing	2.2	2.1	2.4	5.5
Class of worker				
Wage and salary workers	90.5	91.0	90.2	89.4
Private	70.2	69.3	71.0	78.3
Government	20.3	21.7	19.2	11.1
Federal	8.6	9.5	7.9	(1)
State and local	11.7	12.3	11.3	(1)
Self-employed and unpaid family workers	9.5	9.0	9.8	10.6

¹ Data not available.

Veterans who served in the Vietnam theater were less likely to hold managerial and professional positions than others of the same era, and more likely to hold skilled craft and protective service jobs. (See table 4.) Disabled Vietnam-era veterans were more likely than their nondisabled counterparts to be professionals, clericals, and unskilled laborers, and less likely to be skilled craftworkers and machine operators. This followed the pattern of veterans of earlier wars, except that the older disabled veterans were also more likely to be in sales.

The occupational distribution of black veterans varied from that of whites, paralleling the general situation. Black Vietnam-era veterans were less likely to be in managerial and professional positions and more likely to hold service jobs than were whites. But they were also less likely to occupy unskilled and low paying laborer jobs and more

likely to hold lower level white-collar positions than nonveteran blacks, indicating, perhaps, that military service confers a greater relative benefit to blacks than to whites.

Out of the labor force

A small number of Vietnam-era veterans were not working or looking for work in April 1985. The majority of the 480,000 veterans in this category reported that they were retired, but ill health stemming from service injuries and illnesses also played a significant role in their labor force status.

Black veterans were about as likely to be outside the labor force as whites, a picture quite different from the population as a whole, where blacks have a greater incidence of nonparticipation than whites. □

—FOOTNOTES—

¹ Respondents to the April 1985 CPS supplement were men only; however, 1 million women were also veterans, including about 250,000 from the Vietnam era. For more information, see *Female Veteran Population* (Veterans Administration, 1984); and Maria L. Roca, "Women veterans total 1 million in first half of 1986," *Monthly Labor Review*, December 1986, pp. 30-31.

² Information from the April 1985 CPS supplement was issued initially as news release USDL 86-125, "BLS Issues First Time Study on Disabled Veterans," Mar. 31, 1986. Historical data on Vietnam-era veterans are found in *Employment and Earnings*, a monthly BLS publication, and *The Employment Situation*, a monthly BLS news release. For the latest article on the subject, see John F. Stinson, Jr., "Vietnam veterans in the labor market of the 1970's," *Monthly Labor Review*, November 1979, pp. 3-11.

³ *Statistical Abstract 1986* (Washington, U.S. Department of Commerce), p. 346.

⁴ For a comparison of the attitudes of veterans, employers, and the public toward the veterans, see *Myth and Realities: A Study of Attitudes Toward Vietnam Era Veterans*, submitted by the Veterans Administration to the Committee on Veterans' Affairs, U.S. House of Representatives, July 1980.

⁵ *Statistical Abstract 1975* (Washington, U.S. Department of Commerce), p. 327.

⁶ *Code of Federal Regulations*, title 38.

⁷ *Federal Benefits for Veterans and Dependents* (Veterans Administration, 1986), pp. 3-4.

⁸ *Legacies of Vietnam: Comparative Adjustment of Veterans and Their Peers, a study prepared for the Veterans Administration, submitted to the Committee on Veterans' Affairs, U.S. House of Representatives*, Mar. 9, 1981, pp. 104-16.

⁹ *Myths and Realities*, pp. 108-19.

¹⁰ See Elizabeth Waldman and Kathryn R. Gover, "Employment situation of Vietnam-era veterans," *Monthly Labor Review*, September 1971, pp. 3-11, for a discussion of programs and benefits for these veterans, as well as a comparison of the job markets facing Vietnam, Korea, and World War II veterans.

¹¹ See *Veterans' Preference in Federal Employment* (Office of Personnel Management, 1985).

¹² See Carol Boyd Leon, "Working for Uncle Sam—a look at members of the Armed Forces," *Monthly Labor Review*, July 1984, pp. 3-9.

¹³ *Legacies of Vietnam*, pp. 153-72.

¹⁴ The VA estimates that as of September 1985, 6 million Vietnam-era veterans had received training under the GI Bill, nearly two-thirds of them at the college level. For more information, see *Veterans Benefits Under Current Educational Programs, Fiscal Year 1985* (Veterans Administration).

¹⁵ *Annual Report 1985* (Veterans Administration), p. 7.

APPENDIX: Notes on the data

The estimates in this article are obtained from a supplement to the April 1985 Current Population Survey (CPS). Special questions in this survey asked men 18 years and older about their service in the Armed Forces and whether they had a service-connected disability. The CPS, a monthly survey of about 59,500 occupied households, is conducted for the Bureau of Labor Statistics by the Bureau of the Census. It provides information on the employment status of the civilian noninstitutional population; the demographic, occupational, and other characteristics of the employed, the unemployed, and persons not in the labor force; and related data. The April 1985 survey was taken during the week of the 14th through the 20th and refers to the status of individ-

uals during the preceding week (7th through the 13th). The definitions underlying the data in this article are as follows.

Veteran status is provided from responses to the questions:

Did you ever serve on active duty in the U.S. Armed Forces?

When did you serve?

- Vietnam Era—Aug. 1964—Apr. 1975* ○
- Korean War—June 1950—Jan. 1955* ○
- World War II—Sept. 1940—July 1947* ○
- World War I—Apr. 1917—Nov. 1918* ○
- Other service—All other periods* ○

If the person served in more than one of the major conflicts, the most recent war period is marked. "Other service" is marked only if no time was served during one of the four major conflicts. Vietnam-era veterans were asked this question to determine if service was actually in the Vietnam theater:

Did you serve in Vietnam, Laos, or Cambodia; in the waters in or around these countries; or fly missions over these areas between August 1964 and April 1975?

The presence of a service-connected disability is provided by the question:

Has the Veterans Administration or the Department of Defense determined that you have a service-connected disability, that is, a health condition or impairment caused or made worse by military service?

The disability status must be determined by the Veterans Administration or the Department of Defense. Self-diagnosed or personal-physician-diagnosed disabilities are not applicable. Service-connected disability ratings are determined from the question:

What is your service-connected disability rating?

Answers range from 0 to 100 percent. Disability ratings are determined from a rating schedule published in the *U.S. Code of Federal Regulations* (title 38), "Pensions, Bonuses, and Veterans Relief," Part 4—"Schedule for Rating Disabilities." The rating schedule is "primarily a guide in the evaluation of disability resulting from all types of diseases and injuries encountered as a result of or incident to military service. The percentage ratings represent as far as can practicably be determined the average impairment in earning capacity resulting from such diseases and injuries and their residual conditions in civil occupations." Part 4 lists hundreds of disorders by degree of severity and assigns a rating of 0 through 100 percent in steps of 10 percent for each (as well as instructions for rating multiple disorders).

An example of the rating system is the assignment of a rating of 30 percent where a service-connected injury or disease causes the visual acuity of one eye to be reduced to 10/200 and vision in the other eye is 20/40. A rating of 90 percent disability is assigned where both eyes have only 10/200 acuity. Although the schedule's ratings are based primarily on the average impairment in earning capacity, "full consideration must be given to unusual physical or mental effects in individual cases, to peculiar effects of occupational activities, to defects in physical or mental endowment preventing the usual amount of success in overcoming the handicap or disability, and to the effect of combinations of disability."

ERRATA

The article "New basket of goods and services being priced in revised CPI," which appeared in the January issue, contains two incorrect figures. In the first column of page 4, the second sentence of the last paragraph should read:

The CPI-W population comprises 28 percent of all consumer units and 32 percent of the noninstitutional population.

State and local government pay increases outpace five-year rise in private industry

Differences in occupational, industrial mix of workers account for much of difference in wage and salary gains, according to Employment Cost Index

RICHARD E. SCHUMANN

Pay increases for workers in State and local government, as measured by the Bureau's Employment Cost Index, have exceeded those for workers in the private sector over the 5 years for which comparable data are available from the ECI. During the June 1981-86 period, wages and salaries increased by 36 percent in State and local governments, while pay in the private sector increased 27.9 percent.

Much of the difference in the size of wage changes between the two sectors can be explained by differences in the industrial and occupational composition of their work forces. The industrial and occupational groups which had the largest pay gains accounted for a higher proportion of employment in State and local government than in the private sector.

Over the last 11 years, however, pay probably increased by about the same percentage in the two sectors. During the 1981-86 period, wage changes in State and local government were very similar to those of the service industry in the private sector. If this relationship in rates of pay change held in the 1975-81 period, and there is evidence to suggest that it did, then during that earlier period pay gains in private industry led those in State and local government by about the same percentage as they lagged them during 1981-86. That is, by 1986 the relative rates of pay in the two sectors were about what they were in 1975.

The occupational effect

A substantial part of the difference between the private

sector and State and local government in rates of pay increase during 1981-86 can be explained by occupational composition. As shown in table 1, the groups with the largest wage increases in both sectors are relatively more numerous in State and local government. For example, professional specialty and technical occupations, which show the largest percent change during June 1981-86 in both the private sector (34.0 percent) and State and local government (37.6 percent), account for nearly two-fifths of State and local government employment, compared with slightly more than one-tenth in private industry. Teachers, the largest group within the professional occupation, make up more than one-fifth of all State and local employment and received large pay gains during June 1981-86.

In contrast, blue-collar workers, whose pay gains were less than those of white-collar and service workers in both private industry (23.7 percent) and State and local government (31.9 percent), are relatively more numerous in the private sector. They account for three-eighths of private industry employment, compared with only one-eighth of State and local government employment.

Service occupations, such as police, firefighters, and janitors, show pay increases closer to those of white-collar workers, and they, too, are more significant in State and local government. The pay of these employees rose 28.0 percent in private industry compared with 34.4 percent in State and local government; they account for one-fifth of State and local employment, compared with one-eighth of private sector employment.

To assess the impact of the differing occupational distributions on the aggregate wage change, the Bureau recalcu-

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Table 1. Cumulative percent pay changes in government and the private sector and percent distribution of employment, by occupation, June 1981-86

Occupational group	Cumulative pay change		Percent of employment	
	State and local government	Private sector	State and local government	Private sector
All workers	36.0	27.9	100.0	100.0
White-collar workers	37.0	31.1	67.1	50.1
Professional specialty and technical	137.6	34.0	38.6	11.2
Executive, administrative, and managerial	136.0	32.1	9.2	9.8
Sales	136.6	24.3	0.9	11.3
Administrative support, including clerical	134.3	30.8	18.5	17.8
Blue-collar workers	31.9	23.7	12.0	37.4
Precision production, craft, and repair	133.0	25.7	4.2	14.4
Machine operators, assemblers, and inspectors	132.0	23.6	1.4	12.2
Transportation and material moving	129.3	18.9	3.6	5.0
Handlers, equipment cleaners, helpers, and laborers	133.1	20.3	2.7	5.8
Service occupations	134.4	28.0	20.9	12.4

¹ Unpublished data
NOTE: The Employment Cost Index employment distribution is based on the 1980 census.

lated percent changes over the last 5 years for private industry workers, using the occupational distribution from State and local government.¹ The differing occupational mix accounted for about 40 percent of the difference between the rates of pay increase for the two sectors. That is, if private industry had the State and local occupational employment distribution, the June 1981-86 pay increase for private industry workers would have been 31.4 percent, compared with the actual 27.9 percent, but still below the 36.0-percent change for State and local government workers.

When this process was reversed and the State and local government cumulative change was recalculated using private industry employment distributions, about 25 percent of the difference could be explained by occupational compositions. The revised cumulative percent increase for State and local government was 34.0 percent, compared with the actual 36.0-percent change, but above the private industry figure of 27.9 percent. Thus, differences between the private sector and State and local governments in the occupational employment distribution account for 25 to 40 percent of the difference in wage and salary increases during 1981-86.

Effects of industrial activity

Virtually all of the differential in the June 1981-86 rates of wage and salary change between State and local government and private industry can be explained by differences in the distribution of employment by industrial activity. A major difference between the two sectors is in the importance of service industry activities—for example, hospitals and schools. As shown in table 2, service activities account for nearly two-thirds of the State and local government work

force, compared with about one-fifth in private industry. Workers in service industry activities had the largest June 1981-86 pay gains in both private industry (36.9 percent) and State and local government (37.1 percent).

In addition, the industry divisions which are important in only one sector tended to raise the State and local government cumulative increase and lower the private industry increase. Manufacturing; wholesale and retail trade; and finance, insurance, and real estate are important only in the private sector, and the pay increases in these industries were lower than the average for all private industry workers (29.7 percent). Public administration, which represents 25.4 percent of State and local government employment, averaged pay gains of 34.6 percent, well above the 29.7-percent increase for the private sector.

To assess the impact of the differences in the industrial composition of the two sectors, the Bureau recalculated the cumulative percent change for private industry for the period 1981-86, using the industry distributions from State and local government.² The recalculated private industry change of 34.8 percent is very close to the State and local government change of 36.0 percent. It is clear that the differing industrial composition of the two sectors is crucial in explaining the differences in the June 1981-86 changes.

The service industry as a proxy

Because State and local government workers were not included in the ECI prior to June 1981, it is not possible to determine from that index whether State and local pay gains exceeded those in the private sector during 1975-81 as they did during 1981-86. It is possible, however, to draw some conclusions about relative rates of wage change during the earlier period by examining pay gains of the service industry in the private sector.

Table 2. Cumulative percent pay changes in government and the private sector and percent distribution of employment, by industry, June 1981-86

Industry	Cumulative pay change		Percent of employment	
	State and local government	Private sector	State and local government	Private sector
All workers	36.0	29.7	100.0	100.0
Manufacturing	(1)	26.5	(1)	30.2
Construction	234.2	19.8	3.3	5.8
Transportation, communications, and public utilities	228.1	26.6	4.5	7.7
Wholesale and retail trade	(1)	25.8	(1)	25.1
Finance, insurance, and real estate	(1)	28.0	(1)	7.7
Services	37.1	36.9	63.8	22.4
Public administration	34.6	(3)	25.8	(3)
Other ⁴	(4)	(4)	2.9	1.4

¹ This category is included in the "other" category.

² Unpublished data

³ Not applicable.

⁴ "Other" includes mining in the private sector and mining, manufacturing, wholesale and retail trade, and finance, insurance, and real estate in State and local government.

NOTE: The Employment Cost Index employment distribution is based on the 1980 census.

Wage and salary increases for workers in State and local government have, since June 1981, approximated those of the service industry of the private sector. Both State and local government (36.6 percent) and the service industry of the private sector (36.9 percent) have had increases greater than the private sector as a whole (27.9 percent). In contrast, during the 1975–81 period, wage and salary increases for the service industry in the private economy (48.4 percent) were smaller than for all private industry (56.3 percent). Consequently, over the period from 1975 to 1986, increases for workers in the private service industry (103.1 percent) have been about the same as those for all private sector workers (99.8 percent).

If State and local government wage changes had approximated changes in the private service industry for the September 1975–June 1981 period as they did in the June 1981–June 1986 period, the change in State and local wages over the 1975–86 period would be about the same as the change in wages for the private sector.

Evidence supporting the hypothesis that the change in State and local government wages approximated the change in wages for the private sector service industry from 1975 to 1980 is provided by earnings data from the Bureau of the Census.³ During the 1975–84 period, the latest for which census data were available, the increase in earnings for State and local government workers (85.0 percent) did approxi-

Table 3. Annual and cumulative percent pay changes in government and in the private sector service industry, 1976–84

Year	Private sector ¹		State and local government ²
	Total	Service industry	
1976	7.2	5.4	6.1
1977	7.0	5.3	6.1
1978	7.7	6.7	5.3
1979	8.7	8.5	7.7
1980	9.0	8.7	9.0
1981	8.8	10.6	9.5
1982	6.3	8.0	8.4
1983	5.0	6.6	5.7
1984	4.1	6.2	6.0
1975–81	59.2	54.2	52.3
1981–84	16.2	22.4	21.5
1975–84	85.0	88.8	85.0

¹ Based on change in Employment Cost Index from December to December.

² Annual change based on monthly earnings for October of each year. Census data on earnings for State and local government and educational employees taken from *Public Employment*, Series GE No. 1 for various years.

mate the increase in the ECI private service industry (88.8 percent). (See table 3.) This indicates that the relationship between changes in the private service industry and State and local government held for the period before June 1981 and that, over the longer period (1975–86), the difference between changes in the private nonfarm sector and the State and local government sector virtually disappears. □

—FOOTNOTES—

¹ This was accomplished by apportioning the private industry census employment weight among the major occupational groups on the basis of the distribution existing in State and local government, and then multiplying the private industry wage rate for each group by the weight for that group.

² Separate wage rate data were not available for manufacturing; wholesale and retail trade; finance, insurance, and real estate; and mining. The recalculated index compares those industry divisions (construction; trans-

portation, communications, and public utilities; and services) which have significant employment in both sectors.

³ The comparison of earnings data based on average October earnings with Employment Cost Index wage and salary data from the December quarter is not ideal. The two series do not measure the same concept and earnings series may differ considerably from wage series. The comparison is made to indicate a general trend which exists, not to make an exact comparison.

Changes in unemployment insurance legislation during 1986

Some States tightened benefit eligibility and disqualification provisions, but few other changes were made; in eight States, statutes were modified to cut extended benefits if triggered by Federal budget-balancing legislation

DIANA RUNNER

No major Federal legislation was enacted in 1986 that would require States to amend their unemployment insurance laws. However, Congress enacted Public Law 99-595 (untitled) which extends to December 31, 1992, the exclusion from coverage of aliens performing agricultural labor. States are not required to amend their laws to apply the alien exclusion.

An immigration reform bill, Public Law 99-603, was also enacted which includes an alien verification system that becomes effective in October 1988 in the States unless the U.S. Secretary of Labor provides a waiver. The system would be used to verify the eligibility for benefits of certain alien workers. The law specifies criteria States must meet to qualify for the waiver.

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The Tax Reform Act, Public Law 99-514, amended the definition of gross income to include all unemployment benefits as taxable income for Federal income tax purposes. The act also made several technical amendments to the Federal Unemployment Tax Act.

In general, State legislatures took very little action in the area of unemployment insurance this year. Eight States amended their laws to cut the extended benefit amount payable to a claimant during a period in which Federal payments to States for extended benefits are reduced pursuant to a sequester order under the Balanced Budget and Emergency Deficit Control Act of 1985 (hereafter termed Gramm-Rudman-Hollings). Nine States amended their laws to include tips in the definition of covered wages for tax purposes.

Following is a summary of significant changes in State unemployment insurance (UI) laws during 1986.

California

Disqualification. An individual who was fired from a job or who voluntarily quit due to alcoholism may reestablish eligibility for extended benefits after he or she has earned remuneration equal to or in excess of five times the weekly benefit amount.

Penalties. The penalty for fraud against the UI system was changed from a misdemeanor conviction to imprisonment for 1 year or a fine of up to \$20,000, or both.

Colorado

Financing. Beginning January 1, 1987, the taxable wage base is increased from \$8,000 to \$9,000 and will rise to \$10,000 on January 1, 1988. However, if the trust fund balance on June 30, 1987, is more than \$350 million, the wage base for calendar year 1988 will be \$9,000. The fund balance level at which the most favorable tax schedule would become effective has been changed from at least \$250 million to \$350 million.

Benefits. The percentage of the State's average weekly wage used to compute the maximum weekly benefit amount was lowered from 60 percent to 55 percent.

Disqualification. An individual's potential weeks of benefits will now be reduced if he or she receives severance allowances. Also, disqualifying income now includes sick pay or other similar periodic cash payments.

Administration. The Colorado Department of Labor and Employment's second-level appeals body was changed from the Unemployment Compensation Commission to the Industrial Claims Appeals Panel.

Connecticut

Disqualification. Conditions for benefit eligibility were added for individuals who leave part-time employment and would otherwise be ineligible for benefits.

Delaware

Financing. The period over which an employer's experience rating account must be chargeable before he or she can qualify for other than the standard rate was reduced from 3 to 2 years. The benefit charging provisions were amended to specify that only contributing employers will be relieved of charges for benefits paid to an individual who voluntarily left work without good cause, was discharged for misconduct, or refused an offer of suitable work.

The rate for new employers, except those in construction, is the average assessment rate for all employers. In construction, the new employer's rate is the higher of the average construction industry assessment rate or the average industry assessment rate in that employer's specific industry classification.

Benefits. The weekly and total benefit amounts for extended benefits will be reduced to reflect any cuts mandated by Gramm-Rudman-Hollings.

Disqualification. The duration disqualification for the three major causes of disqualification (voluntary leaving, discharge for misconduct, and refusal of suitable work) will continue until the worker has been employed for 4 weeks and has earned four times the weekly benefit amount.

Florida

Coverage. The exclusion from coverage of aliens performing agricultural labor was extended to January 1, 1988.

Hawaii

Financing. The definition of wages was amended to include tips received from customers and reported to the employer. The benefit charging provisions were amended to specify that no contributing employer's account will be charged for the State's share of Federal-State Extended Benefits.

Benefits. Beginning July 1, 1988, a quarterly wage reporting system will be added, in addition to a wage request system, for purposes of determining benefits. Beginning October 1, 1989, the following changes will be effective: (1) the base period will be the first four of the last five completed calendar quarters; (2) qualifying wages will be 30 times the weekly benefit amount and wages must have been earned in at least two quarters of the base period; and (3) the duration disqualification for the three major causes will not be removed unless or until the individual has earned wages of five times the weekly benefit amount.

Idaho

Financing. The maximum tax rate for the most favorable tax schedule increased from 4.0 percent to 5.4 percent of payrolls. The definition of wages was amended to include tips totaling \$20 or more in a month that have been reported by the claimant in a written statement to the employer. The law was amended to provide that an employer will not be charged for benefits paid to an individual who continues to perform services for that employer without a reduction

in work schedule and who is eligible to receive benefits based on earnings from another employer.

Penalties. The law was amended to add an 8-year statute of limitations on collection by the State of fraudulently received benefits.

Illinois

Coverage. A new enactment excludes from coverage services performed by an individual as a direct seller, if certain conditions are met.

Financing. The taxable wage base of \$8,500 was extended until January 1988. Thereafter, it reverts to \$7,000. The new employer's contribution rate, equal to the greater of 2.7 percent or 2.7 percent times the State experience factor, was extended through calendar year 1987. This effectively postponed until calendar 1988 the charging of a straight 2.7-percent rate for new employers, which was to have become effective January 1987. New legislation also extended through calendar 1987: (1) the minimum and maximum contribution rates of 0.2 percent and 6.7 percent, respectively; and (2) the emergency contribution rate of 0.6 percent for employers whose rates are higher than 0.2 percent, which had been established to ensure adequate fund levels.

Benefits. The requirement that an individual's weekly benefit amount be computed as 48 percent of his or her average weekly wage (up to 48 percent of the State average weekly wage), which was due to expire on January 3, 1987, was extended until January 2, 1988. The formula for computing dependents' allowances was extended for the same period.

Kansas

Financing. The definition of wages was amended to include tips totaling \$20 or more in a calendar month when such tips have been reported in writing to the employer.

Benefits. The amount of earnings disregarded in computing the weekly benefit for partial unemployment was changed from \$8 to one-fourth of the weekly benefit amount or the amount in excess of \$47.

Disqualification. The disqualification for discharge for misconduct and for refusal of suitable work changed from a fixed period of 10 weeks to the duration of the claimant's unemployment and until the individual has earned three times the weekly

benefit amount. Deleted was the requirement that provided for an equal reduction of benefits under both of these disqualifications. Also, Kansas now provides for a cancellation of wage credits earned from the employer involved in a disqualification for gross misconduct.

Kentucky

Coverage. The age 22 limitation for the exclusion from coverage of services performed by students in a work-study program was deleted; therefore such services are excluded, regardless of the individual's age.

Financing. The definition of wages was amended to include tips when they have been reported in writing to the employer. Extended to December 1988 was the provision that a surcharge be imposed on employers if there are insufficient funds in the penalty and interest account for the payment of interest on Federal advances to the State UI program.

Benefits. The maximum weekly benefit amount may not increase if the tax rate schedule in effect is higher than the previous year's schedule. Kentucky also limits the permissible increase in the maximum weekly benefit amount each year depending on the trust fund balance. For example, when the fund balance is less than \$150 million, the maximum benefit cannot increase by more than 6 percent over the previous year's maximum. An individual's extended benefit and total benefit amounts will be cut by the amount of the Gramm-Rudman-Hollings reduction.

Disqualification. An individual will not be disqualified from benefits for leaving work that was 100 miles (one-way) from home to accept work less than 100 miles away.

Louisiana

Benefits. An individual's extended benefit amount and total benefit amount will be reduced by the amount of the Federal share of the Gramm-Rudman-Hollings reduction.

Maine

Financing. Benefits paid to a dislocated worker will not be charged to an employer's experience rating account, but to the general fund.

Benefits. A temporary program which will provide job search assistance and job training was established for dislocated workers.

Maryland

Coverage. A new enactment excludes from coverage services performed by an individual as a direct seller, if certain conditions are met.

Financing. The definition of wages was amended to include tips when they have been reported by the claimant in a written statement furnished to the employer.

Benefits. The maximum weekly benefit amount was increased from \$175 to \$195, and the dependency allowance was raised from \$3 to \$4. Wages earned for a successive benefit year must be in insured work. A temporary worksharing program, established in 1984, was made permanent.

Disqualification. An individual's requalifying earnings after disqualification for voluntary leaving without good cause, discharge for misconduct, or refusal of suitable work must be earned in insured work.

Penalties. The penalty for fraudulent misrepresentation by any individual to obtain or increase benefits was changed from a monetary fine to a misdemeanor. If convicted, the individual will be required to repay the fraudulent benefits plus interest at the rate of 1.5 percent per month from the date on which he or she was notified of the recoverable amount. Also, the individual shall be fined up to \$1,000 or imprisoned for up to 90 days, or both. Any individual who fraudulently prevents or reduces benefits will be guilty of a misdemeanor and fined up to \$1,000 or imprisoned for up to 90 days, or both.

Michigan

Financing. The definition of wages was amended to include tips that are reported by the claimant to the employer in a written statement.

Minnesota

Financing. No employer's account shall be charged for benefits paid to an individual when: (1) the unemployment was caused by a fire, flood, or act of God; (2) 70 percent or more of the employees became unemployed as a result; and (3) the employer reopens its operation within 360 days of the disaster.

Mississippi

Benefits. The maximum weekly benefit amount increased from \$115 to \$130. Professional baseball was included as a seasonal industry for benefit purposes. The total amount of extended benefits payable

is now limited, so that the Federal reimbursement is one-half of the total extended benefits payments pursuant to Gramm-Rudman-Hollings.

Disqualification. The disqualification for discharge for misconduct was changed from 1 to 12 weeks to the duration of the claimant's unemployment and until the individual has earned wages of at least eight times the weekly benefit amount. The disqualification for, and definition of, gross misconduct was deleted from the law. The statute now limits to 10 years the period during which the State may collect overpayments made earlier to a claimant.

Missouri

Financing. The definition of wages for UI purposes was amended to include tips reported by the claimant in a written statement to the employer.

Nebraska

Financing. The definition of wages was amended to include tips reported by the claimant in a written statement to the employer for Federal income tax purposes.

Benefits. Beginning October 1, 1988, employers will be required to report quarterly wages for every employee, which will be used to make individual monetary determinations of benefit eligibility. The commissioner of the Nebraska Department of Labor may, by regulation, designate the base period as the first four of the last five completed calendar quarters instead of the four completed calendar quarters preceding the individual's benefit year, as is currently the case. The law now specifies that the percentage of benefits which are Federally funded may be adjusted in accordance with the provisions of Gramm-Rudman-Hollings.

Disqualification. The statute now limits to 3 years the period during which the State may collect overpayments made earlier to a claimant. However, no individual will be liable for overpayments received without fault on his or her part where the recovery thereof would defeat the purpose of the act or be inequitable and against good conscience.

New York

Coverage. A new enactment excludes from coverage services performed by an individual as a real estate agent, if certain conditions are met. The law now permits voluntary coverage for a person employed at a place of religious worship.

Financing. Employer contribution rates, formerly computed from payrolls for the preceding year, are now based on average payrolls for the last 3 years, or the average for all quarters if the employer has been liable for fewer than 13 quarters.

North Carolina

Benefits. The law was amended to cut the weekly and total extended benefit amounts to reflect any reductions under Gramm-Rudman-Hollings.

Ohio

Financing. The contribution rate for new employers will be the higher of the average contribution rate computed for their industry or 3 percent.

Oklahoma

Benefits. An individual's duration of benefits will now be determined as the lesser of 26 weeks or 40 percent of the taxable wage, or 40 percent of the total wages in the base period. Oklahoma also will cut the extended benefit amount by one-half if the amount of extended benefits reimbursed by the Federal Government is reduced.

Disqualification. The disqualification period for refusal of suitable work or failure to actively seek work was changed from the week of failure and until the individual earns at least 10 times the weekly benefit amount to the week in which the failure occurred.

Penalties. An individual will be assessed interest at the rate of 1 percent per month on fraudulently received benefits until such benefits are repaid.

Rhode Island

Benefits. Beginning January 1, 1988, all employers will be required to submit a quarterly wage report on all employees. On claims filed on or after October 1, 1989, the report will be used to establish an individual's eligibility for benefits and to determine the amount and duration of benefits.

South Carolina

Financing. The standard rate of employer contributions increased from 2.7

percent to 5.4 percent of payrolls. The rate of contributions for new employers was reduced from 2.7 percent to 2.64 percent.

South Dakota

Disqualification. The labor dispute disqualification now applies to any individual for any week in which the unemployment is caused by a labor dispute. Holiday pay will be considered disqualifying income and an individual's weekly benefit amount will be reduced by the amount of the holiday pay prorated over weeks of UI benefits paid.

Tennessee

Financing. The tax rate for employers who are not experience rated increased from 5.4 percent to 5.5 percent.

Benefits. The maximum weekly benefit amount increased from \$120 to \$125, and will increase to \$130 on January 5, 1987.

Disqualification. A labor dispute disqualification will not apply if the claimant subsequently obtains covered employment and earns 10 times the weekly benefit amount. Also, a disqualification will not apply if the claimant was indefinitely separated prior to the dispute and is otherwise eligible for benefits.

Utah

Coverage. The test for determining whether an employer-employee relationship exists is modified to delete consideration of services performed for the employer outside the usual course or place of the employer's business. Thus, services for remuneration will constitute employment unless two tests are met: (1) the individual is free from direction and control, and (2) he or she is customarily engaged in an independent trade or business.

Vermont

Financing. Beginning January 3, 1988, benefits will be charged to all base period employers in proportion to the wages earned by the individual with each employer. However, if one or more base period employers are not charged for benefits paid for reasons described in the law, all benefits paid shall be charged proportionately to the remaining base period employ-

ers. Currently, benefits are charged to the most recent employer who paid the individual \$695 or more in covered employment.

Benefits. Beginning January 3, 1988, to qualify for benefits an individual must earn: (1) at least \$1,000 in one quarter of the base period; (2) base period wages of at least 40 percent of the total high-quarter wages; and, (3) at least four times the weekly benefit amount after the beginning of the individual's most recent benefit year. Currently, the qualifying requirements are 20 weeks of work at \$35 per week. Also, an individual's weekly benefit amount will be determined by dividing the wages in the two high quarters by 45. However, the amount determined may not exceed the maximum weekly benefit amount. Beginning with the first calendar week of July 1990, the quarterly wage requirement of \$1,000 (as mentioned above) will be adjusted by a percentage increase equal to the percentage increase, if any, in the State minimum wage effective during the preceding calendar year. Beginning January 3, 1988, an individual must earn 1½ times high-quarter wages in the base period to qualify for extended benefits. A temporary compensation program for employees on shortened work schedules was established, to last until June 30, 1988.

Virginia

Benefits. The maximum weekly benefit amount increased from \$159 to \$167.

Penalties. The penalty for fraudulent misrepresentation by individuals to obtain or increase benefits or by employers to prevent or reduce benefit payments has been changed from a misdemeanor to a Class I misdemeanor.

Washington

Financing. The definition of wages was amended to include tips which are reported by the employee to the employer for Federal income tax purposes.

Wyoming

Benefits. If the amount of extended benefits reimbursed by the Federal Government is reduced or increased, then the State's share of the weekly extended benefit amount will be reduced or increased on an equal basis. □

Retail liquor stores experience flat trend in productivity

Output per hour of all persons remained relatively stable during 1972-85; technological innovations have not been sufficient to offset weak demand and small, labor-intensive operations

JAMES D. YORK

Output per hour of all persons¹ in the retail liquor store industry² increased at an average annual rate of 0.2 percent from 1972 to 1985, compared with an average annual rate of 0.7 percent for the total nonfarm business sector of the economy during the same period. This overall productivity gain reflects no change in output on an average annual basis coupled with a corresponding decrease in all person hours of 0.3 percent. (See table 1.)

In 1972-78, productivity in the retail liquor industry declined at a rate of 0.8 percent. The rate of growth in output was only 0.7 percent and was outpaced by a growth in hours of 1.5 percent per year. Productivity declined every year of this subperiod except in 1976, when it increased by 4.7 percent. This increase occurred as output rose 1.6 percent and hours declined 3.0 percent. Recessionary conditions in 1974 and 1975 may have contributed to the weak demand exhibited during this period. Sales declined in 1975, the year the recession reached its trough, but rebounded in 1976 and 1977—both years of economic recovery.

From 1978 to 1982, productivity experienced a sharp turnaround, rising at a 3.3-percent annual rate. However, it still reflected a decrease in hours. Output increased an average of 0.4 percent annually, while hours declined at a rate of 2.9 percent. Output increased in only 2 years of this subperiod, 1979 and 1980.

Despite the general recovery in the economy since 1982,

productivity declined at an average annual rate of 1.9 percent from 1982 to 1985. Output declined at a rate of 3.9 percent, exceeding the 2.1-percent rate of decrease in hours. Output posted declines in every year except 1983, when there was a small increase of 0.6 percent. Substantial declines of 6.6 and 4.7 percent occurred in 1984 and 1985. Increased health concerns, changes in social attitudes toward drinking, and tougher drunk-driving laws have proba-

Table 1. Retail liquor stores indexes of output per hour of all persons and related data, 1972-85

[1977=100]

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
1972	101.3	102.8	94.2	93.0	91.6
1973	101.2	104.7	96.7	95.6	92.4
1974	99.8	103.5	96.7	96.9	93.4
1975	96.5	99.4	96.5	100.0	97.1
1976	101.0	101.2	98.0	97.0	96.8
1977	100.0	100.0	100.0	100.0	100.0
1978	94.7	92.0	98.3	103.8	106.9
1979	96.3	91.9	101.4	105.3	110.3
1980	101.6	92.8	103.7	102.1	111.7
1981	103.2	93.2	101.7	98.5	109.1
1982	107.8	96.1	99.9	92.7	104.0
1983	101.2	93.4	100.5	99.3	107.6
1984	101.6	91.6	93.9	92.4	102.5
1985	101.0	88.6	89.5	88.6	101.0
Average annual rates of change (in percent)					
1972-85	0.2	-1.1	0.0	-0.3	1.1
1980-85	-0.4	-0.9	-2.7	-2.3	-1.9

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bly contributed to the decline in demand.³ The small output increase of 0.6 percent coupled with an increase in hours of 7.1 percent caused a drop in productivity of 6.1 percent in 1983. In 1984, a drop in hours of 6.9 percent enabled productivity to register a 0.4-percent increase, but in 1985 productivity declined by 0.6 percent as hours declined less than output.

Industry structure and employment

The industry is characterized by small establishments with relatively few employees. In recent years, however, small stores have declined in relative importance. Retail liquor establishments with 1 to 9 paid employees represented 85 percent of all establishments with paid employees in 1982, compared with slightly over 89 percent in 1972. These employees accounted for about 65 percent of total paid employment in 1982, down from about three-quarters in 1972. The sales volume of stores with 1 to 9 paid employees has likewise declined slightly as a proportion of the total. In 1982, their sales volume accounted for 69 percent of the total, down from about three-quarters in 1972.

Although most establishments are small, a number of firms in the industry have many establishments. These organizations can benefit from certain economies of scale, even if none of the individual establishments has large output. Although the number of multiunit firms has increased, the number of large companies has remained virtually unchanged. In 1972, there were 944 multiunit firms, accounting for a total of 6,265 establishments. Some of these firms contained numerous establishments. For example, 6 firms had 51 to 100 establishments and 11 firms had more than 100 outlets. The 11 firms actually operated a total of 2,577 establishments, an average of 234 establishments per firm. They accounted for almost 17 percent of all sales and about 10 percent of paid employment.

In 1982, the number of multiunit firms totaled 2,124, accounting for 8,008 establishments. Among these were 6 firms with 50 to 99 establishments (the category shown in the 1982 Census of Retail Trade). Twelve firms had 100 establishments or more. Thus, over a 10-year period, while the number of multiunit firms increased, there was virtually no change in the number of large chains. The 12 largest firms operated 2,973 establishments, an average of 248 establishments per firm, a slight increase over previous years. Their share of total sales decreased slightly to less than 14 percent and their share of paid employment fell to less than 8 percent. The average number of employees per establishment increased from 3.8 in 1972 to 4.1 in 1977 and 1982.

Between 1972 and 1985, the number of persons working in the liquor store industry increased by 10.3 percent, from 150,900 to 166,400. This represents an average annual rate of increase of 1.1 percent. Despite the increase in employment, the total hours of all persons actually decreased at an average annual rate of 0.3 percent. This primarily reflects a

rise in part-time workers and a decline in the average weekly hours of nonsupervisory employees of 13.6 percent, from 33.0 to 28.5 hours.

The work force of the liquor store industry consists of partners and proprietors, nonsupervisory workers, supervisory workers, and unpaid family workers. Nonsupervisory workers make up the largest group. They represented 58.4 percent of all liquor store personnel in 1972.⁴ By 1985, however, they had increased to 68.9 percent of the total. Increased competition in the industry appears to have been a factor in this trend. The smallest stores, which have a higher proportion of self-employed workers, have been declining in relative importance. In the face of reduced demand in recent years, many of these stores closed and this has had a negative effect on the number of self-employed workers. From 1972 to 1985, the number of partners and proprietors declined 31 percent, from 36,700 to 25,200. The larger stores that remain have relatively more nonsupervisory employees.

The industry's work force is dominated by persons in marketing and sales occupations. Salespersons represent the largest group and accounted for nearly 40 percent of the total in 1984. Cashiers, the next largest group, accounted for nearly 19 percent. Another major occupation among marketing and salesworkers is stock clerks, who represented nearly 8 percent of the work force in 1984.⁵

A changing market

Many factors have affected the market for alcoholic beverages in recent years. Changes in demographics, consumer tastes, and social attitudes toward drinking have influenced consumer buying patterns.

One of the most dramatic shifts in drinking habits has been the growing consumption of wine and, recently, wine coolers. This shift to wine has increased employee time required to service consumers because of the greater number of bottles which must be handled for a given value of sales. Between 1970 and 1980, wine increased its share of liquor and wine sales from 40 percent to more than half of the market and has continued to increase its share in subsequent years.⁶ Brandy sales have also increased.

Among distilled spirits, a large decline in whiskey consumption has contributed to the weak demand experienced by the industry. From 1972 to 1984, whiskey sales declined by more than 27 percent.⁷ This has been partially offset, however, by a rise in vodka sales.

In the brewery industry, one of the most significant developments has been the growth of "low-calorie" light beer. Light beer sales, virtually nonexistent in the early 1970's, accounted for about 20 percent of total sales in 1984, having risen every year. Light beer has been an important factor in keeping up total beer sales in an increasingly diet-conscious consumer market. During 1972-84, total beer sales increased about 39 percent. However, in recent years, beer sales have been relatively stable.⁸ Beer has increased its

share of the overall market, however, and has increased handling requirements per dollar of sales in the industry.

There appears to have been an increase in the diversity of beverages purchased by consumers. As already stated, there has been a considerable increase in the consumption of light beer and wine. There has also been a rise in the consumption of cordials, liqueurs, and mixed drinks. The desire to sample new tastes appears to be a factor in the increased popularity of premixed drinks now available in liquor stores. Sales of soft drinks in liquor stores have also increased.

Factors affecting productivity

While overall growth in productivity and demand has been negligible in the liquor store industry, computer technology and the shift to self-service operations have helped to offset negative factors in the industry's productivity situation, thus preventing an actual decline. Computers are often used in conjunction with point-of-sale terminals (cash registers) and electronic scanning devices. The declining prices of computers and the availability of inexpensive personal computers have made this technology feasible for more and more liquor store operators.

Computers provide numerous capabilities to store managers which have enabled them to operate their businesses more efficiently. Inventory and the stocking of shelves can be controlled by computer technology. Information coded on bottle labels and picked up by scanning devices is fed into the computer, thereby keeping track of what is being sold from the store's shelf inventory. The computer can alert the stockroom personnel when the supply of certain items is getting low. In addition to eliminating employee time required for monitoring shelf stocks, a computer system can avert the loss of sales by monitoring inventory. The computer can inform employees exactly where each item can be found on stockroom shelves and where it belongs on the sales floor. It can also automatically print out a purchase order for suppliers whenever stockroom quantities are low.⁹

The use of scanning equipment in conjunction with computers or other memory-equipped devices removes the need to put price labels on individual products. Price information for all items can be entered into the system's memory. The scanner reads the coded information on the product labels and the appropriate price to charge the customer can then be retrieved from the system's memory. As prices change, information in the memory is updated, alleviating the need to reprice items on the shelves.¹⁰

Because of their capability to store information and make it readily accessible, computers have been used to perform recordkeeping and administrative functions and thus greatly reduce the amount of worktime required for these tasks. Computers can provide permanent records which may be required by the State liquor authority or other government body. They can handle the payroll, the general ledger, and accounts payable. The information provided on sales activity permits store operators to schedule staff hours more

efficiently. The word-processing ability of computers can also reduce time spent on correspondence. Computers have helped store operators increase sales by providing the necessary information to determine the best selling items so that ordering can focus on a more optimal product mix. Detailed information provided by computers also contributes to a reduction in employee pilferage.

Many liquor store operators who have not introduced computer technology into their establishments have nevertheless benefited from improvements in cash registers. The development of electronic cash registers (ECR's) to replace the older mechanical versions has improved bookkeeping capabilities. ECR's provide memory capability and reduce the time involved in accounting and inventory. Because of their memory capacity, they offer store operators many of the same benefits of computer technology.¹¹

Employee hours have been reduced by the shift to self-service operations which has taken place in much of the industry. Customers can browse for their choice of beverages. The workload of store personnel is reduced because they no longer need to spend time retrieving bottles for customers as their orders are placed. The increasingly tough competition which has taken place in the industry has also spurred continuing efforts to reduce labor time requirements. The reduced demand for liquor stores in recent years has made it more difficult for marginal operators to remain in business. The restrictions of various State and local laws, however, will limit any tendencies toward consolidation or concentration.

Despite the benefits of computer technology, productivity in the industry has experienced very little growth over the years. Liquor stores remain relatively labor-intensive operations. The inherent nature of store operations has prevented any significant automation of operations such as those that have been achieved in many manufacturing facilities. The introduction of data processing equipment has enhanced the capabilities of managers and employees but has not removed the basic need for their services. The opportunities to substitute machinery or equipment for employee time and effort are limited and have deterred productivity growth. Efforts to take advantage of the efficiencies associated with larger, multiunit operations have been limited by the restrictions of various State and local laws.

Outlook for productivity

Industry productivity growth should benefit from the continuing diffusion of computers and scanning equipment. The introduction of increasingly affordable personal computers has put computer technology within the reach of more and more liquor store operators. The tremendous efficiencies made possible by computers—in such areas as accounting and inventory control—can now be introduced into small-scale liquor operations as well as into larger chains. As managers become more familiar with computers, they should be able to use them more effectively to improve productivity.

Point-of-sale technology should become more widely used and further contribute to productivity gains. This technology permits electronic-scanning equipment to be connected to computers so that information from coded merchandise can be automatically fed into a computer. With the more widespread use of Universal Product Codes in the liquor industry, the adoption of such systems should be facilitated. In addition to the obvious advantages of eliminating the need for price stickers on merchandise, the marketing information gathered as a byproduct of merchandise sales should be helpful in boosting sales volume.

Competition in the liquor store industry appears to have been increasing in recent years. Changing public attitudes toward drinking may portend a tighter market for alcoholic beverages and may force more marginal stores out of operation while keeping pressure on the remaining stores to achieve greater efficiencies. However, increased efforts to curb alcohol abuse may cause liquor store operators to divert their attention from management of daily operations in order to fend off unfavorable legislation and protect their public image. Overall, opportunities for productivity improvement will be restricted because of the limited opportunities for substituting capital for labor. □

—FOOTNOTES—

¹ All average rates of change are based on the linear least squares trends of the logarithms of the index numbers.

