



MONTHLY LABOR REVIEW

U.S. Department of Labor
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February 1980

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Industrial relations in 1979
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DEPOSITORY





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Ray Marshall, Secretary

BUREAU OF LABOR STATISTICS
Janet L. Norwood, *Commissioner*

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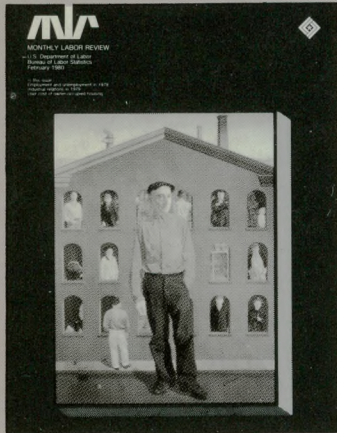
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Center panel of the polyptych
Tribute to the American Working People (1951)
by Honore Sharrer
courtesy Sara Roby Foundation Collection.
The polyptych is included in the "Working American" Exhibition, a part of the Bread and Roses Project of District 1199, National Union of Hospital and Health Care Employees (AFL-CIO). The Exhibition, supported by grants from the National Endowment for the Humanities, The New York State Council on the Arts, and The New York Council for the Humanities, opened in Detroit, Mich. in January 1980, and is scheduled to open in Rochester, N.Y. in March, Washington, D.C. in April, Chicago, Ill. in May, Birmingham, Ala. in July, Trenton, N.J. in September, and Lexington, Mass. in November.

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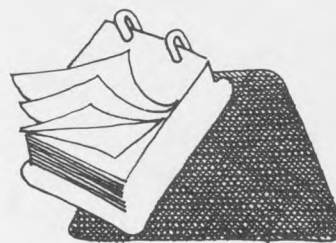
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Labor Month In Review



CPI CONTROVERSY. A frequent criticism of the Consumer Price Index is that the CPI overstates the cost of living because the index is based on a fixed market basket and therefore does not reflect continuing changes consumers make in their buying habits. Commissioner of Labor Statistics Janet L. Norwood addressed that and other issues at a Jan. 21 meeting of the National Association of Government Labor Officials, in Washington, D.C. Excerpts:

The market basket. The CPI is based on a fixed market basket. That is, the weights for the mix of goods and services purchased during the base period are held constant from year to year until a major revision occurs. We keep the market basket constant deliberately because we want to keep fixed the living standard represented by that market basket. Our purpose, to the extent possible, is to isolate price changes from other changes which may occur in living standards.

BLS economists, of course, know that consumers shift their purchases in response to changes in relative prices. What we do not know, however, is whether such changes in consumption patterns result in a living standard that is higher or lower than that in the base period. If the market basket were changed whenever prices change—without knowing whether the consumer is equally satisfied with the shift—we would not know whether a change in the index was caused by a change in prices or by a change in the market basket. Because a market

basket change could amount to a change in living standards, those whose income payments are adjusted by the CPI would not be assured that their living standards would remain at the same level. The purpose of such CPI cost-of-living adjustment (indexation) has traditionally been to permit people to purchase in today's prices the bundle of goods and services they purchased in the base period, thereby leaving them at least as well off as they were then.

The following example will illustrate my point. If, in adjusting to higher prices, a family decides to forgo its weekly restaurant dinner, the family is both changing its market basket and lowering its satisfaction or standard of living. If the objective of indexation is to ensure purchasing power necessary to preserve living standards, a measure used to index income should not reflect this kind of a market basket change.

Special purpose indexes. Users of the CPI should be aware of the many subindexes which are produced as a part of the CPI system. These are published prominently in the monthly CPI news release, are used for analytical and other purposes, and, in some cases, are used for indexation. Among these subindexes, for example, is an index for "All Items minus mortgage interest costs" and another for "All Items less energy."

BLS also can produce other indexes if they are required. Special indexes may be needed when government pursues social goals

which—at least in the short run—may raise prices. Should it be considered socially desirable to reduce energy consumption by raising gasoline prices, consumers would pay more for gasoline and the index measuring the rate of inflation would and should go up. It might be useful to policymakers, in such a case, to create a special index which could exclude such increases or which could treat other policy-directed price changes, such as changes in interest rates, in a special way. Some also have suggested the desirability of a special index—for use in pension escalation—that would represent the expenditure experience of persons receiving retirement benefits.

The BLS is a service agency. Given the resources and time necessary, the Bureau can produce special consumer price indexes for particular needs. We should not, however, permit these other needs to weaken the ability of the present CPI to fulfill the objective for which it was intended.

Homeownership. Commissioner Norwood also introduced five alternative—and experimental—ways of measuring the CPI's most controversial component, the cost of homeownership. She announced that BLS will publish these measures monthly, but will make no change in the official index at this time. (An article about measuring costs of owner-occupied housing appears on pages 31-35 of this issue.) The full text of Commissioner Norwood's discussion of the CPI is available from the Bureau of Labor Statistics, Washington, D.C. 20212. □

Employment and unemployment during 1979: an analysis

Labor force and employment growth slowed from the rapid pace of the previous 3 years; the unemployment rate showed virtually no movement

CAROL BOYD LEON AND PHILIP L. RONES

The Nation's employment situation in 1979 was highlighted by a slowdown in the rate of job growth. Employment and labor force growth, while still fairly strong at about 2 million each, was considerably slower than during the previous 3 years. The unemployment rate, which ended the year at 5.9 percent, remained in the range of 5.8–5.9 percent for 5 consecutive quarters.¹

Adult women,² who had made up about half of the total employment increase between 1976 and 1978, accounted for about two-thirds of the gain in 1979. Adult men made up the remainder of the over-the-year job growth, as teenagers experienced a slight decline.

Most of the major population groups experienced little change in their rate of joblessness. Adult men posted a 0.2-percentage point rise in their unemployment rate, while the rates for adult women and teenagers showed little change. Movements in several series which are influenced by the business cycle suggested a weakening in some sectors of the job market. For instance, the unemployment rate advanced about a point in the manufacturing industries, and employment in this sector was only slightly above its year-earlier level. In addition, the number of unemployed persons on layoff and the number of persons working part time for economic reasons each increased by about a quarter of a million.

Nonfarm payroll employment—as measured by the survey of business establishments—increased by 2.4 million in 1979.³ While manufacturing employment showed virtually no over-the-year increase, employment growth was strong in construction and mining as well as in several of the service-producing divisions. The service-producing sector accounted for three-quarters of the overall employment gains.

Slower employment growth

Employment growth slowed considerably in 1979, after 3 consecutive years of rapid advances. Civilian employment in late 1979 totaled 97.7 million, 2.0 million higher than a year earlier. (See table 1.) In contrast, employment had grown by 3.3 million in 1978. The employment level in 1979 exhibited disparate movements throughout the year: relatively strong advances were registered in both the first and third quarters, but growth was slower in the fourth quarter and the number of jobholders held about steady in the second quarter.

Although employment growth among adult women was 75 percent of the previous year's increase, the proportion of the total employment gain attributable to women was even higher than it had been during the previous year. The increase in jobholding among women—1.4 million in 1979—accounted for most of the over-the-year growth in employment. This growth occurred without any lessening of unemployment because

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Table 1. Employment and unemployment highlights, fourth quarter 1977 through fourth quarter 1979, seasonally adjusted

Selected categories	1977	1978				1979			
	IV	I	II	III	IV	I	II	III	IV
Total employment (in millions)	92.1	93.0	94.1	94.7	95.7	96.4	96.5	97.2	97.7
Adult men	50.4	50.7	51.1	51.3	51.7	52.1	52.1	52.4	52.4
Adult women	33.8	34.5	35.0	35.4	35.9	36.2	36.4	37.0	37.3
Teenagers	7.8	7.8	8.0	8.1	8.1	8.1	8.0	7.9	8.0
Total unemployment (in millions)	6.5	6.2	6.0	6.0	5.9	5.9	5.9	6.0	6.1
Adult men	2.5	2.4	2.2	2.2	2.1	2.2	2.2	2.3	2.3
Adult women	2.4	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2
Teenagers	1.5	1.6	1.5	1.6	1.6	1.5	1.5	1.5	1.5
Unemployment rates:									
All workers	6.6	6.2	6.0	6.0	5.8	5.8	5.8	5.8	5.9
Adult men	4.7	4.5	4.2	4.1	4.0	4.0	4.0	4.2	4.2
Adult women	6.7	6.0	6.1	6.1	5.7	5.7	5.7	5.6	5.7
Teenagers	16.5	16.9	16.0	16.2	16.2	15.9	16.1	16.2	16.1
White	5.7	5.4	5.2	5.2	5.0	5.0	5.0	5.1	5.1
Black and other	13.2	12.4	12.0	11.8	11.5	11.4	11.5	10.9	11.2
Black only	14.1	13.1	12.8	12.4	12.2	12.3	12.4	12.0	12.0
Married men, spouse present	3.3	3.0	2.8	2.7	2.5	2.6	2.6	2.9	2.9
Married women, spouse present	6.2	5.5	5.5	5.6	5.4	5.3	5.2	5.0	5.0
Women who head families	8.9	8.2	9.3	8.6	7.7	8.2	8.6	7.9	8.4
Full-time workers	6.1	5.8	5.5	5.5	5.2	5.2	5.2	5.3	5.4
Part-time workers	9.2	9.0	9.1	8.9	9.0	9.0	8.9	8.5	8.5
Median duration of unemployment (weeks)	6.9	6.4	5.9	5.9	5.6	5.8	5.5	5.6	5.4
Nonfarm payroll employment (in millions) ¹	83.9	84.8	86.3	86.9	87.8	88.7	89.4	89.8	90.2
Goods-producing industries	24.7	24.9	25.6	25.7	26.1	26.5	26.6	26.6	26.6
Service-producing industries	59.2	59.9	60.7	61.1	61.7	62.2	62.7	63.1	63.6
Average workweek ¹ (in hours):									
Total private nonfarm	36.0	35.7	35.9	35.8	35.8	35.8	35.5	35.6	35.7
Manufacturing	40.5	40.0	40.5	40.5	40.6	40.6	39.8	40.2	40.2
Manufacturing overtime	3.5	3.6	3.6	3.5	3.7	3.7	3.2	3.2	3.2

¹ Data for the fourth quarter are preliminary.

NOTE: Comparisons of 1978 household survey data with earlier data are affected by the introduction of an expansion in the sample and revisions in the estimation procedure which raised total employment by roughly a quarter of a million. Unemployment was essentially unchanged.

the female labor force expanded considerably. The number of employed adult men rose by about 700,000, about half the group's increase in the prior year.

In contrast to the preceding year, teenagers did not share in the 1979 employment growth. After an advance of 200,000 in 1978, teenage jobholding was about unchanged in 1979, in part, because the teenage population started to drop off as the "baby boom" generation was moving out of the teen years. Also, there was a slight drop in the labor force participation rate of teenagers which may have contributed to their lack of employment growth.

Employment-population ratios, which measure the proportion of a population group that is employed, help to delineate trends among various demographic categories. While the employment-population ratio increased slightly for all workers during 1979, the ratio for women rose while that for men declined. (See table 2.) Mod-

est declines occurred among all major age categories of men, except those 25 to 34 years, whose ratio was unchanged. Generally, the employment increases among men were too small to keep pace with population growth. The largest decline took place among men 55 and over. While most age groups of women posted increases in employment-population ratios, women age 20 to 24 years experienced a decline. (The ratio for these women advanced substantially in 1978 and earlier years.) But the growth among women age 25 and over continued to be rather strong, especially among those age 35 to 44, whose ratio advanced by nearly 3 points to about 63 percent. These women have the highest female employment-population ratio.

Industry developments. Nonfarm payroll employment rose by 2.4 million over the year to 90.2 million. The payroll employment level increased in each quarter, but the increases in the early quarters were larger than those later in the year.

Over the year, each nonfarm industry division showed some job growth. More than three-fourths of the growth took place in the service-producing sector. About half of that increase was in the services division, which absorbed 1 of 3 additional jobs, followed by the wholesale and retail trade divisions, with 1 of 5. In terms of relative growth, services again was on top, followed by finance, insurance, and real estate; transportation and public utilities; and wholesale trade. The other service-producing divisions—retail trade and government—grew at a slower pace than the overall economy.

Within the goods-producing sector, the number of payroll jobs in manufacturing changed little. It should be noted that manufacturing was the first industry division to experience employment losses during the 1974–75 recession, followed by construction. However, in 1979, construction and mining showed the greatest relative growth of all nonfarm divisions.

Within manufacturing, the durable goods industries—which had posted strong job growth in the prior

Table 2. Employment-population ratios for selected age groups, by sex, 1975–79

Categories	Annual averages					Seasonally adjusted quarterly averages				
	1975	1976	1977	1978	1979	1978				
						IV	I	II	III	IV
Total, 16 years and over	55.3	56.1	57.1	58.6	59.3	59.0	59.3	59.1	59.3	59.3
Men, 16 years and over	69.7	70.1	70.9	71.9	72.1	72.1	72.4	72.1	72.0	71.8
16 to 19 years	45.2	46.0	48.5	50.5	50.2	50.5	50.7	50.3	49.9	50.1
20 to 24 years	66.5	69.1	70.7	72.4	73.4	73.2	73.8	73.7	73.3	73.0
25 to 54 years	86.8	87.4	88.0	88.9	89.1	89.0	89.3	89.1	89.2	88.9
55 years and over	47.2	45.8	45.6	46.3	45.4	45.9	46.0	45.3	45.4	44.9
Women, 16 years and over	42.0	43.2	44.4	46.3	47.5	47.0	47.2	47.1	47.6	47.8
16 to 19 years	39.4	40.5	41.9	44.6	45.4	45.6	46.2	45.1	44.7	45.7
20 to 24 years	55.7	56.9	58.7	61.0	62.1	62.0	62.4	62.0	62.1	61.8
25 to 54 years	50.8	52.8	54.6	57.2	58.9	58.1	58.2	58.4	59.5	59.7
55 years and over	21.9	21.9	21.9	22.3	22.5	22.3	22.5	22.4	22.4	22.5

3 years—showed only small advances, as the employment level grew rapidly in the first quarter, held steady during the middle quarters, and ended the year under moderate contraction. Substantial over-the-year gains did take place in a few of the durables industries, but an overall weakness was evidenced by the lack of growth in consumption levels for durables and an actual drop in constant dollars.⁴ A noteworthy development during 1979 occurred in the transportation equipment industry: despite the loss of more than 100,000 jobs in the motor vehicles and equipment and travel trailers and campers industries, there was a smaller overall employment drop as that decline was partially offset by significant gains in other transportation equipment industries—especially aircraft and parts.

Also within the manufacturing division, nondurables experienced a year of no job growth. Despite an extremely large increase in consumer outlays on gasoline and oil (in current dollars), there was little reflection of this in refining and processing employment. Only printing and publishing exhibited fairly strong growth, continuing its postrecession upward trend.

Occupational changes. Employment increased in all major white-collar occupations during 1979, but declined in most other occupations. (See table 3.) The fastest-growing occupations were salesworkers, managers and administrators and professionals. The rate of growth among clerical workers was somewhat slower, but because of their numbers, that group accounted for one-fourth of the overall employment increase; managerial and professional workers together contributed one-half of the total advance. The remaining 25 percent of total employment growth was accounted for by craft workers and salesworkers. Employment was unchanged for operatives and service workers, dropped modestly for farm workers, and dropped substantially for nonfarm laborers.

The occupational employment changes in 1979 contrasted markedly with those of the previous several years, when blue-collar jobs generally grew faster than white-collar positions. Managerial jobs had grown less than any occupation, except farmworkers. Blue-collar employment generally is more sensitive to economic cycles; it declined substantially during the 1975 recession and posted strong increases during the recovery years of 1976–78. The lessening of economic growth in 1979 resulted in the smaller total employment increase being concentrated among white-collar occupations, which had remained fairly stable during the recession and had grown steadily, but less spectacularly than blue-collar jobs, during the recovery years.

Full- and part-time workers. As occurred in 1978, virtually all of the increase in employment in 1979 took

place among full-time workers.⁵ Persons employed full time posted a gain of 1.5 million, of which 1.1 million were adult women; the remainder were adult men, as teenagers registered almost no change in full-time employment. The demographic pattern was similar among voluntary part-time workers, except that teenage employment dropped substantially.⁶

Although most women work full time, more than half of all persons working part time by choice were women. There also were substantial proportions of men and teenagers among the part-timers, as shown in the following percentage distribution of 1979 annual employment averages:

	Full time	Voluntary part time	Part time for economic reasons
Total employed (percent)	100	100	100
Adult men	60	18	36
Adult women	35	55	45
Teenagers	5	27	19

As the tabulation shows, there is a third group of workers—persons employed part time for economic reasons. These are persons who want full-time jobs but are working part time because of slack work, inability to find full-time work or other economic reasons. In late 1979, there were 3.4 million such persons in nonfarm industries. In other words, about 1 of 5 persons working part time was doing so for economic reasons. After declining by 100,000 in 1978, the number of persons at work part time for economic reasons increased by more than 200,000 in 1979, and much of the advance occurred in the fourth quarter.⁷ Generally, persons working part time for economic reasons do so because they are unable to find a full-time job, but in 1979, most of the increase was among persons who usually work full time, but whose hours had been curtailed. This was the first time since the 1974–75 recession that the number of persons employed part time for economic reasons failed to decline. While the number of persons on full-time schedules or voluntarily employed part time each increased by about 2 percent, the level of total part-time employment for economic reasons advanced by 8 percent. Growth in voluntary part-time employment generally is interpreted as a favorable development, but this is not true of those employed part time for economic reasons.

Hours and earnings

Average weekly hours of production or nonsupervisory workers on private nonfarm payrolls were 35.7 in late 1979, down from 35.8 a year earlier. (See table 1.) The manufacturing workweek was shortened by about one-half hour during 1979, with an even larger reduction occurring in the second quarter and only partial recov-

Table 3. Employment in major occupations and industries, fourth quarter 1979, seasonally adjusted, and over-the-year employment changes, 1977-79

[Numbers in thousands]

Occupation or industry	Employment IV 1979	Over-the-year employment change ¹					
		1977		1978		1979	
		Number	Per cent	Number	Per cent	Number	Per cent
Occupation²							
Total, all occupations	97,665	3,864	4.4	3,320	3.6	2,039	2.1
White-collar workers	49,854	1,888	4.2	1,704	3.6	1,927	4.0
Professional and technical	15,153	479	3.5	457	3.2	643	4.4
Managers and administrators, except farm	10,597	449	4.7	112	1.1	477	4.7
Sales workers	6,323	135	2.4	366	6.3	277	4.5
Clerical workers	17,780	825	5.2	767	4.6	530	3.0
Blue-collar workers	32,206	1,408	4.8	1,420	4.6	182	.6
Craft and kindred workers	12,989	696	6.1	527	4.4	353	2.8
Operatives, except transport	10,991	302	3.0	639	6.1	-47	-4
Transport equipment operatives	3,619	202	6.1	140	4.0	6	.2
Nonfarm laborers	4,607	208	4.9	115	2.6	-131	-2.8
Service workers	12,935	564	4.7	318	2.5	-5	(³)
Farmworkers	2,702	3	.1	-121	-4.6	-64	-2.4
Industry⁴							
Total nonagricultural wage and salary	90,172	3,797	4.7	3,963	4.7	2,384	2.7
Goods-producing	26,609	1,209	5.1	1,413	5.7	504	1.9
Mining ⁵	987	1	.1	122	15.4	70	7.6
Construction	4,722	388	10.5	478	11.7	298	6.6
Manufacturing	20,900	820	4.3	813	4.1	135	.6
Durable goods	12,636	622	5.5	690	5.8	131	1.0
Nondurable goods	8,264	198	2.5	123	1.5	4	(³)
Service-producing	63,564	2,588	4.5	2,550	4.3	1,880	3.0
Transportation and public utilities	5,223	157	3.4	267	5.6	189	3.7
Wholesale and retail trade	20,282	959	5.3	934	4.9	478	2.4
Wholesale trade	5,229	208	4.5	261	5.4	179	3.5
Retail trade	15,053	751	5.5	672	4.7	301	2.0
Finance, insurance, and real estate	5,043	229	5.3	262	5.8	221	4.6
Services	17,319	908	6.2	872	5.6	769	4.7
Government	15,697	335	2.2	215	1.4	223	1.4
Federal	2,776	-1	(³)	24	.9	20	.7
State and local	12,921	336	2.7	191	1.5	203	1.6

¹ Over-the-year employment changes represent a comparison between the fourth quarter of the previous year and the fourth quarter of the year shown, using not seasonally adjusted data. The 1978 change allows for the changes in the CPS introduced in January 1978.

² Occupational employment estimates are derived from the CPS.

³ Less than 0.05 percent.

⁴ Industry estimates are from the BLS survey of establishments. Data for 1979 are preliminary.

⁵ The uneven growth pattern in mining primarily results from a major strike affecting the employment level in the fourth quarter of 1977.

ery in the following quarter. Most of the decline was in the more cyclically-sensitive durable goods manufacturing. Other industry divisions also recorded over-the-year declines, and only mining showed a modest advance.

The aggregate hours index—a comprehensive measure which takes into account both the number of production or nonsupervisory employees on nonfarm payrolls and their weekly hours—rose 2.2 percentage points to 126.3 (1967=100). This gain was entirely due to the over-the-year rise in employment. Manufacturing was the only industry division to experience a drop in aggregate hours index in 1979.

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls were

\$6.33 in the last quarter of 1979, compared with \$5.88 a year earlier—a rise of about 8 percent. Gross average weekly earnings posted a similar percentage increase, advancing by \$16 over the year to \$226. In constant dollars (1967=100), weekly earnings decreased by about 5 percent in 1979.

Unemployment stable

The Nation's unemployment rate remained at about the late-1978 level throughout 1979, as quarterly rates were 5.8 percent, except for the fourth quarter, which was 5.9 percent. The rates for adult women (5.7 percent in the fourth quarter of 1979), and teenagers (16.1 percent) each were about unchanged between late 1978 and 1979, while the rate for adult men (4.2 percent) rose several tenths of a point. The number of unemployed persons, 6.1 million, was up by about 200,000, with adult men and women each representing about 2.3 and 2.2 million of the unemployed. Table 1 shows recent trends in unemployment for major labor force groups.

The slight increase in joblessness over the year appeared to be affecting many families which were already experiencing some unemployment. The number of families with both spouses unemployed was relatively small—about 100,000 in the fourth quarter of 1979—but was about 25 percent above its year-earlier figure. An indication that unemployment often runs in families was that about 1 of 10 jobless husbands had a wife who also was unemployed, while only about 1 of 40 wives in the population was unemployed.

Reasons for unemployment. The reasons cited by unemployed persons for their joblessness often serve as an indicator of cyclical activity. An increase in unemployment caused by unusually rapid labor force growth, for instance, would be less a sign of economic weakness than an increase of the same magnitude resulting from employee layoffs. The proportion of persons who cited a job loss as their reason for unemployment increased over the year, from 41 to 45 percent; during the 1974-75 recession, that proportion rose to as high as 57 percent. (See table 4.)

The rate of unemployment due to job loss is about the same for men and women. However, proportionally fewer unemployed women than men give this as their reason for unemployment. The difference is a result of the overall higher unemployment rate of women, which reflects their greater likelihood of experiencing unemployment due to labor force reentry. Most of the recent expansion in the number and proportion of unemployed who had lost their last job could be attributed to persons who had been laid off, even though that group makes up only about a third of all job losers. (Most job losers are those whose jobs have been terminated and who do not expect to be recalled.)

Table 4. Unemployment by reasons and duration, selected quarters, seasonally adjusted

[Percent distribution]

Reasons and duration	1973	1975	1978	1979			
	I	II	IV	I	II	III	IV
Total unemployed (in thousands) . . .	4,335	8,214	5,885	5,890	5,890	6,008	6,084
Reasons							
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	39.2	57.3	40.9	41.6	41.4	43.6	44.8
On layoff	11.0	24.0	12.0	13.1	13.5	14.3	15.6
Other job losers	28.2	33.3	28.9	28.5	28.0	29.3	29.1
Job leavers	14.7	10.0	14.4	14.6	15.0	14.2	13.6
Reentrants	31.2	23.4	30.4	29.7	30.0	29.6	28.6
New entrants	15.0	9.4	14.3	14.1	13.6	12.6	13.1
Duration							
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	49.0	35.7	47.4	47.0	48.3	49.0	48.3
5 to 14 weeks	30.1	32.1	31.5	31.8	31.6	31.9	31.9
15 weeks and over	20.9	32.2	21.1	21.3	20.2	19.0	19.9
15 to 26 weeks	12.0	18.6	12.1	12.1	11.5	10.7	11.3
27 weeks and over	8.9	13.6	9.0	9.2	8.7	8.3	8.6
Median duration, in weeks	5.5	8.9	5.6	5.8	5.5	5.6	5.4

There was also a slight decline (both absolute and relative) among unemployed persons who left their last job and those who reentered the labor force and an even larger drop among the unemployed who were looking for their first job. The latter two categories reflect both the smaller population of teenagers (who make up most of the new entrant group) and their labor force declines, as well as the overall slowing of labor force growth during 1979.

Data on labor turnover rates in manufacturing generally support the trends cited above. Layoffs, for instance, occurred at a rate about 50 percent higher during the second half of 1979 than a year earlier. Concurrently, the rate of new hires declined slightly.

Duration. The duration of unemployment also can be a cyclical indicator; historically, movements in the median duration of unemployment have closely paralleled the overall unemployment rate. However, changes in the components of duration—that is, in the levels of short- and long-term unemployment—may be subject to different interpretations, depending on movements of other job market indicators.

The median duration of unemployment was 5.4 weeks in the fourth quarter of 1979, a small drop from 1978. A slightly larger proportion of the total unemployed were short-term unemployed (less than 15 weeks) than a year earlier. Often, this trend reflects improvements in the job market; however, early in an economic downturn, it may reflect an increase in recent layoffs and, thus, might precede a period of increasing duration. As noted earlier, data on reasons for unemployment lend support to this interpretation.

Men tend to experience a longer period of job search than do either women or teenagers. In the fourth quarter, the median duration for these three groups was 6.5, 5.5, and 4.4 weeks. One explanation for the relatively short spells of unemployment for women and teenagers is that these groups are more likely to terminate a period of joblessness by withdrawing from the labor force, at least temporarily, to devote more time to school or family responsibilities.

Jobseekers. About 8 of 10 unemployed persons were looking for full-time work in late 1979, an increase of several percentage points from a year earlier. About 9 of 10 jobless men, 8 of 10 jobless women, and 6 of 10 teenagers cited a preference for full-time work. Unemployment rates have always been lower among those seeking full-time work than among those seeking part-time jobs. In late 1979, the rates were 5.4 and 8.5 percent. Those looking for part-time work tend to be disproportionately young people and women; with greater propensity for frequent movements into and out of the labor force, these groups tend to have higher rates of unemployment than do adult men. Interestingly, the unemployment rate for adult men looking for part-time work is slightly higher than that for women. This can be explained by the predominance of younger persons among male part-time jobseekers, as the vast majority of prime working-age unemployed men seek full-time jobs. Unemployment rates for full-time workers tend to rise faster during a downturn than do those for part-time workers, since the most cyclically sensitive industries, such as manufacturing and construction, provide primarily full-time jobs.

Insured unemployed. Initial unemployment compensation claims during the last quarter of 1979 were about 400,000 per week (seasonally adjusted), 60,000 higher than during the same period of 1978. About 2.6 million persons claimed benefits, 300,000 more than in 1978. The number of unemployment compensation recipients as a percent of covered employment stayed at about 3 percent throughout 1979. During the 1974–75 recession, weekly initial claims rose as high as 570,000 a week, and claimants reached a peak of 4.7 million persons.

Status of blacks and Hispanics

Black employment growth slows. Employment among blacks⁸ grew more slowly in 1979 than during each of the previous 2 years. Their over-the-year increase in employment was about 200,000, or 2.2 percent, compared with approximately 4.5 and 6.0 percent in 1977 and 1978. Employment among whites had been growing less rapidly than employment among blacks since the 1974–75 recession and continued this pattern in 1979, increas-

Table 5. Employment levels and unemployment rates by race, sex, and age, fourth quarter, 1978 and 1979, seasonally adjusted

[Numbers in thousands]

Selected groups	Employed		Unemployment rate	
	1978	1979	1978	1979
	IV	IV	IV	IV
White, total	84,930	86,640	5.0	5.1
Men, 20 years and over	46,383	46,971	3.5	3.7
Women, 20 years and over	31,179	32,350	5.0	5.0
Men, 16 to 19 years	3,918	3,879	14.0	13.9
Women, 16 to 19 years	3,451	3,439	13.8	14.1
Black, ¹ total	9,074	9,266	12.2	12.0
Men, 20 years and over	4,477	4,563	8.8	9.0
Women, 20 years and over	4,017	4,158	10.8	10.4
Men, 16 to 19 years	309	281	35.0	35.5
Women, 16 to 19 years	270	263	38.6	39.1

¹ These data refer only to blacks. According to the 1970 Decennial Census, they account for about 89 percent of the "black and other" population group.

ing by only 2.0 percent. The ratio of employment to population edged up slightly only for whites. As shown in the following tabulation, the ratio for blacks had not regained its prerecession level by the end of 1979 (seasonally adjusted data for fourth quarter):

	White	Black
1973	58.6	55.0
1974	57.9	52.2
1975	56.7	49.9
1976	57.7	50.8
1977	59.3	51.9
1978	60.5	54.0
1979	60.8	53.9

Black adults experienced modest employment advances over the year, while the employment of black teenagers edged down. (See table 5.) Part of the teenage reduction can be traced to a slight decline in population, but a more important factor was a drop in their labor force participation. The number of unemployed black teens was about unchanged in 1979, so that similar reductions occurred in their labor force and employment level.

Overall, the level of unemployment among blacks changed little in 1979. Similarly, their jobless rate was fairly stable, remaining in the range of 12.0–12.4 percent for each quarter. The rate for black teenagers was unchanged; the rates for black women and men also showed almost no change. The jobless rates for whites followed a similar pattern of very small movements. Blacks experienced somewhat longer periods of joblessness than did whites; the median duration of unemployment at yearend for nonwhites was 7.1 weeks, compared with 5.0 weeks for whites.⁹

The ratio of black-to-white unemployment rates remained at about 2.4-to-1 in 1979. An even larger differential existed between the rates for black teenagers and white teenagers. The unemployment rates for both

groups of teenagers rose during the last recession, but only the rate for whites declined perceptibly during the recovery period. Although blacks appeared to be starting to benefit from an improving job market in 1978, the relatively stagnant labor market situation throughout the economy in 1979 resulted in no further gains.

Job gains for Hispanics. The job situation for persons of Hispanic origin improved slightly in 1979. The annual average labor force participation rate in 1979 was 63.5 percent, compared with 62.8 percent in the previous year. Additionally, the unemployment rate moved from 9.1 to 8.3 percent on an annual basis, while employment advanced by 240,000 to 4.6 million. (Persons of Hispanic origin represent about 1 in 20 workers, nationwide.)

Unemployment rates for adult Hispanic men (5.7 percent), women (8.9 percent), and teens (19.1 percent) fell between the corresponding rates for whites and blacks. Among Hispanics, persons of Puerto Rican origin experienced the highest rate of joblessness, 13.2 percent; persons of Mexican and Cuban origin had unemployment rates of about 8 percent. About two-thirds of the working-age persons of Mexican and Cuban origin were in the labor force in 1979, while only slightly more than one-half of all persons of Puerto Rican origin participated in the labor force.

The occupational distribution of Hispanics was similar to that for blacks in that both groups were underrepresented in the higher skilled, particularly white-collar, occupations. A smaller proportion of Hispanics than black workers were employed in blue-collar occupations. (See table 6.)

Table 6. Employment of whites, blacks, and persons of Hispanic origin, by occupational group, 1979 annual averages

[Numbers in thousands]

Occupation	Total ¹	White	Black ¹	Hispanic origin
Employed	96,945	86,025	9,160	4,604
Percent distribution:	100.0	100.0	100.0	100.0
White-collar workers	50.9	52.5	35.2	32.6
Professional and technical	15.5	15.9	10.5	7.6
Managers and administrators, except farm	10.8	11.6	4.6	6.0
Sales workers	6.4	6.8	2.4	3.9
Clerical workers	18.2	18.2	17.6	15.1
Blue-collar workers	33.1	32.6	38.4	47.3
Craft and kindred workers	13.3	13.8	9.6	13.9
Operatives, except transport	11.3	10.8	15.4	21.5
Transport equipment operatives	3.7	3.6	5.3	4.0
Nonfarm laborers	4.8	4.5	8.1	7.8
Service workers	13.2	12.0	24.3	16.3
Private household workers	1.1	0.8	3.8	1.5
Other service workers	12.1	11.1	20.5	14.8
Farmworkers	2.8	2.9	2.1	3.8

¹ Detail by race and ethnicity do not add to employment total because races other than white or black are included only in the total, and because most persons of Hispanic origin are also included in the data for whites.

NOTE: Percent distribution may not add to 100.0 percent because of rounding.

Table 7. Civilian labor force participation rates by sex and age, selected years, 1949 to 1979 annual averages

Sex and age	1949	1954	1959	1964	1969	1974	1979
Both sexes, 16 years and over	58.9	58.8	59.3	58.7	60.1	61.2	63.7
16 to 19 years	52.2	48.3	46.7	44.5	49.5	54.9	58.1
20 to 24 years	64.9	61.6	64.3	66.3	68.2	74.0	77.6
25 to 54 years	65.1	67.0	68.7	69.6	71.6	73.5	77.8
55 years and over	43.1	41.7	41.1	39.5	39.3	35.2	33.6
Men, 16 years and over	86.4	85.5	83.7	81.0	79.8	78.7	77.9
16 to 19 years	62.8	58.1	55.8	52.4	55.9	60.7	61.7
20 to 24 years	86.6	87.0	88.8	86.1	82.8	86.0	86.6
25 to 54 years	96.5	97.3	97.1	96.8	96.1	94.8	94.4
55 years and over	69.5	65.8	61.7	57.4	56.1	50.7	46.7
Women, 16 years and over	33.1	34.6	37.1	38.7	42.7	45.6	51.0
16 to 19 years	42.4	39.4	38.2	37.1	43.3	49.2	54.5
20 to 24 years	45.0	45.1	45.1	49.4	56.7	63.0	69.1
25 to 54 years	35.7	38.7	42.4	44.5	49.1	53.8	62.2
55 years and over	18.0	19.7	23.1	24.3	25.5	23.0	23.2

Persons in and out of the labor force

The overall civilian labor force for persons age 16 and over grew by 2.2 million in 1979, to 103.7 million persons. Over the previous 3 years, however, labor force growth had averaged 2.9 million. Adult women made up two-thirds of the labor force growth; the teenage labor force declined by about 100,000, due, in part, to a drop in population.

Labor force participation rates—the percentage of the civilian population that is employed or unemployed—provide the clearest picture of labor force movements for specific groups, because the rates account for changes in population levels as well as absolute labor force changes. The overall participation rate was 63.8 percent in the fourth quarter of 1979, three-tenths of a point below a year earlier.

Over the past 3 decades, participation rates for women of all ages have increased dramatically, with their overall rate moving from slightly above 30 percent in the late 1940's to more than 50 percent in the late 1970's. (See table 7.) Among the major influences on rising participation rates have been a lowering of the birth rate; increases in age at first marriage; a desire to maintain or increase the household's standard of living and the effect of inflation on a family's buying power; growth in those industries (particularly the service sector) and occupations which traditionally employ women; and, of course, the growing social acceptance of work for women. Until the latter half of the 1970's, there also had been a protracted decline in labor force participation of men. This drop had been concentrated in the oldest age groups and had resulted almost exclusively from the improved financial ability of men to retire at an earlier age. This ability to retire was partially related to the increased labor force activity of wives, who provided either additional income or retirement benefits to support the labor force withdrawal of their husbands.

The labor force participation rate for adult women had advanced a percentage point a year for each of the

previous 6 years and followed this pattern again in 1979, increasing from 50 to 51 percent. The greatest gains were registered by women 35 to 44 years, whose rate increased from 62 to almost 65 percent. No significant gains were shown for women over age 55. Conflicting forces have affected the recent labor market decision of these women. Improved social security, private pension and disability benefits may have allowed some working women to retire earlier than had previously been possible. On the other hand, the increased social acceptability of work for women, the recent amendments to the Age Discrimination in Employment Act, and, perhaps most importantly, the recent high rates of inflation and economic uncertainty have all worked to induce older women to remain in, or to reenter, the labor force.

The overall labor force participation rate for adult men, 79.6 percent at yearend, was 0.2 point below that of a year earlier and has remained at about that level for 4 years. (During the same period, the rate for adult women rose almost 5 points.) The rates for prime working-age men—those 25 to 54 years of age—were virtually unchanged over the year; however, rates for older men declined slightly following 2 years of little movement. While the one point over-the-year decline for older men might have been unexpected in view of the recent high rates of inflation and legislation protecting workers from age discrimination through age 70, it is too early to conclude that 1979 began a return to the groups' long-term trend of labor force decline.

The number of persons outside of the labor force—that is, neither working nor looking for work—grew by slightly less than 500,000 over the year to 58.8 million, following 2 years of declines which totaled about 0.8 million persons. There was an increase of 470,000 in the number of adult men outside the labor force, a 50,000-decline in the number of adult women in this

Table 8. Job desire of persons outside the labor force, by sex, 1979 annual averages

[Numbers in thousands]

Labor force status	Total	Men	Women
Civilian noninstitutional population, 16 years and over	161,532	76,449	85,083
Civilian labor force	102,908	59,517	43,391
Not in labor force	58,623	16,931	41,692
Do not want job now	53,328	15,248	38,079
Current activity (percent distribution)	100.0	100.0	100.0
Going to school	11.2	19.5	7.8
Ill, disabled	8.5	16.1	5.5
Keeping house	54.4	1.9	75.4
Retired	18.6	49.0	6.4
Other	7.3	13.5	4.9
Want a job now	5,293	1,682	3,613
Reason not looking (percent distribution)	100.0	100.0	100.0
School attendance	27.0	42.6	19.7
Ill health, disability	14.0	19.7	11.4
Home responsibilities	23.4	2.6	34.3
Think cannot get job	14.2	16.6	13.1
Job-market factors	9.4	5.9	4.2
Personal factors	4.7	10.6	8.9
Other reasons	21.4	18.4	21.6

status, and no change in the number of teenagers. In each of the past 4 years, the number of women outside the labor force declined while the number of men grew by a total of about 1.4 million. (See table 8.)

More than 90 percent of the persons classified as not in the labor force did not want a job. The majority of them were women who cited housekeeping duties as their major nonwork activity; most of the others were students, retirees, and the ill or disabled. Among the 5.3 million persons who said that they would like a job "now," most cited school attendance, ill health, or home responsibilities as the factors which keep them from

looking for work. At the end of 1979, about 740,000 persons were not looking for work because they felt they would be unable to find a job. These "discouraged workers" are not classified as unemployed because they do not meet the labor market test of having searched for work during the month prior to the Current Population Survey. Typically, about a third of them cite personal factors such as age or lack of education as the reason they feel they would not be able to find work; the remainder cite job market factors. The size of the latter group tends to respond to cyclical pressures, while the former usually shows little cyclical movement. □

— FOOTNOTES —

¹ Except where noted, labor force, employment, and unemployment data in this article were derived from the Current Population Survey (CPS), a monthly survey of about 56,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. As most analysis in this article is on a quarterly basis, "yearend" and "late 1979" refer to the fourth quarter. Over-the-year changes in employment and labor force for 1978 were adjusted to take account of the January 1978 revisions to the CPS estimates. All over-the-year comparisons are calculated from unadjusted quarterly averages, although all numbers cited for a quarter are seasonally adjusted. Over-the-year changes for 1978 cannot be calculated directly from the tables provided; see "Revisions in the Current Population Survey in January 1978," *Employment and Earnings*, February 1978, pp. 7-10.

² In this article, the term "adult" refers to persons age 20 and over.

³ Data on nonfarm payroll employment, hours of work, and earnings are based on payroll reports from a sample of establishments which together employ more than 30 million workers. The data reflect March 1978 benchmark levels and seasonal adjustment revisions instituted in September 1979 for all seasonally-adjusted series since January 1974. For an explanation of these changes, see "BLS estimates revised to March 1978 benchmark levels," *Employment and Earnings*, October 1979, p. 7-13.

⁴ Based on U.S. Department of Commerce's preliminary data on consumer expenditures for the fourth quarter of 1979.

⁵ For purposes of this analysis, full-time employment includes all jobholders on full-time schedules. Part-time employment consists of voluntary part-time workers and persons working part time for economic reasons.

⁶ For a discussion of part-time workers in terms of the probability of their part-time status in relation to socioeconomic and labor market influences, see R. W. Bednarzik, *A micro model of labor supply for part-time workers using matched CPS data*, Staff Paper 10 (Bureau of Labor Statistics, 1979).

⁷ These data on parttimers refer only to nonfarm part-time employment for economic reasons.

⁸ This section deals only with blacks; they account for about 89 percent of the "black and other" population group, according to the 1970 Decennial Census. The employment-population ratios in this section were calculated using civilian noninstitutional population levels, as quarterly total noninstitutional population levels are not available for blacks.

⁹ Data on duration of unemployment are available only for the "black and other" group.

Industrial relations in 1979: inflation still holds spotlight

Voluntary 7-percent ceiling on wage increases loses labor support as price surge continues, but unions agree to help Administration devise new anti-inflation program; Meany steps down; worker safety and anti-bias efforts pressed

GEORGE RUBEN

Inflation continued to be a major concern of Americans in 1979. Workers experienced a loss of purchasing power as prices rose at an even faster rate than in 1978.

Late in 1978, the Carter Administration had adopted a plan to restrain wage and price increases through the voluntary cooperation of labor and management. It called for a 7-percent ceiling on price and wage increases. But with the Consumer Price Index rising at an annual rate exceeding 13 percent in the fall of 1979, the Administration tried a new approach. The Government and organized labor signed a "national accord," under which a board composed of representatives of labor, management, and the public would advise the President on anti-inflation actions, including a new wage guideline.

Employment continued to grow in 1979, but there were major layoffs in the steel and automobile industries, with Chrysler Corp. facing bankruptcy. Unemployment also increased in the construction industry, as the Federal Reserve Board tightened credit, sending interest rates to record highs.

Collective bargaining activity was heavy in 1979 as settlements were negotiated in a number of major industries. The unions generally focused on obtaining

more money for their members by pressing for larger "set" wage increases or more liberal wage escalator clauses.

In the automobile industry, another major goal of the Auto Workers was to win larger pensions for current and future retirees to counter the erosion of purchasing power that had occurred since the industry last bargained on pensions in 1973. In the trucking talks, the Teamsters also sought substantial increases in employer payments in order to maintain employee benefit plans.

The most significant development in union affairs was the change in leadership of the AFL-CIO, as George Meany retired and Lane Kirkland succeeded him. (A report on the AFL-CIO convention appears on pp. 58-62.) Meany's decision, announced on September 28, ended months of speculation that centered on the deteriorating health of the 85-year-old leader. Meany had headed the federation since its formation in 1955. Lane Kirkland, whom Meany nominated, indicated that he would follow the same general policies as Meany. There also was continuing turmoil involving the United Mine Workers, and there were several important union mergers.

Developments in occupational safety and health included new court rulings on workplace standards established by the Department of Labor's Occupational Safety and Health Administration to protect employees.

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There also were important developments in the area of equal employment opportunities, as two of the Nation's largest retailers were involved in disputes with the Federal Government over their employment practices.

The Department of Labor also issued an important ruling permitting greater diversifications of pension fund investments, which now total about \$250 billion.

Union wage increases

For the first 9 months of 1979, settlements involving 1,000 workers or more provided for first-year wage adjustments that averaged 7.5 percent, compared with 7.6 percent for all 1978 settlements.¹ Total wage adjustments (excluding cost-of-living increases) averaged 6.1 percent when converted to an annual rate, compared with 6.4 percent for 1978 settlements.

As expected, the 1979 settlements that did not contain cost-of-living escalator (COLA) clauses generally provided for larger specified wage increases than those that did. First-year negotiated wage adjustments in contracts without COLA provisions averaged 9.1 percent, compared with 6.3 percent for contracts with such clauses. For 1978, the figures were 8.0 and 6.9 percent. When specified wage adjustments are averaged over the life of the contract, the annual rates were 4.6 percent for contracts with COLA clauses and 8.1 percent for those without, compared with 5.3 and 7.1 percent in 1978.

When benefits are combined with wages (in settlements for 5,000 workers or more) the average adjustment was 9.1 percent in the first contract year and 6.7 percent a year over the contract term, compared with 8.4 and 6.3 percent in 1978. Settlements that included COLA clauses provided for wage and benefit increases averaging 8.6 percent for the first year and 6.0 percent a year over the contract term, compared with 10.2 and 8.2 percent for those without COLA clauses. For the full year 1978, the figures for settlements with COLA provisions were 6.7 for the first year and 5.3 a year over the term and the figures for those that did not provide for COLA clauses were 9.6 for the first year and 7.2 a year over the term.

The major settlements during the first 9 months of 1979 covered 2.6 million workers in 414 bargaining units in the private nonfarm sector. The settlements did not result in any increase in the number of workers covered by COLA provisions, partly because 1.5 million of the workers involved in the bargaining already were covered by COLA clauses. The eight settlements (for 15,700 workers) that established COLA clauses and the seven settlements (for 82,500 workers) that terminated clauses brought the total coverage to 5.5 million or 59 percent of the 9.4 million workers in bargaining units of 1,000 or more.

During the first 11 months of 1979, labor-manage-

ment disputes led to about 5,100 work stoppages, involving about 1.9 million workers. This was about the same as during the same period of 1977, but higher than in 1978. There were 33.1 million days of idleness, or 0.16 percent of the estimated working time, compared with 35.6 million (0.18 percent) and 30.8 (0.16 percent) in the corresponding periods of 1978 and 1977. These data cover work stoppages involving six workers or more and lasting a full day or shift or longer.

Anti-inflation program

The general 7-percent wage guideline and other provisions of the voluntary anti-inflation plan President Carter announced in October 1978 were revised at the end of that year. Alfred Kahn, chairman of the Council on Wage and Price Stability, said the changes were triggered by complaints from business and labor that the standards were too rigid. The revisions in wage guidelines—

- exempted any cost increases needed to maintain existing levels of pension benefits from counting toward the 7-percent guideline limit for annual increases in compensation;

- specified that only the first 7 percent of any increase in health insurance premiums required to maintain benefits would count toward the guideline;

- exempted from the guideline any increases in labor costs required to comply with Federal statutes;

- suspended the 7-percent guideline when necessary to counter specific labor shortages; and

- revised the methods of assessing compensation increases for nonunion workers to make it similar to that for union-represented workers.

The President's proposal to provide "real-wage insurance" for employees who conform to the 7-percent guideline encountered resistance in Congress, as the House Ways and Means Committee ended March hearings on the proposal without reporting out a bill. The proposal, which was generally opposed by organized labor, was not presented for reconsideration later in 1979.

In February, the General Accounting Office, the investigative arm of Congress, declared that it would be illegal for the Administration to withhold Federal purchase contracts from firms that failed to comply with the wage and price guidelines. The Administration nevertheless initiated the requirement for all contracts worth \$5 million or more, beginning February 15, and subsequently won a court test in which the AFL-CIO and some member unions challenged the legality of the sanctions.

The first major test of the wage guidelines came in January, when the Oil, Chemical and Atomic Workers settled with the major petroleum refiners for 60,000 employees. The parties and the Council on Wage and Price Stability agreed that the 2-year contract met the

guidelines but the union late in the year announced that it would not be bound by the guidelines when the contract was reopened in January 1980.

In April, the Teamsters settled with the trucking industry on a 3-year contract. Alfred Kahn, chairman of the Council, said that the accord met the guideline limit of 7 percent a year for increases in compensation, but the parties valued it at about 10 percent a year.²

In June, the Council announced that a settlement between United Airlines and the International Association of Machinists was in "probable noncompliance" with the wage guidelines. The 3-year agreement, which was valued at 35 percent over the term by United, was subsequently upheld by the Council, which approved an "undue hardship" exception to the guidelines based on company data indicating that "adherence to the pay standard would seriously have threatened the financial viability of the company."

Mid-year settlements with the major rubber companies also were questioned by the Council but were later approved after the firms agreed to offset the excess part of the increase in compensation by restraining their profits.

In August, the Council began soliciting union and management views on its proposals for changes in the anti-inflation plan to become effective October 1, the beginning of the second year of the plan. In a policy shift, the AFL-CIO indicated that it could live with voluntary guidelines if they underwent a "wholesale re-vamping" that would loosen the wage standard and clamp down on prices. It proposed the formation of a committee from labor, business, and the general public which would establish and modify pay guidelines in accord with the "broad concept that wage increases should be based upon changes in the Consumer Price Index, plus changes in the long-term rate of increase in manufacturing productivity." The Federation also suggested the creation of a committee of consumer, business, and public representatives to oversee price increases.

This led to negotiations between the Administration and the AFL-CIO, the Auto Workers, and the Teamsters that resulted in a national accord aimed at fighting inflation. In conjunction with the accord, which was announced on September 28, the parties also agreed on the establishment of a 15-member (later increased to 18) Pay Advisory Committee with equal representation from the general public, labor, and business to "provide public participation and advice to the Council on Wage and Price Stability on encouraging anti-inflationary pay behavior by private industry, employers, and labor."³

The national accord committed the parties to support fiscal restraints; "countercyclical" actions to alleviate the effects of a downturn in the economy; reduced dependence on petroleum (particularly from foreign pro-

ducers), increased U.S. exports, and prompt assistance to American workers displaced by imports; and continued efforts to assure safe living and working conditions.

AFL-CIO Secretary-Treasurer Lane Kirkland headed the labor team that negotiated the accord with the Administration. The accord was approved by the AFL-CIO's Executive Council and by the Teamsters and Auto Workers unions.

Although the President was delaying his decision on pay guidelines until the Pay Advisory Committee formulated its recommendations, there was one immediate change. In October, the Council ruled that employees whose wages are not subject to wage escalator adjustments could receive up to 8 percent increases in compensation during the second year of the program, if they had not exceeded the 7-percent standard during the preceding 12 months. The Council on Wage and Price Stability estimated that the 8-percent guideline would apply to 78 million nonunion employees and 12 million represented by unions but not covered by COLA clauses.

In November, the Council informed General Motors Corp. and Ford Motor Co. that their settlements with the Auto Workers were in probable noncompliance with the guidelines. Chairman Kahn said that even with the most liberal (low) assessment, the contracts were several percentage points above the 22.5-percent guideline for a 3-year period. The Council later approved the GM accord, after the company agreed to conform to the price limitations. Talks between the Council and Ford continued into 1980.

The less costly accord at Chrysler Corp. also was questioned by Kahn but he subsequently indicated that the agreement would not have to be renegotiated to meet the guidelines. Despite this, bargaining was reopened at year end to comply with a legislated requirement that the cost of the UAW settlement be cut an additional \$243 million before Chrysler could receive Federal aid. (The resulting January 6 settlement provided for further delays of general wage increases and a still lower number of paid personal holidays than at GM and Ford.)

Bargaining issues

Wages. The unions' drive for large wage increases in 1979 settlements was generally accomplished by winning larger specified wage increases or more liberal wage escalator clauses. Contracts that provided for more liberal escalator clauses usually provided for specified wage increases similar to those in the just-expired contracts. The liberalizations of COLA clauses usually took the form of reducing the amount of movement in the Consumer Price Index required to trigger an escalator adjustment but a few settlements increased the frequency of possible adjustments or eliminated restrictions on the size of adjustments.

The Rubber Workers' 3-year settlements with the various rubber manufacturers provided for quarterly escalator adjustments at the rate of 1 cent an hour for each 0.26 point movement in the CPI-W (1967=100), beginning in the second year. The later settlements between the Auto Workers and General Motors Corp., Ford Motor Co., and Chrysler Corp. also provided for a formula of 1 cent for each 0.26 point movement but the auto accords continued to call for use of a 1967=100 composite index derived from the U.S. and Canadian government indexes. Another difference was that the escalator formula in rubber provided for "advances" of 20 cents at the beginning of the first year and 15 cents at the beginning of the second and third years. However, 5 cents was to be withheld from some regular quarterly adjustments to offset the advances. Unlike the rubber contracts, the auto agreements provided for the permanent diversion of a total of 14 cents from quarterly COLA adjustments to help meet the cost of the settlements.

The rubber contracts provided for a total of 72 cents an hour in "set" general wage increases and an additional 40 cents for skilled workers. Under their 1976 agreements, workers received \$1.35 in general increases plus 40 cents to skilled workers, and 93 cents in COLA adjustments. The new auto agreements provided for general wage increases of 3 percent plus 24 cents an hour, effective immediately, and 3 percent on both the first and second anniversaries. This matched the general increases in the 1976 contract, except that it provided for an initial increase of 3 percent plus 20 cents. COLA adjustments totaled \$1.37 during the 1976 contracts.

In the trucking industry, the 3-year settlement between the Teamsters and Trucking Management, Inc., and other employer groups provided for continuation of the COLA formula of 1 cent an hour for each 0.3 point movement in the CPI-W (1967=100) but adjustments were to be made semiannually instead of annually. An unusual feature of the new COLA clause provided that the final semiannual adjustment will be effective on April 1, 1982, the day after the contract expires. As a result, that adjustment will apparently count as part of the cost of the 1982 settlement, rather than the 1979 settlement, for determining conformity with wage guidelines.

The 1979 trucking accord provided for a total of \$1.50 an hour in set wage increases, compared with \$1.65 under the 1976 settlement. COLA adjustments totaled 62 cents under the 1976 contract.

In the electrical equipment industry, settlements between various unions and the General Electric Co. and Westinghouse Electric Corp. provided for semiannual adjustments of 1 cent an hour for each 0.2 percent movement in the index; previously, employees received annual adjustments of 1 cent for each 0.3 percent move-

ment in the index during the preceding 12 months, with no credit for that portion of the rise between 7 and 9 percent.

Specified wage increases in the new contracts totaled 82.5 cents an hour, compared with about \$1.10 under the 1976 contracts, which also resulted in 50 cents in COLA adjustments.

In the airlines industry, settlements negotiated by the Machinists union with United Airlines, Inc., TWA, and other companies generally reduced the movement in the CPI required for a COLA adjustment but continued to limit the maximum size of the adjustments. At United, for example, the 3-year contract provided for three annual adjustments of up to 13 cents an hour each, calculated at 1 cent an hour for each 0.3 point rise in the index; the previous formula provided for three annual adjustments of 1 cent an hour for each 0.4 point movement, up to 12 cents a year, which was the amount employees actually received.

One industry that retained the same escalator clause was meatpacking. The settlements between the United Food and Commercial Workers and John Morrell & Co., Wilson Foods Corp., George Hormel & Co. and other companies provided for continuation of semiannual escalator adjustments calculated at 1 cent an hour for each 0.3 point movement in the CPI-W (1967=100). These firms, which have been facing problems of plant obsolescence and intense competition from new companies using new processing and distribution methods, also settled for the same total of set wage increases as in the 1976 contracts—60 cents an hour over three years. COLA adjustments totaled \$1.50 an hour in the 1976 contracts.

Two other major industries that settled in 1979 continued their practice of not using a COLA clause. In petroleum refining, the Oil, Chemical and Atomic Workers and the various companies partly countered the problem of forecasting future price movements by again limiting their agreements to a 2-year term. In addition, they agreed to a relatively large set wage increase of 73 cents an hour at the beginning of the agreements and agreed to reopen bargaining at mid-term on the possibility of raising the 5-percent deferred wage increase scheduled for that time, as well as on improving certain benefits.

The prior agreements in this industry, negotiated in 1977, provided for a 9-percent initial wage increase and a 75 cents-an-hour increase at mid-term.

Automatic COLA clauses also were not adopted in Ladies Garment Workers settlements for 250,000 employees of outerwear manufacturers. The contracts did continue to provide for reopening bargaining on wages if the CPI rises a specified amount (an unspecified amount, in some contracts) but the union has not initiated such reopenings in recent years because of the gen-

erally unfavorable financial condition of the industry. These contracts provided for set wage increases of 5-, 5-, 8-, and 7-percent over the 3-year term, compared with 5-, 5-, 7-, and 6-percent during the previous contracts.

Pensions and other issues. Although wages drew the most attention in 1979 bargaining, other issues also were important and usually reflected union attempts to counter inflation.

In the trucking industry, employers agreed to increase their financing of pension and insurance plans by \$30 a week to maintain existing levels of benefits. The Teamsters union was one of the leaders in the successful effort to persuade the Council on Wage and Price Stability to exclude part of the increase in employer insurance financing and all of the increase in pension financing from counting toward guideline calculations in cases where the additional money was needed to maintain existing benefits. The union claimed that if all such costs were counted toward the value of a settlement package that met the guidelines, there would be no money left for wage increases and other benefits.

In the automobile industry, pensions were a particularly important issue, as the Auto Workers sought to win benefit increases to offset the reduction in purchasing power since the 1973 pension agreement. Originally, the union sought a system under which benefits would be adjusted according to the movement of the CPI but it later settled for a multi-step increase for current and future retirees over the 3-year contract term. (The number of steps was less at Chrysler, but the final benefit levels were to match those at General Motors and Ford.)

Another important issue in this industry was the number of paid personal holidays, which was increased to 26 over the 3-year term, compared with 12 during the last 2 years of the prior contract. (Chrysler employees were to receive a total of 20 such holidays under their October accord, but the number was reduced to three as a result of the January 6 modifications.) This was another step toward the union's goal of a 4-day workweek. The increase in paid personal holidays, combined with other paid time off, also tends to moderate layoffs in the industry, which exceeded 100,000 workers in December.

In the electrical equipment industry, financing of pensions was a major issue in the 6-week strike against Westinghouse Electric Corp. by several unions. The company had pressed for conversion to a contributory pension plan contending that this was necessary to bring its labor costs into line with those at the General Electric Co., which had a contributory plan. The company later withdrew this demand and benefit rates were increased, but not to the same levels as at GE, where the employee contribution was increased.

An unusual new contract provision negotiated in

1979 was a Ladies Garment Workers "tax" on imported garments. Under the provision, intended to stem a loss of jobs resulting from increased imports, employers will be required to pay the union an amount equal to 1.5 percent of the cost of garments purchased abroad.

Previously, the ILGWU had the right to seek "liquidated damages" in such cases, which amounted to as much as 25 percent of the cost. However, the union used this penalty selectively, because it could have wiped out employers of its own members. The ILGWU indicated that the new tax will be applied equally, not selectively, and that any resulting money will be used primarily for its union label campaign.

In the rubber settlements, the Rubber Workers won assurances (except from Goodyear) that the companies would not interfere with union efforts to organize new plants. The union has been experiencing difficulty in organizing the plants, particularly those in areas where other industries usually are not organized.

Representation of workers at new plants also was an issue in the Auto Workers negotiations with General Motors, as the company agreed to permit UAW members in its employ to transfer to new GM plants with full seniority, if the new plant manufactures items that are similar to those in plants where the UAW holds representation rights. Previously, such transfers were permitted only when the opening of new plants resulted in layoffs at existing UAW plants.

In a related matter, GM agreed to be neutral in any UAW effort to organize its plants, ending a dispute that flared up at the start of the negotiations.

Government salaries

The California Supreme Court declared invalid a State law that had, in effect, precluded any salary increases for local government workers. The law was enacted in 1978 to help counter the drop in revenue resulting from Proposition 13, the Statewide initiative that rolled back levels of property taxes and restricted future increases. The law had provided for the distribution of surplus State tax funds to affected local units only if salary increases for their employees during the fiscal year were held at or below the increase for State employees. State employees did not receive an increase, which meant that these local employees also could not receive an increase. Employee organizations had charged that local government units had violated valid contracts by failing to pay scheduled increases.

As a result of the ruling, hundreds of thousands of local government workers received retroactive pay increases and they were also free to bargain on current or future increases.

State employees received a 1978 increase, after all, as the legislature in July 1979 enacted a two-part salary in-

crease for them—14.5 percent effective July 1, 1979, and 7 percent retroactive to October 1978.

At the Federal level, 1.4 million white-collar employees and 2.1 million members of the Armed Forces received a 7-percent salary increase in October. (Federal employees are not permitted to bargain on salaries and benefits, but white-collar and blue-collar workers may join unions and bargain on working conditions and other matters.) Early in the year, President Carter had indicated that he would propose a 5.5-percent increase to Congress but later decided the larger increase was warranted because of the higher rate of inflation.

Members of Congress were automatically eligible for the 7-percent increase, but they turned it down and put into effect a 5.5-percent increase they had declined in 1978. Federal judges and various officials also received the 5.5-percent increase.

Pay rates for the 530,000 trades workers are adjusted at various times during the year based on comparisons with comparable occupations in the private economy. However, special legislation and a Presidential order limit their increase to 7 percent during the fiscal year that began October 1.

Other union developments

One of the challenges facing the new leaders of the AFL-CIO, and leaders of individual unions, was indicated by BLS figures which showed that union members comprised 26.6 percent of the nonfarm workforce in 1977, down from 28.5 percent in 1975. The number of union members actually increased during the 2-year period, to 22.8 million, but this was more than offset by an 8-percent increase in nonfarm employment, to 85.8 million.

In the complex 4-year contest between the Teamsters union and the Government over management of the Central States Pension Fund, the trustees voted to draw up a list of charges against Equitable Life Assurance Society of the United States and Victor Palmieri & Co., the two current managers of the fund; this action came immediately after the trustees had almost voted to fire the firms. The list of charges was to be presented to the Department of Labor, which had in 1977 successfully pressed for the resignation of the trustees then in control and for the hiring of the firms. The trustees' October 1979 decision came in the midst of a continuing series of court cases over operation of the fund, including six cases in the Chicago Federal District Court alone.

The United Mine Workers union continued to be beset by difficulties, internal and external. Its chief of staff resigned after only 3 months of service, claiming he was hampered by conflicts with other officials. Women coal miners accused some union members and mine owners of discriminatory job actions. The union encountered

new setbacks in its efforts to organize new or expanding mines in the West and Appalachia. The Consolidation Coal Co. withdrew from the Bituminous Coal Operators Association, indicating it would bargain with the UMW on an individual basis. Also, the steel company members of the association were pressing for a larger role in bargaining.

In November, UMW President Arnold Miller resigned, after his third heart attack. The executive board designated Miller president emeritus and selected Vice President Sam Church to fill the remaining 2 years of Miller's term.

Among union mergers:

—The Retail Clerks and the Meat Cutters unions joined to form the United Food and Commercial Workers, the largest union in the AFL-CIO. William W. Wynn, who had been president of the Retail Clerks, was elected to head the new union.

—The Lathers union affiliated with the Carpenters, in a move to expand job opportunities and reduce jurisdictional disputes.

—The Auto Workers gained 50,000 members when the Distributive Workers affiliated with the UAW.

Equal employment opportunity

The year was marked by a number of major administrative, judicial, and legislative developments involving efforts to erase job discrimination.

The Federal Government found the American Telephone and Telegraph Co. to be operating in compliance with the antibias provisions of a 1973 consent decree and joined the company in persuading the Federal District Court in Philadelphia to let the decree lapse. The Government's analysis showed that AT&T had made significant progress in a number of areas, including the hiring and promotion of women, blacks, and Hispanics.

In February, the Equal Employment Opportunity Commission announced that it had reduced its backlog of discrimination cases to 119,000. Eleanor Holmes Norton, head of the Commission, which is responsible for enforcing antidiscrimination provisions of Title VII of the Civil Rights Act of 1964 in private industry and Federal agencies, noted that when the drive to reduce the backlog began in January 1978, there were 135,000 cases on file and that 75,000 cases had been added in subsequent months. Norton indicated that the case reduction process centered on—

—Assigning new cases to investigators instead of clerks and by scheduling conciliation meetings between employer and employees within 30 days.

—If the parties do not accept the agency's settlement within 60 days after proposal, the case is referred to commission headquarters for a decision on whether to initiate a court action.

Norton said that as the backlog of cases is eliminat-

ed, the commission will be shifting its focus from individual cases to situations dealing with broad patterns of discrimination.

Sears, Roebuck and Co. charged that the Federal Government's various equal employment laws conflict and were impossible to comply with and that the Government's own policies have resulted in a work force dominated by white men. The Sears action was apparently prompted by the EEOC's January decision to terminate 6 years of negotiations with the retailer on its employment practices.

In May, Federal District Judge June L. Green dismissed the Sears claim because it was "not sufficiently concrete."

This ruling was still in the appeal process when the EEOC filed five separate actions against Sears in which it charged the company with discriminating against women in recruitment, hiring, training, promotions, and pay around the Nation, and against blacks and Hispanics in some regions.

The EEOC also filed a suit against Montgomery Ward and Co., charging that the company's store in Glendale, Ariz., paid female department heads less than male department managers with the same responsibility. The EEOC also asserted that the company has violated a 1976 agreement with the Department of Labor in which it promised to equalize pay for men and women in equal jobs in all of its 2,200 stores.

In another development, the Department of Labor announced that Uniroyal Inc. had agreed to a \$5.2 million settlement of a sex discrimination dispute. The Department had barred the company from obtaining any new Government contracts because it had allegedly failed to comply with a 1965 Executive Order requiring Government contractors to cooperate in any investigations of discrimination complaints. Overall, a total of 750 past or present women employees of Uniroyal's Mishawaka, Ind., plant will share the \$5.2 million. The accord also restored other benefits lost as a result of the discrimination.

The Supreme Court held that employers and unions with no proven history of discrimination can adopt quotas to overcome racial imbalances in "traditionally segregated job categories." The case was initiated by Brian F. Weber, a white worker at a Kaiser Aluminum and Chemical plant in Louisiana, who was denied admission to a special job training program in which half of the places were reserved for blacks. Weber had more seniority than some of the blacks accepted, and he therefore contended that his exclusion amounted to discrimination in violation of the Civil Rights Act of 1964. Although the law outlaws discrimination against individuals, the court ruled that Congress had not meant to forbid private employers from correcting racial imbalances caused by societal discrimination.

Occupational safety and health

The rate of occupational illnesses and injuries in the private sector in 1978 was essentially the same as in 1977, but the occupational fatality rate declined, according to Bureau of Labor Statistics' data released last year.

The number of occupational illnesses and injuries actually increased by 6 percent in 1978, but there was a rise in the number of workers and their hours on the job. As a result, the incidence rate of 9.4 injuries and illnesses per 100 full-time workers was about the same as for 1977.

Some key results of the illness and injury portion of the survey:

—There were 5.66 million work-related injuries in 1978, about the same as in 1977.

—The number of injuries involving lost worktime increased to 2.4 million, while the number of injuries that did not result in lost worktime increased by 66,000.

—About 38.2 million workdays were lost to work-related injuries, which amounted to 62.1 days for each 100 workers. The figures for 1977 were 35.2 million days, or a 60.0 rate.

—Lost-time injury rates increased in 1978 in seven of the eight industry divisions. The exception was finance, insurance, and real estate, where the rate did not change.

—The largest change in the injury incidence rate for an industry division was in construction, where the rate rose to 15.9, from 15.2 in 1977. However, the rate of lost workdays declined to 108.1 from 109.7.

—Recognized occupational illnesses totaled 143,500 in 1978 compared with 162,000 in 1977.

—Job-related deaths declined to 4,590 in 1978, from 4,760 in 1977, a decrease of 4 percent, despite a 5-percent increase in employment. In relation to hours worked, the fatality rate fell to 0.82 per 10,000 full-time workers, from 0.91 in 1977.

Leading causes of death:

—Over-the-road car and truck accidents accounted for 29 percent of fatalities, and aircraft crashes accounted for 7 percent.

—Thirteen percent of deaths resulted from falls, with one-half occurring to construction workers.

—Nine percent of the fatalities resulted from industrial vehicles and equipment accidents.

—Heart attacks accounted for 9 percent of fatalities.

—The construction industries, employing 5 percent of all workers, accounted for 20 percent of the fatalities. The services industries, representing 21 percent of all workers, accounted for only 8 percent of the deaths and nearly half of those resulted from over-the-road motor vehicle accidents or aircraft crashes.

—Of the 4,500 fatalities, nearly 500 were illness-re-

lated, primarily due to heart attacks.