² The retail liquor store industry is designated as Standard Industrial Classification (SIC) 592. It consists of establishments primarily engaged in the retail sale of packaged alcoholic beverages, such as ale, beer, wine, and whiskey, for consumption off the premises. All retail liquor establishments, whether operated by government or private ownership, are included in the industry. For a discussion of productivity trends in liquor stores operated by State or local government, see Donald M. Fisk, *Measuring Productivity in State and Local Government*, Bulletin 2166 (Bureau of Labor Statistics, December 1983), pp. 34–42.

³ "The Spirited Battle for Those Who Want to Drink Light," *Business Week*, June 16, 1986, p. 84.

⁴ This does not include State liquor stores for which no separate break-

down of supervisory and nonsupervisory employees was available.

⁵ Bureau of Labor Statistics, data for 1984–95, National Industry Occupational Matrix.

⁶ Martin Weinberger, "What'll You Have? Changes in Consumer Attitudes," *Liquor Store*, November–December 1983.

⁷ Based on data from the Distilled Spirits Council of the United States. Data include on- and off-premises sales.

⁸ Trends in beer sales based on data from the Brewers Association.

⁹ See "How the Personal Computer Gives Your Business an Edge," *Liquor Store*, April 1984.

¹⁰ See "Scanning's Many Benefits," *Liquor Store*, September 1982.

¹¹ See "New Register Cuts 30 Hours Work a Week," *Liquor Store*, April 1981.

APPENDIX: Measurement techniques and limitations

Indexes of output per hour of all persons measure changes in the relationship between the output of an industry and hours expended on that output. An index of output per hour is derived by dividing an index of output by an index of industry hours.

The preferred output index for retail trade industries would be obtained from data on quantities of the various goods sold by the industry, each weighted (that is, multiplied) by the employee hours required to sell one unit of each good in some specified base period. This concept also embodies the services associated with moving the goods from the retail establishment to the consumer. Thus, those goods which require more retail labor are given more importance in the output index.

Data on the quantities of goods sold usually are not available for trade industries, including retail liquor stores. Therefore, real output was estimated by removing the effects of changing price levels from the current dollar value of sales. Because an adjustment for changing price levels usually lowers the dollar value, such a series is usually referred to as a deflated value measure.

Output measures based on deflated value have two major characteristics. First, they can reflect shifts in sales among products of different value which have the same unit labor

requirements. (For example, if customers begin to purchase more unadvertised brands instead of "nationally advertised" brands, dollar sales will decrease if the unadvertised brand is priced lower.) Thus, a change can occur in the output per hour index even if the labor required to sell the merchandise does not change.

Second, the sales level, both in current and constant dollars, reflects differences in unit values for identical products sold in different types of establishments. For example, the unit value associated with a product sold in a self-service "discount" store may be lower than the unit value associated with the same product sold in a store that provides many sales clerks and delivery service. The output measure, therefore, reflects changes in the level of service provided to customers insofar as differences in unit values reflect the differences in service among the various types of establishments.

In addition to the deflated value technique, weights relating to labor importance were used to combine segments of the output index into a total output measure. The weights used were gross margin weights. These weights, calculated for each merchandise line category, represent the percentage markup provided by the retail liquor store industry. Gross margins are used in place of labor importance weights which are unavailable for this industry. These procedures result in

a final output index that is closer, conceptually, to the preferred output measure.

The index of hours for the retail liquor store industry is for all persons, that is, hours for paid employees, partners and proprietors, and unpaid family workers. As in all of the output per hour measures published by the Bureau of Labor Statistics, hours and employment in retail liquor stores are each considered homogeneous and additive. Adequate information does not exist to weight the various types of labor separately.

The indexes of output per hour relate total output to one input—labor time. The indexes do not measure the specific contribution of labor, capital, or any other single factor. Rather, they reflect the joint effect of many interrelated influences such as changes in technology, capital investment, capacity utilization, store design and layout, skill and effort of the work force, managerial ability, and labor-management relations.

No explicit adjustments were made to the measure for retail liquor stores to take into account increases or decreases in some services provided to the consumer. There

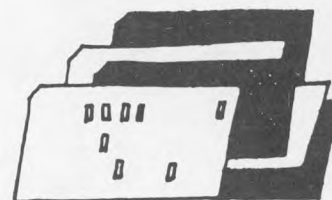
has been a continuing shift to self-service operations. This has shifted some of the hours in retailing from the employee to the consumer. However, data are not available to measure the effect of this change.

The basic sources for the output series for this measure consist of the total sales data and sales by merchandise line data reported by the U.S. Department of Commerce. The deflators were developed using various Consumer Price Indexes published by the Bureau of Labor Statistics. The gross margin weights were developed from data reported by the U.S. Department of Commerce.

The basic sources for the all person hour series consist of data on employment and hours published by the Bureau of Labor Statistics and the Bureau of the Census, supplemented by data reported by the Internal Revenue Service and special tabulations compiled for the Bureau of Labor Statistics by the Bureau of the Census. Data on average annual hours available from various State liquor control boards were also utilized. The all person hour series includes the hours of State liquor store employees as well as the hours of employees in privately owned and operated establishments.

A note on communications

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, D.C. 20212.



Moonlighting: a key to differences in measuring employment growth

JOHN F. STINSON, JR.

Each month, the Bureau of Labor Statistics analyzes and publishes two independently derived estimates of employment. One is based on data from the Current Population Survey (or household survey), and the other from the Current Employment Statistics program (payroll or establishment survey). Data from the household survey are obtained from a sample of about 59,500 households. They measure the work status of individuals and yield estimates of total employment for the Nation. The data from the establishment survey are derived from the payroll records of over 250,000 establishments and are essentially a count of occupied payroll jobs in the nonfarm sector of the economy.

Both series are important in appraising labor market trends and in assessing the overall performance of the economy. However, they are not always in agreement in gauging the trends in employment growth. For example, over the 4-year period between November 1982, when the current economic expansion began, and November 1986, the count of total civilian employment obtained through the household survey showed an increase of 11.3 million.¹ Over the same period, the estimates of payroll employment derived from the establishment survey rose by a significantly greater amount—12.4 million. If the household employment data are adjusted for the readily measurable differences between the two series—such as the inclusion in the household survey, but not the establishment survey, of agricultural, self-employed, and private household workers—the growth in employment for that series during the expansion is reduced even further, to 10.7 million.² (See table 1.) This suggests a discrepancy of about 1.6 million in employment growth as measured by the two series.

Thus, while both series have registered substantial employment gains during the recovery, the difference in their growth inevitably raises questions about the accuracy of one or both of the series and creates confusion in determining just how much employment has grown during the recovery. It is, therefore, important to look further for an explanation.

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One important factor is the treatment of multiple jobholders within each of the series. In the household survey, employed persons who hold more than one job are counted only once, at the job at which they worked the greatest number of hours during the reference week. In the payroll survey, however, they are counted as many times as they appear on a payroll record. Indeed, they may be counted more than once even if they do not hold two jobs simultaneously but merely left one job and started on another one during the same reference week. An increase in both types of "multiple jobholding" over a given period of time, other things being equal, would therefore cause the employment estimate from the payroll survey to show a faster rate of growth than that from the household survey.

Although not measured in the establishment survey, multiple jobholding is measured periodically in the household survey through special supplements. The May 1985 data on multiple jobholding are of particular importance in examining the recent discrepancy in employment growth because they constitute the first information on moonlighting since May 1980.³

During this period, the number of multiple jobholders increased sharply—by about 880,000, or 18 percent.⁴ The moonlighters who are of primary interest for the purposes of reconciling the household and payroll employment estimates are those who held second jobs as nonagricultural wage and salary workers. Their number increased by about

Table 1. Changes in payroll and household survey employment, November 1982–86, seasonally adjusted

[In thousands]

Employment series	November 1982	November 1986	Change ¹
Nonagricultural payroll employment	88,682	101,068	12,386
Total civilian employment (household survey)	99,112	110,432	11,320
Less: Agriculture	3,510	3,215	-295
Nonagricultural self-employed	7,320	8,179	859
Nonagricultural unpaid family workers	363	252	-111
Private household workers	1,245	1,183	-62
Unpaid absences	2,003	2,256	253
Total deductions	14,441	15,085	644
Plus: Agricultural services	445	504	59
Adjusted household survey employment	85,116	95,851	10,735

¹ Changes in the household survey series do not reflect the population adjustments introduced into the survey in January 1986.

Table 2. Change in employment at secondary jobs by industry, May 1980–85

[In thousands]

Industry of secondary job	May 1980	May 1985	Change
Total nonagricultural wage and salary workers	3,001	3,825	824
Mining	14	11	-3
Construction	115	68	-47
Manufacturing	203	290	87
Transportation and public utilities	162	213	51
Wholesale and retail trade	806	745	-61
Finance, insurance, and real estate	213	529	316
Services, except private households	1,255	1,721	466
Public administration	234	248	14

NOTE: Data for 1980 have been adjusted to reflect the 1980 census population adjustments introduced in January 1982.

820,000 over the May 1980–May 1985 period.⁵

There is no direct way to ascertain exactly how much of the growth in moonlighting occurred between the end of 1982, when the economic recovery began, and May 1985. Some indirect evidence, however, suggests that the 1980–85 growth in multiple jobholding is likely to have occurred during the recovery and that it contributed significantly to the greater employment growth shown by the payroll survey during this period.⁶

First, an examination of the number of multiple jobholders over the course of business cycles since 1959 indicates little or no growth during recessions and typically large increases during recovery periods. If this pattern repeated itself in the 1980's, as is quite likely, there would have been little or no growth in moonlighting from 1980 to the end of 1982, when the U.S. economy went through two recessions. The growth would have occurred from 1983 to 1985, during the economic recovery.

Secondly, additional insight is gained by examining the 1980–85 growth in the number of multiple jobholders by industry. The observed growth was heavily concentrated among those workers whose second jobs were in the finance, insurance, and real estate and services industries. These industries had some of the highest rates of overall employment growth during the recovery. (See table 2.)

Based on this evidence, it can be concluded with some confidence that the 1980–85 growth in multiple jobholding occurred largely during the period of economic recovery, which began in late 1982. Put another way, these data suggest that there is only a limited inconsistency in the finding that the number of jobs has increased by 12 million, while the number of employed persons increased by about 11 million. □

—FOOTNOTES—

¹ This figure has not been adjusted to reflect the introduction of population adjustments introduced into the household survey in January 1986. If an explicit account of these adjustments is taken, then the growth in em-

ployment would probably be reduced by about 200,000, to 11.1 million. The population adjustments are described as "Changes in the Estimation Procedure in the Current Population Survey Beginning in January 1986," *Employment and Earnings*, February 1986, pp. 7–10.

² The growth in the household survey employment series would be reduced to around 10.5 million after making the adjustment described in footnote 1.

³ For an analysis of the May 1985 data on multiple jobholders, see John F. Stinson, Jr., "Moonlighting by women jumped to record highs," *Monthly Labor Review*, November 1986, pp. 22–25.

⁴ After adjustment of the May 1980 data to 1980 census population controls.

⁵ Persons who worked on second jobs in agriculture or as nonagricultural self-employed workers would not be counted at those jobs in the payroll survey and so are not of interest here.

⁶ Between November 1982 and May 1985, when the bulk of the 820,000 1980–85 growth in moonlighters most likely occurred, employment as measured by the payroll survey increased by about 900,000 more than in the household survey. Since May 1985, the employment gap has increased to about 1.6 million, but presumably the multiple jobholding total has also increased and can account for some of the widening in the gap between the two series.

Employment and wage changes of families from CE Survey data

MARY F. KOKOSKI

Recent data indicate an increase in real per capita income and a decrease in the average weekly hours worked by nonsupervisory employees.¹ These trends would seem to imply an increase in household welfare, gross of taxes. However, labor force participation of wives has increased, implying a corresponding increase in average weekly hours worked per household.

A recent study of these issues compared market employment and wage and price changes experienced by households in the 1972 and 1980 Consumer Expenditure Interview Surveys.² Renter households, comprising a husband, wife, and children, if any, were grouped by race (white, nonwhite) and household type (by age of children). The study was limited to renter households because of problems in constructing commodity price indexes at the disaggregate (household) level. Specifically, data on owner estimates of the rental value of their residences are lacking for the 1980 sample.³ The Consumer Expenditure (CE) Survey provided data on market employment status, occupation, and earned income of each household member. Current Population Survey data on median weekly earnings of full-time workers by occupation were used to construct an index of wage changes from 1972 to 1980.

Table 1 shows the market employment rates of the households in each demographic group.⁴ Data are shown sepa-

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Table 1. Market employment rates of renter families from 1972 and 1980 Consumer Expenditure Surveys

Type of household	1972			1980		
	Not working	Working part time ¹	Working full time ²	Not working	Working part time ¹	Working full time ²
Husbands in white families with—						
No children present	0.31	0.09	0.60	0.36	0.09	0.55
Oldest child:						
Under age 6 . . . . .	.04	.02	.94	.05	.04	.91
Age 6 to 17 . . . . .	.05	.02	.93	.06	.06	.89
Over age 17 . . . . .	.18	.04	.78	.36	.02	.62
Husbands in nonwhite families with—						
No children present . . . . .	.31	.09	.60	.36	.08	.56
Oldest child:						
Under age 6 . . . . .	.06	.04	.90	.05	.08	.87
Age 6 to 17 . . . . .	.07	.05	.88	.13	.05	.82
Over age 17 . . . . .	.23	.02	.75	.38	.08	.54
Wives in white families with—						
No children present . . . . .	.55	.11	.34	.52	.12	.36
Oldest child:						
Under age 6 . . . . .	.58	.14	.28	.35	.24	.41
Age 6 to 17 . . . . .	.59	.17	.24	.38	.21	.41
Over age 17 . . . . .	.70	.11	.19	.75	.06	.19
Wives in nonwhite families with—						
No children present . . . . .	.43	.17	.40	.41	.11	.48
Oldest child:						
Under age 6 . . . . .	.37	.10	.53	.25	.19	.56
Age 6 to 17 . . . . .	.45	.15	.40	.30	.17	.53
Over age 17 . . . . .	.59	.12	.29	.51	.05	.44

¹ Fewer than 35 hours per week.
² 35 hours or more per week.

NOTE: Market employment rates do not correspond to the official BLS statistical series on labor force participation. Data are for proportion of total households in the given demographic group and sample year.

rately for husbands and wives in each of three employment status classifications (not working, working part time, working full time), and by household type. For both whites and nonwhites, the greatest proportion of husbands who worked full time were in “young” families (oldest child under age 6) and “middle” families (oldest child aged 6 to 17) in both the 1972 and 1980 samples. The proportion of husbands who worked part time was less than that of wives who worked part time. In general, larger proportions of working wives (both full- and part-time) appeared in the young and middle family groups. The largest proportions of nonworking wives were in the “older” family groups (oldest child over age 17) in both 1972 and 1980. Compared with the 1972 sample, more wives were working in 1980 in all family categories, except older white families. Interestingly, the greatest increases in the proportion of working wives were in the young and middle family types of both racial groups, that is, those families with greater household responsibilities.

The rudimentary indexes of occupational wage changes between 1972 and 1980 are shown below:

Occupational group	Index (1972=100)
Professional and technical workers	174.5
Managers and administrators	173.4
Salesworkers	175.5
Clerical workers	173.6
Craft and kindred workers	188.4
Operatives, except transport	189.9
Transport operatives	184.9
Nonfarm laborers	179.5
Private household workers	170.2
Other service workers	170.2
Farm workers	205.0

Wages and salaries increased most quickly for farm workers, operatives, craftworkers, transport operatives, and nonfarm workers. The lowest rates of change occurred for private household and other service workers.⁵ Grouping these occupational categories by their relative indexes of wage change provides the following categorization.

Table 2. Occupational distribution of renter families from the 1972 and 1980 Consumer Expenditure Surveys

[In percent]

Type of household	White collar ¹		Blue collar ²		Service ³		Farm ⁴	
	1972	1980	1972	1980	1972	1980	1972	1980
Husbands in white families with—								
No children present	45.3	48.3	43.0	42.4	9.2	8.9	2.5	0.4
Oldest child:								
Under age 6	35.7	32.5	55.1	59.2	6.1	7.8	3.2	.6
Age 6 to 17	31.6	32.7	57.3	60.8	5.2	5.8	5.9	.7
Over age 17	35.5	22.5	51.3	67.4	9.2	10.2	4.0	.0
Husbands in nonwhite families with—								
No children present	19.6	33.3	72.6	51.4	7.8	9.7	.0	5.6
Oldest child:								
Under age 6	28.6	35.3	59.2	58.8	12.2	5.9	.0	.0
Age 6 to 17	23.9	35.4	56.7	59.8	10.5	4.9	9.0	.0
Over age 17	11.1	10.5	72.2	79.0	16.7	5.3	.0	5.3
Wives in white families with—								
No children present	74.5	70.2	10.4	15.5	14.3	14.4	.8	.0
Oldest child:								
Under age 6	64.8	58.9	16.6	21.0	18.6	20.1	.0	.0
Age 6 to 17	44.4	42.4	26.6	31.8	27.4	25.4	1.6	.5
Over age 17	41.5	33.3	22.0	41.7	36.6	25.0	.0	.0
Wives in nonwhite families with—								
No children present	53.7	56.1	12.2	17.5	31.7	19.3	2.4	7.0
Oldest child:								
Under age 6	58.3	49.2	19.4	33.9	22.2	16.9	.0	.0
Age 6 to 17	30.8	42.2	23.1	21.9	33.3	35.9	12.8	.0
Over age 17	37.5	9.1	12.5	36.4	37.5	54.6	12.5	.0

¹ White-collar occupations include professional, technical, sales, and clerical workers, and managers and administrators. These occupations had average wage increases over the period.

² Blue-collar occupations include craft and kindred workers, operatives, and nonfarm laborers. These occupations had above-average wage increases over the period.

³ Service occupations include private household and other service workers. These occupations had low wage increases over the period.

⁴ This occupation had high wage increases over the period.

NOTE: Because of rounding, sums of totals may not equal 100. Data are for proportion of total households in the given demographic group and sample year.

Wage increase	Occupational group	Occupations
High	Farm workers	Farm workers
Above average ..	Blue collar	Craft and kindred workers, operatives, and non-farm laborers
Average	White collar	Professional, technical, sales, and clerical workers, and managers and administrators
Low	Service	Private household and other service workers

In table 2, the working husbands and wives in the 1972 and 1980 sample households are disaggregated into these broader occupational categories. Most of the working husbands were employed in blue-collar occupations with above-average wage increases, while the wives tended to work in white-collar (average wage increases) and service (low increases) occupations. However, in many of the household categories, more wives were working in the blue-collar group in the 1980 sample than in the 1972 sample.

Because the Consumer Expenditure Survey is now conducted on a continuing basis, further research on family welfare is planned and will focus on the effects of changes in the family's market labor, earned income, expenditures, and prices. □

—FOOTNOTES—

¹ See, for example, Paul Ryscavage, "Reconciling divergent trends in real income," *Monthly Labor Review*, July 1986, pp. 24-28. Historical data on average weekly hours are contained in *Employment and Earnings*, a monthly publication of the Bureau of Labor Statistics.

² See Mary F. Kokoski, "Indices of household welfare and the value of leisure time," *The Review of Economics and Statistics*, forthcoming. For

more information on the Consumer Expenditure Interview Survey, see *The Consumer Expenditure Survey, 1980-81*, Bulletin 2225 (Bureau of Labor Statistics, 1985); and Michael Carlson, "The 1972-73 Consumer Expenditure Survey," *Monthly Labor Review*, December 1974, pp. 16-23.

³ These reported estimates are used to calculate the expenditure weight for the consumption of housing services under the rental equivalence approach in the Consumer Price Index. The sample also includes only households in which neither husband nor wife was retired or over age 60.

⁴ This measure of labor force participation does not correspond to the official BLS statistical series on labor force participation, which is produced from different data by other procedures.

⁵ These indexes of wage change cannot be used to compare welfare across occupational groups because the base levels of wage and salary payments differ across these groups.

Occupational wages in textile manufacturing, June 1985

The top wage earners in the Nation's textile mills were loom fixers and maintenance electricians, according to a June 1985 occupational wage survey. The survey, conducted by the Bureau of Labor Statistics, covered 210,735 production and related workers—nearly 200,000 in cotton and man-made fiber mills and 11,000 in wool yarn and broadwoven fabric mills. Wage data—averages and earnings distributions—were developed separately for more than three dozen occupational classifications in each industry, as well as for non-supervisory production and related workers as a group. Pay levels varied by location, union status, type of mill, and type of fiber processed. (See table 1.)

In cotton and manmade fiber mills, pay averages in the occupations studied ranged from \$8.46 an hour for electricians and \$8.27 for loom fixers to \$5.12 for janitors.¹ Yarn winders and ring-frame spinners, numerically the largest

Table 1. Number and average hourly earnings¹ of production workers in yarn and broadwoven textile mills by selected characteristics, United States and Southeast region, June 1985

Characteristic	United States ²				Southeast ³			
	Cotton and manmade mills		Wool yarn and broadwoven mills		Cotton and manmade mills		Wool yarn and broadwoven mills	
	Workers	Earnings	Workers	Earnings	Workers	Earnings	Workers	Earnings
All production workers	199,719	\$6.35	11,016	\$6.37	183,760	\$6.34	5,120	\$6.57
Type of area:								
Metropolitan areas ⁴	81,838	6.34	4,777	6.30	67,812	6.31	578	5.96
Nonmetropolitan areas	117,881	6.36	6,239	6.42	115,948	6.37	4,542	6.65
Type of mill:								
Yarn or thread mills	83,279	6.00	1,439	5.60	77,876	6.01	652	6.00
Weaving mills	17,704	6.55	1,585	6.59	15,551	6.55	1,031	7.09
Integrated mills	98,736	6.61	7,992	6.46	90,333	6.59	—	—
Labor-management contract coverage:								
Establishments with—								
Majority of workers covered	24,776	6.73	2,128	6.93	20,633	6.70	—	—
None or minority of workers covered	174,943	6.30	8,888	6.24	163,127	6.30	4,692	6.48

¹ Wage data are straight-time hourly earnings which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

² Includes data in addition to those shown for Southeast.

³ The Southeast region includes Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

⁴ Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through June 1983.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria.

occupations, averaged \$5.89 and \$5.92 an hour, respectively. Weavers operating shuttleless looms averaged \$7.50 an hour, compared with \$7.32 for weavers on conventional looms. (See table 2.)

Earnings data for the occupations studied separately in wool textile mills are presented for three major categories—woolen, worsted, and the combination of woolen and worsted occupations. Among the woolen occupations, average hourly earnings were highest for loom fixers (\$7.96) and lowest for yarn winders (\$5.81); the worsted jobs registered averages from \$8.53 for loom fixers to \$5.54 for cloth menders. For the combination jobs, the range was from more than \$8 an hour for shuttleless loom fixers, carpenters, electricians, and maintenance machinists to \$5.55 for janitors.

Textile worker pay and employment moved in opposite directions between August 1980, when a similar survey was conducted, and June 1985.² Pay levels were up 25 percent in cotton and manmade fiber mills and 30 percent in woolen mills. During this period, the wage and salary component of the Bureau's Employment Cost Index for all nondurable manufacturing rose 29 percent.

Employment, however, declined sharply over the period—down 21 percent in the cotton-manmade fiber sector and 23 percent in woolen mills. Among the regions studied separately, employment losses in cotton-manmade fiber mills reached 40 percent in the Southwest, 21 percent in the Middle Atlantic and Southeast, and 11 percent in New England. In woolen mills, employment dropped 23 percent in New England and 12 percent in the Southeast. At the time

Table 2. Average straight-time hourly earnings¹ of workers in selected occupations, by type of mill, yarn and broadwoven textile mills, United States and Southeast region, June 1985

Department and occupation	United States ²			Southeast ³	
	Cotton and manmade fiber mills	Wool yarn and broadwoven mills		Cotton and manmade fiber mills	Wool yarn and broadwoven mills—worsted occupations
		Woolen occupations	Worsted occupations		
Carding and drawing					
Card grinders	\$7.23	\$6.60	—	\$7.25	—
Card tenders (finishers)	5.78	6.04	\$6.45	5.78	—
Drawing-frame tenders	6.07	—	—	6.07	—
Opener tenders	5.53	—	—	5.51	—
Slubber tenders	6.49	—	6.00	6.49	\$6.50
Texturing-machine operators	6.32	—	—	6.35	—
Spinning					
Doffers, spinning frame	6.45	6.05	5.55	6.45	6.71
Section fixers	7.37	7.21	7.21	7.39	7.17
Spinners, frame	45.92	6.49	5.82	45.92	6.12
Spooling, winding, and twisting					
Twister tenders, ring frame	5.95	5.94	5.62	6.00	6.01
Uptwisters (manmade fibers)	5.54	—	—	5.54	—
Winders, yarn	5.89	5.81	5.61	5.90	5.98
Slashing and warping					
Slasher tenders	6.44	—	—	6.44	—
Warper tenders	6.32	6.60	7.04	6.26	6.81
Weaving					
Battery hands	5.59	55.94	(5)	5.56	—
Doffers, cloth	5.71	—	5.69	5.70	5.69
Loom fixers	8.27	7.96	8.53	8.27	8.75
Tying-in machine operators	7.01	6.52	6.91	6.97	6.94
Weavers, shuttle looms	7.32	6.42	7.76	7.29	—
Weavers, shuttleless looms	7.50	7.19	7.06	7.49	7.00
Clothroom					
Inspectors, cloth	5.79	6.42	6.00	5.76	6.49
Menders, cloth	6.07	6.18	5.54	5.56	5.98
Maintenance and miscellaneous					
Electricians	8.46	58.19	(5)	8.45	58.63
General maintenance workers	7.30	—	—	7.42	—
Janitors, porters, or cleaners	5.12	55.55	(5)	5.07	55.51
Power-truck operators	5.73	56.10	(5)	5.71	56.98
Forklift	5.76	56.02	(5)	5.75	56.98
Truckers, hand	5.43	56.20	(5)	5.38	56.21

¹ Wage data are straight-time hourly earnings which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

² Includes data for regions in addition to those shown separately. The comprehensive report on the study provides data for additional regions and occupations.

³ The Southeast region includes Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

⁴ Data are limited to ring frame spinners in cotton and manmade fiber mills.

⁵ Averages relate to combination (woolen and worsted) occupations; data were not published for separate categories.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria.

of the June 1985 survey, textile employment was heavily concentrated in the Southeast (nearly 90 percent of the total), was located largely in nonmetropolitan areas, and was comprised of mostly nonunion workers.

The 1985 survey also reported on the incidence of employee benefits. Virtually all production workers were in mills providing paid holidays and vacations. In cotton-made fiber mills, workers typically received between 6 and 8 holidays annually, and between 1 and 3 weeks of vacation pay, depending on their length of service. Provisions in the woolen mills were slightly more liberal—6 to 10 paid holidays and between 1 and 4 weeks of vacation pay were typical. In both textile sectors, retirement pension plans and various insurance plans—including life, hospitalization, surgical, basic medical, major medical, and accidental death and dismemberment coverage—also were available to a majority of the workers.

For each industry, separate reports for selected States and areas of industry concentration are available from the Bureau of Labor Statistics or any of its regional offices. A comprehensive report, *Industry Wage Survey: Textiles, June 1985*, Bulletin 2265 (Bureau of Labor Statistics, 1986), may be purchased from the Superintendent of Documents, Washington, DC 20402, or from the Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690. □

FOOTNOTES

¹ Wage data contained in this article are straight-time hourly earnings which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses. For survey purposes, Virginia is included in the Southeast region.

² For a report on the 1980 survey, see *Industry Wage Survey: Textile Mills and Textile Dyeing and Finishing Plants, August 1980*, Bulletin 2122 (Bureau of Labor Statistics, 1982).

Pay in synthetic fibers manufacturing in the Southern region

Production and related workers in synthetic fibers manufacturing plants in the South averaged \$10.03 an hour in September 1985, according to a study by the Bureau of Labor Statistics¹. Virtually all of the 42,292 workers covered by the survey earned between \$5 and \$14 an hour; the middle 50 percent earned from \$8.67 to \$11.29. All but 1 percent of the workers were paid time (rather than piece) rates, nearly always under formal plans providing single rates for specific occupations.

The survey covered establishments producing two principal types of synthetic fiber suitable for further manufacture

on textile processing machinery: cellulosic fibers, such as rayon and acetate; and other synthetic organic fibers (noncellulosic), such as nylons, acrylics, and polyesters. Manufacturers of cellulosic fibers often produced noncellulosics as a secondary product, but noncellulosic fiber plants generally did not produce cellulosic fibers.

Three-fourths of the cellulosic fiber workers and one-fifth of the noncellulosic workers were in establishments having collective bargaining agreements covering a majority of the production workers. The major union was the Amalgamated Clothing and Textile Workers Union (AFL-CIO).

Eighty-five percent of the workers were employed in plants primarily producing noncellulosic fibers. They averaged \$10.41 an hour; the remaining workers, who were in plants primarily producing cellulosic fibers, averaged \$7.91. (See table 1.)

Pay levels were also tabulated by type of area, size of establishment, and union status. Surveywide, wages averaged 12 percent higher in metropolitan areas than in nonmetropolitan areas (\$10.62 compared with \$9.50) and in establishments with at least 1,000 employees than in smaller plants (\$10.21 compared with \$9.10).² Plants with fewer than 20 workers were excluded from the study. In establishments in which a majority of the workers were covered by labor-management agreements, the pay averaged \$10.21, 2 percent more than the \$9.96 recorded in nonunion plants. The higher paying noncellulosic fiber industry accounted for all of the workers in metropolitan areas and four-fifths of those in large plants (at least 1,000 employees), but for less than one-tenth of the unionized workers estimated by the survey.

Twenty-seven occupations, accounting for one-half of the cellulosic fiber workers and two-thirds of the noncellulosic fiber workers, were selected to represent the industries' wage structures, workers' skills, and manufacturing operations.

Among cellulosic fiber plants, occupational pay levels ranged from \$6.59 an hour for throwers (who twist rayon or acetate yarn) to \$9.57 an hour for general maintenance mechanics. Pay levels of other maintenance workers, generally the highest paid occupational group, ranged from \$8.04 an hour for machinists to \$8.77 an hour for pipefitters. Chemical operators, numerically the largest occupation, averaged \$8.03 an hour, compared with \$8.68 for spinners using the dry process.

Among noncellulosic fiber plants, average earnings ranged from \$7.93 an hour for yarn winders and material handling laborers to \$13.06 an hour for general maintenance mechanics. Dry-process spinners, numerically the largest job studied separately in noncellulosic plants, averaged \$10.63 an hour, 6 percent more than their counterparts using the wet process (\$10.05). Chemical operators averaged \$10.96 an hour.

Where comparisons were possible, occupational averages were always higher in noncellulosic fiber manufacturing plants than in cellulosic fiber plants. The average wage

Table 1. Number of workers and average hourly earnings¹ in selected occupations in synthetic fibers manufacturing by principal product, Southern region,² September 1985

Department and occupation	All establishments		Principal product				Department and occupation	All establishments		Principal product			
	Number of workers	Average hourly earnings	Cellulosic fibers		Noncellulosic fibers			Number of workers	Average hourly earnings	Cellulosic fibers		Noncellulosic fibers	
			Number of workers	Average hourly earnings	Number of workers	Average hourly earnings				Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
All production workers	42,292	\$10.03	6,354	\$7.91	35,938	\$10.41							
Maintenance													
Carpenters	79	10.23	25	8.66	54	10.95							
Electricians	345	11.10	88	8.59	257	11.96							
General mechanics	4,100	12.80	307	9.57	3,793	13.06							
Instrument repairers	885	12.36	59	8.71	826	12.62							
Machinists	174	11.06	42	8.04	132	12.03							
Maintenance trades helpers	15	6.59	—	—	—	—							
Pipefitters	183	9.68	133	8.77	50	12.10							
Chemical preparation													
Chemical operators, cellulosic	564	8.03	564	8.03	—	—							
Chemical operators, noncellulosic	2,528	10.96	—	—	2,528	10.96							
Spinning													
Jet handlers	367	9.15	89	7.95	278	9.53							
Spinners, dry process	6,911	10.48	525	8.68	6,386	10.63							
Spinners, wet process	1,019	9.08	—	—	759	10.05							
Finishing													
Creel tenders	526	8.56	—	—	491	8.74							
							Finishing						
							Drawtwist operators	1,383	\$8.90	—	—	1,359	\$8.92
							Throwers (twisters)	384	6.78	365	\$6.59	—	—
							Tow operators	2,559	9.27	—	—	2,450	9.30
							Warper operators	924	8.75	318	7.82	606	9.24
							Washer operators	56	8.60	44	7.33	—	—
							Yarn winders	793	7.44	—	—	562	7.93
							Inspecting and testing						
							Laboratory assistants	840	10.63	82	7.90	758	10.92
							Physical test operators	1,042	9.30	131	7.38	911	9.58
							Material movement and handling						
							Material handling laborers	643	7.96	—	—	572	7.93
							Power-truck operators	419	9.06	113	8.27	306	9.35
							Forklift operators	384	9.07	96	8.22	288	9.36
							Stock clerks	235	9.98	52	8.18	—	—
							Custodial						
							Guards	139	8.77	24	7.81	115	8.97
							Guards I	31	8.18	8	8.28	—	—
							Janitors	275	7.89	103	7.77	172	7.96

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems, and cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded are performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

² The Southern region, as used in this study, consists of Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

NOTE: Dashes indicate that data did not meet publication criteria. Data for overall classifications may include data for subclassifications not shown separately.

advantage for noncellulosic workers ranged from 2 percent for janitors (\$7.96, compared with \$7.77) to 50 percent for maintenance machinists (\$12.03, compared with \$8.04).

Also where comparisons could be made, occupational averages in noncellulosic fiber plants were typically 6 to 16 percent higher in metropolitan areas than in nonmetropolitan areas and 20 to 30 percent higher in plants with 1,000 workers or more than in those employing fewer workers. Data resulting from similar comparisons for cellulosic fiber plants did not meet publication criteria.

All production and related workers covered by the survey were in establishments providing paid holidays and paid vacations. Ten to twelve holidays annually were typical as were 1 to 5 weeks of vacation pay, depending on years of service.

Various health and insurance plans were available to virtually all workers. With the exception of major medical coverage, employers typically paid the entire cost of these health plans and, where applicable, dependents were also included.

Retirement pension plans (in addition to Social Security) covered virtually all workers, while less than one-tenth of the workers were under plans limited to retirement sever-

ance pay. Employers typically paid the entire cost of these retirement plans.

A comprehensive bulletin on the study, *Industry Wage Survey: Synthetic Fibers, September 1985*, Bulletin 2268, may be purchased from the Bureau of Labor Statistics Publication Sales Center, P.O. Box 2145, Chicago, IL 60690, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The bulletin provides additional information on occupational pay, such as earnings distributions, and on the incidence of employee benefits in synthetic fibers manufacturing in the South. □

—FOOTNOTES—

¹ The survey was limited to the South, where more than 95 percent of the workers in synthetic fibers manufacturing are employed. Wage data are straight-time hourly earnings, which exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems, and cost-of-living pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded are performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

² Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through June 1983.

Major Agreements Expiring Next Month



This list of selected collective bargaining agreements expiring in March is based on information collected by the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more. Private industry is arranged in order of Standard Industrial Classification.

Industry or activity	Employer and location	Labor organization ¹	Number of workers	
Private				
Construction	Associated General Contractors, Maryland Chapter (Baltimore, MD) ..	Carpenters	1,000	
	Associated General Contractors, Maryland Chapter (Baltimore, MD) ..	Laborers	2,000	
	Associated General Contractors, Texas Chapter and one other (Houston, TX)	Iron Workers	1,000	
	Associated Building Contractors (Indiana)	Operating Engineers	2,600	
	Associated General Contractors, New Mexico Building Branch (New Mexico)	Carpenters; Laborers	3,500	
	Associated General Contractors (Connecticut)	Carpenters	6,200	
	Associated General Contractors, highway (Indiana)	Operating Engineers	1,000	
	Indiana Highway Association (Indiana)	Operating Engineers	1,750	
	Associated General Contractors, six counties (Upstate New York)	Operating Engineers	1,100	
	Indiana Highway Constructors, Inc. (Indiana)	Laborers	4,000	
	Indiana Highway Association (Indiana)	Operating Engineers	1,500	
	Associated General Contractors and Wabash Valley Contractors Association (Illinois)	Laborers	1,650	
	Gulf Coast Contractors (Beaumont, TX)	Plumbers	3,200	
	Mechanical Contractors Association (Houston, TX)	Plumbers	2,000	
	Mechanical Contractors Association, steamfitters (Maryland)	Plumbers	1,000	
	Builders Association of Kansas City (Missouri)	Carpenters	2,000	
	Building Association of Kansas City (Missouri)	Iron Workers	1,050	
	Textiles	Fieldcrest Mills, Inc. (Interstate)	Clothing and Textile Workers	5,500
	Paper	Lily Tulip Inc. (Springfield, MO)	Electrical Workers (IBEW)	1,050
		Pulp and Paper Employers Bargaining Council (Washington, Oregon, California)	Pulp and Paper Workers	4,500
Printing and publishing	Publishers Association of New York City, deliverers (New York)	Newspaper and Mail Deliverers (Ind.)	1,200	
	Publishers Association of New York City, printers (New York)	Typographical Union	1,300	
	New York Times (New York, NY)	Newspaper Guild	2,000	
	Daily News (New York, NY)	Newspaper Guild	1,100	
Chemicals	Lever Brothers Co. (Interstate)	Chemical Workers	1,500	
	Union Carbide Corp. (Texas City, TX)	Metal Trades Council	1,400	
Leather	Allied Chemical Corp., Chesterfield Fibers Plant (Hopewell, VA)	Teamsters (Ind.)	1,700	
	Acme Boot Co. (Tennessee)	Rubber Workers	1,500	
	Samsonite Corp. (Denver, CO)	Rubber Workers	1,050	
Primary metals	Phoenix Steel Corp. (Interstate)	Steelworkers	1,000	
Electrical products	Crouse-Hinds Co. (Syracuse, NY)	Electrical Workers (IBEW)	1,100	
	United Technologies (Columbus, MS)	Electrical Workers (IUE)	1,250	
Transportation equipment	ACF Industries, Amcar Division (Interstate)	Steelworkers	1,000	
Transit	Trailways (Interstate)	Transit Union	4,000	
	Milwaukee Transport Services, Inc. (Wisconsin)	Transit Union	1,500	
	Republic Airlines, flight attendants (Interstate)	Flight Attendants	2,400	
Air transportation	Republic Airlines, pilots (Interstate)	Air Line Pilots	1,800	
	National Broadcasting Co. (Interstate)	Broadcast Employees and Technicians	3,000	

See footnote at end of table.

Continued—Major agreements expiring next month

Industry or activity	Employer and location	Labor organization ¹	Number of workers
Utilities	Wisconsin Electric Power Co. (Wisconsin)	Electrical Workers (IBEW)	1,350
Wholesale trade	Rock Products and Ready Mixed Concrete Employers of Southern California (California)	Teamsters (Ind.)	2,500
Retail trade	Acme Markets (Interstate)	Food and Commercial Workers	1,900
Insurance	Metropolitan Life Insurance Co. (Interstate)	Food and Commercial Workers	3,000
Hospitals	Kaiser-Permanente, clerical, technical, service, maintenance (Interstate)	Service Employees	6,850
	Kaiser Foundation Hospital (Richmond, CA)	Office and Professional Employees	1,200
	Southern New York Residential Health Care Facility Association (New York, NY)	Service Employees	1,700
Public			
Transit	New Jersey: New Jersey Transit Authority	Transit Union	3,200
General government	Ohio: Columbus municipal unit	State, County and Municipal Employees	3,000
Education	Ohio State University service unit	Communications Workers	2,000
	Michigan: Michigan State University graduate student teachers	Teachers	1,800

¹Affiliated with AFL-CIO except where noted as independent (Ind.).

Erratum

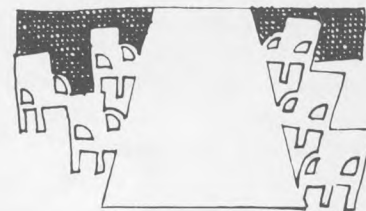
Through an editorial oversight, the following table was omitted from the article, "The growing diversity of work schedules," which appeared in the November 1986 issue of the *Monthly Labor Review*:

Table 6. Major industries and occupations ranked by mean hours of work reported per week, with other measures of work schedules and work force composition, May 1985

Industry and occupation	Mean hours per week	Mean days per week	Mean hours per day	Percent working weekends	Percent female
Industry					
Mining	44.4	5.1	8.7	27.8	15.1
Manufacturing, durable goods	41.0	5.0	8.2	11.1	25.5
Trade, wholesale	40.9	4.9	8.3	16.4	29.7
Transportation and public utilities	40.8	4.9	8.3	21.7	28.0
Agriculture	40.7	5.1	8.0	48.7	20.0
Manufacturing, nondurable goods	40.0	4.9	8.1	14.0	42.5
Construction	40.0	4.9	8.2	12.3	8.6
Public administration	39.9	4.9	8.4	14.4	43.5
Finance, insurance, and real estate	39.0	5.0	7.9	14.9	61.6
Services	35.8	4.9	7.6	21.1	64.9
Trade, retail	34.2	4.8	7.2	57.0	52.6
Occupation					
Precision production, craft, and repair	40.9	5.0	8.2	17.8	8.3
Managerial and professional specialty	40.9	4.9	8.3	16.5	46.5
Operators, fabricators, and laborers	39.2	4.9	8.0	19.9	25.8
Farming, forestry, and fishing	38.0	5.2	7.7	44.5	13.7
Technical, sales, and administrative support	36.6	4.8	7.6	24.5	66.9
Service occupations	32.3	4.5	7.1	44.9	59.8

NOTE: Based on schedules of all persons employed in the industry or occupation.

Developments in Industrial Relations



New York State acts to reduce plant closings

The governor of New York and leaders from business and labor signed an agreement intended to "help secure the economic future of the State's citizens" by reducing the number of plant closings and the resulting job losses. The New York Compact sets the following goals:

- Target government resources to help avert plant closings and employment cutbacks and, if that is not possible, to aid the affected community, company, and employees.
- Ask businesses to voluntarily give advance notice of plant closings and major layoffs.
- Provide extended health insurance to employees who lose coverage as a result of plant closings or major layoffs.
- Require companies applying for public development assistance to give advance notice of plant closings and major layoffs.

To achieve these goals, the Compact calls for the State to develop a system to monitor local economic activity and give the earliest possible warning of plant shutdowns or employment cutbacks. The State also will allocate funds, both grants and loans, to be used to provide 4 months of health insurance to employees displaced because of plant closings and, if necessary, include funds in the 1987 State budget to continue this program. In another fiscal action, the governor agreed to support a \$10 million allocation in the 1987 budget to be used for aiding companies in distress.

To facilitate the program, the Compact calls for action by government, labor, and business to cut work stoppages and layoffs by "improving the climate for business and labor."

For its part, labor agreed that work stoppages are an economic weapon of last resort; mediation services should be used to avert work stoppages; and that binding arbitration may be a viable alternative for ending contract disputes, but other forms of dispute resolution should be considered.

For its part, business agreed that layoffs are a management action of last resort, except in industries that have a history of seasonal or cyclical fluctuations in employment; management should be aware of and utilize alternatives to

layoffs, such as work sharing, uniform reductions in hours of management and labor, furlough programs, early retirement incentives, and joint committees to improve efficiency and create demand for a company's product; negotiations to avert layoffs are a desirable labor-management goal; management should confer with any government units established to help companies design and adopt "no-layoff" policies; and, in the event of layoffs, management should consider using "inverse-reverse" seniority procedures.

For its part, the State agreed to establish a network of consultants and contacts, such as educational institutions, to aid employers and unions in averting layoffs; to sponsor projects demonstrating union-management cooperation; and to publicize existing statutory benefits and protections available to labor and business.

Government, management, and labor officials on the existing Industrial Cooperation Council will conduct a 1-year campaign to educate their constituencies regarding the Compact and seek endorsement of its principles, goals, and techniques. Participation in the Compact by local government units, individual unions, and companies is voluntary.

The Compact was signed by Mario M. Cuomo, Governor of New York; Edward J. Cleary, President of the New York State AFL-CIO; and William C. Ferguson, Chairman of The Business Council of New York State, Inc.

Two unions merge with CWA

The Communications Workers of America experienced sudden growth in recent months, as the 70,000 member International Typographical Union (ITU) and the 5,800 member United Telegraph Workers union merged into the CWA, bringing its membership to about 600,000. Given that 10,000 of the ITU members are located in Canada, the CWA announced that it was changing its name to the Communications Workers of North America.