The Government moved into a new area of occupational health and safety in October, when the Occupational Health and Safety Administration ordered the American Cyanamid Co. to end practices at its Willow Island, W. Va., plant that the agency claimed posed a threat to the ability of women employees to bear children. OSHA also fined the company \$10,000 for violations of health and safety standards.

The problems at the plant emerged in 1978, when four women disclosed that they had been voluntarily sterilized in order to retain their jobs in the lead pigment production area. The company has admitted that it excluded women from certain work areas because exposure to chemicals might harm fetuses or affect fertility, but it also said that it offered them transfers to other jobs, possibly at lower pay.

At year-end, the company closed the plant's lead pigment department, resulting in the layoff of about 60 employees. The four women who filed the complaint were not affected.

The Federal Court of Appeals for the District of Columbia upheld OSHA's standard for employee exposure to cotton dust. OSHA had published the standard in June 1978, but it was not put into effect because of a court test by the American Textile Institute, which contended that engineering controls were too costly, that OSHA had not performed a required cost-benefit analysis, and that the agency did not have the authority to order the transfer of certain employees to less hazard-

ous work at equal pay. Several unions also contested the standard, contending it was too lax.

Consolidating the various challenges to the standard, the appeals court ruled that the textile industry could not prove that it was protecting workers from brown lung disease through periodic physical examinations and arrangements for job transfers. The court also said that the use of individual respirators by workers was inadequate protection and even presented additional safety and health hazards.

The cotton standard provides for graduated steps toward final limits to be attained within 4 years by installation of engineering controls. The final limits are 200 micrograms of cotton dust per cubic meter of air in yarn manufacturing, 750 micrograms in slashing and weaving, and 500 micrograms in cotton waste processing, and in warehousing. Employers are permitted to furnish employees with respirators until the engineering controls are installed.

Eula Bingham, Assistant Secretary of Labor for Occupational Safety and Health, said she was pleased with the ruling because it "vindicates our regulatory approach favoring engineering controls over personal protective equipment."

There was speculation that the ruling could influence the same court's pending decision on whether the lead industry must use engineering controls to attain the standard it had already permitted OSHA to begin enforcing. Another standard, for benzene, was under review by the Supreme Court. □

— FOOTNOTES —

¹ This BLS information on the size of collective bargaining settlements is of limited use in any attempts to determine the effect of President Carter's anti-inflation plan because the BLS procedures for evaluating settlements differ from those of the Council on Wage and Price Stability, which administers the plan. Unlike the BLS, the Council:

—Includes estimates of potential cost-of-living escalator adjustments.

—Excludes increases in the cost of maintaining existing health benefits in excess of 7 percent.

—Excludes increases in the cost of maintaining existing pension benefits levels.

—Excludes the cost of legally-required social insurance programs.

One reason for the differences was that Kahn estimated future wage escalator increases based on the assumption that the CPI would rise 6 percent a year, which was the amount the guidelines program specified should be used in calculating the cost of settlements.

² Its specific responsibilities were to

—Submit by Oct. 31, 1979, its recommendations for (1) changes in the basic 7-percent pay standard, (2) the inflation assumption to use for evaluating automatic wage escalator contract clauses, (3) the threshold for the low-wage exemption, (4) the treatment of increments and tandem collective bargaining relationships, and (5) the proper standard for workers not covered by wage escalator clauses.

—Recommend possible changes in pay exception and noncompliance decisions of the Council on Wage and Price Stability.

—Make other recommendations and new or revised interpretations of the pay standard.

—Make recommendations to assure that individual decisions are fair and consistent with the objectives of the program.

In addition, a new Price Advisory Committee of five members from the general public was to recommend modifications of the price standard, new or revised interpretations of the price standard, and any needed changes in the anti-inflation program.

Workers' compensation laws— key amendments of 1979

All but three of the States increased temporary total disability benefits; some also sought to cut costs by investigating medical bills, offsetting benefits by other transfer payments, and reducing the effect of disabilities through rehabilitation programs

LAVERNE C. TINSLEY

The legislatures of 49 States and Puerto Rico enacted 220 amendments to workers' compensation laws during 1979. A review of these amendments indicates that States are continuing to improve benefits for covered workers, while seeking to control costs through better administration. Many States have shifted their focus from meeting the essential recommendations of the National Commission on State Workmen's Compensation Laws to dealing with other issues addressed by the commission, including rehabilitation and administration.

All but three States and Puerto Rico increased weekly payments for temporary total disability. Connecticut and Florida increased benefits across the board up to 100 percent of the State average weekly wage. (See table 1.)

Half a dozen States revised provisions for handling medical expenses. Maine and Texas strengthened disclosure requirements for health care providers, and Minnesota will establish criteria for excessive medical costs. Seven States updated rehabilitation provisions for injured workers. Minnesota and Montana now withhold benefits in whole or in part for failure to participate

in such programs; Arkansas prohibited such withholding.

Florida approved a major revision of its law by incorporating a "wage loss" system for compensating permanent partial disability. In addition, watts telephone lines were authorized Statewide to facilitate communication among all parties involved in workers' compensation matters. Michigan provided that certain State employees, if victims of workplace assaults, will receive supplemental benefits that, combined with workers' compensation, could equal their full salaries.

Twenty-one States were concerned with revising coverage provisions. Ten legislatures approved amendments which exempt or provide for elective coverage of sole proprietors, partners, and corporate officers. Idaho exempted members of volunteer ski patrols; North Carolina exempted members of the Civil Air Patrol and reduced numerical exemptions from fewer than five employees to fewer than four. The remaining States primarily expanded coverage for State and emergency service personnel.

Among other jurisdictions that amended benefit provisions, Kansas raised maximum weekly benefits from 66 2/3 percent to 72 percent of the State average weekly wage. Arkansas established a three-step monetary increase from a weekly maximum of \$87.50 to \$112 (currently payable) to \$126 by March of 1980. Arkansas, Indiana, Mississippi, Missouri, Nebraska, New

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Table 1. Jurisdictions that increased maximum weekly temporary total disability benefits during 1979¹

Jurisdiction	Former maximum	New maximum
Alabama	\$128.00	\$136.00
Alaska	\$607.85	\$654.30
Arkansas	\$ 87.50	\$112.00
Colorado	\$173.60	\$222.74
Connecticut	\$204.00, plus \$10 for each dependent under 18 years of age not to exceed 75 percent of employee's wage	\$222.00, plus \$10 for each dependent under 18 years of age not to exceed 75 percent of employee's wage
Delaware	\$154.50	\$164.71
District of Columbia	\$396.78	\$426.26
Florida	\$130.00	\$195.00
Hawaii	\$189.00	\$200.00
Idaho	\$109.80 to \$164.70 according to number of dependents, plus 7 percent of SAWW for each child up to 5	\$115.80 to \$173.70 according to number of dependents plus 7 percent of SAWW for each child up to 5
Illinois	\$329.82	\$342.19
Indiana	\$120.00	\$130.00
Iowa	\$265.00	\$352.00
Kansas	\$129.06	\$148.00
Kentucky	\$112.00	\$121.00
Louisiana	\$141.00	\$149.00
Maine	\$231.72	\$306.23
Maryland	\$202.00	\$220.00
Massachusetts	\$211.37, plus \$6 for each dependent; aggregate not to exceed worker's average weekly wage	\$227.31, plus \$6 for each dependent; aggregate not to exceed worker's average weekly wage
Michigan	\$142.00 to \$171.00, according to number of dependents	\$156.00 to \$185.00, according to number of dependents
Minnesota	\$209.00	\$226.00
Mississippi	\$ 91.00	\$ 98.00
Missouri	\$115.00	\$125.00
Montana	\$188.00	\$198.00
Nebraska	\$155.00	\$180.00
Nevada	\$212.02	\$229.71
New Hampshire	\$180.00	\$195.00
New Jersey	\$146.00	\$156.00
New Mexico	\$172.46	\$186.38
New York	\$180.00	\$215.00
North Carolina	\$178.00	\$194.00
North Dakota	\$180.00, plus \$5 for each dependent child; aggregate not to exceed worker's net wage after taxes and social security	\$196.00, plus \$5 for each dependent child; aggregate not to exceed worker's net wage after taxes and social security
Ohio	\$216.00	\$241.00
Oklahoma	\$132.00	\$141.00
Oregon	\$224.16	\$241.70
Pennsylvania	\$213.00	\$227.00
Rhode Island	\$183.00, plus \$6 for each dependent; aggregate not to exceed 80 percent of worker's average weekly wage	\$199.00, plus \$6 for each dependent; aggregate not to exceed 80 percent of worker's average weekly wage
South Carolina	\$172.00	\$185.00
South Dakota	\$155.00	\$175.00
Tennessee	\$100.00	\$107.00
Texas	\$105.00	\$119.00
Utah	\$197.00, plus \$5 for dependent spouse and each dependent child up to 4, but not to exceed 100 percent of SAWW	\$210.00, plus \$5 for dependent spouse and each dependent child up to 4, but not to exceed 100 percent of SAWW
Vermont	\$181.00, plus \$5 for each dependent under 21 years of age	\$192.00, plus \$5 for each dependent under 21 years of age
Virginia	\$187.00	\$199.00
Washington	\$175.30	\$186.88
West Virginia	\$224.00	\$237.00
Wisconsin	\$202.00	\$218.00
Wyoming	\$224.98	\$239.59

¹ Benefit increases are based on the applicable State's average weekly wage, and for the District of Columbia, the national average weekly wage. However, 10 States (Arizona, Arkansas, California, Georgia, Indiana, Mississippi, Missouri, Nebraska, New York, and Tennessee)

and Puerto Rico prescribe statutory amounts; three States (Arizona, California, and Georgia) and Puerto Rico are not listed since no increases for temporary total disability were legislated during 1979.

York, North Dakota, Tennessee, and Washington increased statutory amounts for both disability and death. Offset provisions were created or revised in Florida, Maine, North Dakota, Ohio, Oregon, Utah, and Washington. Burial allowances were increased in Nevada. Colorado equalized entitlement to compensation for residents and nonresidents; and New York and Tennessee established the same rights for widowers as those existing for widows.

Long-term recipients of workers' compensation were given increases in Nevada, North Dakota, Pennsylvania (occupational disease cases), Utah, and West Virginia.

Following is a summary of 1979 enactments by State pertaining to coverage and benefits, as well as rehabilitation, administration, and other aspects of State workers' compensation.

Alabama

Sole proprietors and partners are now permitted to elect coverage for themselves. Previously, such employers could not elect coverage for themselves for benefit purposes.

Alaska

Political subdivisions may now elect coverage for their volunteer ambulance attendants and volunteer police.

Arizona

Coverage for volunteer firefighters now includes those in both private protection squads and fire departments in unincorporated communities.

Arkansas

For coverage purposes, the definition of employee now includes full-time sole proprietors and partners. A three-step in-

crease retroactive to March 2, 1978, will raise the maximum weekly benefits for all disabilities and for death from \$87.50 to \$126.00 by March 1, 1980. The maximum awards for other than both permanent total disability and death will also increase to \$56,700 on March 1, 1980. The discount rate in computing lump sum settlements was increased from 4 to 7 percent. An employer's obligation for additional vocational rehabilitation expenses was limited to 60 weeks; but no employee is required to participate in a vocational rehabilitation program without his or her consent. Employers cannot be held responsible for unauthorized medical expenses.

A claimant's failure to give notice within the required 60 days does not bar a claim if the employee had no knowledge that the disability arose out of and in the course of employment. A lump sum payment of attorney fees is now permitted even if the award is to be paid in installments.

Various rules, regulations, and procedures regarding Second Injury Funds and appeals were established or revised. The employer will only be liable for the specific disability resulting from the last injury in both permanent partial and permanent total disability claims. Any principal officer, director, stockholder, or partner acting in the capacity of an employer assumes employers' exemption from liability under common law; the negligent acts of an employee cannot be imputed to the employer.

Self-insured employers are allowed to enter into pooling agreements with other employers in the same type of business. When established that failure to file a claim for compensation was induced by fraud, the claim may be filed within 1 year from the date of discovery of the fraud.

All authority related to the filing, processing, and payment of public employee claims has been transferred from the Workers' Compensation Commission to the Public Employee Claims Division of the Arkansas Insurance Department.

California

Volunteer workers for public agencies or nonprofit organizations who receive no remuneration other than meals, transportation, lodging, or reimbursement for incidental expenses are excluded from coverage, provided such persons are included under Title II of the Domestic Volunteer Service Act of 1973.

The revolving Compensation Insurance Fund was changed to a Public Enterprise Fund, which is exempt from certain State provisions. References to "widow" have been changed to "spouse" throughout the law.

Colorado

Death benefits for nonresident dependents are now the same as for resident dependents in deaths that occurred on or after July 1, 1979.

Under nonmedical treatment, chiropractic care must now be paid by self-insured employers.

A penalty of \$500 or 60 days imprisonment, or both, may be assessed against any person, company, or corporation who fails to provide or maintain insurance coverage for the term of the contract when performing services on a farm or ranching operation.

Connecticut

The law was redesignated as the Workers' Compensation Act, and references to "workmen's" were changed to "workers'" throughout the law.

Elective coverage was extended to sole proprietors and business partners.

Benefits for both disability and death were increased from 85 to 100 percent of the State average weekly wage.

A 12-percent interest rate, formerly 6 percent, will be applied as additional compensation in cases where benefit payments are unduly delayed.

The number of compensation commissioners was increased from seven to eight. Appellate procedures were revised with the creation of the Compensation Review Division to hear appeals, testimony, or evidence. The Division's decision may be appealed to Superior Court.

Delaware

A Workmen's Compensation Commission was established to study workers' compensation insurance and to make recommendations for improving the law. A sum of \$50,000 was appropriated to the commissioner for administrative use.

Florida

The law was renamed the Workers' Compensation Act, and references to "workmen's" were replaced by "workers'" throughout the law.

Officers of a corporation who elect to be exempt from coverage are excluded from the definition of employee. The definition of independent contractor now includes musicians and other entertainers who are not otherwise covered.

Maximum weekly benefits for both disability and death were increased from 66 2/3 percent to 100 percent of the State average weekly wage. The percentage of the employee's wage upon which benefits are based was increased from 60 to 66 2/3 percent for both temporary and permanent total disability. Payment for temporary partial disability was increased from 60 percent to 66 2/3 percent of the difference between preinjury and postinjury income. A wage loss approach for payment of permanent partial disability was established, and the scheduled payment periods for such disability eliminated.

Compensation for dependents will now be offset by the amount of any social security benefits received. The law also was changed to bar compensation for both temporary and permanent total disability when unemployment compensation is being received.

All attorney fees are now to be paid out of the claimant's award except under certain circumstances. Medical and hospital fees will be closely regulated, and peer review of medical care has been established.

The reporting procedures regarding an injury were changed. When an injury occurs, the employer is required to notify both the Division of Workers' Compensation and the employee, as well as the insurance carrier.

The penalty for a late payment of compensation was reduced from 20 to 10 percent of that payment.

Compromise and release of future medical benefits are now prohibited. Lump sum settlements cannot be considered until 6 months after the worker has reached maximum medical improvement.

The full responsibility for rehabilitation of injured workers rests with both the employer and the carrier.

The Bureau of Workmen's Compensation has been abolished and the Division of Workers' Compensation created to assume an active and forceful role in the administration of the act. Watts lines have been set up in the State to assist the resolution of workers' compensation matters.

Hawaii

A corporate officer who performs voluntary services in a corporation in which he or she is at least a 25-percent stock-

holder is excluded from coverage.

The State Department of Labor and Industrial Relations is authorized to set maximum employer liability for medical care and supplies using the Consumer Price Index for the Honolulu region.

A 2-year filing limit was set for benefit claims involving asbestosis or other mineral substance with carcinogenic properties. Initial judicial review of claims was changed from the State Supreme Court to the Appellate Court.

Idaho

Members of volunteer ski patrols were exempted from compulsory coverage.

Illinois

Any employee receiving compensation for work-related injuries now must be notified of his or her rights to rehabilitation care and services.

By amendment, "workmen's" was changed to "workers" in the title and throughout the act.

Indiana

Coverage was extended to volunteer firefighters and to sole proprietors and partners actually engaged in a business.

The maximum weekly benefit for both total disability and death was raised in two steps: effective July 1, 1979, it was raised to \$195; on July 1, 1980, it will increase to \$210. On the same two dates, the maximum aggregate amount first changed from \$60,000 to \$65,000 and will increase to \$70,000. The maximum number of weeks for payment of temporary total disability in conjunction with permanent partial disability was increased from 26 to 52 weeks. Replacement of prosthodontic devices is now permitted for employees with a compensable mouth injury.

Iowa

Elective coverage for police and firefighters in municipalities with populations of 8,000 or more will be permitted after December 31, 1979.

Employers are required to repair or replace artificial appliances when damaged or no longer usable as a result of work-related circumstances (other than normal wear and tear).

Kansas

The maximum weekly benefit for disability and death was raised from 66 2/3 percent to 72 percent of the State average weekly wage; the minimum weekly benefit increased from \$7 to \$25. The maximums for total benefits also increased: both permanent total disability and death went from \$50,000 to \$100,000; temporary total disability and permanent or temporary partial disability increased from \$50,000 to \$75,000.

Claimants are entitled to 8 percent interest on the amount of benefits found by the workers' compensation examiner or director or State court to be due and unpaid.

Louisiana

Sole proprietors and partners are now permitted to waive coverage.

The law now authorizes group self-insurance funds. Five or more employers of the same trade or business with a minimum combined net worth of \$500,000 are now permitted to pool their potential liabilities.

Joint self-insurance programs are now permitted for local government employers through the formation of an interlocal risk management agency.

Maine

Coverage now includes all fire personnel whether or not they perform administrative duties.

Injured employees are now permitted to receive podiatric services from licensed podiatrists in Maine.

Occupational hearing loss is now measured in accordance with the National Standards Institute (Standard S3.22, 1976) rather than the American Standards Association (Standard Z24.5, 1951).

The Workers' Compensation Commission was authorized to enforce the provisions pertaining to interest on awards. Attorneys are prohibited from receiving payments directly from clients. The Second Injury Fund is no longer liable for any claim that exceeds its assets.

Workers' "average weekly wage, earnings or salary" was redefined to exclude any allowance given to the employee to purchase chainsaws or skidders used on the job.

All benefits, except for scheduled permanent partial disabilities and lump sum settlements, will now be offset by the amount of any concurrently received unemployment benefits.

There are new procedures to regulate the disclosure of relevant information in the insurance rate filing system.

Massachusetts

The Industrial Accident Board was newly authorized to order payment of medical and hospital bills, and reports prepared by physicians who have since died are now permitted at hearings before the Board.

Michigan

Supplemental benefits (up to full salary) are now provided to certain State employees injured as a result of workplace assaults. Carriers who pay benefits for disability or death caused by exposure to polybrominated biphenyl will now be reimbursed from the Silicosis and Dust Disease Fund.

Minnesota

Many changes were made in the workers' compensation law this year. Major changes include the following.

Business partners who own a business or farm are now permitted to elect coverage for themselves and their immediate relatives.

Death benefits can now be awarded to either surviving spouse, rather than to the widow only. Eligibility for these benefits by children has been extended to full-time students up to age 25. The 104-week limit on total disability payments has been removed. Supplementary benefit payments are increased from 60 to 65 percent of the State average weekly wage. A Reopened Case Fund has been created to assume liability for all new claims filed 7 years from the date of injury or death or 3 years from the last payment of compensation, whichever is later. The Commissioner of Labor and Industry must establish procedures for determining whether health care charges are excessive. An employee who has been mentally and physically incapacitated is now allowed to file a claim for compensation within 180 days of the incapacity. The responsibility for administration of employers' self-insurance was transferred from the Commissioner of Labor and Industry to the Com-

missioner of Insurance.

Employers are required to provide for both podiatric and orthodontic treatment for claimants.

A worker permanently transferred to another State is no longer covered by the extraterritoriality provision if he or she travels extensively outside that State.

The liability of an employee who intentionally or grossly caused injury to another employee was limited.

Comprehensive procedures were established for rehabilitation, emphasizing the need for comparable employment and on-the-job training. Retraining to a higher status was permitted when employability would be increased by doing so. The director of rehabilitation services, appointed by the Commissioner of Labor and Industry from persons in the Classified Service, will oversee this new program.

Mississippi

Maximum weekly compensation for disability and death was increased from \$91 to \$98; the total maximum was raised from \$40,950 to \$44,100.

Missouri

Elective coverage was allowed when an employer files notice with the Division of Workmen's Compensation. The maximum weekly benefit for temporary partial and temporary total disability was increased from \$115 to \$125, and the weekly compensation for both permanent total disability and death was increased from \$115 to \$120.

Montana

The law was redesignated the Workers' Compensation Act, and references to "workmen's" were changed to "workers'" throughout the law. The Occupational Disease Disability Act was retitled the Occupational Disease Act. The Vocational Rehabilitation Division has been renamed the Department of Social Aid Rehabilitation Services.

Municipalities must now pay the difference between a law enforcement officer's full salary and the amount of workers' compensation benefits.

The division is now authorized to require that a claimant pursue a vocational rehabilitation program, if feasible and appropriate, for continuation of benefits. Refusal to participate in the program may lead to the termination of benefits.

Full medical care without time or dollar limits was provided. Under previous law, medical treatment was restricted to a maximum of \$2,500 for a nondisabling occupational disease.

Several pneumoconiosis provisions were repealed, thereby making no practical distinction between pneumoconiosis and other occupational diseases. A fine of not more than \$500, up from \$100, may now be assessed against an employer who fails to provide information (from books, records, and payrolls) at the request of the division. Uninsured employers are now required to pay into the Uninsured Employer's Fund either double the premium amount the employer would have paid if insured by the State fund or \$200, whichever is greater. Third-party suits are no longer permitted against an employer covered by the act. State agencies are now required to be insured under the State fund. The penalty assessed against an insurer for delayed benefit payments was increased from 10 percent to 20 percent.

A provision providing employer nonliability for work contracted to an independent party was eliminated. Benefit payments are due after 15 days of an entitlement notice by the insurer.

Nebraska

The maximum weekly benefit for both disability and death was increased from \$155 to \$180.

Nevada

Coverage was extended to off-duty regular firefighters who perform voluntary services both within the jurisdiction served by their departments and in jurisdictions with reciprocal aid agreements.

Benefits were increased to 35 percent above the initial benefit amount for permanent total disabilities incurred prior to April 9, 1971, and for deaths prior to July 1, 1973. The burial expense allowance was increased from \$1,200 to \$2,500.

Cooperative agreements for rehabilitation services were authorized for the Industrial Commission, the Rehabilitation Division of the Department of Human Resources, and other agencies to provide the necessary rehabilitation services for disabled workers to return to gainful employment.

Employers are now permitted to self-insure their potential liabilities. In addition, an administrative fund was created to defray all costs and expenses of administering self-insurance programs.

New Hampshire

Death benefits for dependent and totally disabled widows or widowers will now extend for the duration of such total disability. A totally disabled widow or widower with dependent children will continue to receive supplemental compensation for their dependents according to the weekly benefit amounts until the children are no longer entitled. Lump sum agreements, except for medical care, may now be permitted at the discretion of the labor commissioner.

New Jersey

Injuries to fingers and toes will no longer be compensated unless a permanent loss of function occurs. A disfiguring injury, with scars less than three inches, will also no longer be compensable except when involving the face.

New Mexico

The definition of "workmen" was broadened to include public employees and salaried public officers.

New York

Coverage is extended to film inspection assistants, school safety supervisors, and instructors of addiction employed by school districts in a city with a population of 1 million or more.

Death benefits for either surviving spouse were equalized.

The authority of the chairman of the Workers' Compensation Board to approve rates for medical services charged to employers was extended until December 31, 1980. The board was also authorized to impose a 1½-percent monthly interest penalty for overdue payments of physician fees.

North Carolina

The law was retitled the Workers' Compensation Law, and references to "workmen's" were changed to "workers'" throughout the law.

The numerical exemption was reduced from five to four employees. Sole proprietors or partners are now permitted to elect coverage; senior members of the Civil Air Patrol were exempted.

When a totally disabled employee dies of asbestosis or silicosis, the compensation will now be the unpaid portion of the 104 weeks of disability compensation plus an additional 300 weeks of benefits.

Attorney fees in third party subrogation actions now must be approved by the Industrial Commission. Two or more employers are now permitted to pool their potential liabilities. Employers can no longer discharge or demote an employee for filing a compensation claim. When a medical bill remains unpaid after 60 days, a 10-percent penalty will now be added. The commission was also authorized to assess the costs of proceedings against any person who has brought, prosecuted, or defended such proceedings without reasonable grounds.

North Dakota

The maximum weekly benefit for death was increased from \$75 to \$90.

Persons on the compensation rolls as of July 1, 1975, who are continuing to receive benefits as of July 1, 1979, are now entitled to supplementary benefits. A claim for death benefits can now be filed up to 2 years (previously 1 year) following the worker's death. Court fees for cases that are being appealed are now determined by the Appellate Court, rather than by the trial judge. Temporary total and permanent total disability benefits will now be offset by the amount of any social security benefits.

Ohio

Temporary total disability benefits for the first 12 weeks of compensation will now be based on 72 percent of the employee's last full weekly wage instead of the employee's average weekly wage.

A Rehabilitation Division was established in the Industrial Commission to provide a comprehensive system designed to rehabilitate the injured worker. In the event of a concurrent and duplicative benefit under an employer-funded, non-occupational benefits plan, temporary total disability benefits will now be reduced.

The time limit for premium defaults was changed from 6 to 8 weeks. Premium rates are now set by the Industrial Commission to assure the solvency of the State Insurance Fund.

Oregon

Upon election by a municipality, coverage can now be extended to all municipal volunteer personnel as well as to subcontractors and their employees. Mentally disabled persons in special educational training programs and participants in work training programs are now covered, except that the trainees are not entitled to temporary total disability benefits.

Compensation for permanent disability was changed from \$85 to \$100 for each degree of injury based on a fixed scale. Where the rating is based on permanent loss of earning capacity, the benefit value per degree is now \$85.

The law was amended to limit an injured worker to four changes of his or her attending physician (following the initial choice) without approval from the director.

Self-insured employers must now have certain excess insurance to cover their potential liabilities.

The State Accident Insurance Fund was made an independent public corporation governed by five directors appointed by the Governor.

An assessment of six cents per day will now be charged to every subject employer for each worker employed each day or part of a day. Permanent total disability benefits will now be offset by the amount of social security benefits received.

Rhode Island

The Workmen's Compensation Commission was retitled the Workers' Compensation Commission.

Determinations for the reasonableness of disputed medical charges will now be made by the Workers' Compensation Commissioner.

The time period for filing occupational disease claims was extended from 24 to 36 months.

South Carolina

The amount of compensation a minor dependent may receive without the appointment of a guardian was increased from \$1,000 to \$2,500.

Tennessee

Maximum weekly benefits for disability or death were increased from \$100 to \$107, and the total maximum was raised from \$40,000 to \$42,800. The \$15 weekly minimum remained unchanged. Death benefits payable to a widower are now the same as those payable to a widow. Lump sum payments may be commuted upon motion by any party involved in the court proceeding.

Texas

The definition of State employee was broadened to include persons paid from State funds and working for and receiving supervision from a political subdivision of the State.

Dependency no longer applies to parents who abandoned or failed to support the disabled or deceased worker during preadult years. When no claim for death benefits has been filed within 8 months of death, it will now be presumed that there are no dependents entitled to benefits; thus payments will be made into the Second Injury Fund. However, this presumption does not apply to minor beneficiaries or to beneficiaries of unsound mind for whom no guardian has been appointed. A written report must now be filed by an employer within 8 days after an employee's absence from work because of a work-related injury.

The law now requires hospitals to furnish relevant records upon request. Physicians and chiropractors were already covered by this provision.

A Workers' Compensation Advisory Committee was appointed by the Governor to study the law and to formulate possible ways to improve the system.

Utah

Minimum weekly compensation was increased from \$75 to \$85 for persons permanently and totally disabled and entitled to benefits from the Special Fund. References in the law to either "Special" or "Combined" Injury Fund were deemed to concern the Second Injury Fund.

Employer liability in no-dependency cases was increased from \$15,600 to \$18,720, payable into the Second Injury Fund. All death benefits formerly paid from the fund will now be paid by the carrier. After the first 6 years of dependency, death benefits will be subject to a 50-percent offset based on Federal social security death benefits.

The minimum weekly benefit for an employee undergoing rehabilitation was increased from \$35 to \$45.

Virginia

The 2-year limit for filing first or second stage pneumoconiosis claims was removed. Only in cases of pneumoconiosis or

silicosis, where x-ray evidence has demonstrated a positive diagnosis of the disease, will waivers from coverage be permitted.

Requirements for group self-insurance were strengthened, with new payroll reporting procedures and the adoption of uniform rules on compliance and certification of insurance. Other insurance changes were also made.

Washington

Corporate officers were excluded from compulsory coverage; elective coverage is now permitted.

Permanent partial disability benefits (thus all disability benefits) will now be offset by any Federal social security benefits. A new provision also allows recovery of overpayment based on this offset.

Weekly compensation for scheduled injuries (where benefit amounts have been precalculated) was doubled, and total compensation for impairment to the whole body was increased from \$30,000 to \$60,000.

A \$45,000 maximum was placed on compensation for unscheduled permanent partial disability to the back when no objective clinical findings are available.

The annual cost-of-living adjustment for both total disabili-

ty and death benefits for claimants on the rolls since July 1, 1971, was extended to July 1, 1980.

West Virginia

The commissioner must now establish guidelines for determining anticipated periods of disability. Eligibility requirements under the Disabled Workmen's Relief Fund will now extend coverage to persons who receive less than 33 1/3 percent of the State average weekly wage. Payment of reasonable medical expenses is now permitted without prior authorization under certain circumstances.

A Workers' Compensation Advisory Board consisting of 10 members was created to advise the commissioner on compensation administration and make long-range plans for improvements in the Disabled Workmen's Relief Fund.

Wyoming

The presumed pay of volunteer emergency personnel was increased from \$50 per month to \$100 per month. Thus, they will now be entitled to maximum benefits for temporary total disability.

The dollar limits on attorney fees were eliminated.

The cost of safety incentives

The pain and suffering of a serious disability represent a substantial portion of the costs of an injury. It would be desirable for the legal system to assign liability for such losses so that the full cost of injuries is borne by the party in the best position to prevent the accident. The dilemma, however, is that if the awards routinely made in a workers' compensation system were to be so generous as to include pain and suffering there would be a strong incentive for employees to act with less than an optimal amount of care. . . .

There is some evidence that even the more generous States within the current system may fail to encourage an

appropriate amount of careful employee behavior. Only a system that provides the opportunity for detailed examination of the circumstances and consequences of the injury could avoid such a distortion of incentives; but again, this would be very costly.

—JAMES ROBERT CHELIUS

Workplace Safety and Health: The Role of Workers' Compensation
(Washington, American Enterprise Institute for Public Policy
Research, 1978), p. 62.

The productivity trend in the soaps and detergents industry

During 1958–77, annual productivity increased an average of 2.9 percent, as the industry responded to a strong demand for soap and detergent products and was aided by improved technology

PATRICIA S. WILDER

Productivity in the soaps and detergents industry has increased in line with the rise in output per employee hour for the manufacturing sector since 1958.¹

While annual output doubled, employee hours increased by more than one-fourth between 1958 and 1977. The average annual increase in productivity was 2.9 percent.

The rise in productivity was associated with an annual increase in output of 4.1 percent coupled with a 1.2-percent average annual increase in employee-hours. Productivity gains have resulted primarily from sustained high levels of capital investment for new machinery and equipment, and improvements in production and packaging operations.

Output per employee hour has fluctuated during the period of this study. Since 1958, annual increases in productivity have ranged from 1.0 to 10.6 percent. Declines in productivity have occurred in 4 years, including 1977. For the most recent 5-year period, 1973–77, productivity has declined at an annual rate of 0.6 percent. (See table 1.)

From 1958 to 1965, average growth in productivity was 1.9 percent; output rose 4.6 percent, and hours advanced 2.7 percent annually. During this period, the industry experienced a general expansion. The number of establishments manufacturing soaps and detergents increased from 608 in 1958 to 704 in 1963.

From 1965 to 1974, productivity grew much faster, averaging 4.3 percent each year. The acceleration was in sharp contrast to the productivity movements of other industries in the economy. More than two-thirds of the industries for which productivity measures are available showed slackening productivity growth since 1966. Productivity growth in the soaps and detergents industry during 1965–74 reflected average annual increases of 4.9 percent in output and 0.6 percent in employee-hours. The slower growth in employee-hours was associated with an overall decline in the number of establishments—from 704 in 1963 to 642 by 1972.

In 1975, a recession year, productivity fell 7.1 percent. Output recorded its largest decline of 9.4 percent, and employee-hours declined 2.4 percent. In 1976, productivity growth resumed with a 3.0 percent gain with both output (5.8 percent) and hours (2.8 percent) increasing over the depressed levels of the preceding year. In 1977, however, output growth slowed to 2.2 percent, while employee hours increased 2.8 percent. This resulted in a 0.6-percent decline in productivity.

Output doubles

Productivity gains in the soaps and detergents industry have been closely linked to output expansion, which doubled between 1958 and 1977. Some significant factors affecting this growth are expanded use of home laundry equipment and dishwashing appliances, population growth, and successful advertising and sales promotions.²

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Table 1. Productivity and related indexes for the soaps and detergents industry, 1958-77

[1967 = 100]

Year	Output per employee-hour			Output	Employee-hours		
	All employees	Production workers	Nonproduction workers		All employees	Production workers	Nonproduction workers
1958	77.7	78.3	76.3	64.7	83.3	82.6	84.8
1959	84.4	85.4	82.2	71.8	85.1	84.1	87.3
1960	81.7	81.5	82.0	71.9	88.0	88.2	87.7
1961	82.6	81.7	84.2	75.7	91.7	92.6	89.9
1962	83.9	81.7	89.7	78.8	93.9	96.5	87.8
1963	90.7	87.5	98.8	85.2	93.9	97.4	86.2
1964	90.7	88.3	96.5	88.7	97.8	100.4	91.9
1965	88.1	87.0	90.7	88.5	100.4	101.7	97.6
1966	94.2	94.0	94.6	93.8	99.6	99.8	99.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.1	102.4	98.2	106.0	104.8	103.5	107.9
1969	101.1	104.1	95.0	109.9	108.7	105.6	115.7
1970	105.7	110.4	96.3	115.3	109.1	104.4	119.7
1971	108.6	114.8	96.5	111.7	102.9	97.3	115.7
1972	120.0	125.1	110.1	125.9	104.9	100.6	114.3
1973	127.5	134.4	114.2	135.1	106.0	100.5	118.3
1974	132.7	139.6	119.3	137.9	103.9	98.8	115.6
1975	123.3	129.0	112.1	125.0	101.4	96.9	111.5
1976	127.0	135.0	112.0	132.3	104.2	98.0	118.1
1977	126.2	135.6	109.1	135.2	107.1	99.7	123.9
Average annual rates of change (in percent)							
1958-77	2.9	3.4	1.9	4.1	1.2	0.7	2.1
1973-77	-0.6	-0.2	-1.5	-0.4	0.2	-0.2	1.1

The growth in output has also been influenced by the availability of a wide variety of soap and detergent products which can handle different types of cleaning problems. Among synthetic detergent products are light-duty, mild, sudsing detergents mainly used for dishwashing by hand; all-purpose and heavy-duty laundry detergents, which can be used for a number of tasks; presoak products; and automatic dishwashing detergents. Laundry soaps are also available as flakes and blown granules. The predominantly used soap product is the refined bar of toilet soap. As shoppers are aware, these bars are available in a variety of sizes, colors, and scents, some containing additives such as cold creams and deodorants. The industry is very competitive and has been able to gain public acceptance of new products through advertising, and by dispensing free samples in large numbers when new products are introduced.³

The growth in output has also been influenced by the interactions among the household laundry equipment, textile, and detergent industries. The development of permanent press garments in the mid-1960's by the textile industry was followed by reformulations in detergent products. Because oily soils are more difficult to remove from synthetic fibers, their increased use in clothing required improved detergent products. Also, because higher wash temperatures may cause oily soils in some synthetics to become "set," lower wash temperatures are often recommended for wash and wear garments.⁴ The detergent industry developed improved products that would perform adequately at lower wash

temperatures. The household laundry equipment industry followed the development of permanent press garments within a few months by the introduction of properly matched cycles in washers and dryers to handle this new concept in clothing.⁵ At present, many automatic washers include permanent press cycles and various combinations of wash and rinse temperatures.

The increase in the sales of home laundering equipment, as well as the increase in wash and wear fabrics, favorably affected the demand for soap and detergent products. The output of the household laundry equipment industry is estimated to have increased nearly 70 percent between 1958 and 1976. In 1975, more than 4 million home washing machines were sold, increasing market penetration to 70 percent, from 53 percent in 1960.⁶

Employment shows moderate rise

Employment in the soaps and detergents industry, currently at 40,000, has increased moderately since 1958, when employment was at 32,000. This change is equivalent to an average increase of 1.1 percent each year. The growth in employee hours—an average annual rate of 1.2 percent—reflected a very small increase in average hours per employee.

Labor turnover in the industry has been comparatively low, providing a stable and experienced work force. Since 1958, accessions have averaged 2.5 per 100 employees annually, compared with 3.6 for all manufacturing. Separation rates have been 2.4 per 100 employees, compared with 4.1 for all manufacturing. Lower layoff and quit rates occurred in the industry than for all manufacturing almost every year. Average hourly earnings for production workers in the soaps and detergents industry have risen steadily. Hourly earnings averaged \$7.81 in 1977, compared with the manufacturing average of \$5.68.

The proportion of nonproduction workers in the industry is somewhat higher than is the case in other manufacturing industries—37 percent of total employment in 1977, compared with 28 percent for all manufacturing. The higher proportion reflects the larger number of professional and technical, clerical, and sales personnel employed.

Although data on the occupational composition of employees in the industry are not available, some insights can be obtained from the broader aggregation, soaps and cosmetics.⁷ In 1976, an estimated 6 percent of all workers employed in soaps and cosmetics were chemical and industrial engineers, chemists, and chemical technicians. Sales and clerical personnel accounted for 26 percent of total employment. The industry also employs a large number of semi-skilled workers, such as packers, wrappers, examiners, assemblers, and mixers who accounted for 32 percent of the work force in 1976.

Larger plants dominate output

Most of the soaps and detergents industry's output is produced by large establishments. By 1972, more than 80 percent of the value of shipments was accounted for by units having 100 employees or more. These units represented only 9 percent of the industry's establishments because most of the industry's establishments are small. In 1972, 69 percent of the 642 manufacturing establishments had fewer than 20 employees.

Prior to the introduction of synthetic detergents, the soaps and detergents industry tended to concentrate near the sources of its principal raw materials. In more recent years, with increased detergent usage, more emphasis is given to locations near distribution centers when new sites are considered. Although production establishments are located throughout the Nation, about half of the industry's production originates in the North Central region of the United States.

Increases in labor productivity are frequently related to increases in the stock of capital. Over the period of this study, new capital expenditures per employee in the soaps and detergents industry increased at an average annual rate of 10 percent, compared with 7.8 percent for all manufacturing. Moreover, the levels were substantially above the average for all manufacturing in almost every year. By 1976, capital expenditures per employee were 82 percent higher than the manufacturing average (\$4,191, compared with \$2,300). About three-fourths of the expenditures have been for new machinery and equipment, the same as for all manufacturing.

Technology changes

Soap has always been made by combining the basic ingredients, fat and alkali. The early American commercial soapmakers made soap outdoors in large iron kettles over an open fire, according to a uniform formula. The kettle method of soapmaking was used until 1940 when a major improvement was achieved in soap production technology. A continuous process was perfected which reduced soapmaking time from about a week to less than a day.⁸ Today, the continuous process is dominant, although the "kettle" process is still used in some establishments.

Soap reacts with the minerals in hard water to form lime soap, which sometimes appears as a white scum in the wash water. Synthetic detergents, however, do not react this way. The term detergent usually refers to a product, which for heavy-duty laundry use, generally contains an organic surface active agent (surfactant), an inorganic builder, and various other ingredients. Also, "detergent" is sometimes used to denote the organic surfactant.⁹

German scientists are credited with developing the first synthetic detergents during World War I.¹⁰ Synthetic detergents were introduced into the United States during the early 1930's. The first synthetic detergents performed well in hard water; however, their cleaning ability was limited in laundry usage. In the 1940's, the discovery and development of phosphates, primarily sodium tripolyphosphate, led to the first "built" synthetic detergents which not only performed well in hard water, but provided the cleaning power necessary for laundry use.¹¹ By 1958, soap for many centuries the chief cleansing agent for household laundry and dishwashing use, had been largely replaced by synthetic detergents.

Detergents reformulated. Developments over the past 15 to 20 years have resulted in many changes in product composition. Because of environmental concerns, detergent products have been and are still being reformulated. One of the first changes in detergent composition occurred in 1964-65 involving the replacement of the organic surfactant with a type which degrades rapidly in the environment.¹² Specifically, "hard" branched-chain alkylbenzenesulfonate (ABS) was replaced by "soft" biodegradable linear alkylbenzenesulfonate (LAS). LAS is still a major detergent ingredient.

By the late 1960's, the focus of environmental concern shifted to phosphate levels in detergent products because of the controversy over the effect of phosphates upon rivers, streams, fish, and other wildlife. Legislation restricting phosphate levels in detergents was introduced, including a total ban on phosphate in detergents in several States. To maintain detergent performance with reduced phosphate levels, surfactant levels are generally increased. Also, the use of surfactants, which are even less sensitive to water hardness than LAS, helps to maintain cleaning performance. For this reason, surfactants based on long-chain alcohols have become more popular.

These detergent formulation changes which occurred in the mid- and late 1960's coincided with years in which productivity grew substantially less than the industry long-term average. Also, exceptionally large annual increases in nonproduction workers occurred which suggests that the industry, in response to the environmental concerns, expanded its research efforts into the development of environmentally more acceptable products.

Although sodium tripolyphosphate is still the leading detergent builder, new builders are beginning to appear and are currently used as phosphate substitutes. These include sodium carbonate, sodium silicate, and various surfactant blends. Other possible phosphate replacements are being developed and tested, but none of these materials has proved to be a total replacement on a one-to-one basis.

Production processes improved. By 1958, virtually all of the basic equipment currently used in soap and detergent making had been developed. Most of the improvements which became available later were technological refinements of the basic equipment and production processes. However, some notable improvements have been introduced.

One of the major processes in the manufacture of synthetic surfactants is sulfonation. In this process, a nonsurface-active hydrocarbon (alkylbenzene, for instance) is converted into surface-active alkylbenzene-sulfonic acid, and subsequently neutralized to a salt. Oleum is the sulfonating agent.¹⁴ In the mid-1950's, an innovation was developed which permitted the industry to convert batch sulfonation into a continuous process. With the continuous oleum process, a high-quality, uniform product could be obtained which met the important production criteria, principally light color and low free oil (unconverted hydrocarbon) in the final sulfonation product. Time saving is another advantage; the continuous sulfonation process is completed in a matter of minutes, whereas the batch process requires 6 to 10 hours.¹⁵

In the mid-1960's, a further improvement was introduced in the continuous sulfonation process involving a change from oleum to sulfur trioxide (SO_3) gas, mixed with air, as the sulfonating agent. The industry-wide trend towards the use of continuous SO_3 has occurred mainly because former sulfonating agents, such as oleum, have higher chemical costs, and present disposal problems of spent sulfuric acid. Also, some of the newer types of raw materials mentioned earlier cannot be processed efficiently except with SO_3 . This process provides a high-quality product by minimizing product degradation due to the short reaction time, reducing costs, and realizing labor savings in the handling of the acid disposal product.¹⁶

Continuous sulfonation processes with automatic controls minimize labor requirements. An entire continuous sulfonation plant can be operated with one operator, rather than the two or three operators needed in the batch and semi-continuous plants.¹⁷

Packaging operations in the industry have long used automatic equipment. However, some technological modifications have been introduced. For example, machines have been developed to handle larger powder packs and at the same time are capable of erecting cartons, and filling and closing them at higher speeds. For liquids, machines have also been introduced that can achieve higher filling speeds.

High-speed soap bar production. Changes have also been made in soap bar finishing operations.¹⁸ Although continuous soap production lines have been in operation for many years, the need for faster production rates and

the development of more complex shapes of bar soaps spurred improvements over the past 15 years. Extensive changes have occurred in the design of the equipment and the line configurations.

New high-speed lines for production of simple or uniform type bar soap formulas have broken the traditional line speed barrier of 150-200 bars per minute. With the high-speed lines, 200-300 soap bars can be produced each minute. Modern specialty lines are available which provide flexible processing capability. A variety of toilet bar formulations such as synthetic detergent bars, soap-synthetic bars, and translucent soaps can now be produced at reasonable speeds. New high-speed stamping machines have also been developed which can produce up to 400 bars per minute either banded or bandless. In addition, refrigerated stamping dies have become standard in the industry. They serve to improve product appearance, to lessen die-fouling, and to improve production rates.

New developments have also been made in the machinery that is widely used to package bar soaps. These developments complement the development of the high-speed finishing lines and have been directed primarily toward wrappers, cartoners, and bar soap transfer units. This new equipment has the capability of attaining higher speeds and has the flexibility of handling various shapes of bar soap.¹⁹ In the past, bar soap transfer units were limited to maximum speeds of 200 bars a minute. In the last 4 to 5 years, the speed has been increased. Wrappers, cartoners, and bar soap transfer units are being introduced that are capable of average production speeds of up to 300 bars a minute for the mass-produced soaps.

Computer technology has made possible the centralized instrumentation of the production processes, although the industry has always been highly mechanized. Computers are increasingly being used for jobs such as inventory control, flow and measurement of raw materials, formula calculations, and in mixing operations to assure uniformity of soap and detergent mixes. Marketing analysis can more easily be accomplished with computer-based information systems. The use of computer processing provides information that can be used to better allocate the time required for many activities, resulting in improved utilization of labor.

Shortrun changes in productivity in the soaps and detergents industry will continue to be affected by changes in demand. Over the longrun, the high levels of capital investment per employee should help to keep industry productivity gains in line with the average for all manufacturing.

Substantial demand for virtually all of the products produced by the industry should continue into the immediate future. The output of dishwasher detergents should especially show growth as the utilization of

existing dishwashing machines is increased, and the ownership of home dishwashers is expanded. The number of washing machines in U.S. households is also expected to increase, thus generating additional growth for the soaps and detergents industry.

— FOOTNOTES —

¹ The soap and other detergents industry comprises establishments primarily engaged in manufacturing soap, synthetic organic detergents, inorganic alkaline detergents, or any combination thereof, and refined glycerine from vegetable and animal fats and oils. The industry is designated as number 2841 in the Office of Management and Budget's *Standard Industrial Classification Manual (SIC), 1972 edition*. Data prior to 1958 are not comparable. All average annual rates of change are based on the linear least squares trends of the logarithms of the index numbers. Extensions of the indexes will appear in the annual BLS Bulletin, *Productivity Indexes for Selected Industries*. A technical note describing the methods used to develop the indexes is available from the Division of Industry Productivity Studies.

² *U.S. Industrial Outlook*, various issues.

³ *Industrial Outlook*, 1970, p. 181.

⁴ Dieter H. Von Hennig, "The Role of Detergent Alcohols in the Soap and Detergents Industry, A Bicentennial Update," Shell Chemical Company, at Chemical Industry Association, Inc. Workshop Meeting, Absecon, New Jersey, June 14, 1976.

⁵ Richard C. Davis, "Washer-detergent-textile Interactions," *Hydrocarbon Processing*, March 1975, pp. 90-92.

⁶ Richard B. Carnes, "Laundry and cleaning services pressed to post productivity gains," *Monthly Labor Review*, February 1978; and "1976 Statistical and Marketing Report," *Merchandising*, March 1976, pp. 38-42.

⁷ Bureau of Labor Statistics, unpublished data for 1970-85, National Industry Occupational Matrix.

⁸ "About Soap," *Procter and Gamble Service Bulletin*, Procter and Gamble, Cincinnati, Ohio.

⁹ Based on information provided by Dr. Arno Cahn, Development Director, Household Products, Lever Brothers Co.

¹⁰ "Some Facts About Procter and Gamble Detergents," *Procter and Gamble Information Bulletin*.

¹¹ Anne L. Lyng, "Detergents in Review," *Detergents—in Depth*, a symposium sponsored by The Soap and Detergent Association, Washington, D.C., Mar. 28-29, 1974, pp. 2-7.

¹² T. E. Brenner, "Soaps and Detergents: North American Trends," The Soap and Detergent Association, in *Proceedings—World Conference on Soaps and Detergents*, Oct. 9-15, 1977, Montreux, Switzerland, pp. 5-8. Reprinted in *Journal of the American Oil Chemists' Society*, January 1978. Also see, O. Carl Kerfoot and H. R. Flammer, "Synthetic Detergents: Basics," *Hydrocarbon Processing*, March 1975, pp. 74-78.

¹³ Brenner, "Soaps and Detergents."

¹⁴ Based on information provided by Dr. Arno Cahn, Development Director, Household Products, Lever Brothers Co.

¹⁵ *Oleum Sulfonation Process Equipment*, The Chemithon Corp., Seattle, Washington, 1968. Also conversation with representative of The Chemithon Corporation.

¹⁶ *Sulphur Trioxide Detergent Process Equipment*, The Chemithon Corp. Ibid.

¹⁷ *Oleum Sulfonation Process Equipment and Sulphur Trioxide Detergent Process Equipment*. Ibid.

¹⁸ A. B. Herrick, "Bar Soap Finishing—New Trends in Soap Processing Line Design and Layouts," Armour-Dial Company, in *Proceedings—World Conference on Soaps and Detergents*, Oct. 9-15, 1977, Montreux, Switzerland. Reprinted in *Journal of the American Oil Chemists' Society*, January 1978, pp. 147-50.

¹⁹ L. Spitz, "Bar Soap Packaging," ACMA S.p.A., in *Proceedings—World Conference on Soaps and Detergents*, Oct. 9-15, 1977, Montreux, Switzerland. Reprinted in *Journal of the American Oil Chemists' Society*, January 1978, pp. 151-55.

APPENDIX: Measurement techniques and limitations

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

The preferred output index for manufacturing industries would be obtained from data on quantities of the various goods produced by the industry, each weighted (multiplied) by the employee-hours required to produce one unit of each good in some specified base period. Thus, those goods which require more labor time to produce are given more importance in the index.

In the absence of physical quantity data, the output index for the soaps and detergents industry was constructed by a deflated value technique. The value of

shipments of the various product classes were adjusted for price changes by appropriate Producer Price Indexes to derive real output measures. These, in turn, were combined with employee-hour weights to derive the overall output measure. These procedures result in a final output index that is conceptually close to the preferred output measure.

The indexes of output per employee-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 factors such as changes in technology, capital investment, capacity utilization, plant design and layout, skill and effort of the work force, managerial ability, and labor-management relations.

Estimating the user cost of owner-occupied housing

The Bureau of Labor Statistics has continued its examination of alternative ways to measure homeowner costs in the Consumer Price Index

ROBERT GILLINGHAM

For several years, the Bureau of Labor Statistics has been studying alternative methods of measuring the costs of owner-occupied housing in the Consumer Price Index (CPI). During the recently-completed revision of the CPI, Bureau staff proposed that the housing component of the CPI—for both renters and homeowners—measure the cost of consuming the flow of shelter services provided by a house. This approach, which is comparable to that incorporated in the national accounts, focuses on consumption and abstracts from the investment aspects of home purchase decisions. Unfortunately, it is impossible to observe directly the market value of the shelter services consumed by homeowners. For this reason, it is necessary to develop *indirect* measurement techniques. The Bureau has been actively studying two alternative approaches—rental equivalence and user cost.

These alternatives, while conceptually equivalent, have substantially different operational implications. The first involves collecting rental values for houses which are rented but which have characteristics similar to owner-occupied housing and using these rents as a proxy for homeownership costs. The second involves building up the user cost of shelter services from its components—interest costs, taxes, maintenance, etc. The purpose of this article is to demonstrate that several of the conditions which characterize housing markets

make the development of an operational user cost methodology extremely complex. This conclusion implies that the rental equivalence approach has a substantial operational advantage as a measure of shelter costs for homeowners.

Theoretical framework

To begin with, we take as given the overall conceptual framework for the Consumer Price Index which we have discussed elsewhere.¹ As such, we start from the proposition that the consumer's welfare is determined by the flow of consumption services received, where the services can be (1) directly provided, (2) obtained coincidentally with the consumption of a nondurable good (in which case the distinction between a good and a service is unnecessary), or (3) obtained from the use of a durable good owned by the consumer. In each case, satisfaction is derived from the act of consumption; ownership of a source of consumption services—a durable good—produces no additional satisfaction. In other words, the purchase of a durable good is an "investment," designed to provide consumption services over a future time span.

Within this framework, we want the CPI to measure over time the cost of the market basket of services *consumed* in the base period. For the services provided by directly-purchased services and nondurable goods, this implies observing market prices and transaction levels in the base period, as well as the subsequent time path of market prices. However, for the services provided by durable goods owned by consumers, the implicit

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price of the services must be estimated, because market transactions do not take place each time the service is consumed.

The remainder of this article will analyze the estimation problem involved in the case of shelter services provided by owner-occupied homes. We will start by defining user cost in the simplest case—in a world of certainty without taxes, and with perfectly competitive markets—and proceed to outline the conceptual and empirical complications which arise when these assumptions are dropped.

In a world with perfect rental and resale markets and no uncertainty, the user cost of a house in a given period can be shown to be the following:

$$(1) c_t = r_t P_t - A_t + Z_t$$

where r is the (single) rate of interest in period t , P is the average price of the house in period t , A is equal to the change in the average price over the period and Z represents all other cost components.² In other words, the user cost is defined as the opportunity cost of holding the house, $r \cdot P + Z$, less the increase in the house's value. In equilibrium, the rental price of the house, R , will be equal to the user cost, and, since we have assumed frictions away, the rent received by a landlord will equal the rent paid by a tenant. Thus, in a perfect world the following obtains

$$(2) R_t^L = C_t = R_t^T$$

where the superscripts L and T denote landlord and tenant, respectively.

Under the conditions we have assumed, measurement of the value of the flow of shelter services from a house becomes a trivial matter. It can be measured with information from either rental or resale and money markets and it does not matter whether the information refers to buyers' or sellers' prices. Problems arise, however, when we attempt to measure the cost of shelter for homeowners in a more complicated setting, in which the exact form of the user cost function is more difficult to define and the equalities defined above need not hold.

To lay out this problem more clearly, we will drop the assumption of perfect certainty, thereby allowing for a structure of differing asset yields. We will also relax the assumption of perfect markets to allow for the possibility that the rent received by a homeowner may be less than the rent paid by a tenant, the difference representing, for instance, the value of a management function. Although we no longer assume perfect rental markets, we do assume that there is some price at which each homeowner can rent shelter services equivalent to those provided by his own home and some strictly positive price at which another consumer would be willing to rent his house. Under these condi-

tions, the user cost measure can be redefined as

$$(3) C_t = r_{et} E_t + r_{mt} M_t - A_t + Z_t$$

where M and E are mortgage and equity amounts which sum to the average price of housing (P), r_m is the mortgage interest rate, and r_e is the opportunity cost of equity capital.³

The relationship between user cost, defined in this manner, and the alternative rent measures defined above is now ambiguous and depends critically on the manner in which the opportunity cost of equity capital is defined. Certainly, the rent paid by a tenant (R^T) must be greater than or equal to that received by a landlord (R^L), but depending on the manner in which one chooses to define and estimate the opportunity cost of equity capital (r_e), the relationship between each of the rent measures and user cost (C) is uncertain.

The variables included in the redefined user cost function are all conceptually and operationally straightforward with one crucial exception—the opportunity cost of equity capital. Unfortunately, estimates of user cost are also sensitive to alternative definitions of this variable. Several somewhat “natural” alternatives for defining the opportunity cost of equity capital (r_e) have been suggested elsewhere.⁴ In our 1973 study, it was suggested that r_e be estimated as an internal rate of return defined by the identity

$$(4) R_t^L + A_t = r_{et} E_t + r_{mt} M_t + Z_t$$

where R_t^L is an estimate of the market rental which an owner could receive for his house. Alternatively, one might argue that the appropriate internal rate of return be defined by substituting R^T for R^L in equation (4). In either case the resulting estimate of user cost, which we will call C_r , reduces to an implicit rent, and the following relationship holds:

$$(5) R_t^L \leq C_r \leq R_t^T$$

The suggestion to use an internal rate of return on housing to estimate user cost is based on the assumption that this rate best describes the alternative rate of return an owner/investor could receive on another investment with similar liquidity and risk characteristics.

Several analysts have suggested that alternative rates of return which consumers either receive or pay—such as the rate of interest on consumer debt, savings accounts, mortgages and bonds—be used to construct the user cost function.⁵ With this approach, depending upon the particular rates of return included, the resulting user cost estimate, which we will denote C_u , need not be bracketed by the two rent variables (R^L and R^T).

The problem of selecting an appropriate estimate of the opportunity cost of equity capital (r_e) reduces to a fundamental question concerning the appropriate treat-

ment of liquidity and risk parameters in the user cost function: do we want to estimate the opportunity cost of equity capital using rates of return on alternative investments with similar liquidity and risk parameters? We see no reason not to estimate the cost of equity capital using rates of return on alternative investments with, in some sense, similar characteristics, provided such investment opportunities indeed exist for the homeowner. Furthermore, without accepting this basis for selecting an appropriate cost of equity capital, it is impossible to derive a single user cost of housing and, depending on the variables used to estimate user cost, the latter can fall outside the rent bounds previously defined, both in the short and long run.

It is this latter fact which adds greater weight to the argument that the internal rate of return is the appropriate measure of the opportunity cost of equity capital. It is plausible to contend that a user cost measure is a conceptually viable estimate of the value of the flow of shelter services only if it is bracketed by rent received by landlords (R^L) and that paid by tenants (R^T). It cannot be less than R^L because a homeowner always forgoes this amount when he lives in his own house, and it cannot be greater than R^T because a homeowner always has the alternative of obtaining equivalent housing services at this price. For these reasons, it can be argued that the user cost function denoted by C_u is a viable estimate of the value of shelter services only if it is bounded by R^L and R^T , and this condition will obtain in general if and only if an appropriately defined internal rate is used to estimate the opportunity cost of equity capital.

The most important conclusion to be drawn from the foregoing analysis is that unless we are able to incorporate implicit valuations of the flow of shelter services into the analysis—through the definition of R^L , R^T , and/or r_e —it is impossible to derive a measure of the user cost of housing which will be reasonably representative of the cost experience of owner/occupants. To put this conclusion another way, if we maintain that rental opportunities for owner-occupied houses do not exist, and that the rate of return of some set of financial assets is an appropriate opportunity cost of equity, then there is no reason to be surprised if our estimates of user cost exhibit wide fluctuations and include negative values—this would be an accurate reflection of user cost under the set of conditions just described. However, if, as in the analysis above, we are not willing to maintain that there are no potential rental market opportunities for owner-occupied houses, and are willing to accept the rate of return on housing investment as an acceptable opportunity cost of equity, then it is necessary to develop user cost estimates which are consistent with these propositions.

Empirical evidence

The foregoing discussion emphasizes the importance of explicit or implicit rental market information in obtaining conceptually sound user cost estimates. It might be asked, however, whether in practice use of alternative estimates of the opportunity cost of equity to homeowners might yield reasonable approximations to a user cost index which incorporates rental market information. During the recent revision of the CPI, BLS staff members experimented with alternative user cost formulations in an attempt to develop a function which would adequately represent, at a minimum, the trend in user cost without exhibiting short-term movements which are inconsistent with the framework outlined above. Using the general user cost equation, defined above as

$$(6) C_t = r_{et}E_t + r_{mt} - A_t + Z_t,$$

we experimented with alternative estimates of the various components—particularly the opportunity cost of equity capital (r_e) and the change in the average price of houses (A)—in an attempt to develop a user cost function which would provide a reasonable estimate of the trend in shelter cost. The basic difficulty faced is that the opportunity cost of equity capital and appreciation components in the above equation are historically volatile and, *ceteris paribus*, correlated. Although the measurement of house price levels, and thus appreciation, is difficult, we were able to construct reasonable estimates of current appreciation which do, in fact, accurately reflect the historical volatility of this series. Without using information from rental or housing investment markets, however, we were unable to capture the presumably correlated variation in the opportunity cost of equity capital (r_e). In other words, we were unable to estimate a user cost measure which exhibits reasonable short-term movements when current appreciation rates are included in the measure.

As a result of this empirical anomaly, our experiments were focused on developing a user cost measure which would provide a reasonable estimate of the trend movement in user cost without exhibiting the unrealistic short-term fluctuations which characterize a user cost measure which includes current appreciation rates. To do this we used (1) a moving average of past appreciation rates to estimate the trend movement in appreciation, and (2) an index of either current or a moving-average of mortgage interest rates to estimate the trend movement in the opportunity cost of equity capital.⁶ It might be hoped that a user cost measure which incorporates these trend measures for both appreciation and the opportunity cost of equity would provide a more reasonable trend estimate for the user cost of housing. Fur-

thermore, an index constructed in this fashion could be constrained to reduce unrealistic short-term volatility, characteristic of several of the alternative measures considered, which would cause severe problems in both the use and interpretation of the index.

Tables 1 and 2 summarize, very briefly, the basic findings of our analysis. These tables are based on four user cost simulations which incorporated five alternative estimates for the appreciation rate and two alternative specifications for both the opportunity cost of equity capital and the mortgage interest rate (r_e and r_m). In the first table, which uses the current mortgage interest rate to approximate opportunity cost, the impact of alternative estimates of appreciation are displayed. In the index in column 1, appreciation is estimated by applying current appreciation rates to current (constant quality) house prices. For the indexes in columns 2 through 4 one-, three- and five-year unweighted average appreciation rates are applied to current house prices, while in column 5, a 15-year weighted average of appreciation rates is incorporated.⁷ Comparison of these indexes amply demonstrates the extreme impact of appreciation on the user cost measure. Even when the five-year average of appreciation is used, the index exhibits an extreme and unlikely dip in 1971-72, a dip which is only par-

Table 2. Estimated user cost indexes, December 1964-December 1975

Period	$r_e = \text{current}$ $r_m = \text{current}$	$r_e = \text{current}$ $r_m = \text{5 year average}$	$r_e = \text{5 year average}$ $r_m = \text{current}$	$r_e = \text{5 year average}$ $r_m = \text{5 year average}$
December 1964	100.0	100.0	100.0	100.0
December 1965	102.0	101.3	101.0	100.3
December 1966	115.2	110.7	108.4	104.0
December 1967	115.1	111.5	109.7	106.2
December 1968	122.7	115.7	112.3	105.5
December 1969	128.1	118.1	113.2	103.5
December 1970	129.7	119.0	113.7	103.3
December 1971	120.1	117.9	116.9	114.8
December 1972	129.8	129.7	129.6	129.5
December 1973	157.0	149.9	146.4	139.4
December 1974	162.6	149.4	142.9	129.9
December 1975	148.5	138.0	132.8	122.5

¹ All indexes incorporate 15-year weighted average appreciation rates. Mortgage interest rates, either averaged or current, are used for both the opportunity cost of equity capital (r_e) and the mortgage interest rate (r_m).

tially dampened when appreciation rates are averaged over 15 years.

In table 2, which incorporates the 15 year weighted average appreciation rate for all indexes, four alternative combinations of current and average interest rates are used to represent the opportunity cost of equity capital and the mortgage interest rate. Once again, the choice of the interest rate to represent r_e and r_m has a substantial impact on the index and, especially in the case of r_e , without recourse to information from rental markets, the choice is essentially arbitrary.

The estimated user cost indexes presented in tables 1 and 2 demonstrate the sensitivity of the indexes to alternative assumptions about individual user cost components. Perhaps more importantly, they provide empirical support for the contention that it is impossible to construct a valid user cost measure which is consistent with the information provided by rent markets without either direct or, through direct measurement of the opportunity cost of equity capital, indirect use of that information. In other words, our results imply that, either directly or indirectly, a rental equivalence measure is a necessary input into the construction of a user-cost measure. Consequently, the rental equivalence approach provides a simpler, more direct measure of the cost of shelter services for homeowners. □

Table 1. Estimated user cost indexes,¹ December 1964-December 1975

Period	Appreciation rate averaged over . . .				
	Current Period	1 year	3 years	5 years	15 years ²
December 1964	100.0	100.0	100.0	100.0	100.0
December 1965	57.9	132.7	103.5	105.2	102.0
December 1966	53.1	117.5	121.5	115.3	115.2
December 1967	39.3	151.1	134.6	118.6	115.1
December 1968	-13.5	92.7	128.5	130.6	122.7
December 1969	49.4	63.6	119.5	134.8	128.1
December 1970	62.1	55.6	85.9	125.0	129.7
December 1971	130.7	130.3	76.2	106.3	120.1
December 1972	155.9	194.1	119.1	104.8	129.8
December 1973	54.5	164.1	175.9	131.4	157.0
December 1974	-131.3	-13.5	144.9	137.7	162.6
December 1975	152.1	98.0	90.9	143.0	148.5

¹ Current mortgage interest rates used for both the opportunity cost of equity capital (r_e) and the mortgage interest rate (r_m).

² 15 year weighted average used Koyck distributed lag weights ($\lambda = .05$).

FOOTNOTES

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¹ See Robert Gillingham, "A Conceptual Framework for the Revised Consumer Price Index," *Proceedings*, Business and Economic Statistics Section, American Statistical Association, pp. 246-252.

² See Dale Jorgenson, "The Theory of Investment Behavior," in R. Ferber, ed., *Determinants of Investment Behavior* (New York, National Bureau of Economic Research, 1967), pp. 129-55, for a discussion of the theoretical foundations of equation (1).

³ In measuring the (presumably current) user cost of owner-occupied housing, one might question whether current or historical mortgage interest rates are the appropriate rate with which to measure mortgage costs. The framework developed in this paper makes it clear that this issue is not important. Because the services of a house have an (implicit) market value, this value, along with whatever mortgage rate is chosen, will determine the appropriate return on equity as a residual. Thus, ceteris paribus, higher (one might read "more current" though not necessarily) mortgage interest rates result in lower equity returns and vice versa. The choice of mortgage rate can be

governed by matters of convenience and whether one wants to distinguish equity return differences that stem from financing differences from other equity return differences.

⁴ See Robert Gillingham, "Measurement in the Consumer Price Index of the Cost of Shelter to Homeowners," BLS study (mimeograph); Stuart McFadyen and Robert Hobart, "An Alternative Measurement of Housing Costs and the Consumer Price Index," *Canadian Journal of Economics* XI, 1978, pp. 105-12; Richard Muth, "On the Measurement of Shelter Costs for Homeowners in the Consumer Price Index," BLS study (mimeograph); Dale Smith, "The Flow of Services Approach to Estimating the Homeownership Com-

ponent of the CPI," BLS study (mimeograph); Peter Steiner, "Consumer Durables in an Index of Consumer Prices," *The Price Statistics of the Federal Government* (New York, National Bureau of Economic Research, General Series, No. 73, 1961), Staff Paper No. 6.

⁵ See McFadyen and Hobart, Muth, Smith, and Steiner, in the works cited.

⁶ As discussed in footnote 3, the question of which mortgage interest rate to use is, at least in theory, unimportant. It is the choice of an estimate for the equity rate of return which is crucial.

⁷ The 15-year weighted averaged used Koyck distributed lag weights ($\lambda = .05$).

Global shopping center

We face major changes in the world's economy. In economic policies and theories, we still act as if we lived in an "international" economy, in which separate nations are the units, dealing with one another primarily through international trade and fundamentally as different from one another in their economy as they are different in language or laws or cultural tradition. But imperceptibly there has emerged a world economy in which common information generates the same economic appetites, aspirations, and demands—cutting across national boundaries and languages and largely disregarding political ideologies as well. The

world has become, in other words, *one market*, one global shopping center. Yet this world economy almost entirely lacks economic institutions; the only—though important—exception is the multinational corporation. And we are totally without economic policy and economic theory for a world economy.

—PETER F. DRUCKER

The Age of Discontinuity

(New York, N.Y., Harper & Row, Publishers, Incorporated, 1968, 1969)

A Review Essay

Beyond Keynes: European unions formulate new economic program

Elements of the prescription put forth by economists of five union groups include consensus-based decisionmaking, investment planning, price monitoring, and an incomes policy to abate Western European stagflation

EVERETT M. KASSALOW

A search is underway for a new kind of synthesis between the "old" market capitalism and a planned economy. The onset of stagflation since the 1974-75 recession has produced an almost continuous debate among economists seeking to halt inflation and to restore healthy economic growth. By and large, this debate has been dominated by two sets of prescriptions. One of these derives from what might be described as a modernized version of neoclassical economics, which has stressed reliance on the workings of the market, supply and demand, to restore a new price equilibrium. The second prescription, stemming from those who might be termed the moderate Keynesians, does not reject, in principle, government fiscal intervention to maintain full employment but seems reconciled to accepting relatively high levels of unemployment for at least several years, while market forces gradually restore an acceptable price level.

In the United States, a much smaller group, self-styled post-Keynesians, argues that major institutional changes have occurred in modern economic life that call for more positive, interventionist new policies and programs to restore full employment and to bring inflation

under control. Most of these post-Keynesians reject the possibility that the market system is sufficiently competitive to restore either sustained full employment or sustained lower price levels.¹

In Europe, a group of trade union economists has put forward an outline for a new economic program which is squarely in the tradition of Keynes but which recognizes that he, too, wrote in an era when heavy reliance on the market system may have seemed more plausible. The outline originated in a charge of the European Trade Union Confederation² to a working group of European union economists in November 1977 to explore "short- and medium-term economic problems." This group included representatives of five European trade union federations—the Swedish *Landsorganisationen i Sverige* (LO), the Netherlands' *Federatie Nederlandse Vakbeweging* (FNV), the British Trades Union Congress (TUC), the German *Deutscher Gewerkschaftsbund* (DGB), and the French *Confederation Francaise Democratique de Travail* (CFDT)—and a staff member of the recently established European Trade Union Confederation.

The group was chaired by Clas-Eric Odhner, chief of the Research Department of the Swedish Confederation. That department played a key role in initiating Sweden's full-employment and active labor market poli-

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cies and the unions' wage solidarity program in the fifties and sixties. The study group's common outline has been issued as a report of the European Trade Union Institute.³

Assuming an active role

The report is intended to be a "discussion paper," not a policy statement. Yet in analyzing the current high levels of unemployment and prices and in setting forth a program to overcome both, it may foreshadow a new departure for most of European labor.⁴ With a few notable exceptions, European trade unions rarely have taken a major initiative in formulating comprehensive analyses and programs for their economies. The lead in this area generally has been conceded to their "brother" socialist parties, with socialist trade unions usually providing financial and organizing electoral support on behalf of these programs. One notable exception has been Sweden, where the Federation of Trade Unions (LO) has, in the post-World-War-II era, tended to provide the analytical and programmatic lead in the economic sphere for the country's Social Democratic party.⁵

The long period of almost uninterrupted economic expansion between 1950 and 1973 made this accommodation between the socialist parties and socialist trade union movements a success. An economic philosophy based on a practical marriage between an expanding welfare state and Keynesian policies, which stresses effective demand management for full employment, provided a setting in which living standards rose dramatically and unemployment was kept to consistently low levels. If inflation was at times a troublesome problem, it was nonetheless confined to what seemed to be tolerable levels, even in some Scandinavian countries where it crept as high as 6 percent in some years.

This era of sustained expansion came to an end with the severe recession of 1974-75. Since these years, most of Western Europe has been troubled with the same combination of continued high unemployment (high, at least, in comparison with the preceding two decades) and inflation more severe than boom peaks of the preceding era. In short, almost every Western European⁶ country has been plagued by what has come to be known in the United States as stagflation, simultaneous high unemployment and inflation and low or no economic growth.

Theoretical warfare

The report states that the economic crisis in industrialized democratic nations (although it concentrates on Western Europe, the report refers frequently to the United States) in recent years also has been a "crisis for economic theory." Neoclassical theory has become increasingly popular, as the criticism of Keynes' theory, which was so popular in the decades after the war,

mounts. Particularly prominent has been the monetarist school, which contends that the amount of money issued decides everything in economic development. Yet, according to the report, economic policies guided by such neoclassical ideas, "have plunged the industrialized world into a . . . spiral of unemployment, inflation, and stagnation." Perhaps the most obvious weakness of neoclassical theory (and its monetarist variation), argue the trade union drafters, is that it is premised on the existence of a "classic, competitive pricing mechanism," in a word, the "Market." The reality of today's world is more one of "independent price determination of companies and groups of companies dominating their markets. This applies both nationally and internationally."⁷

Corporate power. Contrary to the assumptions of conventional economics, these companies do not encounter high degrees of elasticity in the demand for their products. So, increasingly, these companies base their pricing policies on costs, with little regard for demand factors. Even most small firms producing finished products "belong to trade organizations which operate together [in fixing prices] in export markets."

The report links the pricing policies of transnational corporations, and their impact on national pricing levels. Its explanation is not entirely clear or successful, but space prevents going into this as well as some other "international" aspects of this report. With the greater dependence of their countries on foreign trade and investment than is the case of the U.S. economy, European economists tend to be more sensitive to the domestic impact on prices of these corporations' policies.

The current "depression has been so deep and persistent," in part "because governments have been too weak politically to take decisive counter measures," and "partly because many based their policies on a misunderstanding of how their economies now work." As a prime example of outmoded proposals to deal with the recent stagflation, the report cites the 1977 McCracken Report of the Organization for Economic Cooperation and Development (OECD).⁸

The McCracken group, it is alleged, has ignored the enormous power of great national and transnational corporations. Its report urges OECD governments to "refuse to accommodate" demand management to inflationary behavior by employers or trade unions which must "learn from their mistakes." This request fails to understand, charges the union report, that these relatively sheltered groups will not "bear the consequences," that many companies "are able to increase their prices with relatively small effects on sales . . ." Even when employers give way to higher wages "under union pressure," they "can always compensate themselves by means of higher prices" in the face of low elasticities of demand. Companies in weaker positions

and their employees "bear the brunt of reduced overall demand." According to the trade union drafters, if the price system worked in the "idealized way envisaged" by the McCracken group, "the problems they pretend to solve could not by definition arise."

Suppression of demand, then, would not mitigate inflation, inasmuch as powerful corporations take advantage of the less than full elastic demand for their products and mark up their prices to offset any loss in profit margins. "The distrust of workers and their unions in the ability of governments" to control inflation merely by trying to suppress general demand leads them to seek to offset the rising costs of living by negotiating "wage increases with inflationary consequences . . ." Similarly, their trust declines in government's ability to create jobs as general demand is restricted, and the unions thereupon struggle "to keep production and companies alive that should in fact be restructured or even abandoned." The general result is chronic stagnation.¹⁰

Selective intervention. The report states that the continuing high inflation rates of the 1970's are not "an unfortunate accumulation of unfavorable events (à la McCracken) . . ." Rather, they reflect great changes in the power of corporations in the economy. Therefore, "the free competition assumption is no longer a valid" basis for economic policy. While the group believes in "accepting market mechanisms when they function reasonably well . . . when there is no realistic possibility of this happening—and this increasingly is the case—there is no alternative to a government price policy and to price monitoring which should be internationally coordinated."¹¹

This type of *selective* (as opposed to *general* monetary or fiscal) intervention in the economy—setting particular price and investment levels for industries or key corporations—is something of a radical departure, in peacetime, for most Western economies; but, the report argues, with the liberal-competitive system no longer a reality, a new kind of consensus approach must be substituted. There is a growing necessity for "selective measures . . . to be substituted for general measures . . . in reality the market either does not function, or its effects are politically and socially unacceptable."¹²

Sharing decisions and responsibility

The report cites "the growing demand for participation not only in political but also in economic life and decisionmaking." This participation should lead to "a better integrated and more balanced society, where responsibility will be more widely shared."¹³ "Trade unions and their members are . . . offering to share responsibility for decisions, and it will be to their own peril, and to that of future society if employers turn this offer

aside."¹⁴ The union economists' heavy emphasis upon "participation" in top-level company decisions is, in part, tribute to the great influence on Europe's unions in recent years of the German Federation of Trade Unions and its advocacy of codetermination in German industrial life. Success in extending participation "will greatly improve the prospects for reaching consensus solutions to distributional conflicts."

The economists recognize that forms of participation in the control of the decisions of companies necessarily vary from country to country but caution that "in order not to make further European integration too difficult" and in order not "to complicate negotiations [for participation in decisionmaking] with" transnational corporations, "there is need to try to ensure a certain homogeneity . . ."¹⁵

In keeping with their retention of much of Keynesian theory, the group emphasizes that investment "determine[s] the nature of economic growth." The report states that "workers and society as a whole, and not just management, must be involved" in investment decisions. For employers to gain acceptance of the necessary "level of profits required for investments and to give companies a sound financial basis, workers will increasingly demand a say in investments and a fairer share of the income they generate." To realize the "necessary consensus required to reconcile technological and industrial dynamism with an employment-oriented investment policy," workers must have a say in investment decisions.¹⁶

This emphasis upon a consensus to insure adequate and correct investment decisions is a recurring theme of the report. The group argues that there is a need "to disconnect saving-investment decisions from the struggle over income distribution, by giving workers collectively a share in, and a responsibility for, both savings and investments."¹⁷ Otherwise, the eternal bargaining struggle over the relative shares of wages versus profits can hinder a smooth flow of savings into investment and weaken prospects for economic growth.

The report here clearly supports something similar to the Swedish union proposal for workers' sharing in corporate profits, savings, and investment.¹⁸ However, the report also stresses the consensual value and necessity for enterprise growth inherent in such a proposal.

"Disconnecting income and wealth distribution is not only motivation for a workers' partnership in the economies . . ." the report notes that Keynes never bothered about "the motivation for working," as he "wrote against a background of hard work simply being unavoidable for most people in order not to starve . . .," and this harsh competitive ethic may have been useful in the decades before today's levels of technology and productivity had been attained. Today, "productivity is only partly dependent on technology" and "to a much

greater extent than is often recognized it also depends on labour relations and the degree of consensus achieved inside a company and in society at large." The old work ethic, built on fear and greed, must increasingly give way to "the creative and contributive interest that workers can have in their jobs as such" and to their "wish to contribute to participate more generally in a society characterized by cooperation, solidarity and responsibility."¹⁹ This is one aspect of the "consensus-based" economic arrangements proposed in the report.

With the call for a participatory investment process and a monitoring system to control prices, the report does not flinch from the next logical step—the necessity for an incomes policy as part of the new economic program. In the new economic order, the trade unions "would in a negotiated consensus policy have to accept overall wage increases that were compatible with the growth of real resources and with democratically determined rates of real investment . . ." Such wage increases would have to be handled in a way that they would "not start chain reactions going beyond what was compatible with stability—though without creating rigidities which would prevent necessary long-run adaptations." Wages should be "adapted to average growth of real resources in the economy, since wages based on sector or company productivity will cause too many tensions and complementary claims." This incomes system, along with participatory investment and price-monitoring, is a "trade union way out" of the chain re-

actions of past wage pressures.²⁰

The report reaffirms trade union support for economic growth and full employment and indeed argues that the prescription it presents is a way out of current and prospective stagnation. Such growth, however, "is not an end in itself but should have qualitative as well as quantitative aspects . . ." The emphasis upon qualitative growth includes a call for "the protection of the environment," and, while it rejects going "back to some kind of pre-industrial society, as some romantics seem to want" the group insists that the "resource problem" must be carefully considered, as "decisions on technology and investment priorities" are made. It is also suggested that there will probably be "slower growth" than in the decade before 1974.²¹

THIS EUROPEAN trade union discussion document with an outline for a prospective new economic growth program comes in a period when there is a general groping for economic policies to cope with recent stagnation. Curiously enough, even in the face of severe economic difficulties, European socialist labor forces suggest no significant turn to traditional socialist ideas in the form of socialization or nationalization of the means of production. Rather, they support an effort to find a new kind of plan that incorporates "old" and "new" ideas.²² In its emphasis on the need for a new and wider social consensus, especially between unions and employers, the report is likely to evoke considerable echo. □

— FOOTNOTES —

¹ See, for example, the first issues of the recently issued *Journal of Post-Keynesian Economics*, Vol. I, No. 1, Fall 1978, and No. 2, Winter 1978–79. There is no unity among the so-called post-Keynesians, but one important group has collectively published *A Guide to Post-Keynesian Economics* in the form of a series of articles in *Challenge Magazine*, 1978–79. This series will shortly be issued as a volume under the editorship of Professor Alfred S. Eichner, State University of New York—Purchase. A useful summary statement of some of the major precepts of this group of post-Keynesians can be found in Eichner's statement to the Special Study on Economic Change of the Joint Economic Committee of the U.S. Congress, May 9, 1979 (mimeographed—to be published in the JEC's hearings later). A more technical survey of the post-Keynesian theories is to be found in the survey prepared by Alfred S. Eichner and J. A. Kregel, "An Essay on Post-Keynesian Theory: A New Paradigm in Economics," *Journal of Economic Literature*, Vol. XIII, No. 4, Dec. 1975.

² The ETUC groups almost all the national union federations of Western Europe. It has a close working relationship with the European Economic Community.

³ This institute was established in June 1978, by agreement between the European Trade Union Confederation and the Commission of the European Economic Community. The Institute will be financed principally by a 6-year contribution from the EEC, with the first year's budget set at around \$615,000. The members of the ETUC executive body are also directors of this Institute, but the latter has its own staff, under the direction of Günter Köpke, formerly a staff official of the German Federation of Trade Unions (DGB), and also a former general-secretary of the European Metal Workers' Federation. The Institute is to "promote better training and information for workers and

their organizations," and these are intended to contribute to the development of "an awareness of the European dimension and to improve living and working conditions in the Community." This survey of the ETUI is largely taken from a Press-Release of the EEC, dated June 6, 1978, Brussels.

⁴ See European Trade Union Institute, *Keynes Plus a Participatory Economy* (ETUI-Brussels, 1979).

⁵ See the important LO documents: *Trade Unions and Full Employment, Report to the LO Congress*, Stockholm, 1952; *Economic Expansion and Structural Change*, edited and translated by T. L. Johnson (London, Allen and Urwin, 1963), and the pamphlet by R. Meidner (then research director of LO) and B. Ohman, *Fifteen Years of Wage Policy* (Stockholm, 1972).

⁶ A few of the smaller countries, governed usually by social democratic parties and backed by strong trade union movements, have been able to avoid any great increase in unemployment. I refer to Austria and Norway. Sweden has seemed to avoid any official unemployment rates, but this has been accomplished by a great increase in government training and work programs, subsidies for private production, inventory building, and so forth—all a kind of disguised unemployment. Germany and Japan have done somewhat better than other democratic industrialized countries, but even their unemployment rates have been high in comparison with the recent past.

⁷ *Keynes Plus*, p. 1.

⁸ *Ibid.*, pp. ii and iii. This Organization for Economic Cooperation and Development report is often referred to by the name of the chairman of its international drafting group, Paul McCracken, former chairman of the U.S. Council of Economic Advisers, and currently

professor of economics at the University of Michigan. The full title of the OECD report is, *Towards Full Employment and Price Stability*, Paris, 1977.

⁹ *Ibid.*, pp. iii and 36.

¹⁰ *Ibid.*, p. 2.

¹¹ *Ibid.*, p. iv. I have already noted above that the analysis of international aspects of stagflation and measures to cope with it are less effectively treated in this report. This call for international coordination remains a vague concept in the report.

¹² *Ibid.*, p. 50. The authors of the report recognize there are great administrative difficulties for governments, in undertaking selective intervention. They call for greater attention from government to help overcome inadequate administration characteristics of the past (pp. 52–53).

¹³ The report also refers to the spillover effects and possibilities of the growth of participation into many social aspects of modern life, but I concentrate in this review on the economic aspects.

¹⁴ *Keynes Plus*, p. ii.

¹⁵ *Ibid.*, p. 20.

¹⁶ *Ibid.*, p. iv.

¹⁷ *Ibid.*, p. 56.

¹⁸ See Rudolph Meidner, *Employee Investment Funds, An Approach to Capital Formation* (London, George Allen and Urwin, 1978) and the same author's recent update, "Employee Investment Funds and

Capital Formation A Topical Issue in Swedish Politics," *Working Life in Sweden*, No. 6, June (New York, Swedish Information Service, 1978).

¹⁹ *Keynes Plus*, pp. 57–55.

²⁰ *Ibid.*, p. 66. Collective bargaining agreements typically cover two-thirds to 90 percent of all workers in West European countries, much more than in the United States.

²¹ *Ibid.*, p. 67. In part, too, growth may be slower because of the increasing shift of resources to the service sector, in most economies—a sector in which productivity "cannot really be measured." A unified, negotiated, general incomes policy "having the broad support of union members" is additionally essential to cope with the "strains on the system" which slower growth may bring. (*Ibid.*)

²² In a recent article, one critic of European social democracy charges that the present day dilemmas of European social democracy "stem from its inherently flawed attempt to resolve the unresolvable, to construct a political program that is acceptable to both capital and labor." This effort was "valiantly and surprisingly successful" in the decades after World War II, but social democracy must become a genuine alternative "for capitalism in decline . . . for the era when social democracy could offer a harmonious vision of capitalist development is clearly past." Alan Wolfe, "Has Social Democracy a Future?" *Comparative Politics*, Vol. 11, October 1978, pp. 123–24. This new ETUI document would nonetheless appear to be part of a continuing search for an alternative of mixed, consensus-based economic order.

Labor force growth patterns

The evolution of the United States into a postindustrial economy in the past quarter century has been accompanied by dramatic increases in the size of the labor force. The mythology of a leisure society is giving way to the reality of a two-sex nonfamily work society.

1. While the working-age population of America increased by 46.3 percent from 1950 to 1976, the labor force increased by 52.3 percent.

2. This differential emerged despite the sharp declines in the labor force participation rates of men over the age of 65, since early retirement has become increasingly common. Indeed, the male component of the labor force did not keep pace with population growth, increasing by only 28.6 percent from 1950 to 1976.

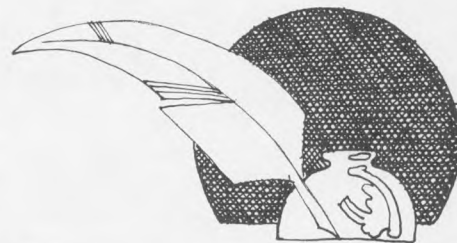
3. In contrast, the rapid expansion of the female labor force (108.9 percent over the past twenty-six years) appears as one of the more striking trendlines of recent history. The labor force participation rate of women increased from 33.9 percent in 1950 to 47.2 percent in 1976.

The implications of this phenomenon by itself are myriad, not the least of which is reflected in the substantial increase in unemployment throughout the 1970's. Moreover, given the changing age structure of America and the rapid accession of the baby boom residuals into the labor force—as well as the unknown dimension of illegal immigration—the American economy may be severely strained to provide full employment in the very short-term future. Moreover, the competition presently facing our minority-group citizenry in this context cannot be minimized. But other repercussions are amplified as they manifest themselves within the family unit.

—GEORGE STERNLIEB AND JAMES W. HUGHES

Current Population Trends in the United States
(New Brunswick, N.J., Rutgers-The State University of New Jersey, The Center for Urban Policy Research, 1978), p. 49

Communications



New directions for income transfer programs

TIMOTHY M. SMEEDING AND IRWIN GARFINKEL

Most Americans would agree that it is the responsibility of government to ensure a certain minimum level of living. Government can meet this responsibility in two ways: by providing minimum standards of income, goods, and services only for those whose incomes fall below a minimum level or by providing minimum standards for everyone, regardless of income.

The income-support system of the United States does both. Aid to Families with Dependent Children (AFDC), supplemental security income, food stamps, and medicaid are restricted to those with low incomes—they are “income-tested.” Public education, social security, and unemployment compensation are available to people regardless of income—they are “non-income-tested.”

Programs that are not income-tested dwarf those that are, both in total size and in the number of people they lift out of poverty. Yet, until recently, most policy analysts assumed that income testing offered the most equitable and efficient method of transferring income to the poor. Now, research, sparked by the study of economic and social behavioral response to transfers, is leading some scholars seriously to question the superiority of income-tested transfers. Many others are already convinced that welfare policy should move away from income testing and toward a more universal non-income-tested approach.

Despite their differences, the supporters of each approach agree that recent income-support policy has been characterized by piecemeal changes without any serious, general consideration given to the kind of system that is to be achieved over the long run. The debate over income testing and the research it generates present an opportunity and a framework to focus systematically on the issues facing future income-support policies

and also on several specific reform proposals that have immediate policy relevance. (For example, social security, child support, and national health insurance).

The Institute for Research on Poverty held a conference last spring on future directions—income or non-income-tested—for reform of the income-support system.¹ Many of the issues discussed at that conference and other questions which have been raised in this context are summarized here.

Definition and scope of the system

The terms “income-tested” and “means-tested” signify that inability to pay for basic goods and services is necessary to qualify for a transfer. They imply, further, that transfer benefits decline as income rises. The result is that program beneficiaries face higher implicit tax rates (benefit reduction rates) on their income than do the rest of the population, for programs that confine benefits to the poor must impose a benefit reduction rate on beneficiaries that is higher than the tax rate required to finance it. In contrast, a “non-income-tested” program is one in which neither eligibility nor benefits depend on inability to pay. Benefits are provided to all regardless of income. Although income-tested programs by their nature lead to regressive tax rates in the tax-transfer system, non-income-tested programs do not assure against regressivity. Programs which provide benefits to rich and poor alike can be financed in principle by an equally regressive tax structure. Moreover, non-income-tested social insurance programs like old age, disability, and unemployment insurance impose high benefit reduction rates on earnings, and therefore, have some of the regressive features of income testing.

In determining the effects of both types of programs, we may further classify them as categorical—programs in which eligibility is limited to certain groups, such as the aged—or noncategorical.² Benefits under either type of program may be paid in cash or in-kind. For instance, a negative income tax (such as former President Nixon’s family assistance plan) is considered a categorical, income-tested cash transfer; a credit income tax (such as Senator McGovern’s 1972 demogrant plan) is a noncategorical, non-income-tested cash transfer. Another useful differentiation is between programs that fall into the category of social insurance and those that do

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not. No social insurance programs are income-tested. But there are some non-income-tested programs which are not social insurance programs. For instance, free public education does not provide security against loss of income due to death, old age, or inability to work—the usual definition of social insurance—yet it is universally provided to all U.S. children, regardless of the income of their families.

The income-support system has come a long way since the debate over public education in the early part of the 19th century. Even then, the essential question was whether “free” public education should be provided only to the poor or to everyone. The 1935 Social Security Act instituted two types of programs: (1) an unemployment insurance system (UI), and a Federal social insurance system including old age insurance (OAI), later expanded to include survivors (SI) in 1938, and dependents (DI) in 1956, and finally, universal health insurance (medicare) for the elderly in 1965; and (2) a State specific welfare system for the aged, blind, and disabled (nationalized in 1974 as supplemental security income, or SSI), and for dependent children (AFDC), who in 1935 were mainly living with widows. In the 1930’s, it was envisioned that the welfare system would remain rather small and unimportant, only catching those few who fell through the cracks of the social insurance system.

However, by the 1960’s, welfare programs, far from withering away, had actually grown somewhat. Moreover, since the declaration of a “war on poverty” in 1965, legislative action has created a major and seemingly permanent role for income-tested transfer programs. Medicaid was born in that era and it has become our largest single welfare program; AFDC expenditures multiplied as divorce or parental desertion became increasingly common; and two types of aid to the “working poor” were first offered, in the form of an earned-income tax credit and food stamps. As the adequacy of benefits offered under welfare programs increased and coverage was expanded, more and more people were encompassed by the system.

Today, income-support payments from all sources average more than 20 percent of total household income, or about \$200 billion. As a result, the incidence of poverty, as officially measured, has declined from about 22 percent in 1959 to less than 12 percent today. If in-kind transfer benefits are added to the cash incomes used to officially measure poverty, the incidence has fallen further, to about 7 percent. However, a serious poverty problem still remains, particularly for women heading families and racial minorities. About one-third of the families headed by black women, one-seventh of those headed by white women, and one-tenth of those headed by black men remain poor. Most importantly, the reduction in poverty did not occur because social pro-

grams provided a “hand up” for the poor to earn their way out of poverty. Increased transfer payments accounted for most of the progress against poverty, not increased reliance on earned income. Yet, most would agree that reliance on earned income is, in the long run, the most desirable answer to persisting poverty among those expected to work (that is, able-bodied adults, particularly those in two-parent families).

The income-support system includes more than 40 programs, covering 1 of every 4 Americans. Both the income-tested and non-income tested systems are clearly categorical. The welfare transfer system is dominated by in-kind benefits, while the social insurance transfer system is much larger, with payments mainly in cash. Currently, social insurance removes many more people from poverty than income-tested transfers, despite the fact that a larger share of income-tested expenditures is distributed to the poor.

Most Americans are dissatisfied with the transfer system. Incentives to better oneself through earnings are low, administrative costs, errors, and fraud are high, and the programs themselves are not well integrated. Increasing numbers of families are headed by divorced, deserted, or unmarried mothers. The amount of child support they receive from their absent spouses is trivial. As a result, increasing numbers of these families receive benefits from the aid to families with dependent children. Expenditures for medicare and medicaid are growing at an alarming rate. Less than half of those eligible participate in the Supplemental Security Income and food stamp programs. Because of differences in State eligibility standards and the lack of coordination among programs, many of the poor participate in several programs, while one-fifth receive no transfers at all.

Thus, reform in the welfare is beset with quandaries. Should the adequacy (and cost) of the system be increased or should costs (and adequacy) be reduced? How much emphasis should be put on work? And most importantly for the income-testing issue: should benefits be extended only to low-income families or to all families?

Issues in the income-testing debate

Work disincentive. Foremost among the issues is the effect of the current income-support system on work effort; and much of the discussion about that effect centers on tax rates. There are two types of tax rates: the explicit tax rate on taxpayers who finance the transfer and the implicit tax rates (benefit reduction rates) on transfer beneficiaries. An important finding from both experimental and cross-sectional studies³ of labor supply is that work effort is adversely affected by marginal tax rates on earned income, whether coming from tax or from transfer programs. Moreover, groups currently aided most by the income-support system—the elderly,

disabled, single-parent families, the poor, and the unemployed—were substantially more responsive to tax rates than married men who were neither old nor poor.

Given these conclusions on the impacts of tax rates, the high effective rates incorporated into the Nation's income support system take on new significance. The average benefit reduction rate in the Aid to Families with Dependent Children program is 40 percent.⁴ Because AFDC beneficiaries also receive food stamps with a 25-percent tax rate, and sometimes live in public housing, where rent subsidies decrease as earnings increase, their cumulative benefit reduction rate is often nearly 70 percent. Moreover, medicaid pushes the tax rate over 100 percent for many of those whose earnings reach the point where they have to leave the welfare rolls, because loss of cash assistance often means going from no cost to full cost medical care. In other programs the story is the same. Thus, those groups whose work effort is most responsive to high tax rates confront higher combined marginal tax rates than anyone else in the economy. Indeed, the current system of income transfers penalizes the poor for working.

Economic efficiency. A closely related issue is the effect of welfare on net output and productivity. Income-testing advocates assert that income-tested programs are more efficient than non-income-tested programs. Until recently, there has been no research on the economic effects of income testing. While non-income-tested programs raise tax rates on upper income families more than do income-tested programs, they lower them on lower income families. The effects of income testing on economic efficiency, therefore, depend upon an analysis of whether it is more efficient to have higher tax rates on low- or on high-income families.

The pattern of high tax rates on groups with high propensities to substitute leisure for earnings contributes to the existing pattern of low work effort for these groups. And it runs counter to one of the most widely accepted principles of public finance theory—tax the inelastic factor. Because higher-income groups have less elastic labor supply schedules, it is possible that increases in output (that is, greater overall productivity), could be achieved and revenues held constant if tax rates were lowered for those with low earnings and raised through some form of credit income tax for those with high earnings.

This conclusion is supported by tentative results from the Seattle-Denver income maintenance experiment and other research,⁵ which indicate that expanding the income-transfer system by simultaneously reducing tax rates in transfer programs and raising them in the positive tax system could lead to an increase in the gross national product. Earlier studies, based on estimates of the labor supply response of only the low-income popu-

lation, found that reduced tax rates on beneficiaries increased their labor supply. However, this effect was counter-balanced by the reduction in labor supply of persons who became program beneficiaries when the lowered tax rates increased the breakeven level of income. These studies failed to account for the response of higher-income taxpayers to the increased tax rates required to finance the policy change. If tax rates on the poor are reduced, taxes and tax rates on others must be increased if net revenues are to remain constant. The new results suggest that the reductions in income from increased taxes on higher-income taxpayers stimulate an increase in their families' labor supply. These labor supply increases, together with increases of transfer beneficiaries, may actually exceed the decreases in labor supply of new beneficiaries and, hence, increase total output. Future research on the labor supply response to various income-support systems, particularly research on the labor supply response of higher income married women, will shed more light on whether it is more economically efficient to have higher tax rates on the poor or on the rich.

Administrative efficiency. The tax-transfer system places high costs on program participants, is expensive to administer, is rife with error on the part of administrators and open to fraud both on the part of transfer beneficiaries and service providers. Because the system attempts to tailor benefits or taxes to each individual's unique need or ability to pay, it fosters an erosion of the tax base in both transfer programs and the personal income tax. As a result of this erosion, marginal tax rates have been increased to maintain revenue levels, and welfare applications and tax returns have become more complex. Moreover, there is considerable deadweight loss involved in utilizing resources to avoid high tax burdens.

Proponents of a universal system point out that if income testing were removed, it would be necessary to frequently determine family status, needs, and the timing of transfer benefits for individual families. Hence, moving toward a comprehensive tax base (a move endorsed by many income-testing advocates as well) and relying on refundable personal income tax credits, coupled with a proportionate tax rate, are steps that would minimize administrative costs and incentives to alter or misrepresent incomes.⁶

Target efficiency. Target efficiency is the proportion of total benefits of a program which go to the poor. Proponents of income-tested transfers argue that for a given budget, income-tested programs deliver a larger percentage of benefits to the poor and are, therefore, more beneficial to the poor than non-income-tested programs. If the budgets available for income-tested and non-income-tested transfers are equal, income-tested

programs are better for the poor. Suppose that a \$5 billion surplus became available for transfer expenditures, but that larger expenditures were not politically feasible. In this circumstance, poverty is reduced most by using an income test. To forgo its use is to spread the comparatively small sum of \$5 billion over such a large number of people (more than 215 million) that benefits would amount to less than \$25 per person per year, and would make no dent in poverty. If the same \$5 billion were expended on an income-tested program, so that only those with incomes below the poverty line benefited, the poverty gap would be cut by nearly half.

If the budgets are not equal, income-tested programs may be worse for the poor. Indeed, if the minimum payments rather than the budgets are equal, the poor are better off under non-income-tested programs. While income-testing advocates, on target efficiency grounds, have implicitly assumed that budgets are equal, advocates of non-income-tested programs argue that the wider a program spreads its benefits, the more political support it gains. Thus, non-income-tested programs provide more aid to the poor because they provide net benefits to more of the population. Current non-income-tested expenditures dwarf income-tested expenditures, but this does not mean that budgets for non-income-tested programs will become sufficiently larger than the budgets for the income-tested programs.

On a different level, proponents of a non-income-tested system argue that target efficiency is not really an efficiency measure at all but, if anything, an equity measure. A program whose impact is highly "target efficient" may be a system that is most economically inefficient because for a given budget, the more target efficient the program, the higher the benefit reduction rate and, thus, the higher the tax rate and work disincentive for beneficiaries.⁷

The choices before us

While most agree that wholesale substitution of a non-income-tested universal transfer system is not, at present, feasible, the income-testing debate is highly relevant for several current public policy debates, including aid to the elderly and female heads of households and the adoption of a national health insurance program.⁸

The elderly. The major benefit programs for the elderly are OASDI (not income-tested, but related to past earnings) and SSI (for those whose social security payments and other income are insufficient to lift them above the poverty level). However, these two programs need to be better integrated than at present. For instance, a substantial number of low-income OASDI recipients who have contributed to the Social Security system for many years, and who are also eligible for SSI, receive only

\$240 per year more than poor elderly persons who have made no contributions to the system at all. But should future policy efforts be directed toward expanding SSI, or toward revamping social security and better integrating it with SSI to provide a non-income-tested minimum income to all elderly people? Recent research on this issue has concluded that one cannot predict *a priori* which groups in the elderly population will benefit from income testing.⁹ If guarantees are held constant, income-tested programs provide less income for the poor, and more for the rich, than do non-income-tested programs. But if earnings-replacement rates for the upper-income elderly and costs to the younger population are held constant, income-tested programs bring about higher incomes for the poor.

Single-parent families. Researchers have argued that preferential treatment of the single-parent family by the tax-transfer system, whether or not it occurs within an income-tested framework, is desirable on equity grounds because single-parent families have less earnings capacity than two-parent families.¹⁰ But preferential treatment creates incentives for family dissolution (real or feigned). In this context, the income-testing issue can be translated into the question of whether to continue to aid single-parent families or switch to a social child-support program which reinforces the financial responsibilities of both parents, whatever their income level, but which guarantees a universal, minimum level of child payments—either publicly or parentally supported—for all single-parent families with children.

A non-income-tested, social child-support program that would, in effect, eliminate AFDC might work as follows: all single adults caring for one or more children would be eligible for a public child-support payment that would depend only on the number of children for whom care is being provided, and not on the income of the single parent. The benefit by the government would equal either some minimum amount or the amount paid by the absent spouse—whichever is larger. The payments would be financed by a tax on absent spouses equal to some proportion of their income for each child not living with them. If the tax paid by the absent spouse fell below the minimum payment, the shortfall would be financed from general revenues.

Health care. The national health insurance debate has also been subject to the income-testing issue.¹¹ Proponents argue that if a national program is to provide adequate health care for all at reasonable cost, it must reallocate health care services away from richer suburban families and toward poorer central city and rural residents. The current medicaid program, which limits the maximum charge for a given health care service, does not foster equal access. Because of these limits,

many physicians do not participate in medicaid. Hence, a two-class medical care system which stigmatizes the poor has emerged. A national health insurance plan which extends medicaid to all low-income families would continue to separate the poor from the rest of the population. But a plan with universal coverage for all under one system would lead to more equal access

and greater horizontal equity in care between high- and low-income families.

The choice between income-tested and non-income-tested policies in these and in other areas is not merely a methodological or an administrative choice. Decisions in this area will affect the future course of social policy in the United States. □

—FOOTNOTES—

¹ The theme of the 2-day conference was, "Should future reform of our income support system move in the direction of more or less income testing?" This article is based on papers presented at the conference and also on Felicity Skidmore and I. Garfinkel, "The Issues at the Conference," *Focus*, Summer 1979. The papers will be published in their entirety in a forthcoming volume of the proceedings.

² The term "categorical" refers specifically to programs which limit eligibility to certain types of people. Programs which provide benefits to all, but give different amounts of benefits to different categories of people (aged, single parents, children) are still "noncategorical," in our terminology.

³ See I. Garfinkel and S. Masters, *Estimating the Labor Supply Effects of Income Maintenance Alternatives* (New York, Academic Press, 1978) and G. Cain and H. Watts, eds., *Income Maintenance and Labor Supply* (New York, Academic Press, 1973).

⁴ R. Hutchens, "Changes in AFDC Tax Rates: 1961-1971," *Journal of Human Resources*, Winter 1978, pp. 60-74.

⁵ D. Betson, D. Greenberg, and R. Kasten, "An Analysis of the Economic Efficiency and Distributional Effects of Alternative Program Structures: NIT vs. CIT," paper presented at the conference and M. Keeley, P. Robins, R. Spiegelman, and R. West, "The Estimation of Labor Supply Models Using Experimental Data," *American Eco-*

nomic Review, December 1978, pp. 873-87.

⁶ J. Kesselman, "Taxpayer Behavior and Administrative Principles of a Credit Income Tax," paper presented at the conference and J. Kesselman and I. Garfinkel, "Professor Friedman, Meet Lady Rhys-Williams: NIT vs. CIT," *Journal of Public Economics*, Vol. 10, 1978, pp. 179-216.

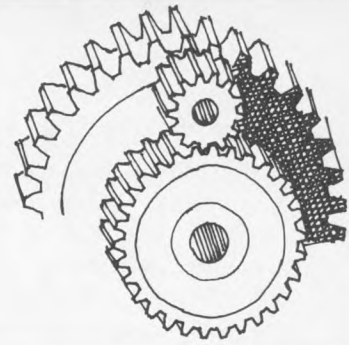
⁷ Betson and others, "Economic Efficiency" and E. Sadka and I. Garfinkel, "The Welfare Economics of the Two Types of Programs," papers presented at the conference.

⁸ The income-testing question is also relevant for other additional policy issues, such as tax reform, public education, publicly supported day care, and, of course, welfare reform.

⁹ D. Berry, I. Garfinkel, and R. Munts, "Income Testing in Income Support Programs for the Aged," paper presented at the conference.

¹⁰ H. Watts, G. Jakubson, and F. Skidmore, "Single-Parent Households under Alternative Transfer and Tax Systems," paper presented at the conference and S. Danziger, I. Garfinkel and R. Haveman, "Poverty, Welfare, and Earnings: A New Approach," *Challenge*, September/October, 1979.

¹¹ S. Long and J. Palmer, "Universal versus Income-Tested National Health Insurance," paper presented at the conference and comments on this paper by K. Davis and B. Wolfe.



Productivity Reports

Productivity declines continue into third quarter 1979

LAWRENCE J. FULCO

The productivity decline of the first half of 1979 continued into the third quarter, showing small reductions from second quarter levels in the private business and nonfarm business sectors. This was the longest period of decline since the recession of 1973-74, when productivity declined for seven successive quarters.

Manufacturing productivity, which declined in the first quarter and increased in the second, grew even faster in the third quarter, although the gain was confined to nondurables. Among nonfinancial corporations, productivity increased for the first time this year, showing an 0.7-percent gain in the third quarter.

Three consecutive quarters of productivity decline in the private business sectors make it virtually certain that productivity will show a drop for 1979, only the second time this has occurred since 1947 when the series begins.

Chart 1 shows changes in productivity, unit labor cost, and hourly compensation in the private business, nonfarm business, manufacturing, and nonfinancial corporate sectors since 1967.

The declines in productivity this year reflected different patterns of growth in output and hours. In the third quarter, output growth resumed in the private business and nonfarm business sectors, although the declines of the second quarter were not recouped. However, manufacturing output changed little because of offsetting movements in the durable and nondurable industries.

Hours of all persons engaged in the private business sector (production and supervisory employees, proprietors and partners, and unpaid family workers) increased in the third quarter, after a small decline during the second period. Employment growth also accelerated. In the third quarter, about 79.6 million persons were engaged in private business, the most comprehensive sector for which quarterly productivity measures are prepared.

In contrast, manufacturing hours and employment declined in the third quarter in both durables and nondurables. The drop in nondurable employment and hours, coupled with the increase in sector output, resulted in the large productivity increase. About 21.3 million persons were employed in manufacturing in the third quarter; about two-fifths of them were in nondurables.

The biggest productivity increase occurred in the nondurable manufacturing sector. An 8.7-percent gain in the third quarter reflected an increase in output of 4.3 percent and a decline in hours of 4.1 percent. This was the largest productivity gain in 4 years and contributed to the first decline in unit labor cost since 1975.

The following tabulation shows the annual rate of change in productivity, output, and hours for four major sectors in the economy in the third quarter of 1979:

<i>Sector</i>	<i>Productivity</i>	<i>Output</i>	<i>Hours</i>
Private business	-0.7	1.7	2.5
Nonfarm business	-0.7	1.9	2.6
Manufacturing	3.3	0.3	-2.9
Durable	-0.2	-2.3	-2.2
Nondurable	8.7	4.3	-4.1
Nonfinancial corporations	0.7	1.6	0.9

Compensation, labor cost, and profits

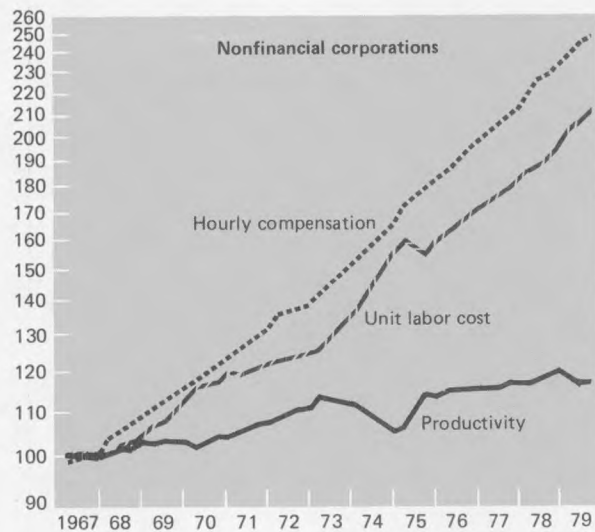
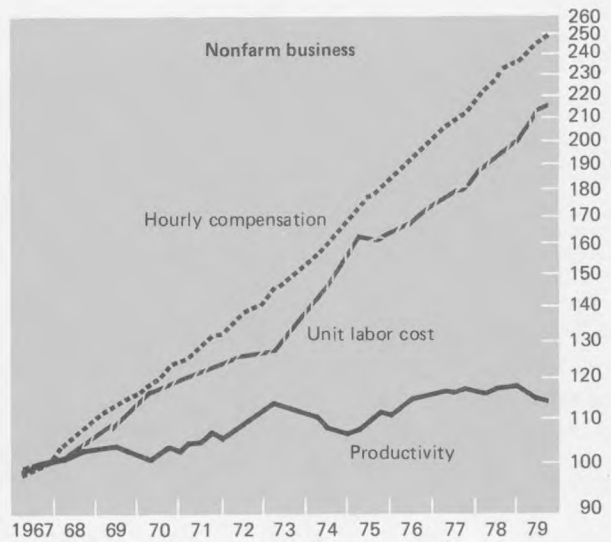
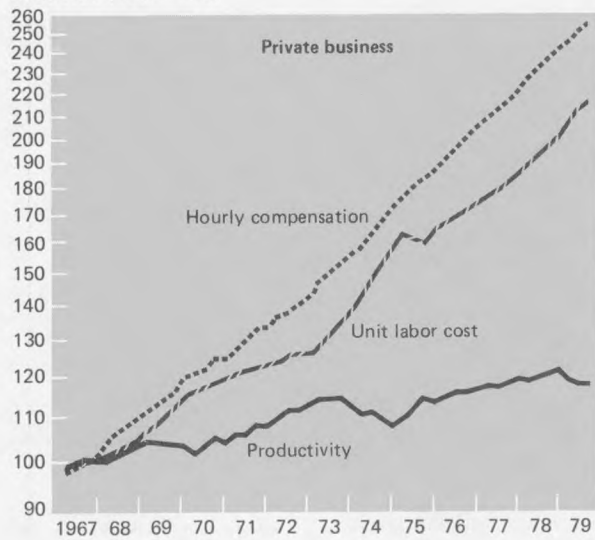
After rising sharply in the first two quarters, hourly compensation decelerated in the third quarter in the private business and manufacturing sectors. The reduction in the rate of increase of labor compensation combined with the slight decline in productivity and resulted in the smallest increase in unit labor cost this year. (Unit labor cost—labor compensation per unit of output—increases with gains in hourly compensation, and declines with productivity gains.) Unit labor cost rose least in manufacturing, where for nondurables, it actually showed a small decline.

Increases in the seasonally-adjusted Consumer Price Index for All Urban Consumers (CPI-U) overbalanced gains in hourly compensation in the third quarter, and real hourly compensation declined again. In the private business sector, real hourly compensation was lower than it had been since the second quarter of 1976, reflecting the more rapid advance of the CPI-U.

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Chart 1. Productivity and related measures in four major sectors in the economy, 1967-79

Ratio scale (1967 = 100)



The U.S. Department of Commerce's Bureau of Economic Analysis prepares quarterly profit measures for the nonfinancial corporate sector.¹ This sector accounts for about 75 percent of private business output and 68 percent of labor input hours and includes all corporations doing business in the United States, except banks, stock and commodity brokers, and finance and insurance agencies. In 1978, profits² were about \$128 billion. Output was \$1,247 billion (in current dollars), of which employee compensation accounted for \$835 billion and nonlabor payments—depreciation, net interest, and indirect business taxes—were \$412 billion.

Profits in the nonfinancial corporate sector increased at a 5.1-percent annual rate from 1959 to 1978, somewhat faster than sector output, which grew 4.6 percent per year over the period. Thus, profits per unit of output increased 0.6 percent at the same time. This relatively modest rate of increase over the entire time-span includes subperiods of markedly different performance, as can be seen in table 1.

Unit labor costs grew faster than unit profits over the 1959–78 period, averaging 4.0 percent each year. These costs showed little movement prior to 1965, increased 4.5 percent per year between 1976 and 1973, and 7.3

Table 1. Average annual rates of change¹ in productivity, costs, and profits in the nonfinancial corporate sector

Measure	1959-78	1959-65	1965-73	1973-78
Productivity	2.1	3.7	1.8	1.4
Hourly compensation	6.1	3.6	6.4	8.8
Implicit price deflator ²	3.7	0.5	3.6	7.6
Unit labor cost	4.0	-0.1	4.5	7.3
Unit nonlabor payments	3.2	1.6	2.1	8.2
Unit profits	0.6	3.6	-4.1	11.8
Output	4.6	6.2	4.2	3.0
Profits	5.1	9.9	0.0	15.1
Unit nonlabor cost	4.6	0.3	5.9	7.0

¹Least-squares trend rate fitted to the logarithms of the indexes of the data.

²The implicit price deflator is current-dollar gross product originating in the sector divided by constant-dollar output. Current-dollar product is equal to labor compensation, profit, and nonlabor cost (mainly indirect taxes, depreciation, and interest).

percent between 1973 and 1978; however, in the most recent period, unit profits grew faster—averaging 15.1 percent each year.

It should be noted that profits represent a much smaller part of value added in the nonfinancial corpo-

rate sector than compensation. In 1978, unit profits were roughly one-seventh unit labor costs in absolute terms, in spite of the faster rate of increase of unit profits during the preceding 5 years.

In recent quarters, profits have declined steadily. Unit profits dropped during the first three quarters of 1979, declining 7 percent from the fourth quarter 1978 level. □

— FOOTNOTES —

¹The basic data underlying the estimates of corporate profits are the annual tabulations of corporate income tax returns compiled by the Internal Revenue Service. These data are sufficiently complete and reliable to overcome many of the difficulties which are inherent in the estimation of profits. Filing of detailed returns is mandatory, and the returns are prepared with the knowledge that they are likely to be audited. For additional information, see "Readings in concepts and methods of national income statistics," Supplement to *Survey of Current Business*, 1976, p. 71.

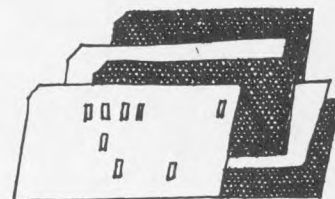
²Corporate profits with inventory valuation and capital consumption adjustments in nonfinancial domestic industries.

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 pole-

mical 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.

Research Summaries



Collective bargaining in the health care industry

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Prior to 1974, employees of health care facilities were excluded from coverage of the National Labor Relations Act, which establishes a national policy aimed at "encouraging the practices and procedures of collective bargaining. . . ." The National Labor Relations Board asserted jurisdiction over proprietary hospitals and nursing homes, but the nonprofit hospitals were exempt until the Act was amended on August 25, 1974. The amendments, Public Law 93-360, provided that private nonprofit hospital workers be granted the same rights and privileges legislated for most other workers 39 years earlier.

Characteristics of bargaining in the industry

During the first 2½ years following the amendments, at least 44 national and international unions negotiated collective bargaining agreements in the private health care industry.¹ Three organizations dominated representation, accounting for 3 of 5 negotiated contracts: the Service Employees International Union (AFL-CIO), the earliest to begin organizing in the health care industry and now the largest in industry membership; the National Union of Hospital and Health Care Employees (District 1199), a division of the Retail, Wholesale and Department Store Union (AFL-CIO), which began representing pharmacists in New York City and now is the second largest union in the industry; and the American Nurses Association, a professional organization which took on collective

bargaining functions for registered nurses.

Data from the Federal Mediation and Conciliation Service (FMCS) show that during the 1974-76 period, there were 2,585 collective bargaining situations in the private health care industry, involving 414,000 workers, or one-quarter of the 1.7 million employees of health care institutions. Most workers (85 percent) were employed in hospitals; the remainder were in nursing homes or were involved in other health care activities.

About one-third of the agreements were first contracts covering 61,000 workers. These initial contracts, however, covered far fewer workers per unit than preexisting agreements, perhaps reflecting the fact that the larger more easily organized units had already signed agreements. Both in terms of existing union organization and new efforts, California, New York, and Michigan ranked as the top three.

Shorter term agreements are more common in the health care industry than in other industries. Contracts for 1 or 2 years were most frequent; 3-year agreements accounted for only one-quarter of all contracts, compared with more than one-half in other industries.

Wages clearly were the top issue in health care bargaining, as they were in other industries; however, some differences were apparent. Duration of contract, union security problems, and working conditions, for example, appeared to be more important issues in health care than in other industries. Grievance procedures, arbitration, and hours of work also appeared more frequently.

FMCS mediators were more actively involved in health care bargaining situations as a percent of total notices than in other bargaining situations. In the majority of negotiations, however, the parties progressed towards a final settlement without the immediate threat of a strike, and may not require active mediation. When mediation did take place, nearly 50 percent more meetings were required to resolve a strike.

Provisions of the amendments

The amended law provided for some special procedures designed to promote early bargaining and avoid strikes in the health care institutions. These procedures include: (1) advance notice to the FMCS of plans to modify or terminate a contract, (2) mandatory mediation, (3) a 10-day intent-to-strike notice to the institu-

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tion and to the FMCS, and (4) a special factfinding or Board of Inquiry (BOI) procedure to be used in cases of threatened or actual strikes.

In contract renewal or reopener bargaining, the party desiring to terminate or modify an existing contract is required to notify the other party of such intent at least 90 days prior to the expiration date, compared with the 60-day notification period established for other industries. In health care cases, FMCS must receive a written notice 60 days prior to the intent to terminate or modify the existing contract, instead of the 30-day notice requirement in other industries. In initial contract situations following certification of recognition, the labor organization requiring mediation assistance is required to give at least 30 days' written notice to FMCS that a dispute exists. Before a strike can occur in the health care industry, the union must give a 10-day intent-to-strike notice, in writing, to the institution and FMCS specifying the exact date and time the stoppage is to occur.

The BOI is designed to provide factfinding in an attempt to avoid strikes. Appointment of a BOI is at the discretion of the director of the FMCS if "a threatened or actual strike or lockout affecting a health care institution will, if permitted to occur or continue, substantially interrupt the delivery of health care in the locality concerned." The BOI is appointed for a 15-day term,

during which the "findings of fact" and nonbinding recommendations are issued. Such appointment takes place no later than 30 days prior to expiration date of the contract, or within 30 days of receipt of the 60-day notice to the FMCS. In the case of initial contracts, the BOI, if convened, must be appointed within 10 days of receipt of the intent-to-strike notice.

BOI study findings

Extent of BOI involvement. For the first few months after enactment of the amendments (until November 1978), decisions to appoint a Board of Inquiry were based on a strict interpretation of the law, that is whether a strike or lockout would "substantially interrupt the delivery of health care in the locality concerned." It was found, however, that the establishment of a Board did not necessarily facilitate collective bargaining; many of the Board's reports recommended that the parties start bargaining—in some cases the parties had not even met prior to the appointment of the Board. After a few months, the FMCS determined that an additional factor should be considered prior to the appointment of a board—if the impact of a potential work stoppage was found to be substantial on the community as established by law, then a second factor, the impact on the bargaining process should be assessed.

To accommodate other provisions spelled out in the

Study update

While this survey of collective bargaining in health care institutions under the National Labor Relations Act amendments covers the first 2-½ years, nearly 3 years have elapsed since the research was concluded in December 1976 and the publication of the results. Data from the Federal Mediation and Conciliation Service (FMCS) indicate that from December 1976 to August 1979, the rate of board of inquiry appointments has actually declined, both those formerly appointed under the NLRA procedures and those agreed to by the parties in a "stipulation" apart from the explicit requirements of the act. This decline was observed between the two time periods—August 1974 through December 1976, and the most current comparable period, January 1977 to August 1979.

In the first period, 120 factfinding boards were appointed (91 under the formal procedures and 29 informally). During the intervening years, only an additional 80 boards were appointed. Each year since the first year, the numbers of appointments have been fewer.

A slower rate of appointments was noted in the original study and was predictable, as both the FMCS and the parties gained greater bargaining experience and began using the process only when such factfinding would be useful. Additionally, current data show that those FMCS regions in which factfinders were more frequently appointed initially continue to make appointments in approximately the same proportion in the more recent period.

One finding of the study was the desire of labor and management negotiators to have a preference in the selection of the factfinding board appointee. In July 1979, FMCS announced changes in its administrative rules to permit more input from the parties. Negotiators are allowed to jointly submit a list of proposed names to serve as a board member with the right to defer to a separate factfinding or arbitration procedure for resolving disputes.

Have the amendments reduced work stoppages? Unlike the decline in the number of factfinding board appointments, the incidence of strikes (in absolute numbers) increased during the most current period (129 in the first period versus 179 in the second). When viewed against the total collective bargaining activity since 1976, however, the strike rate has actually declined. From August 1974 through December 1976, a total of 2,585 bargaining situations was recorded by FMCS. From the start of 1977 to August 1979, an additional 4,705 sets of negotiations were held, an increase of 190 percent. Bargaining in the health care industry is more frequent and contracts of 2 year durations are common. This increase in collective bargaining activity is related to renegotiated contracts as well as the addition of new bargaining situations. Thus, when the total number of strikes to total collective bargaining situations in each of the two periods are compared, the rate of strike activity has actually dropped since 1976.

amendment, FMCS developed the concept of a stipulation agreement as an option to the Board of Inquiry. In cases where it is too early in the bargaining process to interpose a third-party neutral to assist in defining issues, the parties may agree, in writing, to permit the agency to appoint a factfinder at some later specified time. Then, after 30 days of bargaining have passed, FMCS reviews the state of negotiations and determines whether a factfinder is warranted.

During the first 2-½ year period, 120 boards were appointed (25 in the first 4 months), 29 of the total under the stipulation procedures. A monthly average of 90.5 health care bargaining cases were closed by the FMCS in 1975 (compared with 108.6 in 1976), while the monthly average number of Boards declined from 4.3 in 1975 to 3.7 in 1976. At the same time, health care disputes became more numerous and the appointment of Boards became more selective; thus, the percentage of Boards to total collective bargaining situations declined. More restricted use of factfinding following an initial period of heavy usage is not unique to the health care industry. Similar declines have been observed in the use of factfinding under the National Emergency Disputes of the National Labor Relations Act and the Railway Labor Act.

Generally, the number of contract renewal disputes resulting in Board appointments exceeded those for initial contracts: 64 percent were appointed in contract renewal cases, 7 percent were in reopener agreements, and the remaining were in first contracts. Seventy percent of the Boards were appointed for situations involving hospitals; 17.5 percent dealt with nursing homes disputes, and 10.8 percent involved other facilities, such as clinics and health maintenance organizations. In 37 percent of the Board cases, the mediators believed that one or both of the parties had delayed bargaining in anticipation of a factfinding board. More union than management negotiators wanted the Board of Inquiry, while more management than union chief negotiators believed that the other had delayed bargaining in anticipation of a Board of Inquiry.

Although the Service Employees International Union negotiated the largest percent of health care contracts (32.4 percent), it ranked third in its involvement in Boards of Inquiry (15.9 percent). District 1199 was involved in 45.8 percent of the boards, but only 16 percent of the negotiations; the various State nurses associations were parties in 19.2 percent of the Board of Inquiry situations and 15.9 percent of the health care negotiations.

Individuals selected to serve on Boards of Inquiry were chosen on the basis of their competency in factfinding, arbitration, and mediation skills, as well as experience in the health care field. Another primary criteria in the selection process was availability, because the Board must be appointed quickly, and its members

must contact the parties, arrange for a meeting, and write recommendations all within 15 days. In all but 10 Boards, a single individual had been appointed, rather than a multiperson panel.

Despite criticism voiced by health care administrators and leaders of major unions that individuals selected to serve on Boards of Inquiry were uninformed about problems of the industry or issues raised at the bargaining table, three-fourths of the chief negotiators queried said that the persons assigned to the Board were qualified and knowledgeable in labor relations. Nevertheless, when further asked as to the preference of having a choice—in conjunction with the other party—on the selection of the factfinder, 70 percent of the management and 57 percent of the labor negotiators favored such an option.

Approximately two-thirds of the management negotiating committees were headed by outside legal counsel, while almost half of the union bargaining teams were headed by either the union business agent or international representative. Mediators noted that, although they encountered a number of inexperienced negotiators when the amendments first became effective, this occurs less frequently now. Many mediators commented on the unusually large bargaining committees in health care, compared with other industries.

The reports. Board of Inquiry reports ranged from a detailed discussion of all outstanding issues to simply "We met, we bargained, we settled." Forty percent of the reports contained no recommendations, due primarily to the initial 6-month period following enactment of the legislation when appointments were based on a strict interpretation of the impact on the delivery of health care without consideration to the state of bargaining. The mediators indicated that when the parties had met and negotiated before the Board convened, it was more likely to issue recommendations on how to resolve the remaining items in dispute.

Both the mediators and the individuals on the Boards felt that in approximately 2 of 5 situations, no effective negotiations had taken place prior to the board appointment. Again, this situation was most evident during the first 4 months after amendments became operative.

In almost three-fourths of the factfinding cases, the mediator was able to use the Board of Inquiry recommendations as the basis for further negotiations. In 14 percent of the situations, no additional mediation sessions were held, and in 13 percent, the parties accepted the factfinder's recommendations in total. Labor and management negotiators shared similar views on the value of the Board of Inquiry procedures; about 60 percent of both groups found the procedures useful. When asked to evaluate the usefulness of the recommendations, a slightly higher percentage of management than

labor representatives found them helpful.

Ninety percent of the disputes that were settled prior to the convening of the Board occurred in the first year, and no reports were issued in these cases. Instances of the parties reaching agreement either prior to or during the Board's term were restricted to Boards appointed under the statute, rather than those appointed after a stipulation agreement had been reached.

During the congressional hearings on the amendments, eight factors were identified to be considered by the Board of Inquiry in making recommendations: (1) area wage levels, (2) adequate provisions for job security and fringe benefits, (3) cost of living, (4) career advancement, (5) equal employment opportunity, (6) equal pay, (7) provision for resolution of grievances without strikes, and (8) job training and skills.²

Individuals who served on a Board were asked which of these or other factors they considered in issuing recommendations. Most factfinders limited their considerations to economic issues and believed that these were the issues most often raised by the parties themselves. The specific recommendations offered in the reports and the comments of the negotiators, mediators, and factfinders indicated that issues in health care disputes were not very different from those in other sectors. In first-contract bargaining, issues involving union security and dues checkoff were frequently found. Other variances were related more to the relative degree of importance of issues, such as scheduling and patient care, although many of these factors have counterparts in other industries running 24-hour operations.

Recommendations for change. Most (80 percent) of those involved in health care negotiations would like to see changes in the amendments. The dissatisfaction with the current amendments centers on the Board of Inquiry procedures; suggestions for revamping focus on the timing problems experienced by the participants.

Members of factfinding boards were almost unanimous in their displeasure with the 15-day maximum term for the Board. Generally, they felt that the Board should be convened close to the expiration date. Solutions to the timing of a Board most often endorsed by the mediators and chief negotiators included factfinders appointments at the discretion of the mediator at any time and at the request of either party.

Impact on strikes

One of the most important concerns motivating the enactment of the 1974 amendments was the desire to eliminate strikes, particularly those involving recognition. A review of the 2-½ years following the enactment of the legislation indicates that the strike rate in the health care industry is similar to that in the economy as a whole, with a stoppage occurring in about 4 or 5 per-

cent of all bargaining situations. Of 2,585 health care bargaining situations between August 25, 1974 and December 31, 1976, 129 strikes occurred. Another similarity is the duration of strikes, about 27 days both in all bargaining and in health care situations, although there appear to be longer and more bitter strikes in nursing homes. In a number of nursing home strikes, no collective bargaining ever occurs nor is a contract signed, and the union walks away after gaining recognition.

Unlike the practice in other industries, picket lines are infrequently honored by other organized units, making strikes by small units less effective. This "non-supportive activity" occurred prior to 1974 as well and before the required 10-day strike notice.

Despite the similarities between bargaining in health and other industries, there is an important and distinct difference. In the health care industry, about one-third of all bargaining involves initial contracts, a proportion substantially higher than in other industries. Viewed under this circumstance, it might be concluded that the strike rate is actually better than in the economy as a whole, because few, if any, other industries are undergoing the rapid rate of new bargaining.

Mediators found the 10-day strike notice useful in promoting negotiations, especially in initial contracts. Labor unions, in contrast, found the notice cumbersome and confusing, but most importantly also felt that it provided management time to hire replacements and prepare for a strike. While the number of 10-day strike notices issued is not known, in 65 percent of all Board situations, a strike notice had been given, but a strike occurred in only 13 percent.

Influence of the National Labor Relations Board

Since the 1974 amendments were enacted, the National Labor Relations Board (NLRB) has decided a series of key issues which influenced collective bargaining in the health care industry. Two major decisions were the resolution of unit determination issues and denial of bargaining rights for interns and residents.

In extending bargaining rights to nonprofit hospital workers, Congress cautioned the NLRB to give "due consideration . . . to preventing proliferation of bargaining units in the health care industry."³ After much deliberation, the NLRB determined that five units would be appropriate in hospital settings: (1) all registered nurses "if they are sought and they so desire" to be represented, (2) all other professionals, (3) technical employees, excluding service and maintenance personnel, (4) clerical employees in business offices, and (5) service and maintenance personnel, including nonoffice clerical workers. A sixth unit was added in 1977 to include physicians, excluding interns and residents.⁴

However, the clearly defined units have not solved

election determination problems and have posed a threat to craft type unions which have represented health care workers.⁵

Another group whose survival has been threatened is the American Nurses Association and its State affiliates which act as the bargaining representatives. Current developments, including the challenge of the organization's status as a bargaining representative because of alleged supervisor domination, may result in internal change within the organization, strong takeover challenges by other labor organizations, or the splintering of established nurses' groups into independent unions.

While the NLRB amended its five basic unit determination decisions to include physicians, it explicitly treated interns and residents as students and not as employees covered by the amended National Labor Relations Act. In March 1976, the NLRB reasoned that housestaff physicians were enrolled in a program designed as a prerequisite for licensing examinations and certification in medical specialties not for the purpose of earning a living.⁶ The question of whether interns and residents may engage in bargaining has generated considerable litigation and the introduction of bills to amend the 1974 amendments.⁷ □

FOOTNOTES

¹ Because the 1974 amendments extended coverage of the National Labor Relations Act to the private health care industry, organizations of workers in public facilities and the role of the American Federation of State, County and Municipal Employees (AFSCME, AFL-CIO) and other organizations representing health care workers in the public and Federal sector are not discussed in this report.

² See *Congressional Record*, July 11, 1979.

³ *Legislative History of the Coverage of Nonprofit Hospitals Under the National Labor Relations Act, 1974, Public Law 93-360, S. 3203* (U.S. Congress, Subcommittee on Labor, 93d Congress, 2d Sess., 1974, Report No. 93-760), pp. 12 and 274.

⁴ A series of NLRB decisions form the basis for the unit determination rulings. See *Mercy Hospital of Sacramento*, 217 NLRB No. 765 (1975); *Barnett Memorial Hospital Center*, 217 NLRB No. 775 (1975); *St. Catherine's Hospital of Dominican Sisters of Kenosha, Wisconsin, Inc.*, 217 NLRB No. 787 (1975); *Sisters of St. Joseph of Peace*, 217 NLRB No. 797 (1975); *Newington Children's Hospital*, 217 NLRB No. 793 (1975); and *Ohio Valley Hospital Assn.*, 230 NLRB No. 84 (1977).

⁵ For example, when the NLRB rejected a separate unit for stationery engineers in the 1975 Shriners' Hospital case (*Shriners' Hospital for Cripple Children*, 217 NLRB 806 [1975]), four hospitals in Kansas City filed petitions to decertify the International Union of Operating Engineers, which had represented this occupation for 20 years. While the union was successful in defeating the decertification, it amended its bylaws to expand its jurisdiction in order to continue representing health care workers. Four years later, the NLRB reversed its position and held that a community of interest does exist among the maintenance employees and power plant operators and that a separate unit is appropriate (*Riverside Methodist Hospital of Lynwood*, 78 NLRB No. 1048 [1979]).

⁶ *Cedars-Sinai Medical Center*, 223 NLRB No. 251 (1975); reconsideration denied, 224 NLRB No. 626 (1976).

⁷ More recently, the U.S. Court of Appeals for the District of Columbia Circuit held that the NLRB's 4-to-1 ruling in the *Cedars Sinai*

Medical Center case was incorrect and that the legislative intent had been to extend the benefits of the NLRB to housestaff physicians. *National House Staff Association et al vs. Murphy* (C.A.D.C. No. 78-1209, Apr. 2, 1979). Again in 1979, Congress considered amending legislation to permit interns and residents the right to bargain as employees; however, the measure failed to enlist the needed support.

Measuring the social costs of instability in construction

ROGER L. BOWLBY, SIDNEY L. CARROLL,
AND RICHARD EVANS

Governmental interest in stabilization of the U.S. construction industry dates back more than 50 years. The Hoover Commission of 1924 found that "Bad weather is not the principal cause of seasonal idleness. Customs which became fixed when builders had not yet learned to cope with adverse weather conditions have not yet been changed to meet improvements in building materials, the development of new equipment, and innovations in management methods."¹ A more recent study noted that "From its low point in February to its peak in August, contract construction . . . adds enough workers to staff the entire motor vehicle manufacturing industry."²

The authors recently participated in a study of the social costs of instability in the construction industry.³ This report is drawn from that work, which was motivated by a desire to measure the potential benefits from stabilization.

The cost estimate assumed that the technology was available to reduce, but not eliminate fluctuations in construction activity. The nature of this technology or the reasons why it has not already been applied were not considered. Similarly, changes in government policy or other variables that would lead to stabilization were not considered. The cost of instability in 1977 was estimated by assuming that stabilization was accomplished some time before 1977, so that any windfall gains or adjustment costs of a one-time nature had already been realized.

Manufacturing was used as the standard of employment stability. However, the fragmented organization of construction, the custom nature of its output, and its exposure to weather make it unlikely that construction could attain the stability of manufacturing, even with new technology. Therefore, a position half-way between the present instability of construction and the stability

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attained by manufacturing represented a reasonable goal. The estimates generally assumed that such a position was reached before 1977 and maintained during that year.

As reported in the full study, the potential savings from stabilization construction during 1977 was estimated at \$5.7 billion. This total was the result of the estimated potential savings for the following specific areas:

<i>Area of potential savings</i>	<i>Millions of dollars</i>
Total	\$5,674.1
Lower unemployment benefit costs	562.0
Lower depreciation charges on invested capital	175.8
Lower inventory carrying costs by supplier firms	281.4
Lower wage rates and higher annual incomes	3,877.0
Fewer accidents	570.0
Shorter apprenticeship and fewer dropouts	207.9

Underlying these estimates are the following assumptions. With more intensive utilization of resources, the construction industry could produce the same volume of output with smaller inputs of labor and capital, thus freeing up resources for productive use by other industrial sectors. The value of the additional goods and services produced represents the social costs. Subsidiary gains could be realized if the remaining labor resources experience less disutility per unit of time worked or a higher degree of satisfaction per unit of real income, or if any resources become more productive per unit of effort. The dollar estimates are limited to the proximate effects of stabilization and to accounting categories included in the gross national product.

The turnover effect

The direct savings from lower labor turnover are perhaps the clearest savings, and so the costs of excess labor employed in construction are the most obvious. The industry provided more than 3.4 million full-time jobs in 1970; because of turnover, however, it employed more than 6 million persons during the year.⁴ At one extreme the workers represented by this difference may have sought (or waited for) construction employment during the entire year, representing a total loss to society. At the other extreme, it is logically possible that no social cost was incurred by this turnover, if the displaced workers preferred school attendance, leisure, or other forms of nonparticipation to employment during their nonworking periods, or if they found jobs in other industries without frictional loss. The truth probably lies somewhere between these extremes.