The ITU became the Printing, Publishing and Media Workers Sector within the CWA. The sector is headed by ITU President Robert S. McMichen, who, along with other ITU officers, won a new 3-year term in an election conducted with the merger balloting. At the end of the term, the number of officers leading the new unit will be reduced to three, from five. Effective immediately, pay for all five officers and staff members in the sector was frozen until other officers and staff members attain equality.

The ITU agreement ended the union's 4-year search for a merger that began in 1983 when ITU members rejected a

"Developments in Industrial Relations" is prepared by George Ruben of the Division of Developments in Labor-Management Relations, Bureau of Labor Statistics, and is largely based on information from secondary sources.

proposed merger with the Newspaper Guild, followed by their rejection of a proposed 1985 merger with the Teamsters. In 1985, the Graphic Communications union rejected a proposed merger with the ITU, although negotiations were resumed early in 1986.

The Telegraph Workers, the other union merging into the CWA, also will retain its leaders and organization within the CWA. In addition to approving the merger, delegates to a Telegraph Workers convention also reaffirmed earlier decisions calling for elimination of the secretary, treasurer, and vice president posts and elimination of two of five regional units.

The Telegraph Workers-CWA merger agreement contains an "escape clause" permitting the Telegraph Workers to terminate the partnership during the first 3 years.

Meat processors end strike

A 2-month strike against the FDL Foods, Inc. meat processing plant in Dubuque, IA, ended when members of Food and Commercial Workers Local 150A approved a 3-year contract. Terms were similar to those negotiated by Local 1218 for 550 employees of the company's plant in Rochelle, IL, where the stoppage ended 10 days earlier.

At Dubuque, the \$8 an hour base pay rate will be raised by a total of \$1.05 over the term, including 50 cents retroactive to the August 27 expiration date of the prior contract. A profit-sharing plan also was continued.

At Rochelle, employees chose to forgo profit sharing in return for larger hourly wage increases, totaling \$1.25.

Keebler gives lump-sum and pay increases

Keebler Co., the Nation's second largest cookie and biscuit producer, settled with the Bakery, Confectionery and Tobacco Workers for 3,500 workers at six plants. Under the 2-year contract, all workers received an immediate \$1,000 lump-sum payment and maintenance workers also received a 10.5-cent hourly wage increase. In the second year, maintenance workers will receive a 60-cent increase and other employees will receive 50 cents. After these increases, pay rates will range from \$11.97 for "general help" and \$12.60 for mixers and machine operators to \$14.55 for electricians.

For workers retiring after 25 years' service or with age and service totaling 80 or more, the monthly pension benefit was raised to \$675, from \$650, on December 1, 1986, and to \$700 a year later. Other terms included a 2.5-cent hourly increase in shift premiums, to 20 cents for the third shift and 17.5 cents for the second shift; a \$10 increase in sickness and accident benefits, to \$150 a week; and a \$4,000 increase in accidental death or dismemberment insurance, to \$15,000.

The contract, running to October 31, 1988, covers operations in Atlanta and Macon, GA, Grand Rapids, MI, Denver, CO, Cincinnati, OH, and Van Nuys, CA.

A&P contract calls for five wage increases

In the New York City-northern New Jersey area, 10,000 employees of 173 Great Atlantic and Pacific Tea Co. stores were covered by a contract negotiated by the United Food and Commercial Workers. Over the 3-year term, full-time employees will receive five wage increases totaling \$80 to \$95 a week, varying by job classification. The resulting rates will be \$695 a week for meat department heads, \$641 for top-rated meat cutters, and \$526 for clerks. Part-time employees received increases in the top rate totaling \$1.25 an hour, bringing their hourly pay to \$9.01.

Full-time employees age 65 with at least 35 years' service who retire after November 30, 1988, will receive a maximum pension of \$700 a month, up from about \$600. For part-timers, the maximum pension will increase to \$210 a month, from \$87.

The contract also established a drug and alcohol abuse program, extended the legal services plan to part-time employees, and reduced the Sunday premium pay to double time from double time and one-half, effective April 24, 1988.

Boeing settles with professional engineers

More than 24,000 employees of Boeing Co. were covered by a 3-year contract negotiated by the Seattle (WA) Professional Engineering Employees Association, but 2,000 members of the Wichita (KS) Engineering Association rejected similar terms.

Terms for the 14,000 professional engineers covered by the Seattle accord included an immediate lump-sum payment equal to 9 percent of earnings between October 4, 1985, and October 3, 1986. There also was a provision for merit pay increases to deserving employees from an allocation of money equal to percentages of the units total annual salary. The first allocation, made immediately, was 3 percent, to be followed by five 2-percent allocations at 6-month intervals.

The two-tier pay system established in 1983 for the 10,000 technicians was maintained. However, employees at or above the midpoint of the salary range for their job will be eligible for "selective" pay adjustments of 2 percent in May 1987, and 3 percent in May of 1988 and 1989. (Employees who do not receive these adjustments will continue to require 4 years to move from the starting to the maximum rate for their job.) All technicians received an initial 9-percent lump-sum payment similar to that for the engineers.

Connecticut telephone workers end strike

A 2-month strike against Southern New England Telephone Co. ended when members of the Connecticut Union of Telephone Workers approved a 3-year contract that called for wage increases combined with lump-sum payments, as well as major changes in health insurance. The company

said that the combined lump-sum payments and wage increases were equivalent to 2.5-percent wage increases in each contract year. In the first year, the lump-sum payment is \$500, followed by \$300 payments in the second and third years.

A major factor in ending the stoppage by the 9,700 operators, technicians, and service clerks was the company's agreement to postpone until January 1, 1988, a new medical copayment plan it had been seeking to institute. Under the new approach, the annual deductible will be based on a percent of pay: one-half percent for an individual and 1 percent for a family, to a maximum of \$150 per person and \$300 per family. Employees will pay 20 percent of medical expenses above the deductibles, to a maximum of \$1,000 a year. In each succeeding year in which an employee's family medical expenses exceed \$5,000, the employee will be required to pay a total of \$500.

The parties also agreed to eliminate all coinsurance payments by employees who agree to seek medical care from members of a statewide panel of doctors assembled by the company. Employees enrolled in health maintenance organizations are already exempt from all deductibles and copayment requirements.

The parties also added a vision care plan, a dental health

maintenance organization, and a plan permitting employees to receive prescription drugs free if ordered by mail.

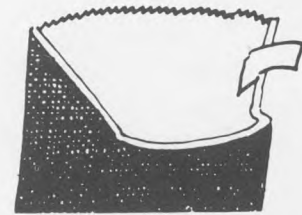
City employees may get "corrective" increases

In San Francisco, efforts to end alleged compensation discrimination against women and minorities employed by the city moved forward when voters authorized city officials to grant corrective increases if warranted by survey results. The new section 8.407-1 of the city charter requires the Civil Service Commission to submit annual comparisons of compensation of city employees to the Board of Supervisors, which could then make "upward pay equity adjustments" not to exceed the rates recommended by the Commission, subject to veto by the mayor.

Officials of the Service Employees union said pay increases could come shortly after the February 1, 1987, deadline for submission of the first survey results to the Board of Supervisors. A \$30 million fund was already available for corrective pay increases as a result of 1985 negotiations between the union and the city.

In the last 2 years, the Board has twice approved pay equity ordinances that were vetoed by the mayor, who favored the concept but rejected the increases because they were too expensive. □

Book Reviews



Can't we add this to the agenda?

The Transformation of American Industrial Relations. By Thomas A. Kochan, Harry C. Katz, Robert B. McKersie. New York, Basic Books, Inc., Publishers, 1986. 272 pp. \$22.95.

Thomas A. Kochan, Harry C. Katz, and Robert B. McKersie have made a significant contribution to industrial relations literature. These highly regarded scholars analyze recent changes in the structure and substance of collective bargaining in relation to the traditional conflict management model that has prevailed from The New Deal until the early 1970's. This book is an ambitious attempt to develop a new industrial relations model which explains why the scope of collective bargaining is likely to broaden. It includes changes in the individual's role in the workplace and in the role workers and unions play in determining the organization's business investment and human resources strategies.

As the authors point out, in many industries collective bargaining has been forced to adapt to structural economic change generated by increased competition associated with the growth of international trade and changes in policies that deregulated the entry of firms into domestic markets. Initially, this led to a "concessionary" bargaining climate with an erosion of union bargaining power.

As part of the response to structural change, the authors identify innovations in industrial relations at the workplace in both union and nonunion settings. They present an extremely valuable evaluation of the various approaches to worker participation, including empirical estimates of what these work arrangements contribute to productivity at the plant level.

The book also presents several indepth illustrations of attempts to incorporate union participation in top level strategic business decisions. The objectivity with which the authors discuss the success as well as the problems of moving industrial relations to the level of strategic decision-making is a major contribution. They point out that there is no easy way to expand the scope of collective bargaining beyond its traditional limits. Changes in workplace processes, in worker representation in strategic business decisions, and overall improvements in the traditional types of contract provisions of bargaining agreements must, in the authors' view, occur simultaneously if business is to adjust successfully to a more competitive economic environment.

This book should be read by practitioners and scholars of

industrial relations alike. Practitioners will benefit from the extensive review of workplace participation experiments and scholars will find the authors' attempt to develop a new industrial theory both exciting and challenging. As the authors attempt to develop a new theory of industrial relations, some students of labor history may be reminded of Frank Tannenbaum's *A Philosophy of Labor* (Knopf, 1951) in which the author predicted that in order to give the worker status and security the union will gradually begin to share in and accept responsibility for management decisions. Tannenbaum believed that conflict would eventually give way to cooperation. The authors also favor more worker participation as the way to broaden the scope of collective bargaining. In contrast to Tannenbaum's psychological basis for more cooperation between labor and management, they base their theory on the economics of industrial restructuring and the potential economic gain from a more consensual bargaining relationship at all levels within the organization.

The book can be criticized for attempting to explain too much. For example, in my opinion, too much emphasis is placed on the need to reform labor law as the basis for moving toward new approaches to collective bargaining. Labor law reform is an important topic for scholarly research. However, in discussing the decline in union membership the authors incorrectly claim that current labor law has led to "employer domination of labor organizations" (p. 233). The reasons for the decline in union membership are an important topic but it is not central to the authors' main thesis. The authors present an excellent framework for analyzing current changes in collective bargaining and identify the circumstances under which the traditional approach of managing labor-management conflict is likely to prevail and the preconditions for moving to a more consensual bargaining relationship as a way of adjusting to economic change.

—KENNETH MCLENNAN

Vice President and Director of Industrial Studies
Committee for Economic Development

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If my boss calls, find out his name

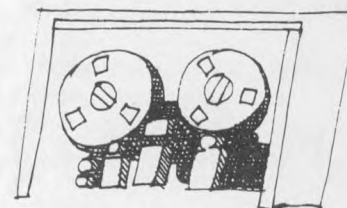
More than one fourth of the jobs lost at AT&T have been in the managerial and professional ranks and 30 percent of the 24,000 AT&T Information Systems employees expected to be laid off by the end of 1986 will be managers. General Motors plans to cut its salaried work force by 25 percent in the next three years. Ford plans to do the same by 1990. Chrysler has laid off nearly half of its salaried employees since 1978. Owens-Illinois has whittled middle-management staffs by as much as 20 percent, and Bank of America has trimmed 10,000 white-collar jobs in four years. . .

The psychological impact of mergers and acquisitions can be severe even on those employees who still retain their jobs. . . Kenneth De Meuse, human-resources consultant for the Intergraph Corporation, reported that human-resources professionals from both acquiring and acquired companies find the situation stressful for themselves and for the employees involved. De Meuse reported that the standard line among employees in one firm was: "If my boss calls, find out his name."

—SUSAN R. SANDERSON AND LAWRENCE SCHEIN

"Sizing Up the Down-Sizing Era,"
Across the Board,
November 1986, pp. 17-18.

Current Labor Statistics



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Schedule of release dates for BLS statistical series

Series	Release date	Period covered	Release date	Period covered	Release date	Period covered	MLR table number
Productivity and costs:							
Nonfarm business and manufacturing	February 2	4th quarter	.....	.....	April 27	1st quarter	2; 42-44
Nonfinancial corporations .....	.....	.....	March 2	4th quarter	.....	.....	2; 42-44
Employment situation	February 6	January	March 6	February	April 3	March	1; 4-21
Producer Price Index	February 13	January	March 13	February	April 10	March	2; 33-35
Consumer Price Index	February 27	January	March 27	February	April 24	March	2; 30-32
Real earnings	February 27	January	March 27	February	April 24	March	14-17
Major collective bargaining settlements .....	.....	.....	.....	.....	April 27	1st quarter	3; 25-28
Employment Cost Index .....	.....	.....	.....	.....	April 28	1st quarter	1-3; 22-24
U.S. Import and Export Price Indexes .....	.....	.....	.....	.....	April 30	1st quarter	36-41

NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics: series on labor force, employment, unemployment, collective bargaining settlements, consumer, producer, and international prices, productivity, international comparisons, and injury and illness statistics. In the notes that follow, the data in each group of tables are briefly described, key definitions are given, notes on the data are set forth, and sources of additional information are cited.

General notes

The following notes apply to several tables in this section:

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect on the data of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might prevent short-term evaluation of the statistical series. Tables containing data that have been adjusted are identified as "seasonally adjusted." (All other data are not seasonally adjusted.) Seasonal effects are estimated on the basis of past experience. When new seasonal factors are computed each year, revisions may affect seasonally adjusted data for several preceding years. (Seasonally adjusted data appear in tables 1-3, 4-10, 13, 14, 17, and 18.) Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are seasonally adjusted with a procedure called $X-11$ ARIMA, which was developed at Statistics Canada as an extension of the standard $X-11$ method previously used by BLS. 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 second change is that seasonal factors are calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at midyear for the July-December period. However, revisions of historical data continue to be made only at the end of each calendar year.

Seasonally adjusted labor force data in tables 1 and 4-10 were revised in the February 1987 issue of the *Review*, to reflect experience through 1986.

Annual revisions of the seasonally adjusted payroll data shown in tables 13, 14, and 18 were made in the July 1986 *Review* using the $X-11$ ARIMA seasonal adjustment methodology. New seasonal factors for productivity data in table 42 are usually introduced in the September issue. Seasonally adjusted indexes and percent changes from month to month and from quarter to quarter are published for numerous Consumer and Producer Price Index series. However, seasonally adjusted indexes are not published for the U.S. average All Items CPI. Only seasonally adjusted percent changes are available for this series.

Adjustments for price changes. Some data—such as the Hourly Earnings Index in table 17—are adjusted to eliminate the effect of changes in price. These adjustments are made by dividing current dollar values by the Consumer Price Index or the appropriate component of the index, then multiplying by 100. For example, given a current hourly wage rate of \$3 and a current price index number of 150, where 1967 = 100, the hourly rate expressed in 1967 dollars is \$2 ($\$3/150 \times 100 = \2). The \$2 (or any other resulting values) are described as "real," "constant," or "1967" dollars.

Additional information

Data that supplement the tables in this section are published by the Bureau in a variety of sources. News releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule preceding these general notes. More information about labor force, employment, and unemployment data and the household and establishment surveys underlying the data are available in *Employment and Earnings*, a monthly publication of the Bureau. More data from the household survey are published in the two-volume data book—*Labor Force Statistics Derived From the Current Population Survey*, Bulletin 2096. More data from the establishment survey appear in two data books—*Employment, Hours, and Earnings, United States*, and *Employment, Hours, and Earnings, States and Areas*, and the annual supplements to these data books. More detailed information on employee compensation and collective bargaining settlements is published in the monthly periodical, *Current Wage Developments*. More detailed data on consumer and producer prices are published in the monthly periodicals, *The CPI Detailed Report*, and *Producer Prices and Price Indexes*. Detailed data on all of the series in this section are provided in the *Handbook of Labor Statistics*, which is published biennially by the Bureau. BLS bulletins are issued covering productivity, injury and illness, and other data in this section. Finally, the *Monthly Labor Review* carries analytical articles on annual and longer term developments in labor force, employment, and unemployment; employee compensation and collective bargaining; prices; productivity; international comparisons; and injury and illness data.

Symbols

p = preliminary. To increase the timeliness of some series, preliminary figures are issued based on representative but incomplete returns.

r = revised. Generally, this revision reflects the availability of later data but may also reflect other adjustments.

n.e.c. = not elsewhere classified.

n.e.s. = not elsewhere specified.

COMPARATIVE INDICATORS (Tables 1-3)

Comparative indicators tables provide an overview and comparison of major BLS statistical series. Consequently, although many of the included series are available monthly, all measures in these comparative tables are presented quarterly and annually.

Labor market indicators include employment measures from two major surveys and information on rates of change in compensation provided by the Employment Cost Index (ECI) program. The labor force participation rate, the employment-to-population ratio, and unemployment rates for major demographic groups based on the Current Population ("household") Survey are presented, while measures of employment and average weekly hours by major industry sector are given using nonagricultural payroll data. The Employment Cost Index (compensation), by major sector and by

bargaining status, is chosen from a variety of BLS compensation and wage measures because it provides a comprehensive measure of employer costs for hiring labor, not just outlays for wages, and it is not affected by employment shifts among occupations and industries.

Data on **changes in compensation, prices, and productivity** are presented in table 2. Measures of rates of change of compensation and wages from the Employment Cost Index program are provided for all civilian nonfarm workers (excluding Federal and household workers) and for all private nonfarm workers. Measures of changes in: consumer prices for all urban consumers; producer prices by stage of processing; and the overall export and import price indexes are given. Measures of productivity (output per hour of all persons) are provided for major sectors.

Alternative measures of wage and compensation rates of change, which reflect the overall trend in labor costs, are summarized in table 3. Differences in concepts and scope, related to the specific purposes of the series, contribute to the variation in changes among the individual measures.

Notes on the data

Definitions of each series and notes on the data are contained in later

sections of these notes describing each set of data. For detailed descriptions of each data series, see *BLS Handbook of Methods*, Volumes I and II, Bulletins 2134-1 and 2134-2 (Bureau of Labor Statistics, 1982 and 1984, respectively), as well as the additional bulletins, articles, and other publications noted in the separate sections of the *Review's* "Current Labor Statistics Notes." Historical data for many series are provided in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985). Users may also wish to consult *Major Programs, Bureau of Labor Statistics*, Report 718 (Bureau of Labor Statistics, 1985).

EMPLOYMENT DATA

(Tables 1; 4-21)

Household survey data

Description of the series

EMPLOYMENT DATA in this section are obtained from the Current Population Survey, a program of personal interviews conducted monthly by the Bureau of the Census for the Bureau of Labor Statistics. The sample consists of about 59,500 households selected to represent the U.S. population 16 years of age and older. Households are interviewed on a rotating basis, so that three-fourths of the sample is the same for any 2 consecutive months.

Definitions

Employed persons include (1) all civilians who worked for pay any time during the week which includes the 12th day of the month or who worked unpaid for 15 hours or more in a family-operated enterprise and (2) those who were temporarily absent from their regular jobs because of illness, vacation, industrial dispute, or similar reasons. Members of the Armed Forces stationed in the United States are also included in the employed total. A person working at more than one job is counted only in the job at which he or she worked the greatest number of hours.

Unemployed persons are those who did not work during the survey week, but were available for work except for temporary illness and had looked for jobs within the preceding 4 weeks. Persons who did not look for work because they were on layoff or waiting to start new jobs within the next 30 days are also counted among the unemployed. The **overall unemployment rate** represents the number unemployed as a percent of the labor force, including the resident Armed Forces. The **civilian unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **labor force** consists of all employed or unemployed civilians plus members of the Armed Forces stationed in the United States. Persons **not in the labor force** are those not classified as employed or unemployed; this group includes persons who are retired, those engaged in their own household work, those not working while attending school, those unable to work because of long-term illness, those discouraged from seeking work because of personal or job market factors, and those who are voluntarily idle. The **noninstitutional population** comprises all persons 16 years of age and older who are not inmates of penal or mental institutions, sanitariums, or homes for the aged, infirm, or needy, and members of the Armed Forces stationed in the United States. The **labor force participation rate** is the proportion of the noninstitutional population that is in the labor force. The **employment-population ratio** is total employment (including the resident Armed Forces) as a percent of the noninstitutional population.

Notes on the data

From time to time, and especially after a decennial census, adjustments are made in the Current Population Survey figures to correct for estimating errors during the preceding years. These adjustments affect the comparability of historical data. A description of these adjustments and their effect on

the various data series appear in the Explanatory Notes of *Employment and Earnings*.

Data in tables 4-10 are seasonally adjusted, based on the seasonal experience through December 1986.

Additional sources of information

For detailed explanations of the data, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 1, and for additional data, *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985). A detailed description of the Current Population Survey as well as additional data are available in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*. Historical data from 1948 to 1981 are available in *Labor Force Statistics Derived from the Current Population Survey: A Databook*, Vols. I and II, Bulletin 2096 (Bureau of Labor Statistics, 1982).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20.

Establishment survey data

Description of the series

EMPLOYMENT, HOURS, AND EARNINGS DATA in this section are compiled from payroll records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies by more than 250,000 establishments representing all industries except agriculture. In most industries, the sampling probabilities are based on the size of the establishment; most large establishments are therefore in the sample. (An establishment is not necessarily a firm; it may be a branch plant, for example, or warehouse.) Self-employed persons and others not on a regular civilian payroll are outside the scope of the survey because they are excluded from establishment records. This largely accounts for the difference in employment figures between the household and establishment surveys.

Definitions

An **establishment** is an economic unit which produces goods or services (such as a factory or store) at a single location and is engaged in one type of economic activity.

Employed persons are all persons who received pay (including holiday and sick pay) for any part of the payroll period including the 12th of the month. Persons holding more than one job (about 5 percent of all persons in the labor force) are counted in each establishment which reports them.

Production workers in manufacturing include working supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 12-17 include production workers in manufacturing and mining; construction workers in construction; and non-supervisory workers in the following industries: transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and

services. These groups account for about four-fifths of the total employment on private nonagricultural payrolls.

Earnings are the payments production or nonsupervisory workers receive during the survey period, including premium pay for overtime or late-shift work but excluding irregular bonuses and other special payments. **Real earnings** are earnings adjusted to reflect the effects of changes in consumer prices. The deflator for this series is derived from the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). The **Hourly Earnings Index** is calculated from average hourly earnings data adjusted to exclude the 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 and seasonal factors in the proportion of workers in high-wage and low-wage industries.

Hours represent the average weekly hours of production or nonsupervisory workers for which pay was received and are different from standard or scheduled hours. **Overtime hours** represent the portion of gross average weekly hours which were in excess of regular hours and for which overtime premiums were paid.

The **Diffusion Index**, introduced in the May 1983 *Review*, represents the percent of 185 nonagricultural industries in which employment was rising over the indicated period. One-half of the industries with unchanged employment are counted as rising. In line with Bureau practice, data for the 1-, 3-, and 6-month spans are seasonally adjusted, while those for the 12-month span are unadjusted. The diffusion index is useful for measuring the dispersion of economic gains or losses and is also an economic indicator.

Notes on the data

Establishment data collected by the Bureau of Labor Statistics are periodically adjusted to comprehensive counts of employment (called "benchmarks"). The latest complete adjustment was made with the release of May 1986 data, published in the July 1986 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Unadjusted data have been revised back to April 1984; seasonally adjusted data have been revised back to January 1981. These revisions were published in the *Supplement to Employment and Earnings* (Bureau of Labor Statistics, 1986). Unadjusted data from April 1985 forward, and seasonally adjusted data from January 1982 forward are subject to revision in future benchmarks.

In the establishment survey, estimates for the 2 most recent months are based on incomplete returns and are published as preliminary in the tables (13 to 16 in the *Review*). When all returns have been received, the estimates are revised and published as final in the third month of their appearance. Thus, August data are published as preliminary in October and November and as final in December. For the same reason, quarterly establishment data (table 1) are preliminary for the first 2 months of publication and final in the third month. Thus, second-quarter data are published as preliminary in August and September and as final in October.

COMPENSATION AND WAGE DATA

(Tables 1-3; 22-29)

COMPENSATION AND WAGE DATA are gathered by the Bureau from business establishments, State and local governments, labor unions, collective bargaining agreements on file with the Bureau, and secondary sources.

Employment Cost Index

Description of the series

The **Employment Cost Index (ECI)** is a quarterly measure of the rate of change in compensation per hour worked and includes wages, salaries, and employer costs of employee benefits. It uses a fixed market basket of

Additional sources of information

Detailed data from the establishment survey are published monthly in the BLS periodical, *Employment and Earnings*. Earlier comparable unadjusted and seasonally adjusted data are published in *Employment, Hours, and Earnings, United States, 1909-84*, Bulletin 1312-12 (Bureau of Labor Statistics, 1985) and its annual supplement. For a detailed discussion of the methodology of the survey, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 2. For additional data, see *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

A comprehensive discussion of the differences between household and establishment data on employment appears in Gloria P. Green, "Comparing employment estimates from household and payroll surveys," *Monthly Labor Review*, December 1969, pp. 9-20.

Unemployment data by State

Description of the series

Data presented in this section are obtained from two major sources—the Current Population Survey (CPS) and the Local Area Unemployment Statistics (LAUS) program, which is conducted in cooperation with State employment security agencies.

Monthly estimates of the labor force, employment, and unemployment for States and sub-State areas are a key indicator of local economic conditions and form the basis for determining the eligibility of an area for benefits under Federal economic assistance programs such as the Job Training Partnership Act and the Public Works and Economic Development Act. Insofar as possible, the concepts and definitions underlying these data are those used in the national estimates obtained from the CPS.

Notes on the data

Data refer to State of residence. Monthly data for 11 States—California, Florida, Illinois, Massachusetts, Michigan, New York, New Jersey, North Carolina, Ohio, Pennsylvania, and Texas—are obtained directly from the CPS, because the size of the sample is large enough to meet BLS standards of reliability. Data for the remaining 39 States and the District of Columbia are derived using standardized procedures established by BLS. Once a year, estimates for the 11 States are revised to new population controls. For the remaining States and the District of Columbia, data are benchmarked to annual average CPS levels.

Additional sources of information

Information on the concepts, definitions, and technical procedures used to develop labor force data for States and sub-State areas as well as additional data on sub-States are provided in the monthly Bureau of Labor Statistics periodical, *Employment and Earnings*, and the annual report, *Geographic Profile of Employment and Unemployment* (Bureau of Labor Statistics). See also *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 4.

labor—similar in concept to the Consumer Price Index's fixed market basket of goods and services—to measure change over time in employer costs of employing labor. The index is not seasonally adjusted.

Statistical series on total compensation costs and on wages and salaries are available for private nonfarm workers excluding proprietors, the self-employed, and household workers. Both series are also available for State and local government workers and for the civilian nonfarm economy, which consists of private industry and State and local government workers combined. Federal workers are excluded.

The Employment Cost Index probability sample consists of about 2,200 private nonfarm establishments providing about 12,000 occupational observations and 700 State and local government establishments providing

3,500 occupational observations selected to represent total employment in each sector. On average, each reporting unit provides wage and compensation information on five well-specified occupations. Data are collected each quarter for the pay period including the 12th day of March, June, September, and December.

Beginning with June 1986 data, fixed employment weights from the 1980 Census of Population are used each quarter to calculate the indexes for civilian, private, and State and local governments. (Prior to June 1986, the employment weights are from the 1970 Census of Population.) These fixed weights, also used to derive all of the industry and occupation series indexes, ensure that changes in these indexes reflect only changes in compensation, not employment shifts among industries or occupations with different levels of wages and compensation. For the bargaining status, region, and metropolitan/nonmetropolitan area series, however, employment data by industry and occupation are not available from the census. Instead, the 1980 employment weights are reallocated within these series each quarter based on the current sample. Therefore, these indexes are not strictly comparable to those for the aggregate, industry, and occupation series.

Definitions

Total compensation costs include wages, salaries, and the employer's costs for employee benefits.

Wages and salaries consist of earnings before payroll deductions, including production bonuses, incentive earnings, commissions, and cost-of-living adjustments.

Benefits include the cost to employers for paid leave, supplemental pay (including nonproduction bonuses), insurance, retirement and savings plans, and legally required benefits (such as Social Security, workers' compensation, and unemployment insurance).

Excluded from wages and salaries and employee benefits are such items as payment-in-kind, free room and board, and tips.

Notes on the data

The Employment Cost Index data series began in the fourth quarter of 1975, with the quarterly percent change in wages and salaries in the private nonfarm sector. Data on employer costs for employee benefits were included in 1980 to produce, when combined with the wages and salaries series, a measure of the percent change in employer costs for employee total compensation. State and local government units were added to the ECI coverage in 1981, providing a measure of total compensation change in the civilian nonfarm economy (excluding Federal employees). Historical indexes (June 1981=100) of the quarterly rates of change are presented in the May issue of the BLS monthly periodical, *Current Wage Developments*.

Additional sources of information

For a more detailed discussion of the Employment Cost Index, see the *Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 11, and the following *Monthly Labor Review* articles: "Employment Cost Index: a measure of change in the 'price of labor,'" July 1975; "How benefits will be incorporated into the Employment Cost Index," January 1978; "Estimation procedures for the Employment Cost Index," May 1982; and "Introducing new weights for the Employment Cost Index," June 1985.

Data on the ECI are also available in BLS quarterly press releases issued in the month following the reference months of March, June, September, and December; and from the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

Collective bargaining settlements

Description of the series

Collective bargaining settlements data provide statistical measures of negotiated adjustments (increases, decreases, and freezes) in compensation

(wage and benefit costs) and wages alone, quarterly for private industry and semiannually for State and local government. Compensation measures cover all collective bargaining situations involving 5,000 workers or more and wage measures cover all situations involving 1,000 workers or more. These data, covering private nonagricultural industries and State and local governments, are calculated using information obtained from bargaining agreements on file with the Bureau, parties to the agreements, and secondary sources, such as newspaper accounts. The data are not seasonally adjusted.

Settlement data are measured in terms of future specified adjustments: those that will occur within 12 months after contract ratification—first-year—and all adjustments that will occur over the life of the contract expressed as an average annual rate. Adjustments are worker weighted. Both first-year and over-the-life measures exclude wage changes that may occur under cost-of-living clauses that are triggered by future movements in the Consumer Price Index.

Effective wage adjustments measure all adjustments occurring in the reference period, regardless of the settlement date. Included are changes from settlements reached during the period, changes deferred from contracts negotiated in earlier periods, and changes under cost-of-living adjustment clauses. Each wage change is worker weighted. The changes are prorated over all workers under agreements during the reference period yielding the average adjustment.

Definitions

Wage rate changes are calculated by dividing newly negotiated wages by the average hourly earnings, excluding overtime, at the time the agreement is reached. Compensation changes are calculated by dividing the change in the value of the newly negotiated wage and benefit package by existing average hourly compensation, which includes the cost of previously negotiated benefits, legally required social insurance programs, and average hourly earnings.

Compensation changes are calculated by placing a value on the benefit portion of the settlements at the time they are reached. The cost estimates are based on the assumption that conditions existing at the time of settlement (for example, methods of financing pensions or composition of labor force) will remain constant. The data, therefore, are measures of negotiated changes and not of total changes in employer cost.

Contract duration runs from the effective date of the agreement to the expiration date or first wage reopening date, if applicable. Average annual percent changes over the contract term take account of the compounding of successive changes.

Notes on the data

Care should be exercised in comparing the size and nature of the settlements in State and local government with those in the private sector because of differences in bargaining practices and settlement characteristics. A principal difference is the incidence of cost-of-living adjustment (COLA) clauses which cover only about 2 percent of workers under a few local government settlements, but cover 50 percent of workers under private sector settlements. Agreements without COLA's tend to provide larger specified wage increases than those with COLA's. Another difference is that State and local government bargaining frequently excludes pension benefits which are often prescribed by law. In the private sector, in contrast, pensions are typically a bargaining issue.

Additional sources of information

For a more detailed discussion on the series, see the *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 10. Comprehensive data are published in press releases issued quarterly (in January, April, July, and October) for private industry, and semi-

annually (in February and August) for State and local government. Historical data and additional detailed tabulations for the prior calendar year appear in the April issue of the BLS monthly periodical, *Current Wage Developments*.

Work stoppages

Description of the series

Data on **work stoppages** measure the number and duration of major strikes or lockouts (involving 1,000 workers or more) occurring during the month (or year), the number of workers involved, and the amount of time lost because of stoppage.

Data are largely from newspaper accounts and cover only establishments directly involved in a stoppage. They do not measure the indirect or secondary effect of stoppages on other establishments whose employees are idle owing to material shortages or lack of service.

Definitions

Number of stoppages: The number of strikes and lockouts involving 1,000 workers or more and lasting a full shift or longer.

Workers involved: The number of workers directly involved in the stoppage.

Number of days idle: The aggregate number of workdays lost by workers involved in the stoppages.

Days of idleness as a percent of estimated working time: Aggregate workdays lost as a percent of the aggregate number of standard workdays in the period multiplied by total employment in the period.

Notes on the data

This series is not comparable with the one terminated in 1981 that covered strikes involving six workers or more.

Additional sources of information

Data for each calendar year are reported in a BLS press release issued in the first quarter of the following year. Monthly data appear in the BLS

monthly periodical, *Current Wage Developments*. Historical data appear in the *BLS Handbook of Labor Statistics*.

Other compensation data

Other BLS data on pay and benefits, not included in the Current Labor Statistics section of the *Monthly Labor Review*, appear in and consist of the following:

Industry Wage Surveys provide data for specific occupations selected to represent an industry's wage structure and the types of activities performed by its workers. The Bureau collects information on weekly work schedules, shift operations and pay differentials, paid holiday and vacation practices, and information on incidence of health, insurance, and retirement plans. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Monthly Labor Review*.

Area Wage Surveys annually provide data for selected office, clerical, professional, technical, maintenance, toolroom, powerplant, material movement, and custodial occupations common to a wide variety of industries in the areas (labor markets) surveyed. Reports are issued throughout the year as the surveys are completed. Summaries of the data and special analyses also appear in the *Review*.

The National Survey of Professional, Administrative, Technical, and Clerical Pay provides detailed information annually on salary levels and distributions for the types of jobs mentioned in the survey's title in private employment. Although the definitions of the jobs surveyed reflect the duties and responsibilities in private industry, they are designed to match specific pay grades of Federal white-collar employees under the General Schedule pay system. Accordingly, this survey provides the legally required information for comparing the pay of salaried employees in the Federal civil service with pay in private industry. (See Federal Pay Comparability Act of 1970, 5 U.S.C. 5305.) Data are published in a BLS news release issued in the summer and in a bulletin each fall; summaries and analytical articles also appear in the *Review*.

Employee Benefits Survey provides nationwide information on the incidence and characteristics of employee benefit plans in medium and large establishments in the United States, excluding Alaska and Hawaii. Data are published in an annual BLS news release and bulletin, as well as in special articles appearing in the *Review*.

PRICE DATA (Tables 2; 30-41)

PRICE DATA are gathered by the Bureau of Labor Statistics from retail and primary markets in the United States. Price indexes are given in relation to a base period (1967 = 100, unless otherwise noted).

Consumer Price Indexes

Description of the series

The **Consumer Price Index (CPI)** is a measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The CPI is calculated monthly for two population groups, one consisting only of urban households whose primary source of income is derived from the employment of wage earners and clerical workers, and the other consisting of all urban households. The wage earner index (CPI-W) is a continuation of the historic index that was introduced well over a half-century ago for use in wage negotiations. As new uses were developed for the CPI in recent years, the need for a broader and more representative index became apparent. The all urban consumer index (CPI-U) introduced in 1978 is representative of the 1972-73 buying habits of about 80 percent of the noninstitutional population of the United States at that time, compared with 40 percent represented in the CPI-W. In addition to wage earners and clerical

workers, the CPI-U covers professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, retirees, and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, fuel, drugs, transportation fares, doctors' and dentists' fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items are kept essentially unchanged between major revisions so that only price changes will be measured. All taxes directly associated with the purchase and use of items are included in the index.

Data collected from more than 24,000 retail establishments and 24,000 tenants in 85 urban areas across the country are used to develop the "U.S. city average." Separate estimates for 28 major urban centers are presented in table 31. The areas listed are as indicated in footnote 1 to the table. The area indexes measure only the average change in prices for each area since the base period, and do not indicate differences in the level of prices among cities.

Notes on the data

In January 1983, the Bureau changed the way in which homeownership costs are measured for the CPI-U. A rental equivalence method replaced the

asset-price approach to homeownership costs for that series. In January 1985, the same change was made in the CPI-W. The central purpose of the change was to separate shelter costs from the investment component of homeownership so that the index would reflect only the cost of shelter services provided by owner-occupied homes.

Additional sources of information

For a discussion of the general method for computing the CPI, see *BLS Handbook of Methods, Volume II, The Consumer Price Index*, Bulletin 2134-2 (Bureau of Labor Statistics, 1984). The recent change in the measurement of homeownership costs is discussed in Robert Gillingham and Walter Lane, "Changing the treatment of shelter costs for homeowners in the CPI," *Monthly Labor Review*, June 1982, pp. 9-14.

Additional detailed CPI data and regular analyses of consumer price changes are provided in the *CPI Detailed Report*, a monthly publication of the Bureau. Historical data for the overall CPI and for selected groupings may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

Producer Price Indexes

Description of the series

Producer Price Indexes (PPI) measure average changes in prices received in primary markets of the United States by producers of commodities in all stages of processing. The sample used for calculating these indexes currently contains about 3,200 commodities and about 60,000 quotations per month selected to represent the movement of prices of all commodities produced in the manufacturing, agriculture, forestry, fishing, mining, gas and electricity, and public utilities sectors. The stage of processing structure of Producer Price Indexes organizes products by class of buyer and degree of fabrication (that is, finished goods, intermediate goods, and crude materials). The traditional commodity structure of PPI organizes products by similarity of end use or material composition.

To the extent possible, prices used in calculating Producer Price Indexes apply to the first significant commercial transaction in the United States from the production or central marketing point. Price data are generally collected monthly, primarily by mail questionnaire. Most prices are obtained directly from producing companies on a voluntary and confidential basis. Prices generally are reported for the Tuesday of the week containing the 13th day of the month.

Since January 1976, price changes for the various commodities have been averaged together with implicit quantity weights representing their importance in the total net selling value of all commodities as of 1972. The detailed data are aggregated to obtain indexes for stage-of-processing groupings, commodity groupings, durability-of-product groupings, and a number of special composite groups. All Producer Price Index data are subject to revision 4 months after original publication.

Notes on the data

Beginning with the January 1986 issue, the *Review* is no longer presenting tables of Producer Price Indexes for commodity groupings, special composite groups, or SIC industries. However, these data will continue to be presented in the Bureau's monthly publication *Producer Price Indexes*.

The Bureau has completed the first major stage of its comprehensive overhaul of the theory, methods, and procedures used to construct the Producer Price Indexes. Changes include the replacement of judgment sampling with probability sampling techniques; expansion to systematic coverage of the net output of virtually all industries in the mining and manufacturing sectors; a shift from a commodity to an industry orientation;

the exclusion of imports from, and the inclusion of exports in, the survey universe; and the respecification of commodities priced to conform to Bureau of the Census definitions. These and other changes have been phased in gradually since 1978. The result is a system of indexes that is easier to use in conjunction with data on wages, productivity, and employment and other series that are organized in terms of the Standard Industrial Classification and the Census product class designations.

Additional sources of information

For a discussion of the methodology for computing Producer Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 7.

Additional detailed data and analyses of price changes are provided monthly in *Producer Price Indexes*. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

International price indexes

Description of the series

The **BLS International Price Program** produces quarterly export and import price indexes for nonmilitary goods traded between the United States and the rest of the world. The export price index provides a measure of price change for all products sold by U.S. residents to foreign buyers. ("Residents" is defined as in the national income accounts: it includes corporations, businesses, and individuals but does not require the organizations to be U.S. owned nor the individuals to have U.S. citizenship.) The import price index provides a measure of price change for goods purchased from other countries by U.S. residents. With publication of an all-import index in February 1983 and an all-export index in February 1984, all U.S. merchandise imports and exports now are represented in these indexes. The reference period for the indexes is 1977 = 100, unless otherwise indicated.

The product universe for both the import and export indexes includes raw materials, agricultural products, semifinished manufactures, and finished manufactures, including both capital and consumer goods. Price data for these items are collected quarterly by mail questionnaire. In nearly all cases, the data are collected directly from the exporter or importer, although in a few cases, prices are obtained from other sources.

To the extent possible, the data gathered refer to prices at the U.S. border for exports and at either the foreign border or the U.S. border for imports. For nearly all products, the prices refer to transactions completed during the first 2 weeks of the third month of each calendar quarter—March, June, September, and December. Survey respondents are asked to indicate all discounts, allowances, and rebates applicable to the reported prices, so that the price used in the calculation of the indexes is the actual price for which the product was bought or sold.

In addition to general indexes of prices for U.S. exports and imports, indexes are also published for detailed product categories of exports and imports. These categories are defined by the 4- and 5-digit level of detail of the Standard Industrial Trade Classification System (SITC). The calculation of indexes by SITC category facilitates the comparison of U.S. price trends and sector production with similar data for other countries. Detailed indexes are also computed and published on a Standard Industrial Classification (SIC-based) basis, as well as by end-use class.

Notes on the data

The export and import price indexes are weighted indexes of the Laspeyres type. Price relatives are assigned equal importance within each weight category and are then aggregated to the SITC level. The values assigned to each weight category are based on trade value figures compiled

by the Bureau of the Census. The trade weights currently used to compute both indexes relate to 1980.

Because a price index depends on the same items being priced from period to period, it is necessary to recognize when a product's specifications or terms of transaction have been modified. For this reason, the Bureau's quarterly questionnaire requests detailed descriptions of the physical and functional characteristics of the products being priced, as well as information on the number of units bought or sold, discounts, credit terms, packaging, class of buyer or seller, and so forth. When there are changes in either the specifications or terms of transaction of a product, the dollar value of each change is deleted from the total price change to obtain the "pure" change. Once this value is determined, a linking procedure is employed which allows for the continued repricing of the item.

For the export price indexes, the preferred pricing basis is f.a.s. (free alongside ship) U.S. port of exportation. When firms report export prices f.o.b. (free on board), production point information is collected which enables the Bureau to calculate a shipment cost to the port of exportation.

PRODUCTIVITY DATA (Tables 2; 42-47)

U. S. productivity and related data

Description of the series

The productivity measures relate real physical output to real input. As such, they encompass a family of measures which include single factor input measures, such as output per unit of labor input (output per hour) or output per unit of capital input, as well as measures of multifactor productivity (output per unit of labor and capital inputs combined). The Bureau indexes show the change in output relative to changes in the various inputs. The measures cover the business, nonfarm business, manufacturing, and nonfinancial corporate sectors.

Corresponding indexes of hourly compensation, unit labor costs, unit nonlabor payments, and prices are also provided.

Definitions

Output per hour of all persons (labor productivity) is the value of goods and services in constant prices produced per hour of labor input. **Output per unit of capital services** (capital productivity) is the value of goods and services in constant dollars produced per unit of capital services input.

Multifactor productivity is the ratio output per unit of labor and capital inputs combined. Changes in this measure reflect changes in a number of factors which affect the production process such as changes in technology, shifts in the composition of the labor force, changes in capacity utilization, research and development, skill and efforts of the work force, management, and so forth. Changes in the output per hour measures reflect the impact of these factors as well as the substitution of capital for labor.

Compensation per hour is the wages and salaries of employees plus employers' contributions for social insurance and private benefit plans, and the wages, salaries, and supplementary payments for the self-employed (except for nonfinancial corporations in which there are no self-employed)—the sum divided by hours paid for. **Real compensation per hour** is compensation per hour deflated by the change in the Consumer Price Index for All Urban Consumers.

Unit labor costs are the labor compensation costs expended in the production of a unit of output and are derived by dividing compensation by output. **Unit nonlabor payments** include profits, depreciation, interest, and indirect taxes per unit of output. They are computed by subtracting compensation of all persons from current dollar value of output and dividing by output. **Unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits.

An attempt is made to collect two prices for imports. The first is the import price f.o.b. at the foreign port of exportation, which is consistent with the basis for valuation of imports in the national accounts. The second is the import price c.i.f. (cost, insurance, and freight) at the U.S. port of importation, which also includes the other costs associated with bringing the product to the U.S. border. It does not, however, include duty charges.

Additional sources of information

For a discussion of the general method of computing International Price Indexes, see *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 8.

Additional detailed data and analyses of international price developments are presented in the Bureau's quarterly publication *U.S. Import and Export Price Indexes* and in occasional *Monthly Labor Review* articles prepared by BLS analysts. Selected historical data may be found in the *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985).

Unit profits include corporate profits and the value of inventory adjustments per unit of output.

Hours of all persons are the total hours paid of payroll workers, self-employed persons, and unpaid family workers.

Capital services is the flow of services from the capital stock used in production. It is developed from measures of the net stock of physical assets—equipment, structures, land, and inventories—weighted by rental prices for each type of asset.

Labor and capital inputs combined are derived by combining changes in labor and capital inputs with weights which represent each component's share of total output. The indexes for capital services and combined units of labor and capital are based on changing weights which are averages of the shares in the current and preceding year (the Tornquist index-number formula).

Notes on the data

Output measures for the business sector and the nonfarm business sector exclude the constant dollar value of owner-occupied housing, rest of world, households and institutions, and general government output from the constant dollar value of gross national product. The measures are derived from data supplied by the Bureau of Economic Analysis, U.S. Department of Commerce, and the Federal Reserve Board. Quarterly manufacturing output indexes are 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 developed from data of the Bureau of Labor Statistics and the Bureau of Economic Analysis.

The productivity and associated cost measures in tables 42-44 describe the relationship between output in real terms and the labor time and capital services involved in its production. They show the changes from period to period in the amount of goods and services produced per unit of input. Although these measures relate output to hours and capital services, they do not measure the contributions of labor, capital, or any other specific factor of production. Rather, they reflect the joint effect of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and efforts of the work force.

Additional sources of information

Descriptions of methodology underlying the measurement of output per hour and multifactor productivity are found in the *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 13. Historical data for selected industries are provided in the Bureau's *Handbook of Labor Statistics*, 1985, Bulletin 2217.

INTERNATIONAL COMPARISONS (Tables 45-47)

Labor force and unemployment

Description of the series

Tables 45 and 46 present comparative measures of the labor force, employment, and unemployment—approximating U.S. concepts—for the United States, Canada, Australia, Japan, and six European countries. The unemployment statistics (and, to a lesser extent, employment statistics) published by other industrial countries are not, in most cases, comparable to U.S. unemployment statistics. Therefore, the Bureau adjusts the figures for selected countries, where necessary, for all known major definitional differences. Although precise comparability may not be achieved, these adjusted figures provide a better basis for international comparisons than the figures regularly published by each country.

Definitions

For the principal U.S. definitions of the **labor force**, **employment**, and **unemployment**, see the Notes section on EMPLOYMENT DATA: Household Survey Data.

Notes on the data

The adjusted statistics have been adapted to the age at which compulsory schooling ends in each country, rather than to the U.S. standard of 16 years of age and over. Therefore, the adjusted statistics relate to the population age 16 and over in France, Sweden, and from 1973 onward, Great Britain; 15 and over in Canada, Australia, Japan, Germany, the Netherlands, and prior to 1973, Great Britain; and 14 and over in Italy. The institutional population is included in the denominator of the labor force participation rates and employment-population ratios for Japan and Germany; it is excluded for the United States and the other countries.

In the U.S. labor force survey, persons on layoff who are awaiting recall to their job are classified as unemployed. European and Japanese layoff practices are quite different in nature from those in the United States; therefore, strict application of the U.S. definition has not been made on this point. For further information, see *Monthly Labor Review*, December 1981, pp. 8-11.

The figures for one or more recent years for France, Germany, Great Britain, Italy, and the Netherlands are calculated using adjustment factors based on labor force surveys for earlier years and are considered preliminary. The recent-year measures for these countries are, therefore, subject to revision whenever data from more current labor force surveys become available.

Additional sources of information

For further information, see *International Comparisons of Unemployment*, Bulletin 1979 (Bureau of Labor Statistics, 1978), Appendix B and unpublished Supplements to Appendix B available on request. The statistics are also analyzed periodically in the *Monthly Labor Review*. Additional historical data, generally beginning with 1959, are published in the *Handbook of Labor Statistics* and are available in unpublished statistical supplements to Bulletin 1979.

Manufacturing productivity and labor costs

Description of the series

Table 47 presents comparative measures of manufacturing labor productivity, hourly compensation costs, and unit labor costs for the United

States, Canada, Japan, and nine European countries. These measures are limited to trend comparisons—that is, intercountry series of changes over time—rather than level comparisons because reliable international comparisons of the levels of manufacturing output are unavailable.

Definitions

Output is constant value output (value added), generally taken from the national accounts of each country. While the national accounting methods for measuring real output differ considerably among the 12 countries, the use of different procedures does not, in itself, connote lack of comparability—rather, it reflects differences among countries in the availability and reliability of underlying data series.

Hours refer to all employed persons including the self-employed in the United States and Canada; to all wage and salary employees in the other countries. The U.S. hours measure is hours paid; the hours measures for the other countries are hours worked.

Compensation (labor cost) includes all payments in cash or kind made directly to employees plus employer expenditures for legally required insurance programs and contractual and private benefit plans. In addition, for some countries, compensation is adjusted for other significant taxes on payrolls or employment (or reduced to reflect subsidies), even if they are not for the direct benefit of workers, because such taxes are regarded as labor costs. However, compensation does not include all items of labor cost. The costs of recruitment, employee training, and plant facilities and services—such as cafeterias and medical clinics—are not covered because data are not available for most countries. Self-employed workers are included in the U.S. and Canadian compensation figures by assuming that their hourly compensation is equal to the average for wage and salary employees.

Notes on the data

For most of the countries, the measures refer to total manufacturing as defined by the International Standard Industrial Classification. However, the measures for France (beginning 1959), Italy (beginning 1970), and the United Kingdom (beginning 1976), refer to manufacturing and mining less energy-related products and the figures for the Netherlands exclude petroleum refining from 1969 to 1976. For all countries, manufacturing includes the activities of government enterprises.

The figures for one or more recent years are generally based on current indicators of manufacturing output, employment, hours, and hourly compensation and are considered preliminary until the national accounts and other statistics used for the long-term measures become available.

Additional sources of information

For additional information, see the *BLS Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 16 and periodic *Monthly Labor Review* articles. Historical data are provided in the Bureau's *Handbook of Labor Statistics*, Bulletin 2217, 1985. The statistics are issued twice per year—in a news release (generally in May) and in a *Monthly Labor Review* article (generally in December).

OCCUPATIONAL INJURY AND ILLNESS DATA

(Table 48)

Description of the series

The Annual Survey of Occupational Injuries and Illnesses is designed to collect data on injuries and illnesses based on records which employers in the following industries maintain under the Occupational Safety and Health Act of 1970: agriculture, forestry, and fishing; oil and gas extraction; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. Excluded from the survey are self-employed individuals, farmers with fewer than 11 employees, employers regulated by other Federal safety and health laws, and Federal, State, and local government agencies.

Because the survey is a Federal-State cooperative program and the data must meet the needs of participating State agencies, an independent sample is selected for each State. The sample is selected to represent all private industries in the States and territories. The sample size for the survey is dependent upon (1) the characteristics for which estimates are needed; (2) the industries for which estimates are desired; (3) the characteristics of the population being sampled; (4) the target reliability of the estimates; and (5) the survey design employed.

While there are many characteristics upon which the sample design could be based, the total recorded case incidence rate is used because it is one of the most important characteristics and the least variable; therefore, it requires the smallest sample size.

The survey is based on stratified random sampling with a Neyman allocation and a ratio estimator. The characteristics used to stratify the establishments are the Standard Industrial Classification (SIC) code and size of employment.

Definitions

Recordable occupational injuries and illnesses are: (1) occupational deaths, regardless of the time between injury and death, or the length of the illness; or (2) nonfatal occupational illnesses; or (3) nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid).

Occupational injury is any injury such as a cut, fracture, sprain, amputation, and so forth, which results from a work accident or from exposure involving a single incident in the work environment.

Occupational illness is an abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or disease which may be caused by inhalation, absorption, ingestion, or direct contact.

Lost workday cases are cases which involve days away from work, or days of restricted work activity, or both.

Lost workday cases involving restricted work activity are those cases which result in restricted work activity only.

Lost workdays away from work are the number of workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness.

Lost workdays—restricted work activity are the number of workdays (consecutive or not) on which, because of injury or illness: (1) the employee was assigned to another job on a temporary basis; or (2) the em-

ployee worked at a permanent job less than full time; or (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

The number of days away from work or days of restricted work activity does not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

Incidence rates represent the number of injuries and/or illnesses or lost workdays per 100 full-time workers.

Notes on the data

Estimates are made for industries and employment-size classes and for severity classification: fatalities, lost workday cases, and nonfatal cases without lost workdays. Lost workday cases are separated into those where the employee would have worked but could not and those in which work activity was restricted. Estimates of the number of cases and the number of days lost are made for both categories.

Most of the estimates are in the form of incidence rates, defined as the number of injuries and illnesses, or lost workdays, per 100 full-time employees. For this purpose, 200,000 employee hours represent 100 employee years (2,000 hours per employee). Only a few of the available measures are included in the *Handbook of Labor Statistics*. Full detail is presented in the annual bulletin, *Occupational Injuries and Illnesses in the United States, by Industry*.

Comparable data for individual States are available from the BLS Office of Occupational Safety and Health Statistics.

Mining and railroad data are furnished to BLS by the Mine Safety and Health Administration and the Federal Railroad Administration, respectively. Data from these organizations are included in BLS and State publications. Federal employee experience is compiled and published by the Occupational Safety and Health Administration. Data on State and local government employees are collected by about half of the States and territories; these data are not compiled nationally.

Additional sources of information

The Supplementary Data System provides detailed information describing various factors associated with work-related injuries and illnesses. These data are obtained from information reported by employers to State workers' compensation agencies. The Work Injury Report program examines selected types of accidents through an employee survey which focuses on the circumstances surrounding the injury. These data are not included in the *Handbook of Labor Statistics* but are available from the BLS Office of Occupational Safety and Health Statistics.

The definitions of occupational injuries and illnesses and lost workdays are from *Recordkeeping Requirements under the Occupational Safety and Health Act of 1970*. For additional data, see *Occupational Injuries and Illnesses in the United States, by Industry*, annual Bureau of Labor Statistics bulletin; BLS *Handbook of Methods*, Bulletin 2134-1 (Bureau of Labor Statistics, 1982), chapter 17; *Handbook of Labor Statistics*, Bulletin 2217 (Bureau of Labor Statistics, 1985), pp. 411-14; annual reports in the *Monthly Labor Review*; and annual U.S. Department of Labor press releases.

1. Labor market indicators

Selected indicators	1984	1985	1984	1985				1986		
			IV	I	II	III	IV	I	II	III
Employment data										
Employment status of the civilian noninstitutionalized population (household survey) ¹										
Labor force participation rate	64.4	64.8	64.5	64.8	64.7	64.7	64.9	65.1	65.2	65.3
Employment-population ratio	59.5	60.1	59.8	60.1	60.0	60.1	60.3	60.5	60.6	60.8
Unemployment rate	7.5	7.2	7.3	7.3	7.2	7.2	7.1	7.1	7.1	6.9
Men	7.4	7.0	7.1	7.1	7.0	7.0	6.9	6.9	7.0	6.9
16 to 24 years	14.4	14.1	14.0	14.2	14.0	14.0	14.2	13.5	14.2	13.7
25 years and over	5.7	5.3	5.4	5.4	5.3	5.3	5.2	5.3	5.3	5.4
Women	7.6	7.4	7.5	7.5	7.5	7.4	7.3	7.3	7.2	6.9
16 to 24 years	13.3	13.0	12.9	13.1	12.9	12.9	13.1	13.1	13.1	12.6
25 years and over	6.0	5.9	5.9	6.0	6.0	5.9	5.6	5.7	5.7	5.4
Unemployment rate, 15 weeks and over	2.4	2.0	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9
Employment, nonagricultural (payroll data), in thousands: ¹										
Total	94,496	97,614	94,064	96,581	97,295	97,897	97,295	99,403	99,848	100,316
Private sector	78,472	81,199	78,096	80,341	80,958	81,414	80,958	82,731	83,144	83,650
Goods-producing	24,727	24,930	24,690	24,970	24,947	24,866	24,947	25,028	24,952	24,872
Manufacturing	19,378	19,314	19,381	19,439	19,323	19,241	19,323	19,284	19,194	19,116
Service-producing	69,769	72,684	69,374	71,611	72,347	73,031	72,347	74,375	74,896	75,444
Average hours:										
Private sector	35.2	34.9	35.2	35.0	34.9	34.9	34.9	34.9	34.8	34.7
Manufacturing	40.7	40.5	40.8	40.4	40.4	40.6	40.4	40.7	40.7	40.7
Overtime	3.4	3.3	3.5	3.3	3.2	3.3	3.2	3.4	3.4	3.5
Employment Cost Index										
Percent change in the ECI, compensation:										
All workers (excluding farm, household, and Federal workers)	5.2	4.3	1.2	1.3	.7	1.6	.6	1.1	.7	1.1
Private industry workers	4.9	3.9	1.3	1.2	.8	1.3	.6	1.1	.8	.7
Goods-producing ²	4.6	3.4	1.1	1.5	.7	.6	.6	1.1	.9	.6
Service-producing ²	5.1	4.4	1.4	1.0	1.0	1.8	.5	1.1	.6	.8
State and local government workers	6.6	5.7	1.0	1.2	.2	3.4	.7	1.0	.6	2.8
Workers by bargaining status (private industry):										
Union	4.3	2.6	1.1	.7	.6	.8	.5	1.0	.2	.5
Nonunion	5.2	4.6	1.3	1.6	1.0	1.4	.6	1.2	.9	.8

¹ Quarterly data seasonally adjusted.

² Goods-producing industries include mining, construction, and manufacturing. Service-

producing industries include all other private sector industries.

2. Annual and quarterly percent changes in compensation, prices, and productivity

Selected measures	1984	1985	1984					1985				1986		
			IV	I	II	III	IV	I	II	III	I	II	III	
Compensation data^{1, 2}														
Employment Cost Index--compensation (wages, salaries, benefits):														
Civilian nonfarm	5.2	4.3	1.2	1.3	0.7	1.6	0.6	1.1	0.7	1.1	0.7	1.1		
Private nonfarm	4.9	3.9	1.3	1.2	.8	1.3	.6	1.1	.8	.7	.8	.7		
Employment Cost Index--wages and salaries:														
Civilian nonfarm	4.5	4.4	1.2	1.2	.9	1.7	.6	1.0	.8	1.1	.8	1.1		
Private nonfarm	4.1	4.1	1.2	1.2	1.1	1.3	.6	1.0	.9	1.0	.9	.7		
Price data¹														
Consumer Price Index (All urban consumers): All items	4.0	3.8	.3	1.0	1.1	.7	.9	-.4	.6	.7	.6	.7		
Producer Price Index:														
Finished goods	1.7	1.8	.9	.0	.7	-1.4	2.5	-3.1	.5	-6	.5	-6		
Finished consumer goods	1.6	1.5	.8	-.3	.7	-1.4	2.5	-4.1	.4	-6	.4	-6		
Capital equipment	1.8	2.7	1.1	1.3	.4	-1.4	2.5	.2	.6	-6	.6	-6		
Intermediate materials, supplies, components	1.3	-.3	-.1	-.4	.2	-.5	.4	-2.9	-.9	-2	-.9	-2		
Crude materials	-1.6	-5.6	-1.2	-3.1	-2.1	-4.5	4.3	-7.6	-1.5	-5	-1.5	-5		
Productivity data³														
Output per hour of all persons:														
Business sector	2.3	1.0	-.1	.9	2.7	3.4	-3.2	3.3	.5	.2	.5	.2		
Nonfarm business sector	1.8	.5	-.4	.3	1.8	2.2	-3.5	4.3	.5	.2	.5	.2		
Nonfinancial corporations ⁴	2.0	1.2	1.1	.8	2.2	4.9	-2.8	-.5	-.3	.3	-.3	.3		

¹ Annual changes are December-to-December change. Quarterly changes are calculated using the last month of each quarter. Compensation and price data are not seasonally adjusted and the price data are not compounded.

² Excludes Federal and private household workers.

³ Annual rates of change are computed by comparing annual averages. Quarterly percent changes reflect annual rates of change in quarterly indexes. The data are seasonally adjusted.

⁴ Output per hour of all employees.

3. Alternative measures of wage and compensation changes

Components	Quarterly average						Four quarters ended--					
	1985			1986			1985			1986		
	II	III	IV	I	II	III	II	III	IV	I	II	III
Average hourly compensation:¹												
All persons, business sector	5.1	4.4	3.8	2.5	2.8	2.9	4.5	4.4	4.4	3.9	3.4	3.0
All employees, nonfarm business sector	4.4	3.2	3.6	3.1	2.2	2.4	4.2	3.9	3.8	3.6	3.0	2.8
Employment Cost Index--compensation:												
Civilian nonfarm ² .....	.7	1.6	.6	1.1	.7	1.1	4.6	4.9	4.3	4.1	4.0	3.6
Private nonfarm .....	.8	1.3	.6	1.1	.8	.7	4.2	4.7	3.9	3.8	3.8	3.2
Union .....	.6	.8	.5	1.0	.2	.5	3.1	3.2	2.6	2.9	2.5	2.3
Nonunion	1.0	1.4	.6	1.2	.9	.8	4.9	5.4	4.6	4.2	4.2	3.5
State and local governments .....	.2	3.4	.7	1.0	.6	2.8	6.1	6.0	5.7	5.5	5.8	5.2
Employment Cost Index--wages and salaries:												
Civilian nonfarm ² .....	.9	1.7	.6	1.0	.8	1.1	4.5	5.0	4.4	4.2	4.1	3.5
Private nonfarm	1.1	1.3	.6	1.0	.9	.7	4.3	4.8	4.1	3.9	3.7	3.1
Union	1.1	.9	.5	.7	.4	.6	3.4	3.6	3.1	3.2	2.5	2.3
Nonunion	1.1	1.5	.6	1.1	.9	.7	4.8	5.4	4.6	4.3	4.1	3.4
State and local governments .....	.2	3.5	.8	1.0	.4	3.2	5.5	5.6	5.6	5.5	5.7	5.4
Total effective wage adjustments³												
From current settlements .....	.8	1.2	.5	.6	.7	.6	3.5	3.5	3.3	3.1	2.9	2.3
From prior settlements .....	.2	.2	.1	(*)	.2	.1	.9	.9	.7	.6	.5	.5
From cost-of-living provision .....	.5	.5	.2	.4	.6	.5	1.9	1.8	1.8	1.7	1.8	1.6
Negotiated wage adjustments from settlement: ³	.1	.4	.1	.2	(*)	(*)	.7	.8	.7	.8	.7	.2
First-year adjustments	2.5	2.0	2.1	.9	1.3	1.6	2.4	2.4	2.3	2.0	1.6	1.5
Annual rate over life of contract	2.8	3.1	1.9	1.5	2.0	2.0	2.4	2.5	2.7	2.5	2.2	1.9
Negotiated wage and benefit adjustments from settlements:⁵												
First-year adjustment	3.5	2.0	2.0	.4	.7	1.9	3.4	3.1	2.6	2.3	1.4	1.4
Annual rate over life of contract	3.4	3.0	1.4	1.2	1.6	1.9	2.7	2.7	2.7	2.6	2.0	1.6

¹ Seasonally adjusted.

² Excludes Federal and household workers.

³ Limited to major collective bargaining units of 1,000 workers or more. The most recent data are preliminary.

⁴ Data round to zero.

⁵ Limited to major collective bargaining units of 5,000 workers or more. The most recent data are preliminary.

4. Employment status of the total population, by sex, monthly data seasonally adjusted

(Numbers in thousands)

Employment status	Annual average		1986												
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL															
Noninstitutional population ^{1, 2}	179,912	182,293	180,810	181,361	181,512	181,678	181,843	181,998	182,183	182,354	182,525	182,713	182,935	183,114	183,297
Labor force ²	117,167	119,540	118,031	118,485	118,733	118,880	118,987	119,274	119,685	119,789	119,821	119,988	120,163	120,426	120,336
Participation rate ³	65.1	65.6	65.3	65.3	65.4	65.4	65.4	65.5	65.7	65.7	65.6	65.7	65.7	65.8	65.7
Total employed ²	108,856	111,303	109,847	110,583	110,248	110,500	110,664	110,852	111,293	111,559	111,764	111,703	111,941	112,183	112,387
Employment-population ratio ⁴	60.5	61.1	60.8	61.0	60.7	60.8	60.9	60.9	61.1	61.2	61.2	61.1	61.2	61.3	61.3
Resident Armed Forces ¹	1,706	1,706	1,698	1,691	1,691	1,693	1,695	1,687	1,680	1,672	1,697	1,716	1,749	1,751	1,750
Civilian employed	107,150	109,597	108,149	108,892	108,557	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637
Agriculture	3,179	3,163	3,151	3,280	3,105	3,252	3,199	3,151	3,164	3,124	3,057	3,142	3,162	3,215	3,161
Nonagricultural industries	103,971	106,434	104,998	105,612	105,452	105,555	105,770	106,014	106,449	106,763	107,010	106,845	107,030	107,217	107,476
Unemployed	8,312	8,237	8,184	7,902	8,485	8,380	8,323	8,422	8,392	8,230	8,057	8,285	8,222	8,243	7,949
Unemployment rate ⁵	7.1	6.9	6.9	6.7	7.1	7.0	7.0	7.1	7.0	6.9	6.7	6.9	6.8	6.8	6.6
Not in labor force	62,744	62,752	62,779	62,876	62,779	62,798	62,856	62,724	62,498	62,565	62,704	62,725	62,772	62,688	62,961
Men, 16 years and over															
Noninstitutional population ^{1, 2}	86,025	87,349	86,459	86,882	86,954	87,035	87,120	87,195	87,288	87,373	87,460	87,556	87,682	87,773	87,868
Labor force ²	65,967	66,973	66,173	66,666	66,737	66,793	66,770	66,854	66,937	66,968	66,911	67,128	67,130	67,407	67,425
Participation rate ³	76.7	76.7	76.5	76.7	76.7	76.7	76.6	76.7	76.7	76.6	76.5	76.7	76.6	76.6	76.7
Total employed ²	61,447	62,443	61,762	62,392	62,142	62,221	62,253	62,201	62,318	62,402	62,483	62,528	62,565	62,833	62,986
Employment-population ratio ⁴	71.4	71.5	71.4	71.8	71.5	71.5	71.5	71.3	71.4	71.4	71.4	71.4	71.4	71.6	71.7
Resident Armed Forces ¹	1,556	1,551	1,549	1,539	1,539	1,540	1,541	1,533	1,525	1,518	1,541	1,560	1,590	1,592	1,593
Civilian employed	59,891	60,892	60,213	60,853	60,603	60,681	60,712	60,668	60,793	60,884	60,942	60,968	60,975	61,241	61,393
Unemployed	4,521	4,530	4,411	4,274	4,595	4,572	4,517	4,653	4,619	4,566	4,428	4,600	4,565	4,574	4,439
Unemployment rate ⁵	6.9	6.8	6.7	6.4	6.9	6.8	6.8	7.0	6.9	6.8	6.6	6.9	6.8	6.8	6.6
Women, 16 years and over															
Noninstitutional population ^{1, 2}	93,886	94,944	94,351	94,479	94,558	94,643	94,723	94,803	94,895	94,981	95,065	95,156	95,253	95,341	95,429
Labor force ²	51,200	52,568	51,858	51,819	51,996	52,087	52,217	52,420	52,748	52,821	52,910	52,860	53,033	53,019	52,911
Participation rate ³	54.5	55.4	55.0	54.8	55.0	55.0	55.1	55.3	55.6	55.6	55.7	55.6	55.7	55.6	55.4
Total employed ²	47,409	48,861	48,085	48,191	48,106	48,279	48,411	48,651	48,975	49,157	49,281	49,175	49,376	49,350	49,401
Employment-population ratio ⁴	50.5	51.5	51.0	51.0	50.9	51.0	51.1	51.3	51.6	51.8	51.8	51.7	51.8	51.8	51.8
Resident Armed Forces ¹	150	155	149	152	152	153	154	154	155	154	156	156	159	159	157
Civilian employed	47,259	48,706	47,936	48,039	47,954	48,126	48,257	48,497	48,820	49,003	49,125	49,019	49,217	49,191	49,244
Unemployed	3,791	3,707	3,773	3,628	3,890	3,808	3,806	3,769	3,773	3,664	3,629	3,685	3,657	3,669	3,510
Unemployment rate ⁵	7.4	7.1	7.3	7.0	7.5	7.3	7.3	7.2	7.2	6.9	6.9	7.0	6.9	6.9	6.6

¹ The population and Armed Forces figures are not adjusted for seasonal variation.
² Includes members of the Armed Forces stationed in the United States.
³ Labor force as a percent of the noninstitutional population.

⁴ Total employed as a percent of the noninstitutional population.
⁵ Unemployment as a percent of the labor force (including the resident Armed Forces).

5. Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally adjusted

(Numbers in thousands)

Employment status	Annual average		1986												
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL															
Civilian noninstitutional population ¹	178,206	180,587	179,112	179,670	179,821	179,985	180,148	180,311	180,503	180,682	180,828	180,997	181,186	181,363	181,547
Civilian labor force	115,461	117,834	116,333	116,794	117,042	117,187	117,292	117,587	118,005	118,117	118,124	118,272	118,414	118,675	118,586
Participation rate	64.8	65.3	64.9	65.0	65.1	65.1	65.1	65.2	65.4	65.4	65.3	65.3	65.4	65.4	65.3
Employed	107,150	109,597	108,149	108,892	108,557	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637
Employment-population ratio ²	60.1	60.7	60.4	60.6	60.4	60.5	60.5	60.5	60.7	60.8	60.9	60.8	60.8	60.9	60.9
Unemployed	8,312	8,237	8,184	7,902	8,485	8,380	8,323	8,422	8,392	8,230	8,057	8,285	8,222	8,243	7,949
Unemployment rate	7.2	7.0	7.0	6.8	7.2	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7
Not in labor force	62,744	62,752	62,779	62,876	62,779	62,798	62,856	62,724	62,498	62,565	62,704	62,725	62,772	62,688	62,961
Men, 20 years and over															
Civilian noninstitutional population ¹	77,195	78,523	77,651	78,101	78,171	78,236	78,309	78,387	78,484	78,586	78,634	78,722	78,802	78,874	78,973
Civilian labor force	60,277	61,320	60,545	61,143	61,092	61,177	61,080	61,158	61,330	61,355	61,219	61,412	61,409	61,703	61,826
Participation rate	78.1	78.1	78.0	78.3	78.2	78.2	78.0	78.0	78.1	78.1	77.9	78.0	77.9	78.2	78.3
Employed	56,562	57,569	56,928	57,599	57,296	57,388	57,392	57,338	57,522	57,544	57,585	57,607	57,595	57,883	58,101
Employment-population ratio ²	73.3	73.3	73.3	73.7	73.3	73.4	73.3	73.1	73.3	73.2	73.2	73.2	73.1	73.4	73.6
Agriculture	2,278	2,292	2,280	2,340	2,261	2,389	2,319	2,279	2,309	2,275	2,185	2,286	2,297	2,303	2,289
Nonagricultural industries	54,284	55,277	54,648	55,259	55,035	54,999	55,073	55,059	55,213	55,269	55,400	55,321	55,298	55,580	55,812
Unemployed	3,715	3,751	3,617	3,544	3,796	3,789	3,688	3,820	3,808	3,811	3,634	3,805	3,814	3,820	3,725
Unemployment rate	6.2	6.1	6.0	5.8	6.2	6.2	6.0	6.2	6.2	6.2	5.9	6.2	6.2	6.2	6.0
Women, 20 years and over															
Civilian noninstitutional population ¹	86,506	87,567	86,988	87,112	87,185	87,263	87,355	87,444	87,547	87,629	87,689	87,779	87,856	87,933	88,016
Civilian labor force	47,283	48,589	47,916	47,897	48,009	48,065	48,181	48,433	48,739	48,879	48,950	48,920	49,014	49,043	48,923
Participation rate	54.7	55.5	55.1	55.0	55.1	55.1	55.2	55.4	55.7	55.8	55.8	55.7	55.8	55.8	55.6
Employed	44,154	45,556	44,843	44,952	44,820	44,934	45,094	45,335	45,657	45,869	45,956	45,905	46,020	46,067	46,058
Employment-population ratio ²	51.0	52.0	51.6	51.6	51.4	51.5	51.6	51.8	52.2	52.3	52.4	52.3	52.4	52.4	52.3
Agriculture	596	614	594	677	591	589	585	604	583	607	622	614	612	675	621
Nonagricultural industries	43,558	44,943	44,249	44,275	44,229	44,345	44,509	44,731	45,074	45,262	45,334	45,291	45,408	45,392	45,437
Unemployed	3,129	3,032	3,073	2,945	3,189	3,131	3,087	3,098	3,082	3,010	2,994	3,015	2,994	2,976	2,865
Unemployment rate	6.6	6.2	6.4	6.1	6.6	6.5	6.4	6.4	6.3	6.2	6.1	6.2	6.1	6.1	5.9
Both sexes, 16 to 19 years															
Civilian noninstitutional population ¹	14,506	14,496	14,474	14,458	14,465	14,485	14,484	14,480	14,472	14,467	14,505	14,496	14,527	14,557	14,558
Civilian labor force	7,901	7,926	7,872	7,754	7,941	7,945	8,031	7,996	7,936	7,883	7,955	7,940	7,991	7,929	7,837
Participation rate	54.5	54.7	54.4	53.6	54.9	54.9	55.4	55.2	54.8	54.5	54.8	54.8	55.0	54.5	53.8
Employed	6,434	6,472	6,378	6,341	6,441	6,485	6,483	6,492	6,434	6,474	6,526	6,475	6,577	6,482	6,478
Employment-population ratio ²	44.4	44.6	44.1	43.9	44.5	44.8	44.8	44.8	44.5	44.8	45.0	44.7	45.3	44.5	44.5
Agriculture	305	258	277	263	253	274	295	268	272	242	250	242	253	237	251
Nonagricultural industries	6,129	6,215	6,101	6,078	6,188	6,211	6,188	6,224	6,162	6,232	6,276	6,233	6,324	6,245	6,227
Unemployed	1,468	1,454	1,494	1,413	1,500	1,460	1,548	1,504	1,502	1,409	1,429	1,465	1,414	1,447	1,359
Unemployment rate	18.6	18.3	19.0	18.2	18.9	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3
White															
Civilian noninstitutional population ¹	153,679	155,432	154,327	154,784	154,889	155,005	155,122	155,236	155,376	155,502	155,604	155,723	155,856	155,979	156,111
Civilian labor force	99,926	101,801	100,617	100,993	101,178	101,208	101,237	101,531	101,946	102,015	102,122	102,158	102,297	102,455	102,503
Participation rate	65.0	65.5	65.2	65.2	65.3	65.3	65.3	65.4	65.6	65.6	65.6	65.6	65.6	65.7	65.7
Employed	93,736	95,660	94,549	95,099	94,780	94,955	95,095	95,283	95,720	95,861	96,177	96,000	96,147	96,281	96,533
Employment-population ratio ²	61.0	61.5	61.3	61.4	61.2	61.3	61.3	61.4	61.6	61.6	61.8	61.6	61.7	61.7	61.8
Unemployed	6,191	6,140	6,068	5,894	6,398	6,253	6,142	6,248	6,226	6,154	5,945	6,158	6,150	6,174	5,970
Unemployment rate	6.2	6.0	6.0	5.8	6.3	6.2	6.1	6.2	6.1	6.0	5.8	6.0	6.0	6.0	5.8
Black															
Civilian noninstitutional population ¹	19,664	19,989	19,819	19,837	19,863	19,889	19,916	19,943	19,974	20,002	20,028	20,056	20,089	20,120	20,152
Civilian labor force	12,364	12,654	12,559	12,561	12,572	12,634	12,687	12,721	12,712	12,611	12,553	12,652	12,720	12,719	12,707
Participation rate	62.9	63.3	63.4	63.3	63.3	63.5	63.7	63.8	63.6	63.0	62.7	63.1	63.3	63.2	63.1
Employed	10,501	10,814	10,679	10,723	10,704	10,770	10,809	10,839	10,818	10,822	10,716	10,799	10,895	10,910	10,968
Employment-population ratio ²	53.4	54.1	53.9	54.1	53.9	54.2	54.3	54.3	54.2	54.1	53.5	53.8	54.2	54.2	54.4
Unemployed	1,864	1,840	1,880	1,838	1,868	1,864	1,878	1,882	1,894	1,789	1,837	1,853	1,825	1,809	1,739
Unemployment rate	15.1	14.5	15.0	14.6	14.9	14.8	14.8	14.8	14.9	14.2	14.6	14.6	14.3	14.2	13.7

See footnotes at end of table.

5. Continued— Employment status of the civilian population, by sex, age, race and Hispanic origin, monthly data seasonally adjusted

(Numbers in thousands)

Employment status	Annual average		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Hispanic origin															
Civilian noninstitutional population ¹	11,915	12,344	12,111	12,148	12,184	12,219	12,255	12,290	12,326	12,362	12,397	12,432	12,469	12,505	12,540
Civilian labor force	7,698	8,076	7,777	7,796	7,922	7,926	7,969	8,006	8,085	8,121	8,130	8,179	8,200	8,226	8,320
Participation rate	64.6	65.4	64.2	64.2	65.0	64.9	65.0	65.1	65.6	65.7	65.6	65.8	65.8	65.8	66.3
Employed	6,888	7,219	6,964	6,994	6,991	7,095	7,129	7,136	7,224	7,269	7,248	7,286	7,345	7,437	7,446
Employment-population ratio ²	57.8	58.5	57.5	57.6	57.4	58.1	58.2	58.1	58.6	58.8	58.5	58.6	58.9	59.5	59.4
Unemployed	811	857	813	802	931	831	840	870	861	852	882	893	855	789	874
Unemployment rate	10.5	10.6	10.5	10.3	11.8	10.5	10.5	10.9	10.6	10.5	10.8	10.9	10.4	9.6	10.5

¹ The population figures are not seasonally adjusted.

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

NOTE: Detail for the above race and Hispanic-origin groups will not sum to totals

because data for the "other races" groups are not presented and Hispanics are included in both the white and black population groups.

6. Selected employment indicators, monthly data seasonally adjusted

(In thousands)

Selected categories	Annual average		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CHARACTERISTIC															
Civilian employed, 16 years and over	107,150	109,597	108,149	108,892	108,557	108,807	108,969	109,165	109,613	109,887	110,067	109,987	110,192	110,432	110,637
Men	59,891	60,892	60,213	60,853	60,603	60,681	60,712	60,668	60,793	60,884	60,942	60,968	60,975	61,241	61,393
Women	47,259	48,706	47,936	48,039	47,954	48,126	48,257	48,497	48,820	49,003	49,125	49,019	49,217	49,191	49,244
Married men, spouse present ..	39,248	39,658	39,254	39,558	39,363	39,396	39,504	39,582	39,613	39,634	39,735	39,691	39,780	39,952	40,093
Married women, spouse present	26,336	27,144	26,777	26,820	26,695	26,761	26,889	27,016	27,354	27,474	27,388	27,249	27,323	27,333	27,400
Women who maintain families ..	5,597	5,837	5,697	5,703	5,723	5,754	5,799	5,734	5,719	5,812	5,832	5,926	6,016	6,041	6,005
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,535	1,547	1,545	1,642	1,512	1,655	1,539	1,489	1,508	1,504	1,509	1,521	1,562	1,582	1,621
Self-employed workers	1,458	1,447	1,447	1,482	1,444	1,450	1,467	1,472	1,492	1,434	1,387	1,460	1,451	1,425	1,400
Unpaid family workers	185	169	168	165	158	169	173	177	163	171	174	159	164	198	152
Nonagricultural industries:															
Wage and salary workers	95,871	98,299	96,912	97,752	97,500	97,661	97,858	98,047	98,314	98,312	98,586	98,692	98,846	98,869	99,164
Government	16,031	16,342	16,177	16,333	16,155	16,160	16,231	16,333	16,377	16,582	16,446	16,333	16,264	16,457	16,443
Private industries	79,841	81,957	80,735	81,419	81,345	81,501	81,627	81,714	81,937	81,730	82,140	82,359	82,582	82,412	82,721
Private households	1,249	1,235	1,141	1,245	1,208	1,227	1,309	1,261	1,267	1,241	1,247	1,229	1,216	1,183	1,189
Other	78,592	80,722	79,594	80,174	80,137	80,274	80,318	80,453	80,670	80,489	80,893	81,130	81,366	81,229	81,532
Self-employed workers	7,811	7,881	7,817	7,693	7,711	7,713	7,634	7,793	7,832	8,019	7,956	7,939	7,993	8,179	8,056
Unpaid family workers	289	255	254	271	261	243	251	235	236	258	271	275	265	252	239
PERSONS AT WORK PART TIME¹															
All industries:															
Part time for economic reasons ..	5,590	5,588	5,505	5,551	5,446	5,548	5,853	5,825	5,538	5,442	5,471	5,544	5,740	5,563	5,596
Slack work	2,430	2,456	2,365	2,377	2,385	2,352	2,534	2,605	2,437	2,473	2,417	2,472	2,481	2,510	2,444
Could only find part-time work ..	2,819	2,800	2,838	2,870	2,724	2,908	2,922	2,843	2,813	2,661	2,741	2,772	2,826	2,714	2,867
Voluntary part time	13,489	13,935	13,640	13,877	13,800	13,778	13,900	13,853	14,142	13,967	13,981	13,922	14,178	14,021	13,877
Nonagricultural industries:															
Part time for economic reasons ..	5,334	5,345	5,292	5,297	5,214	5,295	5,567	5,569	5,322	5,222	5,269	5,303	5,450	5,319	5,342
Slack work	2,273	2,305	2,233	2,231	2,242	2,160	2,382	2,485	2,307	2,317	2,283	2,314	2,314	2,366	2,286
Could only find part-time work ..	2,730	2,719	2,740	2,770	2,669	2,819	2,806	2,749	2,727	2,609	2,678	2,710	2,739	2,626	2,765
Voluntary part time	13,038	13,502	13,196	13,386	13,354	13,351	13,528	13,412	13,613	13,578	13,606	13,520	13,736	13,567	13,455

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

7. Selected unemployment indicators, monthly data seasonally adjusted

(Unemployment rates)

Selected categories	Annual average		1986												
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CHARACTERISTIC															
Total, all civilian workers	7.2	7.0	7.0	6.8	7.2	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7
Both sexes, 16 to 19 years	18.6	18.3	19.0	18.2	18.9	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3
Men, 20 years and over	6.2	6.1	6.0	5.8	6.2	6.2	6.0	6.2	6.2	6.2	5.9	6.2	6.2	6.2	6.0
Women, 20 years and over	6.6	6.2	6.4	6.1	6.6	6.5	6.4	6.4	6.3	6.2	6.1	6.2	6.1	6.1	5.9
White, total	6.2	6.0	6.0	5.8	6.3	6.2	6.1	6.2	6.1	6.0	5.8	6.0	6.0	6.0	5.8
Both sexes, 16 to 19 years	15.7	15.6	16.0	15.1	16.0	15.0	16.3	15.9	15.9	15.2	15.4	15.9	15.4	16.0	15.1
Men, 16 to 19 years	16.5	16.3	16.4	15.0	16.6	15.9	17.1	17.0	17.1	15.6	16.6	16.6	15.7	16.3	15.5
Women, 16 to 19 years	14.8	14.9	15.6	15.1	15.4	14.1	15.4	14.7	14.6	14.7	14.2	15.1	15.2	15.7	14.6
Men, 20 years and over	5.4	5.3	5.1	5.0	5.4	5.4	5.2	5.4	5.4	5.4	5.1	5.4	5.4	5.4	5.3
Women, 20 years and over	5.7	5.4	5.5	5.4	5.9	5.7	5.5	5.5	5.4	5.3	5.2	5.3	5.2	5.2	5.0
Black, total	15.1	14.5	15.0	14.6	14.9	14.8	14.8	14.8	14.9	14.2	14.6	14.6	14.3	14.2	13.7
Both sexes, 16 to 19 years	40.2	39.3	41.7	41.5	40.0	42.4	41.9	40.5	39.5	38.0	40.3	38.4	35.8	36.0	36.5
Men, 16 to 19 years	41.0	39.3	40.9	41.1	39.5	42.6	41.2	40.5	39.7	40.5	38.8	38.6	37.8	35.0	36.1
Women, 16 to 19 years	39.2	39.2	42.7	41.9	40.7	42.2	42.7	40.5	39.4	35.0	41.9	38.3	33.8	37.0	36.9
Men, 20 years and over	13.2	12.9	13.2	12.9	13.3	12.8	12.8	12.9	13.3	12.9	13.2	13.4	13.1	12.9	11.8
Women, 20 years and over	13.1	12.4	12.6	12.2	12.5	12.3	12.5	12.7	12.7	12.1	12.5	12.4	12.4	12.5	12.3
Hispanic origin, total	10.5	10.6	10.5	10.3	11.8	10.5	10.5	10.9	10.6	10.5	10.8	10.9	10.4	9.6	10.5
Married men, spouse present	4.3	4.4	4.3	4.3	4.5	4.5	4.2	4.4	4.5	4.4	4.2	4.3	4.6	4.5	4.3
Married women, spouse present	5.6	5.2	5.4	5.1	5.5	5.5	5.3	5.3	5.2	5.2	5.1	5.1	5.0	5.0	4.8
Women who maintain families	10.4	9.8	9.6	9.9	9.9	10.1	9.5	10.1	10.0	9.5	10.1	9.8	8.9	9.7	9.8
Full-time workers	6.8	6.6	6.7	6.5	6.9	6.8	6.7	6.9	6.7	6.6	6.4	6.6	6.6	6.6	6.3
Part-time workers	9.3	9.1	9.1	8.7	9.3	9.1	9.4	9.1	9.1	9.2	9.3	9.3	9.2	9.1	8.8
Unemployed 15 weeks and over	2.0	1.9	1.9	1.8	2.0	1.9	1.8	1.9	1.9	1.9	1.9	2.0	1.8	1.9	1.8
Labor force time lost ¹	8.1	7.9	7.9	7.7	8.1	8.1	8.1	8.2	8.1	7.8	7.7	7.9	7.8	7.7	7.6
INDUSTRY															
Nonagricultural private wage and salary workers	7.2	7.0	7.0	6.8	7.2	7.1	7.1	7.2	7.1	7.1	6.9	7.0	7.0	7.0	6.8
Mining	9.5	13.5	10.2	10.7	9.5	10.5	12.4	13.6	17.3	16.6	16.6	13.9	14.5	14.5	14.1
Construction	13.1	13.1	12.6	12.8	13.0	13.0	12.3	13.0	12.4	13.0	12.4	12.9	13.8	15.1	13.7
Manufacturing	7.7	7.1	7.3	7.1	7.3	7.2	6.9	7.4	7.2	6.9	6.9	7.0	7.3	7.1	6.9
Durable goods	7.6	6.9	7.3	7.0	7.4	6.9	6.9	7.3	7.0	6.7	6.8	6.5	7.2	6.6	6.4
Nondurable goods	7.8	7.4	7.3	7.2	7.1	7.6	6.9	7.5	7.5	7.2	6.9	7.7	7.3	7.9	7.7
Transportation and public utilities	5.1	5.1	5.1	4.5	5.3	5.8	5.5	5.3	5.4	5.5	4.8	4.7	5.2	4.4	4.6
Wholesale and retail trade	7.6	7.6	7.7	7.3	7.8	7.7	7.9	7.9	7.7	7.8	7.5	7.6	7.4	7.2	7.2
Finance and service industries	5.6	5.5	5.4	5.3	5.9	5.6	5.8	5.5	5.5	5.7	5.6	5.6	5.4	5.4	5.1
Government workers	3.9	3.6	3.9	3.5	3.8	3.9	3.6	3.6	3.6	3.3	3.3	3.5	3.7	3.6	3.3
Agricultural wage and salary workers	13.2	12.5	10.7	11.5	13.8	12.1	13.4	15.3	13.2	11.4	13.3	12.9	11.9	10.1	11.5

¹ Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

8. Unemployment rates by sex and age, monthly data seasonally adjusted

(Civilian workers)