Though an imperfect measure, insured unemployment benefits paid out provide the best available measure of the social loss. Though the strength of their attachment to the construction industry is uncertain, workers last employed in construction and drawing unemployment

benefits are neither employed in other industries nor out of the labor force. If they are looking for jobs in other industries, their labor is still lost to society, and their separation from the construction industry is the proximate cause of their unemployment.

Table 1 shows insured employment and unemployment in contract construction by month during 1977. For each month, the hypothetical unemployment rate is the mean of the actual rates for manufacturing and construction. Hypothetical unemployment was calculated so as to produce this rate with actual employment unchanged. The reduction in insured unemployment represents labor that could be released from construction and made available to the rest of the economy. With stabilization completed prior to 1977, the absorption of these displaced construction workers by the rest of the economy also had been completed before 1977. Thus, the unemployment rate experienced by the released workers would be equal to the insured unemployment rate for workers outside construction, ranging from a low of 3.2 percent in November to a high of 4.7 percent in February. For each month, the gain to society from construction stabilization is the unemployment decrease in construction minus the unemployment increase in the rest of the economy.

If these weeks of unemployment are converted into dollars at the rate of the average unemployment benefit (which ranged from \$75.92 in July to \$81.54 in December), approximately \$493 million of "avoidable" benefits were drawn by construction workers during 1977. In addition, it was estimated that the administrative costs associated with these transfer payments was \$69 million.⁵ Thus, the potential cash savings from a reduction in insured unemployment through moderate stabilization in construction during 1977 was estimated at \$562 million.

As part of a more speculative analysis of foregone earnings, these unemployment benefits were used as a partial measurement of the total cost of unemployment to society—the waste of unrecoverable productive labor. (This cost was not included in the \$5.7 billion of potential savings.) Because unemployment benefits seldom exceed half of lost wages, and typically have been significantly less, workers themselves absorb a significant amount of the social cost. With the social value of the lost labor as twice the unemployment benefits paid, the social cost of the 6,222,000 work weeks lost during 1977 was estimated at \$1,035 million. This represents the value of the socially useful goods and services that could have been produced by the labor released by a more stable construction industry, offering the same number of working weeks to a smaller number of individuals with lower turnover rates. This estimate does not include the labor loss not compensated by unemployment benefits, although uninsured joblessness

Table 1. Employment and unemployment in contract construction by month, 1977

Month	1977 Actual		Hypothetical unemployment (after stabilization)	Unemployment rates	
	Insured employment	Insured unemployment		Actual	Hypothetical
January	3,225,000	703,200	437,700	17.9	12.0
February	3,152,000	768,300	462,600	19.6	12.8
March	3,270,000	646,200	395,900	16.5	10.8
April	3,451,000	466,200	308,300	11.9	8.2
May	3,608,000	305,200	214,000	7.8	5.6
June	3,675,000	263,900	199,500	6.7	5.2
July	3,655,000	254,100	208,600	6.5	5.4
August	3,693,000	227,400	188,300	5.8	4.8
September	3,712,000	199,500	162,700	5.1	4.2
October	3,732,000	217,200	171,800	5.5	4.4
November	3,686,000	252,000	194,000	6.4	5.0
December	3,499,000	406,100	271,500	10.4	7.2

represents a social loss as certainly as does insured unemployment.

More productive capital

Though capital does not draw unemployment benefits, the same sort of potential social benefits would flow from more intensive utilization of a smaller quantity of physical capital. It was assumed that the capital inputs to the productive process in contract construction could be reduced by 2.5 percent through regularization of activity. This is somewhat less than the 3.1 percent reduction in the labor force implied by the data in table 1. In both cases, it was assumed that resources stand avoidably idle for such reasons as a customary building season, an arbitrary fiscal year, or lack of long-term planning, perhaps the result of a deficiency in information. What is demonstrably true in the case of labor can be presumed true in the case of nonhuman resources.

John W. Kendrick has estimated the capital employed in the construction industry at \$39 billion in 1973.⁶ Based on the 3.5 percent per year long-run growth trend, the 1977 capital stock was estimated at \$45 billion. A 2.5 percent reduction in capital, if carried out entirely in 1977, would have yielded more than \$1 billion of savings to the industry, and freed this amount of capital for deployment in other industries. Society could have benefited from higher production without loss of any construction output. However, if stabilization was completed before 1977, then this one-time potential gain can be ignored.

There would still be two potential gains to be counted for 1977: the 3.5 percent increase in capital required for long-term growth would be \$43 million dollars less by reason of the lower base (the one-time reduction which took place before 1977); there also would be lower depreciation charges during 1977 on the decreased capital stock. Allowing straight-line depreciation at 6 percent, and assuming that depreciation depends only upon time and will not be accelerated by more intensive use of the smaller stock of capital, there

were potential savings of \$66 million from this source in 1977.

The effect on suppliers

Vendor firms that supply inputs such as bricks and mortar to the construction industry experience measurably higher costs because of irregular purchases by the construction industry. These become costs to society because the supplier firms, like the construction industry itself, must use extra resources that are denied to society and cannot be used to produce other goods and services. For computational purposes, it was assumed that vendor firms operate at a steady rate throughout the year altering their inventories to suit the erratic demands of the construction industry. In the real world, of course, some of these firms will close, so some of the costs will be embodied in idle labor and capital. Costs of these idle factors of production should approximate the estimated inventory carrying costs.

Carrying inventories involves a real cost to society in losses from fire, theft, casualty, and deterioration as well as from expenditures of land, labor, and capital that are made in order to minimize these losses. The annual costs for a widely fluctuating inventory were estimated at 20 percent of the average inventory value, partly because the land and capital requirements are a function of the maximum inventory.

To establish the base on which to apply this percentage rate, it was assumed that the timing of purchases by the construction industry coincides with the monthly total of value put in place. Thus, the amplitude of seasonal variation in purchases was estimated as the difference between the high and low months. Because the high and low months are about 6 months apart, half of this amplitude represents the mean excess inventory attributable to the instability of the construction industry.

The purchases of the construction industry from supplier firms were estimated by an input-output model, with separate estimates for five construction sectors.⁷ Based on these data, the construction industry made \$58 billion of direct purchases from supplier firms in order to put \$100 billion of value in place. The difference between monthly purchases at the August peak and February trough amounted to \$1.8 billion. In an average month during 1977, the vendor firms maintained approximately \$900 million of excess inventories over and above the inventory that would have been required to supply a stable industry, and the excess costs to suppliers were \$180 million during the year. There are no offsetting gains to others, and so this figure represents the social cost. It must be emphasized that inventory carrying charges were used as a proxy for these social costs, much of which came in layoffs or other manifestations of seasonality not estimated directly. The result, therefore, may overestimate the costs to vendor firms,

who may find it cheaper to operate seasonally themselves, and shut down during the slack season in preference to maintaining inventories. In this case, of course, the supplier firms avoid the cost by passing it on to their workers, or to other taxpayers who pay transfer payments to the unemployed workers. The social cost remains.

Reduced wage differential

Economic theory suggests that labor markets are characterized by "equalizing" wage differentials that operate to make jobs equally attractive by offsetting nonwage attributes of less desirable jobs.⁸ Construction industry wages are high, therefore, partly to compensate workers for the irregularity of employment. Stabilization of construction industry employment has the potential to benefit both labor and management by increasing the yearly hours of work per worker, making it possible to simultaneously lower wage rates and increase annual income. This would occur automatically in a perfectly competitive market; as the risk of layoff falls, the equalizing differential is reduced and all the benefits of stabilization accrue to employers in the form of lower wage rates. In a market perfectly controlled by workers, the differential might be maintained, so that all benefits accrue to workers as higher annual income. Collective bargaining may produce a compromise result, as the give and take between labor and management leads to a sharing of the benefits of stabilization.

The collective bargaining experience of the Tennessee Valley Authority involves separate union contracts for construction workers, even though most of these workers have the same job titles as some nonconstruction workers. Over 20 years, however, a stable wage differential developed in favor of construction workers, confirming the essential validity of the theory predicting such a result. It was assumed that this wage differential was typical of such differentials in the United States.

The wage differentials were computed for each occupational group on the Tennessee Valley Authority payroll and were weighted by the national importance of each occupation based on census data. If exactly half of the wage differential was eliminated through stabilization,⁹ it was estimated that total wage costs could be reduced by approximately 8.4 percent. Translated to the total U.S. construction payroll, the potential savings for 1977 would have been \$3,877 million.

Reduced accident rates

Another potential gain from stabilization would occur if productivity increases as a result of the more intensive—more days per year—use of resources. There are a number of reasons to believe that such may be the case. Training on the job through apprenticeship pro-

grams should proceed more smoothly with fewer dropouts, representing \$207 million in potential savings. In addition, job skills should remain sharper with more regular use, and accident rates ought to decline.

The potential decline of accidents can be estimated from available data on job tenure¹⁰ and accidents occurring for workers in each job tenure group.¹¹ It is well established that accident frequency is much higher for workers with the shortest length of service in their current job.¹² If stabilization lowers labor turnover, the mixture of employees would move more toward senior employees with relatively low accident rates.

The median construction worker has spent less than half the time on his present job as has the median factory worker. If stabilization changes the seniority distribution of construction workers to a point halfway between the construction and manufacturing distributions, and if the rate of compensable accidents remains constant across seniority classes, the number of compensable accidents in contract construction would be reduced by 8 percent.¹³ The cost of workers' compensation in 1977 for the construction industry was estimated at \$1.5 billion,¹⁴ so the cost of the extra accidents attributable to short-term seniority in construction amounts to \$114 million, counting only the cost of workers' compensation benefits. The real cost to society, of course, is not only the transfer payments to an injured worker, but the loss of labor, damage to machinery or materials, lost time by uncompensated fellow workers and supervisors, and the like. The total cost of an accident has been cited as five times the workers' compensation cost.¹⁵ Thus, the social cost of these avoidable accidents for 1977 totals \$570 million.

THE COSTS SUMMARIZED here are illustrative of the order of magnitude of lost national output attributable to instability in construction. The estimated total social costs/potential savings were \$5.7 billion for 1977. By the very nature of the issue, much of the cost was difficult to reduce to dollar terms, and there is room for argument about the size of the dollar total. What seems certain, however, is that the social benefits would justify stabilization efforts if they were feasible from an engineering standpoint and involved the expenditure of even hundreds of millions of dollars. □

FOOTNOTES

¹ The President's Conference on Unemployment, *Seasonal Operation in the Construction Industries: The Facts & Remedies* (New York, McGraw-Hill, 1924).

² Robert J. Myers and Sol Swerdloff, "Seasonality and Construction," *Monthly Labor Review*, September 1967, p. 2. Calculations for 1977 indicate that this statement was still valid, and that employment in furniture and fixtures could be added to motor vehicle employment to more accurately match the change in construction employment.

³ See *Social Costs of Instability in Construction: A Preliminary Report*,

Office of Construction Industry Services, U.S. Department of Labor, April 1979.

⁴D. Quinn Mills, *Industrial Relations and Manpower in Construction* (Cambridge, Mass., M.I.T. Press, 1972), p. 4.

⁵Unemployed construction workers probably qualify for other transfer programs such as food stamps which involve administrative costs.

⁶John W. Kendrick, *The National Wealth of the United States by Major Sector and Industry*, Washington: The Conference Board, March 1976. According to Kendrick: "Wealth, or its synonym 'capital', is generally defined as income—and/or output-producing capacity for the current and future years . . . [I]n this study . . . we are confining the measures of wealth to the conventional tangible, nonhuman categories of domestic structures, equipment, inventory stocks . . ." (p. 10).

⁷Specifically, we used tapes from the 1973 BLS *Economic Growth Model* on the assumption that the direct requirement coefficients were stable from 1973 to 1977. The sectors are residential, nonresidential building, public utilities, highways, and other construction.

⁸Adam Smith developed this theory quite thoroughly in Book I of the *Wealth of Nations*. It has an extensive literature, and it is treated in most elementary economics texts.

⁹It was assumed that some of the existing differential compensated for more difficult working conditions or a greater degree of skill or versatility required in construction, or both.

¹⁰Howard Hayghe, *Job Tenure of Workers*, January 1973, Special

Labor Force Report 172, Bureau of Labor Statistics.

¹¹Norman Root and Michael Hoefler, "The first work-injury data available from new BLS study," *Monthly Labor Review*, January 1979, pp. 76–80.

¹²One of the earliest demonstrations of this relationship was in a 1918 study by Lucian Choney and Hugh Hanna, published as report number 234 by the Bureau of Labor Statistics. Other studies reaching the same conclusion include E. L. Humke, "First Month Found Most Dangerous," *Personnel Journal*, Vol. 14, 1936; H. M. Vernon, "Prevention of Accidents," *British Journal of Industrial Medicine*, Vol. 2, No. 1, 1945; A. M. Adestein, "Accident Proneness: A Criticism of the Concept Based on Analysis of Shunter's Accidents," *Journal of the Royal Statistical Society, Series A*, Volume 115, 1952; and R. H. Van Zelst, "Effect of Age and Experience on Accident Rates," *Journal of Applied Psychology*, Vol. 38, 1954.

¹³Computation of this figure is more fully detailed in *Social Costs of Instability in Construction: A Preliminary Report*, Section II-E.

¹⁴Costs for the United States are estimated at \$14 billion by the Social Security Administration, and BLS Bulletin 1830, *Occupational Injuries and Illnesses by Industry*, 1972, places the number of lost workdays in contract construction at 10.67 percent of the total for the United States.

¹⁵This figure is given and justified by H. W. Heinrich, *Industrial Accident Prevention, A Scientific Approach*, 3d edition (New York, McGraw-Hill, 1950), p. 50. Heinrich states that the cost is probably higher in construction.

Youth in the work world

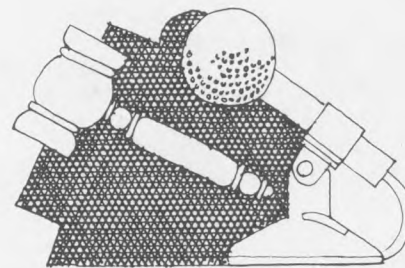
No country is satisfied that its youth know enough about the work world, and young people frequently concur in this judgement, acknowledging that they make important educational and occupational decisions on impulse or by chance. As significant as the gaps in knowledge are the false and overglamorized images implanted by the media and the erroneous or limited ideas conveyed by peers, parents, and relatives. While no segment of the youth population is free of these distortions, it is generally agreed that young people from low socioeconomic or disadvantaged backgrounds and minority populations have the greatest deficiencies of information and the least opportunity to obtain reliable information through informal sources. To say this does not refute the related finding that these groups also may have the most meager opportunities and the least inclination to seek and use objective, broad, long-range information.

The negative consequences of faulty or incomplete information are repeatedly cited. During the preparatory education-training period, excessive enrollments in certain

courses, changes of courses, and dropping out reflect poor or insufficient information. Later on, difficulty in making decisions, unemployment, failure to enter the labor force, geographical immobility, employment below capacity, frequent job changing, loss of income, and other adverse experiences are attributed to inadequate information. Anxiety, fear, indifference, uncertainty, poor performance, irresponsibility, and dissatisfaction before and after entering work are additional dimensions. Berating the attitudinal and informational deficiencies of youth, employers compound the problem by a reluctance to hire or train young workers and a readiness to dismiss them.

—BEATRICE G. REUBENS
Bridges to Work: International Comparisons of Transition Services (Montclair, N.J., Allanheld, Osmun & Co., Publishers, Inc., 1977), p. 51.

Conventions



Meany farewell, bid to Auto Workers, Teamsters mark AFL-CIO convention

EUGENE H. BECKER

George Meany, president of the American Federation of Labor and Congress of Industrial Organizations for 24 years, said goodbye to the "house of labor" he helped to found in a keynote address to the 13th biennial convention of the AFL-CIO in Washington, D.C. And true to form he assured all critics that the labor movement is "alive and well" and, adding in a pugnacious note, "ready to do battle with any foe who would destroy it."

But the retiring Meany, also warned the 895 delegates to the convention, November 15-20, to beware of simply defending the status quo, while exhorting them to "constantly look to the future" for fresh leadership and ideas. Perhaps anticipating that Lane Kirkland, his successor, would invite some of the major independent unions back into the fold, Meany said there are "plenty of rooms in the house of labor," enough to house all organizations of workers. Later in the convention this theme was to be more forcefully picked up by Kirkland. (On January 10, Meany died at the age of 85.)

Kirkland elected president

The convention elected a new team of leaders, headed by former secretary-treasurer Kirkland as president and Thomas R. Donahue, former executive assistant to Meany, as secretary-treasurer. The ascendancy of two staff assistants (Kirkland held Donahue's job from 1960 to 1969) to the two top jobs was itself a break with tradition. They were elected, however, with a unanimity which was as much a tradition for the AFL-CIO as it was an expression of one last bow to the wishes of George Meany. Kirkland had long been touted as heir apparent to George Meany and in September when Meany formally announced his retirement, the mantle of leadership passed easily to his protegee Kirkland de-

spite some nascent grumbling and a reported bid for the presidential post by Operating Engineers President J. C. Turner. However, Meany made known to Turner his intention to nominate Kirkland at the convention, a fact of political life Turner accepted.¹

Donahue joined the staff of the AFL-CIO in 1973, after serving as a vice president with the Service Employees International Union. His election as secretary-treasurer was unanimous. Martin J. Ward, president of the Plumbers Union, had earlier expressed an interest in the secretary-treasurer's job, but when Kirkland endorsed Donahue, Ward bowed out.

The only other elections involved members of the AFL-CIO's executive council. Following its usual practice, the council appointed a nominating committee just prior to the opening of the convention to recommend names for four vacancies on the council. The four new executive council members, elected unanimously, along with the 29 others are: Presidents John DeConcini of the Bakery, Confectionary, and Tobacco Workers; Wayne Glenn of the International Paperworkers Union; Robert Goss of the Oil, Chemical and Atomic Workers; and Daniel Maroney of the Amalgamated Transit Union. In the years since the 1977 convention, the council also added two other members, Fred Kroll, president of the Railway Clerks who filled a vacancy created by the death of Hal C. Davis of the Musicians in 1977, and John J. O'Donnell, president of the Air Line Pilots, who filled a vacancy created by the resignation of Joseph Tonelli of the Paperworkers in 1978.

In his acceptance speech, Kirkland suggested that the Federation would welcome those unions presently outside of it. Without mentioning names, he seemed to be referring to two unions in particular—the Teamsters, and the United Auto Workers—whose present membership is about 20 percent that of the AFL-CIO. George Meany's policy on readmission was to consider it if it were requested. Kirkland issued an invitation in these terms: "All sinners belong in church; all citizens owe fealty to their country . . . and all true unions belong in the American Federation of Labor and Congress of Industrial Organizations." Saying that he has too high a regard for the leaders outside the fold to believe that they can "really be governed by petty person-

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al or pecuniary considerations, or ancient and tedious grudges," the Federation is thriving despite "the absence of their contribution to the common weal." He reminded them, too, that "their pride and pelf do not equal what they are missing . . . because everything outside the AFL-CIO is really Hoboken."

Douglas Fraser, president of the Auto Workers, took exception to Kirkland's remarks, saying, "the unfortunate choice of words was a setback."² Teamster President Frank E. Fitzsimmons was more guarded, however, commenting, "The larger question of our reaffiliation is not immediately answerable. I can only say that we do not look upon the . . . question lightly."³

Carter joins in salute to Meany

George Meany had been the only president of the AFL-CIO since the merger of the two labor organizations in 1955. His influence in the American social and political arena has been great, spanning three-score years of activism. He has been counted among labor's most effective leaders.

All convention speakers, delegates as well as guests, noted Meany's accomplishments and contributions and bade him farewell. He was extolled in speech and some pageantry, not without sentiment and nostalgia and the assurance that the principles which the AFL-CIO had followed for 24 years would be preserved and advanced under a new leadership. In his acceptance speech, Kirkland summed up this idea with a single phrase, "Full ahead, steady as she goes."

President Jimmy Carter, the Secretaries of Labor, and Health, Education and Welfare, the minority and majority leaders of the House and Senate, and many others paid tribute to Meany's contributions to the betterment of working men and women across the Nation. However, leading all others in this paean was Lane Kirkland when he rose in support of resolution 265 which, among other things, gave Meany, as president emeritus, a salary for life equal to that of the president and honored him for his devotion to the labor movement over the years. (The Federation's constitution specifies 60 percent.)

Kirkland said the "life work of this one valiant man would do honor to a dozen men, if divided among their histories." And again using the vocabulary of the maritime industry in which he served, he went on to say that the salient features of Meany's record "enlighten and point like a lubber's line of a compass to the principles we must not let go of if we are to keep the faith."

Mergers transform AFL-CIO

Significant social and economic changes since the founding convention of the AFL-CIO in 1955 have

had an impact on the nature and structure of the Federation. Changes occurring in the workplace, for example, are quite important to organized labor, because as technology moves in, the structure and nature of the work changes. Production-related workers in factories and plants are being replaced by clerical, administrative, and professional and technical employees at all levels of the economy. This means the old-line AFL and CIO craft and industrial unions that provided virtually all of the membership base of the labor movement 24 years ago may be "slow growth" organizations in the future. However, this is only one area of visible change since the merger.

A part of the groundwork for the merged AFL-CIO was laid in 1953 with the negotiation of a no-raiding agreement between the AFL and CIO. Subsequently, this agreement was embodied in the Federation's constitution. Member unions organizing in the same jurisdiction are encouraged to merge, and although merger is not to be dictated, Meany made a point of calling for it at all subsequent conventions. To date, there have been about 50 mergers, the largest and one of the most recent occurring in June between the Retail Clerks and the Meat Cutters to form the United Food and Commercial Workers with a combined membership of about 1.2 million. As a result of these actions, the number of AFL-CIO affiliates dropped from 138 in 1955 to 103 in 1979.

The structure of the AFL-CIO has also changed in the past quarter century. At its birth, the executive council had 27 members in addition to the president and secretary-treasurer, and since then has increased to 33. Furthermore, the number of trade and industrial departments has grown. Three new departments have been added since 1955: Food and Beverage Trade Department; Department for Professional Employees; and the Public Employee Department. Their formation reflects the increased attention organized labor is giving to groups considered "not organizable" in the past and reflects, as well, the changing nature of the work force. Among the targets for organizing drives listed by Meany in 1955 were teachers, white-collar workers, and government employees. Among the last group, membership in AFL-CIO affiliates has increased almost four-fold since 1956, from about 700,000 to almost 2.5 million in 1978.

High on the agenda of the AFL-CIO at its founding was the issue of civil rights. It was then couched in terms of encouraging "all workers without regard to race, creed, color, national origin, or ancestry to share in the full benefits of union organization."⁴ In a 1973 constitutional amendment, sex was added to the list. An additional and continuing emphasis is being placed on affirmative action and equal employment opportunity programs "designed to open opportunities in the

workplace that were previously closed to minorities and women.”⁵ Singled out in this respect was a major civil rights resolution, “Equal Pay for Work of Comparable Value.” This resolution noted the continuing growth in the differentials between men’s and women’s wages and the undervaluation of the work that women have historically performed. The resolution urged efforts to correct these *inequalities*.

Kirkland used the occasion of this resolution to inform the delegates of an allied action taken by the executive council that would explore ways and means by which the “great contribution and role of women and minorities might be better reflected in that highly visible and important” body, that is, the executive council. The council agreed to establish a special committee to determine how women, blacks, and Hispanics might become members of the executive council. What the outcome will be is yet unclear because the council has generally been a white male preserve, limited to the presidents of affiliated unions. However, the only constitutional requirement for membership on the council is election to the AFL–CIO as vice president, and this is open to any member of an affiliated union.⁶

Obstacles to organizing

Organizing the unorganized was of as much concern at the 1979 convention as it was in 1955, though the emphasis was different. At the founding convention the resolution on the subject established the goal of doubling union membership in the years to come as well as revising the Taft-Hartley Act, which has long been looked upon by labor as an important cause of organizing reverses. Neither goal has been met; in those areas the AFL–CIO has suffered numerous setbacks.

The 1979 convention called for a strengthening of existing organizing programs, and the development and expansion of new programs. One resolution decried the increasing effectiveness of anti-union consultants, described by the executive council as “a new growth industry of union-busting ‘labor-management consultants’—lawyers, psychologists, and other specialists—who depend for their livelihood on defeating or frustrating workers who seek to form unions and bargain collectively . . . through every legal and often illegal means . . .” The resolution called on affiliates to report activities of anti-union consultants to the Federation’s Department of Organizing and Field Services. It also called for legislation to deny consultants the use of tax exempt public and private colleges as a forum to promote “programs teaching employers how to violate the Nation’s labor relations laws, which recognize workers’ rights to organize and to bargain collectively.”

While the 1955 goal of doubling membership in the AFL–CIO may have been optimistic, the Federation has managed to increase its membership base, but only mar-

ginally. The Bureau of Labor Statistics’ biennial survey of union membership for 1956 showed a total AFL–CIO membership of 16.8 million. The 1978 survey reported a preliminary figure of about 17 million. However, the 1978 data exclude the Teamsters, expelled from the AFL–CIO in 1957 under the ethical practices provisions of the Federation’s constitution, and the Auto Workers which withdrew in 1968. These two unions reported a total membership of 3.4 million in 1978 and 2.7 million in 1956. Adjusting the 1956 AFL–CIO membership figures to exclude the Teamsters and the Auto Workers provides a more realistic idea of organizing gains since 1956.⁷

As a further assist to effective organizing, the delegates pledged anew their founding convention resolve to repeal Section 14(b) of the Taft-Hartly Act, which gives precedence to State laws concerning union security which are more restrictive than those of the Federal Act. Recalling that the Senate in 1978 was not able to muster sufficient votes to cut off a filibuster on the proposed labor law reform bill, which among other things would have repealed the offending Section, Senator Robert C. Byrd, D-W.Va., treated the delegates to a lesson in “the new math:” To invoke cloture, he said, 60 votes are needed, not a simple majority of 51. He then suggested that if organized labor “. . . can’t get 60 votes to invoke cloture, you won’t be able to pass the legislation.” The delegates adopted a resolution on labor law reform calling for legislation “narrow enough to be put to a vote and yet broad enough to be worthy of our support and passage.”

Safeguarding collective bargaining laws

Beyond the usual resolution in favor of free collective bargaining and higher wages and fringe benefits, the founding convention had little to offer in the way of prescriptive advice. As has long been a tradition, the Federation assumes no direct responsibilities in this area which is of more direct concern to the individual unions. Nevertheless, the AFL–CIO does attempt to safeguard or improve the framework of laws or administrative actions under which collective bargaining functions.

In this regard the convention voiced its strong opposition to President Carter’s program of wage guidelines announced in October 1978 as frustrating collective bargaining. At the same time, the delegates gave guarded approval to the “national accord” recently reached between the Administration and the AFL–CIO.

The accord for the first time established for labor “an acknowledged central role in the development of national and social economic policy.”⁸ It conditions labor’s participation in a voluntary anti-inflation program on a “more equitable low-wage exemption, a system for hearing appeals and broader participation in the development of wage standards . . .”⁹

However, because the AFL-CIO has equal representation on the Pay Advisory Committee (established by the "national accord") which provides public participation and advice to the Council on Wage and Price Stability, it can now influence collective bargaining policy. The Pay Advisory Committee has as its responsibility to recommend changes in the basic 7 percent pay standard, the inflation assumption to use for evaluating automatic wage escalator contract clauses, the treatment of allied collective bargaining relationships, and the proper standard for workers not covered by wage escalator clauses.¹⁰

The "national accord," nevertheless, is not seen as a first step toward a program of mandatory wage and price controls. A clue regarding the potential difficulties in fully implementing the accord is found in a statement contained in a resolution on the national economy:

"An overall anti-inflation program must be developed that is comprehensive, effective, and fair. If there is to be sacrifice, it must be shared according to the ability of groups in society to shoulder the sacrifice. If there is a need for a mandatory program of controls with the penalties for non-compliance, it should be a specifically legislated program of across-the-board controls, covering every source of income including profits, dividends, rents, interest rates, executive compensation, professional fees, as well as wages and prices."

Action on the floor

Underlying the harmony at the convention was the fact that all substantive policy decisions had been agreed to by various committees before the delegates voted as a whole. With only a few exceptions, the 309 resolutions were unanimously adopted without debate, or returned to executive council for further consideration.

The Musicians union led by Victor W. Fuentealba, had objected to the across-the-board 3-cent increase in monthly per capita dues and suggested, instead, a 2-tier tax structure to aid certain unions, the Musicians among them. The dues increase, from 16 to 19 cents, was recommended by the executive council just prior to the opening of the convention.¹¹ Claiming that the Musicians were faced with a unique set of problems—75 percent of their members are either unemployed or work part time at their jobs, that the National Labor Relations Board has ruled that musicians working in hotels, lounges, nightclubs, or catering houses, are not considered employees and thus are prohibited from picketing because of the lack of an employer-employee relationship, and that the union itself is over \$1 million in debt—the union asked to be exempted from the across-the-board dues increase. Fuentealba indicated that if the convention did not concur "there soon may be another empty room in that house."

Kirkland took this as a direct threat to disaffiliate

and dug for precedent into the Federation's history books to reiterate AFL-CIO policy. Citing a similar threat in 1912, faced by Samuel Gompers, he noted that Gompers' solution was to enjoin the executive council of the AFL from "taking any action whatsoever on the request of the brothers until such threat is withdrawn." A similar threat was made in 1961 and George Meany, citing the 1912 incident, said it was still the policy of the AFL-CIO not to bow to threats. To a round of applause from the delegates, Kirkland said "I again state that that is the continuing policy of the AFL-CIO." When finally the issue came to a voice vote, the convention rejected the Musicians' resolution for a 2-tier tax structure.

Displeased with the direction of many Carter Administration programs dealing with unemployment, inflation, recession, and taxes, the delegates approved a comprehensive resolution on the subject. Stating that the economy is saddled with the "twin evils of recession and continued high inflation," the resolution called for halting the downturn of the economy so that it "may reach its full potential of full employment, production, and real income." It went on to list a number of specific measures needed to meet the problems of recession and inflation, including a Federal stimulus to expand the economy and cut unemployment, tax reform, and the adoption or acceleration of government programs designed to provide jobs for the Nation's unemployed.

Fearing that the Administration proposals to cut back certain social security benefits in 1979 were a "trial balloon for what may be a larger effort" in 1980, the *Report of the Executive Council* said the program must be kept on a sound financial basis and that there is a need to strengthen its basic protections. The *Report* urged Congress to adopt a number of improvements to the program: Adjust benefits biannually instead of once a year; provide an occupational definition of disability for workers age 55 or over because these workers have little chance to obtain employment in an occupation, especially during periods of high unemployment; permit early retirement at age 60 but "with less than the full actuarial reduction in benefits;" and reevaluate benefit problems associated with women. The *Report* also went on record as opposing universal social security coverage for Federal, State, and local workers unless their present pension benefits are not reduced, the identity of those plans is not lost, and there is no diminution in the opportunity of government employees to improve their retirement systems in the future.

Picking up a page from the 1977 convention, the delegates again adopted resolutions to develop alternative energy sources, conserve energy, and protect the environment. But because of the changes in the energy supply situation since 1977 and record profits of many large oil companies, there was an equally strong call for

the nationalization of the oil industry and the adoption of a windfall profits tax of 85 percent. The delegates also called for the establishment of a single governmental agency to determine the amount of oil to be imported, to negotiate its price directly with the OPEC cartel, and to allocate it throughout the United States. Alternative energy sources should not be limited to coal and nuclear energy, the delegates urged. They should also include a host of renewable resources such as wind, solar, tidal, and geothermal energy, and various new areas of potential energy including waste matter, oil

shale, tar sands, and synthetic fuels. The nonreturnable bottle industry again got convention support. Fearing that any government legislation designed to restrict or prohibit the use of nonreturnable containers could cost as many as 60,000 jobs, the delegates advised a hands off policy in this regard. They also supported the 5-year accelerated Federal grants-in-aid program under the Clean Water Act to state and local governments. This act, designed to eliminate the national backlog of water and sewer projects, in addition to improving the Nation's water quality, would also create many jobs.

— FOOTNOTES —

¹ "Turner Says He Won't Run Against Kirkland For Chief of AFL-CIO," *The Wall Street Journal*, Oct. 18, 1979, p. 27.

² "Kirkland Leaves Meany Shadow," *The New York Times*, Nov. 25, 1979.

³ "Kirkland Takes Reigns, Urges Key Unions to Join," by Warren Brown, *The Washington Post*, Nov. 20, 1979, p. A-2.

⁴ Joseph W. Bloch, "Founding Convention of the AFL-CIO," *Monthly Labor Review*, February 1956, pp. 141-149.

⁵ *Report of the AFL-CIO Executive Council*, 1979, p. 194.

⁶ See AFL-CIO Constitution, Art. V, Sec. 2.

⁷ Various newspaper accounts report current AFL-CIO membership as 13.6 million. This figure is based on per capita tax reports to the

AFL-CIO and excludes all foreign members of AFL-CIO affiliates. The BLS figures cited include these members. For the U.S., AFL-CIO reported membership in 1978 was 15.6 million, or 69 percent of the organized work force.

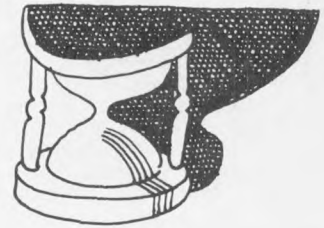
⁸ Lane Kirkland, Comments in support of Resolution 265, "George Meany," AFL-CIO Convention, November 16, 1979.

⁹ *AFL-CIO Resolutions, Thirteenth Convention*, 1979, pp. 5-6.

¹⁰ Leon Bornstein, "Developments in Industrial Relations," *Monthly Labor Review*, November 1979, pp. 58-61.

¹¹ A 3-cent increase was approved at the 1975 convention and again in 1977, both to offset current and expected deficits. The 1979 increase is to offset anticipated deficits of about \$4.3 million over the next 2 years.

Major Agreements Expiring Next Month



This list of collective bargaining agreements expiring in March is based on contracts on file in the Bureau's Office of Wages and Industrial Relations. The list includes agreements covering 1,000 workers or more.

Employer and location	Industry	Union ¹	Number of workers
Allied Employers, Inc. (King-Snohomish Counties, Wash.)	Retail trade	Food and Commercial Workers	4,000
American Airlines, Inc., Ground Service (Interstate) ²	Air transportation	Transport Workers	12,500
Anchor Hocking Corp. (Interstate)	Stone, clay, and glass products	Glass Bottle Blowers	5,000
Associated General Contractors of America, Inc.:			
Connecticut Chapter	Construction	Carpenters	1,100
Maryland Chapter	Construction	Laborers	2,450
San Antonio Chapter (Texas)	Construction	Carpenters	1,300
Borg-Warner Corp., Warner Gear Division (Muncie, Ind.)	Transportation equipment	Auto Workers (Ind.)	1,400
Brockway Glass Co., Inc. (Interstate)	Stone, clay, and glass products	Glass Bottle Blowers	7,500
Builders Association of Missouri, 2 agreements (Kansas and Missouri)	Construction	Laborers; and Teamsters (Ind.)	5,600
Building Managers Association of Chicago (Illinois)	Real estate	Service Employees	5,000
California Metal Trades Association (Northern California)	Fabricated metal products	Machinists	3,000
Campbell Soup Co. (Camden, N.J.)	Food products	Food and Commercial Workers	1,500
Carter County Fibers, Inc., Viscose Plant (Elizabethton, Tenn.)	Chemicals	Textile Workers	1,400
Cincinnati Gas and Electric Co., and Subsidiaries (Ohio)	Utilities	Independent Utilities Union	1,150
Commonwealth Edison Co. (Illinois)	Utilities	Electrical Workers (IBEW)	5,300
Connecticut Construction Industries Association, Inc.:			
Heavy and Highway work (Connecticut)	Construction	Carpenters	6,100
Heavy and Highway work (Connecticut)	Construction	Bricklayers	2,500
5 Divisions (Connecticut, New York, and Rhode Island)	Construction	Operating Engineers	2,500
Dairy Employers Labor Council (Washington)	Food products	Teamsters (Ind.)	1,000
Food Markets Agreement (Minneapolis, Minn.) ³	Retail trade	Food and Commercial Workers	6,500
Glass Containers Corp. (Interstate)	Stone, clay and glass products	Glass Bottle Blowers	3,100
Gould, Inc. (Philadelphia, Pa.)	Electrical products	Auto Workers (Ind.)	2,800
Grower-Shipper Vegetable Association, Packinghouse Agreement (California)	Wholesale trade	Food and Commercial Workers	1,000
H. J. Heinz Co., Heinz U.S.A. (Pittsburgh, Pa.)	Food products	Food and Commercial Workers	1,800
Heavy Construction Association of Greater Kansas City Area (Kansas and Missouri)	Construction	Laborers	1,500
Imperial and 3 others Negotiating Committee (California and Arizona)	Agricultural services	Food and Commercial Workers	2,000
Indian Head, Inc. (Interstate)	Stone, clay and glass products	Glass Bottle Blowers	2,300
Industrial Conference Board, grocery stores (Pierce County, Wash.)	Retail trade	Food and Commercial Workers	1,600
ITT Continental Baking Co. (Crozet, Va.)	Food products	Teamsters (Ind.)	1,000
Liggett Group, Inc. (Durham, N.C.)	Tobacco	Bakery, Confectionery and Tobacco Workers	1,650
Metal Trades Independent Companies (California) ³	Fabricated metal products	Machinists	2,450
Michigan Distribution Contractors Association (Michigan)	Construction	Laborers	2,000
Milwaukee Transport Services, Inc. (Milwaukee, Wis.)	Transit	Transit Union	1,200
Moore Co., Inc. (Chicopee and Springfield, Mass.)	Primary metals	Directly Affiliated Unions	1,350
Moving and Storage Industry (New York, New Jersey and Connecticut) ³	Trucking	Teamsters (Ind.)	2,300
National Broadcasting Co., Inc. (Interstate)	Communication	Broadcast Employees and Technicians	1,550
National Can Co., Foster-Forbes Glass Co. Division (Interstate)	Stone, clay and glass products	Glass Bottle Blowers	2,000
Northern California Dairy Association (California)	Food products	Teamsters (Ind.)	1,600
Owens-Illinois, Inc.:			
(California and Oregon)	Stone, clay and glass products	Glass Bottle Blowers	2,400
Forming Department (Interstate)	Stone, clay and glass products	Glass Bottle Blowers	1,800
Production and Maintenance (Interstate)	Stone, clay and glass products	Glass Bottle Blowers	13,600

See footnotes at end of table.

Continued—Major Agreements Expiring Next Month

Employer and location	Industry	Union ¹	Number of workers
Philadelphia Food Stores (Pennsylvania, New Jersey, and Delaware) ³	Retail trade	Food and Commercial Workers	2,500
Puget Sound Power and Light Co. (Bellevue, Wash.)	Utilities	Electrical Workers (IBEW)	2,000
Restaurant-Hotel Employers' Council of Southern California, Inc. (California)	Restaurants	Hotel and Restaurant Employees	9,000
Rockwell International Corp. (Richland, Wash.)	Chemicals	Directly Affiliated Unions	1,200
Southern California Gas Co. (Los Angeles, Calif.)	Utilities	Two or More AFL-CIO Unions	5,600
Union Carbide Corp. (Texas City, Tex.)	Chemicals	Directly Affiliated Unions	1,600
United Super Market Association (Detroit, Mich.)	Retail trade	Food and Commercial Workers	11,000
Weatherhead Co. (Indiana and Ohio)	Transportation equipment	Auto Workers (Ind.)	2,000
West Coast Envelope Employers Council (California)	Paper	Printing and Graphics	1,000
Wyman-Gordon Co., Inc. (Worcester and North Grafton, Mass.)	Primary metals	Steelworkers	1,000
Xerox Corp. (Rochester, N.Y.)	Instruments	Clothing and Textile Workers	4,600
	Government activity	Employee organization¹	
Ohio: Cuyahoga County Hospital, nonprofessional employees	Multidepartment	State, County and Municipal Employees	2,800
Ohio: Cuyahoga County Welfare Department	Multidepartment	State, County and Municipal Employees	1,500

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

² Information is from newspaper reports.

³ Industry area (group of companies signing same contract).

Book Reviews



Now we know how—but can we?

The World Economy: History and Prospect. By W. W. Rostow. Austin, University of Texas Press, 1978. 833 pp. \$34.50.

Getting From Here to There: America's Future in the World Economy. By W. W. Rostow. New York, McGraw-Hill Book Co., 1978. 271 pp. \$14.95.

These two books are complementary. In *The World Economy*, Professor Rostow starts back in the 18th century and carries the history down to 1977. In the second book, he projects the economic outlook through the next quarter century to the year 2000.

The first book, a comprehensive history of more than 800 pages, traces the various aspects of population dynamics and economic growth over the last two centuries. World population grew at a rate of about 0.5 percent a year up to the year 1900; doubled to 1.0 percent during 1930–50; and then doubled again to 2.0 percent, 1960–70. These developments are analyzed by Rostow, showing that it has been the spectacular decline in death rates throughout the world which has brought about the population explosion.

The author analyzes industrial growth and its diffusion throughout the world, with emphasis on the growth of international trade and makes a more detailed analysis of the stages of economic growth in each of 20 countries, starting with Great Britain and the United States and ending with Taiwan, Thailand, and South Korea.

Professor Rostow devotes a chapter to balanced and unbalanced growth over the last two centuries, followed by a chapter on business cycles, starting with the 18th century, 1700–1783; and followed by the Classic era, 1783–1914; and then by recent developments down to 1973. He closes the historical book with a section on the Future of the World Economy, focusing on the “Fifth Kondratieff Upswing” which is projected for the last quarter of the 20th century. (Kondratieff was a famous Russian historian executed in the mid-1930’s by Stalin, who had no use for scholars.)

So the second book (subtitle: *America's Future in the World Economy*) opens with a restatement of the long-range business cycles originated by Kondratieff and car-

ried forward by Rostow. Here are the original cycles with Rostow’s continuations:

Kondratieff		Rostow	
1790–1815	up	1920–1933	down
1815–1848	down	1933–1951	up
1848–1872	up	1951–1972	down
1872–1896	down	1972–1977	up
1896–1920	up	1977–2000	up?
1920–1930	down		

Kondratieff’s idea was that long-range economic cycles covered about half a century, up and then down. But Rostow pointed out that World War II changed the down cycle into a worldwide upturn, which then gave way to a typical postwar downturn, 1952–1972. Following the severe recession, 1974–75, there has been an upturn, which was still underway in 1979. Rostow’s thesis is that this could be the beginning of a quarter-century worldwide upturn. He then proceeds to make the case for such a prospect.

In passing, Rostow devotes a chapter to the “Bankruptcy of Neo-Keynesian Economics”. Keynes originally had a classical economist’s view of business upturns and downturns. But after World War I, the unionized workers in Great Britain forced a general strike in 1926, which prevented normal wage reductions. Keynes then developed the theory that rising consumer incomes would create effective demand for goods and services, which, in turn, prevented a worldwide depression after World War II. However, Keynes had no formula for restraining the economy during inflation.

As Rostow states, “It will no longer suffice to focus obsessively on the indiscriminate expansion of effective demand . . . the world of the 1970’s and 1980’s cannot afford to waste manpower . . . every man and woman available in the working forces of the advanced industrial economies (must) be put to work on high-priority tasks . . . an extravagant, neo-Keynesian policy makes neither economic nor political sense.”

The greatest crisis facing the next quarter century is the population explosion versus limited food production. The world population in 1977 was about 4.0 billion; by the year 2000 it will be 6.5 billion. On the contrary, world food production is failing to keep pace.

The United States and Canada are the only countries in the world with substantial food exports to the hungry nations. Great efforts are being made, locally and internationally, to stimulate higher productivity in agriculture. Furthermore, there is need for an ever-normal granary (such as the United States developed in the 1930's) in order to avoid the wild price fluctuations of the 1970's. Improved agriculture can help the food problem, but it must be supplemented by better population control in many nations.

Rostow then tackles the energy problem, which he labels "A Test of the Democratic Process." When oil prices exploded in 1973-1974, the world economy was shaken into a depression. But the actions of the oil-importing governments failed to match the problem. The United States was the worst performer, upping its imports from 4 million to 8 million barrels per day by 1977. Furthermore, in the United States, the Administration's national energy plan projects such low prices for natural gas that there is little prospect for gas as a solution to the energy problem.

However, Rostow cites technological advances which hold great promise for the longer future—the liquid-metal, fast-breeder reactor, the possibility of fusion, and the eventual solution of solar energy.

He closes on a hopeful note: "The human race faces in the generation ahead, therefore, the greatest challenge it has confronted since modern industrialization began in the late 18th century: the challenge of creating a new, hopefully infinite and non-polluting source of energy."

Raw materials are a major factor in the Kondratieff cycles. In the down phase they become plentiful and cheap. In 1972, for example, the price index for raw materials was only 122; but by 1976 it was 214, not far from double. The shortage was brought about by a slackening of investment in the 1960's combined with the new governmental regulations dealing with the environment, health, and safety.

The domestic U.S. situation was further complicated by international developments. That well-advertised study on *Limits to Growth* had forecast a world-wide long-run shortage of many basic raw materials—copper, lead, zinc, molybdenum, and gold. But a table published by the U.S. Geological Survey in 1973 showed that, at present rates of annual consumption, metals such as coal, iron, uranium, and especially aluminum are in ample supply for thousands of years.

The real problem is distribution. Minerals are often highly concentrated in a few countries (such as lead in Peru) which then may be able to exact a monopoly price. One possible solution is a broad international agreement for fair sharing. Another solution is the discovery of unlimited metals on the ocean floors, on which the United Nations has been unable to get an

agreement in 5 years. Rostow's conclusion is that the current raw materials shortage is temporary; there is an ample supply for the longer future.

Productivity in the United States took a turn for the worse during the 1970's. For decades the domestic economy had an increase in output per hour averaging 3 percent a year, which has operated to lower labor costs to that extent. But in the 1970's, the rate fell to 1 percent and in some quarter-years to zero. A dramatic example is coal mining, which had annual increases of about 6 percent a year from 1948 to 1968, but which declined by nearly 3 percent a year in the 1970's.

Two factors are primarily responsible: first, the new health and safety standards, which raised labor costs in many industries, and second, the expansion of jobs in retail trade and the service industries, where productivity is low. With collective bargaining still proceeding on the assumption of substantial productivity increases, the result is a rising cost-of-living inflation.

Rostow has two suggestions. First, workers should recognize that there is (temporarily) no productivity increase for wages, and second, that major efforts should be made to stimulate productivity throughout the economy. The unions should recognize that this is the only solution to inflation; otherwise, rising consumer prices undermine the wage increases before the year is over.

This productivity experience leads Rostow to raise the question, *Is Human Creativity on the Wane?* His conclusion is that the long-run future is heavily dependent on the success of the next quarter century.

The fact is that U.S. investment in research and development has been declining, whereas in Germany, Japan, and the U.S.S.R., there are significant increases. Yet, there are many new possibilities in developmental biology, astronomy, and materials substitution, plus inventive new directions in agriculture, energy, sea-bed mining, and the communications revolution. Such expansion can only be achieved by private industry. The question is whether the government will give industry the opportunity.

The crucial issue is inflation. In Rostow's words, "How to conduct anti-inflationary policy in the context of the fifth Kondratieff upswing?" There are two answers. One is on the supply side, which is to insure that there is expanding investment in productivity, energy, food, raw materials, and research. The other is on the demand side, where noninflationary wage-price agreements require that both labor and business accept restraints which clash with their conventional ways of operating.

Rostow's solution is long-term voluntary agreements, backed by legal reserve powers. There are three reasons why this may work. First, in public opinion polls, inflation ranks higher than unemployment as the issue of

public concern. Second, serious businessmen and labor leaders know that inflation is costly to their respective interests. Third, the circumstances "require that we generate in American society the most important single ingredient for successful wage-price policies: a sense of common purpose."

In his final chapter, "Can Democracy Survive?", Rostow sums up his conclusions in these terms: "In short, if we are forehanded, generate a lucid and generally accepted view of the Nation's problems, and a spirit of public-private collaboration in dealing with them, there is no reason to fear that the policies required to transit with reasonable success the next quarter century would seriously compromise democratic practice and institutions as we have known them. But a failure to meet these conditions could endanger democratic life in the U.S. and throughout the Western world."

In this reviewer's opinion, Professor Rostow's analysis of *Getting From Here to There* should be read by all serious professional forecasters. Inflation in 1979 is already double the 6-percent rate on which Rostow's analysis was based. Furthermore, the new oil price increases, derived from the political collapse of Iran, threaten more inflation. The United States must act immediately to (a) cut its imports of oil from the Middle East (b) economize in the use of gas and oil, and (c) develop new sources of energy in the United States and the North American continent. The time is short and the crisis may come soon. Rostow shows the way—can the United States make it?

—EWAN CLAGUE
Consultant, former Commissioner
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Where the working is easy

Comparative Metropolitan Employment Complexes—New York, Chicago, Los Angeles, Houston, Atlanta. By Dale L. Hiestand and Dean W. Morse. Montclair, N.J., Allanheld, Osmun and Co. Publishers, Inc., 1979. 141 pp. \$21.50.

Most studies of urban labor markets emphasize the features that such markets have in common. In this exploratory study, Dale L. Hiestand and Dean W. Morse make a significant contribution to labor economics literature by analyzing the effects on five large metropolitan labor markets of the differences among the areas in factors such as size, rate of employment growth, industrial and occupational composition of employment, extent of unionization, political climate, and work attitudes. The five metropolitan areas that the authors analyze—New York, Chicago, Los Angeles, Houston, and Atlanta—

contain nearly 16 percent of the U.S. labor force.

Hiestand and Morse focus not only on the effects of interarea differences on traditional labor market processes such as recruitment and hiring, but also on the effects of these differences on workers' mobility within the "internal labor market"—that is, within a firm or other structured organization. Because of the vast number of factors that affect the labor market in each metropolitan area, the authors are unable to base their analysis on statistical correlation techniques. Instead, they present tentative cause-and-effect conclusions based on their own judgments.

Hiestand and Morse present many interesting and useful findings and conclusions. For example:

- Because of its rapid growth, Houston had 10 percent of its labor force employed in construction in 1970—a much higher proportion than in any of the other four areas.
- For several reasons, including the high educational standards in the white-collar industries in which New York specializes, young men enter the labor force there at a distinctly later age than in any of the other areas.
- A worker's initial job determines his career prospects to a greater extent in the slow-growing New York area than in any of the other areas.

The book has two minor faults. First, some of the analysis is superficial. For example, on page 99, the authors observe, "The number of women employed as operatives failed to increase past age 29 in the New York area, reflecting perhaps the decline of manufacturing in the city." It seems to me that the presence of a declining manufacturing sector that could not provide jobs for new labor force entrants would be just as consistent with an aging work force as it is with a work force that is growing younger. Furthermore, the increase only in *young* female operatives in New York probably has as much to do with the age composition of the ethnic groups that supply these operatives as it does with any factor on the demand side of the labor market.

The authors' discussion of the contrasting work attitudes in the five metropolitan areas contains several superficial statements, such as "In Houston, a clever person can make a good living without working overly hard and still enjoy the city's night life and weekends," and "The exodus to the shore or country on Fridays, holiday eves, and during much of the summer are (sic) observable facts of life in the New York area."

My second complaint is that some of the theoretical material in the opening chapters of the book is tedious, and adds little to the reader's understanding of the analysis. Indeed, a savvy Houstonian or a New York manpower "maven" might even skip the first two chapters and get a head start on his night life or weekend.

These two faults detract only minimally from the quality and usefulness of the book. In fact, I raise these two criticisms only because I am employed in Washington, an area that specializes in discovering the faults of the rest of the country.

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Publications received

Economic and social statistics

Bertrand, Trent J., "Shadow Pricing in Distorted Economies," *The American Economic Review*, December 1979, pp. 902-14.

Duncan, Beverly, "Change in Worker/Nonworker Ratios for Women," *Demography*, November 1979, pp. 535-47.

Economic Council of Canada, *Two Cheers for the Eighties: Sixteenth Annual Review of the Economic Council of Canada*. Hull, Quebec, Canada, Economic Council of Canada, 1979, 105 pp. \$6.75, Canada; \$8.10 other countries. Available from Canadian Government Publishing Center, Supply and Services Canada, Hull, Quebec.

McNees, Stephen K., "The Forecasting Record for the 1970's," *New England Economic Review*, Federal Reserve Bank of Boston, September-October 1979, pp. 33-53.

Nam, Charles B., "The Progress of Demography as a Scientific Discipline," *Demography*, November 1979, pp. 485-92.

Plaut, Thomas R., *Net Migration into Texas and its Regions: Trends and Patterns*. Austin, The University of Texas, Bureau of Business Research, 1979, 54 pp., bibliography. (Research Report 1979-1.)

Economic growth and development

Gilland, Bernard, *The Next Seventy Years: Population, Food and Resources*. Tunbridge Wells, Kent, England, Abacus Press, 1979, 133 pp., bibliography.

Hauser, Philip M., *World Population and Development: Challenges and Prospects*. Syracuse, N.Y., Syracuse University Press, 1979, 683 pp. \$18, cloth; \$9.95, paper.

Kahn, Herman, *World Economic Development: 1979 and Beyond*. Boulder, Colo., Westview Press, 1979, 519 pp. \$20, cloth; \$7.95, paper.

Ross-Skinner, Jean with Susan Antilla, "Germany: Why It Thrives," *Dun's Review*, December 1979, beginning on p. 106.

Swanson, Gordon I. and Jon Michaelson, eds., *Manpower Research and Labor Economics*. Beverly Hills, Calif., Sage Publications, 1979, 332 pp. \$20, cloth, \$9.95, paper.

Health and safety

Corn, Morton, "An inside view of OSHA compliance," *The Personnel Administrator*, November 1979, beginning on p. 39.

Mabuchi, Kiyohiko, Abraham M. Lilienfeld, Laura M. Snell, "Lung Cancer Among Pesticide Workers Exposed to Inorganic Arsenicals," *Archives of Environmental Health*,

September-October 1979, pp. 312-20.

Nemec, Margaret M., "Preventive industrial hygiene tames occupational health hazards," *Occupational Hazards*, September 1979, pp. 42-47.

U.S. National Center for Health Statistics, *Acute Conditions: Incidence and Associated Disability, United States, July 1977-June 1978*. Hyattsville, Md., U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, 1979, 68 pp. (Vital and Health Statistics, Series 10, DHEW Publication PHS 79-1560.) For sale by the Superintendent of Documents, Washington 20402.

— *Prevalence of Selected Chronic Digestive Conditions, United States, 1975*. Hyattsville, Md., U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics, 1979, 55 pp. (Vital and Health Statistics, Series 10, DHEW Publication PHS 79-1558.) For sale by the Superintendent of Documents, Washington 20402.

Wechsler, Henry, Nell H. Gottlieb, Harold W. Demone, Jr., "Lifestyle, Conditions of Life, and Health Care in Urban and Suburban Areas," *Public Health Reports*, September-October 1979, pp. 477-82.

Industrial relations

Hall, Robert E. and David M. Lilien, "Efficient Wage Bargains under Uncertain Supply and Demand," *The American Economic Review*, December 1979, pp. 868-79.

Ison, Terence G., *Occupational Health and Wildcat Strikes*. Kingston, Ontario, Canada, Queen's University, Industrial Relations Center, 1979, 11 pp. (Reprint Series, 45.) \$3.

Kruse, Scott A., "Boards of Inquiry in Health Care Disputes: New Options for the Parties," *Labor Law Journal*, October 1979, pp. 603-10.

Miller, Bruce A., "The National Labor Relations Act: Should Amendments Cover Public Employees?" *Labor Law Journal*, October 1979, pp. 637-42.

Morales, Gerard, "The Obligation of a Multiplant Employer to Bargain on the Decision to Close One of Its Plants," *Labor Law Journal*, November 1979, pp. 709-16.

Pettibone, Jon E., "Preemption and Derivative Discovery in Unfair Labor Practice Proceedings," *Labor Law Journal*, November 1979, pp. 689-99.

Rains, Harry H., "Should Strikers Receive Unemployment Insurance Benefits?" *Labor Law Journal*, November 1979, pp. 700-08.

Smith, J. Clay Jr., "The Broadcast Industry and Equal Employment Opportunity," *Labor Law Journal*, November 1979, pp. 659-66.

Swan, Kenneth P., *Professional Obligations, Employment Responsibilities and Collective Bargaining*. Kingston, Ontario, Canada, Queen's University, Industrial Relations Center, 1979, 16 pp. (Reprint Series, 46.) \$3.

Tiefer, Charles, "OSHA's Toxics Program Faces a Supreme Court Test," *Labor Law Journal*, November 1979, pp. 680-88.

U.S. Federal Mediation and Conciliation Service, *Impact of the 1974 Health Care Amendments to the NLRA on Collective Bargaining in the Health Care Industry*. Washington, U.S. Department of Labor, Labor-Management

Services Administration, Federal Mediation and Conciliation Service, Office of Research, 1979, 473 pp.

Waters, Gola E. and Christine Foote Pursell, "Emotional Distress: The Battle Over a New Tort Under Age Discrimination Continues," *Labor Law Journal*, November 1979, pp. 667-79.

Industry and government organization

American Enterprise Institute for Public Policy Research, *Judicial Discipline and Tenure Proposals*. Washington, 1979, 39 pp. (AEI Legislative Analysis, 10.) \$3.

Riemer, Jeffrey W., *Hard Hats: The Work World of Construction Workers*. Beverly Hills, Calif., Sage Publications, 1979, 203 pp. \$17.50, cloth; \$7.95, paper.

Russell, James S. and Warren J. Samuels, "Corporate and Public Responsibility in Environmental Policy: A Case Study," *MSU Business Topics*, Autumn 1979, pp. 23-32.

U.S. Congress, Joint Economic Committee, *Regulatory Budgeting and the Need for Cost-Effectiveness in the Regulatory Process*. Washington, 1979, 32 pp. (96th Cong., 1st sess.) Stock No. 052-070-05142-6. For sale by the Superintendent of Documents, Washington 20402.

International economics

U.S. Bureau of International Labor Affairs, *Country Labor Profile: New Zealand*. By Joseph Mire. Washington, U.S. Department of Labor, Bureau of International Labor Affairs, 1979, 8 pp. 60 cents, Superintendent of Documents, Washington 20402.

Wright, Charles L. "International Comparisons of Income Levels and Growth Rates," *The Journal of Development Studies*, July 1979, pp. 331-41.

Labor and economic history

Foner, Philip S., *Women and the American Labor Movement: From Colonial Times to the Eve of World War I*. New York, The Free Press, A division of Macmillan Publishing Co., Inc., 1979, 621 pp., bibliography. \$15.95.

"West Europe, 1979," *Current History*, November 1979, pp. 147-86.

Labor force

Bartel, Ann P., "The Migration Decision: What Role Does Job Mobility Play?" *The American Economic Review*, December 1979, pp. 775-86.

Lloyd, Cynthia B., Emily S. Andrews, Curtis L. Gilroy, eds., *Women in the Labor Market*. New York, Columbia University Press, 1979, 393 pp., bibliography. \$25.

Neville, John W., "How voluntary is unemployment? Two views of the Phillips curve," *Journal of Post Keynesian Economics*, Fall 1979, pp. 110-19.

Nickell, Stephen, "Estimating the Probability of Leaving Unemployment," *Econometrica*, September 1979, pp. 1249-66.

O'Connell, Brian J., *Blacks in White-Collar Jobs*. Montclair, N.J., Allanheld, Osmun & Co., Publishers, 1979, 126 pp. \$18. 19.

Schlozman, Kay Lehman and Sidney Verba, *Injury to Insult:*

Unemployment, Class, and Political Response. Cambridge, Mass., Harvard University Press, 1979, 393 pp. \$20.

Smith, Ralph E., *Women in the Labor Force in 1990*. Washington, The Urban Institute, 1979, 162 pp., bibliography. (URI 24600.) \$7. 19.

U.S. Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment: States, 1978; Metropolitan Areas, 1977-78*. (Prepared by Russ Marshall, Aleria Thomas, and Richard Rosen.) Washington, 1979, 111 pp. (Report 571.)

— *Women in the Labor Force: Some New Data Series*. (Prepared by Janet Norwood, and Elizabeth Waldman.) Washington, 1979, 9 pp. (Report 575.)

U.S. Congress, Joint Economic Committee, *Employment-Unemployment, Pt. 14*. Hearings before the Joint Congressional Economic Committee. Washington, 1979, 234 pp. (96th Cong., 1st sess.) For sale by the Superintendent of Documents, Washington 20402.

U.S. Employment and Training Administration, *Seven Years Later: The Experiences of the 1970 Cohort of Immigrants in the United States*. Washington, U.S. Department of Labor, Employment and Training Administration, 1979, 172 pp. (R&D Monograph 71.)

Walsh, W. Bruce and others, "Holland's Theory and College-Degreed Working Black and White Women," *Journal of Vocational Behavior*, October 1979, pp. 217-23.

Management and organization theory

Albert, Kenneth J., *Handbook of Business Problem Solving*. New York, McGraw-Hill Book Co., 1980, 841 pp. \$24.95.

Brooks, Robin F., "Going the Clerical Route," *Public Personnel Management*, September-October 1979, pp. 330-35.

Herzberg, Frederick I., "New perspectives on the will to work," *The Personnel Administrator*, December 1979, pp. 72-76.

Homjak, William W., "Layoff rotation," *The Personnel Administrator*, December 1979, pp. 57-61.

Jensen, Michael C. and William H. Meckling, "Rights and Production Functions: An Application to Labor-managed Firms and Codetermination," *The Journal of Business*, October 1979, pp. 469-506.

Koch, James L., "Effects of Goal Specificity and Performance Feedback to Work Groups on Peer Leadership, Performance, and Attitudes," *Human Resources*, October 1979, pp. 819-40.

Lagges, James G., "The Role of Delegation in Improving Productivity," *Personnel Journal*, November 1979, pp. 776-79.

Lien, Lawrence, "Reviewing Your Training and Development Activities," *Personnel Journal*, November 1979, beginning on p. 791.

Lindo, David K., *Supervision Can Be Easy!* New York, AMACOM, A division of American Management Associations, 1979, 272 pp. \$14.95.

Murray, Thomas J., "Where Are Tomorrow's Top Managers?" *Dun's Review*, December 1979, pp. 98-100.

Rix, Sara E., "Rethinking Retirement-Age Policy in the

- United States and Canada," *Personnel Journal*, November 1979, pp. 780-88.
- Sanderson, George and Frederick Stepenhurst, eds., *Industrial Democracy Today: A New Role for Labour*. Toronto, Canada, McGraw-Hill Ryerson, Ltd., 1979, 243 pp., bibliography. \$19.95. Available in the United States from McGraw-Hill, New York.
- Stack, Ruth H., *HMOs from the Management Perspective*. New York, AMACOM, a division of American Management Associations, 1979, 49 pp. \$5, AMA members; \$7.50, others.
- Sweeny, Allen, *ROI Basics for Nonfinancial Executives*. New York, AMACOM, a division of American Management Associations, 1979, 115 pp. \$9.95.
- The Bureau of National Affairs, Inc., *Aspects of the Personnel Function: Structure, Use of Electronic Data Processing, and Professional Activities*, Prepared by Mary Green Miner. Washington, The Bureau of National Affairs, Inc., 1979, 65 pp. (Personnel Policies Forum Survey, 127.) \$5.
- Yates, Jere E., *Managing Stress: A Businessperson's Guide*. New York, AMACOM, a division of American Management Associations, 1979, 165 pp. \$12.95.
- Zaltman, Gerald, ed., *Management Principles for Nonprofit Agencies and Organizations*. New York, AMACOM, a division of American Management Associations, 1979, 584 pp., index. \$34.95.
- Zimet, Melvin and Ronald G. Greenwood, eds., *The Evolving Science of Management: The Collected Papers of Harold Smiddy and Papers by Others in His Honor*. New York, AMACOM, a division of American Management Associations, 1979, 496 pp. \$24.95.

Monetary and fiscal policy

- Day, William H. L., "Domestic Credit and Money Ceilings Under Alternative Exchange Rate Regimes," *International Monetary Fund Staff Papers*, September 1979, pp. 490-512.
- Feltenstein, Andrew, Morris Goldsmith, and Susan M. Schadler. "A Multilateral Exchange Rate Model for Primary Producing Countries," *International Monetary Fund Staff Papers*, September 1979, pp. 543-82.
- Gordon, Josephine G. and Robert N. Schoepflein. "Tax Impact From Elimination of the Retirement Test," *Social Security Bulletin*, September 1979, pp. 22-32.

Prices and living conditions

- Salathe, Larry E., *Household Expenditure Patterns in the United States*. Washington, U.S. Department of Agriculture, Economics, Statistics, and Cooperative Service, 1979, 23 pp. (Technical Bulletin 1603.)
- Anthony E. Gallo, William T. Boehm, *The Impact of Race on Consumer Food Purchases*. Washington, U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, 1979, 14 pp.
- and Rueben C. Buse, *Household Food Consumption Patterns in the United States*. Washington, U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, 1979, 27 pp. (Technical Bulletin 1587.)

- Stein, Jerome L., "The acceleration of inflation," *Journal of Post Keynesian Economics*. Fall 1979, pp. 26-42.
- U.S. Bureau of Labor Statistics, *Escalation and Producer Price Indexes: A Guide for Contracting Parties*. (Prepared by Craig Howell and William Thomas.) Washington, 1979, 9 pp. (Report 570.)
- U.S. Department of Agriculture, *Food Prices in Perspective and Summary Analysis*. Washington, Economics, Statistics, and Cooperatives Service, 1979, 43 and 9 pp., respectively.

Productivity and technological change

- Adkins, Lynn, "Getting a Grip on White-Collar Productivity," *Dun's Review*, December 1979, beginning on p. 120.
- Allen, Steven G., *Unionized Construction Workers Are More Productive*. Washington, Center to Protect Workers' Rights, 1979, 25 pp.
- Grayson, C. Jackson, "Productivity's impact on our economic future," *The Personnel Administrator*, December 1979, beginning on p. 21.

Urban affairs

- Jennrich, John H., "Transportation 2000: How America Will Move Its People and Products," *Nation's Business*, November 1979, pp. 34-40.
- Kettl, Donald F., "Can the Cities be Trusted? The Community Development Experience," *Political Science Quarterly*, Fall 1979, pp. 437-51.

Wages and compensation

- Deitsch, Clarence and David Dilts, "The Shorter Standard Workweek: A Method for Circumvention of Wage and Price Controls?" *Indiana Business Review*, July-August 1979, pp. 12-13.
- Fogel, Walter, "Occupational Earnings: Market and Institutional Influences," *Industrial and Labor Relations Review*, October 1979, pp. 24-35.
- Hoffman, Saul D., "Black-White Life Cycle Earnings Differences and the Vintage Hypothesis: A Longitudinal Analysis," *The American Economic Review*, December 1979, pp. 855-67.
- Hyclak, Thomas, "The Effect of Unions on Earnings Inequality in Local Labor Markets," *Industrial and Labor Relations Review*, October 1979, pp. 77-84.
- Moroney, J. R., "Do Women Earn Less Under Capitalism?" *The Economic Journal*, September 1979, pp. 601-13.
- O'Kelly, Charlotte G., "The 'Impact' of Equal Employment Legislation on Women's Earnings; Limitations of Legislative Solutions to Discrimination in the Economy," *American Journal of Economics and Sociology*, October 1979, pp. 419-30.
- U.S. Bureau of Labor Statistics, *Area Wage Surveys: Selected Metropolitan Areas, 1977*. Washington, 1979, 154 pp. (Bulletin 1950-76.) \$4.75, Superintendent of Documents, Washington, 20402.
- *Area Wage Surveys: Toledo, Ohio—Michigan, Metropolitan Area, May 1979; San Antonio, Texas, Metropolitan Area, May 1979; Wichita, Kansas, Metropolitan*

Area, April 1979; San Jose, California, Metropolitan Area, March 1979; Atlanta, Georgia, Metropolitan Area, May 1979; Chicago, Illinois, Metropolitan Area, May 1979; Norfolk—Virginia Beach—Portsmouth, Virginia—North Carolina, Metropolitan Area, May 1979; Worcester, Massachusetts, Metropolitan Area, April 1979; Richmond, Virginia, Metropolitan Area, June 1979; Fresno, California, Metropolitan Area, June 1979; Patterson—Clifton—Passaic, New Jersey Metropolitan Area, June 1979; Portland, Oregon—Washington Metropolitan Area, May 1979; Northeast Pennsylvania, Metropolitan Area, August 1979; Corpus Christi, Texas, Metropolitan Area, July 1979; Poughkeepsie, New York, Metropolitan Area, June 1979; Poughkeepsie—Kingston—Newburgh, New York Area, June 1979. Washington, 1979, 30, 27, 28, 36, 42, 47, 40, 27, 31, 27, 28, 38, 43, 39, 24, 27 pp., respectively. (Bulletins 2050-16, 2050-17, 2050-18, 2050-19, 2050-20 2050-21, 2050-22, 2050-23, 2050-24, 2050-25, 2050-26 2050-27, 2050-32, 2050-33, 2050-34, 2050-35.) \$1.10, \$1, \$1, \$1.10, \$1.30, \$1.75, \$1.75, \$1.50, \$1.50, \$1.50, \$1.50, \$1.75, \$1.75, \$1.75, \$1.50, \$1.50. Superintendent of Documents, Washington 20402, GPO bookstores, or BLS regional offices.

— *Industry Wage Surveys: Grain Mill Products, September 1977; Computer and Data Processing Services, March 1978; Communications, October-December 1977.* 54, 51, 12 pp., respectively. (Bulletins 2026, 2028, 2029.) Stock Nos. 029-001-02317-1, 029-001-02319-7, 029-001-02311-1. \$2.30, \$2.50, \$1.10 Superintendent of Documents, Washington 20402.

— *National Survey of Professional, Administrative, Technical, and Clerical Pay, March 1979.* Washington 1979, 71 pp. (Bulletin 2045.) Stock No. 029-001-02403-7. For sale by the Superintendent of Documents, Washington, 20402.

— *Occupational Earnings and Wage Trends in Metropolitan Areas, 1978.* Washington, 1979, 7 pp. (Summary 79-11.)

— *Union Wages and Benefits: Local-Transit Operating Employees, 1978.* (Prepared by Harry B. Williams.) Washington, 1979, 21 pp. (Bulletin 2043.) Stock No. 029-001-02407-0. For sale by the Superintendent of Documents, Washington 20402.

Welfare programs and social insurance

Adcock, George, "How Will the Recession Impact Pension Portfolios?" *Pension World*, August 1979, beginning on p. 8.

American Enterprise Institute for Public Policy Research, *The Administration's 1979 Welfare Reform Proposal.* Washington, 1979, 61 pp. (AEI Legislative Analysis 7.) \$3.

Australian Department of Social Security, "Changing Family Patterns and Social Security Protection: The Australian Scene." *The International Social Security Review*, No. 1, 1979, pp. 3-20.

Campbell, Colin D., *Financing Social Security.* Washington, American Enterprise Institute for Public Policy Research, 1979, 352 pp. (AEI Symposia 78H.) \$13.75, cloth; \$6.75 paper.

Cavanaugh, Thomas J., "Recognizing Inflation in Public Pensions," *Pension World*, August 1979, beginning on p. 53.

Chaikin, Sol C., "Redesigning Unemployment Compensation,"

The AFL-CIO American Federationist, November 1979, pp. 19-24.

Chief, Elizabeth, "Need Determination in AFDC Program," *Social Security Bulletin*, September 1979, pp. 11-21.

Danziger, Sheldon, Irwin Garfinkel, Robert Haveman, "Poverty, Welfare, and Earnings: A New Approach," *Challenge*, September 1979, pp. 28-34.

deLone, Richard H., "One proposal to redistribute income," *Across the Board*, November 1979, pp. 33-36.

Derthick, Martha, *Policymaking for Social Security.* Washington, The Brookings Institution, 1979, 446 pp. \$11.95, cloth; \$4.95, paper.

Economic Council of Canada, *One in Three: Pensions for Canadians to 2030.* Hull, Quebec, Canada, Economic Council of Canada, 1979, 144 pp. \$6.25, Canada; \$7.50, other countries. Available from Canadian Government Publishing Center, Supply and Services Canada, Hull, Quebec.

Gramlich, Edward M. and Michael J. Wolkoff, "A Procedure for Evaluating Income Distribution Policies," *The Journal of Human Resources*, Summer 1979, pp. 319-50.

Haanes-Olsen, Leif, "Taxation and Pensions," *The International Social Security Review*, No. 1, 1979, pp. 32-49.

Huntley, Diane, "Educational and Economic Characteristics of Student Beneficiaries: Black-White Differences," *Social Security Bulletin*, September 1979, pp. 3-10.

Logue, John, "The Welfare State: Victim of Its Success," *Daedalus*, Fall 1979, pp. 69-87.

Martin, Peter W., "Public Assurance of an Adequate Minimum Income in Old Age: The Erratic Partnership Between Social Insurance and Public Assistance." *Cornell Law Review*, March 1979, pp. 437-520.

Morrison, Malcolm H., "International Developments in Retirement Flexibility," *Aging and Work*, Fall 1979, pp. 221-34.

National Commission on Unemployment Compensation, *Reinsurance of State Unemployment Compensation Plans and Federal Taxable Wage Base: Summary of Responses to the National Commission on Unemployment Compensation.* Rosslyn, Va., National Commission on Unemployment Compensation, 1979, 299 pp.

Perham, John C., "Battle Over Workers' Compensation," *Dun's Review*, September 1979, pp. 104-08.

Plattner, Marc F., "A new vision of the welfare state—redistribute income to create an equality state," *Across the Board*, November 1979, pp. 22-32.

Price, Karl F., James W. Walker, Douglas C. Kimmel, "Retirement Timing and Retirement Satisfaction," *Aging and Work*, Fall 1979, pp. 235-45.

Worker training and development

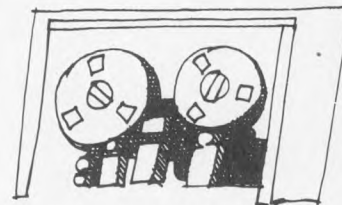
Barton, Paul E., *The Next Step in Managing Recessions: Countercyclical Education and Training.* Washington, National Manpower Institute, 1979, 12 pp. \$2.50.

Baxter, Neale, "Disabled Workers and the Career Counselor," *Occupational Outlook Quarterly*, Fall 1979, pp. 2-11.

Gentz, Susan C., "Lawyers Who Work With Older People," *Occupational Outlook Quarterly*, Fall 1979, pp. 16-19.

- Health Careers Guidebook*. 4th ed. Washington, U.S. Department of Labor, Employment and Training Administration and U.S. Department of Health, Education, and Welfare, Health Resources Administration, 1979, 221 pp. Stock No. 029-000-00343-2. For sale by the Superintendent of Documents, Washington 20402.
- Horn, Frederick F. and Victor W. Farah, *Trading in Commodity Futures*. 2d ed. New York, New York Institute of Finance, 1979, 373 pp.
- Krantz, David L., *Radical Career Change: Life Beyond Work*. New York, The Free Press, a division of Macmillan Publishing Co., Inc., 1978, 157 pp. \$9.95.
- Lecht, Leonard A., *Involving Private Employers in Local CETA Programs*. New York, The Conference Board, 1979, 18 pp. (Information Bulletin 63.)
- Payne, Richard A., *How to Get a Better Job Quicker*. New York, Taplinger Publishing Co., Inc., 1979, 217 pp. \$9.95.
- U.S. Employment and Training Administration, *Dateline: CETA—A Selection of Programs*. Washington, U.S. Department of Labor, Employment and Training Administration, 1979, 15 pp.
- *Employment and Training Report of the President*. (Transmitted to Congress 1979.) Washington, U.S. Department of Labor, Employment and Training Administration, 1979, 398 pp. Stock No. 029-000-00359-9. Available from the Superintendent of Documents, Washington 20402.
- “When children decide not to go to college,” *Business Week*, Sept. 3, 1979, beginning on p. 154.
- Weinstein, Marc, “Occupational unemployment,” *Occupational Outlook Quarterly*, Fall 1979, pp. 28–36.

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NOTES ON CURRENT LABOR STATISTICS

This section of the *Review* presents the principal statistical series collected and calculated by the Bureau of Labor Statistics. A brief introduction to each group of tables provides definitions, notes on the data, sources, and other material usually found in footnotes.

Readers who need additional information are invited to consult the BLS regional offices listed on the inside front cover of this issue of the *Review*. Some general notes applicable to several series are given below.

Seasonal adjustment. Certain monthly and quarterly data are adjusted to eliminate the effect of such factors as climatic conditions, industry production schedules, opening and closing of schools, holiday buying periods, and vacation practices, which might otherwise mask short-term movements of the statistical series. Tables containing these data are identified as "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. For a technical discussion of the method used to make seasonal adjustments, see "Appendix A. The BLS Seasonal Factor Method," *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), pp. 272-78, and *X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15 (Bureau of the Census, 1967). Seasonally adjusted labor force data in tables 2-7 were last revised in the February 1980 issue of the *Review* to reflect the preceding year's experience. Beginning in January 1980, the BLS introduced two major modifications in the seasonal adjustment methodology for labor force data. First, the data are being seasonally adjusted with a new procedure called X-11/ARIMA, which was developed at Statistics Canada as an extension of the standard X-11 method. A detailed description of the procedure appears in *The X-11 ARIMA Seasonal Adjustment Method* by Estela Bee Dagum (Statistics Canada Catalogue No. 12-564E, September 1979).

The second change is that seasonal factors are now being calculated for use during the first 6 months of the year, rather than for the entire year, and then are calculated at mid-year for the July-December period. Revisions of historical data continue to be made only at the end of each calendar year. Annual revision of the seasonally adjusted payroll data in tables 11, 13, 16, and 18 was last introduced in the November 1979 issue of the *Review*. New seasonal factors for productivity data in tables 33 and 34 are usually introduced in the September issue. Sea-

sonally 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 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 resulting values are described as "real," "constant," or "1967" dollars.

Availability of information. Data that supplement the tables in this section are published by the Bureau of Labor Statistics in a variety of sources. Press releases provide the latest statistical information published by the Bureau; the major recurring releases are published according to the schedule given below. The *Handbook of Labor Statistics 1978*, Bulletin 2000, provides more detailed data and greater historical coverage for most of the statistical series presented in the *Monthly Labor Review*. More information from the household and establishment surveys is provided in *Employment and Earnings*, a monthly publication of the Bureau, and in two comprehensive data books issued annually—*Employment and Earnings, United States* and *Employment and Earnings, States and Areas*. More detailed information on wages and other aspects of collective bargaining appears in the monthly periodical, *Current Wage Developments*. More detailed price information is published each month in the periodicals, the *CPI Detailed Report* and *Producer Prices and Price Indexes*. Selected key statistical series are presented graphically in the monthly *Chartbook on Prices, Wages, and Productivity*.

Symbols

p = preliminary. To improve 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.

Schedule of release dates for major BLS statistical series

Title and frequency (monthly except where indicated)	Release date	Period covered	Release date	Period covered	MLR table number
The Employment situation	February 1	January	March 7	February	1 - 11
Producer Price Indexes	February 15	January	March 7	February	26 - 30
Consumer Price Index	February 22	January	March 25	February	22 - 25
Real earnings	February 22	January	March 25	February	14 - 20
Productivity and costs:					
Nonfinancial corporations	February 27	4th quarter	.....	.....	31 - 34
Work stoppages	January	January	March 28	February	37
Labor turnover in manufacturing	February 29	January	March 31	February	12 - 13

EMPLOYMENT DATA FROM THE HOUSEHOLD SURVEY

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 56,000 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 are (1) those 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. 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 **unemployment rate** represents the number unemployed as a percent of the civilian labor force.

The **civilian labor force** consists of all employed or unemployed persons in the civilian noninstitutional population; the **total labor force** includes military personnel. Persons **not in the labor force** are

those not classified as employed or unemployed; this group includes persons retired, those engaged in their own housework, those not working while attending school, those unable to work because of longterm 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.

Full-time workers are those employed at least 35 hours a week; **part-time workers** are those who work fewer hours. Workers on part-time schedules for economic reasons (such as slack work, terminating or starting a job during the week, material shortages, or inability to find full-time work) are among those counted as being on full-time status, under the assumption that they would be working full time if conditions permitted. The survey classifies unemployed persons in full-time or part-time status by their reported preferences for full-time or part-time work.

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 presented in table 1. 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 2-7 are seasonally adjusted, based on the seasonal experience through December 1979.

1. Employment status of the noninstitutional population, 16 years and over, selected years, 1950-79

(Numbers in thousands)

Year	Total non-institutional population	Total labor force		Civilian labor force						Not in labor force
		Number	Percent of population	Total	Employed			Unemployed		
					Total	Agriculture	Nonagricultural industries	Number	Percent of labor force	
1950	106,645	63,858	59.9	62,208	58,920	7,160	51,760	3,288	5.3	42,787
1955	112,732	68,072	60.4	65,023	62,171	6,449	55,724	2,852	4.4	44,660
1960	119,759	72,142	60.2	69,628	65,778	5,458	60,318	3,852	5.5	47,617
1964	127,224	75,830	59.6	73,091	69,305	4,523	64,782	3,786	5.2	51,394
1965	129,236	77,178	59.7	74,455	71,088	4,361	66,726	3,366	4.5	52,058
1966	131,180	78,893	60.1	75,770	72,895	3,979	68,915	2,875	3.8	52,288
1967	133,319	80,793	60.6	77,347	74,372	3,844	70,527	2,975	3.8	52,527
1968	135,562	82,272	60.7	78,737	75,920	3,817	72,103	2,817	3.6	53,291
1969	137,841	84,239	61.1	80,733	77,902	3,606	74,296	2,831	3.5	53,602
1970	140,182	85,903	61.3	82,715	78,627	3,462	75,165	4,088	4.9	54,280
1971	142,596	86,929	61.0	84,113	79,120	3,387	75,732	4,993	5.9	55,666
1972	145,775	88,991	61.0	86,542	81,702	3,472	78,230	4,840	5.6	56,785
1973	148,263	91,040	61.4	88,714	84,409	3,452	80,957	4,304	4.9	57,222
1974	150,827	93,240	61.8	91,011	85,936	3,492	82,443	5,076	5.6	57,587
1975	153,449	94,793	61.8	92,613	84,783	3,380	81,403	7,830	8.5	58,655
1976	156,048	96,917	62.1	94,773	87,485	3,297	84,188	7,288	7.7	59,130
1977	158,559	99,534	62.8	97,401	90,546	3,244	87,302	6,855	7.0	59,025
1978	161,058	102,537	63.7	100,420	94,373	3,342	91,031	6,047	6.0	58,521
1979	163,620	104,996	64.2	102,908	96,945	3,297	93,648	5,963	5.8	58,623

2. Employment status by sex, age, and race, seasonally adjusted

[Numbers in thousands]

Employment status	Annual Average		1979												
	1978	1979	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
TOTAL															
Total noninstitutional population ¹	161,058	163,620	162,250	162,448	162,633	162,909	163,008	163,260	163,469	163,685	163,891	164,106	164,468	164,682	164,898
Total labor force	102,537	104,996	103,923	104,155	104,473	104,595	104,280	104,476	104,552	105,475	105,218	105,586	105,688	105,744	106,088
Civilian noninstitutional population ¹	158,941	161,532	160,142	160,353	160,539	160,819	160,926	161,182	161,393	161,604	161,801	162,013	162,375	162,589	162,809
Civilian labor force	100,420	102,908	101,815	102,061	102,379	102,505	102,198	102,398	102,476	103,093	103,128	103,494	103,595	103,652	103,999
Employed	94,373	96,945	95,831	96,157	96,496	96,623	96,254	96,495	96,652	97,184	97,004	97,504	97,474	97,608	97,912
Agriculture	3,342	3,297	3,375	3,260	3,307	3,320	3,215	3,246	3,243	3,267	3,315	3,364	3,294	3,385	3,359
Nonagricultural industries	91,031	93,648	92,456	92,897	93,189	93,303	93,039	93,249	93,409	93,917	93,689	94,140	94,223	94,223	94,553
Unemployed	6,047	5,963	5,984	5,904	5,883	5,882	5,944	5,903	5,824	5,909	6,124	5,990	6,121	6,044	6,087
Unemployment rate	6.0	5.8	5.9	5.8	5.7	5.7	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9
Not in labor force	58,521	58,623	58,327	58,292	58,160	58,314	58,728	58,784	58,917	58,511	58,673	58,519	58,780	58,937	58,810
Men, 20 years and over															
Civilian noninstitutional population ¹	67,006	68,293	67,600	67,726	67,816	67,939	67,997	68,123	68,227	68,319	68,417	68,522	68,697	68,804	68,940
Civilian labor force	53,464	54,486	54,059	54,191	54,349	54,315	54,239	54,288	54,370	54,579	54,597	54,735	54,760	54,709	54,781
Employed	51,212	52,264	51,861	52,024	52,211	52,151	52,049	52,158	52,201	52,325	52,311	52,453	52,443	52,374	52,478
Agriculture	2,361	2,350	2,387	2,303	2,329	2,350	2,295	2,301	2,305	2,327	2,375	2,377	2,371	2,438	2,427
Nonagricultural industries	48,852	49,913	49,474	49,721	49,882	49,801	49,754	49,857	49,896	49,998	49,936	50,076	50,072	49,936	50,051
Unemployed	2,252	2,223	2,198	2,167	2,138	2,164	2,190	2,130	2,169	2,254	2,286	2,282	2,317	2,335	2,303
Unemployment rate	4.2	4.1	4.1	4.0	3.9	4.0	4.0	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.2
Not in labor force	13,541	13,807	13,541	13,535	13,467	13,624	13,758	13,835	13,857	13,740	13,820	13,787	13,937	14,095	14,159
Women, 20 years and over															
Civilian noninstitutional population ¹	75,489	76,860	76,119	76,228	76,332	76,476	76,532	76,670	76,784	76,897	77,006	77,124	77,308	77,426	77,542
Civilian labor force	37,416	38,910	38,156	38,207	38,399	38,574	38,415	38,619	38,653	39,033	39,304	39,239	39,362	39,445	39,659
Employed	35,180	36,698	35,944	36,012	36,197	36,362	36,216	36,411	36,457	36,873	37,000	37,075	37,112	37,248	37,402
Agriculture	586	591	598	596	593	595	572	577	583	585	600	628	572	612	582
Nonagricultural industries	34,593	36,107	35,346	35,416	35,604	35,767	35,644	35,834	35,874	36,288	36,400	36,447	36,540	36,636	36,820
Unemployed	2,236	2,213	2,212	2,195	2,202	2,212	2,199	2,208	2,196	2,160	2,304	2,164	2,250	2,197	2,257
Unemployment rate	6.0	5.7	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.5	5.9	5.5	5.7	5.6	5.7
Not in labor force	38,073	37,949	37,963	38,021	37,933	37,902	38,117	38,051	38,131	37,864	37,702	37,885	37,946	37,981	37,883
Both sexes, 16 - 19 years															
Civilian noninstitutional population ¹	16,447	16,379	16,422	16,400	16,391	16,404	16,397	16,389	16,381	16,387	16,377	16,367	16,370	16,360	16,326
Civilian labor force	9,540	9,512	9,600	9,663	9,631	9,616	9,544	9,491	9,453	9,481	9,227	9,520	9,473	9,498	9,559
Employed	7,981	7,984	8,026	8,121	8,088	8,110	7,989	7,926	7,994	7,986	7,693	7,976	7,919	7,986	8,032
Agriculture	395	356	390	361	385	375	348	368	355	355	340	359	351	335	350
Nonagricultural industries	7,586	7,628	7,636	7,760	7,703	7,735	7,641	7,558	7,639	7,631	7,353	7,617	7,568	7,651	7,682
Unemployed	1,559	1,528	1,574	1,542	1,543	1,506	1,555	1,565	1,459	1,495	1,534	1,544	1,554	1,512	1,527
Unemployment rate	16.3	16.1	16.4	16.0	16.0	15.7	16.3	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0
Not in labor force	6,907	6,867	6,822	6,737	6,760	6,788	6,853	6,898	6,928	6,906	7,150	6,847	6,897	6,862	6,767
WHITE															
Civilian noninstitutional population ¹	139,580	141,614	140,507	140,683	140,825	141,063	141,123	141,331	141,492	141,661	141,822	141,981	142,296	142,461	142,645
Civilian labor force	88,456	90,602	89,668	89,973	90,250	90,260	89,996	90,120	90,215	90,659	90,759	91,082	91,147	91,242	91,579
Employed	83,836	86,025	85,069	85,434	85,786	85,754	85,497	85,632	85,775	86,120	85,976	86,425	86,454	86,571	86,894
Unemployed	4,620	4,577	4,599	4,539	4,464	4,506	4,499	4,488	4,440	4,539	4,783	4,657	4,693	4,671	4,685
Unemployment rate	5.2	5.1	5.1	5.0	4.9	5.0	5.0	5.0	4.9	5.0	5.3	5.1	5.1	5.1	5.1
Not in labor force	51,124	51,011	50,760	50,590	50,430	50,648	51,200	51,313	51,213	51,107	51,161	50,900	51,149	51,219	51,066
BLACK AND OTHER															
Civilian noninstitutional population ¹	19,361	19,918	19,635	19,670	19,714	19,755	19,802	19,850	19,901	19,943	19,979	20,032	20,079	20,128	20,631
Civilian labor force	11,964	12,306	12,141	12,101	12,177	12,238	12,191	12,219	12,260	12,386	12,343	12,404	12,512	12,391	12,432
Employed	10,537	10,920	10,752	10,736	10,746	10,860	10,767	10,816	10,887	11,023	10,982	11,063	11,076	11,044	11,024
Unemployed	1,427	1,386	1,389	1,365	1,431	1,378	1,424	1,403	1,373	1,363	1,361	1,341	1,436	1,347	1,408
Unemployment rate	11.9	11.3	11.4	11.3	11.8	11.3	11.7	11.5	11.2	11.0	11.0	10.8	11.5	10.9	11.3
Not in labor force	7,397	7,612	7,482	7,593	7,486	7,504	7,627	7,674	7,629	7,579	7,639	7,264	7,567	7,737	7,731

¹As in table 1, population figures are not seasonally adjusted.

3. Selected employment indicators, seasonally adjusted

[In thousands]

Selected categories	Annual average		1978		1979										
	1978	1979	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CHARACTERISTIC															
Total employed, 16 years and over	94,373	96,945	95,831	96,157	96,496	96,623	96,254	96,495	96,652	97,184	97,004	97,504	97,474	97,608	97,912
Men	55,491	56,499	56,087	56,326	56,476	56,449	56,294	56,372	56,477	56,570	56,408	56,714	56,629	56,580	56,734
Women	38,882	40,446	39,744	39,831	40,020	40,174	39,960	40,123	40,175	40,614	40,596	40,790	40,845	41,028	41,178
Married men, spouse present	38,688	39,090	39,030	39,139	39,291	39,193	38,910	39,045	39,079	39,176	39,180	39,198	39,124	38,845	38,924
Married women, spouse present	21,881	22,724	22,284	22,372	22,522	22,605	22,376	22,547	22,664	22,908	22,869	22,937	22,919	22,940	23,027
OCCUPATION															
White-collar workers	47,205	49,342	48,108	48,303	48,836	48,996	49,061	49,136	49,192	49,536	49,663	49,816	49,738	49,912	49,911
Professional and technical	14,245	15,050	14,645	14,734	14,950	15,012	15,091	15,100	15,010	15,057	15,068	15,141	15,057	15,131	15,272
Managers and administrators, except farm	10,105	10,516	10,284	10,312	10,379	10,392	10,398	10,427	10,534	10,612	10,698	10,659	10,639	10,617	10,535
Salesworkers	5,951	6,163	6,058	6,048	6,090	6,055	6,084	6,101	6,103	6,163	6,145	6,181	6,261	6,362	6,346
Clerical workers	16,904	17,613	17,121	17,209	17,417	17,537	17,488	17,508	17,545	17,704	17,752	17,835	17,781	17,802	17,758
Blue-collar workers	31,531	32,066	31,966	32,290	32,176	32,041	31,705	31,904	31,992	32,051	31,849	32,209	32,205	32,110	32,302
Craft and kindred workers	12,386	12,880	12,666	12,807	12,898	12,792	12,703	12,820	12,820	12,944	12,876	12,761	12,993	13,001	12,925
Operatives, except transport	10,875	10,909	10,868	10,958	10,901	10,991	10,970	10,755	10,804	10,884	10,909	10,964	10,967	10,963	11,042
Transport equipment operatives	3,541	3,612	3,613	3,651	3,602	3,569	3,564	3,644	3,605	3,627	3,604	3,617	3,593	3,628	3,635
Nonfarm laborers	4,729	4,665	4,819	4,874	4,775	4,689	4,668	4,685	4,639	4,664	4,575	4,635	4,644	4,594	4,584
Service workers	12,839	12,834	12,942	12,817	12,804	12,847	12,907	12,772	12,805	12,766	12,621	12,859	12,937	12,899	12,970
Farmworkers	2,798	2,703	2,802	2,764	2,746	2,774	2,659	2,628	2,679	2,678	2,707	2,722	2,695	2,718	2,694
MAJOR INDUSTRY AND CLASS OF WORKER															
Agriculture:															
Wage and salary workers	1,419	1,413	1,447	1,387	1,425	1,415	1,379	1,424	1,423	1,419	1,384	1,399	1,381	1,475	1,451
Self-employed workers	1,607	1,580	1,608	1,564	1,558	1,583	1,553	1,519	1,539	1,558	1,614	1,642	1,602	1,622	1,596
Unpaid family workers	316	304	312	295	334	314	291	283	291	291	310	325	313	310	310
Nonagricultural industries:															
Wage and salary workers	84,253	86,540	85,461	86,029	86,192	86,439	86,105	86,232	86,309	86,454	86,421	86,912	86,982	87,020	87,384
Government	15,289	15,369	15,326	15,251	15,322	15,281	15,359	15,616	15,318	15,393	15,279	15,407	15,423	15,358	15,397
Private industries	68,966	71,171	70,135	70,778	70,870	71,158	70,746	70,616	70,991	71,061	71,142	71,505	71,559	71,662	71,987
Private households	1,363	1,240	1,302	1,247	1,328	1,262	1,172	1,195	1,235	1,219	1,211	1,313	1,261	1,211	1,228
Other industries	67,603	69,931	68,833	69,531	69,542	69,896	69,574	69,421	69,756	69,842	69,931	70,192	70,298	70,451	70,759
Self-employed workers	6,305	6,652	6,506	6,497	6,591	6,542	6,463	6,608	6,629	6,752	6,689	6,731	6,812	6,781	6,737
Unpaid family workers	472	455	469	475	455	446	465	460	474	519	450	449	430	417	409
PERSONS AT WORK¹															
Nonagricultural industries															
Full-time schedules	70,543	72,647	71,903	72,176	72,212	72,529	71,659	72,496	72,243	72,915	73,053	73,159	73,204	72,997	73,137
Part time for economic reasons	3,216	3,281	3,082	3,203	3,176	3,211	3,279	3,283	3,284	3,274	3,298	3,167	3,315	3,392	3,519
Usually work full time	1,249	1,325	1,202	1,252	1,246	1,254	1,287	1,273	1,322	1,334	1,401	1,273	1,354	1,413	1,491
Usually work part time	1,967	1,956	1,880	1,951	1,930	1,957	1,992	2,010	1,962	1,940	1,897	1,894	1,961	1,979	2,028
Part time for noneconomic reasons	11,934	12,205	12,065	12,141	12,155	12,107	11,670	12,006	12,222	12,580	12,504	12,397	12,119	12,228	12,524

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

4. Selected unemployment indicators, seasonally adjusted

Employment status	Annual average		1978	1979											
	1978	1979	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CHARACTERISTIC															
Total, 16 years and over	6.0	5.8	5.9	5.8	5.7	5.7	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9
Men, 20 years and over	4.2	4.1	4.1	4.0	3.9	4.0	4.0	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.2
Women, 20 years and over	6.0	5.7	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.5	5.9	5.5	5.7	5.6	5.7
Both sexes, 16-19 years	16.3	16.1	16.4	16.0	16.0	15.7	16.3	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0
White, total	5.2	5.1	5.1	5.0	4.9	5.0	5.0	5.0	4.9	5.0	5.3	5.1	5.1	5.1	5.1
Men, 20 years and over	3.7	3.6	3.5	3.5	3.4	3.4	3.5	3.4	3.5	3.6	3.7	3.7	3.7	3.7	3.7
Women, 20 years and over	5.2	5.0	5.1	5.0	5.0	5.0	5.0	5.0	4.9	4.8	5.2	4.8	5.0	4.9	5.0
Both sexes, 16-19 years	13.9	13.9	14.2	13.8	13.6	13.6	13.9	14.2	13.2	13.8	14.8	14.3	14.1	13.9	13.9
Black and other, total	11.9	11.3	11.4	11.3	11.8	11.3	11.7	11.5	11.2	11.0	11.0	10.8	11.5	10.9	11.3
Men, 20 years and over	8.6	8.4	8.3	8.0	8.6	8.7	8.6	8.4	8.1	8.4	8.1	8.0	8.6	8.4	8.6
Women, 20 years and over	10.6	10.1	10.2	10.5	10.4	10.0	10.5	10.0	10.4	10.0	10.3	9.8	10.2	9.5	10.0
Both sexes, 16-19 years	36.3	33.5	34.6	33.0	34.9	31.5	34.3	36.1	33.5	31.5	32.6	32.3	35.1	32.8	34.3
Married men, spouse present	2.8	2.7	2.6	2.6	2.6	2.6	2.7	2.5	2.7	2.8	2.9	2.9	2.9	2.9	2.8
Married women, spouse present	5.5	5.1	5.5	5.3	5.3	5.2	5.2	5.2	5.1	4.9	5.3	4.8	5.2	4.8	5.0
Women who head families	8.5	8.3	7.9	8.0	8.3	8.2	8.3	8.6	9.0	8.1	7.9	7.7	8.4	8.4	8.4
Full-time workers	5.5	5.3	5.3	5.2	5.2	5.2	5.3	5.2	5.2	5.3	5.4	5.3	5.4	5.4	5.4
Part-time workers	9.0	8.7	9.1	9.1	8.8	9.0	8.7	9.3	8.6	8.3	8.8	8.4	8.9	8.3	8.5
Unemployed 15 weeks and over	1.4	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.1	1.0	1.1	1.1	1.2	1.1	1.2
Labor force time lost ¹	6.5	6.3	6.3	6.2	6.2	6.2	6.4	6.3	6.3	6.4	6.4	6.2	6.4	6.4	6.4
OCCUPATION															
White-collar workers	3.5	3.3	3.5	3.4	3.4	3.3	3.3	3.2	3.4	3.3	3.5	3.3	3.4	3.2	3.3
Professional and technical	2.6	2.4	3.0	2.5	2.4	2.2	2.3	2.1	2.5	2.5	2.5	2.4	2.7	2.4	2.3
Managers and administrators, except farm	2.1	2.1	1.9	2.0	2.0	2.1	2.3	2.2	2.1	2.0	2.3	2.2	2.2	1.9	2.0
Salesworkers	4.1	3.9	3.7	4.0	4.2	4.1	4.0	4.0	4.4	3.5	4.0	3.8	3.8	3.7	3.8
Clerical workers	4.9	4.6	4.7	4.7	4.7	4.8	4.5	4.5	4.6	4.5	4.9	4.5	4.7	4.4	4.6
Blue-collar workers	6.9	6.9	6.7	6.5	6.5	6.6	6.9	6.8	6.6	6.8	7.3	7.1	7.2	7.5	7.2
Craft and kindred workers	4.6	4.5	4.6	4.4	4.5	4.5	4.4	4.2	4.3	4.4	4.7	4.3	4.6	4.9	4.4
Operatives, except transport	8.1	8.4	7.8	7.8	7.8	7.8	8.5	8.2	7.7	8.3	8.9	9.0	9.1	9.0	9.0
Transport equipment operatives	5.2	5.4	5.3	5.0	5.0	5.2	5.9	5.4	5.7	5.1	6.2	6.1	5.6	5.2	5.0
Nonfarm laborers	10.7	10.8	10.4	9.7	9.7	10.2	10.6	11.1	10.6	11.0	11.3	11.0	10.7	12.2	12.2
Service workers	7.4	7.1	7.7	7.7	7.3	7.3	7.3	7.2	7.2	7.1	7.1	6.7	6.8	6.6	6.6
Farmworkers	3.8	3.8	3.3	2.9	3.4	3.3	3.4	3.6	3.2	4.2	3.9	4.1	4.3	4.5	4.3
INDUSTRY															
Nonagricultural private wage and salary workers ²	5.9	5.7	5.8	5.7	5.6	5.6	5.7	5.7	5.6	5.7	6.0	5.8	5.9	5.8	5.8
Construction	10.6	10.2	11.4	10.3	10.9	10.1	10.5	10.0	10.0	10.0	10.1	9.6	9.9	10.2	10.3
Manufacturing	5.5	5.5	5.1	5.1	4.9	5.2	5.3	5.4	5.4	5.7	5.9	6.0	6.0	5.9	5.9
Durable goods	4.9	5.0	4.4	4.4	4.2	4.4	4.7	4.4	4.9	5.4	5.4	5.3	5.5	5.6	5.5
Nondurable goods	6.3	6.4	6.1	6.1	5.9	6.4	6.3	6.9	6.3	6.2	6.8	7.1	6.8	6.3	6.4
Transportation and public utilities	3.7	3.7	3.3	3.5	3.2	3.9	3.0	3.6	3.1	3.8	3.7	4.0	3.8	4.2	4.1
Wholesale and retail trade	6.9	6.5	6.9	6.6	6.5	6.3	6.6	6.4	6.7	6.3	6.5	6.4	6.4	6.5	6.4
Finance and service industries	5.1	4.9	5.1	5.1	4.8	4.8	4.8	4.9	4.7	4.9	5.2	4.7	4.9	4.6	4.7
Government workers	3.9	3.7	3.9	3.9	3.8	4.1	3.7	3.6	3.6	3.6	3.7	3.3	4.0	3.6	3.6
Agricultural wage and salary workers	8.8	9.1	8.0	7.5	8.6	8.0	8.7	9.3	7.8	9.7	9.9	10.0	9.9	10.1	9.4

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

² Includes mining, not shown separately.

5. Unemployment rates, by sex and age, seasonally adjusted

Sex and age	Annual average		1978	1979											
	1978	1979	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total, 16 years and over	6.0	5.8	5.9	5.8	5.7	5.7	5.8	5.8	5.7	5.7	5.9	5.8	5.9	5.8	5.9
16 to 19 years	16.3	16.1	16.4	16.0	16.0	15.7	16.3	16.5	15.4	15.8	16.6	16.2	16.4	15.9	16.0
16 to 17 years	19.3	18.1	19.6	18.6	18.5	18.5	18.7	18.9	17.5	17.3	18.5	16.9	18.4	17.3	18.0
18 to 19 years	14.2	14.6	14.0	13.8	14.3	13.5	14.3	15.0	14.4	14.5	15.4	15.6	15.0	14.7	14.5
20 to 24 years	9.5	9.0	9.0	8.7	8.6	8.8	8.6	8.9	8.9	9.1	9.3	9.2	9.6	8.8	9.8
25 years and over	4.0	3.9	3.9	3.9	3.9	3.9	4.0	3.9	3.9	3.9	4.0	3.9	4.0	4.0	3.8
25 to 54 years	4.2	4.1	4.2	4.1	4.1	4.1	4.2	4.0	4.1	4.0	4.2	4.1	4.2	4.3	4.1
55 years and over	3.2	3.0	2.9	3.0	3.0	3.1	3.1	3.1	2.9	3.2	3.1	2.9	3.0	2.7	2.7
Men, 16 years and over	5.2	5.1	5.1	5.1	5.0	5.0	5.1	5.0	4.9	5.1	5.2	5.2	5.2	5.2	5.2
16 to 19 years	15.7	15.8	16.5	16.2	16.1	15.8	16.0	16.1	14.5	15.4	16.3	16.1	15.7	15.8	15.6
16 to 17 years	19.2	17.9	19.9	19.2	19.2	18.9	17.9	18.9	16.8	16.1	18.0	16.7	17.1	17.8	17.9
18 to 19 years	13.2	14.2	13.8	13.7	14.2	13.6	14.1	14.0	14.0	14.8	15.1	15.3	14.4	14.0	13.6
20 to 24 years	9.1	8.6	8.6	8.4	8.1	8.3	8.0	8.2	8.3	8.8	8.8	8.8	9.5	8.4	9.4
25 years and over	3.3	3.3	3.2	3.2	3.2	3.2	3.3	3.1	3.2	3.3	3.4	3.3	3.4	3.5	3.2
25 to 54 years	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.2	3.2	3.4	3.5	3.6	3.5	3.8	3.4
55 years and over	3.1	2.9	2.6	2.9	2.8	2.8	3.0	2.8	3.1	3.3	3.1	2.8	2.8	2.6	2.6
Women, 16 years and over	7.2	6.8	6.9	6.8	6.8	6.8	6.9	6.9	6.8	6.6	7.0	6.6	6.9	6.6	6.8
16 to 19 years	17.0	16.4	16.2	15.7	15.9	15.5	16.6	16.9	16.5	16.2	17.0	16.4	17.2	16.1	16.4
16 to 17 years	19.5	18.3	19.4	17.8	17.7	18.0	19.6	18.8	18.3	18.6	19.0	17.2	19.8	16.7	18.0
18 to 19 years	15.3	15.0	14.2	14.0	14.5	13.3	14.5	16.0	14.9	14.2	15.7	15.9	15.6	15.5	15.5
20 to 24 years	10.1	9.6	9.5	9.1	9.3	9.5	9.4	9.7	9.7	9.4	9.8	9.6	9.7	9.3	10.2
25 years and over	5.1	4.8	5.0	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.9	4.6	4.9	4.7	4.7
25 to 54 years	5.4	5.2	5.4	5.4	5.4	5.3	5.3	5.2	5.2	5.0	5.3	5.0	5.2	5.0	5.1
55 years and over	3.3	3.2	3.3	3.2	3.3	3.6	3.2	3.6	2.8	3.1	3.2	2.9	3.4	2.9	2.9

6. Unemployed persons, by reason for unemployment, seasonally adjusted

[Numbers in thousands]

Reason for unemployment	1978		1979											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
NUMBER OF UNEMPLOYED														
Lost last job	2,443	2,441	2,475	2,457	2,520	2,356	2,449	2,526	2,680	2,632	2,731	2,729	2,728	
On layoff	735	752	779	791	839	725	816	797	915	855	929	987	944	
Other job losers	1,708	1,689	1,696	1,666	1,681	1,631	1,633	1,729	1,765	1,777	1,802	1,742	1,784	
Left last job	912	900	828	864	847	940	857	846	875	825	835	845	800	
Reentered labor force	1,904	1,721	1,766	1,778	1,778	1,767	1,753	1,762	1,788	1,760	1,762	1,698	1,771	
Seeking first job	826	824	858	808	800	824	781	726	745	801	804	736	858	
PERCENT DISTRIBUTION														
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Job losers	40.1	41.5	41.8	41.7	42.4	40.0	41.9	43.1	44.0	43.7	44.5	45.4	44.3	
On layoff	12.1	12.8	13.1	13.4	14.1	12.3	14.0	13.6	15.0	14.2	15.2	16.4	15.3	
Other job losers	28.1	28.7	28.6	28.3	28.3	27.7	28.0	29.5	29.0	29.5	29.4	29.0	29.0	
Job leavers	15.0	15.3	14.0	14.7	14.2	16.0	14.7	14.4	14.4	13.7	13.6	14.1	13.0	
Reentrants	31.3	29.2	29.8	30.0	29.9	30.0	30.1	29.4	29.2	28.7	28.3	28.3	28.8	
New entrants	13.6	14.0	14.5	13.7	13.5	14.0	13.4	12.4	12.2	13.3	13.1	12.3	13.9	
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE														
Job losers	2.4	2.4	2.4	2.4	2.5	2.3	2.4	2.5	2.6	2.5	2.6	2.6	2.6	
Job leavers	.9	.9	.8	.8	.8	.9	.8	.8	.8	.8	.8	.8	.8	
Reentrants	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	
New entrants	.8	.8	.8	.8	.8	.8	.8	.7	.7	.8	.8	.7	.8	

7. Duration of unemployment, seasonally adjusted

[Numbers in thousands]

Weeks of unemployment	Annual average		1978	1979											
	1978	1979	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Less than 5 weeks	2,793	2,869	2,858	2,751	2,779	2,769	2,876	2,823	2,880	2,820	3,168	2,778	2,955	2,919	2,916
5 to 14 weeks	1,875	1,892	1,937	1,881	1,877	1,860	1,884	1,919	1,808	1,934	1,738	2,035	1,963	1,869	1,966
15 weeks and over	1,379	1,202	1,217	1,229	1,239	1,291	1,223	1,212	1,152	1,067	1,185	1,152	1,195	1,191	1,230
15 to 26 weeks	746	684	732	708	700	729	687	705	656	615	658	644	678	660	711
27 weeks and over	633	518	485	521	539	562	536	507	496	452	527	508	517	531	519
Average (mean) duration, in weeks	11.9	10.8	10.6	11.2	11.3	11.8	11.0	10.9	10.5	10.1	10.7	10.7	10.5	10.6	10.5

EMPLOYMENT, HOURS, AND EARNINGS DATA FROM ESTABLISHMENT SURVEYS

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 162,000 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.

LABOR TURNOVER DATA in this section are compiled from personnel records reported monthly on a voluntary basis to the Bureau of Labor Statistics and its cooperating State agencies. A sample of 40,000 establishments represents all industries in the manufacturing and mining sectors of the economy.

Definitions

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 blue-collar worker supervisors and all nonsupervisory workers closely associated with production operations. Those workers mentioned in tables 14-20 include production workers in manufacturing and mining; construction workers in construction; and nonsupervisory workers in transportation and public utilities, in wholesale and retail trade, in finance, insurance, and real estate, and in service industries. 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 eliminate the effects of price change. 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. **Spendable earnings** are earnings from which estimated social security and Federal income taxes have been deducted. The Bureau of Labor Statistics computes spendable earnings from gross

weekly earnings for only two illustrative cases: (1) a worker with no dependents and (2) a married worker with three dependents.

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.

Labor turnover is the movement of all wage and salary workers from one employment status to another. **Accession rates** indicate the average number of persons added to a payroll in a given period per 100 employees; **separation rates** indicate the average number dropped from a payroll per 100 employees. Although month-to-month changes in employment can be calculated from the labor turnover data, the results are not comparable with employment data from the employment and payroll survey. The labor turnover survey measures changes during the calendar month while the employment and payroll survey measures changes from midmonth to midmonth.

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 September 1979 data, published in the November 1979 issue of the *Review*. Consequently, data published in the *Review* prior to that issue are not necessarily comparable to current data. Complete comparable historical unadjusted and seasonally adjusted data are published in a Supplement to Employment and Earnings (unadjusted data from April 1977 through June 1979 and seasonally adjusted data from January 1974 through June 1979) and in *Employment and Earnings, United States, 1909-78*, BLS Bulletin 1312-11 (for prior periods).

Data on recalls were shown for the first time in tables 12 and 13 in the January 1978 issue of the *Review*. For a detailed discussion of the recalls series, along with historical data, see "New Series on Recalls from the Labor Turnover Survey," *Employment and Earnings*, December 1977, pp. 10-19.

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. See also *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976).

The formulas used to construct the spendable average weekly earnings series reflect the latest provisions of the Federal income tax and social security tax laws. For the spendable average weekly earnings formulas for the years 1977-79, see *Employment and Earnings*, September 1979, pp. 6-8. Beginning with data for January 1978, real earnings data are adjusted using the revised Consumer Price Index for Urban Wage Earners and Clerical Workers. Data prior to January 1978 are based on the unrevised Consumer Price Index for Urban Wage Earners and Clerical Workers.

8. Employment by industry, 1949-78

[Nonagricultural payroll data, in thousands]

Year	Total	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale and retail trade	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government		
											Total	Federal	State and local
1949	43,754	930	2,194	14,441	4,001	9,264	2,602	6,662	1,828	5,240	5,856	1,908	3,948
1950	45,197	901	2,364	15,241	4,034	9,386	2,635	6,751	1,888	5,357	6,026	1,928	4,098
1951	47,819	929	2,637	16,393	4,226	9,742	2,727	7,015	1,956	5,547	6,389	2,302	4,087
1952	48,793	898	2,668	16,632	4,248	10,004	2,812	7,192	2,035	5,699	6,609	2,420	4,188
1953	50,202	866	2,659	17,549	4,290	10,247	2,854	7,393	2,111	5,835	6,645	2,305	4,340
1954	48,990	791	2,646	16,314	4,084	10,235	2,867	7,368	2,200	5,969	6,751	2,188	4,563
1955	50,641	792	2,839	16,882	4,141	10,535	2,926	7,610	2,298	6,240	6,914	2,187	4,727
1956	52,369	822	3,039	17,243	4,244	10,858	3,018	7,840	2,389	6,497	7,278	2,209	5,069
1957	52,853	828	2,962	17,174	4,241	10,886	3,028	7,858	2,438	6,708	7,616	2,217	5,399
1958	51,324	751	2,817	15,945	3,976	10,750	2,980	7,770	2,481	6,765	7,839	2,191	5,648
1959 ¹	53,268	732	3,004	16,675	4,011	11,127	3,082	8,045	2,549	7,087	8,083	2,233	5,850
1960	54,189	712	2,926	16,796	4,004	11,391	3,143	8,248	2,629	7,378	8,353	2,270	6,083
1961	53,999	672	2,859	16,326	3,903	11,337	3,133	8,204	2,688	7,620	8,594	2,279	6,315
1962	55,549	650	2,948	16,853	3,906	11,566	3,198	8,368	2,754	7,982	8,890	2,340	6,550
1963	56,653	635	3,010	16,995	3,903	11,778	3,248	8,530	2,830	8,277	9,225	2,358	6,868
1964	58,283	634	3,097	17,274	3,951	12,160	3,337	8,823	2,911	8,660	9,596	2,348	7,248
1965	60,765	632	3,232	18,062	4,036	12,716	3,466	9,250	2,977	9,036	10,074	2,378	7,696
1966	63,901	627	3,317	19,214	4,158	13,245	3,597	9,648	3,058	9,498	10,784	2,564	8,220
1967	65,803	613	3,248	19,447	4,268	13,606	3,689	9,917	3,185	10,045	11,391	2,719	8,672
1968	67,897	606	3,350	19,781	4,318	14,099	3,779	10,320	3,337	10,567	11,839	2,737	9,102
1969	70,384	619	3,575	20,167	4,442	14,705	3,907	10,798	3,512	11,169	12,195	2,758	9,437
1970	70,880	623	3,588	19,367	4,515	15,040	3,993	11,047	3,645	11,548	12,554	2,731	9,823
1971	71,214	609	3,704	18,623	4,476	15,352	4,001	11,351	3,772	11,797	12,881	2,696	10,185
1972	73,675	628	3,889	19,151	4,541	15,949	4,113	11,836	3,908	12,276	13,334	2,684	10,649
1973	76,790	642	4,097	20,154	4,656	16,607	4,277	12,329	4,046	12,857	13,732	2,663	11,068
1974	78,265	697	4,020	20,077	4,725	16,987	4,433	12,554	4,148	13,441	14,170	2,724	11,446
1975	76,945	752	3,525	18,323	4,542	17,060	4,415	12,645	4,165	13,892	14,686	2,748	11,937
1976	79,382	779	3,576	18,997	4,582	17,755	4,546	13,209	4,271	14,551	14,871	2,733	12,138
1977	82,423	813	3,851	19,682	4,713	18,516	4,708	13,808	4,467	15,303	15,079	2,727	12,352
1978	86,446	851	4,271	20,476	4,927	19,499	4,957	14,542	4,727	16,220	15,476	2,753	12,723

¹Data include Alaska and Hawaii beginning in 1959.

9. Employment by State

[Nonagricultural payroll data, in thousands]

State	Nov. 1978	Oct. 1979	Nov. 1979 ^P	State	Nov. 1978	Oct. 1979	Nov. 1979 ^P
Alabama	1,361.7	1,365.0	1,364.0	Montana	282.0	294.2	291.8
Alaska	160.8	177.4	162.1	Nebraska	609.9	619.1	620.5
Arizona	924.4	973.5	985.0	Nevada	368.1	383.3	384.4
Arkansas	733.8	755.8	750.4	New Hampshire	371.8	389.6	387.8
California	9,463.0	9,811.6	9,827.7	New Jersey	3,025.0	3,053.8	3,056.7
Colorado	1,168.0	1,207.8	1,203.4	New Mexico	455.0	475.3	474.7
Connecticut	1,386.7	1,414.5	1,422.9	New York	7,139.0	7,154.4	7,172.7
Delaware	248.4	250.2	247.9	North Carolina	2,315.3	2,371.7	2,375.5
District of Columbia	590.5	596.6	599.1	North Dakota	240.1	252.0	250.0
Florida	3,206.3	3,301.0	3,350.1	Ohio	4,490.4	4,526.6	4,522.5
Georgia	2,019.0	2,029.1	2,033.3	Oklahoma	1,047.2	1,093.3	1,098.5
Hawaii	384.2	399.1	397.8	Oregon	1,029.5	1,072.1	1,066.5
Idaho	341.3	345.4	343.0	Pennsylvania	4,738.2	4,735.7	4,745.5
Illinois	4,841.7	4,860.8	4,833.0	Rhode Island	409.6	405.2	406.5
Indiana	2,233.5	2,258.4	2,243.1	South Carolina	1,150.9	1,174.0	1,175.8
Iowa	1,126.6	1,131.0	1,147.0	South Dakota	234.4	240.7	238.3
Kansas	931.7	958.8	963.5	Tennessee	1,741.6	1,740.8	1,737.8
Kentucky	1,270.2	1,290.0	1,295.6	Texas	5,369.6	5,594.1	5,621.3
Louisiana	1,431.6	1,458.5	1,467.9	Utah	546.2	574.6	576.2
Maine	410.5	416.2	413.1	Vermont	193.5	200.3	197.6
Maryland	1,623.5	1,626.1	1,632.8	Virginia ¹	2,085.2	2,124.4	2,128.5
Massachusetts	2,557.8	2,602.2	2,614.3	Washington	1,557.2	1,650.6	1,644.7
Michigan	3,706.1	3,608.1	3,597.3	West Virginia	639.7	639.9	639.1
Minnesota	1,727.4	1,795.6	1,797.7	Wisconsin	1,933.8	2,007.3	2,002.4
Mississippi	832.1	838.9	836.9	Wyoming	195.9	221.2	221.2
Missouri	1,956.9	1,976.5	1,965.4				

¹ Revised series; not strictly comparable with previously published data.

10. Employment by industry division and major manufacturing group

[Nonagricultural payroll data, in thousands]

Industry division and group	Annual average		1978	1979											
	1977	1978	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
TOTAL	82,423	86,446	88,893	87,128	87,331	88,207	88,820	89,671	90,541	89,618	89,673	90,211	90,678	90,908	91,179
MINING	813	851	916	910	915	926	932	944	968	976	986	980	982	985	992
CONSTRUCTION	3,851	4,271	4,402	3,998	3,957	4,226	4,413	4,662	4,881	4,993	5,048	4,984	4,976	4,877	4,688
MANUFACTURING	19,682	20,476	20,902	20,763	20,775	20,887	20,907	20,988	21,234	20,965	20,996	21,192	21,094	20,974	20,975
Production workers	14,135	14,714	15,047	14,910	14,908	14,993	15,002	15,061	15,240	14,946	14,960	15,172	15,082	14,961	14,969
Durable goods	11,597	12,246	12,616	12,561	12,579	12,664	12,697	12,739	12,877	12,712	12,598	12,805	12,737	12,669	12,694
Production workers	8,307	8,786	9,081	9,016	9,018	9,081	9,105	9,129	9,223	9,031	8,907	9,116	9,058	8,991	9,019
Lumber and wood products	721.9	752.4	753.9	739.0	737.7	745.5	748.8	763.8	783.2	776.8	780.0	776.3	771.3	749.9	731.4
Furniture and fixtures	464.3	491.1	498.4	497.0	495.2	491.8	487.8	483.9	484.2	475.5	483.5	485.3	487.6	488.3	488.1
Stone, clay, and glass products	668.7	698.0	703.6	681.6	680.6	697.2	706.6	718.6	733.1	727.1	728.2	723.6	721.0	713.0	700.4
Primary metal industries	1,181.6	1,212.7	1,243.0	1,243.8	1,244.8	1,251.1	1,259.0	1,258.6	1,274.3	1,260.7	1,244.5	1,244.3	1,225.1	1,217.2	1,218.5
Fabricated metal products	1,582.8	1,673.4	1,723.6	1,716.0	1,715.6	1,719.8	1,723.7	1,727.8	1,749.0	1,715.7	1,716.1	1,735.3	1,738.3	1,737.4	1,731.6
Machinery, except electrical	2,174.7	2,319.2	2,415.7	2,428.7	2,446.4	2,459.5	2,468.0	2,463.6	2,491.2	2,485.1	2,467.1	2,496.4	2,447.2	2,447.4	2,468.0
Electric and electronic equipment	1,878.0	1,999.5	2,062.4	2,060.9	2,071.0	2,082.6	2,086.1	2,095.2	2,128.2	2,111.7	2,089.5	2,136.1	2,143.7	2,145.8	2,163.8
Transportation equipment	1,871.5	1,991.7	2,087.6	2,075.2	2,062.7	2,083.9	2,082.2	2,091.8	2,077.9	2,027.7	1,933.2	2,051.0	2,040.9	2,011.8	2,046.4
Instruments and related products	615.1	653.5	675.6	677.5	680.2	683.2	686.5	686.5	698.8	692.9	695.3	692.7	695.4	695.9	701.7
Miscellaneous manufacturing	438.4	454.0	452.3	441.2	444.8	449.0	448.0	448.9	457.4	438.6	460.6	463.8	466.9	462.5	444.1
Nondurable goods	8,086	8,230	8,286	8,202	8,196	8,223	8,210	8,249	8,357	8,253	8,398	8,387	8,357	8,305	8,281
Production workers	5,828	5,928	5,966	5,894	5,890	5,912	5,897	5,932	6,017	5,915	6,053	6,056	6,024	5,970	5,950
Food and kindred products	1,711.0	1,727.2	1,717.2	1,678.0	1,658.1	1,666.9	1,657.3	1,669.6	1,716.6	1,737.8	1,810.0	1,814.1	1,766.8	1,726.5	1,703.4
Tobacco manufactures	70.7	69.6	73.9	69.8	66.4	64.4	62.5	61.9	62.1	62.1	69.0	72.2	71.9	64.6	66.9
Textile mill products	910.2	900.2	899.9	896.3	896.4	894.4	890.4	892.5	900.4	875.5	890.4	888.9	889.8	891.8	893.3
Apparel and other textile products	1,316.3	1,332.5	1,327.4	1,313.6	1,320.6	1,326.6	1,323.7	1,327.5	1,333.1	1,278.7	1,308.9	1,309.1	1,317.0	1,304.8	1,295.2
Paper and allied products	691.6	700.9	704.1	700.0	703.4	708.8	710.8	712.7	724.6	719.6	723.3	718.5	717.7	715.8	716.4
Printing and publishing	1,141.4	1,193.1	1,226.4	1,221.0	1,225.7	1,229.5	1,231.0	1,234.7	1,243.4	1,245.8	1,245.4	1,246.1	1,254.5	1,265.5	1,273.5
Chemicals and allied products	1,073.7	1,096.3	1,103.0	1,100.0	1,099.7	1,103.9	1,106.7	1,110.9	1,126.6	1,123.0	1,121.2	1,114.9	1,115.0	1,116.6	1,122.3
Petroleum and coal products	202.3	208.7	209.0	205.8	206.4	208.3	210.8	212.9	216.8	218.0	218.3	218.1	218.1	217.3	214.7
Rubber and miscellaneous plastics products	713.5	751.9	773.5	771.0	773.8	774.4	772.0	777.0	779.4	767.4	765.8	762.0	762.6	759.2	753.6
Leather and leather products	254.8	255.6	251.5	246.3	245.1	245.7	245.1	249.2	253.7	224.7	245.8	243.1	243.1	242.6	241.7
TRANSPORTATION AND PUBLIC UTILITIES	4,713	4,927	5,084	5,010	5,028	5,060	4,989	5,125	5,231	5,200	5,210	5,242	5,244	5,253	5,255
WHOLESALE AND RETAIL TRADE	18,516	19,499	20,523	19,765	19,548	19,690	19,957	20,119	20,222	20,118	20,137	20,260	20,314	20,575	20,978
WHOLESALE TRADE	4,708	4,957	5,092	5,066	5,067	5,098	5,112	5,146	5,211	5,208	5,211	5,206	5,235	5,249	5,262
RETAIL TRADE	13,808	14,542	15,431	14,699	14,481	14,592	14,845	14,973	15,011	14,910	14,926	15,054	15,079	15,326	15,716
FINANCE, INSURANCE, AND REAL ESTATE	4,467	4,727	4,832	4,829	4,845	4,870	4,900	4,936	5,003	5,032	5,053	5,002	5,013	5,031	5,055
SERVICES	15,303	16,220	16,547	16,353	16,545	16,749	16,897	17,039	17,239	17,314	17,312	17,225	17,292	17,297	17,298
GOVERNMENT	15,079	15,476	15,687	15,500	15,718	15,799	15,825	15,858	15,763	15,020	14,931	15,326	15,763	15,916	15,938
Federal	2,727	2,753	2,733	2,730	2,738	2,740	2,750	2,773	2,824	2,838	2,844	2,751	2,756	2,760	2,770
State and local	12,352	12,723	12,954	12,770	12,980	13,059	13,075	13,085	12,939	12,182	12,087	12,575	13,007	13,156	13,168

11. Employment by industry division and major manufacturing group, seasonally adjusted

[Nonagricultural payroll data, in thousands]

Industry division and group	1978	1979											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
TOTAL	88,133	88,433	88,700	89,039	89,036	89,398	89,626	89,713	89,762	89,803	89,982	90,109	90,426
MINING	922	927	937	940	940	944	949	956	968	973	979	984	999
CONSTRUCTION	4,469	4,497	4,486	4,614	4,559	4,648	4,662	4,688	4,674	4,671	4,694	4,712	4,759
MANUFACTURING	20,881	20,958	21,025	21,073	21,066	21,059	21,063	21,079	20,957	20,949	20,899	20,846	20,954
Production workers	15,021	15,085	15,128	15,153	15,134	15,112	15,096	15,090	14,956	14,957	14,894	14,838	14,944
Durable goods	12,583	12,640	12,715	12,751	12,752	12,739	12,760	12,786	12,714	12,737	12,650	12,597	12,660
Production workers	9,042	9,085	9,138	9,158	9,146	9,119	9,123	9,124	9,044	9,066	8,972	8,918	8,980
Lumber and wood products	765	768	768	769	761	762	757	753	752	758	760	752	742
Furniture and fixtures	494	497	496	493	490	487	485	488	484	480	482	483	484
Stone, clay, and glass products	710	709	712	718	714	715	715	711	710	708	709	705	707
Primary metal industries	1,247	1,250	1,256	1,259	1,260	1,254	1,257	1,256	1,245	1,236	1,226	1,223	1,222
Fabricated metal products	1,718	1,725	1,733	1,732	1,732	1,730	1,737	1,730	1,714	1,716	1,723	1,725	1,726
Machinery, except electrical	2,404	2,419	2,437	2,450	2,466	2,471	2,484	2,500	2,492	2,496	2,455	2,445	2,456
Electric and electronic equipment	2,050	2,065	2,079	2,093	2,101	2,106	2,124	2,131	2,092	2,117	2,125	2,125	2,151
Transportation equipment	2,063	2,069	2,094	2,094	2,084	2,077	2,057	2,073	2,079	2,086	2,025	1,996	2,022
Instruments and related products	674	679	682	685	689	688	693	694	695	692	696	694	700
Miscellaneous manufacturing	458	459	458	458	455	449	451	450	451	448	449	449	450
Nondurable goods	8,298	8,318	8,310	8,322	8,314	8,320	8,303	8,293	8,243	8,212	8,249	8,249	8,294
Production workers	5,979	6,000	5,990	5,995	5,988	5,993	5,973	5,966	5,912	5,891	5,922	5,920	5,964
Food and kindred products	1,736	1,735	1,729	1,736	1,728	1,725	1,720	1,707	1,696	1,691	1,707	1,711	1,722
Tobacco manufactures	69	68	68	69	69	70	69	68	64	65	65	60	62
Textile mill products	899	900	899	897	892	893	892	892	886	884	887	887	892
Apparel and other textile products	1,333	1,339	1,327	1,324	1,325	1,324	1,312	1,324	1,302	1,294	1,299	1,291	1,300
Paper and allied products	703	706	711	716	717	714	715	718	717	714	715	714	716
Printing and publishing	1,218	1,225	1,229	1,232	1,234	1,236	1,242	1,250	1,247	1,245	1,252	1,262	1,265
Chemicals and allied products	1,106	1,109	1,108	1,108	1,111	1,114	1,119	1,116	1,111	1,110	1,113	1,115	1,126
Petroleum and coal products	211	211	212	213	213	213	212	212	213	215	217	217	217
Rubber and miscellaneous plastics products	770	774	779	780	781	784	775	777	764	751	751	750	751
Leather and leather products	253	251	248	247	244	247	247	229	243	243	243	242	243
TRANSPORTATION AND PUBLIC UTILITIES	5,054	5,071	5,094	5,116	5,024	5,130	5,190	5,169	5,194	5,180	5,218	5,227	5,224
WHOLESALE AND RETAIL TRADE	19,858	19,965	20,016	20,054	20,088	20,129	20,116	20,122	20,126	20,169	20,243	20,303	20,300
WHOLESALE TRADE	5,077	5,102	5,118	5,134	5,138	5,156	5,180	5,182	5,185	5,190	5,209	5,233	5,246
RETAIL TRADE	14,781	14,863	14,898	14,920	14,950	14,973	14,936	14,940	14,941	14,979	15,034	15,070	15,054
FINANCE, INSURANCE, AND REAL ESTATE	4,847	4,868	4,884	4,899	4,915	4,936	4,958	4,972	5,003	4,997	5,018	5,041	5,070
SERVICES	16,630	16,670	16,763	16,833	16,880	16,954	17,051	17,092	17,141	17,191	17,257	17,314	17,385
GOVERNMENT	15,472	15,477	15,495	15,510	15,564	15,598	15,637	15,635	15,699	15,673	15,674	15,682	15,735
Federal	2,734	2,758	2,757	2,757	2,758	2,770	2,788	2,785	2,813	2,762	2,770	2,771	2,787
State and local	12,738	12,719	12,738	12,753	12,806	12,828	12,849	12,850	12,886	12,911	12,904	12,911	12,948

12. Labor turnover rates in manufacturing, 1976 to date

[Per 100 employees]

Year	Annual average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total accessions													
1976	3.9	3.9	3.5	4.2	3.9	4.5	4.8	4.2	5.1	4.4	3.5	2.9	2.2
1977	4.0	3.7	3.7	4.0	3.8	4.6	4.9	4.3	5.3	4.6	3.9	3.1	2.4
1978	4.1	3.8	3.2	3.8	4.0	4.7	4.9	4.4	5.4	4.9	4.3	3.3	2.4
1979	...	4.0	3.4	3.8	3.9	4.7	4.8	4.3	4.9	4.4	4.1	P 2.9	...
New hires													
1976	2.6	2.1	2.1	2.7	2.6	3.1	3.6	2.9	3.6	3.2	2.5	1.9	1.3
1977	2.8	2.2	2.1	2.6	2.7	3.5	3.7	3.0	4.0	3.5	3.0	2.2	1.6
1978	3.1	2.5	2.2	2.7	2.9	3.6	3.9	3.3	4.2	3.9	3.5	2.6	1.7
1979	...	2.8	2.5	2.8	2.9	3.6	3.8	3.1	3.7	3.4	3.1	P 2.1	...
Recalls													
1976	1.0	1.4	1.0	1.2	1.0	1.0	.9	1.1	1.1	.8	.7	.7	.7
1977	.9	1.2	1.3	1.1	.9	.8	.8	.9	1.0	.8	.6	.6	.6
1978	.7	1.0	.7	.8	.8	.8	.7	.8	.9	.7	.6	.5	.5
1979	...	.9	.7	.7	.7	.8	.7	.9	.9	.8	.7	P .6	...
Total separations													
1976	3.8	3.7	3.0	3.5	3.6	3.4	3.6	4.3	4.9	4.7	4.1	3.4	3.5
1977	3.8	3.9	3.4	3.4	3.4	3.5	3.5	4.3	5.1	4.9	3.8	3.4	3.4
1978	3.9	3.6	3.1	3.5	3.6	3.7	3.8	4.1	5.3	4.8	4.1	3.5	3.4
1979	...	3.8	3.2	3.6	3.6	3.8	3.9	4.3	5.7	4.7	4.2	P 3.8	...
Quits													
1976	1.7	1.3	1.2	1.6	1.7	1.7	1.8	1.9	2.8	2.5	1.7	1.2	1.0
1977	1.8	1.4	1.3	1.6	1.7	1.9	1.9	1.9	3.1	2.8	1.9	1.5	1.2
1978	2.1	1.5	1.4	1.8	2.0	2.1	2.2	2.1	3.5	3.1	2.3	1.7	1.3
1979	...	1.8	1.6	1.9	2.0	2.1	2.1	2.0	3.3	2.7	2.1	P 1.5	...
Layoffs													
1976	1.3	1.6	1.0	1.1	1.1	.9	.9	1.6	1.1	1.3	1.5	1.5	1.8
1977	1.1	1.7	1.4	1.0	.9	.8	.8	1.5	1.0	1.1	1.1	1.1	1.5
1978	.9	1.2	.9	.9	.8	.7	.7	1.0	.8	.8	.9	1.0	1.4
1979	...	1.1	.8	.8	.9	.7	.8	1.4	1.3	1.1	1.2	P 1.5	...