Sex and age	Annual average		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Total, 16 years and over	7.2	7.0	7.0	6.8	7.2	7.2	7.1	7.2	7.1	7.0	6.8	7.0	6.9	6.9	6.7
16 to 24 years	13.6	13.3	13.4	13.1	13.6	13.3	13.7	13.8	13.5	13.2	12.9	13.6	13.0	12.9	12.9
16 to 19 years	18.6	18.3	19.0	18.2	18.9	18.4	19.3	18.8	18.9	17.9	18.0	18.5	17.7	18.2	17.3
16 to 17 years	21.0	20.2	21.2	21.0	21.6	19.8	20.8	20.8	20.7	19.8	19.8	20.0	19.3	20.6	18.8
18 to 19 years	17.0	17.0	17.6	16.6	17.1	17.2	18.4	17.4	17.5	16.2	16.8	17.2	16.5	16.7	16.3
20 to 24 years	11.1	10.7	10.7	10.5	10.9	10.7	10.8	11.2	10.7	10.8	10.3	11.1	10.5	10.2	10.7
25 years and over	5.6	5.4	5.4	5.2	5.6	5.6	5.4	5.5	5.5	5.4	5.4	5.4	5.5	5.5	5.2
25 to 54 years	5.8	5.7	5.7	5.5	5.9	5.9	5.7	5.9	5.9	5.7	5.7	5.7	5.6	5.7	5.5
55 years and over	4.1	3.9	3.9	3.9	4.3	4.2	3.9	3.7	3.8	3.8	3.7	4.0	4.1	3.8	3.5
Men, 16 years and over	7.0	6.9	6.8	6.6	7.0	7.0	6.9	7.1	7.1	7.0	6.8	7.0	7.0	6.9	6.7
16 to 24 years	14.1	13.7	13.6	13.1	13.6	13.7	14.2	14.5	13.9	13.6	13.3	14.3	13.2	13.4	13.4
16 to 19 years	19.5	19.0	19.5	18.3	19.5	19.2	20.0	20.0	19.9	18.4	19.1	19.1	18.2	18.3	17.8
16 to 17 years	21.9	20.8	21.8	21.3	22.9	20.5	21.1	21.3	20.0	20.3	20.9	21.0	19.8	21.3	19.1
18 to 19 years	17.9	17.7	18.0	16.8	17.2	18.3	19.2	19.1	19.4	16.7	18.0	17.5	17.0	16.2	17.0
20 to 24 years	11.4	11.0	10.7	10.5	10.8	11.0	11.3	11.7	10.9	11.1	10.3	11.9	10.7	10.9	11.3
25 years and over	5.3	5.4	5.2	5.1	5.5	5.4	5.2	5.4	5.4	5.4	5.3	5.4	5.5	5.5	5.2
25 to 54 years	5.6	5.6	5.5	5.4	5.7	5.7	5.5	5.7	5.7	5.7	5.6	5.5	5.7	5.7	5.5
55 years and over	4.1	4.1	3.9	3.9	4.3	4.1	4.0	3.9	4.1	4.0	4.1	4.2	4.4	4.1	4.0
Women, 16 years and over	7.4	7.1	7.3	7.0	7.5	7.3	7.3	7.2	7.2	7.0	6.9	7.0	6.9	6.9	6.7
16 to 24 years	13.0	12.8	13.2	13.1	13.5	12.8	13.1	13.1	13.0	12.7	12.4	12.8	12.7	12.4	12.4
16 to 19 years	17.6	17.6	18.5	18.1	18.3	17.5	18.5	17.5	17.9	17.3	16.7	17.7	17.2	18.2	16.8
16 to 17 years	20.0	19.6	20.5	20.6	20.1	19.0	20.4	20.3	21.4	19.2	18.7	18.8	18.6	19.8	18.4
18 to 19 years	16.0	16.3	17.2	16.4	17.1	16.2	17.6	15.5	15.6	15.6	15.4	16.9	16.0	17.2	15.7
20 to 24 years	10.7	10.3	10.6	10.6	11.0	10.3	10.2	10.8	10.4	10.4	10.2	10.2	10.3	9.4	10.0
25 years and over	5.9	5.5	5.7	5.4	5.8	5.8	5.7	5.6	5.6	5.4	5.4	5.5	5.4	5.5	5.2
25 to 54 years	6.2	5.9	5.9	5.6	6.1	6.1	6.0	6.0	6.0	5.8	5.8	5.8	5.7	5.8	5.5
55 years and over	4.1	3.6	3.9	3.9	4.3	4.3	3.8	3.5	3.3	3.6	3.3	3.6	3.6	3.4	2.9

9. Unemployed persons by reason for unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Reason for unemployment	Annual average		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Job losers	4,139	4,033	3,996	3,802	4,147	4,210	4,035	4,214	4,272	4,063	3,824	4,044	3,984	3,947	3,890
On layoff	1,157	1,090	1,135	1,143	1,136	1,144	1,057	1,118	1,074	1,078	1,017	1,029	1,072	1,073	1,078
Other job losers	2,982	2,943	2,861	2,659	3,011	3,066	2,978	3,096	3,198	2,985	2,807	3,015	2,912	2,874	2,812
Job leavers	877	1,015	902	977	985	989	1,071	979	1,009	1,025	990	1,041	1,027	1,056	1,036
Reentrants	2,256	2,160	2,251	2,083	2,263	2,196	2,188	2,200	2,107	2,205	2,199	2,145	2,190	2,119	2,019
New entrants	1,039	1,029	1,042	1,029	1,073	1,006	1,048	1,046	1,050	989	1,014	1,038	972	1,076	1,015
PERCENT OF UNEMPLOYED															
Job losers	49.8	48.9	48.8	48.2	49.0	50.1	48.4	49.9	50.6	49.1	47.6	48.9	48.7	48.1	48.9
On layoff	13.9	13.2	13.9	14.5	13.4	13.6	12.7	13.2	12.7	13.0	12.7	12.4	13.1	13.1	13.5
Other job losers	35.9	35.7	34.9	33.7	35.6	36.5	35.7	36.7	37.9	36.0	35.0	36.5	35.6	35.1	35.3
Job leavers	10.6	12.3	11.0	12.4	11.6	11.8	12.8	11.6	12.0	12.4	12.3	12.6	12.6	12.9	13.0
Reentrants	27.1	26.2	27.5	26.4	26.7	26.1	26.2	26.1	25.0	26.6	27.4	25.9	26.8	25.8	25.4
New entrants	12.5	12.5	12.7	13.0	12.7	12.0	12.6	12.4	12.4	11.9	12.6	12.6	11.9	13.1	12.8
PERCENT OF CIVILIAN LABOR FORCE															
Job losers	3.6	3.4	3.4	3.3	3.5	3.6	3.4	3.6	3.6	3.4	3.2	3.4	3.4	3.3	3.3
Job leavers	.8	.9	.8	.8	.8	.8	.9	.8	.9	.9	.8	.9	.9	.9	.9
Reentrants	2.0	1.8	1.9	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.7
New entrants	.9	.9	.9	.9	.9	.9	.9	.9	.9	.8	.9	.9	.8	.9	.9

10. Duration of unemployment, monthly data seasonally adjusted

(Numbers in thousands)

Weeks of unemployment	Annual average		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Less than 5 weeks	3,498	3,448	3,417	3,373	3,534	3,536	3,565	3,610	3,415	3,399	3,436	3,415	3,418	3,382	3,355
5 to 14 weeks	2,509	2,557	2,507	2,505	2,615	2,625	2,650	2,671	2,650	2,521	2,407	2,524	2,563	2,613	2,389
15 weeks and over	2,305	2,232	2,209	2,117	2,332	2,243	2,130	2,232	2,299	2,250	2,272	2,373	2,168	2,217	2,171
15 to 26 weeks	1,025	1,045	1,005	1,003	1,142	1,078	982	1,065	1,038	1,058	1,068	1,110	950	1,045	1,023
27 weeks and over	1,280	1,187	1,204	1,114	1,190	1,165	1,148	1,167	1,261	1,192	1,204	1,263	1,218	1,172	1,148
Mean duration in weeks	15.6	15.0	15.2	15.0	15.2	14.6	14.7	14.8	15.2	15.1	15.6	15.5	15.2	14.8	15.0
Median duration in weeks	6.8	6.9	6.8	6.8	6.9	6.8	6.6	6.8	7.2	7.1	7.1	7.1	7.0	7.0	7.1

11. Unemployment rates of civilian workers by State, data not seasonally adjusted

State	Nov. 1985	Nov. 1986	State	Nov. 1985	Nov. 1986
Alabama	8.1	9.7	Montana	7.2	8.3
Alaska	9.5	11.0	Nebraska	5.8	5.0
Arizona	6.2	7.0	Nevada	8.2	5.4
Arkansas	8.2	8.9	New Hampshire	3.1	2.5
California	6.6	6.5			
			New Jersey	5.6	4.1
Colorado	6.0	7.6	New Mexico	8.6	9.2
Connecticut	4.2	3.4	New York	6.1	5.3
Delaware	4.4	3.2	North Carolina	4.8	5.4
District of Columbia	8.0	7.9	North Dakota	5.7	6.1
Florida	5.5	5.6			
			Ohio	9.0	7.3
Georgia	6.2	5.7	Oklahoma	7.1	7.6
Hawaii	5.2	4.5	Oregon	8.6	7.4
Idaho	7.3	8.0	Pennsylvania	7.6	6.0
Illinois	9.0	6.9	Rhode Island	3.9	3.8
Indiana	7.2	6.0			
			South Carolina	6.4	5.6
Iowa	7.4	5.9	South Dakota	6.1	5.9
Kansas	4.8	5.4	Tennessee	7.5	7.7
Kentucky	9.0	7.9	Texas	6.5	8.8
Louisiana	11.3	13.4	Utah	6.0	5.9
Maine	4.7	4.4			
			Vermont	4.3	4.3
Maryland	4.4	4.6	Virginia	5.3	4.9
Massachusetts	3.6	3.6	Washington	7.8	8.0
Michigan	8.9	8.0	West Virginia	12.8	11.8
Minnesota	5.8	5.1	Wisconsin	6.7	6.6
Mississippi	9.1	11.5			
Missouri	6.4	6.0	Wyoming	7.9	8.9

NOTE: Some data in this table may differ from data published elsewhere because of the continual updating of the database.

12. Employment of workers on nonagricultural payrolls by State, data not seasonally adjusted

(In thousands)

State	Nov. 1985	Oct. 1986	Nov. 1986 ^P	State	Nov. 1985	Oct. 1986	Nov. 1986 ^P
Alabama	1,440.6	1,451.1	1,451.3	Nebraska	659.0	668.2	670.7
Alaska	228.9	224.2	217.7	Nevada	454.1	474.2	474.9
Arizona	1,316.6	1,365.8	1,376.4	New Hampshire	480.4	495.2	492.1
Arkansas	814.9	837.9	833.7				
California	11,127.9	11,363.9	11,402.7	New Jersey	3,468.0	3,573.4	3,582.9
				New Mexico	526.0	525.6	525.4
Colorado	1,438.2	1,451.0	1,459.2	New York	7,893.0	8,013.0	8,050.7
Connecticut	1,598.0	1,625.4	1,646.1	North Carolina	2,699.8	2,769.0	2,778.6
Delaware	299.9	305.6	307.5	North Dakota	253.5	253.0	251.9
District of Columbia	634.0	651.0	655.5				
Florida	4,499.5	4,618.2	4,667.5	Ohio	4,473.1	4,584.4	4,603.9
				Oklahoma	1,178.9	1,154.9	1,158.9
Georgia	2,616.0	2,688.8	2,695.7	Oregon	1,050.6	1,076.9	1,070.5
Hawaii	427.3	431.3	436.8	Pennsylvania	4,828.1	4,880.1	4,895.8
Idaho	346.1	342.7	340.1	Rhode Island	433.7	436.5	437.9
Illinois	4,800.8	4,867.8	4,876.1				
Indiana	2,225.5	2,302.8	2,302.9	South Carolina	1,319.6	1,360.0	1,361.2
				South Dakota	246.5	254.8	253.4
Iowa	1,087.8	1,081.4	1,082.1	Tennessee	1,899.2	1,975.5	1,979.6
Kansas	994.1	1,003.1	1,011.0	Texas	6,747.3	6,685.3	6,683.7
Kentucky	1,266.0	1,296.6	1,299.1	Utah	638.2	643.1	644.9
Louisiana	1,606.1	1,519.5	1,518.1				
Louisiana	1,606.1	1,519.5	1,518.1	Vermont	227.6	230.1	230.2
Maine	465.9	483.2	479.5	Virginia	2,507.3	2,581.3	2,593.7
				Washington	1,738.9	1,794.2	1,784.0
Maryland	1,920.7	1,957.1	1,959.3	West Virginia	600.4	601.2	600.7
Massachusetts	2,973.3	3,000.4	3,009.8	Wisconsin	2,009.3	2,046.0	2,049.5
Michigan	3,578.0	3,639.0	3,652.0				
Minnesota	1,895.5	1,929.8	1,925.2	Wyoming	203.7	198.0	194.3
Mississippi	854.5	860.4	860.0	Puerto Rico	694.3	710.3	714.8
Missouri	2,132.3	2,172.8	2,174.4	Virgin Islands	36.1	36.2	37.1
Montana	280.1	275.8	272.7				

^P = preliminary

NOTE: Some data in this table may differ from data published elsewhere

because of the continual updating of the database.

13. Employment of workers on nonagricultural payrolls by industry, monthly data seasonally adjusted

(In thousands)

Industry	Annual average		1986												
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
TOTAL	97,614	100,168	98,910	99,296	99,429	99,484	99,783	99,918	99,843	100,105	100,283	100,560	100,826	101,065	101,334
PRIVATE SECTOR	81,199	83,430	82,281	82,659	82,748	82,785	83,072	83,198	83,161	83,508	83,655	83,786	83,956	84,168	84,384
GOODS-PRODUCING	24,930	24,940	24,977	25,101	25,038	24,945	25,038	24,965	24,854	24,869	24,888	24,858	24,865	24,895	24,932
Mining	930	792	901	897	880	852	821	790	768	753	743	746	743	743	738
Oil and gas extraction	585	464	560	556	541	518	488	461	446	442	431	422	423	421	414
Construction	4,687	4,961	4,787	4,901	4,864	4,838	4,972	4,974	4,947	4,980	5,012	5,010	5,001	4,993	5,004
General building contractors	1,251	1,307	1,287	1,330	1,320	1,298	1,315	1,314	1,299	1,299	1,306	1,301	1,302	1,305	1,296
Manufacturing	19,314	19,187	19,289	19,303	19,294	19,255	19,245	19,201	19,135	19,121	19,123	19,105	19,118	19,159	19,190
Production workers	13,130	13,025	13,100	13,111	13,097	13,061	13,060	13,025	12,979	12,961	12,971	12,960	12,974	13,022	13,065
Durable goods	11,516	11,346	11,461	11,466	11,455	11,418	11,415	11,378	11,307	11,294	11,302	11,271	11,266	11,283	11,298
Production workers	7,660	7,497	7,595	7,595	7,579	7,545	7,547	7,519	7,462	7,441	7,458	7,438	7,435	7,456	7,479
Lumber and wood products	700	727	710	716	716	715	719	719	721	724	729	734	737	742	749
Furniture and fixtures	493	497	494	494	494	493	494	496	496	498	499	500	500	500	501
Stone, clay, and glass products	591	595	593	596	597	594	600	599	597	593	592	594	590	590	593
Primary metal industries	813	768	803	798	795	787	785	780	761	758	751	749	749	752	753
Blast furnaces and basic steel products	305	283	303	300	299	293	291	288	286	285	272	270	272	271	271
Fabricated metal products	1,468	1,439	1,456	1,455	1,452	1,450	1,451	1,447	1,440	1,428	1,429	1,433	1,429	1,429	1,430
Machinery, except electrical	2,182	2,082	2,133	2,137	2,127	2,118	2,111	2,100	2,089	2,079	2,072	2,044	2,039	2,036	2,032
Electrical and electronic equipment	2,207	2,169	2,182	2,182	2,181	2,177	2,177	2,175	2,143	2,169	2,168	2,162	2,167	2,165	2,162
Transportation equipment	1,971	1,985	1,998	1,996	1,998	1,989	1,986	1,972	1,974	1,969	1,985	1,979	1,979	1,995	1,998
Motor vehicles and equipment	876	843	872	867	864	858	854	839	839	824	839	834	824	837	835
Instruments and related products	723	717	725	724	725	726	723	721	717	713	713	713	713	709	711
Miscellaneous manufacturing industries	369	367	367	368	370	369	369	369	369	363	364	363	363	365	369
Nondurable goods	7,798	7,841	7,828	7,837	7,839	7,837	7,830	7,823	7,828	7,827	7,821	7,834	7,852	7,876	7,892
Production workers	5,470	5,528	5,505	5,516	5,518	5,516	5,513	5,506	5,517	5,520	5,513	5,522	5,539	5,566	5,586
Food and kindred products	1,608	1,641	1,623	1,623	1,631	1,632	1,633	1,640	1,648	1,645	1,642	1,644	1,644	1,654	1,651
Tobacco manufactures	65	61	64	64	63	63	63	62	62	62	59	60	59	61	58
Textile mill products	704	709	702	702	705	707	703	705	707	710	711	709	711	717	719
Apparel and other textile products	1,125	1,115	1,130	1,133	1,122	1,117	1,119	1,113	1,106	1,108	1,108	1,110	1,113	1,113	1,124
Paper and allied products	683	690	686	687	687	688	689	689	690	687	685	691	694	695	698
Printing and publishing	1,435	1,479	1,457	1,461	1,467	1,469	1,472	1,474	1,477	1,483	1,481	1,485	1,491	1,493	1,496
Chemicals and allied products	1,046	1,027	1,035	1,034	1,032	1,031	1,028	1,024	1,026	1,025	1,026	1,025	1,023	1,023	1,022
Petroleum and coal products	178	164	169	168	167	166	166	166	164	163	163	162	161	160	160
Rubber and misc. plastics products	790	801	798	802	803	804	800	796	797	792	794	797	805	809	813
Leather and leather products	166	154	164	163	162	160	157	154	151	152	152	151	151	151	151
SERVICE-PRODUCING	72,684	75,228	73,933	74,195	74,391	74,539	74,745	74,953	74,989	75,236	75,395	75,702	75,961	76,170	76,402
Transportation and public utilities	5,242	5,285	5,277	5,286	5,277	5,280	5,266	5,265	5,167	5,288	5,255	5,316	5,316	5,348	5,358
Transportation	3,006	3,068	3,046	3,056	3,048	3,053	3,040	3,037	3,035	3,057	3,063	3,088	3,094	3,115	3,127
Communication and public utilities	2,236	2,217	2,231	2,230	2,229	2,227	2,226	2,228	2,132	2,231	2,192	2,228	2,222	2,233	2,231
Wholesale trade	5,740	5,853	5,809	5,830	5,843	5,841	5,864	5,872	5,829	5,849	5,863	5,859	5,864	5,864	5,855
Durable goods	3,409	3,482	3,460	3,470	3,482	3,480	3,485	3,488	3,454	3,483	3,485	3,485	3,489	3,492	3,487
Nondurable goods	2,331	2,371	2,349	2,360	2,361	2,361	2,379	2,384	2,375	2,366	2,378	2,374	2,375	2,372	2,368
Retail trade	17,360	17,976	17,622	17,734	17,795	17,828	17,851	17,911	17,944	17,992	18,030	18,065	18,143	18,186	18,187
General merchandise stores	2,320	2,348	2,317	2,328	2,333	2,333	2,342	2,344	2,350	2,354	2,359	2,362	2,379	2,359	2,331
Food stores	2,779	2,932	2,870	2,880	2,891	2,901	2,910	2,917	2,932	2,938	2,951	2,952	2,963	2,969	2,977
Automotive dealers and service stations	1,892	1,954	1,922	1,929	1,938	1,939	1,940	1,944	1,945	1,950	1,962	1,970	1,973	1,976	1,982
Eating and drinking places	5,715	5,922	5,801	5,831	5,854	5,868	5,859	5,889	5,918	5,931	5,923	5,948	5,982	6,005	6,047
Finance, insurance, and real estate	5,953	6,304	6,095	6,123	6,157	6,184	6,228	6,261	6,295	6,334	6,364	6,388	6,409	6,431	6,466
Finance	2,979	3,159	3,053	3,066	3,082	3,095	3,120	3,137	3,159	3,176	3,192	3,202	3,212	3,221	3,237
Insurance	1,830	1,934	1,868	1,878	1,889	1,900	1,910	1,918	1,927	1,945	1,952	1,962	1,971	1,980	1,990
Real estate	1,144	1,210	1,174	1,179	1,186	1,189	1,198	1,206	1,209	1,213	1,220	1,224	1,226	1,230	1,239
Services	21,974	23,073	22,501	22,585	22,638	22,707	22,825	22,924	23,072	23,176	23,255	23,300	23,359	23,444	23,586
Business services	4,452	4,810	4,631	4,660	4,687	4,698	4,750	4,755	4,792	4,835	4,848	4,883	4,908	4,927	4,970
Health services	6,310	6,585	6,424	6,447	6,471	6,497	6,511	6,543	6,571	6,601	6,634	6,649	6,677	6,690	6,726
Government	16,415	16,738	16,629	16,637	16,681	16,699	16,711	16,720	16,682	16,597	16,628	16,774	16,870	16,897	16,950
Federal	2,875	2,899	2,913	2,918	2,918	2,923	2,914	2,899	2,875	2,866	2,875	2,901	2,896	2,899	2,901
State	3,848	3,939	3,904	3,916	3,924	3,927	3,938	3,936	3,927	3,921	3,919	3,932	3,959	3,969	3,993
Local	9,692	9,901	9,812	9,803	9,839	9,849	9,859	9,885	9,880	9,810	9,834	9,941	10,015	10,029	10,056

^P = preliminary

NOTE: See notes on the data for a description of the most recent benchmark revision.

14. Average weekly hours of production or nonsupervisory workers on private nonagricultural payrolls by industry, monthly data seasonally adjusted

Industry	Annual average		1985													1986												
	1985	1986	1985												1986													
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P													
PRIVATE SECTOR	34.9	34.8	34.9	35.0	34.9	34.9	34.8	34.8	34.7	34.7	34.8	34.7	34.7	34.8	34.7	34.7	34.8	34.6										
CONSTRUCTION	37.7	37.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
MANUFACTURING	40.5	40.7	40.9	40.8	40.7	40.7	40.7	40.7	40.6	40.6	40.8	40.8	40.7	40.8	40.7	40.8	40.9	40.9										
Overtime hours	3.3	3.5	3.6	3.5	3.4	3.4	3.4	3.4	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.6										
Durable goods	41.2	41.4	41.6	41.5	41.4	41.4	41.3	41.2	41.2	41.1	41.4	41.4	41.3	41.4	41.3	41.4	41.4	41.4										
Overtime hours	3.5	3.5	3.7	3.6	3.5	3.6	3.6	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.7										
Lumber and wood products	39.9	40.3	40.2	40.4	40.0	40.2	40.3	40.3	39.9	40.1	40.2	40.1	40.3	40.7	40.4	40.4	40.4	40.4										
Furniture and fixtures	39.4	39.6	39.9	40.0	39.7	39.4	39.1	39.4	39.4	39.4	39.9	39.9	40.0	39.8	39.7	39.7	39.7	39.7										
Stone, clay, and glass products	41.9	42.3	41.8	42.7	41.9	41.9	42.4	42.3	42.2	42.2	42.5	42.5	42.3	41.9	42.2	42.2	42.3	42.2										
Primary metal industries	41.5	42.0	42.1	41.9	42.1	41.9	41.3	41.7	41.6	41.3	41.9	42.0	42.3	42.4	43.0	43.0	43.0	43.0										
Blast furnaces and basic steel products	41.1	41.7	41.9	41.7	41.8	41.7	40.5	41.5	41.1	41.2	41.5	41.6	42.3	42.5	43.7	43.7	43.7	43.7										
Fabricated metal products	41.3	41.3	41.6	41.5	41.5	41.4	41.2	41.1	41.1	41.1	41.2	41.5	41.2	41.4	41.3	41.3	41.3	41.3										
Machinery except electrical	41.5	41.6	41.7	41.6	41.6	41.6	41.8	41.8	41.7	41.4	41.7	41.7	41.6	41.7	41.6	41.7	41.6	41.6										
Electrical and electronic equipment	40.6	41.0	41.1	41.0	40.9	41.0	41.1	41.0	41.0	41.1	41.2	41.2	40.9	40.9	40.9	40.9	40.9	40.9										
Transportation equipment	42.6	42.4	43.0	42.8	42.7	42.7	42.1	41.9	42.2	42.1	42.6	42.6	42.1	42.3	42.3	42.3	42.3	42.3										
Motor vehicles and equipment	43.5	42.7	44.0	43.6	43.4	43.3	41.9	41.8	42.4	42.4	42.8	42.7	42.1	42.5	42.6	42.6	42.6	42.6										
Instruments and related products	41.0	41.1	41.6	41.1	41.2	41.3	41.3	40.9	41.0	40.8	41.0	40.7	41.1	41.2	41.6	41.6	41.6	41.6										
Miscellaneous manufacturing	39.4	39.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Nondurable goods	39.6	39.9	40.0	39.9	39.7	39.8	39.9	39.9	39.8	39.8	40.0	39.9	39.9	40.1	40.1	40.1	40.1	40.1										
Overtime hours	3.1	3.3	3.4	3.3	3.2	3.2	3.3	3.4	3.2	3.4	3.4	3.3	3.4	3.5	3.5	3.5	3.5	3.5										
Food and kindred products	40.0	40.0	40.1	40.1	39.8	39.9	40.2	40.2	40.0	40.0	40.3	39.7	39.8	39.9	39.9	39.9	39.9	39.9										
Tobacco manufactures	37.2	37.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Textile mill products	39.7	41.2	41.0	40.8	40.6	40.7	41.3	41.1	40.8	40.9	41.4	41.6	41.5	41.6	41.8	41.8	41.8	41.8										
Apparel and other textile products	36.4	36.7	36.8	36.7	36.3	36.5	36.9	36.5	36.5	36.6	36.5	36.7	36.7	36.9	37.1	37.1	37.1	37.1										
Paper and allied products	43.1	43.3	43.5	43.6	43.5	43.5	43.0	43.2	43.1	43.2	43.5	43.0	43.0	43.2	43.2	43.2	43.2	43.2										
Printing and publishing	37.8	38.0	38.1	38.0	38.0	38.0	38.0	38.0	37.8	37.9	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0										
Chemicals and allied products	41.9	42.0	42.0	41.9	41.8	41.9	41.9	42.0	41.9	41.9	42.1	42.0	42.2	42.6	42.6	42.6	42.6	42.6										
Petroleum and coal products	43.0	43.7	43.6	43.5	43.7	43.8	43.6	43.4	44.0	43.5	44.3	43.4	43.7	43.7	43.7	43.7	43.7	43.7										
Leather and leather products	37.2	36.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
TRANSPORTATION AND PUBLIC UTILITIES	39.5	39.2	39.5	39.4	39.5	39.6	39.2	39.2	39.1	39.2	39.1	38.9	39.1	39.3	39.3	39.3	39.3	39.3										
WHOLESALE TRADE	38.4	38.4	38.4	38.5	38.4	38.5	38.5	38.4	38.3	38.3	38.4	38.2	38.4	38.3	38.2	38.2	38.2	38.2										
RETAIL TRADE	29.4	29.2	29.2	29.3	29.3	29.3	29.2	29.2	29.1	29.2	29.2	29.2	29.1	29.2	28.8	28.8	28.8	28.8										
SERVICES	32.5	32.5	32.5	32.6	32.6	32.5	32.5	32.5	32.4	32.4	32.4	32.3	32.4	32.5	32.4	32.4	32.4	32.4										

- Data not available.
^P = preliminary

NOTE: See "Notes on the data" for a description of the most recent benchmark adjustment.

15. Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1986												
	1985	1986	1985	1986											
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
PRIVATE SECTOR	\$8.57	\$8.76	\$8.71	\$8.72	\$8.74	\$8.73	\$8.72	\$8.72	\$8.71	\$8.69	\$8.70	\$8.81	\$8.81	\$8.86	\$8.85
Seasonally adjusted	-	-	8.70	8.68	8.71	8.73	8.72	8.73	8.74	8.73	8.77	8.76	8.80	8.85	8.84
MINING	11.98	12.45	12.27	12.24	12.32	12.35	12.43	12.44	12.50	12.46	12.51	12.52	12.51	12.57	12.64
CONSTRUCTION	12.31	12.42	12.47	12.34	12.35	12.22	12.29	12.33	12.31	12.31	12.39	12.54	12.62	12.59	12.71
MANUFACTURING	9.53	9.73	9.74	9.70	9.70	9.72	9.70	9.71	9.70	9.74	9.68	9.73	9.72	9.77	9.86
Durable goods	10.10	10.29	10.34	10.27	10.29	10.30	10.28	10.28	10.26	10.27	10.22	10.30	10.28	10.33	10.44
Lumber and wood products	8.22	8.37	8.35	8.30	8.36	8.33	8.32	8.37	8.43	8.36	8.40	8.42	8.37	8.39	8.41
Furniture and fixtures	7.17	7.44	7.38	7.36	7.31	7.35	7.36	7.39	7.46	7.44	7.46	7.52	7.50	7.51	7.60
Stone, clay, and glass products	9.84	10.05	9.95	9.96	9.94	9.93	10.00	10.04	10.04	10.06	10.07	10.11	10.10	10.12	10.15
Primary metal industries	11.68	11.94	11.84	11.81	11.96	11.99	12.00	12.02	11.94	12.06	11.85	11.92	11.84	11.88	11.98
Blast furnaces and basic steel products	13.34	13.83	13.44	13.48	13.81	13.80	13.82	13.86	13.88	14.08	13.83	13.93	13.78	13.77	13.92
Fabricated metal products	9.70	9.88	9.91	9.85	9.85	9.88	9.84	9.85	9.88	9.84	9.82	9.87	9.86	9.93	10.03
Machinery, except electrical	10.29	10.57	10.55	10.50	10.53	10.58	10.55	10.55	10.55	10.57	10.57	10.58	10.56	10.59	10.68
Electrical and electronic equipment	9.47	9.67	9.68	9.60	9.60	9.62	9.62	9.64	9.61	9.68	9.67	9.73	9.72	9.74	9.87
Transportation equipment	12.72	12.86	13.06	12.91	12.87	12.90	12.83	12.79	12.78	12.78	12.75	12.87	12.87	12.91	13.05
Motor vehicles and equipment	13.42	13.53	13.81	13.66	13.59	13.66	13.54	13.47	13.41	13.40	13.36	13.50	13.49	13.51	13.70
Instruments and related products	9.16	9.47	9.39	9.32	9.39	9.41	9.41	9.40	9.41	9.47	9.45	9.51	9.54	9.61	9.69
Miscellaneous manufacturing	7.30	7.56	7.48	7.48	7.50	7.51	7.50	7.54	7.54	7.59	7.52	7.59	7.60	7.63	7.71
Nondurable goods	8.71	8.93	8.87	8.86	8.86	8.88	8.88	8.90	8.91	8.99	8.93	8.96	8.95	9.00	9.05
Food and kindred products	8.57	8.73	8.71	8.72	8.71	8.74	8.75	8.78	8.74	8.75	8.65	8.65	8.68	8.78	8.85
Tobacco manufactures	11.94	12.78	11.78	11.89	12.38	12.76	12.84	13.38	13.68	13.48	13.44	12.21	12.10	12.62	13.04
Textile mill products	6.71	6.95	6.83	6.85	6.83	6.86	6.87	6.88	6.87	6.90	6.99	7.05	7.04	7.07	7.12
Apparel and other textile products	5.73	5.81	5.80	5.82	5.79	5.80	5.81	5.78	5.79	5.76	5.79	5.87	5.82	5.83	5.86
Paper and allied products	10.82	11.14	11.07	11.02	10.99	11.03	11.05	11.12	11.15	11.31	11.17	11.20	11.20	11.18	11.24
Printing and publishing	9.71	9.97	9.92	9.85	9.86	9.90	9.87	9.91	9.88	9.96	10.00	10.10	10.08	10.11	10.12
Chemicals and allied products	11.56	11.96	11.85	11.86	11.81	11.78	11.82	11.89	11.94	12.04	11.99	12.03	12.08	12.14	12.19
Petroleum and coal products	14.06	14.20	14.24	14.26	14.21	14.22	14.16	14.02	14.14	14.16	14.07	14.20	14.18	14.33	14.45
Rubber and miscellaneous plastics products	8.54	8.76	8.73	8.69	8.69	8.72	8.68	8.75	8.75	8.82	8.81	8.76	8.76	8.80	8.84
Leather and leather products	5.82	5.90	5.83	5.86	5.83	5.86	5.89	5.88	5.88	5.89	5.90	5.93	5.92	5.99	5.95
TRANSPORTATION AND PUBLIC UTILITIES	11.40	11.64	11.61	11.59	11.64	11.62	11.55	11.54	11.57	11.61	11.61	11.70	11.68	11.77	11.76
WHOLESALE TRADE	9.16	9.36	9.33	9.28	9.36	9.33	9.29	9.29	9.32	9.30	9.32	9.37	9.35	9.54	9.54
RETAIL TRADE	5.94	6.02	5.99	6.03	6.04	6.03	6.01	6.00	5.99	5.97	5.97	6.05	6.04	6.06	6.02
FINANCE, INSURANCE, AND REAL ESTATE	7.94	8.35	8.15	8.14	8.28	8.30	8.29	8.31	8.37	8.30	8.33	8.37	8.38	8.56	8.52
SERVICES	7.89	8.16	8.12	8.12	8.17	8.18	8.12	8.10	8.10	8.04	8.05	8.19	8.22	8.32	8.31

- Data not available.
^P = preliminary
^C = corrected

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

16. Average weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Annual average		1986												
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
PRIVATE SECTOR															
Current dollars	\$299.09	\$304.85	\$306.59	\$302.58	\$300.66	\$302.93	\$301.71	\$302.58	\$303.98	\$304.15	\$305.37	\$306.59	\$305.71	\$307.44	\$308.87
Seasonally adjusted	-	-	303.63	303.80	303.98	304.68	303.46	303.80	303.28	302.93	305.20	303.97	305.36	307.98	305.86
Constant (1977) dollars	170.42	-	172.05	169.32	168.82	171.05	170.94	170.85	170.78	170.97	171.36	171.28	170.69	171.47	-
MINING	519.93	526.64	537.43	543.46	522.37	522.41	522.06	519.99	525.00	518.34	529.17	529.60	527.92	524.17	533.41
CONSTRUCTION	464.09	465.75	460.14	459.05	434.72	444.81	462.10	467.31	465.32	471.47	475.78	482.79	479.56	460.79	470.27
MANUFACTURING															
Current dollars	385.97	396.01	406.16	394.79	390.91	395.60	392.85	394.23	395.76	391.55	393.98	398.93	396.58	400.57	411.16
Constant (1977) dollars	219.93	-	227.92	220.92	219.49	223.38	222.58	222.60	222.34	220.10	221.09	222.87	221.43	223.41	-
Durable goods															
Lumber and wood products	416.12	426.01	439.45	425.18	421.89	426.42	423.54	423.54	424.76	417.99	420.04	428.48	424.56	429.73	442.66
Furniture and fixtures	327.98	337.31	335.67	329.51	328.55	333.20	334.46	338.99	342.26	334.40	341.04	342.69	338.99	338.12	340.61
Stone, clay, and glass products	282.50	294.62	303.32	289.98	284.36	288.12	286.30	288.21	294.67	287.93	298.40	303.81	303.00	301.15	311.60
Primary metal industries	412.30	425.12	414.92	414.34	403.56	412.10	425.00	428.71	429.71	427.55	432.00	435.74	431.27	424.03	427.32
Blast furnaces and basic steel products	484.72	501.48	504.38	493.66	503.52	504.78	499.20	501.23	499.09	495.67	491.78	501.83	496.10	503.71	521.13
Fabricated metal products	548.27	576.71	564.48	556.72	578.64	576.84	569.38	576.58	577.41	582.91	569.80	579.49	571.87	579.72	608.30
Machinery, except electrical	400.61	408.04	422.17	407.79	403.85	409.03	403.44	404.84	408.04	398.52	402.62	410.59	407.22	412.10	424.27
Electrical and electronic equipment	427.04	439.71	452.60	437.85	437.00	442.24	437.83	437.83	439.94	431.26	436.54	441.19	438.24	443.72	457.10
Transportation equipment	384.48	396.47	408.50	394.56	389.76	395.38	392.50	393.31	394.01	391.07	395.50	401.85	397.55	402.26	414.54
Motor vehicles and equipment	541.87	545.26	577.25	555.13	545.69	552.12	542.71	537.18	540.59	530.37	531.68	544.40	540.54	548.68	568.98
Instruments and related products	583.77	577.73	625.59	595.58	583.01	592.84	574.10	567.09	572.61	560.12	555.78	573.75	567.93	574.18	602.80
Miscellaneous manufacturing	375.56	389.22	400.01	383.05	384.99	389.57	385.81	382.58	385.81	382.59	384.62	388.96	390.19	398.82	412.79
Nondurable goods	287.62	300.13	304.44	297.70	294.75	299.65	297.75	297.08	298.58	294.49	294.78	300.56	302.48	306.73	313.80
Food and kindred products	344.92	356.31	359.24	352.63	347.31	352.54	351.65	354.22	355.51	356.00	358.09	360.19	358.00	362.70	368.34
Tobacco manufactures	342.80	349.20	354.50	347.93	339.69	344.36	346.50	352.08	350.47	350.00	352.06	349.46	347.20	352.08	358.43
Textile mill products	444.17	480.53	448.82	448.25	453.11	478.50	469.94	504.43	523.94	483.93	486.53	470.09	473.11	484.61	498.13
Apparel and other textile products	206.39	286.34	283.45	278.80	274.57	278.52	282.08	283.04	278.07	290.78	295.40	293.57	296.94	301.18	301.18
Paper and allied products	208.57	213.23	215.18	213.01	207.28	211.70	211.48	210.97	213.65	209.09	211.91	215.43	214.76	216.88	219.75
Printing and publishing	466.34	482.36	490.40	479.37	472.57	477.60	474.05	479.27	480.57	486.33	483.66	484.96	482.72	485.21	494.56
Chemicals and allied products	367.04	378.86	384.90	371.35	370.74	377.19	374.07	374.60	370.50	374.50	381.00	386.83	384.05	387.21	391.64
Petroleum and coal products	484.36	502.32	503.63	495.75	492.48	494.76	495.26	499.38	502.67	502.07	501.18	505.26	506.15	518.38	524.17
Rubber and miscellaneous plastics products	604.58	620.54	622.29	616.03	612.45	621.41	615.96	605.66	622.16	618.79	623.30	626.22	621.08	627.65	634.36
Leather and leather products	350.99	361.79	366.66	359.77	356.29	360.14	356.75	360.50	361.38	357.21	362.97	364.42	362.66	366.96	373.05
TRANSPORTATION AND PUBLIC UTILITIES	216.50	217.71	220.96	217.41	209.88	212.72	213.81	215.80	221.68	217.93	216.53	218.22	217.86	222.23	225.51
WHOLESALE TRADE	450.30	456.29	460.92	452.01	456.29	457.83	450.45	450.06	455.86	457.43	457.43	457.47	456.69	462.56	460.99
RETAIL TRADE	351.74	359.42	360.14	355.42	355.68	357.34	355.81	356.74	358.82	358.05	358.82	358.87	359.04	366.34	366.34
FINANCE, INSURANCE, AND REAL ESTATE	174.64	175.78	178.50	173.06	172.74	174.27	173.69	174.60	176.71	178.50	178.50	176.66	175.16	175.74	176.99
SERVICES	289.02	304.78	299.11	296.30	304.70	304.61	301.76	301.65	306.34	302.95	304.88	304.67	306.71	315.01	310.98
SERVICES	256.43	265.20	263.90	263.09	264.71	265.03	263.09	262.44	264.06	263.71	264.04	264.54	266.33	269.57	269.24

- Data not available.
P = preliminary
C = corrected

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

17. The Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	Dec. 1985	Oct. 1986	Nov. 1986 ^P	Dec. 1986 ^P	Dec. 1985	Aug. 1986	Sept. 1986	Oct. 1986	Nov. 1986 ^P	Dec. 1986 ^P
PRIVATE SECTOR (in current dollars)	168.2	170.0	171.0	171.2	167.7	169.3	169.6	170.0	170.9	170.8
Mining ¹	181.7	181.4	182.5	182.8	-	-	-	-	-	-
Construction	151.7	154.0	153.3	154.3	151.2	151.3	151.2	152.6	153.9	153.8
Manufacturing	171.3	172.6	173.1	174.0	171.0	172.9	172.8	173.1	173.1	173.7
Transportation and public utilities	170.1	171.3	172.4	172.6	169.1	170.1	170.8	170.9	171.4	171.6
Wholesale trade ¹	172.2	172.6	175.8	175.7	-	-	-	-	-	-
Retail trade	157.0	158.7	158.9	158.1	157.5	158.5	159.1	159.1	159.3	158.5
Finance, insurance, and real estate ¹	176.2	180.7	184.0	183.3	-	-	-	-	-	-
Services	172.8	175.5	177.2	177.1	171.6	174.3	174.4	175.3	176.7	175.9
PRIVATE SECTOR (in constant dollars)	94.4	94.9	95.4	-	94.0	95.1	95.0	95.1	95.4	-

¹ This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle, irregular components, or both, and consequently cannot be separated with sufficient precision.
- Data not available.

^P = preliminary.
NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

18. Indexes of diffusion: industries in which employment increased, data seasonally adjusted

(In percent)

Time span and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Over 1-month span:												
1984	67.8	72.7	67.6	67.6	62.4	65.4	62.2	55.9	50.5	63.0	53.5	57.0
1985	52.4	47.8	53.8	49.2	51.6	47.0	56.2	56.8	50.8	61.9	57.6	59.5
1986	59.7	53.5	45.1	54.1	49.2	46.2	54.6	54.3	54.9	55.7	60.0	-
Over 3-month span:												
1984	76.5	75.1	75.9	71.4	71.6	68.1	63.2	58.1	56.8	53.5	58.1	53.0
1985	51.1	49.7	46.2	46.2	45.1	51.4	49.7	51.1	55.1	55.9	61.4	60.5
1986	58.1	54.3	51.1	49.7	48.4	44.9	47.3	54.1	55.7	60.3	-	-
Over 6-month span:												
1984	78.1	76.5	77.0	75.1	69.2	65.1	63.2	59.2	58.6	53.2	49.7	54.9
1985	49.2	47.8	43.0	45.9	44.3	44.3	48.9	50.8	54.1	57.0	57.0	55.9
1986	53.8	53.8	47.6	45.9	45.9	48.6	49.7	55.4	-	-	-	-
Over 12-month span:												
1984	81.1	78.1	72.2	72.2	68.9	67.8	65.7	62.7	59.7	54.6	51.4	48.6
1985	46.2	45.7	46.8	43.8	44.9	47.3	47.6	48.9	47.3	49.5	48.9	48.6
1986	50.3	51.1	52.2	52.4	53.2	-	-	-	-	-	-	-

- Data not available.

NOTE: Figures are the percent of industries with employment rising. (Half of the unchanged components are counted as rising.) Data are centered within the

spans. Data for the 2 most recent months shown in each span are preliminary. See the "Definitions" in this section. See "Notes on the data" for a description of the most recent benchmark revision.

19. Annual data: Employment status of the noninstitutional population

(Numbers in thousands)

Employment status	1978	1979	1980	1981	1982	1983	1984	1985	1986
Noninstitutional population	163,541	166,460	169,349	171,775	173,939	175,891	178,080	179,912	182,293
Labor force:									
Total (number)	103,882	106,559	108,544	110,315	111,872	113,226	115,241	117,167	119,540
Percent of population	63.5	64.0	64.1	64.2	64.3	64.4	64.7	65.1	65.6
Employed:									
Total (number)	97,679	100,421	100,907	102,042	101,194	102,510	106,702	108,856	111,303
Percent of population	59.7	60.3	59.6	59.4	58.2	58.3	59.9	60.5	61.1
Resident Armed Forces	1,631	1,597	1,604	1,645	1,668	1,676	1,697	1,706	1,706
Civilian									
Total	96,048	98,824	99,303	100,397	99,526	100,834	105,005	107,150	109,597
Agriculture	3,387	3,347	3,364	3,368	3,401	3,383	3,321	3,179	3,163
Nonagricultural industries	92,661	95,477	95,938	97,030	96,125	97,450	101,685	103,971	106,434
Unemployed:									
Total (number)	6,202	6,137	7,637	8,273	10,678	10,717	8,539	8,312	8,237
Percent of labor force	6.0	5.8	7.0	7.5	9.5	9.5	7.4	7.1	6.9
Not in labor force (number)	59,659	59,900	60,806	61,460	62,067	62,665	62,839	62,744	62,752

20. Annual data: Employment levels by industry

(Numbers in thousands)

Industry	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total employment	86,697	89,823	90,406	91,156	89,566	90,200	94,496	97,614	100,168
Private sector	71,026	73,876	74,166	75,126	73,729	74,330	78,472	81,199	83,430
Goods-producing	25,585	26,461	25,658	25,497	23,813	23,334	24,727	24,930	24,940
Mining	851	958	1,027	1,139	1,128	952	966	930	792
Construction	4,229	4,463	4,346	4,188	3,905	3,948	4,383	4,687	4,961
Manufacturing	20,505	21,040	20,285	20,170	18,781	18,434	19,378	19,314	19,187
Service-producing	61,113	63,363	64,748	65,659	65,753	66,866	69,769	72,684	75,228
Transportation and public utilities	4,923	5,136	5,146	5,165	5,082	4,954	5,159	5,242	5,285
Wholesale trade	4,969	5,204	5,275	5,358	5,278	5,268	5,555	5,740	5,853
Retail trade	14,573	14,989	15,035	15,189	15,179	15,613	16,545	17,360	17,976
Finance, insurance, and real estate	4,724	4,975	5,160	5,298	5,341	5,468	5,689	5,953	6,304
Services	16,252	17,112	17,890	18,619	19,036	19,694	20,797	21,974	23,073
Government	15,672	15,947	16,241	16,031	15,837	15,869	16,024	16,415	16,738
Federal	2,753	2,773	2,866	2,772	2,739	2,774	2,807	2,875	2,899
State	3,474	3,541	3,610	3,640	3,640	3,662	3,734	3,848	3,939
Local	9,446	9,633	9,765	9,619	9,458	9,434	9,482	9,692	9,901

NOTE: See "Notes on the data" for a description of the most recent benchmark revision.