13. Labor turnover rates in manufacturing, by major industry group

[Per 100 employees]

Major industry group	Accession rates									Separation rates								
	Total			New hires			Recalls			Total			Quits			Layoffs		
	Nov. 1978	Oct. 1979	Nov. 1979 ^P	Nov. 1978	Oct. 1979	Nov. 1979 ^P	Nov. 1978	Oct. 1979	Nov. 1979 ^P	Nov. 1978	Oct. 1979	Nov. 1979 ^P	Nov. 1978	Oct. 1979	Nov. 1979 ^P	Nov. 1978	Oct. 1979	Nov. 1979 ^P
MANUFACTURING	3.3	4.1	2.9	2.6	3.1	2.1	0.5	0.7	0.6	3.5	4.2	3.8	1.7	2.1	1.5	1.0	1.2	1.5
Seasonally adjusted	4.4	4.1	3.9	3.4	2.9	2.8	...	...	...	4.0	3.9	4.1	2.2	2.0	1.9	.9	1.1	1.3
Durable goods	3.1	3.7	2.6	2.4	2.8	1.9	.4	.6	.5	3.0	3.6	3.5	1.5	1.7	1.3	.7	1.0	1.4
Lumber and wood products	4.6	5.1	3.2	4.0	4.4	2.5	.4	.5	.5	4.9	6.4	6.5	3.0	3.5	2.4	.8	1.8	3.0
Furniture and fixtures	5.0	5.5	4.0	4.4	4.8	3.3	.3	.5	.6	5.1	5.2	4.6	3.2	3.2	2.4	.7	.7	1.0
Stone, clay, and glass products	2.8	3.5	2.7	2.3	2.8	1.9	.3	.5	.6	3.5	4.2	4.4	1.6	1.9	1.5	1.1	1.4	2.2
Primary metal industries	2.3	2.6	2.0	1.4	1.5	1.1	.6	.7	.7	2.1	3.5	3.2	.7	.9	.7	.6	1.7	1.9
Fabricated metal products	3.4	4.4	2.9	2.8	3.5	2.3	.4	.7	.5	3.6	4.4	3.9	1.8	2.1	1.5	1.0	1.4	1.6
Machinery, except electrical	2.7	3.0	2.3	2.2	2.5	1.8	.2	.3	.2	2.1	2.7	2.4	1.1	1.3	1.0	.3	.5	.6
Electric and electronic equipment	3.0	3.3	2.5	2.3	2.6	1.9	.3	.3	.3	2.7	3.1	2.8	1.3	1.6	1.3	.5	.5	.7
Transportation equipment	2.8	3.5	...	1.8	2.1	...	.6	1.1	...	2.4	2.9	...	1.0	1.1	...	.6	.9	...
Instruments and related products	2.8	3.1	2.5	2.4	2.6	2.0	.2	.2	.2	2.2	2.7	2.3	1.3	1.6	1.1	.4	.5	.5
Miscellaneous manufacturing	3.9	6.2	3.4	3.3	5.2	2.7	.4	.7	.6	7.0	6.2	6.5	2.5	3.4	2.5	3.2	1.5	3.1
Nondurable goods	3.7	4.7	3.4	2.8	3.6	2.5	.7	.8	.7	4.2	5.0	4.2	2.1	2.7	1.9	1.4	1.5	1.6
Food and kindred products	5.0	6.5	4.6	3.5	4.9	3.2	1.3	1.3	1.2	6.7	8.3	6.0	2.9	4.0	2.5	3.1	3.3	2.7
Tobacco manufacturers	4.0	2.9	...	1.6	1.6	...	2.1	.7	...	4.8	4.7	...	1.1	1.2	...	3.2	2.6	...
Textile mill products	4.0	5.1	4.7	3.2	4.1	3.0	.5	.6	.5	4.3	4.9	4.1	2.5	3.1	2.4	.8	.7	.8
Apparel and other products	4.3	6.1	4.5	3.2	4.5	3.0	1.0	1.5	1.2	5.3	6.1	5.7	2.7	3.4	2.6	1.7	1.8	2.4
Paper and allied products	2.1	2.9	1.9	1.6	2.2	1.4	.3	.4	.4	2.4	2.8	2.6	1.1	1.3	.9	.6	.7	1.0
Printing and publishing	3.3	3.8	3.1	2.8	3.4	2.6	.5	.4	.5	2.9	3.4	2.9	1.9	2.2	1.8	.5	.5	.5
Chemicals and allied products	1.3	1.7	1.4	1.0	1.4	1.0	.2	.2	.2	1.3	1.7	1.4	.6	.8	.6	.4	.4	.4
Petroleum and coal products	1.3	2.3	1.5	1.1	2.1	1.3	.0	.1	.1	1.9	2.0	1.9	.6	.8	.7	.7	.6	.7
Rubber and miscellaneous plastics products	4.2	4.9	3.5	3.4	3.9	2.5	.5	.7	.6	4.5	5.3	5.1	2.4	2.8	2.1	1.0	1.2	2.1
Leather and leather products	5.6	7.2	5.1	4.2	5.6	3.7	1.1	1.2	1.0	6.8	7.2	6.7	3.8	4.5	3.0	2.0	1.6	2.7

14. Hours and earnings, by industry division, 1947-78

[Gross averages, production or nonsupervisory workers on nonagricultural payrolls]

Year	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings	Average weekly earnings	Average weekly hours	Average hourly earnings
	Total private			Mining			Construction			Manufacturing		
1947	\$45.58	40.3	\$1.131	\$59.94	40.8	\$1.469	\$58.87	38.2	\$1.541	\$49.17	40.4	\$1.217
1948	49.00	40.0	1.225	65.56	39.4	1.664	65.27	38.1	1.713	53.12	40.0	1.328
1949	50.24	39.4	1.275	62.33	36.3	1.717	67.56	37.7	1.792	53.88	39.1	1.378
1950	53.13	39.8	1.335	67.16	37.9	1.772	69.68	37.4	1.863	58.32	40.5	1.440
1951	57.86	39.9	1.45	74.11	38.4	1.93	76.96	38.1	2.02	63.34	40.6	1.56
1952	60.65	39.9	1.52	77.59	38.6	2.01	82.86	38.9	2.13	66.75	40.7	1.64
1953	63.76	39.6	1.61	83.03	38.8	2.14	86.41	37.9	2.28	70.47	40.5	1.74
1954	64.52	39.1	1.65	82.60	38.6	2.14	88.91	37.2	2.39	70.49	39.6	1.78
1955	67.72	39.6	1.71	89.54	40.7	2.20	90.90	37.1	2.45	75.30	40.7	1.85
1956	70.74	39.3	1.80	95.06	40.8	2.33	96.38	37.5	2.57	78.78	40.4	1.95
1957	73.33	38.8	1.89	98.25	40.1	2.45	100.27	37.0	2.71	81.19	39.8	2.04
1958	75.08	38.5	1.95	96.08	38.9	2.47	103.78	36.8	2.82	82.32	39.2	2.10
1959 ¹	78.78	39.0	2.02	103.68	40.5	2.56	108.41	37.0	2.93	88.26	40.3	2.19
1960	80.67	38.6	2.09	105.04	40.4	2.60	112.67	36.7	3.07	89.72	39.7	2.26
1961	82.60	38.6	2.14	106.92	40.5	2.64	118.08	36.9	3.20	92.34	39.8	2.32
1962	85.91	38.7	2.22	110.70	41.0	2.70	122.47	37.0	3.31	96.56	40.4	2.39
1963	88.46	38.8	2.28	114.40	41.6	2.75	127.19	37.3	3.41	99.23	40.5	2.45
1964	91.33	38.7	2.36	117.74	41.9	2.81	132.06	37.2	3.55	102.97	40.7	2.53
1965	95.45	38.8	2.46	123.52	42.3	2.92	138.38	37.4	3.70	107.53	41.2	2.61
1966	98.82	38.6	2.56	130.24	42.7	3.05	146.26	37.6	3.89	112.19	41.4	2.71
1967	101.84	38.0	2.68	135.89	42.6	3.19	154.95	37.7	4.11	114.49	40.6	2.82
1968	107.73	37.8	2.85	142.71	42.6	3.35	164.49	37.3	4.41	122.51	40.7	3.01
1969	114.61	37.7	3.04	154.80	43.0	3.60	181.54	37.9	4.79	129.51	40.6	3.19
1970	119.83	37.1	3.23	164.40	42.7	3.85	195.45	37.3	5.24	133.33	39.8	3.35
1971	127.31	36.9	3.45	172.14	42.4	4.06	211.67	37.2	5.69	142.44	39.9	3.57
1972	136.90	37.0	3.70	189.14	42.6	4.44	221.19	36.5	6.06	154.71	40.5	3.82
1973	145.39	36.9	3.94	201.40	42.4	4.75	235.89	36.8	6.41	166.46	40.7	4.09
1974	154.76	36.5	4.24	219.14	41.9	5.23	249.25	36.6	6.81	176.80	40.0	4.42
1975	163.53	36.1	4.53	249.31	41.9	5.95	266.08	36.4	7.31	190.79	39.5	4.83
1976	175.45	36.1	4.86	273.90	42.4	6.46	283.73	36.8	7.71	209.32	40.1	5.22
1977	189.00	36.0	5.25	301.20	43.4	6.94	295.65	36.5	8.10	228.90	40.3	5.68
1978	203.70	35.8	5.69	332.11	43.3	7.67	318.32	36.8	8.65	249.27	40.4	6.17
	Transportation and public utilities			Wholesale and retail trade			Finance, insurance, and real estate			Services		
1947				\$38.07	40.5	\$0.940	\$43.21	37.9	\$1.140			
1948				40.80	40.4	1.010	45.48	37.9	1.200			
1949				42.93	40.5	1.060	47.63	37.8	1.260			
1950				44.55	40.5	1.100	50.52	37.7	1.340			
1951				47.79	40.5	1.18	54.67	37.7	1.45			
1952				49.20	40.0	1.23	57.08	37.8	1.51			
1953				51.35	39.5	1.30	59.57	37.7	1.58			
1954				53.33	39.5	1.35	62.04	37.6	1.65			
1955				55.16	39.4	1.40	63.92	37.6	1.70			
1956				57.48	39.1	1.47	65.68	36.9	1.78			
1957				59.60	38.7	1.54	67.53	36.7	1.84			
1958				61.76	38.6	1.60	70.12	37.1	1.89			
1959 ¹				64.41	38.8	1.66	72.74	37.3	1.95			
1960				66.01	38.6	1.71	75.14	37.2	2.02			
1961				67.41	38.3	1.76	77.12	36.9	2.09			
1962				69.91	38.2	1.83	80.94	37.3	2.17			
1963				72.01	38.1	1.89	84.38	37.5	2.25			
1964	\$118.78	41.1	\$2.89	74.66	37.9	1.97	85.79	37.3	2.30	\$70.03	36.1	\$1.94
1965	125.14	41.3	3.03	76.91	37.7	2.04	88.91	37.2	2.39	73.60	35.9	2.05
1966	128.13	41.2	3.11	79.39	37.1	2.14	92.13	37.3	2.47	77.04	35.5	2.17
1967	130.82	40.5	3.23	82.35	36.6	2.25	95.72	37.1	2.58	80.38	35.1	2.29
1968	138.85	40.6	3.42	87.00	36.1	2.41	101.75	37.0	2.75	83.97	34.7	2.42
1969	147.74	40.7	3.63	91.39	35.7	2.56	108.70	37.1	2.93	90.57	34.7	2.61
1970	155.93	40.5	3.85	96.02	35.3	2.72	112.67	36.7	3.07	96.66	34.4	2.81
1971	168.82	40.1	4.21	101.09	35.1	2.88	117.85	36.6	3.22	103.06	33.9	3.04
1972	187.86	40.4	4.65	106.45	34.9	3.05	122.98	36.6	3.36	110.85	33.9	3.27
1973	203.31	40.5	5.02	111.76	34.6	3.23	129.20	36.6	3.53	117.29	33.8	3.47
1974	217.48	40.2	5.41	119.02	34.2	3.48	137.61	36.5	3.77	126.00	33.6	3.75
1975	233.44	39.7	5.88	126.45	33.9	3.73	148.19	36.5	4.06	134.67	33.5	4.02
1976	256.71	39.8	6.45	133.79	33.7	3.97	155.43	36.4	4.27	143.52	33.3	4.31
1977	278.90	39.9	6.99	142.52	33.3	4.28	165.26	36.4	4.54	153.45	33.0	4.65
1978	302.80	40.0	7.57	153.64	32.9	4.67	178.36	36.4	4.90	163.67	32.8	4.99

¹ Data include Alaska and Hawaii beginning in 1959.

15. Weekly hours, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual Average		1978	1979											
	1977	1978	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. P	Dec. P
TOTAL PRIVATE	36.0	35.8	36.1	35.2	35.4	35.7	35.1	35.5	35.9	36.0	36.0	35.8	35.7	35.6	35.9
MINING	43.4	43.3	43.4	42.4	42.6	42.9	42.6	42.8	43.3	41.7	43.1	43.5	43.7	43.8	43.9
CONSTRUCTION	36.5	36.8	37.0	34.6	35.4	37.0	35.5	37.2	37.9	37.7	38.0	37.9	37.6	36.5	37.1
MANUFACTURING	40.3	40.4	41.4	40.1	40.2	40.6	38.9	40.1	40.4	39.9	40.0	40.3	40.3	40.4	41.0
Overtime hours	3.5	3.6	3.9	3.5	3.5	3.6	2.5	3.3	3.4	3.2	3.3	3.6	3.4	3.4	
Durable goods	41.0	41.1	42.3	40.9	41.1	41.4	39.3	40.8	41.0	40.4	40.4	40.8	40.8	40.9	41.7
Overtime hours	3.7	3.8	4.3	3.8	3.9	3.9	2.6	3.6	3.6	3.4	3.4	3.6	3.5	3.5	
Lumber and wood products	39.8	39.8	40.1	38.5	39.0	39.7	39.1	39.6	40.2	39.4	39.9	40.1	39.8	39.2	40.0
Furniture and fixtures	39.0	39.3	40.1	38.3	38.1	39.0	37.5	38.2	38.8	38.0	38.6	39.0	39.3	39.2	39.7
Stone, clay, and glass products	41.3	41.6	42.2	40.5	40.6	41.8	41.1	41.9	42.1	41.5	41.7	41.7	41.7	41.7	42.0
Primary metal industries	41.3	41.8	42.5	42.2	42.1	41.9	41.7	41.4	41.6	41.3	40.8	41.3	40.9	40.7	40.9
Fabricated metal products	41.0	41.0	42.2	40.8	40.9	41.3	38.8	40.7	41.0	40.3	40.5	40.8	41.0	40.9	41.8
Machinery except electrical	41.5	42.0	43.6	42.1	42.5	42.6	40.3	41.7	42.0	41.2	41.3	41.9	41.6	41.9	42.9
Electric and electronic equipment	40.4	40.3	41.3	40.3	40.5	40.7	38.8	40.2	40.5	39.6	39.7	40.5	40.3	40.8	41.4
Transportation equipment	42.5	42.2	44.5	41.9	42.1	42.3	37.9	41.6	41.3	40.9	40.5	40.7	41.3	40.8	42.7
Instruments and related products	40.6	40.9	41.7	40.6	41.0	41.3	40.0	40.8	40.7	40.3	40.3	40.7	40.8	41.3	41.8
Miscellaneous manufacturing	38.8	38.8	39.4	38.6	38.6	39.2	37.6	38.5	39.0	38.7	38.9	39.3	39.3	39.6	39.7
Nondurable goods	39.4	39.4	39.9	38.9	38.9	39.3	38.2	39.1	39.4	39.2	39.4	39.6	39.4	39.6	40.0
Overtime hours	3.2	3.2	3.3	3.0	3.0	3.1	2.5	2.9	3.0	3.0	3.2	3.5	3.2	3.3	
Food and kindred products	40.0	39.7	40.3	39.5	39.2	39.6	39.0	39.6	39.8	40.1	40.3	40.6	40.0	40.1	40.4
Tobacco manufactures	37.8	38.1	38.8	36.1	36.2	38.1	37.6	38.9	39.0	36.1	37.6	39.1	38.8	38.9	39.4
Textile mill products	40.4	40.4	40.8	39.9	39.9	40.4	38.6	40.1	40.6	39.9	40.3	40.8	40.8	41.2	41.7
Apparel and other textile products	35.6	35.6	35.8	34.6	34.9	35.4	33.9	35.1	35.6	35.4	35.6	35.4	35.5	35.6	36.0
Paper and allied products	42.9	42.9	43.4	42.6	42.2	42.6	41.6	42.4	42.8	42.5	42.6	42.7	42.6	42.9	43.5
Printing and publishing	37.7	37.6	38.3	37.1	37.3	37.7	36.8	37.3	37.4	37.4	37.9	37.9	37.5	37.9	38.2
Chemicals and allied products	41.7	41.9	42.3	41.7	41.7	41.9	41.9	41.8	41.8	41.7	41.8	41.8	41.7	42.1	42.4
Petroleum and coal products	42.7	43.6	43.7	42.8	42.7	43.8	43.9	43.7	43.4	44.1	43.6	44.7	44.1	44.7	44.1
Rubber and miscellaneous plastics products	41.0	40.9	42.0	41.1	41.2	41.4	39.4	40.5	40.7	40.2	40.0	40.5	40.5	40.2	40.5
Leather and leather products	36.9	37.1	37.1	36.3	35.9	35.9	35.3	36.4	37.1	36.9	36.6	36.8	36.5	36.8	37.1
TRANSPORTATION AND PUBLIC UTILITIES	39.9	40.0	40.2	39.6	39.9	39.8	39.0	39.6	40.0	40.0	40.3	39.9	39.9	40.0	40.2
WHOLESALE AND RETAIL TRADE	33.3	32.9	33.1	32.0	32.1	32.4	32.5	32.4	32.9	33.3	33.2	32.7	32.5	32.4	32.9
WHOLESALE TRADE	38.8	38.8	39.1	38.4	38.4	38.9	38.6	38.9	39.0	39.0	38.9	38.8	38.9	39.0	39.2
RETAIL TRADE	31.6	31.0	31.3	29.9	30.1	30.3	30.6	30.4	31.0	31.5	31.4	30.7	30.4	30.4	30.9
FINANCE, INSURANCE, AND REAL ESTATE	36.4	36.4	36.3	36.4	36.4	36.3	36.4	36.1	36.2	36.4	36.2	36.3	36.3	36.4	36.4
SERVICES	33.0	32.8	32.5	32.4	32.4	32.6	32.5	32.5	32.9	33.3	33.2	32.7	32.6	32.6	32.7

16. Weekly hours, by industry division and major manufacturing group, seasonally adjusted

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	1978	1979											
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
TOTAL PRIVATE	35.8	35.8	35.7	35.9	35.3	35.7	35.6	35.6	35.6	35.7	35.6	35.7	35.7
MINING	43.4	43.4	43.1	43.1	42.9	42.8	43.0	41.6	43.2	43.1	43.1	43.3	43.9
CONSTRUCTION	37.0	37.1	36.6	37.1	35.5	37.1	37.2	36.8	37.2	37.5	36.6	36.8	37.1
MANUFACTURING	40.6	40.6	40.6	40.6	39.1	40.2	40.1	40.2	40.1	40.2	40.2	40.1	40.3
Overtime hours	3.7	3.7	3.7	3.7	2.7	3.5	3.4	3.3	3.2	3.2	3.2	3.2	3.3
Durable goods	41.4	41.4	41.4	41.4	39.5	40.9	40.7	40.7	40.7	40.7	40.8	40.6	40.8
Overtime hours	4.0	4.1	4.1	4.0	2.7	3.8	3.6	3.5	3.3	3.3	3.3	3.4	3.3
Lumber and wood products	39.9	39.9	39.6	40.0	39.1	39.4	39.4	39.3	39.5	39.7	39.4	39.3	39.8
Furniture and fixtures	39.2	38.9	38.8	39.1	38.1	38.5	38.5	38.4	38.3	38.6	38.8	38.9	38.8
Stone, clay, and glass products	41.9	41.8	41.6	42.0	41.2	41.7	41.6	41.4	41.3	41.5	41.3	41.5	41.7
Primary metal industries	42.2	42.3	42.2	42.0	41.8	41.4	41.2	41.3	41.0	41.0	41.1	40.7	40.6
Fabricated metal products	41.3	41.1	41.3	41.3	39.1	40.7	40.7	40.8	40.6	40.7	40.9	40.6	40.9
Machinery, except electrical	42.4	42.3	42.5	42.4	40.5	42.0	42.0	41.9	41.6	41.9	41.6	41.6	41.7
Electric and electronic equipment	40.5	40.5	40.7	40.7	39.0	40.4	40.3	40.2	39.8	40.3	40.3	40.5	40.6
Transportation equipment	42.8	42.8	42.7	42.3	37.9	41.5	40.8	40.9	41.7	40.6	41.3	40.6	41.1
Instruments and related products	40.9	41.1	41.2	41.2	40.3	40.8	40.6	40.7	40.5	40.6	40.7	40.9	41.0
Miscellaneous manufacturing	38.9	39.0	39.0	39.0	37.6	38.6	38.9	39.3	39.1	39.1	39.1	39.1	39.2
Nondurable goods	39.4	39.5	39.3	39.4	38.6	39.2	39.2	39.2	39.2	39.3	39.3	39.4	39.5
Overtime hours	3.2	3.2	3.2	3.3	2.7	3.0	3.0	3.0	3.0	3.1	3.0	3.2	3.2
Food and kindred products	39.9	40.0	39.8	40.0	39.6	39.8	39.8	39.8	39.7	40.0	39.9	39.9	40.0
Tobacco manufactures	38.1	37.2	36.9	38.0	37.6	38.9	37.6	38.5	38.0	38.6	38.3	37.7	38.7
Textile mill products	40.4	40.7	40.1	40.3	38.8	40.0	40.1	40.1	40.6	40.8	41.0	41.2	41.2
Apparel and other textile products	35.5	35.3	35.4	35.4	34.2	35.2	35.2	35.5	35.3	35.3	35.3	35.3	35.7
Paper and allied products	42.8	42.8	42.7	42.8	41.8	42.6	42.5	42.5	42.6	42.4	42.6	42.7	42.9
Printing and publishing	37.6	37.7	37.7	37.7	37.1	37.4	37.4	37.5	37.7	37.5	37.4	37.6	37.5
Chemicals and allied products	41.8	42.0	42.0	41.9	41.7	41.9	41.7	41.9	42.0	41.7	41.7	41.9	41.9
Petroleum and coal products	43.8	43.5	43.6	44.0	43.9	43.7	43.3	43.6	43.7	44.1	43.7	44.3	44.2
Rubber and miscellaneous plastics products	41.2	41.4	41.2	41.3	39.7	40.9	40.7	40.6	40.2	40.3	40.3	39.9	39.7
Leather and leather products	36.7	36.8	36.4	36.3	35.6	36.1	36.4	36.6	36.5	37.0	36.5	36.7	36.7
TRANSPORTATION AND PUBLIC UTILITIES	40.0	40.0	40.0	40.0	39.2	39.8	39.8	39.7	39.9	39.9	39.9	40.0	40.0
WHOLESALE AND RETAIL TRADE	32.8	32.5	32.5	32.7	32.8	32.6	32.6	32.6	32.5	32.6	32.6	32.7	32.6
WHOLESALE TRADE	38.9	38.7	38.7	39.0	38.7	39.0	38.8	38.8	38.7	38.7	38.8	39.0	39.0
RETAIL TRADE	30.9	30.6	30.6	30.7	30.9	30.6	30.6	30.6	30.5	30.7	30.6	30.7	30.5
FINANCE, INSURANCE, AND REAL ESTATE	36.3	36.3	36.4	36.4	36.5	36.1	36.2	36.3	36.1	36.4	36.2	36.5	36.4
SERVICES	32.6	32.6	32.6	32.8	32.7	32.7	32.7	32.8	32.7	32.7	32.6	32.7	32.8

17. Hourly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1978		1979										
	1977	1978	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. P	Dec. P
TOTAL PRIVATE	\$5.25	\$5.69	\$5.91	\$5.97	\$6.00	\$6.02	\$6.03	\$6.09	\$6.12	\$6.16	\$6.19	\$6.31	\$6.32	\$6.34	\$6.38
MINING	6.94	7.67	8.06	8.20	8.21	8.27	8.54	8.45	8.49	8.52	8.48	8.57	8.57	8.70	8.76
CONSTRUCTION	8.10	8.65	8.92	8.98	9.02	8.97	9.02	9.14	9.13	9.24	9.32	9.51	9.49	9.50	9.52
MANUFACTURING	5.68	6.17	6.48	6.49	6.52	6.56	6.54	6.63	6.66	6.71	6.69	6.80	6.82	6.87	6.97
Durable goods	6.06	6.58	6.93	6.92	6.96	6.99	6.95	7.07	7.11	7.15	7.12	7.24	7.25	7.29	7.42
Lumber and wood products	5.10	5.60	5.79	5.79	5.83	5.84	5.90	5.97	6.16	6.23	6.23	6.32	6.24	6.24	6.25
Furniture and fixtures	4.34	4.68	4.86	4.87	4.93	4.95	4.94	4.97	5.05	5.04	5.10	5.18	5.20	5.22	5.28
Stone, clay, and glass products	5.81	6.32	6.58	6.57	6.58	6.64	6.73	6.78	6.85	6.89	6.90	6.98	7.00	7.06	7.06
Primary metal industries	7.40	8.20	8.56	8.62	8.75	8.75	8.92	8.83	8.91	9.04	9.10	9.16	9.10	9.27	9.35
Fabricated metal products	5.91	6.34	6.62	6.60	6.65	6.72	6.62	6.77	6.81	6.80	6.83	6.93	6.96	7.00	7.11
Machinery, except electrical	6.26	6.77	7.15	7.10	7.16	7.19	7.10	7.25	7.34	7.35	7.35	7.48	7.45	7.53	7.65
Electric and electronic equipment	5.39	5.82	6.09	6.11	6.13	6.16	6.11	6.21	6.25	6.27	6.36	6.46	6.48	6.52	6.63
Transportation equipment	7.28	7.91	8.41	8.34	8.35	8.42	8.26	8.56	8.53	8.55	8.44	8.59	8.67	8.70	8.88
Instruments and related products	5.29	5.71	5.95	5.99	6.02	6.04	6.03	6.11	6.11	6.16	6.14	6.21	6.32	6.39	6.45
Miscellaneous manufacturing	4.36	4.69	4.86	4.93	4.95	4.95	4.96	5.00	4.99	5.03	5.04	5.07	5.12	5.14	5.24
Nondurable goods	5.11	5.53	5.75	5.81	5.82	5.85	5.90	5.91	5.94	6.03	6.04	6.11	6.14	6.20	6.26
Food and kindred products	5.37	5.80	6.02	6.09	6.10	6.12	6.19	6.22	6.22	6.28	6.28	6.33	6.36	6.50	6.54
Tobacco manufactures	5.54	6.13	6.18	6.36	6.53	6.64	6.80	6.83	6.82	6.83	6.59	6.54	6.43	7.01	7.02
Textile mill products	3.99	4.30	4.48	4.52	4.51	4.52	4.48	4.52	4.54	4.65	4.77	4.82	4.83	4.86	4.89
Apparel and other textile products	3.62	3.94	4.08	4.17	4.17	4.19	4.19	4.20	4.21	4.23	4.21	4.28	4.32	4.32	4.38
Paper and allied products	5.96	6.52	6.79	6.80	6.83	6.88	6.92	6.96	7.05	7.17	7.22	7.32	7.34	7.41	7.45
Printing and publishing	6.12	6.50	6.70	6.72	6.73	6.77	6.72	6.83	6.88	6.90	6.94	7.04	7.06	7.10	7.16
Chemicals and allied products	6.43	7.01	7.28	7.32	7.32	7.36	7.50	7.47	7.53	7.60	7.65	7.73	7.82	7.86	7.92
Petroleum and coal products	7.83	8.63	8.89	9.01	9.10	9.31	9.44	9.39	9.32	9.39	9.35	9.51	9.49	9.59	9.57
Rubber and miscellaneous plastics products	5.17	5.52	5.77	5.82	5.84	5.86	5.82	5.90	5.91	5.95	5.94	6.03	6.12	6.13	6.23
Leather and leather products	3.61	3.89	4.01	4.13	4.14	4.17	4.18	4.18	4.19	4.19	4.22	4.29	4.31	4.34	4.39
TRANSPORTATION AND PUBLIC UTILITIES	6.99	7.57	7.85	7.90	7.92	7.90	7.88	7.94	8.03	8.23	8.32	8.45	8.45	8.49	8.55
WHOLESALE AND RETAIL TRADE	4.28	4.67	4.81	4.96	4.97	4.98	5.00	5.00	5.02	5.05	5.06	5.13	5.15	5.18	5.17
WHOLESALE TRADE	5.39	5.88	6.14	6.18	6.21	6.23	6.30	6.29	6.34	6.39	6.41	6.51	6.51	6.57	6.64
RETAIL TRADE	3.85	4.20	4.31	4.47	4.47	4.47	4.49	4.49	4.50	4.51	4.52	4.58	4.59	4.62	4.59
FINANCE, INSURANCE, AND REAL ESTATE	4.54	4.90	5.07	5.13	5.19	5.16	5.23	5.22	5.22	5.29	5.29	5.38	5.37	5.42	5.49
SERVICES	4.65	4.99	5.16	5.23	5.27	5.26	5.29	5.27	5.27	5.29	5.30	5.45	5.48	5.53	5.59

18. Hourly Earnings Index for production or nonsupervisory workers on private nonagricultural payrolls, by industry division

[Seasonally adjusted data: 1967 = 100]

Industry	1978	1979											Percent change		
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. P	Dec. P	Nov. 1979 to Dec. 1979	Dec. 1978 to Dec. 1979
TOTAL PRIVATE (in current dollars) ..	220.9	222.6	224.0	225.2	226.8	227.5	229.0	230.9	232.2	234.3	234.9	237.1	239.1	0.8	8.2
Mining	250.9	252.1	253.7	256.1	264.1	262.7	264.9	266.9	265.6	266.1	268.0	271.4	274.0	.9	9.2
Construction	213.0	213.8	216.7	216.5	218.1	220.4	220.4	222.1	223.1	224.4	224.0	225.6	226.5	.4	6.4
Manufacturing	224.2	225.4	227.2	228.7	231.0	232.3	233.9	235.4	236.9	238.7	240.0	242.1	244.2	.9	8.9
Transportation and public utilities ..	239.0	240.8	241.7	243.1	241.7	243.7	246.4	251.3	252.6	255.6	255.8	258.0	260.5	1.0	9.0
Wholesale and retail trade	214.7	217.7	218.1	219.4	220.9	221.0	222.6	223.8	225.4	227.0	227.4	229.4	230.4	.4	7.3
Finance, insurance, and real estate ..	202.1	202.4	204.2	204.8	207.5	208.0	210.8	211.5	214.4	213.1	216.2	218.4	218.4	1.0	8.1
Services	219.3	220.8	222.2	223.3	225.0	224.3	225.7	227.0	228.4	231.5	232.3	234.6	237.4	1.2	8.2
TOTAL PRIVATE (in constant dollars) ..	108.7	108.5	107.8	107.3	106.9	106.1	105.7	105.6	105.1	104.9	104.2	104.1	(¹)	(¹)	(¹)

¹ Not available.

19. Weekly earnings, by industry division and major manufacturing group

[Gross averages, production or nonsupervisory workers on private nonagricultural payrolls]

Industry division and group	Annual average		1978		1979										
	1977	1978	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. ^P	Dec. ^P
TOTAL PRIVATE	\$189.00	\$203.70	\$213.35	\$210.14	\$212.40	\$214.91	\$211.65	\$216.20	\$219.71	\$221.76	\$222.84	\$225.90	\$225.62	\$225.70	\$229.04
MINING	301.20	332.11	349.80	347.68	349.75	354.78	363.80	361.66	367.62	355.28	365.49	372.80	374.51	381.06	384.56
CONSTRUCTION	295.65	318.32	330.04	310.71	319.31	331.89	320.21	340.01	346.03	348.35	354.16	360.43	356.82	346.75	353.19
MANUFACTURING	228.90	249.27	268.27	260.25	262.10	266.34	254.41	265.86	269.06	267.73	267.60	274.04	274.85	277.55	285.77
Durable goods	248.46	270.44	293.14	283.03	286.06	289.39	273.14	288.46	291.51	288.86	287.65	295.39	295.80	298.16	309.41
Lumber and wood products	202.98	222.88	232.18	222.92	227.37	231.85	230.69	236.41	247.63	245.46	248.58	253.43	248.35	244.61	250.00
Furniture and fixtures	169.26	183.92	194.89	186.52	187.83	193.05	185.25	189.85	195.94	191.52	196.86	202.02	204.36	204.62	209.62
Stone, clay, and glass products	239.95	262.91	277.68	266.09	267.15	277.55	276.60	284.08	288.39	285.94	287.73	291.07	291.90	294.40	296.52
Primary metal industries	305.62	342.76	363.80	363.76	368.38	366.63	371.96	365.56	370.66	373.35	371.28	378.31	372.19	377.29	382.42
Fabricated metal products	242.31	259.94	279.36	269.28	271.99	277.54	256.86	275.54	279.21	274.04	276.62	282.74	285.36	286.30	297.20
Machinery except electrical	259.79	284.34	311.74	298.91	304.30	306.29	286.13	302.33	308.28	302.82	303.56	313.41	309.92	315.51	328.19
Electric and electronic equipment	217.76	234.55	251.52	246.23	248.27	250.71	237.07	249.64	253.13	248.29	252.49	261.63	261.14	266.02	274.48
Transportation equipment	309.40	333.80	374.25	349.45	351.54	356.17	313.05	356.10	352.29	349.70	341.82	349.61	358.07	354.96	379.18
Instruments and related products	214.77	233.54	248.12	243.19	246.82	249.45	241.20	249.29	248.68	248.25	247.44	252.75	257.86	263.91	269.61
Miscellaneous manufacturing	169.17	181.97	191.48	190.30	191.07	194.04	186.50	192.50	194.61	194.66	196.06	199.25	201.22	203.54	208.03
Nondurable goods	201.33	217.88	229.43	226.01	226.40	229.91	225.38	231.08	234.04	236.38	237.98	241.96	241.92	245.52	250.40
Food and kindred products	214.80	230.26	242.61	240.56	239.12	242.35	241.41	246.31	247.56	251.83	253.08	257.00	254.40	260.65	264.22
Tobacco manufactures	209.41	233.55	239.78	229.60	236.39	252.98	255.68	265.69	265.98	246.56	247.78	255.71	249.48	272.69	276.59
Textile mill products	161.20	173.72	182.78	180.35	179.50	182.61	172.93	181.25	184.32	185.54	192.23	196.66	197.06	200.23	203.91
Apparel and other textile products	128.87	140.26	146.06	144.28	145.53	148.33	142.04	147.42	149.88	149.74	149.88	151.51	153.36	153.79	157.68
Paper and allied products	255.68	279.71	294.69	289.68	288.23	293.09	287.87	295.10	302.74	304.73	307.57	312.56	312.68	317.89	324.08
Printing and publishing	230.72	244.40	256.61	249.31	251.03	255.23	247.30	254.76	257.31	258.06	263.03	266.82	264.75	269.09	273.51
Chemicals and allied products	268.13	293.72	307.94	305.24	305.24	308.38	314.25	312.25	314.75	316.92	319.77	323.11	326.09	330.91	335.81
Petroleum and coal products	334.34	376.27	388.49	385.63	388.57	407.78	414.42	410.34	404.49	414.10	407.66	425.10	418.51	428.67	422.04
Rubber and miscellaneous plastics products	211.97	225.77	242.34	239.20	240.61	242.60	229.31	238.95	240.54	239.19	237.60	244.22	247.86	246.43	252.32
Leather and leather products	133.21	144.32	148.77	149.92	148.63	149.70	147.55	152.15	155.45	154.61	154.45	157.87	157.32	159.71	162.87
TRANSPORTATION AND PUBLIC UTILITIES	278.90	302.80	315.57	312.84	316.01	314.42	307.32	314.42	321.20	329.20	335.30	337.16	337.16	339.60	343.71
WHOLESALE AND RETAIL TRADE	142.52	153.64	159.21	158.72	159.54	161.35	162.50	162.00	165.16	168.17	167.99	167.75	167.38	167.83	170.09
WHOLESALE TRADE	209.13	228.14	240.07	237.31	238.46	242.35	243.18	244.68	247.26	249.21	249.35	252.59	253.24	256.23	260.29
RETAIL TRADE	121.66	130.20	134.90	133.65	134.55	135.44	137.39	136.50	139.50	142.07	141.93	140.61	139.54	140.45	141.83
FINANCE, INSURANCE, AND REAL ESTATE	165.26	178.36	184.04	186.73	188.92	187.31	190.37	188.44	188.96	192.56	191.50	195.29	194.93	197.29	199.84
SERVICES	153.45	163.67	167.70	169.45	170.75	171.48	171.93	171.28	173.38	176.16	175.96	178.22	178.65	180.28	182.79

20. Gross and spendable weekly earnings, in current and 1967 dollars, 1960 to date

[Averages for production or nonsupervisory workers on private nonagricultural payrolls]

Year and month	Private nonagricultural workers						Manufacturing workers					
	Gross average weekly earnings		Spendable average weekly earnings				Gross average weekly earnings		Spendable average weekly earnings			
			Worker with no dependents		Married worker with 3 dependents				Worker with no dependents		Married worker with 3 dependents	
	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars	Current dollars	1967 dollars
1960	\$80.67	\$90.95	\$65.59	\$73.95	\$72.96	\$82.25	\$89.72	\$101.15	\$72.57	\$81.82	\$80.11	\$90.32
1961	82.60	92.19	67.08	74.87	74.48	83.13	92.34	103.06	74.60	83.26	82.18	91.72
1962	85.91	94.82	69.56	76.78	76.99	84.98	96.56	106.58	77.86	85.94	85.53	94.40
1963	88.46	96.47	71.05	77.48	78.56	85.67	99.23	108.21	79.51	86.71	87.25	95.15
1964	91.33	98.31	75.04	80.78	82.57	88.88	102.97	110.84	84.40	90.85	92.18	99.22
1965	95.45	101.01	79.32	83.94	86.63	91.67	107.53	113.79	89.08	94.26	96.78	102.41
1966	98.82	101.67	81.29	83.63	88.66	91.21	112.19	115.42	91.45	94.08	99.33	102.19
1967	101.84	101.84	83.38	83.38	90.86	90.86	114.49	114.49	92.97	92.97	100.93	100.93
1968	107.73	103.39	86.71	83.21	95.28	91.44	122.51	117.57	97.70	93.76	106.75	102.45
1969	114.61	104.38	90.96	82.84	99.99	91.07	129.51	117.95	101.90	92.81	111.44	101.49
1970	119.83	103.04	96.21	82.73	104.90	90.20	133.33	114.64	106.32	91.42	115.58	99.38
1971	127.31	104.95	103.80	85.57	112.43	92.69	142.44	117.43	114.97	94.78	124.24	102.42
1972	136.90	109.26	112.19	89.54	121.68	97.11	154.71	123.47	125.34	100.03	135.57	108.20
1973	145.39	109.23	117.51	88.29	127.38	95.70	166.46	125.06	132.57	99.60	143.50	107.81
1974	154.76	104.78	124.37	84.20	134.61	91.14	176.80	119.70	140.19	94.92	151.56	102.61
1975	163.53	101.45	132.49	82.19	145.65	90.35	190.79	118.36	151.61	94.05	166.29	103.16
1976	175.45	102.90	143.30	84.05	155.87	91.42	209.32	122.77	167.83	98.43	181.32	106.35
1977	189.00	104.13	155.19	85.50	169.93	93.63	228.90	126.12	183.80	101.27	200.06	110.23
1978	203.70	104.30	165.39	84.69	180.71	92.53	249.27	127.63	197.40	101.08	214.87	110.02
1978: December	213.35	105.15	172.31	84.92	187.95	92.63	268.27	132.22	210.12	103.56	229.40	113.06
1979: January	210.14	102.66	170.88	83.48	187.22	91.46	260.25	127.14	206.40	100.83	225.48	110.15
February	212.40	102.56	172.53	83.31	188.98	91.25	262.10	126.56	207.69	100.28	226.89	109.56
March	214.91	102.68	174.35	83.30	190.93	91.22	266.34	127.25	210.65	100.65	230.10	109.94
April	211.65	99.93	171.98	81.20	188.39	88.95	254.41	120.12	202.32	95.52	221.05	104.37
May	216.20	100.89	175.29	81.80	191.93	89.56	265.86	124.06	210.04	98.14	229.74	107.20
June	219.71	101.30	177.85	82.00	194.67	89.75	269.06	124.05	212.51	97.98	232.17	107.04
July	221.76	101.08	179.35	81.75	196.26	89.45	267.73	122.03	211.61	96.45	231.16	105.36
August	222.84	100.60	180.13	81.32	197.11	88.99	267.60	120.81	211.52	95.49	231.06	104.32
September	225.90	100.98	182.36	81.52	199.42	89.15	274.04	122.50	215.89	96.51	235.94	105.47
October	225.62	100.01	182.16	80.74	199.21	88.30	274.85	121.83	216.44	95.94	236.56	104.86
November ^P	225.70	99.17	182.22	80.06	199.27	87.55	277.55	121.95	218.27	95.90	238.61	104.84
December ^P	229.04	(¹)	184.59	(¹)	201.80	(¹)	285.77	(¹)	223.85	(¹)	244.84	(¹)

¹Not available.

NOTE: The earnings expressed in 1967 dollars have been adjusted for changes in price level as measured by the Bureau's Consumer Price Index for Urban Wage Earners and Clerical Workers

(revised). These series are described in "The Spendable Earnings Series: A Technical Note on its Calculation", **Employment and Earnings and Monthly Report on the Labor Force**, February 1969, pp. 6-13. See also "Spendable Earnings Formulas, 1977-79" **Employment and Earnings**, September 1979, pp. 6-8.

UNEMPLOYMENT INSURANCE DATA

UNEMPLOYMENT INSURANCE DATA are compiled monthly by the Employment and Training Administration of the U.S. Department of Labor from records of State and Federal unemployment insurance claims filed and benefits paid. Railroad unemployment insurance data are prepared by the U.S. Railroad Retirement Board.

Definitions

Data for all programs represent an unduplicated count of insured unemployment under the State, Ex-Servicemen, and UCFE programs, and the Railroad Insurance Act.

Under both State and Federal unemployment insurance programs for civilian employees, insured workers must report the completion of at least 1 week of unemployment before they are defined as unem-

ployed. Persons not covered by unemployment insurance (about one-third of the labor force) and those who have exhausted or not yet earned benefit rights are excluded from the scope of the survey. **Initial claims** are notices filed by persons in unemployment insurance programs to indicate they are out of work and wish to begin receiving compensation. A claimant who continued to be unemployed a full week is then counted in the insured unemployment figure. The **rate of insured unemployment** expresses the number of insured unemployed as a percent of the average insured employment in a 12-month period.

An **application** for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year. **Number of payments** are payments made in 14-day registration periods. The **average amount of benefit payment** is an average for all compensable periods, not adjusted for recovery of overpayments or settlement of underpayments. However, **total benefits** paid have been adjusted.

21. Unemployment Insurance and employment service operations

[All items except average benefits amounts are in thousands]

Item	1978		1979										
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
All programs:													
Insured unemployment	2,148	2,567	3,198	3,209	2,921	2,610	2,230	2,119	2,429	2,377	2,164	2,236	2,559
State unemployment insurance program: ¹													
Initial claims ²	1,526	1,882	2,421	1,576	1,396	1,589	1,309	1,400	1,976	1,545	1,219	1,640	.....
Insured unemployment (average weekly volume)	2,009	2,421	3,037	3,053	2,750	2,440	2,078	1,991	2,300	2,245	2,024	2,057	2,384
Rate of insured unemployment	2.7	3.2	3.9	4.0	3.6	3.1	2.6	2.5	2.8	2.7	2.4	2.4	2.8
Weeks of unemployment compensated	6,744	7,907	11,371	10,762	11,105	8,956	8,442	7,197	7,889	8,830	6,993	7,638	.....
Average weekly benefit amount for total unemployment	\$83.99	\$85.34	\$88.28	\$90.31	\$90.28	\$89.25	\$88.37	\$87.25	\$86.40	\$88.56	\$89.07	\$90.59	.....
Total benefits paid	\$550,691	\$645,084	\$972,820	\$915,146	\$975,641	\$777,699	\$725,229	\$610,269	\$665,687	\$767,025	\$606,095	\$673,927	.....
Unemployment compensation for ex-servicemen: ³													
Initial claims ¹	23	24	24	21	21	20	20	24	28	28	23	26	.....
Insured unemployment (average weekly volume)	48	50	54	53	52	48	45	45	51	52	52	52	54
Weeks of unemployment compensated	244	228	262	219	241	207	214	193	216	234	211	236	.....
Total benefits paid	\$20,591	\$21,040	\$24,425	\$20,489	\$22,794	\$19,617	\$20,440	\$18,623	\$20,965	\$22,550	\$19,634	\$23,323	.....
Unemployment compensation for Federal civilian employees: ⁴													
Initial claims	16	18	21	13	12	12	12	13	16	13	13	18	.....
Insured unemployment (average weekly volume)	32	34	37	35	33	27	24	23	25	25	25	28	29
Weeks of unemployment compensated	135	136	158	133	143	112	106	91	96	107	91	109	.....
Total benefits paid	\$11,826	\$12,174	\$14,222	\$12,256	\$13,168	\$10,345	\$9,330	\$8,341	\$8,802	\$9,829	\$8,456	\$10,093	.....
Railroad unemployment insurance:													
Applications	15	10	8	6	5	3	3	9	15	8	13	11	10
Insured unemployment (average weekly volume)	17	17	26	24	23	18	10	8	11	12	21	18	20
Number of payments	33	30	50	50	23	40	29	19	20	26	32	51	36
Average amount of benefit payment	\$171.54	\$189.59	\$200.80	\$200.54	\$204.72	\$195.55	\$177.39	\$183.13	\$190.10	\$195.61	\$189.08	\$189.61	\$183.38
Total benefits paid	\$5,394	\$5,678	\$9,634	\$9,871	\$10,538	\$7,276	\$5,681	\$3,314	\$3,699	\$3,767	\$5,747	\$8,003	\$6,462
Employment service: ⁵													
New applications and renewals	3,026	414	5,630	.....	8,059	9,180	10,452	11,907	13,186	14,479	.....	.....	.....
Nonfarm placements	827	1,120	1,414	.....	1,991	2,291	2,616	3,051	3,482	3,935	.....	.....	.....

¹Initial claims and State insured unemployment include data under the program for Puerto Rican sugarcane workers.

²Includes interstate claims for the Virgin Islands. Excludes transition claims under State programs.

³Excludes data on claims and payments made jointly with other programs.

⁴Includes the Virgin Islands. Excludes data on claims and payments made jointly with State programs.

⁵Cumulative total for fiscal year (October 1 - September 30).

NOTE: Data for Puerto Rico included. Dashes indicate data not available.

PRICE DATA

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).

Definitions

The **Consumer Price Index** is a monthly statistical measure of the average change in prices in a fixed market basket of goods and services. Effective with the January 1978 index, the Bureau of Labor Statistics began publishing CPI's for two groups of the population. One index, a new CPI for All Urban Consumers, covers 80 percent of the total noninstitutional population; and the other index, a revised CPI for Urban Wage Earners and Clerical Workers, covers about half the new index population. The All Urban Consumers index includes, in addition to wage earners and clerical workers, 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, doctor's and dentist's fees, and other goods and services that people buy for day-to-day living. The quantity and quality of these items is kept essentially unchanged between major revisions so that only price changes will be measured. Prices are collected from over 18,000 tenants, 24,000 retail establishments, and 18,000 housing units for property taxes in 85 urban areas across the country. All taxes directly associated with the purchase and use of items are included in the index. Because the CPI's are based on the expenditures of two population groups in 1972-73, they may not accurately reflect the experience of individual families and single persons with different buying habits.

Though the CPI is often called the "Cost-of-Living Index," it measures only price change, which is just one of several important factors affecting living costs. Area indexes do not measure differences in the level of prices among cities. They only measure the average change in prices for each area since the base period.

Producer Price Indexes 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 contains about 2,800 commodities and about 10,000 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 universe includes all commodities produced or imported for sale in commercial transactions in primary markets in the United States.

Producer Price Indexes can be organized by stage of processing or by commodity. The stage of processing structure organizes products by degree of fabrication (that is, finished goods, intermediate or semifinished goods, and crude materials). The commodity structure 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.

In calculating Producer Price Indexes, price changes for the various commodities are 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 groupings.

Price indexes for the output of selected SIC industries measure average price changes in commodities produced by particular industries, as defined in the *Standard Industrial Classification Manual 1972* (Washington, U.S. Office of Management and Budget, 1972). These indexes are derived from several price series, combined to match the economic activity of the specified industry and weighted by the value of shipments in the industry. They use data from comprehensive industrial censuses conducted by the U.S. Bureau of the Census and the U.S. Department of Agriculture.

Notes on the data

Beginning with the May 1978 issue of the *Review*, regional CPI's cross classified by population size, were introduced. These indexes will enable users in local areas for which an index is not published to get a better approximation of the CPI for their area by using the appropriate population size class measure for their region. The cross-classified indexes will be published bimonthly. (See table 24.)

For further details about the new and the revised indexes and a comparison of various aspects of these indexes with the old unrevised CPI, see *Facts About the Revised Consumer Price Index*, a pamphlet in the Consumer Price Index Revision 1978 series. See also *The Consumer Price Index: Concepts and Content Over the Years*. Report 517, revised edition (Bureau of Labor Statistics, May 1978).

For interarea comparisons of living costs at three hypothetical standards of living, see the family budget data published in the *Handbook of Labor Statistics, 1977*, Bulletin 1966 (Bureau of Labor Statistics, 1977), tables 122-133. Additional data and analysis on price changes are provided in the *CPI Detailed Report and Producer Prices and Price Indexes*, both monthly publications of the Bureau.

As of January 1976, the Wholesale Price Index (as it was then called) incorporated a revised weighting structure reflecting 1972 values of shipments. From January 1967 through December 1975, 1963 values of shipments were used as weights.

For a discussion of the general method of computing consumer, producer, and industry price indexes, see *BLS Handbook of Methods for Surveys and Studies*, Bulletin 1910 (Bureau of Labor Statistics, 1976), chapters 13-15. See also John F. Early, "Improving the measurement of producer price change," *Monthly Labor Review*, April 1978, pp. 7-15. For industry prices, see also Bennett R. Moss, "Industry and Sector Price Indexes," *Monthly Labor Review*, August 1965, pp. 974-82.

22. Consumer Price Index for Urban Wage Earners and Clerical Workers, annual averages and changes, 1967-78

[1967 = 100]

Year	All items		Food and beverages		Housing		Apparel and upkeep		Transportation		Medical care		Entertainment		Other goods and services	
	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change	Index	Percent change
1967	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...	100.0	...
1968	104.2	4.2	103.6	3.6	104.0	4.0	105.4	5.4	103.2	3.2	106.1	6.1	105.7	5.7	105.2	5.2
1969	109.8	5.4	108.8	5.0	110.4	6.2	111.5	5.8	107.2	3.9	113.4	6.9	111.0	5.0	110.4	4.9
1970	116.3	5.9	114.7	5.4	118.2	7.1	116.1	4.1	112.7	5.1	120.6	6.3	116.7	5.1	116.8	5.8
1971	121.3	4.3	118.3	3.1	123.4	4.4	119.8	3.2	118.6	5.2	128.4	6.5	122.9	5.3	122.4	4.8
1972	125.3	3.3	123.2	4.1	128.1	3.8	122.3	2.1	119.9	1.1	132.5	3.2	126.5	2.9	127.5	4.2
1973	133.1	6.2	139.5	13.2	133.7	4.4	126.8	3.7	123.8	3.3	137.7	3.9	130.0	2.8	132.5	3.9
1974	147.7	11.0	158.7	13.8	148.8	11.3	136.2	7.4	137.7	11.2	150.5	9.3	139.8	7.5	142.0	7.2
1975	161.2	9.1	172.1	8.4	164.5	10.6	142.3	4.5	150.6	9.4	168.6	12.0	152.2	8.9	153.9	8.4
1976	170.5	5.8	177.4	3.1	174.6	6.1	147.6	3.7	165.5	9.9	184.7	9.5	159.8	5.0	162.7	5.7
1977	181.5	6.5	188.0	6.0	186.5	6.8	154.2	4.5	177.2	7.1	202.4	9.6	167.7	4.9	172.2	5.8
1978	195.3	7.6	206.2	9.7	202.6	8.6	159.5	3.4	185.8	4.9	219.4	8.4	176.2	5.1	183.2	6.4

23. Consumer Price Index for All Urban Consumers and revised CPI for Urban Wage Earners and Clerical Workers, U.S. city average—general summary and groups, subgroups, and selected items

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1978	1979						1978	1979					
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
All items	202.0	216.6	218.9	221.1	223.4	225.4	227.5	201.8	216.9	219.4	221.5	223.7	225.6	227.6
Food and beverages	212.5	229.3	230.7	230.2	231.0	232.1	233.1	212.4	229.3	230.9	230.4	231.2	232.3	233.1
Housing	210.6	225.5	228.4	231.5	234.6	237.7	240.8	210.1	225.5	228.4	231.5	234.5	237.7	240.7
Apparel and upkeep	164.1	165.7	164.3	166.3	169.8	171.0	171.7	164.0	165.3	164.5	166.2	169.3	170.8	171.3
Transportation	191.4	212.6	216.6	219.6	221.4	222.7	224.9	191.9	213.7	217.8	220.7	222.4	223.4	225.7
Medical care	227.0	237.7	239.9	241.8	243.7	245.9	248.0	226.8	238.2	240.5	242.6	244.7	247.2	249.1
Entertainment	179.5	188.2	189.1	190.2	191.1	192.0	192.8	178.8	187.5	188.6	188.9	190.2	191.4	192.0
Other goods and services	188.8	194.5	195.2	197.0	201.7	202.3	202.9	188.2	194.3	195.1	197.2	200.6	201.4	202.0
Commodities	192.9	208.4	210.5	212.2	214.1	215.6	217.4	192.9	208.7	211.0	212.6	214.4	215.8	217.4
Commodities less food and beverages	181.4	196.0	198.4	200.9	203.3	204.9	206.9	181.2	196.3	198.8	201.3	203.5	205.0	206.9
Nondurables less food and beverages	181.1	200.5	204.2	208.8	213.2	214.9	216.6	181.2	201.6	205.6	210.5	214.8	216.6	218.1
Durables	180.0	191.1	192.6	193.6	194.5	196.0	198.4	179.8	190.8	192.2	192.9	193.5	194.8	196.9
Services	218.6	232.1	234.7	237.6	240.7	243.6	246.2	218.3	232.3	235.1	237.9	241.0	244.0	246.7
Rent, residential	168.5	174.7	175.9	177.5	179.0	181.4	182.1	168.4	174.7	175.8	177.3	178.9	181.2	181.9
Household services less rent	245.0	264.5	268.6	272.8	276.7	280.7	284.6	244.8	265.6	269.8	274.1	278.2	282.3	286.3
Transportation services	202.2	210.9	212.6	214.9	216.6	218.5	221.5	202.5	211.6	213.3	215.3	216.8	218.6	221.5
Medical care services	244.1	255.9	258.5	260.6	262.8	265.3	267.6	243.6	256.1	258.8	261.2	263.8	266.8	268.8
Other services	190.5	198.4	199.3	200.5	204.7	205.7	206.5	190.5	198.7	200.1	201.2	204.9	206.4	207.3
Special indexes:														
All items less food	197.8	211.8	214.2	216.9	219.6	221.8	224.1	197.5	212.0	214.6	217.3	219.8	222.0	224.2
All items less mortgage interest costs	197.9	211.0	213.0	214.7	216.7	218.3	219.8	197.7	211.5	213.7	215.3	217.2	218.7	220.1
Commodities less food	180.3	194.7	197.0	199.5	201.8	203.4	205.4	180.1	194.9	197.4	199.9	202.0	203.5	205.4
Nondurables less food	179.1	197.6	201.1	205.4	209.6	211.3	212.9	179.2	198.6	202.5	207.0	211.0	212.9	214.4
Nondurables less food and apparel	190.0	217.0	222.8	228.3	232.7	234.8	236.8	190.1	218.0	223.9	229.7	234.2	236.3	238.2
Nondurables	197.5	215.7	218.3	220.4	223.1	224.5	225.8	197.6	216.3	219.2	221.3	223.9	225.3	226.5
Services less rent	227.8	242.6	245.6	248.8	252.1	255.1	258.2	227.4	243.0	246.1	249.2	252.6	255.7	258.8
Services less medical care	214.5	228.0	230.6	233.6	236.7	239.6	242.3	214.2	228.2	231.0	233.9	236.9	239.9	242.6
Domestically produced farm foods	205.9	224.9	225.9	223.5	223.7	224.1	224.5	205.8	224.6	225.8	223.4	223.6	224.0	224.4
Selected beef cuts	213.7	268.3	267.8	253.0	253.3	257.3	256.5	215.6	269.9	270.1	255.5	258.0	259.1	259.2
Energy	225.9	275.4	287.1	296.3	304.3	307.5	307.8	226.0	277.3	289.2	298.8	307.0	310.2	310.7
All items less energy	200.4	212.2	213.8	215.4	217.3	219.2	221.4	200.2	212.3	213.9	215.3	217.0	218.8	221.0
All items less food and energy	195.3	205.8	207.3	209.4	211.5	213.6	216.1	195.0	205.5	207.2	209.0	211.0	213.0	215.4
Commodities less food and energy	176.2	184.8	185.6	186.8	188.2	189.6	191.4	175.9	184.5	185.4	186.4	187.5	188.7	190.4
Energy commodities	220.2	284.9	300.8	314.5	325.3	329.0	332.5	220.5	286.2	301.9	315.8	326.5	330.2	333.8
Services less energy	217.4	229.9	232.4	235.4	238.4	241.3	244.6	217.1	230.1	232.7	235.7	238.7	241.7	245.1
Purchasing power of the consumer dollar, 1967 = \$1	\$0.495	\$0.462	\$0.457	\$0.452	\$0.448	\$0.444	\$0.440	\$0.496	\$0.461	\$0.456	\$0.451	\$0.447	\$0.443	\$0.439

23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1978	1979						1978	1979					
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
BEVERAGES	212.5	229.3	230.7	230.2	231.0	232.1	233.1	212.4	229.3	230.9	230.4	231.2	232.3	233.1
Food	217.8	235.4	236.9	236.3	237.1	238.2	239.1	217.7	235.4	237.1	236.5	237.3	238.3	239.1
Food at home	216.1	234.2	235.5	233.9	234.7	235.4	236.0	215.9	233.6	235.0	233.5	234.2	234.8	235.4
Cereals and bakery products	206.6	217.8	220.1	223.7	225.6	227.0	228.7	207.6	218.2	221.1	224.1	226.6	227.9	229.7
Cereals and cereal products (12/77 = 100)	110.6	115.5	116.6	118.5	120.0	120.8	121.1	110.6	115.4	117.0	119.0	120.6	121.4	122.1
Flour and prepared flour mixes (12/77 = 100)	111.0	117.8	119.4	122.5	123.4	124.0	122.8	111.8	118.4	120.3	123.3	125.1	125.0	124.6
Cereal (12/77 = 100)	109.6	115.8	117.0	118.0	118.8	119.2	119.7	109.6	116.0	117.4	118.5	118.7	119.3	119.9
Rice, pasta, and cornmeal (12/77 = 100)	111.7	112.8	113.6	115.7	118.6	120.4	121.6	110.9	111.8	113.4	115.8	119.1	120.8	122.7
Bakery products (12/77 = 100)	108.9	115.2	116.4	118.3	119.2	119.9	121.0	109.6	115.5	117.0	118.5	119.7	120.3	121.3
White bread	181.1	190.3	194.2	198.4	200.7	202.5	204.5	181.7	189.5	194.3	198.0	200.5	202.3	203.9
Other breads (12/77 = 100)	109.7	115.3	116.2	118.6	119.6	120.5	121.3	111.0	117.1	118.5	120.8	122.5	123.8	124.2
Fresh biscuits, rolls, and muffins (12/77 = 100)	109.3	115.8	116.1	118.1	119.0	119.4	121.2	109.8	115.4	115.8	117.7	118.6	118.7	120.8
Fresh cakes and cupcakes (12/77 = 100)	107.9	114.0	114.8	116.6	116.7	117.6	119.4	108.6	114.8	115.9	116.3	116.8	118.1	119.1
Cookies (12/77 = 100)	107.8	114.1	114.8	115.6	115.9	116.6	117.1	108.9	116.2	117.2	117.2	117.8	118.3	118.4
Crackers and bread and cracker products (12/77 = 100)	107.2	112.2	112.7	114.7	114.8	115.0	114.5	107.3	112.7	112.9	114.9	114.9	115.0	116.1
Fresh sweetrolls, coffeecake, and donuts (12/77 = 100)	107.3	115.9	116.0	117.5	118.8	118.9	119.9	108.8	117.8	117.8	119.3	121.6	120.7	121.9
Frozen and refrigerated bakery products and fresh pies, tarts, and turnovers (12/77 = 100)	109.7	117.6	119.8	120.8	121.7	122.5	123.7	109.9	113.9	116.5	117.1	118.6	118.8	120.8
Meats, poultry, fish, and eggs	214.0	239.8	239.0	230.2	231.0	230.3	230.2	213.9	239.0	238.3	229.6	230.5	229.7	230.0
Meats, poultry, and fish	218.0	246.1	245.0	235.8	236.0	235.9	235.2	217.8	245.3	244.2	235.3	235.4	235.3	235.0
Meats	217.6	249.6	248.0	237.8	238.1	238.6	237.4	217.5	248.8	247.4	237.6	237.7	238.1	237.3
Beef and veal	212.5	266.9	266.4	251.9	254.2	256.2	255.5	214.4	268.2	268.4	254.1	264.4	257.5	257.7
Ground beef other than canned	212.2	278.7	274.5	260.3	261.4	263.4	264.2	213.9	278.8	274.7	261.9	263.5	265.8	266.0
Chuck roast	215.1	279.7	280.5	257.5	261.0	263.3	263.1	221.5	286.0	288.7	264.0	267.9	268.3	273.1
Round roast	193.0	236.8	239.1	222.2	229.2	230.3	229.1	194.7	240.0	242.7	225.9	231.0	233.0	232.7
Round steak	200.5	250.0	248.1	238.1	239.2	242.2	241.9	201.6	247.5	246.4	235.4	235.7	239.4	239.7
Sirloin steak	214.9	259.8	260.7	247.5	251.0	250.4	247.0	213.8	261.1	260.7	247.3	253.9	249.6	247.4
Other beef and veal (12/77 = 100)	124.2	151.3	151.8	145.0	145.6	147.1	146.3	124.9	151.6	152.8	146.0	146.6	147.0	146.6
Pork	222.6	217.2	215.1	207.4	206.5	204.3	201.0	221.5	217.2	214.9	207.6	206.1	204.7	201.5
Bacon	222.1	203.9	200.0	192.5	194.0	190.5	186.3	222.1	206.0	201.6	195.0	195.6	194.4	188.7
Pork chops	209.7	206.4	207.7	195.3	198.1	195.1	188.8	208.9	207.4	209.2	196.2	196.1	194.9	188.1
Ham other than canned (12/77 = 100)	108.8	99.5	97.2	96.4	95.2	94.8	95.9	108.3	97.0	96.1	94.9	94.3	94.0	95.4
Sausage	269.8	276.1	270.4	263.8	258.4	257.6	254.5	266.3	276.0	269.5	263.2	258.4	258.1	255.8
Canned ham	227.8	226.0	224.4	221.1	216.6	218.2	214.8	226.4	226.4	222.3	218.9	215.3	215.8	214.6
Other pork (12/77 = 100)	120.7	124.4	124.2	118.3	117.4	115.2	112.9	120.1	124.4	123.2	118.4	117.5	115.1	112.7
Other meats	219.4	248.9	245.1	243.5	240.2	240.7	242.0	216.6	245.2	241.0	239.9	236.6	238.0	238.5
Frankfurters	215.1	249.3	243.2	241.9	235.9	236.8	238.9	214.6	249.0	243.0	242.6	236.1	237.7	237.2
Bologna, liverwurst, and salami (12/77 = 100)	122.2	136.7	135.4	134.3	133.2	134.2	133.4	120.3	133.4	132.3	129.7	129.5	130.7	130.4
Other lunchmeats (12/77 = 100)	113.9	123.1	122.0	122.7	121.6	120.3	121.6	111.7	120.6	119.4	120.8	119.0	118.8	119.5
Lamb and organ meats (12/77 = 100)	118.5	143.9	141.0	137.6	135.6	137.7	138.3	117.7	145.9	141.1	137.9	136.9	138.8	139.8
Poultry	176.0	187.2	186.2	177.1	174.8	170.3	171.6	174.9	185.1	184.0	174.3	172.8	168.3	170.1
Fresh whole chicken	175.5	185.8	184.1	171.3	169.9	159.7	166.7	172.6	181.5	179.6	166.7	165.8	157.7	163.3
Fresh and frozen chicken parts (12/77 = 100)	112.3	120.3	119.4	112.1	111.8	110.1	110.8	112.3	120.1	119.1	111.1	110.9	108.4	110.7
Other poultry (12/77 = 100)	116.3	123.4	123.6	123.0	119.2	120.3	115.9	116.4	122.7	123.2	122.1	119.8	119.8	116.0
Fish and seafood	285.4	301.0	304.3	306.5	309.7	311.5	312.2	282.5	295.9	298.3	301.4	304.4	306.5	307.5
Canned fish and seafood (12/77 = 100)	107.3	110.3	111.4	112.7	113.9	115.2	116.8	106.6	109.2	110.2	111.5	113.5	114.5	116.0
Fresh and frozen fish and seafood (12/77 = 100)	109.5	117.2	118.6	119.2	120.4	120.7	120.1	108.2	114.9	115.7	116.9	117.5	118.1	117.8
Eggs	167.0	161.9	165.8	161.8	170.7	161.3	170.1	167.8	161.6	165.4	160.5	170.5	160.3	169.6
Dairy Products	193.2	205.5	206.3	208.6	211.3	213.3	216.0	193.5	205.9	206.7	208.9	212.0	214.0	216.3
Fresh milk and cream (12/77 = 100)	108.9	115.7	116.1	117.7	119.0	120.3	121.9	108.8	116.0	116.3	117.9	119.5	120.4	121.8
Fresh whole milk	178.4	189.4	190.0	192.8	195.4	197.6	200.4	178.3	189.8	190.3	193.0	195.6	197.4	199.7
Other fresh milk and cream (12/77 = 100)	108.5	115.6	116.3	117.4	118.1	119.2	120.6	108.4	116.0	116.5	117.7	119.3	119.8	121.1
Processed dairy products (12/77 = 100)	109.7	116.8	117.3	118.2	120.1	120.9	122.3	110.2	117.0	117.6	118.4	120.5	121.7	123.0
Butter	190.7	199.9	200.6	203.0	209.9	213.3	214.4	191.1	202.0	202.6	205.7	212.3	216.6	217.1
Cheese (12/77 = 100)	109.4	116.9	117.7	118.4	120.1	121.0	122.7	109.6	116.3	117.4	118.4	120.2	121.1	122.5
Ice cream and related products (12/77 = 100)	109.4	116.9	117.0	117.8	120.1	120.4	121.4	110.7	117.8	118.4	118.1	120.7	121.9	123.4
Other dairy products (12/77 = 100)	107.7	114.5	114.5	115.4	115.5	116.4	117.8	108.0	114.6	114.3	115.4	115.6	116.9	118.2
Fruits and vegetables	210.4	233.8	238.1	237.8	231.8	232.0	229.5	208.2	231.5	236.6	237.0	229.6	230.2	226.7
Fresh fruits and vegetables	207.7	243.3	249.4	247.5	234.7	235.5	230.1	205.0	240.4	248.1	247.9	232.9	233.6	226.7
Fresh fruits	215.9	266.0	278.2	286.9	271.6	260.4	242.7	212.4	261.1	278.2	288.9	271.2	260.6	238.3
Apples	197.4	232.9	250.2	275.2	244.7	212.7	207.2	192.2	233.7	248.4	275.9	243.1	212.9	207.7
Bananas	175.4	225.3	221.0	202.3	210.3	206.6	209.0	176.3	221.7	218.5	202.5	208.4	199.7	206.5
Oranges	274.5	311.5	313.5	316.2	312.3	306.7	293.9	261.2	293.0	306.1	298.6	291.8	290.3	283.3
Other fresh fruits (12/77 = 100)	109.1	141.4	151.3	157.5	147.1	143.9	127.5	109.5	140.7	154.2	163.5	152.3	149.7	125.7
Fresh vegetables	200.1	222.0	222.4	210.7	200.3	212.2	218.4	198.4	221.8	221.0	211.0	198.4	209.4	216.4
Potatoes	191.3	221.5	225.7	211.4	199.3	191.1	195.7	191.8	224.3	227.9	212.1	193.4	183.8	191.7
Lettuce	223.2	193.1	200.0	235.7	219.6	262.9	244.2	221.0	186.0	195.9	240.3	222.9	264.2	239.0
Tomatoes	182.7	222.0	185.8	187.0	178.5	194.4	225.3	181.9	223.0	189.4	185.6	179.2	194.1	225.4
Other fresh vegetables (12/77 = 100)	110.0	128												

23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1978	1979						1978	1979					
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
FOOD AND BEVERAGES Continued														
Food Continued														
Food at home Continued														
Fruits and vegetables Continued														
Cut corn and canned beans except lima (12/77 = 100)	108.0	113.2	114.3	113.9	114.7	113.6	113.4	106.7	112.0	112.4	112.0	112.6	111.9	111.8
Other canned and dried vegetables (12/77 = 100)	104.5	107.7	108.8	109.7	110.1	109.9	110.0	103.1	106.3	107.5	108.1	108.7	108.5	108.1
Other foods at home	255.9	267.1	269.5	272.8	276.0	278.0	279.6	255.4	266.2	268.7	271.8	274.7	276.5	278.3
Sugar and sweets	263.8	277.4	279.4	281.0	282.0	283.1	283.2	263.4	276.6	278.3	279.9	281.2	282.2	281.9
Candy and chewing gum (12/77 = 100)	110.9	117.4	118.5	119.4	119.7	119.9	120.1	111.1	117.0	118.1	119.0	119.3	119.6	119.8
Sugar and artificial sweeteners (12/77 = 100)	110.8	115.4	115.4	115.6	115.9	119.0	116.2	110.8	115.3	115.4	115.5	116.4	116.9	116.2
Other sweets (12/77 = 100)	107.5	112.6	113.8	114.6	115.3	115.9	116.4	106.4	111.9	112.6	113.6	114.0	114.8	114.6
Fats and oils (12/77 = 100)	216.9	226.3	227.4	228.9	231.5	231.9	232.3	217.1	226.6	227.6	228.9	230.7	231.9	232.8
Margarine	232.1	239.1	240.2	240.3	245.5	244.4	246.2	232.1	238.4	239.7	239.8	242.8	244.9	246.7
Non dairy substitutes and peanut butter (12/77 = 100)	107.6	112.8	113.7	114.0	114.6	115.1	115.1	107.2	112.5	113.6	114.0	114.5	114.6	115.0
Other fats, oils, and salad dressings (12/77 = 100)	112.3	117.8	118.3	119.7	120.6	121.1	121.0	112.7	118.2	118.5	119.6	120.4	121.0	121.3
Nonalcoholic beverages	340.9	350.4	354.6	361.8	367.7	372.1	374.3	339.8	348.5	353.6	360.0	365.0	368.2	370.7
Cola drinks, excluding diet cola	224.0	237.9	238.3	239.2	242.7	246.4	247.5	222.9	234.7	236.5	236.9	240.1	242.0	243.6
Carbonated drinks, including diet cola (12/77 = 100)	109.8	115.3	115.6	116.2	117.9	118.5	118.4	107.3	112.5	113.0	114.2	115.7	116.1	115.6
Frozen coffee	370.6	347.3	376.5	411.7	425.9	432.4	438.1	369.9	347.3	375.1	406.1	418.2	424.4	430.8
Freeze dried and instant coffee	345.0	330.2	335.6	349.5	359.9	366.5	370.2	344.7	328.9	336.2	349.4	358.9	365.3	369.3
Other noncarbonated drinks (12/77 = 100)	108.5	113.4	113.1	114.2	114.0	114.8	115.7	108.0	112.3	112.2	113.0	112.7	113.5	114.8
Other prepared foods	195.6	207.8	209.1	210.5	212.6	213.4	215.3	195.6	207.9	208.8	210.4	212.4	213.4	215.7
Canned and packaged soup (12/77 = 100)	105.0	112.6	113.2	113.2	113.1	113.4	114.3	104.9	112.6	113.1	113.3	113.3	113.3	114.8
Frozen prepared foods (12/77 = 100)	110.3	119.2	121.4	120.7	123.1	123.1	124.5	110.3	118.6	119.5	118.7	121.1	122.0	122.9
Snacks (12/77 = 100)	105.2	113.3	114.0	115.7	118.4	119.6	120.4	105.6	113.7	114.8	116.4	119.0	120.6	121.7
Seasonings, olives, pickles, and relish (12/77 = 100)	110.8	114.4	115.0	115.9	117.4	118.8	118.9	110.7	114.0	114.2	115.4	116.3	117.6	118.2
Other condiments (12/77 = 100)	107.7	113.6	114.3	115.2	115.9	115.8	116.8	107.7	114.9	115.2	116.2	117.5	117.0	118.5
Miscellaneous prepared foods (12/77 = 100)	109.3	115.1	115.3	116.3	116.8	117.2	119.0	109.6	114.8	115.2	116.3	116.3	116.7	118.6
Other canned and packaged prepared foods (12/77 = 100)	109.3	115.6	115.8	116.8	116.7	116.7	117.7	108.8	115.3	115.3	116.7	116.7	116.9	118.0
Food away from home	225.9	242.7	244.9	246.5	247.6	249.6	251.3	226.0	244.4	246.5	248.3	249.3	251.3	252.7
Lunch (12/77 = 100)	110.1	118.5	119.6	120.3	120.7	121.3	122.3	110.0	119.6	120.4	121.3	121.7	122.2	123.2
Dinner (12/77 = 100)	109.4	117.7	118.9	119.8	120.3	121.6	122.4	109.5	118.2	119.7	120.5	120.9	122.4	123.0
Other meals and snacks (12/77 = 100)	109.1	116.6	117.3	117.8	118.6	119.5	120.2	109.2	117.4	118.2	119.1	119.9	120.5	120.9
Alcoholic beverages	163.9	172.1	172.7	173.3	174.2	176.0	177.4	164.3	172.4	173.3	173.6	174.9	176.9	178.0
Alcoholic beverages at home (12/77 = 100)	106.5	111.9	112.2	112.7	113.3	114.6	115.6	107.2	112.7	113.3	113.4	114.3	115.7	116.5
Beer and ale	158.6	170.0	170.3	170.6	172.3	175.1	176.9	159.5	169.8	170.5	170.3	171.8	175.2	176.9
Whiskey	123.9	126.8	127.4	128.4	129.0	129.4	130.7	124.6	128.2	129.2	129.9	130.4	131.0	131.9
Wine	182.7	193.2	194.1	196.0	195.2	198.0	198.1	186.1	196.2	197.8	199.4	202.7	202.5	201.5
Other alcoholic beverages (12/77 = 100)	103.5	105.2	105.2	105.4	105.5	105.9	107.0	102.7	104.9	105.0	105.1	105.3	105.9	106.2
Alcoholic beverages away from home (12/77 = 100)	108.8	113.9	114.5	114.6	115.1	115.9	116.4	107.1	111.7	112.3	112.8	113.4	114.2	114.9
HOUSING	210.6	225.5	228.4	231.5	234.6	237.7	240.8	210.1	225.5	228.4	231.5	234.5	237.7	240.7
Shelter	220.1	236.7	240.1	243.9	247.4	251.5	255.9	220.0	237.2	240.7	244.5	248.2	252.4	256.9
Rent, residential	168.5	174.7	175.9	177.5	179.0	181.4	182.1	168.4	174.7	175.8	177.3	178.9	181.2	181.9
Other rental costs	215.1	232.3	236.0	238.2	239.3	241.6	243.1	214.9	231.8	235.2	237.6	238.6	241.3	242.6
Lodging while out of town	221.9	244.3	248.8	251.2	251.8	254.2	256.2	221.2	243.1	246.7	249.5	249.9	253.0	254.6
Tenants' insurance (12/77 = 100)	103.7	108.0	110.9	112.0	113.7	114.1	114.6	103.8	108.2	111.5	112.6	114.1	114.7	115.0
Homeownership	238.8	258.8	263.0	267.6	271.9	276.7	282.4	238.7	259.9	264.2	268.9	273.3	278.3	284.1
Home purchase	204.8	220.9	224.0	226.9	229.8	233.4	237.3	204.6	220.8	224.0	227.0	230.0	233.6	237.7
Financing, taxes, and insurance	274.7	302.2	308.6	316.4	323.0	330.5	340.1	275.4	304.2	310.6	318.7	325.6	333.5	343.5
Property insurance	288.5	310.6	312.6	314.6	316.7	319.9	320.8	288.2	310.1	312.1	314.2	318.5	321.9	322.6
Property taxes	196.3	181.3	181.8	183.1	184.7	185.1	185.1	197.0	182.8	183.3	184.6	186.1	186.5	186.6
Contracted mortgage interest cost	317.9	366.0	375.6	387.2	396.7	408.1	423.1	317.7	366.2	375.8	387.4	397.1	408.8	424.2
Mortgage interest rates	152.8	163.0	164.9	167.7	169.7	172.0	175.4	152.8	163.1	164.9	167.8	169.7	172.0	175.6
Maintenance and repairs	242.3	255.5	257.9	259.7	262.5	264.7	266.4	240.1	256.7	259.1	260.8	263.4	265.3	266.5
Maintenance and repair services	261.9	277.4	280.0	281.8	284.4	287.0	288.8	259.4	280.2	282.8	284.2	287.2	289.4	290.3
Maintenance and repair commodities	196.7	204.4	206.1	208.1	211.5	212.5	214.0	196.3	204.9	206.5	208.0	210.8	211.9	213.6
Paint and wallpaper, supplies, tools, and equipment (12/77 = 100)	107.2	111.8	112.5	114.3	117.0	117.4	118.8	106.6	112.1	112.8	115.0	116.1	116.6	118.1
Lumber, awnings, glass, and masonry (12/77 = 100)	108.5	112.9	113.7	113.7	115.2	116.0	115.5	109.7	113.9	114.4	114.8	115.7	116.2	117.2
Plumbing, electrical, heating, and cooling supplies (12/77 = 100)	104.4	108.6	110.1	110.8	111.9	112.8	113.4	105.0	109.3	110.2	111.5	112.6	113.8	114.0
Miscellaneous supplies and equipment (12/77 = 100)	106.0	109.3	110.3	111.1	112.9	113.3	113.8	104.1	107.6	109.5	110.3	111.2	111.9	112.2
Fuel and other utilities	218.5	239.0	243.5	247.2	251.2	252.9	252.0	218.7	239.4	244.1	247.7	251.7	253.4	252.4
Fuels	250.6	286.2	293.8	299.7	306.6	310.3	307.0	250.8	286.1	293.9	299.8	306.6	310.1	306.9
Fuel oil, coal, and bottled gas	306.1	391.2	412.9	438.6	461.6	470.8	477.4	306.4	391.6	413.5	439.0	462.5	471.7	478.2
Fuel oil	307.2	405.9	429.5	458.2	482.5	491.2	497.2	307.4	406.1	430.0	458.5	483.3	491.9	497.7
Other fuels (6/78 = 100)	98.7	102.6	106.2	109.3	114.4	118.5	121.7	98.9	102.6	106.5	109.4	114.6	118.8	122.2
Gas (piped) and electricity	234.9	259.9	264.5	266.5	270.1	272.5	267.3	235.0	259.8	264.6	266.5	269.9	272.2	267.1
Electricity	201.9	223.7	227.4	229.2	230.6	228.7	221.5	202.2	224.3	228.0	229.7	231.1	228.8	221.5
Utility (piped) gas	273.3	301.8	307.7	309.7	317.5	329.1	328.9	272.8	300.1	306.5	308.5	315.8	327.4	327.8

23. Continued — Consumer Price Index — U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1978	1979					1978	1979						
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
HOUSING — Continued														
Fuel and other utilities — Continued														
Other utilities and public services	159.7	159.2	159.4	159.8	159.8	158.8	161.0	159.6	159.2	159.8	159.8	159.8	158.9	160.9
Telephone services	133.0	132.0	132.1	132.5	132.4	131.2	133.3	133.1	132.0	132.2	132.5	132.4	131.3	133.3
Local charges (12/77 = 100)	101.5	100.0	100.1	100.5	100.4	98.7	101.8	101.6	100.1	100.2	100.6	100.5	98.8	101.8
Interstate toll calls (12/77 = 100)	99.2	98.4	98.4	98.5	98.4	98.4	98.4	99.2	98.5	98.5	98.5	98.4	98.4	98.4
Intrastate toll calls (12/77 = 100)	100.3	101.2	101.3	101.5	101.4	101.7	101.5	100.1	101.1	101.2	101.4	101.3	101.5	101.3
Water and sewerage maintenance	240.4	243.1	244.0	244.6	245.3	245.6	247.1	240.2	243.3	244.0	244.6	245.5	245.8	247.2
Household furnishings and operations	183.0	190.1	190.4	191.2	192.2	193.3	195.1	181.8	188.8	189.0	189.8	190.6	191.7	193.2
Housefurnishings	158.3	163.1	162.9	163.2	164.1	165.2	166.6	157.5	162.8	162.5	163.0	163.5	164.4	165.5
Textile housefurnishings	167.1	174.9	173.6	172.8	175.3	177.8	178.9	167.7	174.0	171.6	173.0	174.9	177.2	178.4
Household linens (12/77 = 100)	102.9	106.8	104.3	103.6	106.7	107.7	108.8	103.6	105.1	103.1	103.7	106.3	107.4	108.3
Curtains, drapes, slipcovers, and sewing materials (12/77 = 100)	105.5	111.4	112.4	112.0	112.0	114.2	114.4	105.7	112.3	111.4	112.7	112.2	114.1	114.5
Furniture and bedding	171.9	177.5	176.8	177.1	178.3	180.0	182.2	170.2	177.6	177.2	177.3	178.5	180.3	182.1
Bedroom furniture (12/77 = 100)	108.6	112.9	113.2	114.0	114.8	116.4	117.7	106.8	111.7	112.1	112.7	113.0	114.8	115.9
Sofas (12/77 = 100)	104.3	107.8	106.2	106.3	107.1	107.3	107.9	104.7	110.1	108.7	108.2	108.6	109.6	111.7
Living room chairs and tables (12/77 = 100)	103.2	103.5	104.5	104.9	105.1	106.2	107.7	102.8	105.4	106.2	106.1	106.7	107.5	108.6
Other furniture (12/77 = 100)	109.7	114.7	113.3	112.7	113.9	115.0	116.8	108.2	113.3	112.5	112.5	114.2	114.7	115.3
Appliances including TV and sound equipment	133.1	135.6	135.4	135.8	136.2	136.9	137.5	132.5	135.3	135.0	135.5	135.7	135.7	136.2
Television and sound equipment (12/77 = 100)	103.3	104.0	103.9	104.3	104.7	104.9	105.0	102.2	103.3	103.3	104.0	104.4	104.1	104.4
Television	102.4	102.7	102.6	102.8	102.9	103.4	103.6	101.4	102.0	101.6	101.9	101.9	102.0	102.4
Sound equipment (12/77 = 100)	105.1	106.3	106.1	106.8	107.5	107.4	107.4	103.8	105.5	105.8	106.7	107.4	106.9	107.1
Household appliances	150.8	155.4	155.1	155.5	155.8	156.9	158.2	151.0	155.6	154.9	155.1	155.2	155.6	156.2
Refrigerators and home freezer	149.5	151.9	152.9	154.6	154.1	155.3	156.0	152.9	156.0	157.3	157.9	156.5	157.9	158.1
Laundry equipment (12/77 = 100)	105.7	110.8	110.7	110.7	110.9	112.1	113.1	105.7	110.5	110.1	110.2	111.2	111.3	112.2
Other household appliances (12/77 = 100)	106.3	109.5	108.7	108.6	109.1	109.8	110.8	105.3	108.3	107.1	107.1	107.2	107.2	107.6
Stoves, dishwashers, vacuums, and sewing machines (12/77 = 100)	108.1	109.8	109.0	108.5	108.6	109.0	109.7	106.3	108.9	107.6	107.7	107.7	106.9	107.1
Office machines, small electric appliances, and air conditioners (12/77 = 100)	104.3	109.2	108.5	108.8	109.7	110.7	112.1	104.0	107.6	106.5	106.4	106.8	107.6	108.2
Other household equipment (12/77 = 100)	105.8	109.5	110.3	110.7	110.9	111.2	112.4	105.3	109.6	110.4	110.6	110.3	110.8	111.6
Floor and window coverings, infants' laundry cleaning and outdoor equipment (12/77 = 100)	105.2	108.5	109.1	109.5	111.1	109.8	111.1	100.9	104.2	104.6	105.9	105.8	105.5	107.7
Clocks, lamps, and decor items (12/77 = 100)	102.7	105.9	107.5	107.1	108.0	108.6	110.0	104.0	106.3	107.2	106.7	107.0	107.1	108.2
Tableware, serving pieces, and nonelectric kitchenware (12/77 = 100)	108.6	113.2	114.4	115.1	114.7	115.4	116.8	107.5	112.9	114.1	113.9	114.5	114.7	115.2
Lawn equipment, power tools, and other hardware (12/77 = 100)	104.6	107.9	107.6	108.5	107.6	108.5	109.0	105.9	110.6	111.0	111.5	109.5	111.0	111.1
Housekeeping supplies	212.0	221.5	222.3	223.4	224.1	224.8	228.3	211.0	219.9	220.7	221.6	222.6	223.9	226.7
Soaps and detergents	206.9	210.2	210.9	212.5	215.1	217.9	220.6	204.8	208.8	210.5	210.9	214.5	216.3	218.2
Other laundry and cleaning products (12/77 = 100)	107.3	110.7	111.3	112.0	112.3	113.7	114.1	107.1	110.8	111.3	111.9	112.4	113.5	113.7
Cleaning and toilet tissue, paper towels and napkins (12/77 = 100)	109.5	116.7	116.5	116.2	116.4	117.2	119.2	110.1	117.2	116.9	116.3	117.1	117.9	119.6
Stationery, stationery supplies, and gift wrap (12/77 = 100)	103.7	108.2	108.9	109.5	109.9	109.5	111.3	103.7	107.0	107.5	108.5	108.3	108.6	109.2
Miscellaneous household products (12/77 = 100)	107.5	111.8	112.3	112.9	113.3	114.3	115.6	106.0	110.1	110.5	111.3	111.6	112.7	114.1
Lawn and garden supplies (12/77 = 100)	103.6	112.3	113.0	113.8	112.7	110.0	113.8	101.7	110.3	110.4	111.3	109.9	108.8	113.2
Housekeeping services	235.7	248.0	249.7	251.6	253.4	254.6	256.6	235.3	247.0	248.6	250.4	252.1	253.9	255.9
Postage	257.3	257.3	257.3	257.3	257.3	257.3	257.3	257.2	257.2	257.2	257.2	257.2	257.2	257.2
Moving, storage, freight, household laundry, and drycleaning services (12/77 = 100)	108.3	115.1	116.3	117.3	118.1	118.8	120.4	109.0	115.5	116.5	117.7	118.6	119.7	121.2
Appliance and furniture repair (12/77 = 100)	105.2	109.1	109.5	110.7	111.7	112.3	112.9	104.7	108.8	109.4	110.3	111.1	112.1	112.9
APPAREL AND UPKEEP	164.1	165.7	164.3	166.3	169.8	171.0	171.7	164.0	165.3	164.5	166.2	169.3	170.8	171.3
Apparel commodities	160.0	160.2	158.6	160.6	164.2	165.2	165.9	160.0	160.0	159.1	160.7	163.9	165.3	165.7
Apparel commodities less footwear	158.4	157.4	155.6	157.7	161.5	162.3	162.9	158.4	157.2	156.0	157.9	161.2	162.4	162.7
Men's and boys'	160.1	160.4	159.2	159.6	162.7	164.2	165.4	160.5	160.9	160.6	161.1	163.2	164.4	165.3
Men's (12/77 = 100)	101.5	101.1	100.0	100.6	102.7	103.5	104.3	102.1	101.6	101.3	101.9	103.2	103.8	104.5
Suits, sport coats, and jackets (12/77 = 100)	100.1	98.5	96.8	97.1	100.0	101.6	101.2	99.0	96.8	95.8	96.2	98.3	99.1	98.7
Coats and jackets (12/77 = 100)	99.6	94.5	94.4	95.5	96.5	97.8	98.1	101.3	97.8	97.6	99.2	99.1	99.5	99.7
Furnishings and special clothing (12/77 = 100)	104.1	108.1	108.0	109.3	110.6	109.9	112.4	103.9	106.2	106.6	107.0	108.6	109.1	110.0
Shirts (12/77 = 100)	103.1	103.5	100.9	103.2	107.2	108.5	109.7	104.6	104.5	104.1	104.9	107.1	108.3	109.4
Dungarees, jeans, and trousers (12/77 = 100)	100.8	99.9	99.0	98.1	99.0	99.5	100.5	102.0	101.7	101.5	101.9	102.5	102.8	104.0
Boys' (12/77 = 100)	101.3	103.5	104.2	103.3	104.8	106.3	106.6	100.5	103.1	103.5	102.7	103.9	105.3	105.6
Coats, jackets, sweaters, and shirts (12/77 = 100)	96.9	100.0	101.7	101.1	102.7	103.9	103.2	96.0	99.4	101.3	100.3	102.0	103.8	103.4
Furnishings (12/77 = 100)	106.0	108.3	108.0	107.9	109.4	110.8	111.5	104.7	107.8	107.1	107.0	108.8	110.1	109.7
Suits, trousers, sport coats, and jackets (12/77 = 100)	102.8	104.4	104.8	103.1	104.5	106.5	107.4	102.3	104.1	103.9	102.9	103.5	104.7	105.8
Women's and girls'	154.1	150.8	147.8	151.3	155.9	155.5	155.1	153.8	149.9	147.5	150.5	154.4	154.8	154.5
Women's (12/77 = 100)	102.8	100.8	98.4	100.7	103.9	103.4	103.0	102.6	100.6	98.7	100.4	103.0	103.3	103.0
Coats and jackets	169.7	162.4	162.1	170.4	174.1	173.9	173.3	172.0	166.9	166.8	173.1	175.7	174.1	172.4
Dresses	167.7	163.5	157.2	162.8	171.1	167.2	164.3	166.8	156.6	152.8	152.8	158.5	159.1	156.8
Separates and sportswear (12/77 = 100)	101.3	98.4	95.0	96.3	98.8	99.6	99.2	99.9	98.5	98.7	97.7	100.4	100.4	100.7
Underwear, nightwear, and hosiery (12/77 = 100)	102.7	105.6	105.6	106.2	106.2	106.6	108.1	103.4	106.5	106.1	107.0	107.4	107.9	108.9
Suits (12/77 = 100)	98.5	91.7	87.3	89.8	96.7	97.1	95.2	98.0	92.4	87.9	91.0	98.1	99.9	97.5
Girls (12/77 = 100)	101.2	98.0	98.1	100.5	102.4	103.6	103.9	100.9	95.9	95.5	98.8	101.1	101.5	101.7
Coats, jackets, dresses, and suits (12/77 = 100)	99.7	95.8	98.7	100.8	102.8	102.8	102.2	98.8	93.4	94.6	95.9	98.5	97.9	97.5
Separates and sportswear (12/77 = 100)	101.9	95.7	93.9	98.3	100.3	102.5	103.6	102.5	93.8	92.5	99.7	102.1	103.5	104.3
Underwear, nightwear, hosiery, and accessories (12/77 = 100)	102.4	105.7	104.6	104.1	105.7	106.7	107.2	101.8	103.4	102.0	101.8	103.5	103.9	104.2

23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1978		1979					1978		1979				
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
APPAREL AND UPKEEP—Continued														
Apparel commodities—Continued														
Apparel commodities less footwear—Continued														
Infants' and toddlers'	220.9	220.9	219.0	221.2	223.4	224.8	226.3	219.1	223.9	221.9	224.2	226.0	228.7	228.7
Other apparel commodities	163.4	167.3	167.9	169.8	172.6	175.5	177.8	164.7	167.8	168.4	170.2	174.9	178.7	179.8
Sewing materials and notions (12/77 = 100)	98.7	101.0	101.3	102.3	102.3	102.2	100.8	98.3	95.7	95.6	96.8	100.4	100.8	99.7
Jewelry and luggage (12/77 = 100)	108.6	111.3	111.7	113.0	115.6	118.3	121.0	110.3	114.3	114.9	116.1	118.9	122.3	123.8
Footwear	169.1	176.7	176.6	177.5	180.1	182.6	183.8	168.4	176.0	176.6	176.9	179.4	181.9	183.2
Men's (12/77 = 100)	106.7	114.0	113.4	114.5	115.0	116.7	117.7	106.2	113.2	114.5	115.2	116.3	118.0	119.0
Boys' and girls' (12/77 = 100)	104.7	110.3	111.0	112.0	111.6	113.0	114.0	106.1	110.0	111.2	111.4	111.6	113.0	114.5
Womens' (12/77 = 100)	106.2	108.4	108.3	108.1	112.0	113.5	113.9	104.5	107.9	106.9	106.5	109.6	111.1	111.2
Apparel services	191.3	204.8	205.7	207.7	210.2	212.5	214.2	191.1	203.6	204.9	206.7	208.7	210.8	212.0
Laundry and drycleaning other than coin operated (12/77 = 100)	109.8	119.7	120.6	122.1	123.6	125.2	126.3	110.4	119.2	120.3	121.8	123.2	124.7	125.7
Other apparel services (12/77 = 100)	107.6	111.4	111.2	111.9	113.0	114.0	114.7	106.5	111.1	111.2	111.5	112.3	112.9	113.3
TRANSPORTATION	191.4	212.6	216.6	219.6	221.4	222.7	224.9	191.9	213.7	217.8	220.7	222.4	223.4	225.7
Private	191.1	213.3	217.4	220.4	222.0	223.1	225.0	191.5	214.1	218.3	221.2	222.7	223.7	225.7
New cars	158.5	166.3	166.7	166.6	166.1	167.5	170.6	158.1	165.9	166.6	166.3	165.9	167.4	170.9
Used cars	194.7	208.9	209.2	207.0	202.9	199.9	198.4	194.7	208.9	209.2	207.0	202.9	199.9	198.4
Gasoline	203.5	265.0	280.0	292.0	301.0	303.8	306.9	203.7	266.2	281.0	293.3	302.3	305.2	308.3
Automobile maintenance and repair	228.2	242.0	244.0	245.7	247.1	249.1	250.8	228.4	242.3	244.2	246.0	247.5	249.4	251.1
Body work (12/77 = 100)	108.6	116.0	117.4	118.6	119.4	120.6	121.6	109.2	116.0	117.6	118.6	119.2	120.4	121.7
Automobile drive train, brake, and miscellaneous mechanical repair (12/77 = 100)	109.4	115.8	116.7	117.4	118.1	119.4	120.1	110.1	116.7	117.5	118.2	119.0	120.2	120.8
Maintenance and servicing (12/77 = 100)	108.4	115.0	115.9	116.3	116.9	117.5	118.4	107.7	114.6	115.3	116.0	116.8	117.3	118.2
Power plant repair (12/77 = 100)	107.8	113.9	114.8	116.0	116.7	117.8	118.5	108.2	114.3	115.2	116.3	117.0	118.0	118.6
Other private transportation	189.0	197.3	198.5	200.5	201.7	203.7	205.5	189.5	197.7	199.1	201.0	202.3	204.0	206.3
Other private transportation commodities	162.9	171.8	173.3	175.1	177.7	182.0	183.4	165.8	172.6	174.4	176.1	178.7	181.6	183.9
Motor oil, coolant, and other products (12/77 = 100)	104.5	110.3	110.5	112.2	114.4	115.9	117.4	104.9	109.3	109.9	112.0	114.5	115.9	118.1
Automobile parts and equipment (12/77 = 100)	105.4	111.2	112.3	113.4	114.9	117.9	118.7	107.5	111.9	113.2	114.1	115.7	117.6	119.0
Tires	144.9	151.9	153.7	154.7	156.4	160.7	161.5	148.4	153.7	155.2	156.1	158.1	161.1	163.0
Other parts and equipment (12/77 = 100)	106.8	114.1	114.8	116.7	119.1	121.8	123.0	107.7	113.4	114.3	116.8	118.6	120.0	121.5
Other private transportation services	197.7	206.0	207.1	209.1	210.1	211.4	213.4	197.7	206.3	207.6	208.6	210.6	211.9	214.3
Automobile insurance	220.6	227.3	229.1	232.3	233.5	233.8	233.9	220.5	227.2	229.0	232.3	233.5	233.7	233.9
Automobile finance charges (12/77 = 100)	107.6	116.3	116.8	117.2	117.7	120.4	124.6	107.0	115.6	116.4	117.0	119.4	124.1	124.9
Automobile rental, registration, and other fees (12/77 = 100)	103.8	106.8	106.9	107.5	107.8	107.9	108.3	104.1	107.2	107.3	108.1	108.4	108.6	108.9
State registration	143.8	144.0	144.0	144.0	144.0	144.0	144.1	143.6	143.9	143.9	143.9	143.9	143.9	144.0
Drivers' license (12/77 = 100)	104.5	104.5	104.5	104.5	104.5	104.5	104.3	104.3	104.3	104.3	104.3	104.3	104.2	104.2
Vehicle inspection (12/77 = 100)	110.2	114.6	114.6	114.6	114.6	114.6	115.6	111.4	115.5	115.5	115.5	115.5	115.5	116.5
Other vehicle related fees (12/77 = 100)	106.8	113.6	114.0	115.5	116.1	116.4	117.1	108.5	116.6	116.9	119.3	120.3	120.8	121.3
Public	189.7	194.0	197.1	200.8	205.2	209.1	216.5	190.4	194.8	197.6	200.6	204.1	207.3	214.0
Airline fare	190.0	194.3	198.5	205.2	214.1	220.6	232.1	189.6	193.8	198.4	205.2	214.2	220.7	232.4
Intercity bus fare	244.0	253.9	258.8	263.2	268.0	276.0	279.8	244.2	253.2	258.5	263.0	268.0	275.5	279.9
Intracity mass transit	185.6	188.4	189.8	190.5	190.5	191.3	195.6	185.4	188.4	189.7	190.2	190.2	191.0	195.1
Taxi fare	207.8	217.2	220.6	224.7	228.5	233.6	237.0	211.9	223.3	226.5	230.3	233.9	238.7	242.4
Intercity train fare	193.1	205.3	216.1	220.6	221.0	221.1	231.0	193.0	205.2	217.1	220.8	221.3	221.4	232.1
MEDICAL CARE	227.0	237.7	239.9	241.8	243.7	245.9	248.0	226.8	238.2	240.5	242.6	244.7	247.2	249.1
Medical care commodities	147.0	153.3	154.1	155.0	155.8	156.6	157.8	147.6	154.5	155.3	156.2	156.7	157.4	158.5
Prescription drugs	134.9	141.3	141.9	142.8	143.5	144.5	145.5	135.7	142.4	143.0	143.7	144.4	145.2	146.2
Anti-infective drugs (12/77 = 100)	106.4	112.0	112.0	112.5	113.1	113.5	113.9	107.4	112.9	113.0	113.2	114.1	114.8	115.5
Tranquilizers and sedatives (12/77 = 100)	109.0	113.7	114.0	114.6	114.9	115.8	117.1	108.7	114.2	114.4	114.8	115.0	115.6	116.9
Circulators and diuretics (12/77 = 100)	104.5	108.3	108.6	109.3	109.3	109.7	111.0	105.4	109.2	109.1	109.7	110.0	110.6	111.6
Hormones, diabetic drugs, biologicals, and prescription and supplies (12/77 = 100)	111.2	117.9	118.9	120.3	120.9	122.5	123.2	111.7	118.0	119.3	120.4	120.8	122.2	122.6
Pain and symptom control drugs (12/77 = 100)	106.4	112.1	113.1	113.7	114.8	115.6	116.8	107.2	113.4	114.7	115.2	116.0	116.3	117.5
Supplements, cough and cold preparations, and respiratory agents (12/77 = 100)	105.7	109.4	109.5	110.3	110.9	111.3	111.9	106.4	110.9	111.0	111.7	112.2	112.6	112.8
Nonprescription drugs and medical supplies (12/77 = 100)	106.0	110.2	110.8	111.4	112.0	112.5	113.4	106.4	111.2	111.9	112.5	112.8	113.2	114.0
Eyeglasses (12/77 = 100)	103.8	107.4	108.2	108.7	109.2	110.2	110.9	104.1	107.7	108.5	108.9	109.3	110.0	110.4
Internal and respiratory over-the-counter drugs	162.9	170.3	171.3	172.2	173.0	173.7	175.4	163.4	172.0	173.2	174.3	174.7	175.2	176.6
Nonprescription medical equipment and supplies (12/77 = 100)	106.0	109.1	109.7	110.4	110.8	111.0	111.8	106.5	110.3	110.7	111.3	111.2	111.8	112.7
Medical care services	244.1	255.9	258.5	260.6	262.8	265.3	267.6	243.6	256.1	258.8	261.2	263.8	266.8	268.8
Professional services	215.5	225.7	227.6	228.9	230.3	231.6	233.0	215.7	227.3	229.3	231.1	233.1	234.9	235.9
Physicians' services	230.0	241.8	224.7	246.6	248.4	249.7	250.8	230.1	243.6	246.8	248.7	251.5	254.4	255.5
Dental services	203.9	214.3	215.2	216.0	217.2	218.5	220.7	205.7	216.5	217.1	219.0	220.7	221.2	222.7
Other professional services (12/77 = 100)	108.7	110.6	111.5	111.9	112.4	112.7	112.8	106.2	110.0	111.0	111.5	111.7	112.1	112.2
Other medical care services	278.7	292.5	295.8	299.0	302.0	306.2	309.5	277.8	291.2	294.9	298.1	301.3	305.9	309.3
Hospital and other medical services (12/77 = 100)	110.9	116.2	117.3	118.6	119.6	121.3	122.6	110.6	115.3	116.6	117.8	118.9	120.5	121.8
Hospital room	349.4	366.0	369.7	374.2	376.4	380.2	385.1	348.2	362.9	367.5	371.7	374.1	379.4	383.6
Other hospital and medical care services	109.9	115.2	116.4	117.4	118.8	120.8	122.0	109.7	114.3	115.6	116.7	118.0	119.5	120.8

23. Continued—Consumer Price Index—U.S. city average

[1967 = 100 unless otherwise specified]

General summary	All Urban Consumers						Urban Wage Earners and Clerical Workers (revised)							
	1978	1979					1978	1979						
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
ENTERTAINMENT	179.5	188.2	189.1	190.2	191.1	192.0	192.8	178.8	187.5	188.6	188.9	190.2	191.4	192.0
Entertainment commodities	180.0	188.7	189.7	191.0	192.0	193.1	194.0	178.7	187.4	188.2	188.4	189.9	190.7	191.3
Reading materials (12/77 = 100)	104.3	109.5	110.0	111.1	111.9	113.8	114.5	104.1	109.1	109.5	110.7	111.4	113.3	114.2
Newspapers	203.3	211.6	212.6	214.0	214.5	217.7	222.4	202.9	211.1	212.2	213.7	214.2	217.4	222.2
Magazines, periodicals, and books (12/77 = 100)	105.3	111.6	112.0	113.7	115.0	117.2	116.0	105.3	111.6	111.7	113.5	114.8	117.2	115.8
Sporting goods and equipment (12/77 = 100)	103.6	109.3	110.0	110.4	111.3	111.2	111.7	101.4	106.6	107.0	105.4	107.5	106.7	106.9
Sport vehicles (12/77 = 100)	103.2	110.3	110.8	111.3	112.3	111.5	112.2	100.7	107.0	106.9	103.9	106.7	104.6	104.8
Indoor and warm weather sport equipment (12/77 = 100)	104.0	106.1	106.7	105.9	106.1	107.5	107.8	101.6	103.3	104.7	104.7	104.7	106.0	106.1
Bicycles	154.1	160.1	162.2	163.8	165.6	167.1	167.1	152.4	160.0	161.8	162.9	164.7	166.9	167.4
Other sporting goods and equipment (12/77 = 100)	103.0	106.9	107.8	108.6	109.3	110.0	110.3	101.7	105.4	106.5	107.2	108.5	109.8	110.0
Toys, hobbies and other entertainment (12/77 = 100)	104.2	108.9	109.4	110.2	110.4	110.8	111.2	104.2	109.0	109.6	110.2	110.4	111.0	111.2
Toys, hobbies and music equipment (12/77 = 100)	104.8	109.2	109.3	110.0	110.4	110.7	110.5	103.7	109.0	109.1	109.8	109.6	110.1	109.8
Photographic supplies and equipment (12/77 = 100)	103.9	107.6	108.4	108.2	108.9	109.4	109.9	104.0	107.3	107.7	107.6	108.8	109.3	109.6
Pet supplies and expense (12/77 = 100)	103.4	109.2	110.3	111.8	111.6	112.1	113.5	105.3	110.0	111.6	112.6	112.9	113.9	114.6
Entertainment services	179.3	187.9	188.6	189.4	190.2	190.8	191.5	179.7	188.8	190.1	190.7	191.8	193.5	194.3
Fees for participant sports (12/77 = 100)	106.1	111.6	111.9	112.3	113.0	113.2	113.8	106.9	111.5	112.1	112.3	113.4	114.9	115.2
Admissions (12/77 = 100)	107.4	113.3	114.3	114.7	115.2	115.7	116.1	108.3	113.2	115.3	115.9	116.3	116.8	117.3
Other entertainment services (12/77 = 100)	105.8	109.0	109.1	109.7	109.4	110.0	110.0	103.4	111.0	110.5	110.9	110.9	111.4	112.0
OTHER GOODS AND SERVICES	188.8	194.5	195.2	197.0	201.7	202.3	202.9	188.2	194.3	195.1	197.2	200.6	201.4	202.0
Tobacco products	180.9	186.4	186.8	189.9	190.9	191.3	191.5	180.7	186.5	186.9	190.1	190.9	191.2	191.4
Cigarettes	183.5	188.8	189.2	192.6	193.6	193.8	194.0	183.3	189.0	189.4	193.1	193.7	193.9	194.1
Other tobacco products and smoking accessories (12/77 = 100)	105.8	110.3	110.8	111.1	112.2	113.0	112.8	105.8	109.8	110.3	110.0	111.0	112.3	112.4
Personal care	186.8	195.0	196.4	197.5	199.0	199.8	200.9	186.3	194.6	196.0	197.6	198.4	199.4	200.5
Toilet goods and personal care appliances	181.1	187.9	188.6	189.7	191.4	192.5	193.1	180.6	187.8	188.1	190.2	191.0	191.6	192.4
Products for the hair, hairpieces and wigs (12/77 = 100)	105.0	108.8	109.4	111.1	111.6	111.9	112.2	103.8	108.9	108.5	110.5	110.6	111.1	111.4
Dental and shaving products (12/77 = 100)	106.5	112.6	113.2	113.6	114.3	114.1	115.6	106.2	110.2	111.0	112.1	112.5	112.7	113.9
Cosmetics, bath and nail preparations, manicure and eye makeup implements (12/77 = 100)	104.8	108.6	109.5	108.9	110.4	110.7	111.4	104.2	107.8	109.0	110.0	110.6	110.1	110.2
Other toilet goods and small personal care appliances (12/77 = 100)	104.6	106.9	106.2	107.6	108.6	110.9	109.9	106.0	109.8	108.8	109.7	110.3	111.7	112.3
Personal care services	192.5	202.0	203.9	205.0	206.4	207.0	208.5	192.2	201.4	204.0	205.0	205.8	207.3	208.6
Beauty parlor services for women	194.0	203.7	205.2	206.1	207.7	208.3	210.3	194.6	203.6	205.9	206.7	207.4	209.1	210.2
Haircuts and other barber shop services for men (12/77 = 100)	107.4	112.6	114.1	115.1	115.5	115.9	116.1	106.2	111.7	113.6	114.2	114.7	115.4	116.3
Personal and educational expenses	206.5	209.1	209.3	210.8	223.3	224.0	224.2	206.6	209.6	209.8	211.2	223.5	224.2	224.4
School books and supplies	187.8	191.6	191.6	192.6	201.5	202.3	202.3	189.7	194.2	194.2	195.2	205.0	205.8	205.9
Personal and educational services	211.1	213.6	213.8	215.4	228.6	229.4	229.6	211.1	213.7	214.0	215.5	228.4	229.0	229.3
Tuition and other school fees	108.4	108.8	108.9	109.4	117.7	118.1	118.1	108.3	108.7	108.8	109.4	117.9	118.2	118.2
College tuition (12/77 = 100)	108.6	109.1	109.2	109.7	116.9	117.3	117.3	108.6	109.1	109.2	109.7	116.8	117.3	117.3
Elementary and high school tuition (12/77 = 100)	107.5	107.5	107.5	108.3	120.9	120.9	120.9	107.4	107.4	107.4	108.4	120.7	120.7	120.7
Personal expenses (12/77 = 100)	107.8	112.6	113.0	114.8	115.1	115.8	116.3	108.0	112.6	113.0	114.4	114.4	114.9	115.5
Special Indexes:														
Gasoline, motor oil, coolant and other products	201.9	261.9	276.6	288.2	297.1	299.8	302.9	202.1	263.1	277.5	289.5	298.3	301.2	304.3
Insurance and finance	247.1	268.2	272.8	278.7	283.5	288.9	296.0	246.5	267.9	272.5	278.3	283.1	288.5	295.8
Utilities and public transportation	201.1	212.7	215.3	217.0	219.3	220.7	220.5	201.4	213.2	215.9	217.4	219.5	220.7	220.3
Housekeeping and home maintenance services	255.9	270.2	272.5	274.4	276.6	278.7	280.6	254.3	271.4	273.7	275.3	277.8	279.9	281.3

24. Consumer Price Index for All Urban Consumers: Cross classification of region and population size class by expenditure category and commodity and service group

[December 1977 = 100]

Category and group	Size class A (1.25 million or more)			Size class B (385,000 - 1.250 million)			Size class C (75,000 - 385,000)			Size class D (75,000 or less)		
	1979			1979			1979			1979		
	June	Aug.	Oct.	June	Aug.	Oct.	June	Aug.	Oct.	June	Aug.	Oct.
Northeast												
EXPENDITURE CATEGORY												
All items	113.2	115.0	117.3	115.3	117.3	120.2	117.2	120.2	123.0	115.5	116.9	119.2
Food and beverages	117.3	117.9	119.2	118.5	118.9	119.6	120.8	121.7	121.9	119.3	120.4	119.4
Housing	112.9	114.8	117.9	114.5	116.7	121.3	118.7	122.5	127.7	114.9	116.1	119.9
Apparel and upkeep	103.8	104.9	107.7	106.2	106.1	109.2	102.8	104.3	107.8	106.2	103.4	108.3
Transportation	115.6	119.6	121.1	119.6	123.4	125.0	119.1	123.6	124.9	118.5	122.5	124.5
Medical care	112.0	113.6	115.4	112.5	115.3	118.5	112.8	114.8	117.0	114.0	114.8	116.3
Entertainment	109.2	110.6	111.4	108.3	110.9	113.6	108.4	110.4	110.0	112.4	113.6	114.1
Other goods and services	107.1	108.3	111.7	110.0	111.4	114.1	111.4	113.0	115.6	108.5	109.2	112.5
COMMODITY AND SERVICE GROUP												
Commodities	114.7	116.6	118.6	116.7	119.0	121.8	117.6	120.8	122.8	116.0	117.7	120.0
Commodities less food and beverages	113.2	115.8	118.3	115.9	119.0	122.8	116.1	120.4	123.2	114.4	116.5	120.4
Services	111.2	113.0	115.6	112.9	114.6	117.8	116.5	119.1	123.3	114.8	115.7	117.9
North Central												
EXPENDITURE CATEGORY												
All items	118.2	121.0	123.2	118.0	120.5	122.3	116.8	119.0	121.9	116.6	119.5	122.0
Food and beverages	120.0	120.2	121.2	117.6	118.6	119.2	120.2	120.4	121.6	121.4	122.0	122.8
Housing	121.8	125.8	128.7	121.2	124.1	125.7	117.3	120.3	124.5	115.9	120.5	124.0
Apparel and upkeep	101.7	102.8	105.3	104.0	104.6	109.9	104.0	105.3	107.4	103.7	104.0	110.0
Transportation	118.8	122.8	125.0	118.8	122.9	125.2	120.5	123.7	126.0	120.1	123.2	124.3
Medical care	112.9	115.0	115.9	114.5	117.2	118.6	114.1	116.4	117.5	115.7	117.5	119.1
Entertainment	110.8	111.9	112.6	108.2	109.2	110.7	110.9	110.5	112.7	110.8	111.3	112.7
Other goods and services	108.0	109.0	112.5	114.4	114.9	117.8	108.5	110.0	112.3	110.5	112.7	115.7
COMMODITY AND SERVICE GROUP												
Commodities	118.2	120.7	122.5	117.0	119.4	120.8	117.1	119.1	121.7	116.2	118.9	121.1
Commodities less food and beverage	117.3	120.9	123.0	116.7	119.7	121.5	115.8	118.5	121.7	114.0	117.6	120.4
Services	118.4	121.5	124.3	119.7	122.4	124.7	116.3	118.8	122.2	117.2	120.4	123.3
South												
EXPENDITURE CATEGORY												
All items	116.9	118.7	120.7	117.5	120.1	122.4	117.5	119.9	122.1	115.6	118.5	120.6
Food and beverages	120.6	121.1	122.2	119.5	120.3	121.3	120.5	121.6	122.1	119.7	120.0	121.0
Housing	118.0	119.9	122.0	118.8	122.4	125.8	119.7	122.7	125.9	115.1	119.3	121.6
Apparel and upkeep	108.0	107.5	111.2	107.2	107.3	110.8	103.3	104.5	106.4	103.8	102.8	103.9
Transportation	118.7	122.6	124.2	119.8	123.5	124.5	118.2	121.8	123.2	118.2	122.4	124.4
Medical care	111.6	113.3	116.0	114.0	115.7	116.9	114.1	115.5	117.6	115.9	118.5	122.5
Entertainment	107.7	108.1	109.4	111.5	111.9	113.2	111.1	111.8	113.6	112.4	115.9	117.1
Other goods and services	110.2	111.5	114.4	109.9	110.8	114.0	109.6	111.4	114.2	111.7	114.3	117.3
COMMODITY AND SERVICE GROUP												
Commodities	117.3	118.9	120.5	117.1	119.3	121.2	116.9	119.3	120.7	115.9	118.6	120.2
Commodities less food and beverages	115.8	118.0	119.8	116.1	118.9	121.2	115.3	118.3	120.1	114.3	118.0	119.9
Services	116.5	118.4	121.0	118.1	121.2	124.3	118.5	120.8	124.2	115.1	118.5	121.1
West												
EXPENDITURE CATEGORY												
All items	116.0	118.7	120.8	118.7	120.9	123.6	116.9	119.5	122.2	115.1	118.8	122.8
Food and beverages	119.8	119.4	121.2	121.6	121.4	123.1	119.6	120.1	121.1	119.2	121.6	121.5
Housing	115.3	119.0	121.2	119.5	122.4	126.2	117.4	120.5	124.8	112.6	117.8	124.8
Apparel and upkeep	106.0	104.8	107.9	108.3	108.8	111.0	103.4	103.9	104.4	109.4	109.5	114.0
Transportation	120.5	125.3	127.2	121.0	124.8	126.7	121.4	125.0	126.3	119.2	123.1	124.6
Medical care	114.7	116.8	119.8	114.6	116.6	117.8	113.8	116.5	118.4	116.9	119.0	120.7
Entertainment	108.2	109.3	109.3	113.2	114.4	115.6	109.9	112.6	113.8	114.5	115.7	117.8
Other goods and services	110.2	112.4	115.2	110.9	112.5	115.3	109.4	110.7	113.0	113.0	114.4	116.0
COMMODITY AND SERVICE GROUP												
Commodities	117.1	118.7	120.5	119.3	120.8	123.1	117.4	119.4	121.7	116.1	119.1	120.7
Commodities less food and beverage	116.0	118.3	120.2	118.3	120.6	123.1	116.5	119.1	121.9	114.8	118.0	120.4
Services	114.5	118.8	121.3	117.9	121.0	124.4	116.3	119.6	122.8	113.6	118.5	125.9

25. Consumer Price Index—U.S. city average, and selected areas

[1967 = 100 unless otherwise specified]

Area ¹	All Urban Consumers							Urban Wage Earners and Clerical Workers (revised)						
	1978	1979						1978	1979					
	Nov.	June	July	Aug.	Sept.	Oct.	Nov.	Nov.	June	July	Aug.	Sept.	Oct.	Nov.
U.S. city average ²	202.0	216.6	218.9	221.1	223.4	225.4	227.5	201.8	216.9	219.4	221.5	223.7	225.6	227.6
Anchorage, Alaska (10/67 = 100)	194.7	...	207.4	...	213.2	...	213.7	194.8	...	206.4	...	210.9	...	211.8
Atlanta, Ga.	...	212.6	...	216.9	...	220.8	...	...	214.5	...	219.0	...	223.5	...
Baltimore, Md.	203.0	...	221.0	...	224.9	...	227.2	203.0	...	221.4	...	224.9	...	227.9
Boston, Mass.	199.7	...	214.2	...	218.1	...	222.7	199.2	...	213.7	...	217.9	...	222.5
Buffalo, N.Y.	...	209.3	...	214.6	...	218.7	...	...	209.7	...	215.3	...	218.6	...
Chicago, Ill.-Northwestern Ind.	198.1	213.5	217.4	218.6	221.3	221.8	225.9	197.6	213.2	216.8	218.2	220.6	221.7	225.6
Cincinnati, Ohio-Ky.-Ind.	207.0	...	224.8	...	229.0	...	233.4	207.5	...	226.5	...	230.8	...	235.6
Cleveland, Ohio	...	219.9	...	221.4	...	224.7	...	...	221.2	...	222.6	...	225.5	...
Dallas-Ft. Worth, Tex.	...	217.5	...	222.9	...	228.2	...	...	218.0	...	223.0	...	228.0	...
Denver-Boulder, Colo.	211.4	...	236.5	...	240.8	...	245.9	212.9	...	239.3	...	243.6	...	248.6
Detroit, Mich.	202.0	215.4	219.5	222.2	223.7	227.2	231.3	201.7	215.5	219.8	222.6	223.5	226.9	230.8
Honolulu, Hawaii	...	204.4	...	207.2	...	210.5	...	...	203.6	...	207.2	...	211.1	...
Houston, Tex.	...	235.5	...	240.6	...	244.2	...	...	234.5	...	239.0	...	241.8	...
Kansas City, Mo.-Kansas	...	219.5	...	224.6	...	229.9	...	...	218.4	...	223.1	...	227.9	...
Los Angeles-Long Beach, Anaheim, Calif.	198.1	212.9	214.7	217.5	220.7	221.8	224.2	197.5	214.5	216.8	219.6	223.0	224.0	225.8
Miami, Fla. (11/77 = 100)	107.4	...	115.7	...	117.4	...	119.4	107.9	...	116.9	...	118.7	...	120.5
Milwaukee, Wis.	199.0	...	222.7	...	226.0	...	229.8	200.7	...	225.0	...	228.7	...	232.5
Minneapolis-St. Paul, Minn.-Wis.	...	222.3	...	227.0	...	231.2	...	...	223.4	...	228.5	...	233.0	...
New York, N.Y.-Northeastern N.J.	200.9	212.5	214.0	215.4	218.1	219.9	221.3	199.8	212.2	214.1	215.3	217.8	219.3	220.7
Northeast, Pa. (Scranton)	197.1	...	211.7	...	215.4	...	220.0	198.5	...	213.4	...	217.1	...	221.1
Philadelphia, Pa.-N.J.	199.7	213.8	216.1	217.7	219.5	220.1	222.4	200.6	214.5	216.9	218.1	220.3	221.3	223.8
Pittsburgh, Pa.	...	214.5	...	219.1	...	226.0	...	...	215.0	...	220.0	...	226.1	...
Portland, Oreg.-Wash.	207.1	...	227.4	...	232.2	...	236.6	207.8	...	227.9	...	232.6	...	236.7
St. Louis, Mo.-Ill.	199.3	...	216.9	...	222.2	...	225.7	197.6	...	217.4	...	222.5	...	226.3
San Diego, Calif.	209.8	...	236.1	...	240.4	...	247.8	208.5	...	233.1	...	237.7	...	244.8
San Francisco-Oakland, Calif.	...	212.5	...	218.3	...	221.5	...	...	213.7	...	218.6	...	220.8	...
Seattle-Everett, Wash.	203.6	...	217.5	...	222.6	...	227.6	202.1	...	215.9	...	221.0	...	225.5
Washington, D.C.-Md.-Va.	203.9	...	220.4	...	222.9	...	225.4	205.3	...	221.9	...	224.4	...	226.7

¹The areas listed include not only the central city but the entire portion of the Standard Metropolitan Statistical Area, as defined for the 1970 Census of Population, except that the Standard Consolidated Area is used for New York and Chicago.

²Average of 85 cities.

26. Producer Price Indexes, by stage of processing

[1967 = 100]

Commodity grouping	Annual average 1978	1978	1979											
		Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
FINISHED GOODS														
Finished goods	194.6	202.5	205.4	207.7	209.1	211.4	212.7	213.7	216.2	217.3	220.4	223.7	225.9	227.8
Finished consumer goods	192.6	200.5	203.7	206.3	207.9	210.2	211.6	212.7	215.6	217.5	221.3	224.1	226.6	228.8
Finished consumer foods	206.7	215.8	220.2	225.1	226.3	227.8	226.6	223.6	224.9	223.5	227.8	226.7	230.5	232.0
Crude	215.5	232.1	236.7	257.2	244.6	241.8	226.7	227.1	224.9	231.7	213.9	215.4	228.0	227.8
Processed	204.1	212.5	216.9	220.5	222.8	224.6	224.4	221.3	222.8	220.7	226.8	225.4	228.6	230.1
Other nondurable goods	195.4	202.7	205.4	207.2	209.8	213.1	217.1	221.7	227.1	233.4	238.9	243.0	245.2	247.8
Durable goods	165.8	173.0	175.2	176.2	176.8	178.4	179.5	180.4	181.6	181.6	182.0	187.4	188.5	191.2
Capital Equipment	199.1	207.0	209.3	210.8	211.7	214.0	215.1	215.8	217.2	216.5	217.7	222.5	223.8	225.1
INTERMEDIATE MATERIALS														
Intermediate materials, supplies, and components	215.5	223.0	225.7	228.5	231.5	235.8	238.2	240.3	244.6	247.5	250.7	254.6	256.1	258.4
Materials and components for manufacturing	208.3	215.6	218.6	221.6	224.5	229.0	230.9	232.1	236.0	238.0	240.5	243.9	245.2	247.5
Materials for food manufacturing	202.3	210.7	214.4	217.3	219.6	222.2	222.5	222.3	226.7	225.1	228.6	225.3	227.7	230.5
Materials for nondurable manufacturing	195.8	201.2	203.2	205.3	208.7	213.7	216.7	218.1	222.5	225.3	227.3	231.2	233.1	235.1
Materials for durable manufacturing	237.2	246.4	252.0	256.8	260.0	266.0	267.2	268.9	273.3	275.2	278.7	284.5	284.2	287.5
Components for manufacturing	189.1	196.2	197.2	199.0	200.3	203.1	204.5	205.3	207.7	209.3	210.9	212.5	214.5	215.9
Materials and components for construction	224.4	232.5	236.1	239.0	241.3	244.5	245.2	245.6	247.4	249.2	251.6	254.4	253.8	253.6
Processed fuels and lubricants	296.4	300.4	302.0	304.8	312.9	323.9	336.8	349.5	364.8	384.6	399.4	410.5	416.5	424.6
Manufacturing industries	270.4	268.7	268.3	269.0	275.4	280.7	287.4	293.8	304.0	311.2	317.2	322.5	325.3	332.3
Nonmanufacturing industries	320.0	330.3	334.0	339.1	348.9	365.9	385.5	404.9	425.5	458.8	483.0	500.4	509.7	518.8
Containers	212.5	222.6	223.9	224.3	229.3	231.8	234.5	234.9	235.4	237.6	237.1	240.8	243.5	246.1
Supplies	196.9	206.1	207.4	209.6	211.1	212.8	213.7	216.1	219.6	219.6	220.8	224.4	226.0	228.4
Manufacturing industries	183.6	192.0	193.1	194.3	197.4	199.4	201.5	202.7	204.2	208.6	209.1	211.8	213.1	215.3
Nonmanufacturing industries	204.0	213.6	215.0	217.7	218.4	219.9	220.3	223.2	227.8	225.4	227.0	231.1	232.9	235.3
Manufactured animal feeds	200.2	216.9	215.9	221.6	219.3	219.5	214.6	226.2	241.3	220.8	224.3	229.2	227.3	230.8
Other supplies	201.9	209.7	211.6	213.6	215.0	216.8	218.3	219.2	221.5	223.1	224.3	228.1	230.7	232.9
CRUDE MATERIALS														
Crude materials for further processing	240.1	252.5	260.2	270.4	276.6	279.9	282.3	283.0	287.1	281.7	287.9	289.2	290.8	296.7
Foodstuffs and feedstuffs	215.3	224.8	233.0	243.7	247.4	251.5	251.9	248.2	254.1	243.7	248.7	247.1	246.4	249.7
Nonfood materials	286.7	304.6	311.5	320.7	331.6	333.3	339.6	348.7	349.3	353.6	362.1	368.9	374.8	385.8
Nonfood materials except fuel	235.4	249.6	255.6	264.7	275.5	276.5	276.6	286.6	285.2	286.1	293.3	298.6	304.6	311.5
Manufacturing industries	240.8	255.9	261.8	271.9	283.8	284.8	284.7	295.9	294.0	294.9	302.8	308.5	314.9	322.5
Construction	185.7	192.1	198.8	200.4	201.9	203.6	204.5	205.4	207.2	208.6	209.9	212.2	214.6	216.6
Crude fuel	463.7	495.1	504.3	513.9	525.2	529.2	556.8	563.1	570.7	586.2	599.4	611.4	616.8	641.8
Manufacturing industries	481.9	518.0	529.6	541.6	555.4	560.0	593.8	601.3	610.4	629.2	646.0	660.5	667.0	697.7
Nonmanufacturing industries	459.6	487.2	494.9	502.7	512.1	515.8	538.8	544.3	550.7	563.6	574.2	584.4	589.0	609.7
SPECIAL GROUPINGS														
Finished goods excluding foods	188.9	196.4	198.8	200.2	201.7	204.2	206.3	208.5	211.4	213.2	215.9	220.6	222.2	224.3
Finished consumer goods excluding Foods	183.7	191.0	193.3	194.9	196.7	199.3	202.1	205.2	208.4	212.3	215.9	220.6	222.4	225.0
Intermediate materials, supplies, and Components, excluding intermediate materials for food manufacturing and manufactured animal feeds	216.4	223.7	226.5	229.1	232.3	236.7	238.8	241.3	245.4	249.0	252.1	256.4	257.8	260.5
Intermediate foods and feeds	201.0	212.2	214.3	218.2	218.9	220.7	219.3	223.0	231.0	223.1	226.6	226.0	227.0	230.0
Crude materials for further processing excluding crude foodstuffs and feedstuffs, plant and animal fibers, oilseeds, and leaf tobacco	316.6	335.9	344.2	356.4	370.6	372.4	379.2	389.5	391.7	396.9	407.6	416.5	423.9	437.1

NOTE: Data for Aug. 1979 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

27. Producer Price Indexes, by commodity groupings¹

[1967 = 100 unless otherwise specified]

Code	Commodity group and subgroup	Annual average 1978	1979												
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	All commodities	209.3	217.5	220.8	224.1	226.7	230.0	232.0	233.5	236.9	238.3	241.7	245.2	246.9	249.4
	All commodities (1957-59 = 100)	222.1	230.8	234.2	237.7	240.5	243.7	245.7	247.7	251.4	252.8	256.1	260.2	262.0	264.6
	Farm products and processed foods and feeds	206.6	216.2	221.1	227.2	229.0	244.0	230.8	229.0	232.2	227.5	231.7	230.6	232.3	234.5
	Industrial commodities	209.4	217.2	220.0	222.5	225.4	229.0	231.6	234.0	237.5	240.6	243.8	248.5	250.2	252.8
	FARM PRODUCTS AND PROCESSED FOODS AND FEEDS														
01	Farm products	212.5	222.7	230.4	240.9	242.8	223.3	245.4	242.8	246.8	238.5	241.0	239.5	240.2	242.5
01-1	Fresh and dried fruits and vegetables	216.5	221.6	233.7	263.0	235.7	234.7	228.2	226.4	226.7	241.7	208.2	217.8	216.4	210.5
01-2	Grains	182.5	184.7	184.4	189.3	192.0	198.3	210.3	218.7	247.4	229.1	224.4	229.0	226.6	227.9
01-3	Livestock	220.1	230.1	247.3	266.5	275.8	284.0	280.7	264.0	256.0	240.2	256.4	251.7	248.3	252.5
01-4	Live poultry	199.8	198.5	206.0	217.8	217.6	209.4	216.3	182.9	183.8	171.9	173.5	162.0	195.5	194.7
01-5	Plant and animal fibers	193.4	212.8	213.6	205.1	197.8	197.8	207.6	219.5	207.6	207.9	211.3	212.9	215.4	222.0
01-6	Fluid milk	219.7	241.2	241.8	244.6	243.7	242.4	242.0	243.8	247.6	250.0	258.5	258.5	262.5	264.0
01-7	Eggs	158.6	189.0	178.5	176.7	199.9	185.5	163.8	170.7	167.6	166.8	175.4	155.9	178.7	198.4
01-8	Hay, haysseeds, and oilseeds	215.8	234.0	240.1	246.1	249.5	248.3	240.7	258.4	260.1	251.9	240.6	235.1	229.8	230.3
01-9	Other farm products	274.9	271.0	269.7	253.6	254.6	255.1	264.1	281.0	311.9	310.8	315.9	317.6	318.3	319.4
02	Processed foods and feeds	202.6	211.8	215.2	218.9	220.5	222.3	222.0	220.6	223.3	220.5	225.7	224.8	227.1	229.2
02-1	Cereal and bakery products	190.3	196.8	197.2	199.1	200.1	203.0	204.9	206.3	212.4	216.0	217.7	219.2	222.3	223.7
02-2	Meats, poultry, and fish	217.1	229.2	240.3	248.5	250.6	253.0	250.4	241.4	237.7	225.5	239.8	234.4	239.5	242.8
02-3	Dairy products	188.4	202.8	203.5	203.2	204.9	207.1	207.9	208.4	209.0	215.2	218.3	218.2	219.0	219.6
02-4	Processed fruits and vegetables	202.6	218.4	218.5	219.5	219.6	220.5	221.4	221.5	223.6	224.6	225.0	223.3	222.5	222.3
02-5	Sugar and confectionery	197.8	204.5	204.8	208.4	208.4	208.7	207.6	211.1	215.7	218.3	217.3	218.6	222.7	234.4
02-6	Beverages and beverage materials	200.0	201.0	200.9	201.1	201.2	201.5	205.3	208.5	214.1	216.5	217.9	219.2	221.4	221.9
02-7	Fats and oils	225.3	227.6	229.7	237.5	238.6	246.2	241.8	243.6	253.2	251.7	253.5	246.2	242.1	235.8
02-8	Miscellaneous processed foods	199.0	204.1	206.7	208.0	217.5	219.3	220.2	211.1	212.7	217.6	218.8	220.6	222.1	222.0
02-9	Manufactured animal feeds	197.4	211.9	211.3	217.2	215.7	215.6	210.8	220.5	234.9	216.2	219.5	224.3	222.7	225.3
	INDUSTRIAL COMMODITIES														
03	Textile products and apparel	159.8	163.6	164.1	164.2	165.2	166.4	167.2	168.4	169.3	170.5	171.3	171.9	172.4	172.8
03-1	Synthetic fibers (12/75 = 100)	109.6	110.6	113.0	113.5	113.6	115.1	117.4	118.5	119.5	120.6	123.9	125.6	124.9	124.5
03-2	Processed yarns and threads (12/75 = 100)	102.4	104.7	105.3	105.3	107.0	106.8	107.8	108.6	109.5	110.6	111.7	112.2	113.0	113.1
03-3	Gray fabrics (12/75 = 100)	118.6	125.9	125.6	123.2	123.1	124.5	124.7	125.4	128.3	128.7	128.7	129.8	130.6	132.5
03-4	Finished fabrics (12/75 = 100)	103.8	106.0	103.5	104.1	105.4	105.9	107.0	107.6	108.2	109.0	109.0	108.7	108.5	109.3
03-81	Apparel	152.4	155.5	157.4	157.6	158.3	159.8	159.8	160.2	160.3	161.4	161.6	162.1	162.9	163.3
03-82	Textile housefurnishings	178.6	183.4	181.8	186.0	187.4	188.0	188.0	189.3	189.9	190.5	191.6	194.6	194.8	197.0
04	Hides, skins, leather, and related products	200.0	216.2	223.4	232.2	253.3	258.9	269.6	268.0	261.9	257.9	250.7	253.6	248.5	248.9
04-1	Hides and skins	360.5	401.3	452.8	497.8	639.6	642.2	666.9	611.0	566.5	511.9	465.3	478.8	447.6	443.9
04-2	Leather	238.6	279.6	292.8	309.2	371.9	393.6	429.4	414.6	385.2	365.9	330.0	343.6	319.8	324.8
04-3	Footwear	183.0	194.3	196.4	203.0	209.9	212.0	216.3	221.1	221.8	225.4	226.2	226.9	227.3	227.3
04-4	Other leather and related products	177.0	185.3	190.7	192.2	195.9	200.4	209.1	212.3	212.1	210.9	210.2	209.8	208.5	208.1
05	Fuels and related products and power	322.5	334.3	338.1	342.5	350.9	361.5	377.6	393.7	411.8	432.8	454.4	468.8	476.7	488.7
05-1	Coal	430.0	443.7	443.6	444.0	445.3	447.1	450.8	452.0	452.5	454.2	452.8	454.9	455.4	457.8
05-2	Coke	411.8	418.8	421.2	423.7	428.5	430.1	430.6	430.6	430.6	430.6	430.6	431.2	431.2	431.2
05-3	Gas fuels ¹	428.7	444.6	449.9	458.1	471.0	477.4	507.2	522.3	548.4	570.4	599.7	619.1	637.1	670.5
05-4	Electric power	250.6	250.7	251.0	251.1	257.3	260.6	265.9	269.9	274.8	278.8	280.5	283.6	282.1	287.2
05-61	Crude petroleum ²	300.1	312.4	316.4	322.3	324.2	326.2	335.7	356.4	370.6	385.7	422.1	436.7	450.4	470.8
05-7	Petroleum products, refined ³	321.0	338.2	343.9	350.0	360.3	378.6	400.0	423.6	449.8	482.8	513.6	534.4	544.9	554.8
06	Chemicals and allied products	198.8	202.3	205.0	207.3	209.9	215.1	218.0	219.2	225.0	228.5	230.3	233.5	235.6	238.1
06-1	Industrial chemicals ⁴	225.6	229.1	234.0	237.4	239.7	248.2	255.6	259.3	270.4	277.1	278.9	284.2	287.2	291.6
06-21	Prepared paint	192.3	198.7	198.9	202.3	202.3	203.3	201.3	201.3	205.3	205.3	206.0	206.7	206.9	210.7
06-22	Paint materials	212.7	220.7	222.5	224.3	227.0	231.6	236.1	239.5	246.7	247.9	251.2	253.5	254.8	255.4
06-3	Drugs and pharmaceuticals	148.1	153.2	155.4	156.2	156.6	157.5	157.7	159.0	159.2	159.6	161.1	162.9	163.0	164.4
06-4	Fats and oils, inedible	315.8	332.9	336.1	367.9	398.5	448.7	418.3	374.1	381.6	376.4	379.9	366.9	344.3	327.1
06-5	Agricultural chemicals and chemical products	198.4	201.9	201.7	203.1	206.3	209.8	210.0	209.2	211.2	215.3	217.9	223.7	229.2	232.7
06-6	Plastic resins and materials	199.8	201.1	204.2	206.3	210.9	220.6	228.5	230.1	244.5	250.1	252.2	259.2	261.7	262.7
06-7	Other chemicals and allied products	181.8	182.3	184.3	184.7	186.5	186.9	188.9	190.5	191.8	194.4	195.8	196.5	199.3	201.9
07	Rubber and plastic products	174.8	179.7	180.8	183.2	185.9	188.8	190.8	193.1	195.5	198.5	200.3	202.4	204.3	205.7
07-1	Rubber and rubber products	185.3	192.8	194.7	197.6	199.4	201.2	202.6	204.8	209.5	216.0	216.7	219.7	223.3	223.9
07-11	Crude rubber	187.2	197.3	197.9	201.1	204.8	211.6	214.2	222.0	226.1	233.0	231.2	235.2	236.4	239.4
07-12	Tires and tubes	179.2	188.8	191.5	194.1	195.0	196.1	197.3	198.9	206.2	211.6	214.6	217.9	222.7	227.2
07-13	Miscellaneous rubber products	189.6	193.7	195.1	198.1	200.3	201.3	202.6	203.5	205.4	213.4	211.7	214.2	216.9	217.4
07-2	Plastic products (6/78 = 100)	102.0	102.3	103.5	105.7	108.0	109.5	111.0	111.2	112.2	112.8	113.6	113.8	115.2	
08	Lumber and wood products	276.0	288.6	290.2	293.9	300.5	304.9	302.8	299.8	300.1	304.7	309.7	308.8	299.0	289.8
08-1	Lumber	322.4	339.1	336.6	339.9	350.5	355.4	354.8	354.8	355.0	365.3	373.8	370.2	355.5	338.9
08-2	Millwork	235.4	241.6	244.5	251.5	257.8	266.0	261.6	258.9	252.5	249.6	250.9	255.6	252.3	250.3
08-3	Plywood	235.6	249.0	257.4	257.1	254.7	252.4	249.3	238.6	249.7	254.3	258.1	254.4	242.9	237.7
08-4	Other wood products	211.8	222.1	223.2	226.2	232.2	235.5	238.4	238.5	237.6	237.4	238.0	237.7	239.9	240.5

See footnotes at end of table.