21. Annual data: Average hours and earnings of production or nonsupervisory workers on nonagricultural payrolls, by industry

Industry	1978	1979	1980	1981	1982	1983	1984	1985	1986
Private sector									
Average weekly hours	35.8	35.7	35.3	35.2	34.8	35.0	35.2	34.9	34.8
Average hourly earnings (in dollars)	5.69	6.16	6.66	7.25	7.68	8.02	8.32	8.57	8.76
Average weekly earnings (in dollars)	203.70	219.91	235.10	255.20	267.26	280.70	292.86	299.09	304.85
Mining									
Average weekly hours	43.4	43.0	43.3	43.7	42.7	42.5	43.3	43.4	42.3
Average hourly earnings (in dollars)	7.67	8.49	9.17	10.04	10.77	11.28	11.63	11.98	12.45
Average weekly earnings (in dollars)	332.88	365.07	397.06	438.75	459.88	479.40	503.58	519.93	526.64
Construction									
Average weekly hours	36.8	37.0	37.0	36.9	36.7	37.1	37.8	37.7	37.5
Average hourly earnings (in dollars)	8.66	9.27	9.94	10.82	11.63	11.94	12.13	12.31	12.42
Average weekly earnings (in dollars)	318.69	342.99	367.78	399.26	426.82	442.97	458.51	464.09	465.75
Manufacturing									
Average weekly hours	40.4	40.2	39.7	39.8	38.9	40.1	40.7	40.5	40.7
Average hourly earnings (in dollars)	6.17	6.70	7.27	7.99	8.49	8.83	9.19	9.53	9.73
Average weekly earnings (in dollars)	249.27	269.34	288.62	318.00	330.26	354.08	374.03	385.97	396.01
Transportation and public utilities									
Average weekly hours	40.0	39.9	39.6	39.4	39.0	39.0	39.4	39.5	39.2
Average hourly earnings (in dollars)	7.57	8.16	8.87	9.70	10.32	10.79	11.12	11.40	11.64
Average weekly earnings (in dollars)	302.80	325.58	351.25	382.18	402.48	420.81	438.13	450.30	456.29
Wholesale trade									
Average weekly hours	38.8	38.8	38.5	38.5	38.3	38.5	38.5	38.4	38.4
Average hourly earnings (in dollars)	5.88	6.39	6.96	7.56	8.09	8.55	8.89	9.16	9.36
Average weekly earnings (in dollars)	228.14	247.93	267.96	291.06	309.85	329.18	342.27	351.74	359.42
Retail trade									
Average weekly hours	31.0	30.6	30.2	30.1	29.9	29.8	29.8	29.4	29.2
Average hourly earnings (in dollars)	4.20	4.53	4.88	5.25	5.48	5.74	5.85	5.94	6.02
Average weekly earnings (in dollars)	130.20	138.62	147.38	158.03	163.85	171.05	174.33	174.64	175.78
Finance, insurance, and real estate									
Average weekly hours	36.4	36.2	36.2	36.3	36.2	36.2	36.5	36.4	36.5
Average hourly earnings (in dollars)	4.89	5.27	5.79	6.31	6.78	7.29	7.63	7.94	8.35
Average weekly earnings (in dollars)	178.00	190.77	209.60	229.05	245.44	263.90	278.50	289.02	304.78
Services									
Average weekly hours	32.8	32.7	32.6	32.6	32.6	32.7	32.6	32.5	32.5
Average hourly earnings (in dollars)	4.99	5.36	5.85	6.41	6.92	7.31	7.59	7.89	8.16
Average weekly earnings (in dollars)	163.67	175.27	190.71	208.97	225.59	239.04	247.43	256.43	265.20

22. Employment Cost Index, compensation,¹ by occupation and industry group

(June 1981 = 100)

Series	1984		1985				1986			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1986	
Civilian workers²	122.4	123.9	125.5	126.4	128.4	129.2	130.6	131.5	133.0	1.1	3.6
Workers, by occupational group:											
White-collar workers	124.0	125.5	127.3	128.3	130.7	131.6	133.1	134.2	136.0	1.3	4.1
Blue-collar workers	119.6	120.9	122.2	123.1	124.4	124.9	126.2	126.8	127.8	.8	2.7
Service occupations	124.6	126.8	127.8	128.0	130.9	131.8	133.1	133.7	135.4	1.3	3.4
Workers, by industry division:											
Manufacturing	120.4	122.0	123.9	124.6	125.5	126.0	127.7	128.7	129.3	.5	3.0
Nonmanufacturing	123.3	124.8	126.2	127.2	129.7	130.6	131.9	132.8	134.6	1.4	3.8
Services	128.8	130.9	131.9	132.6	136.4	137.1	138.8	139.4	142.4	2.2	4.4
Public administration ³	126.9	128.6	130.1	130.3	134.2	134.8	136.8	138.0	140.6	1.9	4.8
Private industry workers	121.1	122.7	124.2	125.2	126.8	127.5	128.9	129.9	130.8	.7	3.2
Workers, by occupational group:											
White-collar workers	122.4	123.9	125.8	127.1	128.8	129.8	131.3	132.5	133.5	.8	3.6
Blue-collar workers	119.3	120.6	121.9	122.8	124.0	124.4	125.7	126.3	127.2	.7	2.6
Service occupations	123.2	125.7	126.3	126.5	128.8	129.5	130.9	131.1	132.3	.9	2.7
Workers, by industry division:											
Manufacturing	120.4	122.0	123.9	124.6	125.5	126.0	127.7	128.7	129.3	.5	3.0
Nonmanufacturing	121.6	123.1	124.4	125.6	127.6	128.4	129.7	130.6	131.7	.8	3.2
State and local government workers	128.8	130.1	131.7	132.0	136.5	137.5	138.9	139.7	143.6	2.8	5.2
Workers, by occupational group:											
White-collar workers	129.7	131.1	132.5	132.9	137.6	138.6	140.0	140.5	145.0	3.2	5.4
Blue-collar workers	125.0	125.9	128.1	128.5	131.9	132.7	134.7	136.3	138.5	1.6	5.0
Workers, by industry division:											
Services	129.9	131.3	132.8	133.2	137.9	139.1	140.4	140.8	145.5	3.3	5.5
Schools	130.6	132.0	133.4	133.7	139.1	140.3	141.5	141.7	147.6	4.2	6.1
Elementary and secondary	132.1	133.5	134.4	134.6	140.9	142.0	143.0	143.2	149.4	4.3	6.0
Hospitals and other services ⁴	127.9	129.2	131.1	131.5	134.1	135.2	136.8	137.9	139.4	1.1	4.0
Public administration ³	126.9	128.6	130.1	130.3	134.2	134.8	136.8	138.0	140.6	1.9	4.8

¹ Cost (cents per hour worked) measured in the Employment Cost Index consists of wages, salaries, and employer cost of employee benefits.

² Consist of private industry workers (excluding farm and household workers)

and State and local government (excluding Federal Government) workers.

³ Consists of legislative, judicial, administrative, and regulatory activities.

⁴ Includes, for example, library, social, and health services.

23. Employment Cost Index, wages and salaries, by occupation and industry group

(June 1981 = 100)

Series	1984		1985				1986			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1986	Sept. 1986
Civilian workers ¹	120.3	121.7	123.1	124.2	126.3	127.0	128.3	129.3	130.7	1.1	3.5
Workers, by occupational group:											
White-collar workers	122.2	123.5	125.2	126.4	128.8	129.8	131.2	132.4	134.1	1.3	4.1
Blue-collar workers	117.0	118.2	119.3	120.5	122.0	122.3	123.4	124.1	125.0	.7	2.5
Service occupations	122.3	124.3	124.8	125.3	128.0	128.6	129.8	130.0	131.7	1.3	2.9
Workers, by industry division											
Manufacturing	118.0	119.5	121.0	122.3	123.2	123.8	125.3	126.5	127.2	.6	3.2
Nonmanufacturing	121.3	122.6	123.9	125.0	127.6	128.4	129.6	130.4	132.2	1.4	3.6
Services	127.2	128.9	129.7	130.5	134.2	134.8	136.4	137.0	139.9	2.1	4.2
Public administration ²	124.4	125.7	127.0	127.2	131.4	132.0	133.8	134.6	137.5	2.2	4.6
Private industry workers	119.2	120.6	122.0	123.3	124.9	125.6	126.8	127.9	128.8	.7	3.1
Workers, by occupational group:											
White-collar workers	120.9	122.3	124.0	125.5	127.3	128.3	129.6	131.1	132.0	.7	3.7
Professional, specialty and technical occupations	125.2	127.3	127.7	128.7	131.2	131.5	132.7	134.0	135.4	1.0	3.2
Executive, administrative, and managerial occupations	121.0	122.2	123.8	126.5	127.7	128.4	130.5	132.1	132.4	.2	3.7
Sales occupations	110.5	111.6	116.3	117.4	119.3	122.5	122.4	124.3	125.2	.7	4.9
Administrative support occupations, including clerical	122.0	122.9	124.7	125.6	127.1	127.9	129.6	130.8	131.7	.7	3.6
Blue-collar workers	116.7	118.0	119.1	120.3	121.7	122.0	123.1	123.7	124.5	.6	2.3
Precision production, craft, and repair occupations	118.0	119.4	120.8	122.0	123.7	123.8	125.3	125.7	126.7	.8	2.4
Machine operators, assemblers, and inspectors	116.6	117.9	118.9	120.1	121.1	121.6	122.6	123.6	124.1	.4	2.5
Transportation and material moving occupations	113.4	114.0	114.5	115.7	117.7	117.8	118.0	118.9	119.8	.8	1.8
Handlers, equipment cleaners, helpers, and laborers	114.7	115.9	116.7	118.5	118.6	119.8	120.0	120.3	120.9	.5	1.9
Service occupations	121.2	123.7	123.8	124.4	126.3	126.6	128.0	128.0	128.9	.7	2.1
Workers, by industry division:											
Manufacturing	118.0	119.5	121.0	122.3	123.2	123.8	125.3	126.5	127.2	.6	3.2
Durables	117.7	119.1	120.6	122.0	122.7	123.4	124.8	125.8	126.4	.5	3.0
Nondurables	118.6	120.2	121.6	122.6	124.0	124.6	126.1	127.9	128.5	.5	3.6
Nonmanufacturing	119.9	121.2	122.6	123.9	125.9	126.6	127.7	128.7	129.7	.8	3.0
Construction	114.3	114.4	115.5	116.6	117.3	117.9	118.3	119.8	120.5	.6	2.7
Transportation and public utilities	119.9	120.7	121.7	122.8	124.8	125.2	126.3	126.6	127.3	.6	2.0
Wholesale and retail trade	116.5	118.1	118.8	121.1	122.7	123.7	124.5	125.8	126.5	.6	3.1
Wholesale trade	120.7	122.9	123.7	126.8	127.7	128.3	129.7	131.2	131.8	.5	3.2
Retail trade	114.9	116.2	116.9	118.9	120.8	121.9	122.5	123.7	124.4	.6	3.0
Finance, insurance, and real estate	115.3	115.8	122.0	121.7	124.1	126.5	126.6	128.0	129.0	.8	3.9
Services	127.1	129.5	129.9	131.0	133.9	134.1	136.2	136.9	138.2	.9	3.2
State and local government workers	126.1	127.1	128.4	128.7	133.2	134.2	135.5	136.0	140.4	3.2	5.4
Workers, by occupational group											
White-collar workers	127.1	128.0	129.3	129.6	134.3	135.3	136.6	137.0	141.8	3.5	5.6
Blue-collar workers	121.9	122.5	124.2	124.5	127.9	128.4	130.4	131.9	134.5	2.0	5.2
Workers, by industry division											
Services	127.2	128.1	129.4	129.7	134.5	135.6	136.8	137.1	142.1	3.6	5.7
Schools	127.8	128.7	129.9	130.2	135.8	137.0	138.0	138.2	144.1	4.3	6.1
Elementary and secondary	129.3	130.2	130.8	131.1	137.5	138.5	139.4	139.4	145.7	4.5	6.0
Hospitals and other services ³	125.1	125.9	127.7	128.0	130.2	130.9	132.4	133.3	135.8	1.9	4.3
Public administration ²	124.4	125.7	127.0	127.2	131.4	132.0	133.8	134.6	137.5	2.2	4.6

¹ Consist of private industry workers (excluding farm and household workers) and State and local government (excluding Federal Government) workers.

² Consists of legislative, judicial, administrative, and regulatory activities.

³ Includes, for example, library, social and health services.

24. Employment Cost Index, private nonfarm workers, by bargaining status, region, and area size

(June 1981 = 100)

Series	1984		1985				1986			Percent change	
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	3 months ended	12 months ended
										Sept. 1986	
COMPENSATION											
Workers, by bargaining status¹											
Union	122.6	123.9	124.8	125.5	126.5	127.1	128.4	128.7	129.4	0.5	2.3
Manufacturing	121.6	123.2	124.2	124.2	125.0	125.5	127.0	126.9	127.5	.5	2.0
Nonmanufacturing	123.6	124.5	125.3	126.6	127.8	128.6	129.7	130.4	131.2	.6	2.7
Nonunion	120.3	121.9	123.8	125.0	126.8	127.5	129.0	130.2	131.2	.8	3.5
Manufacturing	119.3	120.8	123.6	124.8	125.7	126.3	128.1	129.7	130.4	.5	3.7
Nonmanufacturing	120.7	122.4	123.9	125.1	127.3	128.1	129.5	130.4	131.6	.9	3.4
Workers, by region¹											
Northeast	122.4	123.8	125.1	126.4	128.8	129.9	131.6	133.3	134.2	.7	4.2
South	120.7	122.2	124.2	125.2	126.5	127.2	128.7	129.6	130.7	.8	3.3
Midwest (formerly North Central)	119.7	120.8	122.0	122.7	124.2	124.6	125.9	126.2	127.3	.9	2.5
West	122.5	124.9	126.8	127.9	129.1	129.8	130.8	131.6	132.1	.4	2.3
Workers, by area size¹											
Metropolitan areas	121.5	123.2	124.7	125.7	127.3	128.1	129.5	130.5	131.4	.7	3.2
Other areas	119.0	119.8	121.4	122.5	123.9	123.9	125.5	126.4	127.2	.6	2.7
WAGES AND SALARIES											
Workers, by bargaining status¹											
Union	119.8	120.9	121.7	123.0	124.1	124.7	125.6	126.1	126.9	.6	2.3
Manufacturing	118.1	119.5	120.4	121.7	122.8	123.3	124.2	124.6	125.0	.3	1.8
Nonmanufacturing	121.3	122.1	122.8	124.1	125.3	125.9	126.9	127.4	128.5	.9	2.6
Nonunion	118.8	120.4	122.1	123.4	125.2	125.9	127.3	128.5	129.4	.7	3.4
Manufacturing	117.9	119.5	121.5	122.8	123.7	124.4	126.1	127.7	128.5	.6	3.9
Nonmanufacturing	119.2	120.7	122.3	123.6	125.9	126.6	127.8	128.9	129.8	.7	3.1
Workers, by region¹											
Northeast	120.5	121.9	123.0	124.6	126.8	128.1	129.2	131.3	132.3	.8	4.3
South	119.0	120.2	122.3	123.4	124.8	125.4	126.8	127.8	128.8	.8	3.2
Midwest (formerly North Central)	117.8	118.7	119.6	121.1	122.5	122.9	124.2	124.4	125.3	.7	2.3
West	120.0	122.5	124.0	125.1	126.6	127.1	128.1	128.9	129.3	.3	2.1
Workers, by area size¹											
Metropolitan areas	119.5	121.0	122.4	123.8	125.5	126.3	127.4	128.5	129.4	.7	3.1
Other areas	117.5	118.3	119.6	120.6	121.9	122.0	123.6	124.5	125.0	.4	2.5

¹ The indexes are calculated differently from those for the occupation and industry groups. For a detailed description of the index calculation, see the

Monthly Labor Review Technical Note, "Estimation procedures for the Employment Cost Index," May 1982.

25. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more (in percent)

Measure	Annual average		Quarterly average							
	1984	1985	1984	1985				1986		
			IV	I	II	III	IV	IP	IIP	IIIP
Specified adjustments:										
Total compensation ¹ adjustments, ² settlements covering 5,000 workers or more:										
First year of contract	3.6	2.6	3.7	3.6	3.5	2.0	2.0	0.6	0.7	0.7
Annual rate over life of contract	2.8	2.7	2.0	2.7	3.4	3.0	1.4	1.2	1.6	1.2
Wage adjustments, settlements covering 1,000 workers or more:										
First year of contract	2.4	2.3	2.3	3.3	2.5	2.0	2.1	.8	1.3	.8
Annual rate over life of contract	2.4	2.7	1.5	3.2	2.8	3.1	1.9	1.5	2.0	1.5
Effective adjustments:										
Total effective wage adjustment ³										
From settlements reached in period .....	.8	.7	.3	.1	.2	.2	.1	.0	.2	.1
Deferred from settlements reached in earlier periods	2.0	1.8	.2	.6	.5	.5	.2	.4	.6	.5
From cost-of-living-adjustments clauses .....	.9	.7	.2	.1	.1	.4	.1	.2	.0	.0

¹ Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

² Adjustments are the net result of increases, decreases, and no changes in

compensation or wages.

³ Because of rounding, total may not equal sum of parts.

P = preliminary.

26. Average specified compensation and wage adjustments, major collective bargaining settlements in private industry situations covering 1,000 workers or more during 4-quarter periods (in percent)

Measure	Average for four quarters ending--								
	1984	1985				1986			
	IV	I	II	III	IV	IP	IIP	IIIP	
Specified total compensation adjustments, settlements covering 5,000 workers or more, all industries:									
First year of contract	3.6	3.4	3.4	3.1	2.6	2.3	1.4	0.9	
Annual rate over life of contract	2.8	2.6	2.7	2.7	2.7	2.5	2.0	1.4	
Specified wage adjustments, settlements covering 1,000 workers or more:									
All industries									
First year of contract	2.4	2.4	2.4	2.4	2.3	2.0	1.6	1.2	
Contracts with COLA clauses	2.9	2.5	2.3	1.9	1.6	1.6	1.8	2.2	
Contracts without COLA clauses	2.1	2.4	2.4	2.7	2.7	2.2	1.5	.8	
Annual rate over life of contract	2.4	2.3	2.4	2.5	2.7	2.5	2.2	1.7	
Contracts with COLA clauses	1.8	1.3	1.5	1.8	2.5	2.5	2.5	2.0	
Contracts without COLA clauses	2.7	2.8	2.8	3.0	2.8	2.5	2.1	1.6	
Manufacturing									
First year of contract	2.3	2.1	2.0	1.5	.8	.8	.1	-.1	
Contracts with COLA clauses	2.1	2.0	1.9	1.5	.8	.8	.7	1.1	
Contracts without COLA clauses	2.9	2.5	2.2	1.5	.9	.9	-.4	-2.0	
Annual rate over life of contract	1.5	1.4	1.5	1.6	1.8	1.8	1.4	.3	
Contracts with COLA clauses	1.0	.9	1.0	1.4	2.1	2.1	2.0	1.1	
Contracts without COLA clauses	3.3	3.2	3.0	2.4	1.6	1.5	.9	-.1	
Nonmanufacturing									
First year of contract	2.5	2.6	2.7	3.2	3.3	2.8	2.6	2.1	
Contracts with COLA clauses	5.5	5.1	4.3	4.0	3.6	3.5	3.4	2.7	
Contracts without COLA clauses	2.0	2.4	2.5	3.0	3.3	2.7	2.4	1.9	
Annual rate over life of contract	2.9	2.8	2.9	3.3	3.3	3.0	2.8	2.3	
Contracts with COLA clauses	4.8	4.0	3.8	3.9	3.6	3.6	3.3	2.5	
Contracts without COLA clauses	2.6	2.7	2.8	3.2	3.3	2.8	2.6	2.2	
Construction									
First year of contract .....	.5	.9	1.1	1.0	1.5	1.6	2.3	2.3
Contracts with COLA clauses	4.0	4.6	9.2	(¹)	(¹)	(¹)	1.1	1.4	
Contracts without COLA clauses .....	.4	.8	1.0	(¹)	(¹)	(¹)	2.4	2.4
Annual rate over life of contract	1.0	1.4	1.7	1.7	2.1	2.2	2.5	2.6	
Contracts with COLA clauses	1.4	1.7	4.6	(¹)	(¹)	(¹)	1.2	1.6	
Contracts without COLA clauses	1.0	1.4	1.7	(¹)	(¹)	(¹)	2.6	2.6	

¹ Data do not meet publication standards.

P = preliminary.

27. Average effective wage adjustments, private industry collective bargaining situations covering 1,000 workers or more during 4-quarter periods (in percent)

Effective wage adjustment	Average for four quarters ending--						
	1985				1986		
	I	II	III	IV	I ^P	II ^P	III ^P
For all workers:¹							
Total	3.6	3.5	3.5	3.3	3.1	2.9	2.3
From settlements reached in period .....	.7	.9	.9	.7	.6	.5	.5
Deferred from settlements reached in earlier period	2.2	1.9	1.8	1.8	1.7	1.8	1.6
From cost-of-living-adjustments clauses .....	.7	.7	.8	.7	.8	.7	.2
For workers receiving changes:							
Total	4.5	4.2	4.3	4.1	4.0	3.8	3.1
From settlements reached in period	2.9	2.9	2.8	3.4	2.9	2.5	1.7
Deferred from settlements reached in earlier period	4.2	3.9	3.7	3.7	3.5	3.4	3.8
From cost-of-living-adjustments clauses	2.3	2.3	2.8	2.2	2.5	2.0	1.0

¹ Because of rounding, total may not equal sum of parts.

^P = preliminary.

28. Specified compensation and wage adjustments from contract settlements, and effective wage adjustments, State and local government collective bargaining situations covering 1,000 workers or more (in percent)

Measure	Annual average		First 6 months 1986 ^P
	1984	1985	
Specified adjustments:			
Total compensation ¹ adjustments, ² settlements covering 5,000 workers or more:			
First year of contract	5.2	4.2	6.7
Annual rate over life of contract	5.4	5.1	6.4
Wage adjustments, settlements covering 1,000 workers or more:			
First year of contract	4.8	4.6	6.1
Annual rate over life of contract	5.1	5.4	6.0
Effective adjustments:			
Total effective wage adjustment ³	5.0	5.7	1.8
From settlements reached in period	1.9	4.1	.6
Deferred from settlements reached in earlier periods	3.1	1.6	1.2
From cost-of-living-adjustment clauses	(*)	(*)	(*)

¹ Compensation includes wages, salaries, and employers' cost of employee benefits when contract is negotiated.

² Adjustments are the net result of increases, decreases, and no changes in compensation or wages.

³ Because of rounding, total may not equal sum of parts.

⁴ Less than 0.05 percent.

^P = preliminary.

29. Work stoppages involving 1,000 workers or more

Measure	Annual totals		1985	1986											
	1985	1986	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July ^P	Aug. ^P	Sept. ^P	Oct. ^P	Nov. ^P	Dec. ^P
	Number of stoppages:														
Beginning in period	54	-	2	4	3	2	4	6	11	13	10	7	5	2	1
In effect during period	61	-	9	7	7	8	8	10	15	22	22	17	17	9	6
Workers involved:															
Beginning in period (in thousands)	323.9	-	8.2	7.6	24.0	11.2	6.1	28.6	198.0	46.7	113.3	37.9	44.3	8.7	2.7
In effect during period (in thousands)	584.1	-	38.0	12.0	28.4	38.6	17.6	41.2	205.9	66.3	144.8	85.2	107.7	67.1	37.1
Days idle:															
Number (in thousands)	7,079.0	-	661.9	170.0	309.5	367.5	297.3	303.6	3,684.3	894.5	1,612.1	1,208.5	1,411.9	941.4	668.6
Percent of estimated working time ¹ .....	.03	-	.03	.01	.02	.02	.02	.02	.17	.04	.07	.06	.06	.04	.04

¹ Agricultural and government employees are included in the total employed and total working time; private household, forestry, and fishery employees are excluded. An explanation of the measurement of idleness as a percentage of the total time worked is found in "Total economy" measure of strike idleness," *Monthly Labor Review*, October

1968, pp. 54-56.

- Data not available.

^P = preliminary

30. Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity or service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967=100, unless otherwise indicated)

Series	Annual average		1986												
	1985	1986	1985	1986											
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS:															
All items	322.2	328.4	327.4	328.4	327.5	326.0	325.3	326.3	327.9	328.0	328.6	330.2	330.5	330.8	331.1
All items (1957-59=100)	374.7	381.9	380.8	381.9	380.8	379.1	378.3	379.5	381.4	381.4	382.1	384.1	384.4	384.7	385.1
Food and beverages	302.0	311.8	305.6	307.9	307.7	307.8	308.5	309.4	309.5	312.2	314.6	315.1	315.6	316.4	317.0
Food	309.8	319.7	313.2	315.6	315.3	315.4	316.1	317.0	317.1	320.1	322.7	323.2	323.7	324.6	325.2
Food at home	296.8	305.3	299.3	302.5	301.5	301.2	301.5	302.1	301.6	305.5	308.9	309.0	309.5	309.9	310.2
Cereals and bakery products	317.0	325.8	321.9	322.0	322.5	322.7	322.5	323.8	326.1	326.3	328.2	328.5	328.4	328.5	329.5
Meats, poultry, fish, and eggs	263.4	275.1	269.9	271.5	268.4	267.7	264.2	263.4	265.1	274.9	283.0	284.7	284.9	286.3	287.3
Dairy products	258.0	258.4	256.9	257.2	257.3	256.8	256.8	257.1	257.2	258.4	258.3	258.5	260.0	261.2	262.2
Fruits and vegetables	325.7	328.7	323.9	334.4	320.7	319.2	329.5	336.5	327.8	330.3	332.1	329.1	328.6	327.8	328.5
Other foods at home	361.1	373.6	361.3	365.7	375.1	375.7	376.1	374.6	374.1	373.7	374.0	373.7	374.4	373.9	372.2
Sugar and sweets	398.8	411.1	402.2	405.4	408.6	408.4	411.4	411.2	411.5	412.4	413.1	413.7	413.4	412.4	411.8
Fats and oils	294.4	287.8	290.3	292.1	291.4	290.2	288.5	287.2	287.0	287.3	287.8	285.6	284.6	285.4	286.0
Nonalcoholic beverages	451.7	478.2	448.8	459.7	485.3	488.0	487.4	481.9	480.0	478.3	476.9	475.7	477.5	476.9	470.2
Other prepared foods	294.2	301.9	297.3	298.0	299.5	299.3	300.2	301.4	301.7	301.8	303.2	303.8	304.7	303.9	305.2
Food away from home	346.6	360.1	352.1	353.1	354.2	355.5	357.0	358.8	360.2	360.8	361.8	363.3	364.0	365.8	367.1
Alcoholic beverages	229.5	239.7	236.2	237.3	238.3	238.8	239.5	239.4	240.1	240.4	240.1	240.4	240.6	240.5	240.8
Housing	349.9	360.2	355.8	356.8	356.5	357.0	358.0	358.5	361.2	361.5	362.4	363.7	363.0	361.7	362.1
Shelter	382.0	402.9	392.3	393.8	394.8	397.0	400.1	400.9	401.6	403.5	405.2	407.6	409.5	410.2	410.4
Renters' costs (12/82=100)	115.4	121.9	118.3	118.8	119.0	119.6	120.9	121.1	121.6	122.5	122.9	123.6	124.0	124.3	124.2
Rent, residential	264.6	280.0	272.4	273.4	273.7	275.0	278.4	279.4	281.2	281.7	283.2	284.6	285.6	286.0	286.0
Other renters' costs	398.4	416.2	398.1	401.1	404.1	405.5	410.8	411.3	415.2	420.1	425.7	429.1	427.3	425.5	418.2
Homeowners' costs (12/82=100)	113.1	119.4	116.3	116.7	117.0	117.9	118.9	119.0	119.4	119.9	120.7	121.3	121.5	121.6	
Owners' equivalent rent (12/82=100)	113.2	119.4	116.3	116.7	117.0	117.9	118.7	118.9	119.0	119.4	119.9	120.7	121.3	121.5	121.6
Household insurance (12/82=100)	112.4	119.2	115.0	115.7	117.4	118.0	118.3	118.8	118.9	119.9	119.9	120.2	120.6	121.1	121.6
Maintenance and repairs	368.9	373.8	373.7	379.1	379.6	367.5	367.6	367.1	366.6	369.2	376.4	376.2	379.0	377.1	380.0
Maintenance and repair services	421.1	430.9	426.2	432.6	432.8	422.4	424.6	425.5	427.4	430.1	434.2	437.0	437.5	433.7	433.1
Maintenance and repair commodities	269.6	269.7	273.3	277.1	277.8	266.1	264.5	262.9	260.7	262.7	271.3	268.7	273.0	272.9	278.3
Fuel and other utilities	393.6	384.7	393.3	394.6	390.0	385.5	381.8	382.5	393.8	389.4	389.5	388.3	379.1	371.1	371.0
Fuels	488.1	463.1	483.6	484.7	476.3	467.6	459.6	460.6	477.0	469.2	469.0	467.2	450.3	437.8	438.1
Fuel oil, coal, and bottled gas	619.5	501.5	657.3	650.3	591.2	549.9	518.3	496.8	486.6	459.4	447.3	453.5	451.9	452.0	460.6
Gas (piped) and electricity	452.7	446.7	439.9	442.6	444.5	442.3	439.2	444.6	466.0	462.3	464.5	461.1	441.4	426.7	425.3
Other utilities and public services	240.7	253.1	245.8	247.3	247.9	249.0	251.3	251.5	255.2	255.6	255.9	255.6	257.1	255.4	254.9
Household furnishings and operations	247.2	250.4	248.8	248.8	249.0	249.8	249.6	249.9	250.2	250.5	250.5	251.5	251.6	251.2	252.4
Housefurnishings	200.1	201.1	200.1	199.8	199.7	201.0	200.4	200.8	200.8	201.2	200.9	202.2	202.2	201.4	202.5
Housekeeping supplies	313.6	319.5	317.7	318.3	318.6	317.9	318.5	318.3	319.6	319.5	319.8	320.1	319.8	320.4	322.9
Housekeeping services	338.9	346.6	343.2	343.9	344.5	345.1	345.4	345.8	346.1	346.6	347.4	347.8	348.5	348.5	349.3
Apparel and upkeep	206.0	207.8	209.0	205.0	204.1	206.3	207.3	206.4	204.5	203.2	207.0	212.1	213.2	213.1	210.9
Apparel commodities	191.6	192.0	194.2	189.5	188.5	190.8	191.7	190.7	188.4	187.0	191.2	196.6	197.6	197.4	194.9
Men's and boys' apparel	197.9	200.0	202.0	198.6	196.8	198.3	199.7	200.2	198.1	195.8	197.8	203.2	204.3	205.3	202.3
Women's and girls' apparel	169.5	168.0	172.6	164.4	163.4	167.6	168.0	164.9	161.3	159.8	167.2	175.7	176.4	175.0	171.7
Infants' and toddlers' apparel	299.7	312.7	304.1	313.9	311.6	313.1	316.6	318.5	319.7	307.5	310.6	309.7	312.0	307.0	312.7
Footwear	212.1	211.2	213.1	209.1	207.9	210.1	211.4	211.0	210.0	209.1	209.6	212.0	215.1	215.1	214.0
Other apparel commodities	215.5	217.9	214.6	215.5	216.1	214.6	215.3	215.4	215.8	218.1	221.6	221.1	219.8	221.1	220.0
Apparel services	320.9	334.6	326.9	329.8	330.7	331.5	332.9	333.6	334.3	334.6	334.7	336.7	338.3	339.0	339.5
Transportation	319.9	307.5	324.0	323.9	319.2	309.6	303.3	305.7	308.6	304.7	301.3	302.2	302.6	304.3	304.8
Private transportation	314.2	299.5	317.8	317.3	312.2	302.1	295.3	297.8	300.8	296.5	292.8	293.7	294.1	295.8	295.9
New vehicles	214.9	224.1	219.2	219.7	220.2	220.1	221.0	222.8	224.0	224.5	224.5	224.2	226.7	230.2	231.7
New cars	215.2	224.4	219.4	219.9	220.4	220.3	221.2	223.0	224.2	224.7	224.7	224.5	227.1	230.7	232.2
Used cars	379.7	363.2	375.6	374.1	370.7	367.2	364.8	363.6	362.5	360.3	358.0	359.5	360.6	361.0	356.6
Motor fuel	373.8	292.1	377.5	373.3	351.5	308.5	279.5	289.3	299.4	280.2	265.9	271.1	263.2	260.9	261.9
Gasoline	373.3	291.4	376.8	372.5	350.8	307.7	278.6	288.7	299.1	279.8	265.3	270.6	262.6	260.2	261.2
Maintenance and repair	351.4	363.1	357.5	357.9	358.9	359.3	360.6	361.3	362.1	363.4	364.3	365.0	365.7	368.4	370.7
Other private transportation	287.6	303.9	295.2	297.7	299.2	301.5	301.6	301.3	303.0	304.5	304.5	302.3	307.6	311.6	312.0
Other private transportation commodities	202.6	201.6	202.1	203.4	202.9	203.6	202.2	202.4	201.5	201.8	201.8	200.3	198.9	200.0	200.4
Other private transportation services	312.8	333.9	322.7	325.5	327.6	330.3	330.9	330.4	332.8	334.6	334.6	332.3	334.1	344.5	
Public transportation	402.8	426.4	412.9	419.6	422.2	421.2	422.2	423.7	425.4	428.0	428.0	428.5	428.7	431.7	437.5
Medical care	403.1	433.5	414.7	418.2	422.3	425.8	428.0	429.7	432.0	434.8	437.5	439.7	442.3	444.6	446.8
Medical care commodities	256.7	273.6	262.9	264.5	267.4	269.4	271.3	272.3	273.3	275.4	276.0	276.7	277.5	278.2	280.8
Medical care services	435.1	468.6	448.0	451.9	456.2	460.1	462.3	464.2	466.8	469.8	473.0	475.7	478.8	481.5	483.4
Professional services	367.3	390.9	377.1	378.9	381.6	385.0	386.9	388.3	390.3	391.7	393.3	396.1	398.0	399.8	401.0
Other medical care services	517.0	562.6	533.6	540.3	546.4	550.8	555.5	559.9	559.2	564.2	569.4	571.9	576.4	580.3	583.0
Entertainment	265.0	274.1	268.3	270.8	272.0	271.9	272.3	272.9	273.9	274.4	274.7	275.3	276.5	277.4	277.4
Entertainment commodities	260.6	265.9	262.5	264.7	265.2	265.0	264.8	265.3	266.1	265.8	266.1	265.9	266.7	267.6	

30. Continued— Consumer Price Index for All Urban Consumers: U.S. city average, by expenditure category and commodity or service group; and CPI for Urban Wage Earners and Clerical Workers, all items

(1967 = 100, unless otherwise indicated)

Series	Annual average		1986												
	1985	1986	1986												
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
All items	322.2	328.4	327.4	328.4	327.5	326.0	325.3	326.3	327.9	328.0	328.6	330.2	330.5	330.8	331.1
Commodities	286.7	283.9	289.9	290.1	287.4	283.7	281.2	282.1	282.8	281.9	283.5	283.6	284.0	284.2	
Food and beverages	302.0	311.8	305.6	307.9	307.7	307.8	308.5	309.4	309.5	312.2	314.6	315.1	315.6	317.0	
Commodities less food and beverages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nondurables less food and beverages	282.1	265.2	286.8	284.9	278.6	268.9	262.0	263.3	264.7	259.8	258.1	261.5	260.4	260.0	
Apparel commodities	191.6	192.0	194.2	189.5	188.5	190.8	191.7	190.7	188.4	187.0	191.2	196.6	197.6	194.9	
Nondurables less food, beverages, and apparel	333.3	307.3	339.1	338.7	329.5	313.6	302.6	305.2	308.4	301.7	296.9	299.5	297.2	296.0	
Durables	270.7	270.2	271.4	271.4	270.5	269.7	269.2	269.6	269.9	269.6	269.0	269.3	270.5	271.8	
Services	381.5	400.5	389.5	391.7	393.3	394.9	396.8	397.9	401.0	402.3	403.7	405.5	406.1	406.6	
Rent of shelter (12/82 = 100)	113.9	120.2	117.0	117.4	117.7	118.5	119.4	119.7	119.9	120.5	120.9	121.7	122.2	122.5	
Household services less rent of shelter (12/82 = 100)	111.2	112.8	110.8	111.4	111.8	111.6	111.6	112.3	115.2	114.9	115.3	114.9	112.9	110.8	
Transportation services	337.0	356.3	346.1	349.0	351.0	352.4	353.2	353.4	355.3	357.1	357.3	356.2	360.5	366.2	
Medical care services	435.1	468.6	448.0	451.9	456.2	460.1	462.3	464.2	466.8	469.8	473.0	475.7	478.8	483.4	
Other services	314.1	331.8	322.9	324.8	326.1	326.6	327.6	328.2	329.2	330.1	330.8	337.9	339.5	340.8	
Special indexes:															
All items less food	323.3	328.6	328.9	329.5	328.5	326.6	325.7	326.7	328.6	328.0	328.1	330.0	330.2	330.6	
All items less shelter	303.9	306.7	307.9	308.8	307.4	305.2	303.6	304.7	306.5	306.1	306.4	307.9	307.8	308.0	
All items less homeowners' costs	109.7	111.2	111.3	111.6	111.2	110.5	110.1	110.4	111.1	111.0	111.2	111.7	111.8	111.9	
All items less medical care	317.7	322.6	322.6	323.4	322.2	320.5	319.7	320.6	322.2	322.1	322.6	324.4	324.4	324.8	
Commodities less food	272.5	263.4	275.7	274.7	270.9	265.2	261.2	262.1	263.0	260.2	259.0	261.1	260.9	261.2	
Nondurables less food	277.2	262.2	282.0	280.4	274.5	265.6	259.2	260.5	261.8	257.3	255.6	258.9	257.8	257.5	
Nondurables less food and apparel	319.2	297.1	325.1	324.9	316.8	302.7	292.9	295.2	298.1	292.2	287.9	290.2	288.1	287.7	
Nondurables	293.2	289.6	297.4	297.7	294.3	289.5	286.3	287.4	288.2	287.1	287.4	289.4	289.0	289.5	
Services less rent of shelter	113.5	118.7	115.4	116.2	116.8	117.1	117.4	117.8	119.2	119.5	119.8	120.2	120.1	120.0	
Services less medical care	373.3	390.6	380.8	382.7	384.0	385.4	387.2	388.3	391.3	392.5	393.6	395.4	395.7	395.8	
Energy	426.5	370.3	426.5	424.7	408.9	381.3	361.8	367.6	380.6	366.5	358.6	366.6	348.6	341.7	
All items less energy	314.8	327.0	320.5	321.8	322.3	323.3	324.4	325.0	325.5	326.9	328.3	330.0	331.4	332.3	
All items less food and energy	314.4	327.1	320.7	321.6	322.3	323.6	324.8	325.3	325.9	326.9	327.9	329.9	331.6	332.8	
Commodities less food and energy	259.7	263.2	262.2	261.8	261.6	262.0	262.1	262.2	262.0	262.0	262.0	264.5	265.5	265.8	
Energy commodities	409.9	322.4	417.9	413.2	386.5	343.0	313.3	319.3	327.1	306.6	292.4	297.7	290.6	288.5	
Services less energy	375.9	397.1	385.8	387.9	389.4	391.5	393.8	394.5	395.9	397.7	399.0	401.4	403.7	405.0	
Purchasing power of the consumer dollar:															
1967 = \$1.00	31.0	30.5	30.5	30.5	30.5	30.7	30.7	30.6	30.5	30.5	30.4	30.3	30.3	30.2	
1957-59 = \$1.00	26.7	26.2	26.3	26.2	26.3	26.4	26.4	26.4	26.2	26.2	26.2	26.0	26.0	26.0	
CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS:															
All items	318.5	323.4	323.4	324.3	323.2	321.4	320.4	321.4	323.0	322.9	323.4	324.9	325.0	325.7	
All items (1957-59 = 100)	370.4	376.1	376.1	377.1	375.8	373.7	372.6	373.7	375.6	375.5	376.1	377.8	378.0	378.8	
Food and beverages	301.8	311.6	305.4	307.7	307.5	307.6	308.3	309.0	309.3	312.0	314.5	315.0	315.4	316.2	
Food	309.3	319.2	312.8	315.1	314.9	315.0	315.6	316.4	316.6	319.5	322.3	322.8	323.3	324.2	
Food at home	295.3	303.7	297.9	300.9	300.1	299.7	299.9	300.4	300.0	303.9	307.3	307.5	307.9	308.4	
Cereals and bakery products	315.4	324.2	320.4	320.4	320.9	321.1	320.9	322.1	324.5	324.6	326.8	326.8	326.8	327.0	
Meats, poultry, fish, and eggs	262.7	274.4	269.2	270.7	267.7	267.2	263.5	262.6	264.2	274.0	282.2	284.0	284.4	286.6	
Dairy products	256.9	257.1	255.7	256.0	255.5	255.5	255.8	255.9	257.0	256.9	257.1	258.6	259.9	260.9	
Fruits and vegetables	320.3	323.8	319.3	329.7	316.0	314.6	325.0	331.6	323.5	325.6	327.2	324.2	322.9	322.2	
Other foods at home	361.5	373.5	361.6	366.1	375.2	375.6	376.0	374.3	373.9	373.4	373.9	373.5	374.4	373.9	
Sugar and sweets	398.3	410.5	401.8	404.7	408.1	407.8	410.9	410.6	410.9	411.9	412.6	413.0	412.8	411.9	
Fats and oils	293.9	287.2	289.6	291.6	290.8	289.7	287.8	286.6	286.4	286.6	287.1	285.1	284.1	284.5	
Nonalcoholic beverages	453.2	478.1	450.4	461.0	485.5	487.4	487.0	481.2	479.5	477.6	476.9	475.5	477.7	477.1	
Other prepared foods	295.7	303.2	298.7	299.4	300.9	300.7	301.6	302.7	303.0	303.1	304.5	305.2	305.9	305.3	
Food away from home	349.7	363.4	355.2	356.2	357.3	358.6	360.2	362.0	363.5	364.2	365.2	366.6	367.3	369.2	
Alcoholic beverages	232.6	242.5	239.1	240.1	240.9	241.4	242.3	242.2	242.9	243.4	243.0	243.4	243.5	243.9	
Housing	343.3	353.2	349.1	350.1	349.7	350.1	351.1	351.6	354.3	354.5	355.4	356.6	355.6	354.3	
Shelter	370.4	390.7	380.4	381.8	382.9	385.0	388.1	388.8	389.4	391.5	392.9	395.2	397.1	397.8	
Renters' costs (12/84 = 100)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rent, residential	263.7	279.1	271.5	272.5	272.8	274.1	277.0	277.5	278.5	280.3	280.8	282.2	283.6	284.6	
Other renters' costs	397.9	416.0	397.5	400.8	403.5	405.4	411.6	411.3	415.5	420.4	426.1	428.9	426.7	424.8	
Homeowners' costs (12/84 = 100)	103.1	108.8	105.9	106.3	106.6	107.4	108.1	108.3	108.4	108.8	109.3	110.0	110.5	110.7	
Owners' equivalent rent (12/84 = 100)	103.0	108.8	105.9	106.3	106.6	107.3	108.1	108.3	108.4	108.8	109.2	110.0	110.5	110.7	
Household insurance (12/84 = 100)	103.2	109.4	105.7	106.3	107.8	108.2	108.5	109.0	109.1	110.1	110.1	110.4	110.8	111.3	
Maintenance and repairs	364.1	369.4	368.5	373.2	374.0	364.7	364.6	363.8	363.2	366.7	371.5	370.6	373.1	372.4	
Maintenance and repair services	415.0	425.3	420.1	426.2	426.5	416.6	419.2	420.0	422.6	425.2	428.6	430.7	431.1	428.2	
Maintenance and repair commodities	261.1	262.5	264.2	267.2	268.1	261.1	259.4	258.0	255.7	259.0	263.5	261.1	264.3	265.0	
Fuel and other utilities	394.7	385.4	394.3	395.6	390.9	386.3	382.6	383.0	394.9	390.3	390.6	389.1	379.3	371.3	
Fuels	487.5	462.7	483.1	484.1	475.7	467.1	459.1	459.7	477.3	469.1	469.3	467.1	449.2	437.1	
Fuel oil, coal, and bottled gas	622.0	504.5	659.9	652.7	593.6	552.8	521.5	499.9	489.9	462.9	450.7	456.6	454.8	455.0	
Gas (piped) and electricity	451.6	445.6	438.8	441.4	443.2	441.2	438.0	443.0	465.7	461.4	464.1	460.3	439.6	425.3	
Other utilities and public services	241.6	253.8	246.7	248.3	248.8	249.9	252.1	252.2	255.8	256.3	256.6	256.2	257.8	255.8	
Household furnishings and operations	243.4	246.5	245.2	245.1	245.3	246.0	246.0	246.1	246.2	246.5	246.6	247.5	247.5	247.2	
Housefurnishings	197.6	198.4	197.8	197.3	197.2	198.5	198.1	198.4	198.4	198.3	198.3	199.4	199.3	198.5	
Housekeeping supplies	310.7	317.1	315.0	315.8	316.4	315.5	316.3	315.7	316.8	317.1	317.3	317.9	317.8	320.6	
Housekeeping services	340.2	348.2	345.0	345.6	346.3	346.6									

31. Consumer Price Index: U.S. city average and available local area data: all items

(1967 = 100, unless otherwise indicated)

Area ¹	Pricing schedule ²	Other index base	All Urban Consumers							Urban Wage Earners						
			1985	1986						1985	1986					
			Dec.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.
U.S. city average		-	327.4	328.4	328.6	330.2	330.5	330.8	331.1	323.4	324.3	323.4	324.9	325.0	325.4	325.7
Chicago, Ill.-Northwestern																
Ind.	M	-	325.9	326.3	331.4	333.9	328.7	331.3	331.0	312.6	312.9	316.2	318.3	313.4	316.1	315.8
Detroit, Mich.	M	-	323.1	323.1	323.2	321.1	324.3	325.3	324.7	313.1	313.4	312.8	310.5	313.6	314.7	314.0
Los Angeles-Long Beach, Anaheim, Calif.	M	-	326.1	326.8	330.9	334.6	336.2	333.8	332.9	320.1	320.9	323.5	326.8	328.3	326.3	325.3
New York, N.Y.-Northeastern N.J.	M	-	320.8	323.1	325.9	326.6	327.8	327.5	329.1	313.5	315.8	317.2	317.5	318.7	318.6	320.1
Philadelphia, Pa.-N.J.	M	-	319.7	320.3	323.1	325.8	324.7	324.1	325.2	322.5	323.0	324.4	326.7	326.1	325.4	326.6
Anchorage, Alaska (10/67 = 100)	1	10/67	-	287.1	-	286.2	-	287.8	-	-	280.2	-	277.9	-	279.7	-
Baltimore, Md.	1	-	-	332.0	-	334.0	-	333.4	-	-	331.1	-	330.9	-	330.4	-
Boston, Mass.	1	-	-	327.1	-	328.2	-	329.3	-	-	324.5	-	325.2	-	325.9	-
Cincinnati, Ohio-Ky.-Ind.	1	-	-	333.2	-	333.0	-	335.5	-	-	326.0	-	324.7	-	327.6	-
Denver-Boulder, Colo.	1	-	-	364.4	-	362.9	-	361.2	-	-	359.1	-	357.2	-	355.2	355.3
Miami, Fla. (11/77 = 100)	1	11/77	-	174.6	-	174.3	-	175.8	-	-	175.7	-	174.5	-	176.1	-
Milwaukee, Wis.	1	-	-	333.9	-	332.9	-	330.7	-	-	353.0	-	351.7	-	349.4	-
Northeast, Pa.	1	-	-	311.6	-	311.3	-	313.5	-	-	310.6	-	310.2	-	311.9	-
Portland, Oreg.-Wash.	1	-	-	321.3	-	318.0	-	318.0	-	-	311.0	-	306.3	-	306.1	-
St. Louis, Mo.-Ill.	1	-	-	322.4	-	325.7	-	323.8	-	-	319.1	-	320.7	-	319.0	-
San Diego, Calif.	1	-	-	381.9	-	385.9	-	387.5	-	-	344.7	-	347.4	-	349.0	-
Seattle-Everett, Wash.	1	-	-	327.0	-	326.3	-	325.9	-	-	313.5	-	312.3	-	311.7	-
Washington, D.C.-Md.-Va.	1	-	-	331.1	-	332.3	-	334.0	-	-	332.6	-	334.6	-	335.9	-
Atlanta, Ga.	2	-	335.3	-	338.9	-	339.9	-	342.2	332.6	-	335.4	-	335.9	-	337.8
Buffalo, N.Y.	2	-	309.8	-	307.5	-	309.4	-	311.4	295.9	-	292.5	-	294.2	-	296.1
Cleveland, Ohio	2	-	348.8	-	352.7	-	352.1	-	351.8	327.5	-	329.9	-	329.3	-	328.9
Dallas-Ft. Worth, Tex.	2	-	344.5	-	346.2	-	345.9	-	342.8	338.3	-	339.1	-	338.5	-	335.0
Honolulu, Hawaii	2	-	298.5	-	301.5	-	302.2	-	305.4	305.8	-	308.3	-	308.8	-	312.7
Houston, Tex.	2	-	336.8	-	332.9	-	334.0	-	331.0	334.1	-	330.5	-	331.7	-	328.5
Kansas City, Mo.-Kansas	2	-	321.8	-	323.9	-	323.7	-	324.7	311.7	-	311.9	-	311.3	-	312.4
Minneapolis-St. Paul, Minn.-Wis.	2	-	340.4	-	340.3	-	340.9	-	342.4	336.0	-	334.5	-	334.6	-	335.9
Pittsburgh, Pa.	2	-	331.5	-	330.1	-	331.8	-	333.0	312.8	-	309.2	-	310.6	-	311.8
San Francisco-Oakland, Calif.	2	-	336.4	-	345.5	-	347.7	-	343.6	331.3	-	339.0	-	341.1	-	337.0
Region ³																
Northeast	2	12/77	174.3	-	175.0	-	176.4	-	177.2	172.1	-	172.2	-	173.5	-	174.3
North Central	2	12/77	176.0	-	176.2	-	176.5	-	177.1	172.6	-	172.2	-	172.4	-	173.0
South	2	12/77	176.3	-	176.4	-	177.5	-	177.9	176.0	-	175.3	-	176.3	-	176.5
West	2	12/77	177.2	-	179.0	-	180.4	-	179.6	175.2	-	176.4	-	177.8	-	177.0
Population size class ³																
A-1	2	12/77	174.2	-	176.6	-	177.6	-	177.7	170.2	-	171.8	-	172.5	-	172.8
A-2	2	12/77	178.4	-	179.1	-	179.9	-	180.0	175.4	-	175.3	-	176.0	-	176.1
B	2	12/77	177.2	-	176.6	-	178.3	-	178.7	174.6	-	173.5	-	175.1	-	175.5
C	2	12/77	174.9	-	175.0	-	175.9	-	176.5	175.3	-	174.8	-	175.7	-	176.2
D	2	12/77	174.7	-	173.8	-	174.5	-	175.4	176.0	-	174.5	-	175.1	-	175.9
Region/population size class cross classification ³																
Class A:																
Northeast	2	12/77	171.2	-	173.1	-	174.2	-	174.7	167.7	-	168.8	-	169.7	-	170.3
North Central	2	12/77	179.4	-	180.7	-	180.3	-	181.0	174.5	-	175.0	-	174.5	-	175.3
South	2	12/77	176.5	-	176.7	-	177.6	-	177.9	176.5	-	176.1	-	176.9	-	177.0
West	2	11/77	179.3	-	182.0	-	184.2	-	182.6	175.0	-	176.9	-	179.0	-	177.5
Class B:																
Northeast	2	12/77	176.7	-	174.7	-	178.0	-	178.3	173.5	-	171.8	-	174.6	-	175.1
North Central	2	12/77	174.2	-	172.5	-	174.0	-	176.1	170.5	-	168.1	-	169.5	-	171.5
South	2	12/77	178.0	-	178.6	-	180.0	-	179.9	174.7	-	174.6	-	175.7	-	175.6
West	2	12/77	178.4	-	178.1	-	179.2	-	178.9	178.9	-	178.3	-	179.3	-	179.0

See footnotes at end of table.

31. Continued— Consumer Price Index: U.S. city average and available local area data: all items

(1967 = 100, unless otherwise indicated)

Area ¹	Pricing schedule ²	Other index base	All Urban Consumers							Urban Wage Earners						
			1985		1986					1985		1986				
			Dec.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	Jan.	Aug.	Sept.	Oct.	Nov.	Dec.
Class C:																
Northeast	2	12/77	184.1	-	182.8	-	183.8	-	186.3	188.8	-	187.2	-	188.1	-	190.5
North Central	2	12/77	171.5	-	171.2	-	172.3	-	171.9	168.2	-	167.7	-	168.7	-	168.4
South	2	12/77	175.3	-	174.8	-	175.8	-	176.4	176.7	-	175.3	-	176.3	-	176.7
West	2	12/77	169.1	-	173.0	-	173.1	-	172.9	167.8	-	171.1	-	171.2	-	171.1
Class D:																
Northeast	2	12/77	178.1	-	176.8	-	178.1	-	179.8	177.7	-	176.2	-	177.2	-	178.9
North Central	2	12/77	172.6	-	171.4	-	171.7	-	171.6	174.2	-	172.4	-	172.7	-	172.7
South	2	12/77	174.5	-	174.3	-	175.4	-	176.6	176.1	-	175.0	-	175.9	-	177.0
West	2	12/77	176.2	-	174.9	-	175.3	-	176.3	177.7	-	176.3	-	176.7	-	177.6

¹ Area is generally the Standard Metropolitan Statistical Area (SMSA), exclusive of farms. L.A.-Long Beach, Anaheim, Calif. is a combination of two SMSA's, and N.Y., N.Y.-Northeastern N.J. and Chicago, Ill.-Northwestern Ind. are the more extensive Standard Consolidated Areas. Area definitions are those established by the Office of Management and Budget in 1973, except for Denver-Boulder, Colo. which does not include Douglas County. Definitions do not include revisions made since 1973.

² Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated.

M - Every month.

1 - January, March, May, July, September, and November.

2 - February, April, June, August, October, and December.

³ Regions are defined as the four Census regions.

The population size classes are aggregations of areas which have urban population as defined:

A-1 - More than 4,000,000.

A-2 - 1,250,000 to 4,000,000.

B - 385,000 to 1,250,000

C - 75,000 to 385,000.

D - Less than 75,000.

Population size class A is the aggregation of population size classes A-1 and A-2.

- Data not available.

NOTE: Local area CPI indexes are byproducts of the national CPI program. Because each local index is a small subset of the national index, it has a smaller sample size and is, therefore, subject to substantially more sampling and other measurement error than the national index. As a result, local area indexes show greater volatility than the national index, although their long-term trends are quite similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in escalator clauses.

32. Annual data: Consumer Price Index all items and major groups

Series	1978	1979	1980	1981	1982	1983	1984	1985	1986
Consumer Price Index for All Urban Consumers:									
All items:									
Index	195.4	217.4	246.8	272.4	289.1	298.4	311.1	322.2	328.4
Percent change	7.7	11.3	13.5	10.4	6.1	3.2	4.3	3.6	1.9
Food and beverages:									
Index	206.3	228.5	248.0	267.3	278.2	284.4	295.1	302.0	311.8
Percent change	9.7	10.8	8.5	7.8	4.1	2.2	3.8	2.3	3.2
Housing:									
Index	202.8	227.6	263.3	293.5	314.7	323.1	336.5	349.9	360.2
Percent change	8.7	12.2	15.7	11.5	7.2	2.7	4.1	4.0	2.9
Apparel and upkeep:									
Index	159.6	166.6	178.4	186.9	191.8	196.5	200.2	206.0	207.8
Percent change	3.5	4.4	7.1	4.8	2.6	2.5	1.9	2.9	.9
Transportation:									
Index	185.5	212.0	249.7	280.0	291.5	298.4	311.7	319.9	307.5
Percent change	4.7	14.3	17.8	12.1	4.1	2.4	4.5	2.6	-3.9
Medical care:									
Index	219.4	239.7	265.9	294.5	328.7	357.3	379.5	403.1	433.5
Percent change	8.4	9.3	10.9	10.8	11.6	8.7	6.2	6.2	7.5
Entertainment:									
Index	176.6	188.5	205.3	221.4	235.8	246.0	255.1	265.0	274.1
Percent change	5.3	6.7	8.9	7.8	6.5	4.3	3.7	3.9	3.4
Other goods and services:									
Index	183.3	196.7	214.5	235.7	259.9	288.3	307.7	326.6	346.4
Percent change	6.4	7.3	9.0	9.9	10.3	10.9	6.7	6.1	6.1
Consumer Price Index for Urban Wage Earners and Clerical Workers:									
All items:									
Index	195.3	217.7	247.0	272.3	288.6	297.4	307.6	318.5	323.4
Percent change	7.6	11.5	13.5	10.2	6.0	3.0	3.4	3.5	1.5

33. Producer Price Indexes, by stage of processing

(1967 = 100)

Grouping	Annual average		1986											
	1985	1986	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Finished goods	293.7	-	296.0	291.9	288.0	287.2	288.9	289.3	287.6	288.1	287.5	290.5	290.7	289.9
Finished consumer goods	291.8	-	293.8	288.4	283.4	281.9	284.1	284.5	282.3	283.0	282.7	284.9	285.0	284.2
Finished consumer goods	271.2	-	275.0	272.0	271.6	271.9	274.8	275.1	280.4	284.0	282.2	282.9	283.0	282.9
Finished consumer goods excluding foods	297.3	-	298.3	291.8	284.6	282.2	284.0	284.4	278.3	277.5	278.1	281.0	281.1	279.9
Nondurable goods less food	339.3	-	339.6	328.0	315.4	309.8	313.0	313.5	302.6	301.6	304.8	301.9	302.1	300.5
Durable goods	241.5	-	243.5	243.9	243.7	245.7	245.5	245.9	246.2	245.8	242.7	253.6	253.5	252.9
Capital equipment	300.5	-	303.9	304.3	304.3	305.6	305.7	306.1	306.4	306.2	304.2	310.1	310.5	310.1
Intermediate materials, supplies, and components	318.7	-	317.4	313.5	309.5	307.1	306.7	306.8	304.8	304.5	306.1	304.9	304.9	305.0
Materials and components for manufacturing	299.5	-	297.1	296.5	296.4	295.5	295.4	295.1	295.6	296.0	296.2	296.5	296.5	296.2
Materials for food manufacturing	258.8	-	252.8	249.2	246.7	244.8	248.7	247.9	251.7	255.5	254.3	253.2	253.2	253.0
Materials for nondurable manufacturing	285.9	-	283.8	282.4	282.5	279.3	278.2	277.8	277.7	277.1	277.3	277.7	278.1	277.9
Materials for durable manufacturing	320.2	-	313.4	313.1	313.6	313.7	313.2	312.9	313.0	313.6	314.5	315.4	315.0	313.8
Components for manufacturing	291.5	-	293.1	293.6	293.7	294.1	294.1	294.1	294.6	294.9	295.1	294.9	295.0	295.2
Materials and components for construction	315.2	-	316.2	316.5	317.0	318.3	318.3	317.8	317.9	317.6	317.9	317.3	317.6	317.0
Processed fuels and lubricants	548.9	-	540.8	500.8	453.4	428.5	424.2	426.7	401.1	395.0	409.1	395.1	393.2	396.2
Containers	311.2	-	311.2	310.9	312.3	312.8	313.6	314.0	314.6	316.2	317.8	318.4	319.6	319.7
Supplies	284.2	-	286.6	286.4	286.8	287.2	287.1	287.3	287.2	287.1	287.9	287.5	287.9	288.3
Crude materials for further processing	306.1	-	301.0	289.0	281.1	273.7	279.4	276.9	277.7	276.3	275.5	276.7	278.4	274.8
Foodstuffs and feedstuffs	235.0	-	231.7	227.2	224.4	220.3	229.9	227.1	234.4	238.1	231.9	233.7	235.9	232.8
Nonfood materials ¹	459.2	-	450.6	422.7	403.9	389.4	386.9	384.8	370.8	358.3	369.6	369.8	369.7	365.1
Special groupings														
Finished goods, excluding foods	299.0	-	300.7	296.3	291.2	289.9	291.2	291.6	287.4	286.8	286.6	290.5	290.7	289.7
Finished energy goods	720.9	-	700.9	629.3	554.1	517.2	534.1	536.4	461.6	456.2	477.2	454.9	452.9	446.8
Finished goods less energy	269.2	-	272.7	272.2	272.1	273.1	274.0	274.3	276.4	277.2	275.4	279.7	280.0	279.5
Finished consumer goods less energy	261.3	-	264.8	264.0	263.9	264.9	266.1	266.3	268.9	270.0	268.4	272.2	272.4	271.9
Finished goods less food and energy	268.7	-	272.1	272.5	272.5	273.9	274.0	274.3	275.0	274.8	273.1	278.8	279.1	278.5
Finished consumer goods less food and energy	252.1	-	255.5	256.0	256.0	257.3	257.5	257.7	258.7	258.4	256.9	262.4	262.7	262.0
Consumer nondurable goods less food and energy	246.2	-	250.5	251.1	251.2	252.0	252.3	252.5	253.9	253.8	253.6	254.4	254.9	254.2
Intermediate materials less foods and feeds	325.0	-	323.6	319.7	315.5	313.0	312.4	312.5	310.4	309.9	311.5	310.4	310.4	310.5
Intermediate foods and feeds	232.8	-	232.6	228.9	227.8	227.0	229.3	229.0	230.3	232.1	233.3	229.8	230.9	231.7
Intermediate energy goods	528.3	-	520.0	482.0	437.0	413.3	409.1	411.1	386.6	380.7	393.8	380.5	378.7	381.3
Intermediate goods less energy	304.0	-	303.4	303.0	303.3	303.1	303.0	302.9	303.3	303.5	304.0	303.9	304.2	304.0
Intermediate materials less foods and energy	305.2	-	304.3	304.2	304.5	304.3	304.0	303.8	304.1	304.2	304.7	304.9	305.1	304.8
Crude energy materials	748.1	-	732.8	662.9	614.5	577.0	570.6	563.9	528.8	520.4	544.1	539.2	535.3	519.5
Crude materials less energy	233.2	-	229.8	226.5	224.7	221.9	229.2	227.3	232.8	232.4	228.5	230.5	232.7	230.9
Crude nonfood materials less energy	249.7	-	245.8	246.5	247.9	249.1	249.3	250.1	250.0	235.9	239.2	242.3	244.5	246.9

¹ Crude nonfood materials except fuel.

- Data not available.

34. Producer Price indexes, by durability of product

(1967 = 100)

Grouping	Annual average		1986											
	1985	1986	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total durable goods	297.3	-	298.1	298.4	298.6	299.7	299.6	299.7	300.0	299.9	299.2	302.3	302.5	302.1
Total nondurable goods	317.2	-	316.8	308.4	300.7	296.0	297.9	297.7	294.5	294.2	295.6	294.2	294.6	294.0
Total manufactures	304.3	-	304.8	301.1	297.3	296.1	296.7	296.9	295.2	295.5	296.2	297.0	297.2	297.2
Durable	298.1	-	299.0	299.3	299.4	300.5	300.4	300.5	300.9	300.8	300.1	303.2	303.4	302.9
Nondurable	310.5	-	310.6	302.9	294.9	291.2	292.6	293.0	289.1	289.7	292.0	290.2	290.5	290.9
Total raw or slightly processed goods	327.9	-	326.0	316.3	310.3	303.0	306.2	304.2	303.2	300.4	299.2	298.8	299.9	296.3
Durable	252.2	-	248.2	251.2	252.4	253.1	252.1	251.2	249.6	252.0	253.2	252.0	254.3	254.7
Nondurable	332.4	-	330.6	320.2	313.6	305.8	309.3	307.2	306.2	303.0	301.7	301.4	302.4	298.4

- Data not available.

35. Annual data: Producer Price Indexes, by stage of processing

(1967 = 100)

Index	1977	1978	1979	1980	1981	1982	1983	1984	1985
Finished goods:									
Total	181.7	195.9	217.7	247.0	269.8	280.7	285.2	291.1	293.7
Consumer goods	180.7	194.9	217.9	248.9	271.3	281.0	284.6	290.3	291.8
Capital equipment	184.6	199.2	216.5	239.8	264.3	279.4	287.2	294.0	300.5
Intermediate materials, supplies, and components:									
Total	201.5	215.6	243.2	280.3	306.0	310.4	312.3	320.0	318.7
Materials and components for manufacturing	195.4	208.7	234.4	265.7	286.1	289.8	293.4	301.8	299.5
Materials and components for construction	203.4	224.7	247.4	268.3	287.6	293.7	301.8	310.3	315.2
Processed fuels and lubricants	282.5	295.3	364.8	503.0	595.4	591.7	564.8	566.2	548.9
Containers	188.3	202.8	226.8	254.5	276.1	285.6	286.6	302.3	311.2
Supplies	188.7	198.5	218.2	244.5	263.8	272.1	277.1	283.4	284.2
Crude materials for further processing:									
Total	209.2	234.4	274.3	304.6	329.0	319.5	323.6	330.8	306.1
Foodstuffs and feedstuffs	192.1	216.2	247.9	259.2	257.4	247.8	252.2	259.5	235.0
Nonfood materials except fuel	245.0	272.3	330.0	401.0	482.3	473.9	477.4	484.5	459.2
Fuel	372.1	426.8	507.6	615.0	751.2	886.1	931.5	931.3	909.6

36. U.S. export price indexes by Standard International Trade Classification

(June 1977 = 100, unless otherwise indicated)

Category	1974 SITC	1984				1985				1986		
		Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
ALL COMMODITIES (9/83=100)		100.2	101.5	99.3	98.1	97.5	97.5	96.5	96.7	97.0	96.7	95.1
Food (3/83=100)	0	106.2	109.6	103.5	96.5	95.8	94.0	90.2	93.6	90.5	89.5	77.2
Meat (3/83=100)	01	108.9	108.7	105.6	104.4	103.9	104.7	106.1	112.2	111.5	114.7	122.0
Fish (3/83=100)	03	99.8	98.7	98.0	98.7	101.0	103.6	102.6	101.8	102.2	106.2	111.2
Grain and grain preparations (3/80=100)	04	102.7	107.4	101.2	92.9	92.4	90.3	82.6	87.1	82.1	79.1	59.0
Vegetables and fruit (3/83=100)	05	116.2	126.9	125.6	114.7	119.5	120.2	126.9	118.9	115.3	125.8	131.4
Feedstuffs for animals (3/83=100)	08	106.9	98.8	83.5	82.4	72.8	68.6	75.7	83.4	88.5	85.5	90.2
Misc. food products (3/83=100)	09	104.9	110.6	109.5	108.4	110.6	109.2	108.1	107.7	106.0	104.7	106.6
Beverages and tobacco (6/83=100)	1	101.6	101.9	102.8	101.3	99.9	100.1	99.7	98.6	95.6	96.5	96.3
Beverages (9/83=100)	11	102.3	102.9	103.3	103.7	104.0	105.3	101.8	100.9	101.9	103.0	102.2
Tobacco and tobacco products (6/83=100)	12	101.6	101.8	102.7	101.1	99.5	99.6	99.5	98.4	95.1	95.9	95.8
Crude materials (6/83=100)	2	112.5	118.3	105.2	101.4	97.5	96.8	93.3	92.5	95.8	95.6	92.3
Raw hides and skins (6/80=100)	21	145.6	154.7	153.7	133.6	121.0	126.2	129.0	139.9	138.9	148.9	138.0
Oilseeds and oleaginous fruit (9/77=100)	22	93.9	104.3	79.9	74.8	71.0	71.2	64.2	63.9	66.9	65.8	64.5
Crude rubber (including synthetic and reclaimed) (9/83=100)	23	103.3	106.0	104.1	104.0	106.4	106.3	107.1	106.0	106.0	106.1	105.3
Wood	24	131.1	129.4	123.8	125.4	128.7	125.7	124.5	128.1	128.7	128.7	129.7
Pulp and waste paper (6/83=100)	25	112.5	122.1	120.8	114.2	100.5	96.1	93.8	92.7	98.8	109.7	120.7
Textile fibers	26	120.5	125.6	109.4	106.7	102.4	105.8	103.6	97.7	101.6	98.6	74.7
Crude fertilizers and minerals	27	146.6	147.7	163.0	163.2	165.6	167.9	169.4	165.5	168.0	166.1	164.3
Metalliferous ores and metal scrap	28	100.2	98.5	93.2	92.4	89.2	82.0	80.1	78.7	83.4	80.5	84.6
Mineral fuels	3	99.1	99.7	99.7	99.7	100.1	99.2	97.6	96.6	91.9	86.7	85.7
Animal and vegetable oils, fats, and waxes	4	129.8	164.5	145.7	147.9	142.0	144.5	114.5	101.4	90.8	84.4	76.5
Fixed vegetable oils and fats (6/83=100)	42	133.2	176.4	159.0	156.7	152.9	164.8	128.8	108.7	95.4	95.3	80.8
Chemicals (3/83=100)	5	101.4	99.7	98.3	97.7	97.0	96.8	97.1	96.6	96.5	95.4	93.1
Organic chemicals (12/83=100)	51	100.2	101.0	97.4	94.7	93.8	96.5	97.1	95.4	93.5	89.3	88.0
Fertilizers, manufactured (3/83=100)	56	108.3	96.9	97.4	94.8	92.5	87.9	89.8	90.0	88.6	84.0	77.4
Intermediate manufactured products (9/81=100)	-	101.0	101.3	102.0	100.4	99.4	99.2	99.2	99.1	100.3	101.2	102.2
Leather and furskins (9/79=100)	6	83.5	81.2	80.8	79.0	82.5	79.2	75.9	78.5	77.8	82.5	84.2
Rubber manufactures	61	146.7	147.5	148.9	148.5	150.2	149.0	148.3	148.7	151.0	150.0	150.4
Paper and paperboard products (6/78=100)	62	150.2	154.7	160.0	159.5	155.0	151.6	149.6	148.2	152.2	158.7	165.3
Iron and steel (3/82=100)	64	95.9	96.1	96.8	96.5	95.5	95.3	95.9	98.2	98.4	99.4	100.2
Nonferrous metals (9/81=100)	-	94.2	92.9	90.4	82.5	79.7	79.6	79.8	78.2	80.2	79.1	79.4
Metal manufactures, n.e.s. (3/82=100)	-	103.1	104.5	105.1	105.0	105.4	105.2	105.4	104.4	105.3	105.5	105.6
Machinery and transport equipment, excluding military and commercial aircraft (12/78=100)	67	138.5	139.4	140.1	141.5	142.3	142.9	143.1	143.3	144.0	144.1	144.4
Power generating machinery and equipment (12/78=100)	68	158.4	156.9	160.6	167.5	165.3	167.4	167.1	167.5	169.1	169.2	169.5
Machinery specialized for particular industries (9/78=100)	69	152.3	152.8	153.7	153.4	155.0	155.7	156.0	156.2	155.5	154.7	155.0
Metalworking machinery (6/78=100)	7	150.8	151.2	151.7	151.9	153.4	155.1	156.3	158.4	159.0	158.9	160.4
General industrial machines and parts n.e.s. 9/78=100)	71	148.6	149.0	149.3	150.2	152.4	152.0	152.4	152.2	152.3	153.3	154.4
Office machines and automatic data processing equipment	72	101.4	101.5	99.8	101.4	100.9	100.0	99.9	99.4	99.9	99.2	98.8
Telecommunications, sound recording and reproducing equipment	73	133.0	132.3	134.4	134.3	133.3	133.3	134.1	134.5	136.5	137.0	137.8
Electrical machinery and equipment	74	110.2	112.6	113.8	114.6	114.9	116.1	115.3	113.8	115.1	114.2	114.2
Road vehicles and parts (3/80=100)	75	130.2	131.2	131.0	131.8	133.1	133.9	133.8	135.0	135.5	136.4	136.5
Other transport equipment, excl. military and commercial aviation	76	183.1	187.7	189.6	191.7	195.5	196.6	199.3	200.7	203.3	205.6	206.0
Other manufactured articles	77	100.6	100.4	100.7	99.3	99.5	100.4	100.3	100.3	102.6	103.4	104.1
Apparel (9/83=100)	78	101.9	102.1	103.9	103.4	104.7	104.7	105.0	105.3	-	-	-
Professional, scientific, and controlling instruments and apparatus	79	171.8	172.0	175.8	171.7	175.5	178.3	178.7	178.8	182.1	183.8	183.8
Photographic apparatus and supplies, optical goods, watches and clocks (12/77=100)	8	132.0	131.3	132.7	130.3	128.0	129.1	127.5	128.5	131.6	132.9	132.7
Miscellaneous manufactured articles, n.e.s.	84	98.5	97.9	95.2	94.1	92.4	93.1	93.1	92.4	95.6	95.6	97.6
Gold, non-monetary (6/83=100)	971	95.8	93.5	81.7	79.5	69.1	75.4	77.4	77.5	81.8	82.2	97.5

- Data not available.

37. U.S. import price indexes by Standard International Trade Classification

(June 1977 = 100, unless otherwise indicated)

Category	1974 SITC	1984		1985				1986		
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
ALL COMMODITIES (9/82=100)		96.7	95.7	93.5	93.0	92.9	94.2	88.5	83.2	83.8
Food (9/77=100)	0	102.0	98.1	98.5	96.8	94.9	102.8	113.4	104.7	109.1
Meat	01	135.4	132.3	130.4	118.2	120.6	131.2	122.7	118.5	126.9
Dairy products and eggs (6/81=100)	02	98.9	98.4	98.3	97.9	99.1	100.5	106.7	107.1	109.4
Fish	03	134.2	133.9	132.9	129.4	129.7	132.7	139.3	144.8	149.6
Bakery goods, pasta products, grain and grain preparations (9/77=100)	04	132.9	132.8	131.8	132.3	136.3	141.9	146.9	149.2	154.0
Fruits and vegetables	05	135.4	117.2	127.1	129.4	120.2	131.3	119.4	119.4	127.1
Sugar, sugar preparations, and honey (3/82=100)	06	119.0	118.5	118.4	122.6	123.1	111.9	124.6	121.6	123.9
Coffee, tea, cocoa	07	60.3	58.4	57.0	56.0	54.4	64.6	85.9	69.2	71.8
Beverages and tobacco	1	157.1	156.5	156.2	157.1	158.0	162.1	163.2	165.5	165.8
Beverages	11	153.5	152.8	154.2	154.3	156.0	159.1	161.8	163.9	165.5
Crude materials	2	100.6	98.9	94.0	93.6	91.5	91.2	94.2	95.3	98.2
Crude rubber (inc. synthetic & reclaimed) (3/84=100)	23	90.7	83.8	77.6	76.4	68.9	73.2	78.8	75.5	76.9
Wood (9/81=100)	24	99.6	104.0	100.7	106.9	101.6	99.4	104.3	106.3	109.4
Pulp and waste paper (12/81=100)	25	96.3	93.2	84.0	80.4	76.8	75.8	74.9	79.9	86.0
Crude fertilizers and crude minerals (12/83=100)	27	98.0	98.6	100.3	101.7	102.7	102.1	101.5	100.0	100.4
Metalliferous ores and metal scrap (3/84=100)	28	100.1	95.6	90.4	87.6	89.5	90.1	94.5	95.6	98.2
Crude vegetable and animal materials, n.e.s.	29	101.1	106.4	104.3	104.9	102.5	102.5	103.6	104.4	104.8
Fuels and related products (6/82=100)	3	86.9	85.2	82.9	80.9	79.8	79.1	55.3	37.5	33.3
Petroleum and petroleum products (6/82=100)	33	87.0	85.2	83.8	81.6	80.3	80.1	54.7	36.1	31.8
Fats and oils (9/83=100)	4	124.4	114.9	89.9	76.7	57.6	50.6	41.4	39.3	35.5
Vegetable oils (9/83=100)	42	125.3	115.3	89.5	75.9	56.2	48.9	39.3	37.4	33.5
Chemicals (9/82=100)	5	98.8	97.1	95.7	94.9	94.5	94.2	94.6	93.3	93.4
Medicinal and pharmaceutical products (3/84=100)	54	96.4	94.6	91.6	95.1	95.3	96.7	102.9	104.9	110.0
Manufactured fertilizers (3/84=100)	56	98.5	92.9	94.2	82.0	80.8	78.5	79.2	79.7	77.4
Chemical materials and products, n.e.s. (9/84=100)	59	100.0	97.5	96.1	95.6	96.9	97.8	99.9	100.3	101.0
Intermediate manufactured products (12/77=100)	6	137.2	136.8	133.1	132.4	133.6	133.4	134.0	135.6	138.8
Leather and furskins	61	144.0	140.4	135.3	133.3	137.0	141.3	141.6	143.0	147.4
Rubber manufactures, n.e.s.	62	139.6	140.5	139.5	138.6	137.3	138.1	136.5	137.7	138.1
Cork and wood manufactures	63	126.4	126.1	121.3	121.2	123.4	124.0	130.8	134.3	137.4
Paper and paperboard products	64	156.1	157.5	157.6	157.2	157.8	156.5	157.1	157.1	157.5
Textiles	65	131.6	132.9	130.4	127.5	126.5	128.1	131.2	132.9	135.4
Nonmetallic mineral manufactures, n.e.s.	66	156.6	159.4	154.2	151.7	157.6	162.2	164.2	169.6	178.2
Iron and steel (9/78=100)	67	124.7	123.7	121.0	120.1	119.1	118.3	117.3	118.1	119.0
Nonferrous metals (12/81=100)	68	90.2	87.3	81.9	82.3	83.7	80.4	79.4	78.9	83.5
Metal manufactures, n.e.s.	69	119.3	119.3	117.4	117.8	119.5	121.6	124.4	127.8	129.1
Machinery and transport equipment (6/81=100)	7	102.6	102.9	101.6	102.6	103.5	107.2	111.5	115.3	118.1
Machinery specialized for particular industries (9/78=100)	72	98.8	98.0	96.2	97.0	101.4	104.9	112.1	115.4	120.1
Metalworking machinery (3/80=100)	73	92.1	89.9	86.3	90.5	94.2	98.1	105.0	107.7	110.7
General industrial machinery and parts, n.e.s. (6/81=100)	74	92.4	91.3	89.2	91.1	94.3	98.0	103.8	109.0	112.8
Office machines and automatic data processing equipment (3/80=100)	75	94.1	92.2	89.6	89.4	90.3	93.7	96.9	100.8	102.1
Telecommunications, sound recording and reproducing apparatus (3/80=100)	76	93.6	91.3	90.0	88.8	88.3	88.6	89.4	91.6	93.7
Electrical machinery and equipment (12/81=100)	77	87.0	86.4	82.1	83.9	81.4	83.1	84.5	87.5	89.5
Road vehicles and parts (6/81=100)	78	109.8	111.3	111.5	112.1	112.7	117.8	123.4	127.1	129.8
Misc. manufactured articles (3/80=100)	8	99.7	100.0	97.0	98.0	99.6	100.8	103.3	104.8	109.5
Plumbing, heating, and lighting fixtures (6/80=100)	81	110.7	111.6	113.9	114.1	117.8	115.0	120.1	123.5	125.5
Furniture and parts (6/80=100)	82	138.4	142.5	137.4	136.7	142.1	142.7	147.0	142.2	145.8
Clothing (9/77=100)	84	135.4	138.5	136.7	133.9	134.5	134.5	133.4	135.3	137.8
Footwear	85	138.4	142.5	137.4	136.7	142.1	142.7	147.0	142.2	145.8
Professional, scientific, and controlling instruments and apparatus (12/79=100)	87	95.6	92.9	89.2	92.3	98.8	102.4	106.4	112.5	118.5
Photographic apparatus and supplies, optical goods, watches, and clocks (3/80=100)	88	91.2	91.3	88.9	89.5	91.1	94.5	99.3	103.2	106.8
Misc. manufactured articles, n.e.s. (6/82=100)	89	98.3	96.3	91.2	95.2	96.4	97.9	102.1	103.4	112.3
Gold, non-monetary (6/82=100)	971	106.4	103.6	90.1	98.3	101.1	101.0	106.7	107.3	126.9

38. U.S. export price indexes by end-use category

(September 1983 = 100 unless otherwise indicated)

Category	Per-centage of 1980 trade value	1984		1985				1986		
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Foods, feeds, and beverages	16.294	88.8	83.0	81.5	80.9	76.2	77.5	75.5	74.7	66.0
Raw materials	30.696	100.5	99.1	97.6	97.2	96.5	95.9	96.0	94.9	93.4
Raw materials, nondurable	21.327	102.8	101.4	99.6	99.5	98.7	97.9	97.5	96.1	93.7
Raw materials, durable	9.368	95.0	93.3	92.6	91.6	91.1	91.0	92.5	91.9	92.5
Capital goods (12/82=100)	30.186	104.6	105.6	106.2	106.6	106.6	106.6	107.4	107.5	107.6
Automotive vehicles, parts and engines (12/82=100)	7.483	105.3	105.7	106.7	108.0	108.1	109.2	109.5	110.4	110.8
Consumer goods	7.467	101.3	100.8	100.9	101.1	101.9	101.4	103.7	104.5	104.5
Durables	3.965	99.4	99.3	99.1	99.2	100.4	99.5	101.8	101.8	102.1
Nondurables	3.501	103.0	102.3	102.7	103.0	103.3	103.3	105.5	107.2	106.9

39. U.S. import price indexes by end-use category

(December 1982 = 100)

Category	Per-centage of 1980 trade value	1984		1985				1986		
		Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Foods, feeds, and beverages	7.477	105.6	101.8	102.1	100.4	99.0	106.0	115.8	108.2	112.3
Petroleum and petroleum products, excl. natural gas	31.108	87.5	85.7	84.4	82.1	80.9	80.5	55.4	36.8	32.3
Raw materials, excluding petroleum	19.205	102.5	101.1	96.3	95.8	95.4	93.9	94.5	94.0	95.3
Raw materials, nondurable	9.391	101.7	100.7	95.0	93.9	93.5	91.8	91.1	89.7	89.5
Raw materials, durable	9.814	103.3	101.6	97.7	97.8	97.4	96.2	98.1	98.7	101.4
Capital goods	13.164	98.0	97.8	94.8	96.3	97.6	100.0	102.8	106.7	109.4
Automotive vehicles, parts and engines	11.750	104.0	105.2	105.4	105.9	106.4	111.4	115.6	119.0	121.0
Consumer goods	14.250	100.6	101.1	99.5	99.4	101.0	102.4	104.5	106.5	110.1
Durable	5.507	98.8	98.5	97.0	97.0	98.9	100.7	103.4	106.5	111.2
Nondurable	8.743	103.0	104.6	103.0	102.5	103.9	104.7	106.0	106.6	108.6

40. U.S. export price indexes by Standard Industrial Classification¹

Industry group	1984		1985				1986		
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Manufacturing:									
Food and kindred products (6/83=100)	105.6	103.3	99.5	99.5	96.7	98.1	97.0	95.0	95.2
Lumber and wood products, except furniture (6/83=100)	97.0	97.9	99.9	99.5	98.3	101.2	101.5	101.2	102.1
Furniture and fixtures (9/83=100)	103.5	104.9	105.2	106.5	107.1	108.4	109.2	109.7	110.1
Paper and allied products (3/81=100)	106.1	103.6	97.1	94.7	93.2	92.1	95.7	101.5	106.4
Chemicals and allied products (12/84=100)	101.3	100.7	100.3	99.6	99.7	99.2	98.9	98.3	96.2
Petroleum and coal products (12/83=100)	100.7	100.4	101.3	102.7	102.0	99.1	93.5	83.1	83.1
Primary metal products (3/82=100)	100.0	95.8	91.2	92.7	93.6	93.6	96.4	96.6	101.6
Machinery, except electrical (9/78=100)	138.0	139.9	140.4	140.5	140.6	140.5	140.6	140.3	140.5
Electrical machinery (12/80=100)	110.7	111.1	111.3	112.4	111.9	111.2	112.6	112.3	112.5
Transportation equipment (12/78=100)	157.7	158.8	160.4	161.8	162.6	164.1	165.1	166.8	167.1
Scientific instruments; optical goods; clocks (6/77=100)	156.0	153.0	154.9	156.6	156.2	156.7	159.7	161.2	161.5

¹ SIC - based classification.

41. U.S. import price indexes by Standard Industrial Classification ¹

Industry group	1984		1985				1986		
	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June	Sept.
Manufacturing:									
Food and kindred products (6/77=100)	124.1	122.6	118.8	115.0	114.2	115.1	117.7	115.6	118.1
Textile mill products (9/82=100)	104.3	104.7	102.8	101.0	100.4	101.8	104.7	106.4	107.4
Apparel and related products (6/77=100)	133.9	138.2	135.6	133.0	133.9	134.4	133.4	135.1	137.8
Lumber and wood products, except furniture (6/77=100)	117.3	120.0	116.3	120.6	117.5	115.8	122.1	124.8	127.9
Furniture and fixtures (6/80=100)	96.2	95.6	93.9	96.1	97.7	98.2	101.2	103.5	105.4
Paper and allied products (6/77=100)	146.1	145.5	141.5	139.8	138.7	137.4	137.6	139.4	142.2
Chemicals and allied products (9/82=100)	99.8	98.2	95.3	93.9	93.3	95.8	98.6	102.1	103.8
Rubber and miscellaneous plastic products (12/80=100)	97.8	98.0	96.9	96.7	96.6	97.5	100.9	100.6	101.9
Leather and leather products	141.6	144.2	139.1	138.9	142.3	144.0	145.8	144.6	147.7
Primary metal products (6/81=100)	88.3	86.6	82.2	83.0	83.4	81.9	82.0	82.4	86.4
Fabricated metal products (12/84=100)	-	100.0	99.0	99.1	101.0	102.6	104.9	108.5	110.3
Machinery, except electrical (3/80=100)	95.5	94.1	91.8	93.4	96.6	100.0	105.5	108.9	112.5
Electrical machinery (9/84=100)	100.0	98.6	95.1	95.8	94.5	95.8	97.0	100.2	102.6
Transportation equipment (6/81=100)	110.7	112.9	113.1	114.2	114.8	119.6	123.9	128.0	130.4
Scientific instruments; optical goods; clocks (12/79=100)	94.4	93.2	90.7	91.7	94.6	98.8	103.9	109.1	113.7
Miscellaneous manufactured commodities (9/82=100)	95.8	96.4	95.1	95.1	96.6	98.7	99.9	101.7	106.9

¹ SIC - based classification.

- Data not available.