27. Continued—Producer Price Indexes, by commodity groupings¹

[1967 = 100 unless otherwise specified]

Code	Commodity groups and subgroups	Annual average 1978	1979													
			1978	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
INDUSTRIAL COMMODITIES—Continued																
09	Pulp, paper, and allied products	195.6	205.2	207.0	208.8	212.3	215.0	216.2	216.6	218.3	222.2	222.8	227.2	229.3	231.0	
09-1	Pulp, paper, and products, excluding building paper and board	195.6	205.7	207.7	209.5	213.2	216.0	217.2	217.8	219.6	223.6	224.1	228.6	230.9	232.6	
09-11	Woodpulp	266.5	281.6	291.3	291.4	294.3	303.8	306.9	308.3	320.3	320.6	322.5	339.4	339.9	339.9	
09-12	Wastepaper	191.2	192.2	192.9	194.1	203.2	206.5	206.2	207.2	207.9	206.6	206.7	206.7	220.0	221.2	
09-13	Paper	206.1	214.6	217.9	221.2	223.3	226.3	227.2	227.5	228.2	229.5	230.6	239.0	242.1	243.0	
09-14	Paperboard	179.6	187.4	188.5	190.2	192.9	197.9	199.2	199.8	201.7	206.4	209.5	211.2	212.8	215.4	
09-15	Converted paper and paperboard products	185.6	197.4	198.3	199.8	204.1	205.8	207.0	207.6	209.0	214.4	213.9	216.5	218.4	220.3	
09-2	Building paper and board	187.4	186.6	184.1	183.6	182.6	183.4	183.3	180.8	178.0	179.1	184.4	185.5	183.6	184.4	
10	Metals and metal products	227.1	236.6	241.9	247.3	251.7	256.0	256.2	258.2	260.8	261.8	263.6	269.4	270.9	273.5	
10-1	Iron and steel	253.6	263.2	272.4	274.9	279.9	280.2	279.5	283.2	286.8	286.1	285.3	289.0	291.6	292.7	
10-13	Steel mill products	254.5	262.1	271.5	271.8	272.5	275.0	276.7	277.3	284.6	284.7	284.8	288.4	288.7	289.3	
10-2	Nonferrous metals	207.8	219.0	223.5	239.2	246.6	258.6	258.2	258.7	262.3	263.1	269.3	282.8	283.7	291.2	
10-3	Metal containers	243.4	254.4	256.8	256.8	264.5	270.1	268.5	267.3	267.2	268.4	267.0	276.7	280.7	280.7	
10-4	Hardware	200.4	210.7	211.7	213.3	214.2	215.8	216.9	217.1	218.5	219.0	221.4	223.8	225.4	226.5	
10-5	Plumbing fixtures and brass fittings	199.1	203.6	204.3	207.8	209.7	212.0	213.8	217.0	219.6	222.4	222.9	223.4	225.4	226.4	
10-6	Heating equipment	174.4	179.1	180.1	180.9	183.4	183.8	185.7	185.0	188.1	188.1	191.3	191.9	192.7	195.2	
10-7	Fabricated structural metal products	226.4	233.5	238.4	240.5	241.3	243.8	247.0	248.2	250.5	252.2	253.2	255.6	256.6	257.7	
10-8	Miscellaneous metal products	212.0	220.8	222.0	223.4	225.2	227.0	228.5	230.1	231.8	235.6	237.4	239.1	239.4	239.9	
11	Machinery and equipment	196.1	203.8	205.1	206.5	207.9	209.8	211.4	212.4	214.8	216.0	217.6	219.6	221.0	222.9	
11-1	Agricultural machinery and equipment	213.1	221.9	222.8	223.9	224.8	226.4	228.3	229.4	231.2	233.3	236.6	238.8	241.4	243.2	
11-2	Construction machinery and equipment	232.9	243.8	245.5	247.9	248.7	251.7	253.7	254.0	257.0	258.5	258.5	262.9	264.5	268.2	
11-3	Metalworking machinery and equipment	217.0	228.2	230.4	232.0	233.0	235.3	237.6	239.1	241.4	243.5	246.1	249.1	251.4	254.6	
11-4	General purpose machinery and equipment	216.6	225.1	226.3	227.7	230.4	232.6	234.0	235.1	237.1	238.3	239.6	242.1	243.7	246.1	
11-6	Special industry machinery and equipment	223.0	233.9	236.2	237.0	239.1	243.4	245.1	246.1	249.8	251.0	251.5	253.9	255.3	256.2	
11-7	Electrical machinery and equipment	164.9	170.5	171.2	172.8	173.8	175.0	176.5	177.6	179.9	181.2	182.7	184.1	185.0	186.5	
11-9	Miscellaneous machinery	194.7	200.6	202.7	203.4	204.0	205.4	207.1	207.4	209.7	209.7	211.8	212.9	214.5	215.7	
12	Furniture and household durables	160.4	164.6	166.6	167.9	168.3	168.7	169.6	170.2	170.7	171.5	171.7	174.1	175.6	177.0	
12-1	Household furniture	173.5	179.3	181.0	181.3	181.8	182.7	184.8	185.3	185.8	186.2	188.0	189.3	192.4	194.3	
12-2	Commercial furniture	201.5	207.3	214.4	221.2	221.2	221.7	221.9	221.8	222.7	222.7	222.7	223.3	223.3	225.1	
12-3	Floor coverings	141.6	142.3	143.4	143.6	144.0	144.4	146.0	146.5	149.1	150.0	150.3	151.8	152.8	152.9	
12-4	Household appliances	153.0	155.7	157.0	158.3	158.8	158.7	159.3	160.0	161.1	162.2	162.7	163.2	164.5	165.2	
12-5	Home electronic equipment	90.2	92.3	92.2	92.3	92.3	92.3	92.4	92.8	90.2	90.2	87.8	87.8	87.9	88.1	
12-6	Other household durable goods	203.1	212.3	216.0	216.6	217.9	218.6	219.5	220.6	223.7	226.6	227.4	244.1	246.6	251.2	
13	Nonmetallic mineral products	222.8	231.1	238.3	240.5	240.8	243.4	245.6	246.9	249.5	249.9	252.2	255.6	257.1	259.2	
13-11	Flat glass	172.8	178.7	181.1	183.1	183.1	183.1	183.1	184.0	184.1	184.1	184.5	184.7	185.4	186.4	
13-2	Concrete ingredients	217.7	223.5	235.9	238.2	239.8	242.0	242.5	243.3	245.1	242.9	245.6	246.9	248.4	249.9	
13-3	Concrete products	214.0	224.2	235.6	236.4	237.8	240.5	241.6	243.7	245.2	246.3	248.6	249.4	250.5	253.2	
13-4	Structural clay products excluding refractories	197.2	206.5	209.7	210.7	212.8	214.8	215.7	216.5	220.3	222.3	223.8	221.1	221.1	226.8	
13-5	Refractories	216.5	226.1	227.5	227.8	228.3	228.4	228.5	232.6	240.8	241.7	243.1	245.0	248.2	248.7	
13-6	Asphalt roofing	292.0	305.2	306.8	317.8	303.1	316.4	317.9	323.0	328.4	325.9	332.7	334.0	345.9	342.9	
13-7	Gypsum products	229.1	242.7	247.6	250.6	251.0	252.2	248.8	251.3	251.8	252.3	254.9	255.3	256.2	255.0	
13-8	Glass containers	244.4	250.7	250.7	250.7	250.7	250.7	265.2	265.2	265.2	265.2	265.5	265.5	265.5	273.6	
13-9	Other nonmetallic minerals	275.6	283.6	288.8	293.7	294.5	300.0	303.0	302.0	310.5	309.9	318.8	341.2	342.2	342.2	
14	Transportation equipment (12/68 = 100)	173.5	180.5	182.7	183.5	183.8	186.8	187.2	187.5	188.4	185.9	186.2	193.6	194.4	195.1	
14-1	Motor vehicles and equipment	176.0	182.8	185.0	185.9	186.1	189.4	189.8	190.1	190.8	187.8	188.1	196.3	197.0	197.6	
14-4	Railroad equipment	252.8	261.8	266.4	268.0	268.9	271.7	271.6	274.7	280.6	280.9	281.6	286.3	288.2	289.0	
15	Miscellaneous products	184.3	193.6	197.7	199.8	200.6	201.4	203.3	205.2	207.0	208.9	212.3	216.8	219.0	227.2	
15-1	Toys, sporting goods, small arms, ammunition	163.2	164.8	170.4	171.0	171.5	173.2	174.3	174.7	176.9	177.6	179.9	181.2	181.7	183.5	
15-2	Tobacco products	198.5	204.0	213.5	213.6	214.0	214.4	214.4	214.4	214.8	221.3	221.7	221.9	221.9	226.3	
15-3	Notions	182.0	183.4	188.2	188.2	190.2	190.2	190.6	190.6	192.0	191.9	192.1	195.8	196.0	197.0	
15-4	Photographic equipment and supplies	145.7	148.7	150.1	150.2	150.2	150.1	150.6	151.6	152.0	152.2	154.1	157.3	161.3	164.5	
15-51	Mobile Homes (12/74 = 100)	126.4	130.8	131.7	132.5	133.8	135.2	137.2	137.9	138.2	139.5	139.5	142.5	143.5	143.6	
15-9	Other miscellaneous products	210.6	234.8	237.8	244.0	245.5	246.1	250.6	255.8	261.4	260.1	270.5	280.9	284.9	307.9	

¹ Prices for natural gas are lagged 1 month.

² Includes only domestic production.

³ Most prices for refined petroleum products are lagged 1 month.

⁴ Some prices for industrial chemicals are lagged 1 month.

⁵ Not available.

NOTE: Data for August 1979 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

28. Producer Price Indexes, for special commodity groupings

[1967 = 100 unless otherwise specified]

Commodity grouping	Annual average 1978	1979												
		1978 Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
All commodities — less farm products	208.4	216.3	219.3	222.0	224.7	228.0	230.1	232.0	235.4	237.5	241.0	244.9	246.7	249.2
All foods	206.4	215.5	219.9	225.0	225.9	227.7	226.4	223.8	225.4	224.7	228.2	226.8	229.9	232.1
Processed foods	206.7	215.7	219.8	223.5	225.6	227.8	227.5	224.7	226.4	224.8	230.6	228.9	231.8	234.1
Industrial commodities less fuels	197.2	204.6	207.3	209.6	211.9	214.7	216.0	217.0	219.0	220.3	221.6	225.4	226.4	228.1
Selected textile mill products (Dec. 1975 = 100)	108.8	110.9	109.1	110.8	111.6	112.3	112.8	113.5	114.0	115.1	115.7	116.0	116.1	117.0
Hosiery	106.3	108.7	110.1	109.9	110.5	112.5	112.5	112.7	114.1	113.0	112.7	113.0	114.6	115.3
Underwear and nightwear	158.9	162.5	164.6	166.3	167.1	167.3	167.7	168.3	168.5	170.8	170.8	171.2	171.6	172.9
Chemicals and allied products, including synthetic rubber and manmade fibers and yarns	190.5	193.6	196.3	198.0	200.0	204.1	207.6	209.5	215.0	218.6	220.5	223.7	226.0	228.6
Pharmaceutical preparations	140.6	145.8	148.1	149.0	149.4	150.0	150.1	151.7	151.7	152.0	153.6	155.6	155.4	156.9
Lumber and wood products, excluding millwork and other wood products	298.3	314.1	314.8	317.0	323.7	326.4	325.1	321.7	325.3	333.9	341.0	337.4	323.5	310.3
Special metals and metal products	209.6	217.9	220.0	225.6	228.2	232.7	232.4	233.7	235.5	234.9	236.1	242.9	244.2	245.9
Fabricated metal products	216.2	224.5	227.0	228.6	230.6	232.9	234.6	235.7	237.4	238.8	241.0	243.7	244.8	245.6
Copper and copper products	155.6	164.1	168.8	188.2	197.9	212.1	199.0	193.0	191.9	197.1	200.5	211.5	213.6	216.1
Machinery and motive products	190.4	197.7	199.6	200.8	201.7	204.1	205.3	206.0	207.7	207.2	208.3	212.8	214.0	215.4
Machinery and equipment, except electrical	214.3	223.0	224.9	226.1	227.7	230.0	231.8	232.6	235.1	236.2	237.8	240.2	242.0	244.1
Agricultural machinery, including tractors	216.3	225.2	227.6	228.5	229.6	230.8	232.1	233.8	235.8	238.4	242.6	244.7	247.9	250.0
Metalworking machinery	228.8	242.5	245.2	247.4	248.9	251.2	254.3	256.8	260.1	261.7	265.3	269.5	272.5	276.2
Numerically controlled machine tools (Dec. 1971 = 100)	179.1	186.3	188.9	190.9	192.6	192.7	195.7	195.8	202.2	204.2	206.6	208.7	209.0	211.3
Total tractors	228.7	238.3	240.8	242.5	243.1	245.4	247.7	248.2	251.2	253.8	254.8	259.4	260.9	264.9
Agricultural machinery and equipment less parts	212.7	221.2	223.5	224.4	225.5	226.7	228.1	229.5	231.4	233.7	237.5	239.5	242.4	244.6
Farm and garden tractors less parts	216.1	224.6	225.6	225.8	226.7	228.5	230.5	231.8	233.9	237.6	243.4	246.3	248.8	250.4
Agricultural machinery excluding tractors less parts	216.7	225.9	229.5	230.9	232.1	233.0	233.6	235.7	237.6	239.2	242.2	243.7	247.4	250.0
Industrial valves	232.3	240.7	245.4	247.8	249.5	252.4	255.8	258.5	257.0	258.2	259.1	260.3	261.1	265.2
Industrial fittings	232.7	244.5	249.9	249.9	252.0	255.5	259.3	260.4	260.8	262.3	262.8	271.7	276.8	276.8
Abrasive grinding wheels	208.1	220.2	220.2	220.2	220.3	220.3	221.6	222.8	222.8	224.6	224.6	235.3	235.3	239.0
Construction materials	228.3	237.0	241.4	244.1	246.9	250.0	250.3	250.3	252.3	254.3	256.6	258.2	256.5	255.3

NOTE: Data for August 1979 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

29. Producer Price Indexes, by durability of product

[1967 = 100]

Commodity grouping	Annual average 1978	1979												
		1978 Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total durable goods	204.9	213.0	216.3	218.9	221.0	223.9	224.7	225.8	227.6	228.0	229.7	234.0	234.9	236.6
Total nondurable goods	211.9	219.9	223.4	227.3	230.4	234.1	236.9	238.8	243.7	245.8	250.8	253.5	256.0	259.2
Total manufactures	204.2	212.0	215.0	217.5	219.7	223.1	225.0	226.5	229.8	231.7	234.9	238.6	240.2	242.3
Durable	204.7	212.7	215.8	218.0	219.8	222.7	223.8	224.6	226.6	227.2	229.0	233.3	234.1	235.8
Nondurable	203.0	210.5	213.4	216.1	219.0	222.8	225.6	227.8	232.5	235.9	240.9	243.7	246.3	248.8
Total raw or slightly processed goods	234.6	244.3	250.2	258.5	263.3	266.1	268.2	269.7	274.3	272.1	276.6	278.6	281.1	286.4
Durable	209.6	225.0	235.4	253.9	273.6	272.5	262.9	272.8	265.4	259.8	255.7	259.0	265.8	267.8
Nondurable	235.6	244.9	250.4	258.0	261.6	264.7	267.6	268.5	274.0	272.0	277.2	279.1	281.3	286.8

NOTE: Data for August 1979 have been revised to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

30. Producer Price Indexes for the output of selected SIC Industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry Description	Annual average 1978	1979												
			1978 Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
MINING															
1011	Iron ores (12/75 = 100)	121.9	127.3	127.3	127.3	127.3	131.9	131.9	136.0	136.0	138.8	138.1	140.2	140.2	142.0
1092	Mercury ores (12/75 = 100)	126.6	136.2	153.3	168.7	178.3	202.1	237.5	277.0	270.8	245.8	252.1	275.0	252.1	300.0
1211	Bituminous coal and lignite	430.2	441.0	444.0	444.4	445.7	447.5	451.3	452.5	453.1	454.8	453.2	455.4	455.8	458.1
1311	Crude petroleum and natural gas	358.2	380.6	388.2	397.2	403.8	407.6	427.2	444.1	457.5	476.0	506.8	522.0	533.5	553.3
1442	Construction sand and gravel	194.6	200.2	208.0	210.4	210.9	214.1	216.0	217.0	219.3	220.1	220.9	223.5	224.3	225.7
1455	Kaolin and ball clay (6/76 = 100)	111.8	123.2	125.4	125.4	125.4	125.4	125.4	125.5	125.5	125.5	125.5	126.7	114.7	119.7
MANUFACTURING															
2011	Meat packing plants	216.7	226.8	243.6	250.8	256.6	265.0	259.2	249.1	243.8	229.3	247.2	239.1	241.6	243.9
2013	Sausages and other prepared meats	215.2	228.7	223.8	230.4	235.6	224.4	227.7	217.1	214.7	203.4	211.6	213.0	214.2	219.9
2016	Poultry dressing plants	192.5	192.1	194.6	204.6	206.1	199.7	203.5	177.8	178.4	169.6	171.2	163.1	188.3	188.5
2021	Creamery butter	205.2	227.0	211.9	211.1	216.1	224.7	225.3	225.3	227.5	237.9	240.6	240.1	241.7	243.1

See footnotes at end of table.

30. Continued—Producer Price Indexes for the output of selected SIC Industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1978	1979												
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
MANUFACTURING—Continued															
2022	Cheese natural and processed (12/72 = 100)	169.6	184.4	184.2	179.4	182.5	186.8	185.2	185.6	186.3	195.4	200.8	196.8	193.4	192.6
2024	Ice cream and frozen desserts (12/72 = 100)	154.8	162.1	166.2	166.7	166.7	167.3	171.0	171.5	175.0	176.1	177.5	178.4	180.2	
2033	Canned fruits and vegetables	193.2	202.8	203.3	204.4	205.2	206.2	207.2	207.5	209.9	210.5	211.9	213.0	212.4	212.0
2034	Dehydrated food products (12/73 = 100)	131.3	179.6	179.6	181.2	180.9	181.7	182.1	181.0	182.0	180.7	170.0	158.2	156.3	157.3
2041	Flour mills (12/71 = 100)	147.0	156.8	155.8	160.5	157.5	158.1	166.7	174.6	190.9	176.9	183.4	184.6	184.9	184.9
2044	Rice milling	207.6	168.6	163.6	166.6	171.0	206.8	206.8	206.8	206.8	206.8	218.7	223.5	227.3	231.8
2048	Prepared foods, n.e.c. (12/75 = 100)	107.3	114.7	115.6	118.4	118.3	117.5	115.2	118.9	128.1	119.4	121.2	123.9	124.6	125.3
2061	Raw cane sugar	190.7	196.2	191.6	198.2	195.7	197.5	195.6	207.0	209.0	216.8	216.7	224.3	223.3	248.4
2063	Beet sugar	188.5	194.4	197.0	197.0	198.6	199.3	199.7	202.0	199.4	200.2	202.6	209.6	223.4	223.4
2067	Chewing gum	218.0	241.5	241.6	242.5	242.5	242.6	242.2	242.2	242.9	242.9	242.9	242.9	262.2	262.2
2074	Cottonseed oil mills	183.1	196.4	198.7	204.5	202.8	198.5	192.5	210.4	224.5	214.1	217.9	214.9	204.7	205.6
2075	Soybean oil mills	225.6	237.7	233.1	241.2	242.0	244.7	237.7	251.1	262.8	250.0	248.4	244.8	242.6	241.8
2077	Animal and marine fats and oils	287.9	305.1	305.0	344.5	362.6	393.1	363.8	335.3	352.0	321.4	333.8	333.7	315.2	300.7
2083	Malt	181.5	190.8	190.8	190.8	190.8	190.8	190.8	201.4	201.4	201.4	201.4	214.9	228.2	228.2
2085	Distilled liquor, except brandy (12/75 = 100)	106.7	108.9	108.9	109.4	109.4	109.4	113.6	113.6	113.6	115.7	117.1	117.1	118.1	118.1
2091	Canned and cured seafoods (12/73 = 100)	136.4	137.4	137.3	137.9	138.5	139.2	140.9	142.1	148.5	148.2	150.8	151.1	155.6	159.8
2092	Fresh or frozen packaged fish	303.8	339.0	338.1	361.9	359.4	375.8	382.4	397.6	397.6	403.7	390.1	400.9	392.4	389.3
2095	Roasted coffee (12/72 = 100)	262.3	235.7	229.4	222.5	221.6	220.5	231.7	244.2	271.0	279.2	279.2	280.0	287.5	287.5
2098	Macaroni and spaghetti	176.9	184.7	184.7	184.7	184.7	184.7	186.6	188.6	203.5	210.4	199.5	210.4	221.5	227.7
2098	Macaroni and spaghetti	176.9	184.7	184.7	184.7	184.7	184.7	186.6	188.6	203.5	210.4	199.5	210.4	221.5	227.7
2111	Cigarettes	204.6	210.7	221.1	221.2	221.3	221.4	221.4	221.4	221.4	221.5	228.9	229.1	229.2	234.3
2121	Cigars	141.4	141.7	142.8	143.0	145.0	145.4	145.4	145.3	149.8	150.1	147.6	147.4	147.2	147.2
2131	Chewing and smoking tobacco	222.0	225.1	235.3	236.4	240.9	245.9	245.9	245.9	246.4	246.4	255.8	260.4	260.8	260.8
2211	Weaving mills, cotton (12/72 = 100)	181.1	187.9	188.8	190.1	190.4	191.8	192.7	194.3	196.1	196.5	198.6	200.7	200.1	200.8
2221	Weaving mills, synthetic (12/77 = 100)	109.0	115.5	114.5	112.7	112.4	113.3	113.6	114.1	116.2	116.3	116.3	116.9	116.9	117.3
2251	Women's hosiery, except socks (12/75 = 100)	91.5	94.8	95.1	94.3	94.4	97.3	97.3	97.6	99.6	98.1	97.5	98.0	100.3	100.2
2254	Knit underwear mills	164.1	166.9	169.3	169.9	172.6	172.8	173.1	173.3	172.9	174.0	174.0	174.3	174.6	178.2
2257	Circular knit fabric mills (6/76 = 100)	98.5	99.2	91.2	91.7	93.9	93.2	94.1	95.8	96.1	96.4	96.0	96.4	96.4	98.4
2261	Finishing plants, cotton (6/76 = 100)	111.0	115.9	116.5	117.4	118.2	119.0	120.8	120.9	122.5	124.0	126.1	123.1	123.4	123.4
2262	Finishing plants, synthetics, silk (6/76 = 100)	101.4	105.4	104.6	105.0	105.2	105.9	106.3	107.0	107.5	108.2	108.3	109.2	108.9	109.2
2271	Woven carpets and rugs (12/75 = 100)	114.7	115.8	115.8	115.8	116.0	116.0	116.7	117.1	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
2272	Tufted carpets and rugs	125.3	125.8	125.8	126.0	126.5	127.0	127.7	128.1	127.6	128.6	129.0	129.5	130.0	130.1
2281	Yarn mills, except wool (12/71 = 100)	167.4	170.5	170.9	171.4	172.3	173.1	174.5	177.5	177.5	177.4	179.4	181.2	182.9	184.6
2282	Throwing and winding mills (6/76 = 100)	99.2	101.7	103.1	102.7	106.0	104.4	106.3	107.5	108.5	109.7	111.3	111.0	111.0	109.2
2284	Thread mills (6/76 = 100)	114.6	119.2	120.3	120.3	120.3	120.4	120.4	120.4	120.5	128.1	128.1	128.3	128.4	128.5
2298	Cordage and twine (12/77 = 100)	99.3	98.4	98.5	98.6	98.6	101.7	102.8	105.4	105.4	113.5	115.1	114.9	114.9	115.0
2311	Men's and boys' suits and coats	194.3	200.5	199.3	199.6	199.9	203.9	204.2	204.5	205.8	206.5	206.4	206.6	206.8	206.6
2321	Men's and boys' shirts and nightwear	180.8	187.7	191.2	191.4	191.6	191.8	192.4	193.5	194.7	195.9	195.8	194.5	194.7	194.5
2322	Men's and boys' underwear	180.6	182.6	184.5	184.6	188.7	188.7	188.7	188.7	188.7	190.0	190.0	190.0	190.0	194.0
2323	Men's and boys' neckwear (12/75 = 100)	102.3	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	110.9	110.9	110.9	110.9	110.9
2327	Men's and boys' separate trousers	152.7	157.4	157.7	157.8	157.8	162.3	162.3	162.5	162.5	162.7	162.7	162.9	163.4	163.4
2328	Men's and boys' work clothing	195.2	195.7	198.5	199.8	200.0	206.5	206.5	209.0	208.9	210.7	210.7	213.1	218.9	219.4
2331	Women's and misses' blouses and waists (6/78 = 100)	102.3	102.6	99.1	99.2	99.1	100.3	100.5	102.6	102.7	102.8	103.0	105.9	106.8	
2335	Women's and misses' dresses (12/77 = 100)	100.7	101.1	105.0	104.9	106.6	106.6	105.9	105.9	106.4	108.3	108.3	108.7	108.8	108.8
2341	Women's and children's underwear (12/72 = 100)	132.1	138.7	141.2	142.3	142.3	142.6	143.3	144.2	145.3	145.3	146.7	147.4	147.7	
2342	Brassieres and allied garments (12/75 = 100)	111.7	112.5	113.5	116.0	116.0	116.1	116.2	117.5	117.5	117.8	117.8	117.8	117.8	118.8
2361	Children's dresses and blouses (12/77 = 100)	(¹)	105.4	105.4	105.4	105.5	106.7	106.7	102.1	102.4	102.4	103.7	105.7	105.7	105.6
2381	Fabric dress and work gloves	214.4	226.4	227.3	232.2	232.2	241.5	243.9	243.9	245.4	245.4	245.4	246.9	246.9	246.9
2394	Canvas and related products (12/77 = 100)	99.6	99.6	105.9	105.9	105.9	105.9	105.9	106.9	108.4	111.0	111.4	111.4	112.1	120.1
2396	Automotive and apparel trimmings (12/77 = 100)	106.3	107.1	107.1	107.1	107.1	107.1	107.1	114.3	114.3	114.3	114.3	114.3	114.3	114.3
2421	Sawmills and planing mills (12/71 = 100)	228.9	240.1	239.5	241.9	249.5	252.5	251.6	250.9	251.3	259.1	265.6	262.2	250.1	237.5
2436	Softwood veneer and plywood (12/75 = 100)	150.1	157.6	164.2	162.2	160.1	157.3	151.1	140.7	148.1	153.4	156.2	153.3	143.3	138.7
2439	Structural wood members, n.e.c. (12/75 = 100)	136.2	142.3	142.3	148.1	148.3	150.1	150.1	150.0	150.0	149.9	150.8	158.2	158.2	158.2
2448	Wood pallets and skids (12/75 = 100)	149.4	159.8	160.6	161.8	163.8	166.8	166.7	167.0	166.9	166.8	167.9	171.0	170.5	
2451	Mobile homes (12/74 = 100)	126.5	130.8	131.8	132.5	133.8	135.3	137.3	138.0	138.2	139.6	139.6	142.5	143.5	143.6
2492	Particleboard (12/75 = 100)	159.7	146.9	143.0	141.9	142.7	143.8	141.6	137.4	134.3	134.7	138.5	139.6	136.9	134.1
2511	Wood household furniture (12/71 = 100)	152.4	158.5	160.3	160.3	160.9	162.7	164.6	164.0	164.5	164.6	167.1	168.1	171.3	173.6
2512	Upholstered household furniture (12/71 = 100)	143.1	145.8	146.9	146.9	147.6	147.4	149.2	149.4	150.0	150.2	151.6	151.8	153.9	155.8
2515	Mattresses and bedsprings	156.3	160.0	162.3	162.9	163.1	163.2	163.2	164.1	164.5	165.8	165.7	168.8	172.1	172.1
2521	Wood office furniture	194.4	200.5	207.2	213.1	213.1	214.2	214.3	214.2	216.8	216.8	216.8	217.6	217.6	221.9
2611	Pulp mills (12/73 = 100)	178.5	183.7	187.1	187.3	189.9	192.5	195.2	196.6	205.4	205.7	207.5	215.2	215.6	215.6
2621	Paper mills, except building (12/74 = 100)	115.7	121.5	123.7	124.7	126.0	128.5	129.3	129.5	130.2	131.0	131.6	135.2	136.7	137.0
2631	Paperboard mills (12/74 = 100)	106.4	111.1	112.0	112.9	114.4	117.1	118.1	118.5	119.7	121.9	123.6	125.4	126.4	127.7
2647	Sanitary paper products	251.4	267.3	267.4	267.6	269.2	270.8	271.7	271.9	276.4	285.9	283.6	286.4	286.5	289.1
2654	Sanitary food containers	170.8	177.1	178.8											

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30. Continued—Producer Price Indexes for the output of selected SIC Industries

[1967 = 100 unless otherwise specified]

1972 SIC code	Industry description	Annual average 1978	1978		1979												
			Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
3021	Rubber and plastic footwear (12/71 = 100)	158.7	164.1	168.7	169.0	169.0	169.0	169.0	169.5	169.6	171.0	173.4	173.4	173.4	173.4	173.4	173.4
3031	Reclaimed rubber (12/73 = 100)	154.3	156.4	161.3	161.3	162.1	164.5	167.6	169.1	169.2	169.2	170.5	171.7	171.7	171.7	171.7	171.7
3079	Miscellaneous plastic products (6/78 = 100)	102.0	102.1	103.4	105.4	107.5	109.0	110.7	111.4	112.3	112.9	113.9	114.1	115.6	115.6	115.6	115.6
3111	Leather tanning and finishing (12/77 = 100)	119.1	140.1	135.9	143.7	173.8	182.9	201.3	195.8	181.8	172.9	155.2	161.9	150.8	153.5	153.5	153.5
3142	House slippers (12/75 = 100)	122.5	127.1	129.6	134.7	136.3	136.3	138.5	142.0	135.0	135.0	136.2	136.9	137.0	137.0	137.0	137.0
3143	Men's footwear, except athletic (12/75 = 100)	127.1	133.9	135.2	141.0	145.6	147.6	152.8	155.4	155.4	158.2	159.0	159.3	159.2	159.2	159.2	159.2
3144	Women's footwear, except athletic	164.1	173.7	176.3	178.4	189.2	190.3	192.2	195.4	198.7	201.5	201.6	202.3	204.0	204.0	204.0	204.0
3171	Women's handbags and purses (12/75 = 100)	111.4	114.3	123.0	123.0	123.0	123.0	131.7	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8	131.8
3211	Flat glass (12/71 = 100)	142.7	147.5	149.0	150.8	150.8	150.8	150.8	151.8	151.9	151.9	152.3	152.6	153.3	153.9	153.9	153.9
3221	Glass containers	244.3	250.6	250.7	250.7	250.7	250.7	265.2	265.2	265.2	265.2	265.2	265.4	265.4	265.4	265.4	265.4
3241	Cement, hydraulic	251.2	256.0	275.4	278.8	280.3	283.1	283.2	283.7	285.4	285.4	282.8	282.8	282.9	282.9	283.6	283.6
3251	Brick and structural clay tile	230.8	243.9	248.9	250.9	252.8	256.7	258.3	259.7	261.0	263.3	265.9	260.4	261.3	262.7	262.7	262.7
3253	Ceramic wall and floor tile (12/75 = 100)	107.7	111.5	111.6	111.6	113.0	113.0	113.0	113.0	120.2	120.2	120.2	120.2	120.2	120.2	120.2	120.2
3255	Clay refractories	221.4	231.7	233.4	233.2	234.1	234.4	234.6	236.9	246.5	246.7	248.5	251.7	254.4	255.4	255.4	255.4
3259	Structural clay products, n.e.c.	176.3	179.6	184.1	184.4	186.7	186.8	186.8	187.8	188.2	192.1	192.5	193.2	196.6	196.9	196.9	196.9
3261	Vitreous plumbing fixtures	189.7	194.3	195.1	198.6	198.9	201.6	204.6	206.4	210.1	212.4	212.8	214.5	215.7	217.3	217.3	217.3
3262	Vitreous china food utensils	268.8	284.4	284.4	290.6	290.6	290.6	290.6	290.6	297.5	297.5	297.5	297.9	305.3	307.9	307.9	307.9
3263	Fine earthenware food utensils	228.1	242.4	242.4	237.0	237.1	237.1	237.1	236.4	238.8	238.8	238.8	248.5	248.9	290.3	290.3	290.3
3269	Pottery products, n.e.c. (12/75 = 100)	122.2	129.6	129.6	129.2	129.2	129.2	129.2	129.0	131.0	131.0	130.9	133.2	135.0	148.8	148.8	148.8
3271	Concrete block and brick	202.0	211.9	223.0	223.1	227.0	230.8	232.6	232.7	232.7	235.7	237.8	240.0	240.0	240.1	240.1	240.1
3273	Ready-mixed concrete	217.6	227.7	240.0	241.1	241.7	244.5	245.2	247.5	249.6	250.5	252.2	253.0	254.5	257.0	257.0	257.0
3274	Lime (12/75 = 100)	129.5	133.1	136.2	136.6	137.5	139.9	139.8	140.1	141.8	142.9	144.3	144.7	144.4	144.7	144.7	144.7
3275	Gypsum products	229.5	243.1	248.1	251.1	251.5	252.7	249.4	251.9	252.3	252.8	255.4	255.9	256.8	256.6	256.6	256.6
3291	Abrasive products (12/71 = 100)	172.3	178.9	181.1	182.2	182.4	184.0	185.1	185.8	187.7	188.6	190.3	193.9	194.7	197.1	197.1	197.1
3297	Nonclay refractories (12/74 = 100)	133.6	139.0	139.8	140.3	140.4	140.5	140.5	143.9	148.1	149.1	149.7	150.1	152.3	152.4	152.4	152.4
3312	Blast furnaces and steel mills	262.3	270.7	279.9	280.3	281.1	283.5	285.3	285.8	292.8	293.0	293.2	296.3	297.0	297.6	297.6	297.6
3313	Electrometallurgical products (12/75 = 100)	94.8	98.4	103.5	104.0	104.0	106.8	111.7	112.3	116.5	116.5	116.0	116.2	117.5	117.6	117.6	117.6
3316	Cold finishing of steel shapes	241.0	247.4	258.1	258.3	258.4	259.1	259.8	261.3	270.6	270.8	271.0	271.9	273.2	273.9	273.9	273.9
3317	Steel pipes and tubes	255.2	258.7	265.0	265.1	265.8	265.0	264.5	264.5	271.9	271.3	271.4	272.8	273.0	273.0	273.0	273.0
3321	Gray iron foundries (12/68 = 100)	233.5	240.0	244.9	244.7	249.4	253.9	253.3	254.5	253.9	253.8	253.6	265.6	266.0	268.3	268.3	268.3
3333	Primary zinc	223.2	243.2	243.2	260.6	260.9	274.2	274.5	275.2	281.4	265.5	264.2	265.2	267.9	265.7	265.7	265.7
3334	Primary aluminum	217.4	220.3	220.3	226.1	232.4	235.8	237.4	238.5	244.9	247.4	248.2	256.0	263.2	266.6	266.6	266.6
3351	Copper rolling and drawing	170.2	179.0	184.2	199.9	211.0	220.1	215.6	211.7	211.2	213.6	216.8	223.3	227.7	225.1	225.1	225.1
3353	Aluminum sheet plate and foil (12/75 = 100)	137.6	143.2	145.8	146.4	146.5	148.0	148.7	148.8	149.6	149.8	150.0	150.8	151.5	151.9	151.9	151.9
3354	Aluminum extruded products (12/75 = 100)	134.3	138.6	141.1	141.6	142.5	146.1	147.5	147.6	150.3	151.9	152.2	153.5	157.3	157.8	157.8	157.8
3355	Aluminum rolling, drawing, n.e.c. (12/75 = 100)	119.7	122.8	125.2	126.5	127.5	129.6	131.5	131.6	132.7	133.1	133.5	136.8	139.9	140.3	140.3	140.3
3411	Metal cans	238.5	248.3	252.7	253.9	260.9	264.4	263.8	262.2	262.2	263.9	261.5	270.2	273.8	273.9	273.9	273.9
3425	Hand saws and saw blades (12/72 = 100)	147.9	155.5	157.7	157.8	157.9	159.6	161.9	162.5	162.8	166.3	166.2	166.9	169.4	169.6	169.6	169.6
3431	Metal sanitary ware	209.1	214.1	214.7	217.4	219.2	220.8	222.2	224.1	226.4	228.9	229.2	230.1	231.7	232.9	232.9	232.9
3465	Automotive stampings (12/75 = 100)	118.8	123.0	123.6	125.0	125.7	126.2	127.0	127.1	127.8	130.9	131.9	132.7	132.7	132.7	132.7	132.7
3482	Small arms ammunition (12/75 = 100)	119.5	124.2	129.3	129.3	125.9	128.3	130.4	131.4	134.0	134.0	138.3	137.5	137.9	149.2	149.2	149.2
3493	Steel springs, except wire	204.6	210.7	210.9	212.6	216.7	218.1	218.7	220.5	221.6	222.1	222.7	223.5	223.9	225.4	225.4	225.4
3494	Valves and pipe fittings (12/71 = 100)	185.5	193.4	196.1	197.6	199.0	201.4	203.6	204.2	205.3	206.2	206.4	209.5	211.6	213.9	213.9	213.9
3498	Fabricated pipe and fittings	265.5	276.4	276.6	276.7	276.8	284.9	288.2	290.7	294.8	294.8	294.9	297.0	297.4	297.4	297.4	297.4
3519	Internal combustion engines, n.e.c.	220.1	228.4	232.7	233.8	234.0	237.1	239.0	239.2	242.3	245.7	249.5	252.8	253.7	253.7	253.7	253.7
3531	Construction machinery (12/76 = 100)	114.0	119.2	120.0	121.1	121.6	123.0	123.9	124.0	125.6	126.3	126.3	128.4	129.0	130.7	130.7	130.7
3532	Mining machinery (12/72 = 100)	209.5	218.1	222.5	223.4	224.2	228.0	228.4	226.4	231.2	231.5	232.7	233.1	234.7	235.8	235.8	235.8
3533	Oilfield machinery and equipment	246.2	275.6	279.5	281.4	281.8	283.5	288.4	290.0	292.0	293.3	296.7	300.5	301.3	308.0	308.0	308.0
3534	Elevators and moving stairways	204.2	211.5	211.7	214.1	213.4	213.8	213.6	214.2	215.4	214.6	216.5	216.8	220.6	220.9	220.9	220.9
3542	Machine tools, metal forming types (12/71 = 100)	213.6	228.8	231.6	233.3	234.1	237.9	238.8	240.6	244.6	245.1	247.9	249.6	253.5	256.7	256.7	256.7
3546	Power driven hand tools (12/76 = 100)	111.1	114.4	115.4	116.3	116.9	117.7	117.8	118.7	119.2	120.2	120.3	121.9	122.7	124.2	124.2	124.2
3552	Textile machinery (12/69 = 100)	179.9	186.4	189.0	189.6	190.4	191.6	191.7	192.6	195.0	197.5	198.2	199.2	200.6	200.6	200.6	200.6
3553	Woodworking machinery (12/72 = 100)	168.1	174.1	177.9	177.3	179.2	181.0	183.2	184.5	185.9	187.7	188.4	193.0	193.1	193.3	193.3	193.3
3576	Scales and balances, excluding laboratory	179.7	188.4	188.8	191.1	191.1	191.3	192.8	193.7	194.8	195.4	195.4	192.9	196.6	197.7	197.7	197.7
3592	Carburetors, pistons, rings, valves (6/76 = 100)	128.2	134.3	135.0	135.7	136.9	137.6	138.6	138.7	139.2	139.6	140.3	141.5	143.5	144.6	144.6	144.6
3612	Transformers	158.3	163.1	163.2	165.4	167.0	168.5	168.0	168.5	167.9	167.6	168.6	171.4	170.5	171.7	171.7	171.7
3623	Welding apparatus, electric (12/72 = 100)	178.1	184.0	184.8	186.0	186.6	187.3	191.5	191.9	193.5	194.1	194.9	196.2	197.9	199.6	199.6	199.6
3631	Household cooking equipment (12/75 = 100)	114.8	118.3	119.1	119.2	120.2	120.3	120.7	120.9	122.0	123.4	124.2	124.3	125.8	126.1	126.1	126.1
3632	Household refrigerators, freezers (6/76 = 100)	109.6	110.7	111.4	112.5	112.7	111.8	111.9	112.6	113.6	114.3	114.7	114.8	115.3	115.9	115.9	115.9
3633	Household laundry equipment (12/73 = 100)	141.0	144.4	145.4	146.3	146.9	146.9	147.0	147.2	148.8	149.9	151.8	152.1	153.5	154.7	154.7	154.7
3635	Household vacuum cleaners	135.5	137.6	138.1	138.1	140.4	140.4	141.2	141.5	141.6	141.7	141.9	144.3	144.7	145.8	145.8	145.8
3636	Sewing machines (12/75 = 100)	111.2	115.4	119.8	119.8	119.8	121.1	121.1	121.1	121.8	122.2	121.6	122.0	122.0	122.0	122.0	122.0
3641	Electric lamps	214.7	226.1	226.6	226.8	227.1	229.8	229.8	229.7	240.8	244.3	242.7	244.8	240.8	240.5	240.5	240.5
3644	Noncurrent-carrying wiring devices (12/72 = 100)	185.8	195.4	196.1	197.1	198											

PRODUCTIVITY DATA

PRODUCTIVITY DATA are compiled by the Bureau of Labor Statistics from establishment data and from estimates of compensation and output supplied by the U.S. Department of Commerce and the Federal Reserve Board.

Definitions

Output is the constant dollar gross domestic product produced in a given period. Indexes of **output per hour of labor input**, or labor productivity, measure the value of goods and services produced per hour of labor. **Compensation per hour** includes wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. The data also include an estimate of wages, salaries, and supplementary payments for the self-employed, except for nonfinancial corporations, in which there are no self-employed. **Real compensation per hour** is compensation per hour adjusted by the Consumer Price Index for All Urban Consumers.

Unit labor cost measures the labor compensation cost required to produce one unit of output and is 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 the current dollar gross domestic product and dividing by output. In these tables, **Unit nonlabor costs** contain all the components of unit nonlabor payments except unit profits. **Unit profits** include corporate profits and inventory valuation adjustments per unit of output.

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

The use of the term "man-hours" to identify the labor component of productivity and costs, in tables 31 through 34, has been discontinued. **Hours of all persons** is now used to describe the labor input of payroll workers, self-employed persons, and unpaid family workers. **Output per all-employee hour** is now used to describe labor productivity in nonfinancial corporations where there are no self-employed.

Notes on the data

In the private business sector and the nonfarm business sector, the basis for the output measure employed in the computation of output per hour is Gross Domestic Product rather than Gross National Product. Computation of hours includes estimates of nonfarm and farm proprietor hours.

Output data are 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 from the Bureau of Economic Analysis and the Bureau of Labor Statistics.

Beginning with the September 1976 issue of the *Review*, tables 31-34 were revised to reflect changeover to the new series—private business sector and nonfarm business sector—which differ from the previously published total private economy and nonfarm sector in that output imputed for owner-occupied dwellings and the household and institutions sectors, as well as the statistical discrepancy, are omitted. For a detailed explanation, see J. R. Norsworthy and L. J. Fulco, "New sector definitions for productivity series," *Monthly Labor Review*, October 1976, pages 40-42.

31. Indexes of productivity and related data, selected years, 1950-79

[1967 = 100]

Item	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976	1977	1978	1979
Private business sector:													
Output per hour of all persons	61.0	70.3	78.7	95.0	104.2	111.4	113.6	110.1	112.4	116.4	118.6	119.2	P 118.1
Compensation per hour	42.4	55.8	71.9	88.7	123.1	139.7	151.2	164.9	181.3	197.2	213.0	231.2	P 252.8
Real compensation per hour	58.9	69.6	81.1	93.8	105.8	111.5	113.6	111.7	112.5	115.6	117.3	118.3	P 116.3
Unit labor cost	69.6	79.4	91.3	93.3	118.2	125.4	133.1	149.8	161.3	169.4	179.6	194.0	P 214.1
Unit nonlabor payments	73.2	80.5	85.5	95.9	105.8	119.0	124.9	130.4	150.4	158.0	165.6	174.3	P 184.4
Implicit price deflator	70.8	79.8	89.3	94.2	113.9	123.2	130.3	143.1	157.5	165.5	174.8	187.2	P 203.8
Nonfarm business sector:													
Output per hour of all persons	66.9	74.3	80.9	95.9	103.0	110.1	112.0	108.5	110.5	114.4	116.2	116.8	P 115.5
Compensation per hour	45.4	58.7	74.2	89.4	121.7	138.4	149.2	162.8	178.9	193.8	209.3	227.3	P 247.6
Real compensation per hour	63.0	73.2	83.7	94.6	104.6	110.4	112.1	110.2	111.0	113.7	115.3	116.3	P 113.9
Unit labor cost	67.9	79.1	91.7	93.2	118.1	125.7	133.2	150.0	161.8	169.4	180.1	194.5	P 214.4
Unit nonlabor payments	71.5	80.1	84.5	95.8	106.0	117.5	117.8	124.7	146.0	156.0	163.9	169.9	P 178.8
Implicit price deflator	69.1	79.4	89.2	94.1	114.0	122.9	127.9	141.4	156.4	164.8	174.5	186.1	P 202.2
Nonfinancial corporations:													
Output per hour of all employees	(¹)	(¹)	80.2	96.8	103.5	110.5	112.8	108.5	111.9	115.5	116.8	117.9	(¹)
Compensation per hour	(¹)	(¹)	75.7	90.0	121.5	136.7	147.5	161.4	177.4	192.2	207.6	224.8	(¹)
Real compensation per hour	(¹)	(¹)	85.4	95.3	104.4	109.1	110.8	109.3	110.1	112.7	114.4	115.0	(¹)
Unit labor cost	(¹)	(¹)	94.3	93.0	117.4	123.7	130.7	148.8	158.6	166.4	177.7	190.6	(¹)
Unit nonlabor payments	(¹)	(¹)	90.8	100.1	103.5	114.8	116.8	124.8	148.1	156.8	164.4	170.6	(¹)
Implicit price deflator	(¹)	(¹)	93.1	95.5	112.5	120.5	125.8	140.2	154.9	163.0	173.0	183.5	(¹)
Manufacturing:													
Output per hour of all persons	65.0	74.1	78.9	98.3	104.5	115.7	118.8	112.6	118.2	123.4	127.2	128.0	P 130.2
Compensation per hour	45.1	60.5	77.1	91.0	121.8	136.6	146.4	161.1	180.2	195.1	212.0	229.5	P 250.5
Real compensation per hour	62.5	75.4	87.0	96.3	104.7	109.0	110.0	109.1	111.8	114.5	116.8	117.5	P 115.2
Unit labor cost	69.4	81.6	97.7	92.6	116.5	118.1	123.2	143.1	152.4	158.2	166.6	179.4	P 192.4
Unit nonlabor payments	82.4	88.6	92.4	103.3	96.2	107.4	106.4	105.6	128.4	139.6	147.4	152.4	(¹)
Implicit price deflator	73.3	83.8	96.1	95.9	110.3	114.8	118.0	131.6	145.1	152.5	160.7	171.1	(¹)

¹ Not available.

32. Annual percent change in productivity and related data, 1969-79

Item	Year											Annual rate of change	
	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1950-78	1960-78
Private business sector:													
Output per hour of all persons	0.2	0.7	3.3	3.5	1.9	-3.0	2.1	3.5	1.9	0.5	P -0.9	2.6	2.2
Compensation per hour	6.8	7.1	6.7	6.3	8.2	9.1	9.9	8.8	8.0	8.5	P 9.3	5.8	6.8
Real compensation per hour	1.4	1.1	2.4	2.9	1.9	-1.7	.7	2.8	1.5	0.8	P -1.7	2.6	2.1
Unit labor cost	6.6	6.4	3.3	2.8	6.2	12.5	7.7	5.0	6.0	8.0	P 10.4	3.2	4.5
Unit nonlabor payments	1.0	1.2	6.8	5.2	5.0	4.4	15.3	5.1	4.8	5.3	P 5.8	2.8	4.0
Implicit price deflator	4.7	4.7	4.4	3.6	5.8	9.8	10.1	5.0	5.6	7.1	P 8.9	3.1	4.3
Nonfarm business sector:													
Output per hour of all persons	-3	.1	3.1	3.7	1.7	-3.1	1.9	3.5	1.6	0.5	P -1.2	2.2	2.0
Compensation per hour	6.3	6.7	6.7	6.5	7.8	9.1	9.9	8.3	8.0	8.6	P 8.9	5.5	6.5
Real compensation per hour	.9	.7	2.3	3.1	1.5	-1.7	.7	2.4	1.4	0.9	P -2.1	2.3	1.9
Unit labor cost	6.7	6.5	3.5	2.8	6.0	12.7	7.9	4.7	6.3	8.0	P 10.2	3.2	4.5
Unit nonlabor payments	.4	1.6	6.7	3.8	.3	5.9	17.1	6.9	5.0	3.7	P 5.2	2.8	3.9
Implicit price deflator	4.5	4.9	4.5	3.1	4.1	10.5	10.6	5.4	5.9	6.6	P 8.7	3.1	4.3
Nonfinancial corporations:													
Output per hour of all employees	.3	-1	3.4	3.3	2.1	-3.8	3.1	3.2	1.1	1.0	(¹)	(¹)	2.0
Compensation per hour	6.7	6.7	6.2	5.9	7.9	9.4	10.0	8.3	8.0	8.3	(¹)	(¹)	6.3
Real compensation per hour	1.2	.7	1.9	2.5	1.6	-1.4	.7	2.4	1.5	0.6	(¹)	(¹)	1.7
Unit labor cost	6.3	6.8	2.7	2.5	5.7	13.8	6.6	4.9	6.8	7.3	(¹)	(¹)	4.2
Unit nonlabor payments	0	.5	7.3	3.3	1.8	6.8	18.7	5.8	4.9	3.8	(¹)	(¹)	3.4
Implicit price deflator	4.1	4.6	4.2	2.8	4.4	11.5	10.5	5.2	6.1	6.1	(¹)	(¹)	3.9
Manufacturing:													
Output per hour of all persons	1.1	-3	5.3	5.1	2.7	-5.2	4.9	4.4	3.1	.6	P 1.8	2.6	2.6
Compensation per hour	6.4	6.9	6.3	5.5	7.2	10.1	11.8	8.3	8.6	8.3	P 9.1	5.4	6.3
Real compensation per hour	1.0	.9	2.0	2.1	.9	-8	2.4	2.4	2.0	.6	P -1.9	2.2	1.6
Unit labor cost	5.2	7.2	.9	.4	4.3	16.1	6.6	3.8	5.3	7.7	P 7.2	2.7	3.6
Unit nonlabor payments	-4.4	-3.2	9.2	2.3	-1.0	-7	21.6	8.8	5.5	3.4	P N.A.	1.8	2.3
Implicit price deflator	2.3	4.2	3.1	1.0	2.8	11.5	10.2	5.1	5.4	6.5	P N.A.	2.5	3.3

¹ Not available.

33. Indexes of productivity, hourly compensation, unit costs, and prices, seasonally adjusted

[1967 = 100]

Item	Annual average		Quarterly indexes										
			1977			1978				1979			
	1978	1979	II	III	IV	I	II	III	IV	I	II	III	IV
Private business sector:													
Output per hour of all persons	119.2	118.1	117.9	119.4	118.8	118.4	119.0	119.7	119.8	118.9	118.2	117.8	P 117.3
Compensation per hour	231.2	252.8	210.8	215.3	218.5	224.2	228.5	233.6	238.4	244.8	250.3	255.6	P 260.0
Real compensation per hour	118.3	116.3	116.7	117.6	117.9	118.7	118.1	118.2	118.0	118.0	116.9	115.8	P 114.2
Unit labor cost	194.0	214.1	178.8	180.2	183.8	189.4	192.1	195.2	199.0	205.9	211.7	217.0	P 214.1
Unit nonlabor payments	174.3	184.4	164.7	167.9	168.6	164.8	173.9	177.0	181.3	180.8	183.7	185.6	P 184.4
Implicit price deflator	187.2	203.8	173.9	176.0	178.6	180.9	185.8	188.9	192.9	197.2	202.0	206.1	P 203.8
Nonfarm business sector:													
Output per hour of all persons	116.8	115.5	115.8	116.7	116.3	116.0	116.5	117.3	117.6	116.6	115.4	115.0	P 114.9
Compensation per hour	227.3	247.6	207.3	211.2	214.8	220.6	224.6	229.4	234.3	240.2	244.8	249.9	P 255.2
Real compensation per hour	116.3	113.9	114.7	115.4	115.9	116.8	116.1	116.1	116.0	115.8	114.3	113.2	P 112.1
Unit labor cost	194.5	214.4	179.0	180.9	184.7	190.2	192.7	195.6	199.3	206.0	212.1	217.3	P 222.2
Unit nonlabor payments	169.9	178.8	163.2	167.1	166.0	161.1	169.2	173.0	176.1	174.3	177.6	180.5	P 183.3
Implicit price deflator	186.1	202.2	173.6	176.2	178.3	180.2	184.7	187.8	191.4	195.1	200.3	204.7	P 208.9
Nonfinancial corporations:													
Output per hour of all employees	117.9	(¹)	116.5	117.4	116.7	116.7	117.8	118.4	118.8	118.1	117.3	117.5	(¹)
Compensation per hour	224.8	(¹)	205.7	209.5	212.8	218.5	222.3	226.9	231.3	237.4	242.1	247.1	(¹)
Real compensation per hour	115.0	(¹)	113.8	114.5	114.8	115.7	114.9	114.8	114.5	114.5	113.1	111.9	(¹)
Total unit costs	193.3	(¹)	180.5	182.4	186.3	190.8	191.6	194.0	196.8	202.3	208.0	212.6	(¹)
Unit labor cost	190.6	(¹)	176.6	178.4	182.3	187.3	188.7	191.5	194.8	201.0	206.4	210.3	(¹)
Unit nonlabor costs	201.8	(¹)	192.4	194.8	198.7	201.5	200.8	201.6	203.1	206.5	213.2	219.9	(¹)
Unit profits	127.2	(¹)	123.3	130.9	122.2	107.1	129.2	132.7	138.7	130.3	129.2	129.0	(¹)
Implicit price deflator	183.5	(¹)	172.0	174.7	176.8	178.3	182.3	184.9	188.2	191.6	196.3	200.2	(¹)
Manufacturing:													
Output per hour of all persons	128.0	130.2	127.3	128.4	127.8	125.7	127.2	129.2	129.8	129.0	130.0	131.1	P 130.6
Compensation per hour	229.5	250.5	209.7	214.1	217.5	223.2	226.6	231.4	236.5	242.4	248.2	253.0	P 258.0
Real compensation per hour	117.5	115.2	116.1	117.0	117.4	118.1	117.1	117.0	117.1	116.9	115.9	114.6	P 113.3
Unit labor cost	179.4	192.4	164.7	166.7	170.2	177.5	178.1	179.1	182.2	187.9	190.9	193.0	P 197.6

34. Percent change from preceding quarter and year in productivity, hourly compensation, unit costs, and prices, seasonally adjusted at annual rate

[1967 = 100]

Item	Quarterly percent change at annual rate						Percent change from same quarter a year ago					
	II 1978 to III 1978	III 1978 to IV 1978	IV 1978 to I 1979	I 1979 to II 1979	II 1979 to III 1979	III 1979 to IV 1979	III 1977 to III 1978	IV 1977 to IV 1978	I 1978 to I 1979	II 1978 to II 1979	III 1978 to III 1979	IV 1978 to IV 1979
Private business sector:												
Output per hour of all persons	2.4	0.3	-3.0	-2.2	r -1.3	P -1.6	0.2	0.8	0.4	-0.6	r -1.6	P -2.0
Compensation per hour	9.2	8.5	11.1	9.3	8.8	P 6.9	8.5	9.1	9.2	9.5	9.4	P 9.0
Real compensation per hour	.3	-7	.1	-3.8	-3.6	P -5.6	0.4	.1	-6	-1.0	-2.0	P -3.2
Unit labor cost	6.6	8.1	14.6	11.8	r 10.3	P 8.7	8.3	8.3	8.7	10.2	r 11.2	P 11.3
Unit nonlabor payments	7.4	9.9	-1.0	6.5	r 4.1	P 5.9	5.4	7.5	9.7	5.6	4.8	P 3.9
Implicit price deflator	6.9	8.7	9.3	10.1	r 8.3	P 7.8	7.4	8.0	9.0	8.7	r 9.1	P 8.9
Nonfarm business sector:												
Output per hour of all persons	2.7	.8	-3.2	-4.1	r -1.4	P -1.2	5	1.1	r .5	-1.0	r -2.0	P -2.3
Compensation per hour	8.8	8.8	10.4	7.9	8.5	P 8.9	8.7	9.1	8.9	9.0	8.9	P 8.9
Real compensation per hour	.0	-4	-6	-5.0	-3.9	P 3.8	.6	.1	-8	-1.5	-2.5	P -3.3
Unit labor cost	6.0	8.0	14.0	12.5	r 10.1	P 9.3	8.1	7.9	8.3	10.1	r 11.1	P 11.5
Unit nonlabor payments	9.4	7.3	-4.0	7.8	r 6.6	P 6.4	3.5	6.1	8.2	5.0	4.3	P 4.1
Implicit price deflator	7.0	7.8	8.1	11.0	r 9.0	P 8.4	6.6	7.3	8.3	8.5	r 9.0	P 9.1
Nonfinancial corporations:												
Output per hour of all employees	2.0	1.1	-2.1	-2.8	0.7	(¹)	0.8	1.8	1.3	.5	-8	(¹)
Compensation per hour	8.4	8.1	11.0	8.0	8.5	(¹)	8.3	8.7	8.7	8.9	8.9	(¹)
Real compensation per hour	-4	-1.0	.0	-4.9	-3.9	(¹)	.2	-3	-1.0	-1.6	-2.5	(¹)
Total unit costs	5.1	5.9	11.7	11.8	9.2	(¹)	6.4	5.6	6.1	8.6	9.6	(¹)
Unit labor costs	6.2	6.9	13.4	11.2	7.8	(¹)	7.4	6.8	7.3	9.4	9.8	(¹)
Unit nonlabor costs	1.7	2.9	6.8	13.5	13.3	(¹)	3.5	2.2	2.5	6.2	9.1	(¹)
Unit profits	11.4	19.5	-22.1	-3.4	-0.7	(¹)	1.4	13.6	21.7	0	-2.8	(¹)
Implicit price deflator	5.7	7.3	7.6	10.2	8.2	(¹)	5.8	6.4	7.5	7.7	8.3	(¹)
Manufacturing:												
Output per hour of all persons	6.3	2.0	-2.4	2.9	r 3.5	P -1.5	.6	1.6	2.6	2.2	r 1.5	P 0.6
Compensation per hour	8.7	9.3	10.3	9.8	8.1	P 8.2	8.1	8.7	8.6	9.5	9.4	P 9.1
Real compensation per hour	-1	0	-6	-3.4	r -4.3	P 4.5	0	-3	-1.1	-1.0	-2.1	P 3.2
Unit labor cost	2.2	7.1	13.0	6.7	r 4.4	P 9.8	7.4	7.1	5.9	7.2	7.8	P 8.5

LABOR-MANAGEMENT DATA

MAJOR COLLECTIVE BARGAINING DATA are obtained from contracts on file at the Bureau of Labor Statistics, direct contact with the parties, and from secondary sources. Additional detail is published in *Current Wage Developments*, a monthly periodical of the Bureau. Data on work stoppages are based on confidential responses to questionnaires mailed by the Bureau of Labor Statistics to parties involved in work stoppages. Stoppages initially come to the attention of the Bureau from reports of Federal and State mediation agencies, newspapers, and union and industry publications.

Definitions

Data on wage changes apply to private nonfarm industry agreements covering 1,000 workers or more. Data on wage and benefit changes *combined* apply only to those agreements covering 5,000 workers or more. **First-year wage settlements** refer to pay changes going into effect within the first 12 months after the effective date of

the agreement. **Changes over the life of the agreement** refer to total agreed upon settlements (exclusive of potential cost-of-living escalator adjustments) expressed at an average annual rate. **Wage-rate changes** are expressed as a percent of straight-time hourly earnings, while **wage and benefit changes** are expressed as a percent of total compensation.

Effective wage-rate adjustments going into effect in major bargaining units measure changes actually placed into effect during the reference period, whether the result of a newly negotiated increase, a deferred increase negotiated in an earlier year, or as a result of a cost-of-living escalator adjustment. Average adjustments are affected by workers receiving no adjustment, as well as by those receiving increases or decreases.

Work stoppages include all known strikes or lockouts involving six workers or more and lasting a full shift or longer. Data cover all workers idle one shift or more in establishments directly involved in a stoppage. They do not measure the indirect or secondary effect on other establishments whose employees are idle owing to material or service shortages.

35. Wage and benefit settlements in major collective bargaining units, 1975 to date

[In percent]

Sector and measure	Annual average					Quarterly average							
	1975	1976	1977	1978	1979	1978			1979				
						II	III	IV	I	II	III	IV	
Wage and benefit settlements, all industries:													
First-year settlements	11.4	8.5	9.6	8.3	8.9	6.8	7.2	6.1	2.5	10.6	9.0	8.1	
Annual rate over life of contract	8.1	6.6	6.2	6.3	6.6	6.0	5.9	5.2	5.2	7.7	6.0	6.0	
Wage rate settlements, all industries:													
First-year settlements	10.2	8.4	7.8	7.6	7.4	6.9	7.5	7.4	4.8	9.0	6.6	6.3	
Annual rate over life of contract	7.8	6.4	5.8	6.4	6.0	6.2	6.4	5.9	6.6	7.0	4.8	4.9	
Manufacturing:													
First-year settlements	9.8	8.9	8.4	8.3	7.0	7.1	8.4	9.5	8.7	9.9	6.2	5.9	
Annual rate over life of contract	8.0	6.0	5.5	6.6	5.4	5.8	7.2	7.4	8.6	8.1	4.6	4.2	
Nonmanufacturing (excluding construction):													
First-year settlements	11.9	8.6	8.0	8.0	7.5	7.7	7.4	6.4	2.3	8.5	9.1	7.2	
Annual rate over life of contract	8.0	7.2	5.9	6.5	5.9	6.9	5.9	5.1	5.6	5.7	5.8	7.5	
Construction:													
First-year settlements	8.0	6.1	6.3	6.5	8.9	6.4	7.0	8.4	11.0	9.1	10.4	7.9	
Annual rate over life of contract	7.5	6.2	6.3	6.2	8.4	6.0	7.2	7.1	7.7	8.2	9.1	7.1	

36. Effective wage adjustments going into effect in major collective bargaining units, 1975 to date

[In percent]

Sector and measure	Average annual changes					Average quarterly changes								
	1975	1976	1977	1978	1979	1977	1978				1979			
						IV	I	II	III	IV	I	II	III	IV
Total effective wage rate adjustment, all industries	8.7	8.1	8.0	8.2	8.8	1.1	1.3	2.6	2.7	1.4	1.4	2.6	3.2	1.5
Change resulting from—														
Current settlement	2.8	3.2	3.0	2.0	2.8	0.5	0.5	0.6	0.5	0.4	0.2	1.1	1.0	0.4
Prior settlement	3.7	3.2	3.2	3.7	3.0	.3	.6	1.4	1.2	.5	.6	.9	1.0	.4
Escalator provision	2.2	1.6	1.7	2.4	3.0	.3	.3	.6	1.0	.5	.6	.5	1.2	.6
Manufacturing	8.5	8.5	8.4	8.6	9.2	1.4	1.4	2.2	2.9	1.9	1.4	2.3	3.1	2.2
Nonmanufacturing	8.9	7.7	7.6	7.9	8.5	.8	1.3	2.9	2.5	1.1	1.4	2.8	3.4	.9

NOTE: Because of rounding and compounding, the sums of individual items may not equal totals.

37. Work stoppages, 1947 to date

Month and year	Number of stoppages		Workers involved		Days idle	
	Beginning in month or year	In effect during month	Beginning in month or year (thousands)	In effect during month (thousands)	Number (thousands)	Percent of estimated working time
1947	3,693		2,170		34,600	.30
1948	3,419		1,960		34,100	.28
1949	3,606		3,030		50,500	.44
1950	4,843		2,410		38,800	.33
1951	4,737		2,220		22,900	.18
1952	5,117		3,540		59,100	.48
1953	5,091		2,400		28,300	.22
1954	3,468		1,530		22,600	.18
1955	4,320		2,650		28,200	.22
1956	3,825		1,900		33,100	.24
1957	3,673		1,390		16,500	.12
1958	3,694		2,060		23,900	.18
1959	3,708		1,880		69,000	.50
1960	3,333		1,320		19,100	.14
1961	3,367		1,450		16,300	.11
1962	3,614		1,230		18,600	.13
1963	3,362		941		16,100	.11
1964	3,655		1,640		22,900	.15
1965	3,963		1,550		23,300	.15
1966	4,405		1,960		25,400	.15
1967	4,595		2,870		42,100	.25
1968	5,045		2,649		49,018	.28
1969	5,700		2,481		42,869	.24
1970	5,716		3,305		66,414	.37
1971	5,138		3,280		47,589	.26
1972	5,010		1,714		27,066	.15
1973	5,353		2,251		27,948	.14
1974	6,074		2,778		47,991	.24
1975	5,031		1,746		31,237	.16
1976	5,648		2,420		37,859	.19
1977	5,506		2,040		35,822	.17
1978: September	453	854	448	551	4,446	.25
October	370	721	117	216	2,352	.13
November	268	569	64	136	1,691	.09
December	157	408	53	143	1,377	.08
1979: January	262	366	68	144	1,925	.10
February	299	501	75	221	1,670	.10
March	391	608	112	223	1,871	.10
April	512	781	426	535	5,126	.27
May	556	877	132	395	3,682	.19
June	536	866	137	302	2,989	.16
July	471	817	168	290	3,001	.16
August	463	869	119	270	3,152	.15
September	464	793	135	243	2,319	.13
October	443	781	230	334	2,968	.15
November	257	546	91	255	2,720	.15
December	134		42		1,976	.11

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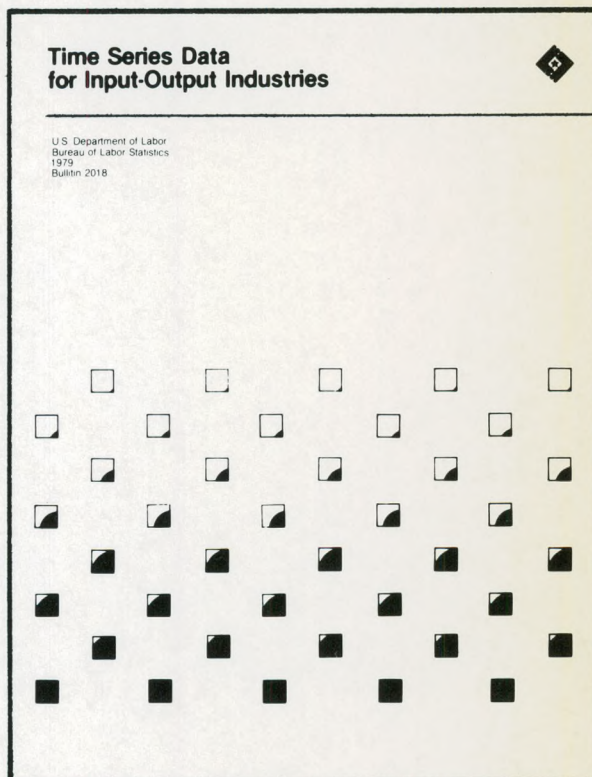
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