42. Indexes of productivity, hourly compensation, and unit costs, quarterly data seasonally adjusted

(1977=100)

Item	Annual average	Quarterly indexes											
		1984	1984				1985				1986		
			I	II	III	IV	I	II	III	IV	I	II	III
Business:													
Output per hour of all persons	105.3	104.9	105.6	105.5	105.5	105.7	106.4	107.3	106.4	107.3	107.4	107.4	
Compensation per hour	168.1	165.9	167.1	169.0	170.6	172.3	174.5	176.4	178.0	179.1	180.4	181.7	
Real compensation per hour	98.1	98.1	97.9	98.1	98.2	98.4	98.7	99.1	99.0	99.2	100.3	100.4	
Unit labor costs	159.7	158.2	158.3	160.2	161.7	163.1	164.0	164.4	167.3	167.0	168.0	169.1	
Unit nonlabor payments	156.3	154.1	156.7	157.0	157.7	158.3	160.0	161.4	159.6	162.2	161.9	163.7	
Implicit price deflator	158.5	156.7	157.7	159.0	160.3	161.4	162.6	163.4	164.6	165.3	165.8	167.2	
Nonfarm business:													
Output per hour of all persons	104.3	103.9	104.6	104.4	104.3	104.4	104.9	105.4	104.5	105.6	105.7	105.8	
Compensation per hour	167.9	165.6	166.9	168.7	170.4	172.1	174.0	175.4	177.0	178.3	179.3	180.4	
Real compensation per hour	98.0	97.9	97.8	98.0	98.1	98.2	98.4	98.5	98.4	98.8	99.8	99.7	
Unit labor costs	161.0	159.4	159.5	161.5	163.3	164.8	165.9	166.3	169.3	168.8	169.6	170.5	
Unit nonlabor payments	156.1	153.2	156.4	157.2	157.9	158.9	160.8	163.0	160.3	163.9	163.7	165.9	
Implicit price deflator	159.3	157.2	158.4	160.0	161.4	162.7	164.1	165.2	166.2	167.1	167.5	168.9	
Nonfinancial corporations:													
Output per hour of all employees	105.6	105.3	105.9	105.5	105.8	106.0	106.5	107.8	107.0	106.9	106.8	106.9	
Compensation per hour	165.9	163.6	164.8	166.6	168.3	169.9	171.6	173.1	174.5	175.4	176.1	176.8	
Real compensation per hour	96.8	96.8	96.6	96.7	96.8	97.0	97.0	97.2	97.0	97.1	97.9	97.7	
Total unit costs	161.5	159.4	160.1	162.6	163.8	164.9	165.8	165.0	167.2	168.3	168.6	169.8	
Unit labor costs	157.0	155.4	155.7	157.9	159.1	160.3	161.1	160.5	163.0	164.0	164.8	165.4	
Unit nonlabor costs	174.6	171.1	173.1	176.4	177.5	178.5	179.8	178.3	179.8	181.1	179.9	182.8	
Unit profits	133.4	134.4	138.5	130.3	130.5	129.3	130.2	141.7	131.2	131.7	132.3	134.4	
Unit nonlabor payments	160.1	158.3	161.0	160.3	161.0	161.3	162.5	165.5	162.8	163.8	163.2	165.9	
Implicit price deflator	158.1	156.4	157.5	158.7	159.8	160.6	161.6	162.2	162.9	164.0	164.3	165.6	
Manufacturing:													
Output per hour of all persons	116.6	114.7	115.7	117.8	118.2	119.3	121.7	123.0	122.9	123.7	124.7	125.8	
Compensation per hour	168.2	165.4	166.8	169.1	171.5	173.8	175.6	178.1	179.3	180.2	181.4	182.5	
Real compensation per hour	98.1	97.8	97.8	98.2	98.7	99.2	99.3	100.0	99.7	99.8	100.9	100.9	
Unit labor costs	144.2	144.1	144.2	143.5	145.1	145.7	144.3	144.8	145.8	145.7	145.5	145.0	

43. Annual indexes of multifactor productivity and related measures, selected years

(1977 = 100)

Item	1960	1970	1973	1974	1976	1978	1979	1980	1981	1982	1983	1984
Private business												
Productivity:												
Output per hour of all persons	67.3	88.4	95.9	93.8	98.4	100.8	99.5	99.2	100.6	100.3	103.0	105.4
Output per unit of capital services	102.4	102.0	105.3	98.8	97.2	102.0	99.8	94.2	92.4	86.6	88.3	92.4
Multifactor productivity	78.2	92.9	99.1	95.6	98.0	101.2	99.7	97.4	97.7	95.2	97.6	100.6
Output	55.3	80.2	93.0	91.2	94.5	105.8	107.9	106.6	108.9	105.4	109.9	118.9
Inputs:												
Hours of all persons	82.2	90.8	96.9	97.2	96.1	105.0	108.4	107.5	108.2	105.2	106.7	112.8
Capital services	54.0	78.7	88.3	92.4	97.2	103.8	108.0	113.1	117.8	121.7	124.4	128.7
Combined units of labor and capital input	70.7	86.3	93.8	95.5	96.5	104.5	108.2	109.4	111.5	110.7	112.6	118.1
Capital per hour of all persons	65.7	86.7	91.1	95.0	101.2	98.8	99.7	105.3	108.8	115.7	116.7	114.1
Private nonfarm business												
Productivity:												
Output per hour of all persons	70.7	89.2	96.4	94.3	98.5	100.8	99.2	98.7	99.6	99.1	102.4	104.3
Output per unit of capital services	103.7	102.8	106.0	99.2	97.3	101.9	99.0	93.4	91.1	85.1	87.3	90.9
Multifactor productivity	80.9	93.7	99.6	96.0	98.1	101.2	99.1	96.9	96.7	94.1	97.0	99.6
Output	54.4	79.9	92.9	91.1	94.4	106.0	107.9	106.6	108.4	104.8	110.0	118.9
Inputs:												
Hours of all persons	77.0	89.6	96.3	96.6	95.8	105.1	108.8	108.0	108.8	105.7	107.4	114.0
Capital services	52.5	77.7	87.6	91.9	97.0	104.0	109.0	114.1	119.0	123.2	126.1	130.8
Combined units of labor and capital input	67.3	85.3	93.3	95.0	96.2	104.7	108.9	110.0	112.2	111.4	113.5	119.4
Capital per hour of all persons	68.2	86.8	91.0	95.1	101.3	98.9	100.1	105.6	109.4	116.5	117.4	114.7
Manufacturing												
Productivity:												
Output per hour of all persons	62.2	80.8	93.4	90.6	97.1	101.5	101.4	101.4	103.6	105.9	112.0	116.6
Output per unit of capital services	102.5	98.6	111.4	101.2	96.2	102.1	99.7	91.2	89.2	81.8	86.9	94.4
Multifactor productivity	71.9	85.2	97.9	93.3	96.8	101.7	101.0	98.7	99.8	99.2	105.1	110.7
Output	52.5	78.6	96.3	91.7	93.1	106.0	108.1	103.2	104.8	98.4	104.7	116.0
Inputs:												
Hours of all persons	84.4	97.3	103.1	101.2	95.9	104.4	106.5	101.7	101.1	92.9	93.5	99.5
Capital services	51.2	79.7	86.4	90.6	96.7	103.7	108.4	113.1	117.5	120.3	120.6	122.9
Combined units of labor and capital inputs	73.0	92.2	98.4	98.3	96.1	104.2	107.0	104.5	105.0	99.2	99.7	104.8
Capital per hour of all persons	60.7	82.0	83.8	89.5	100.9	99.4	101.7	111.2	116.2	129.4	129.0	123.6

44. Annual indexes of productivity, hourly compensation, unit costs, and prices, selected years

(1977 = 100)

Item	1960	1970	1973	1974	1976	1978	1979	1980	1981	1982	1983	1984	1985
Business:													
Output per hour of all persons	67.6	88.4	95.9	93.9	98.3	100.8	99.6	99.3	100.7	100.3	103.0	105.3	106.4
Compensation per hour	33.6	57.8	70.9	77.6	92.8	108.5	119.1	131.5	143.7	154.9	161.5	168.1	175.3
Real compensation per hour	68.9	90.2	96.7	95.4	98.7	100.8	99.4	96.7	95.7	97.3	98.2	98.1	98.8
Unit labor costs	49.7	65.4	73.9	82.7	94.3	107.6	119.5	132.5	142.7	154.5	156.8	159.7	164.8
Unit nonlabor payments	46.4	59.4	72.5	76.4	93.3	106.7	112.5	118.7	134.6	136.6	146.3	156.3	159.7
Implicit price deflator	48.5	63.2	73.4	80.5	94.0	107.3	117.0	127.6	139.8	148.1	153.0	158.5	163.0
Nonfarm business:													
Output per hour of all persons	71.0	89.3	96.4	94.3	98.5	100.8	99.3	98.8	99.8	99.2	102.4	104.3	104.8
Compensation per hour	35.3	58.2	71.2	78.0	92.8	108.6	118.9	131.3	143.6	154.8	161.5	167.9	174.6
Real compensation per hour	72.3	90.8	97.1	95.9	98.8	100.9	99.2	96.6	95.7	97.2	98.2	98.0	98.4
Unit labor costs	49.7	65.2	73.9	82.7	94.3	107.7	119.7	132.9	144.0	156.0	157.7	161.0	166.7
Unit nonlabor payments	46.3	60.0	69.3	74.0	93.0	105.6	110.5	118.5	133.5	136.5	148.1	156.1	160.6
Implicit price deflator	48.5	63.4	72.3	79.7	93.8	107.0	116.5	127.8	140.3	149.2	154.3	159.3	164.6
Nonfinancial corporations:													
Output per hour of all employees	73.4	91.1	97.5	94.6	98.4	100.6	99.8	99.1	99.6	100.4	103.5	105.6	106.8
Compensation per hour	36.9	59.2	71.6	78.2	92.9	108.4	118.7	131.1	143.3	154.3	159.9	165.9	172.3
Real compensation per hour	75.5	92.4	97.6	96.1	98.9	100.7	99.1	96.4	95.5	96.9	97.3	96.8	97.0
Unit labor costs	50.2	65.0	73.4	82.6	94.3	107.8	119.0	132.3	143.8	153.8	154.5	157.0	161.2
Unit nonlabor payments	51.5	60.1	68.9	73.1	93.8	104.4	108.4	118.6	137.8	142.1	152.1	160.1	163.0
Implicit price deflator	50.7	63.3	71.9	79.4	94.2	106.6	115.4	127.6	141.7	149.8	153.7	158.1	161.8
Manufacturing:													
Output per hour of all persons	62.2	80.8	93.4	90.6	97.1	101.5	101.4	101.4	103.6	105.9	112.0	116.6	121.7
Compensation per hour	36.5	57.4	68.8	76.2	92.1	108.2	118.6	132.4	145.2	157.5	162.4	168.2	176.7
Real compensation per hour	74.8	89.5	93.8	93.6	98.1	100.5	99.1	97.4	96.7	98.9	98.8	98.1	99.5
Unit labor costs	58.7	71.0	73.7	84.1	94.9	106.6	117.0	130.6	140.1	148.7	145.0	144.2	145.1
Unit nonlabor payments	60.0	64.1	70.7	67.7	93.5	101.9	98.9	97.8	111.8	114.0	128.5	136.9	134.4
Implicit price deflator	59.1	69.0	72.8	79.3	94.5	105.2	111.7	121.0	131.8	138.6	140.2	142.1	142.0

45. Unemployment rates in nine countries, quarterly data seasonally adjusted

Country	Annual average		1985				1986		
	1984	1985	I	II	III	IV	I	II	III
Total labor force basis									
United States	7.4	7.1	7.2	7.1	7.1	7.0	7.0	7.0	6.8
Canada	11.2	10.4	11.0	10.5	10.2	10.1	9.7	9.5	9.6
Australia	8.9	8.2	8.5	8.4	8.1	7.8	7.9	-	-
Japan	2.7	2.6	2.6	2.5	2.6	2.9	2.6	2.8	-
France	9.7	10.1	10.2	10.1	10.2	9.9	10.0	10.3	10.4
Germany	7.6	7.7	7.7	7.8	7.7	7.7	7.6	7.5	7.3
Great Britain	12.8	13.0	12.9	13.0	13.2	12.8	13.0	13.1	-
Italy ^{1, 2}	5.8	5.9	5.8	5.7	5.9	6.2	6.2	6.3	6.0
Sweden	3.1	2.8	3.0	2.9	2.7	2.7	2.8	2.6	2.6
Civilian labor force basis									
United States	7.5	7.2	7.3	7.2	7.2	7.1	7.1	7.1	6.9
Canada	11.3	10.5	11.1	10.6	10.2	10.1	9.7	9.6	9.7
Australia	9.0	8.3	8.6	8.5	8.2	7.9	8.0	-	-
Japan	2.8	2.6	2.6	2.6	2.7	2.9	2.7	2.8	-
France	9.9	10.4	10.5	10.4	10.4	10.1	10.2	10.5	10.7
Germany	7.8	7.9	7.9	7.9	7.9	7.8	7.8	7.6	7.5
Great Britain	12.9	13.1	13.1	13.2	13.4	13.0	13.1	13.3	-
Italy	5.9	6.0	5.9	5.8	6.0	6.3	6.3	6.5	6.1
Sweden	3.1	2.8	3.0	2.9	2.8	2.7	2.8	2.6	2.6

¹ Quarterly rates are for the first month of the quarter.

² Major changes in the Italian labor force survey, introduced in 1977, resulted in a large increase in persons enumerated as unemployed. However, many persons reported that they had not actively sought work in the past 30 days, and they have been provisionally excluded for comparability with U.S. concepts. Inclusion of such persons would more

than double the Italian unemployment rate shown.

- Data not available.

NOTE: Quarterly figures for France, Germany, and Great Britain are calculated by applying annual adjustment factors to current published data and therefore should be viewed as less precise indicators of unemployment under U.S. concepts than the annual figures.

46. Annual data: Employment status of the civilian working-age population, 10 countries

(Numbers in thousands)

Employment status and country	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Labor force										
United States	96,158	99,009	102,251	104,962	106,940	108,670	110,204	111,550	113,544	115,461
Canada	10,203	10,500	10,895	11,231	11,573	11,904	11,958	12,183	12,399	12,639
Australia	6,244	6,358	6,443	6,519	6,693	6,810	6,910	6,997	7,133	7,272
Japan	53,100	53,820	54,610	55,210	55,740	56,320	56,980	58,110	58,480	58,820
France	22,000	22,300	22,470	22,670	22,790	22,930	23,150	23,130	23,290	23,330
Germany	25,900	25,870	26,000	26,250	26,520	26,650	26,710	26,740	26,880	27,090
Great Britain	25,290	25,430	25,620	25,710	25,870	25,870	25,880	26,010	26,530	26,960
Italy	20,300	20,530	20,630	20,910	21,210	21,410	21,450	21,610	21,680	21,800
Netherlands	4,890	4,950	5,010	5,100	5,290	5,500	5,560	5,720	5,740	5,890
Sweden	4,149	4,168	4,203	4,262	4,312	4,326	4,350	4,369	4,385	4,418
Participation rate										
United States	61.6	62.3	63.2	63.7	63.8	63.9	64.0	64.0	64.4	64.8
Canada	61.1	61.6	62.7	63.4	64.1	64.8	64.1	64.4	64.8	65.2
Australia	62.7	62.7	62.0	61.7	62.2	62.0	61.8	61.5	61.5	61.8
Japan	62.4	62.5	62.8	62.7	62.6	62.6	62.7	63.1	62.7	62.3
France	57.3	57.6	57.5	57.5	57.2	57.1	57.1	56.6	56.6	56.4
Germany	53.8	53.4	53.3	53.3	53.2	52.9	52.7	52.5	52.6	53.2
Great Britain	63.2	63.2	63.3	63.2	63.2	62.2	61.9	61.9	62.7	63.6
Italy	47.8	48.0	47.7	47.8	48.0	48.0	47.4	47.2	47.3	47.2
Netherlands	49.1	49.0	48.8	49.0	50.0	51.3	51.2	52.1	52.0	51.2
Sweden	66.0	65.9	66.1	66.6	67.0	66.8	66.8	66.7	66.8	67.2
Employed										
United States	88,752	92,017	96,048	98,824	99,303	100,397	99,526	100,834	105,005	107,150
Canada	9,477	9,651	9,987	10,395	10,708	11,006	10,644	10,734	11,000	11,311
Australia	5,946	6,000	6,038	6,111	6,284	6,416	6,415	6,300	6,490	6,670
Japan	52,020	52,720	53,370	54,040	54,600	55,060	55,620	56,550	56,870	57,260
France	21,010	21,180	21,260	21,300	21,320	21,200	21,230	21,170	20,980	20,910
Germany	25,010	24,970	25,130	25,470	25,750	25,560	25,130	24,750	24,790	24,960
Great Britain	23,810	23,840	24,040	24,360	24,100	23,190	22,820	22,680	23,100	23,420
Italy	19,600	19,800	19,770	20,100	20,380	20,480	20,430	20,470	20,390	20,490
Netherlands	4,630	4,700	4,750	4,830	4,960	4,990	4,930	4,890	4,880	4,890
Sweden	4,083	4,093	4,109	4,174	4,226	4,218	4,213	4,218	4,249	4,293
Employment-population ratio										
United States	56.8	57.9	59.3	59.9	59.2	59.0	57.8	57.9	59.5	60.1
Canada	56.7	56.6	57.5	58.7	59.3	59.9	57.0	56.7	57.4	58.4
Australia	59.7	59.2	58.1	57.9	58.4	58.4	57.3	55.4	56.0	56.6
Japan	61.1	61.2	61.3	61.4	61.3	61.2	61.2	61.4	61.0	60.6
France	54.8	54.7	54.4	54.0	53.5	52.8	52.3	51.8	51.0	50.5
Germany	52.0	51.6	51.5	51.7	51.7	50.8	49.6	48.6	48.5	49.0
Great Britain	59.5	59.3	59.4	59.8	58.9	55.8	54.6	54.0	54.6	55.2
Italy	46.1	46.3	45.9	45.9	46.1	45.9	45.2	44.7	44.5	44.4
Netherlands	46.5	46.5	46.3	46.4	46.9	46.5	45.4	44.5	44.2	44.0
Sweden	64.9	64.8	64.6	65.3	65.6	65.1	64.7	64.4	64.7	65.3
Unemployed										
United States	7,406	6,991	6,202	6,137	7,637	8,273	10,678	10,717	8,539	8,312
Canada	726	849	908	836	865	898	1,314	1,448	1,399	1,328
Australia	298	358	405	408	409	394	495	697	642	602
Japan	1,080	1,100	1,240	1,170	1,140	1,260	1,360	1,560	1,610	1,560
France	990	1,120	1,210	1,370	1,470	1,730	1,920	1,960	2,310	2,420
Germany	890	900	870	780	770	1,090	1,580	1,990	2,090	2,130
Great Britain	1,480	1,590	1,580	1,350	1,770	2,680	3,060	3,330	3,430	3,540
Italy	700	740	760	810	830	920	1,020	1,140	1,280	1,310
Netherlands	260	250	260	270	330	510	630	830	860	800
Sweden	66	75	94	88	86	108	137	151	136	125
Unemployment rate										
United States	7.7	7.1	6.1	5.8	7.1	7.6	9.7	9.6	7.5	7.2
Canada	7.1	8.1	8.3	7.4	7.5	7.5	11.0	11.9	11.3	10.5
Australia	4.8	5.6	6.3	6.3	6.1	5.8	7.2	10.0	9.0	8.3
Japan	2.0	2.0	2.3	2.1	2.0	2.2	2.4	2.7	2.8	2.6
France	4.5	5.0	5.4	6.0	6.4	7.5	8.3	8.5	9.9	10.4
Germany	3.4	3.5	3.4	3.0	2.9	4.1	5.9	7.4	7.8	7.9
Great Britain	5.9	6.3	6.2	5.3	6.8	10.4	11.8	12.8	12.9	13.1
Italy	3.4	3.6	3.7	3.9	3.9	4.3	4.8	5.3	5.9	6.0
Netherlands	5.3	5.0	5.2	5.3	6.2	9.3	14.5	14.5	15.0	14.1
Sweden	1.6	1.8	2.2	2.1	2.0	2.5	3.1	3.5	3.1	2.8

47. Annual indexes of productivity and related measures, 12 countries

(1977=100)

Item and country	1960	1970	1973	1974	1976	1977	1979	1980	1981	1982	1983	1984	1985
Output per hour													
United States	62.2	80.8	93.4	90.6	97.1	100.0	101.4	101.4	103.6	105.9	112.9	118.5	121.8
Canada	50.3	76.8	91.3	93.4	96.2	100.0	104.2	101.9	104.0	101.0	107.6	111.5	115.1
Japan	23.2	64.8	83.1	86.5	94.3	100.0	114.8	122.7	127.2	135.0	142.3	152.2	159.9
Belgium	32.8	60.0	78.7	83.2	95.3	100.0	111.8	119.3	127.2	132.8	141.0	145.5	-
Denmark	37.2	65.5	83.2	86.0	98.2	100.0	106.5	112.3	114.2	114.6	117.3	118.3	118.4
France	36.4	69.6	82.2	85.2	95.0	100.0	110.3	112.0	116.4	123.5	129.3	135.0	140.2
Germany	40.3	71.2	84.0	87.4	96.5	100.0	108.2	108.6	111.0	112.6	119.0	124.7	131.9
Italy	36.5	72.7	90.9	95.3	98.9	100.0	110.5	116.9	121.0	123.4	126.6	135.0	139.1
Netherlands	32.4	64.3	81.5	88.1	95.8	100.0	112.3	113.9	116.9	119.4	126.1	139.3	-
Norway	54.6	81.7	94.6	97.7	99.7	100.0	107.1	109.3	109.7	112.6	119.2	122.3	125.0
Sweden	42.3	80.7	94.8	98.8	101.7	100.0	110.9	112.7	113.2	116.5	125.5	132.6	135.2
United Kingdom	53.8	77.6	92.9	95.2	99.1	100.0	102.2	101.2	107.9	112.7	121.2	126.2	129.7
Output													
United States	52.5	78.6	96.3	91.7	93.1	100.0	108.1	103.2	104.8	98.4	105.6	117.9	121.0
Canada	41.5	75.1	94.6	98.0	98.1	100.0	110.9	107.7	108.8	96.4	101.7	110.1	115.2
Japan	19.2	69.9	91.9	91.7	94.8	100.0	113.9	124.1	129.8	137.3	148.2	165.2	175.8
Belgium	41.7	78.1	95.8	99.6	99.5	100.0	104.2	107.2	105.9	109.1	110.7	112.8	-
Denmark	49.2	82.0	95.9	97.4	99.6	100.0	105.4	110.1	106.6	108.3	112.2	118.6	122.3
France	35.4	73.3	88.6	91.8	96.1	100.0	106.1	106.6	105.9	106.0	107.4	108.4	109.0
Germany	50.0	86.6	96.1	95.4	98.0	100.0	106.6	106.6	104.9	102.4	103.5	107.4	113.0
Italy	37.4	78.0	90.5	96.3	97.9	100.0	108.6	115.4	114.3	111.6	109.2	113.2	115.3
Netherlands	44.8	84.4	95.8	100.0	99.0	100.0	106.1	106.6	106.7	105.0	105.3	110.8	-
Norway	55.1	87.0	99.5	104.0	101.4	100.0	100.3	101.3	100.1	99.8	98.8	101.3	103.7
Sweden	52.6	92.5	100.3	105.7	106.1	100.0	103.6	104.0	100.6	100.1	105.2	112.4	114.6
United Kingdom	71.0	94.7	104.7	103.5	98.2	100.0	100.5	91.7	86.2	86.4	88.9	92.4	95.0
Total hours													
United States	84.4	97.3	103.1	101.2	95.9	100.0	106.5	101.7	101.1	92.9	93.5	99.5	99.3
Canada	82.6	97.7	103.6	105.0	102.0	100.0	106.4	105.7	104.6	95.4	94.6	98.7	100.1
Japan	82.7	107.9	110.7	106.1	100.6	100.0	99.3	101.2	102.0	101.7	104.2	108.5	110.0
Belgium	127.0	130.1	121.8	119.7	104.4	100.0	93.2	89.9	83.3	82.1	78.5	77.5	-
Denmark	132.4	125.1	115.2	113.2	101.4	100.0	99.0	98.1	93.4	94.5	95.7	100.2	103.3
France	97.2	105.3	107.8	107.8	101.2	100.0	96.2	95.2	91.0	85.9	83.0	80.3	77.8
Germany	123.8	121.7	114.4	109.2	101.6	100.0	98.5	98.1	94.6	91.0	87.0	86.2	85.7
Italy	102.3	107.4	99.6	101.0	99.0	100.0	98.2	98.7	94.5	90.4	86.2	83.9	82.9
Netherlands	138.4	131.2	117.6	113.5	103.3	100.0	94.4	93.6	91.2	88.0	83.5	79.5	-
Norway	101.0	106.4	105.1	106.5	101.7	100.0	93.6	92.6	91.3	88.6	82.9	82.8	83.0
Sweden	124.4	114.6	105.7	107.0	104.3	100.0	93.4	92.3	88.9	85.9	83.9	84.8	84.8
United Kingdom	131.9	122.1	112.7	108.7	99.0	100.0	98.3	90.7	79.9	76.7	73.3	73.2	73.3
Compensation per hour													
United States	36.5	57.3	68.8	76.2	92.1	100.0	118.6	132.4	145.2	157.5	163.2	169.1	176.6
Canada	27.1	46.5	59.2	68.5	89.9	100.0	118.3	130.6	151.5	167.1	179.3	182.1	191.4
Japan	8.9	33.9	55.1	72.3	90.7	100.0	113.4	120.7	129.8	136.6	140.7	144.8	148.3
Belgium	13.8	34.9	53.5	65.2	89.5	100.0	117.6	130.4	144.6	152.0	163.7	176.6	-
Denmark	12.6	36.3	56.1	67.9	90.4	100.0	123.1	135.9	149.6	162.9	174.3	183.9	195.5
France	15.1	36.6	52.3	62.0	88.9	100.0	129.3	147.5	170.3	200.8	226.2	246.5	262.7
Germany	18.8	48.0	67.5	76.9	91.3	100.0	116.1	125.6	134.5	141.0	148.4	155.3	164.7
Italy	8.3	26.1	43.7	54.5	84.2	100.0	134.7	160.2	197.1	237.3	276.4	303.0	334.0
Netherlands	12.5	39.0	60.5	71.9	91.9	100.0	117.0	123.6	129.1	137.5	144.7	152.8	-
Norway	15.8	37.9	54.5	63.6	88.8	100.0	116.0	128.0	142.8	156.0	173.5	188.3	205.2
Sweden	14.7	38.5	54.2	63.8	91.5	100.0	120.1	133.6	148.1	158.9	173.3	190.7	205.8
United Kingdom	14.8	30.8	44.8	56.9	88.4	100.0	137.7	165.8	188.9	206.4	222.4	237.2	257.0
Unit labor costs: National currency basis:													
United States	58.7	70.9	73.7	84.1	94.9	100.0	117.0	130.6	140.1	148.7	144.5	142.8	145.0
Canada	53.9	60.6	64.8	73.3	93.5	100.0	113.5	128.1	145.7	165.4	166.7	163.2	166.3
Japan	38.4	52.3	66.4	83.6	96.2	100.0	98.8	98.4	102.0	101.2	98.9	95.1	92.7
Belgium	42.0	58.1	68.0	78.3	93.9	100.0	105.2	109.3	113.6	114.4	116.1	121.4	-
Denmark	33.8	55.4	67.4	79.0	92.1	100.0	115.7	121.0	131.1	142.2	148.6	155.5	165.1
France	41.6	52.6	63.6	72.8	93.6	100.0	117.3	131.7	146.3	162.6	175.0	182.5	187.4
Germany	46.6	67.4	80.3	88.0	94.6	100.0	107.3	115.7	121.2	125.2	124.7	124.6	124.9
Italy	22.8	36.0	48.1	57.2	85.1	100.0	121.9	137.0	162.9	192.4	218.3	224.5	240.1
Netherlands	38.5	60.7	74.3	81.6	96.0	100.0	104.1	108.5	110.4	115.2	114.7	109.7	-
Norway	29.0	46.4	57.6	65.2	89.1	100.0	108.2	117.0	130.2	138.6	145.5	154.0	164.2
Sweden	34.8	47.7	57.2	64.6	90.0	100.0	108.3	118.6	130.9	136.3	138.1	143.8	152.2
United Kingdom	27.6	39.7	48.2	59.7	89.2	100.0	134.7	163.8	175.1	183.1	183.5	187.9	198.1
Unit labor costs: U.S. dollar basis:													
United States	58.7	70.9	73.7	84.1	94.9	100.0	117.0	130.6	140.1	148.7	144.5	142.8	145.0
Canada	59.0	61.7	68.8	79.7	100.7	100.0	103.0	116.4	129.1	142.3	143.7	133.9	129.4
Japan	28.5	39.1	65.6	76.8	86.9	100.0	121.3	116.8	123.8	108.8	111.5	107.2	104.2
Belgium	30.2	42.0	62.8	72.1	87.2	100.0	128.5	134.1	109.9	89.5	81.3	75.3	-
Denmark	29.5	44.4	67.2	77.9	91.5	100.0	132.0	129.0	110.3	102.3	97.5	90.1	93.5
France	41.7	46.8	70.4	74.5	96.3	100.0	135.5	153.4	132.2	121.5	112.9	102.7	102.6
Germany	25.9	42.9	70.4	79.1	87.3	100.0	135.9	147.9	124.9	119.7	113.4	101.6	98.6
Italy	32.5	50.6	73.1	77.6	90.5	100.0	129.5	141.4	126.3	125.4	126.8	112.8	111.1
Netherlands	25.1	41.2	65.6	74.6	89.1	100.0	127.4	134.2	108.9	105.8	98.6	83.9	-
Norway	21.7	34.5	53.4	62.8	86.9	100.0	113.8	126.2	120.6	114.2	106.1	100.4	101.7
Sweden	30.1	41.1	58.7	65.1	92.3	100.0	112.9	125.3	115.4	96.9	80.4	77.7	79.1
United Kingdom	44.4	54.4	67.7	80.1	92.3	100.0	163.9	218.3	203.1	183.5	159.4	143.9	147.3

- Data not available.

48. Occupational injury and illness incidence rates by industry, United States

Industry and type of case ¹	Incidence rates per 100 full-time workers ²								
	1976	1977	1978	1979	1980	1981	1982	1983	1984
PRIVATE SECTOR³									
Total cases	9.2	9.3	9.4	9.5	8.7	8.3	7.7	7.6	8.0
Lost workday cases	3.5	3.8	4.1	4.3	4.0	3.8	3.5	3.4	3.7
Lost workdays	60.5	61.6	63.5	67.7	65.2	61.7	58.7	58.5	63.4
Agriculture, forestry, and fishing³									
Total cases	11.0	11.5	11.6	11.7	11.9	12.3	11.8	11.9	12.0
Lost workday cases	4.7	5.1	5.4	5.7	5.8	5.9	5.9	6.1	6.1
Lost workdays	83.3	81.1	80.7	83.7	82.7	82.8	86.0	90.8	90.7
Mining									
Total cases	11.0	10.9	11.5	11.4	11.2	11.6	10.5	8.4	9.7
Lost workday cases	5.8	6.0	6.4	6.8	6.5	6.2	5.4	4.5	5.3
Lost workdays	114.4	128.8	143.2	150.5	163.6	146.4	137.3	125.1	160.2
Construction									
Total cases	15.3	15.5	16.0	16.2	15.7	15.1	14.6	14.8	15.5
Lost workday cases	5.5	5.9	6.4	6.8	6.5	6.3	6.0	6.3	6.9
Lost workdays	105.0	111.5	109.4	120.4	117.0	113.1	115.7	118.2	128.1
General building contractors:									
Total cases	14.5	15.0	15.9	16.3	15.5	15.1	14.1	14.4	15.4
Lost workday cases	5.2	5.7	6.3	6.8	6.5	6.1	5.9	6.2	6.9
Lost workdays	100.0	100.2	105.3	111.2	113.0	107.1	112.0	113.0	121.3
Heavy construction contractors:									
Total cases	16.3	16.0	16.6	16.6	16.3	14.9	15.1	15.4	14.9
Lost workday cases	5.5	5.7	6.2	6.7	6.3	6.0	5.8	6.2	6.4
Lost workdays	109.2	116.7	110.9	123.1	117.6	106.0	113.1	122.4	131.7
Special trade contractors:									
Total cases	15.3	15.6	15.8	16.0	15.5	15.2	14.7	14.8	15.8
Lost workday cases	5.6	6.1	6.6	6.9	6.7	6.6	6.2	6.4	7.1
Lost workdays	105.8	115.5	111.0	124.3	118.9	119.3	118.6	119.0	130.1
Manufacturing									
Total cases	13.2	13.1	13.2	13.3	12.2	11.5	10.2	10.0	10.6
Lost workday cases	4.8	5.1	5.6	5.9	5.4	5.1	4.4	4.3	4.7
Lost workdays	79.5	82.3	84.9	90.2	86.7	82.0	75.0	73.5	77.9
Durable goods									
Lumber and wood products:									
Total cases	22.1	22.3	22.6	20.7	18.6	17.6	16.9	18.3	19.6
Lost workday cases	9.7	10.4	11.1	10.8	9.5	9.0	8.3	9.2	9.9
Lost workdays	167.3	178.0	178.8	175.9	171.8	158.4	153.3	163.5	172.0
Furniture and fixtures:									
Total cases	16.9	17.2	17.5	17.6	16.0	15.1	13.9	14.1	15.3
Lost workday cases	6.0	6.0	6.9	7.1	6.6	6.2	5.5	5.7	6.4
Lost workdays	94.5	92.0	95.9	99.6	97.6	91.9	85.6	83.0	101.5
Stone, clay, and glass products:									
Total cases	16.1	16.9	16.8	16.8	15.0	14.1	13.0	13.1	13.6
Lost workday cases	6.4	6.9	7.8	8.0	7.1	6.9	6.1	6.0	6.6
Lost workdays	114.1	120.4	126.3	133.7	128.1	122.2	112.2	112.0	120.8
Primary metal industries:									
Total cases	16.6	16.2	17.0	17.3	15.2	14.4	12.4	12.4	13.3
Lost workday cases	6.3	6.8	7.5	8.1	7.1	6.7	5.4	5.4	6.1
Lost workdays	114.8	119.4	123.6	134.7	128.3	121.3	101.6	103.4	115.3
Fabricated metal products:									
Total cases	18.9	19.1	19.3	19.9	18.5	17.5	15.3	15.1	16.1
Lost workday cases	6.8	7.2	8.0	8.7	8.0	7.5	6.4	6.1	6.7
Lost workdays	109.8	109.0	112.4	124.2	118.4	109.9	102.5	96.5	104.9
Machinery, except electrical:									
Total cases	14.2	14.0	14.4	14.7	13.7	12.9	10.7	9.8	10.7
Lost workday cases	4.6	4.7	5.4	5.9	5.5	5.1	4.2	3.6	4.1
Lost workdays	70.6	69.9	75.1	83.6	81.3	74.9	66.0	58.1	65.8
Electric and electronic equipment:									
Total cases	8.5	8.6	8.7	8.6	8.0	7.4	6.5	6.3	6.8
Lost workday cases	2.8	3.0	3.3	3.4	3.3	3.1	2.7	2.6	2.8
Lost workdays	44.9	46.7	50.3	51.9	51.8	48.4	42.2	41.4	45.0
Transportation equipment:									
Total cases	12.4	11.8	11.5	11.6	10.6	9.8	9.2	8.4	9.3
Lost workday cases	4.7	5.0	5.1	5.5	4.9	4.6	4.0	3.6	4.2
Lost workdays	73.8	79.3	78.0	85.9	82.4	78.1	72.2	64.5	68.8
Instruments and related products:									
Total cases	7.2	7.0	6.9	7.2	6.8	6.5	5.6	5.2	5.4
Lost workday cases	2.4	2.4	2.6	2.8	2.7	2.7	2.3	2.1	2.2
Lost workdays	36.7	37.4	37.0	40.0	41.8	39.2	37.0	35.6	37.5
Miscellaneous manufacturing industries:									
Total cases	11.7	11.5	11.8	11.7	10.9	10.7	9.9	9.9	10.5
Lost workday cases	4.0	4.0	4.5	4.7	4.4	4.4	4.1	4.0	4.3
Lost workdays	59.4	58.7	66.4	67.7	67.9	68.3	69.9	66.3	70.2

See footnotes at end of table.

48. Continued— Occupational injury and illness incidence rates by industry, United States

Industry and type of case ¹	Incidence rates per 100 full-time workers ²								
	1976	1977	1978	1979	1980	1981	1982	1983	1984
Nondurable goods									
Food and kindred products:									
Total cases	19.3	19.5	19.4	19.9	18.7	17.8	16.7	16.5	16.7
Lost workday cases	8.0	8.5	8.9	9.5	9.0	8.6	8.0	7.9	8.1
Lost workdays	123.8	130.1	132.2	141.8	136.8	130.7	129.3	131.2	131.6
Tobacco manufacturing:									
Total cases	10.0	9.1	8.7	9.3	8.1	8.2	7.2	6.5	7.7
Lost workday cases	4.1	3.8	4.0	4.2	3.8	3.9	3.2	3.0	3.2
Lost workdays	62.5	66.7	58.6	64.8	45.8	56.8	44.6	42.8	51.7
Textile mill products:									
Total cases	10.5	10.2	10.2	9.7	9.1	8.8	7.6	7.4	8.0
Lost workday cases	2.7	2.9	3.4	3.4	3.3	3.2	2.8	2.8	3.0
Lost workdays	55.5	57.4	61.5	61.3	62.8	59.2	53.8	51.4	54.0
Apparel and other textile products:									
Total cases	6.7	6.7	6.5	6.5	6.4	6.3	6.0	6.4	6.7
Lost workday cases	1.9	2.0	2.2	2.2	2.2	2.2	2.1	2.4	2.5
Lost workdays	31.0	31.7	32.4	34.1	34.9	35.0	36.4	40.6	40.9
Paper and allied products:									
Total cases	13.7	13.6	13.5	13.5	12.7	11.6	10.6	10.0	10.4
Lost workday cases	4.7	5.0	5.7	6.0	5.8	5.4	4.9	4.5	4.7
Lost workdays	94.8	101.6	103.3	108.4	112.3	103.6	99.1	90.3	93.8
Printing and publishing:									
Total cases	6.8	6.8	7.0	7.1	6.9	6.7	6.6	6.6	6.5
Lost workday cases	2.6	2.7	2.9	3.1	3.1	3.0	2.8	2.9	2.9
Lost workdays	40.3	41.7	43.8	45.1	46.5	47.4	45.7	44.6	46.0
Chemicals and allied products:									
Total cases	8.2	8.0	7.8	7.7	6.8	6.6	5.7	5.5	5.3
Lost workday cases	3.1	3.1	3.3	3.5	3.1	3.0	2.5	2.5	2.4
Lost workdays	50.6	51.4	50.9	54.9	50.3	48.1	39.4	42.3	40.8
Petroleum and coal products:									
Total cases	7.9	8.1	7.9	7.7	7.2	6.7	5.3	5.5	5.1
Lost workday cases	3.2	3.3	3.4	3.6	3.5	2.9	2.5	2.4	2.4
Lost workdays	62.5	59.2	58.3	62.0	59.1	51.2	46.4	46.8	53.5
Rubber and miscellaneous plastics products:									
Total cases	16.8	16.8	17.1	17.1	15.5	14.6	12.7	13.0	13.6
Lost workday cases	7.1	7.6	8.1	8.2	7.4	7.2	6.0	6.2	6.4
Lost workdays	113.3	118.1	125.5	127.1	118.6	117.4	100.9	101.4	104.3
Leather and leather products:									
Total cases	11.6	11.5	11.7	11.5	11.7	11.5	9.9	10.0	10.5
Lost workday cases	4.1	4.4	4.7	4.9	5.0	5.1	4.5	4.4	4.7
Lost workdays	69.0	68.9	72.5	76.2	82.7	82.6	86.5	87.3	94.4
Transportation and public utilities									
Total cases	9.8	9.7	10.1	10.0	9.4	9.0	8.5	8.2	8.8
Lost workday cases	5.0	5.3	5.7	5.9	5.5	5.3	4.9	4.7	5.2
Lost workdays	94.0	95.9	102.3	107.0	104.5	100.6	96.7	94.9	105.1
Wholesale and retail trade									
Total cases	7.5	7.7	7.9	8.0	7.4	7.3	7.2	7.2	7.4
Lost workday cases	2.8	2.9	3.2	3.4	3.2	3.1	3.1	3.1	3.3
Lost workdays	43.2	44.0	44.9	49.0	48.7	45.3	45.5	47.8	50.5
Wholesale trade:									
Total cases	8.1	8.5	8.9	8.8	8.2	7.7	7.1	7.0	7.2
Lost workday cases	3.3	3.6	3.9	4.1	3.9	3.6	3.4	3.2	3.5
Lost workdays	51.8	52.5	57.5	59.1	58.2	54.7	52.1	50.6	55.5
Retail trade:									
Total cases	7.2	7.4	7.5	7.7	7.1	7.1	7.2	7.3	7.5
Lost workday cases	2.6	2.7	2.8	3.1	2.9	2.9	2.9	3.0	3.2
Lost workdays	39.7	40.5	39.7	44.7	44.5	41.1	42.6	46.7	48.4
Finance, insurance, and real estate									
Total cases	2.0	2.0	2.1	2.1	2.0	1.9	2.0	2.0	1.9
Lost workday cases .....	.7	.8	.8	.9	.8	.8	.9	.9	.9
Lost workdays	11.6	10.4	12.5	13.3	12.2	11.6	13.2	12.8	13.6
Services									
Total cases	5.3	5.5	5.5	5.5	5.2	5.0	4.9	5.1	5.2
Lost workday cases	2.0	2.2	2.4	2.5	2.3	2.3	2.3	2.4	2.5
Lost workdays	38.4	35.4	36.2	38.1	35.8	35.9	35.8	37.0	41.1

¹ Total cases include fatalities.

² The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where:

N = number of injuries and illnesses or lost workdays.

EH = total hours worked by all employees during calendar year.
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year.)

³ Excludes farms with fewer than 11 employees since 1976.

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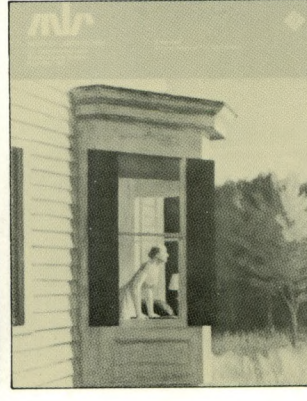
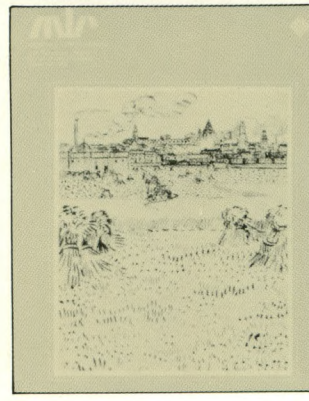
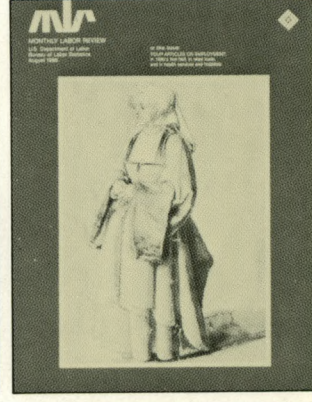
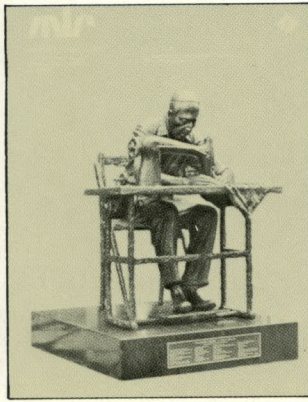
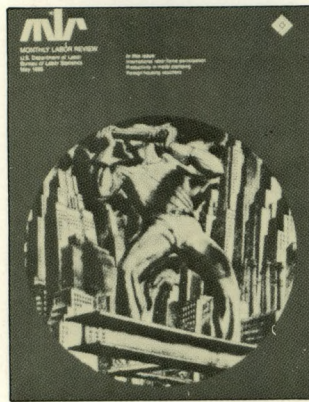
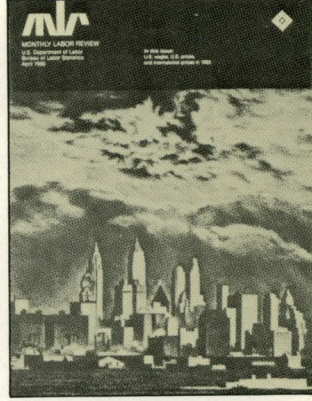
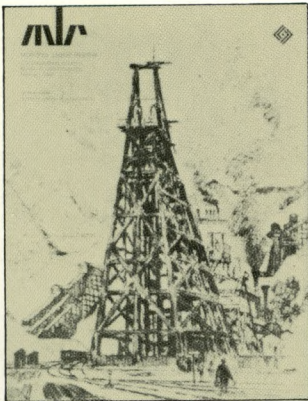
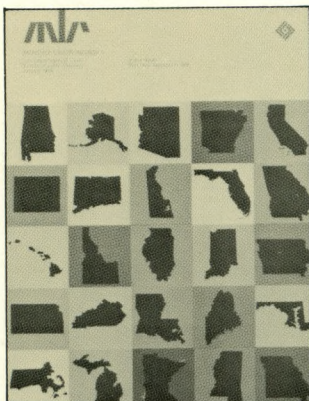


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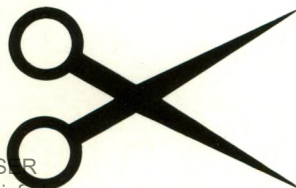
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